

open eyes book 3

HOST CITY



MAIN PARTNER



CO-ORGANIZERS



ORGANIZER



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Foreword

Volume Three of the Open Eyes Book is thicker than the previous two. This is not so much due to the expanded agenda of the present Open Eyes Economy Summit – Congress, as to the fact that we systematically strengthen the Open Eyes Economy as an intellectual and implementation movement in order to include new stakeholder groups and new threads in it.

The summit takes place every November in Cracow, but to reach it, we take various paths leading through numerous thematic areas and different cities where we organise our debates, seminars, and conferences. In 2018, they have already been hosted by nearly 25 cities. In this way, we not only influence the public, but also mobilise the movement's active participants to embrace a different, open view of both economics and the economy, as well as invent and implement alternative ways of interpreting the economic reality and actions to those considered dominant so far.

Neoclassical economics adopted utilitarian ethics as its foundation, which has led to an extreme instrumentalisation of thinking about economic values. The Open Eyes Economy movement follows the example of Amartya Sen, Nobel Prize winner in economics, who emphasised that modern science has upset the balance between two traditions, i.e. the one that originates with Aristotle and the Stoics, and combines economics with philosophy, especially ethics, and the one that treats the former exclusively as a science and attempts to formalise it. Our responsibility is to restore this balance, but it requires overcoming the hegemony of

utilitarianism as an ethical benchmark for economics. It is not a question of rejecting analytical methodologies and analytical thinking in economics, but complementing them with a broader reflection which makes it possible to recognise the social consequences of economic activity and economic education.

The Open Eyes Economy is not exclusively an intellectual or academic movement. It is also intended to show alternative ways of doing things as opposed to the purely commercial and opportunistic management practices and their dissemination. For example, one of the practical issues with which we are currently dealing is the approach to intellectual property and its practical application. We are critical of the dominant business model of intellectual property protection, especially the practice of patenting solutions and concepts. We set out to prove that it is an economically and socially expensive as well as inefficient model. Most companies do not patent with a view to increasing profits, but in order to minimise losses. They do not really have a choice, since if they refuse to follow suit, it would cost them even more. There is no way out of this quandary until a different definition of the situation is adopted. We advocate a completely contrary model: instead of passively protecting intellectual property, intangible assets should be actively managed. While the predominant model to date relies on preventing others from accessing our intellectual property, the new one is based on conditional availability (diffusion) of our tangible assets to others – as a basis for partnership building, competence development, and knowledge generation. The instinct to exclude others should be replaced by conditional inclusion, and the drive to prevent others from producing should be replaced by co-operation. The pool of benefits will expand, moreover, the proposed model does not eliminate rivalry and market competition.

In our successive projects, we focus on the key points of reference for us, to wit: companies, cities, and schools, especially universities. We bond them together by introducing an axiological perspective to reflect on and describe these basic forms of organisation of collective life. This is understandable, since our movement represents the value economy, which opposes the greed economy. Hence the names of our fundamental

concepts: Company-Idea, City-Idea, University-Idea. Put together, they offer a cognitive perspective specific to the Open Eyes Economy, which emphasises the anthropological and cultural approaches to the analysis of economic phenomena.

More and more people seek to overcome dogmatic thinking, to formulate and disseminate a heterodoxical approach to the most pressing problems of modern times. They are well aware that if we want to change the way we do things, we have to change the way we define the situation and rewrite a number of dogmatic and scholastic concepts. And we are heading in the same direction, even if we choose to follow different paths. They are bound to cross one day.

Jerzy Hausner

Chairman of the Programme Board

Open Eyes Economy Summit

PART I – FIRM-IDEA

Wojciech Paprocki

The Concept of Firm-Idea in the era of the Fourth Industrial Revolution

Introduction

In every era, the situation is unusual – so much is changing and will continue to change. Michał Wawelberg's words, written in 1930, make it abundantly clear: "The pace of life is so fast that we usually have neither the time nor are willing to think about or examine in depth the meaning and causes of various phenomena of economic and social life; we do not take into account the implacable law of causality" (Wawelberg 1930, p. 5). It seems, however, that at the end of the second decade of the 21st century we really are facing a unique opportunity to change the way business enterprises operate. For the first time in the process of civilisational development, we have an opportunity to give up trying to answer the question "How will we live?" and move on to the question "How we want to live?" (Precht 2018, p. 15). This is due to the fact that in the coming decades, working hours may become significantly shorter, and perhaps even a part of society will remain outside the labour market, while everyone will be guaranteed subsistence. The remarks presented in this paper refer to the current of thought which has been present in the literature for over a century. It constitutes an attempt to apply two approaches – the theoretical one and the historical one in social sciences

and in economics (Glapiński 2003, p. 163). The theoretical layer makes use of a number of studies devoted to the analysis of technology development and its impact on social and economic change. The historical layer shows the evolution of the employer–employee relationship over a fairly long period – from the second half of the 19th century, i.e. the period of the Second Industrial Revolution, until the present. Some of the materials were published many decades ago, whereas others come from recent years or even recent weeks.

The aim of the paper is to present the prospects for the implementation of an original concept of Firm-Idea – the concept of a social and cognitive space, including islands and archipelagos, as presented by Jerzy Hausner and Mateusz Zmysłony (Hausner 2017, p. 8). This text focuses on technological change and the accompanying modifications to business models, as well as the impact of these developments on people’s lives in their different social and professional roles.

Part One describes the changes that have already taken place. It takes into account the impact of the division of the world into the market economy, which has evolved over the past decades, and the Soviet bloc economy, which had undergone non-discrete, intermittent changes. By a strange twist of fate, the centralised command and control economy disappeared in Europe and almost all over the world at the end of the Third Industrial Revolution.

Part Two contains the author’s original account of Digital Economy 4.0. This economy can be treated as a transitional form in the process of changes which have already occurred and are expected in the period of the Fourth Industrial Revolution. It surveys a process of economic transformation in which gigantic virtual platform operators are beginning to play a dominant role, with one group (Amazon & Co.) expanding in the Transatlantic World and the other group (Alibaba & Co.) in China.

Part Three of the discussion concerns the importance of the rapid development of digital technologies, and in particular, the range of solutions collectively known as artificial intelligence. So far, there is no reason to suppose that a robot or bot will become a full-fledged human substitute.

It means that decisions about what, where, and when man will be doing while remaining a sovereign entity capable of achieving his individual and social goals will still be made in the real world rather than in the virtual one, as some visionaries put it. Man will independently manifest his altruistic attitude according to an individually developed system of values and personal predispositions.





Part Four is devoted to the presentation of company environment during the Fourth Industrial Revolution with a special focus on five selected factors that affect economic entities. The concept of Firm-Idea has or may have an impact on it, which depends on the nature and strength of the ties connecting individual islands into an archipelago.

The study concludes with a summary which emphasises the importance of the wisdom of man who adopts an altruistic attitude.

The evolution of the enterprise and employer–employee relations in the Second and Third Industrial Revolutions

In 1958, J.K. Galbraith observed that “the experience of nations in terms of prosperity is extremely short. Almost throughout its entire history, humanity has been very poor” (Galbraith 2012, p. 9). This short period has now lasted for over 200 years, since man managed to master more and more technical solutions in the development of civilisation. In the course of this development, subsequent stages have been identified and referred to as Industrial Revolutions. The use of the term ‘revolution’ is justified by the great scope and universal nature of changes, which are identified with progress. Figure 1 shows four industrial revolutions. The significance of the first one for the operation of enterprises was limited. When the first steam engines were introduced and simple mechanised production commenced, the first economic organisations, which can be treated as enterprises as the term is now understood, had only just begun to emerge.

Figure 1. Four industrial revolutions

| Revolution | Year | Characteristics |
|---|------|---|
| I  | 1784 | Steam Mechanical production |
| II  | 1870 | Labour Electricity Mass production |
| III  | 1969 | Electronics IT Automated production |
| IV  | ? | Cyber-physical systems |

Source: Own study.

The first enterprises which started to operate large parks of steam engines on more than one railway line began to be established in the first half of the 19th century (Dylewski 2014, p. 62 &ff.). These economic organisations posed a challenge to investors and managers in preparing and implementing management methods for large numbers of staff, which worked in several places, rather than in a single location, as used to be the case with the first industrial plants. Railway operations throughout the continent highlighted the importance of coordinating time zones for train timetables. On October 11, 1883, the representatives of the main railway companies in the USA decided to standardize the time zones, which was implemented at noon on November 18 of the same year using a telegraphic signal from the East Coast (Maranzani 2012). In this way, without realising it at the time, the era of the Second

Industrial Revolution standardised data, the registration and processing of which became the essence of changes in the economy during the Fourth Industrial Revolution.

The end of the second half of the 19th century, both in the United States of America and in many European countries, already saw the emergence of numerous, large organisations in the private sector. Their activities focused on the manufacturing of commodities and electricity production. New methods of processing raw materials and assembling individual elements into increasingly complex products, as well as mastering the forces of nature (e.g. in hydroelectric power plants) were tried and successfully used. Large companies, with larger resources at their disposal, developed their capacity to survive the repeated crises on local markets. Their intellectual and material potential was sufficient to actively participate in the Second Industrial Revolution and chart its course. Thanks to the implementation of improved technical and organisational solutions, namely new technologies, they were able to mass produce and reduce unit production costs (Kaliński 2008, p. 80). Apart from private enterprises, there were also large public-sector economic organisations. The largest of them were nationalised railway companies and networks of post offices and telecommunications (telegraph, telephone) which had their roots in royal postal services. In the late 19th century, the importance of monopolies, i.e. entities capable of exploiting their dominant position on the market, was recognised in the private sector. It was realised that they dictated favourable operating conditions for everyone in their environment, remaining outside the sphere of direct influence of public authorities, as opposed to public sector monopolies managed by these authorities. Larger and larger economic organisations in the private sector developed their production capacities and strengthened their position on the market mainly through the acquisition of other entities which, in times of repeated economic crises, lost their capacity to operate independently. In this period, firms tended to expand mainly by acquiring their competitors. As a result, in the late 19th century, the supply side of the market continued to concentrate, while private capital was accumulated at an unprecedented rate (Piketty 2015, pp. 76–77). However, it was not easy to implement anti-trust policy

aimed at improving the operation of the market self-regulatory mechanisms. For example, the US lacked the concept of market regulation and political determination until the 1930s, when a greater understanding of the need to interfere in the market emerged in the federal government (Galbraith 1982, pp. 309–310).

A characteristic feature of development during the Second Industrial Revolution was the impact of new entities on the environment and its subjugation by people referred to as entrepreneurs. In his theory, Marx used a more explicit term – the capitalists. An element of the environment of these organisations was the local community, which, in quantitative terms, desperately struggled for physical survival. The basic features of relations between employers (capitalists) and employees (proletariat) were radically painted in the works of Karl Marx and Friedrich Engels (Marx 1922). In the early 20th century, large industrial organisations and operators of transportation/forwarding services (e.g. railways, post offices, shipping companies, port operators) became more and more involved in the preparation and implementation of management methods which could make the functioning of these organisations more efficient, safer, and more effective (in microeconomic terms). The literature describes a variety of management methods, the most important of which were the solutions described by the main representatives of industrial engineering, including F.W. Taylor, F. and L. Gilbreth, H. Gantt, H. Emerson and K. Adamiecki. The main features of these solutions are summarised in Table 1. The main representatives of administrative engineering include H. Fayol and M. Weber. The main features of their proposals are presented in Table 2.

A review of these representative characteristics makes it possible to identify two regularities which occurred during the Third Industrial Revolution. First of all, the efficiency of enterprises continued to be determined by human attitude, as was the case in the era of craftsmanship and simple agricultural economy, and subsequently, in the era of the First Industrial Revolution. Secondly, throughout the 19th century and in the first half of the 20th century, labour shortage was unknown in the so-called Centre, i.e. in the USA and Europe as well as in Australia and

Table 1. Selected concepts in scientific management: Industrial engineering

| Author/ Method/ Work | Features/ Content |
|---|--|
| F.W. Taylor (1856–1915) Scientific work organisation – manufacturing process management Shop Management (1903), Warsaw 1926 The Principles of Scientific Management (1911) | Scientific management, a theory created to meet the challenges of the (First) Industrial Revolution. The use of the term 'scientific' implied the adoption of a deterministic vision of the world and the application of a method of action including observation, experiment and experience. The concept was based on a precisely designed algorithm of physical work, using conclusions from the observation of actual work performed and psychophysical tests in smelting plants. Thanks to physiological analysis, the energy demand of employees who were able to achieve the planned results of physical work, was determined. The workers' activities were subject to constant observation and analysis of superiors (foremen), each of whom had a specific responsibilities: work planning and workplace preparation, monitoring workflow and giving instructions for correcting the action, controlling the effects of the work performed and identifying actions to improve the work process. |
| Frank Gilbreth (1868–1924) and Lilian Gilbreth (1878–1972) Motion and Time Study (MTS) | Analysis of 18 typical worker's micromovements and development of cyclegraphic and chronocyclegraphic-photographic method of measuring the length, shape and direction of hand movements at work. |
| Henry Gantt (1861–1919) | The principle of very high remuneration for the execution of a certain limit (planned maximum) of workload and achieving the planned effect. |
| Harington Emmerson (1852–1931) The Twelve Principles of Efficiency | A clearly defined objective. Common sense. Competent advice. Discipline. Fair and honest conduct. Reliable, immediate, accurate and continuous reporting. Ordered course of action. Patterns and standards. Adaptation conditions. Operation models. Instructions for normal operation. Reward for performance. |
| Karol Adamiecki (1866–1933) | Identification and elimination of uneven distribution of activities, which causes some employees to be overburdened and some waiting idly for others to perform their tasks. Nowadays, this method can be regarded as a pioneering version of the 'just in time' rule. |

Source: Own study based on Kieżun (1978, pp. 40–44) and Koźmiński, Piotrowski (2007, pp. 621–635).

Table 2. Selected concepts in scientific management: Administrative engineering

| Author/Method/Works | Features/Content |
|--|---|
| <p>Henri Fayol (1841–1925) Efficiency of a company's operations depends on its observance of fourteen principles. Managerial posts are accessible to everyone, and the qualifications should correspond to the management level of occupied – the so-called pyramid of talents</p> | <p>Each form of (economic) activity requires an adaptation of the following qualifications: physical, mental, moral, education, skills and experience. Fourteen principles: division of labour, authority, discipline, order unity, uniformity of management, subordination of personal interest to the general interest, remuneration, centralisation, hierarchy, order, human treatment of employees, stabilisation of personnel, initiative, staff coordination (harmony).</p> |
| <p>Max Weber (1864–1920) Ideal bureaucracy is realised by three kinds of organisational authority: charismatic, traditional and rational (legal, hierarchical). Weber's theory as interpreted by C.W. Mills and T. Person, Max Weber. <i>The Theory of Social and Economic Organisation</i>, New York 1947</p> | <p>All kinds of power require an administration. The ideal form of administration is bureaucracy, the model of which comprises: organisational continuity of functions, division of competences determining the position and role of each employee, organisational hierarchy, a standard method of management based on an orders, separation of activities in an institution from ownership rights, written form of communication.</p> |

Source: Own study based on Kieżun (1978, pp. 44–49 and Kozmiński, Piotrowski 2007, pp. 644–665).

Japan. Likewise, there was no fear of a shortage of employees. Until 1930, the Centre's population growth rate was higher than in other regions of the world (Bartkowiak 2001, p. 125). But in the early 20th century, the importance of interpersonal relations within the organisation began to be recognised, including relations between the owner (entrepreneur), managerial staff, and teams of employees. Fayol postulated that “humane treatment of employees” was necessary, which was of particular importance in the USA. In Europe, at the turn of the 19th and 20th centuries no part of

the community was treated like slaves, while in North America, several decades after the abolition of slavery, discrimination was still widespread. In many regions, it was absolutely impossible to treat representatives of certain social groups as partners.

To a large extent, the relations between employers and employees depended on the attitude of the former, who were able to dictate working conditions, working time, and remuneration (Nasiłowski 1996, p. 436). Employees did not think about the company, but about their narrowly understood interests; for them, it was a matter of simple biological survival. The history of trade unions shows that in Great Britain workers started to organise themselves as early as in the 18th century, i.e. before the factory industry came to exist (Grodek 1948, p. 1). The aim of the trade union movement was to improve the workers' living standards and to increase employee participation in the process of dividing the fruits of their work. No doubt, during the Second Industrial Revolution almost all the employees worked in order to earn money. Without it, it was impossible to satisfy one's basic needs: buy food or rent a place to live. The issue of job satisfaction, if at all relevant, was of secondary importance. Influenced by the socialist theories and even more radical communist concepts, trade unions, which were a form of social movement, began to articulate more and more clearly the demands that went beyond the living standards, to include, among others, the issues of shaping the social system. At the same time, the trade union movement in the European countries was not uniform in terms of programme. After 1917, i.e. after the October Revolution and the founding of the ‘Land of Councils,’ some trade unionists, including those in Germany and in the reborn Poland, became associated with radical circles in communist parties, whereas others opted for change within an improved market economy system (Polakowska-Kujawa, Gardawski 1989, p. 7 &ff.). Immediately after the end of the World War I, the trade union community in Europe did not realise that the Bolsheviks had no intention of observing the provisions of international law and, as revolutionaries, refused to recognise the legitimacy of the authorities in other ‘bourgeois’ countries (Pipes 2007, p. 157). Moscow's growing power in was mainly about achieving polit-

ical, not social goals. A consistent policy of increasing influence by the system of real socialism led to an agreement within the Big Three that Central and Southern Europe would remain within Moscow's sphere of influence after the end of World War II (Wegs, Landrech 2008, p. 19). As a consequence of the division of Europe between the two spheres of influence, the systemic confrontation between East and West was constantly taken into account in social discussions. The concept of 'confrontation' was applied in a justified manner. The blockade of West Berlin in 1948–1949, and the threat "we will bury you" made in 1956 by Nikita Khrushchev, Secretary General of the Soviet Union, seemed to be real since 1957 due to the launching of Soviet Russia's first Sputnik in space (Maier 2017, p. 59).

The era of the Third Industrial Revolution began in the late 1960s. In the next two decades, the fierce East–West confrontation continued. Throughout the Transatlantic Bloc, the approach to employee rights in public debate, including the attitude to the demands of the European trade union movement, was increasingly influenced by liberal concepts. In 1979–1990, UK's Prime Minister Margaret Thatcher, perceived as a representative of the elites and state authorities, unequivocally spoke out against the post-war social consensus and in favour of the abolition of all trade union privileges (Pichór 2014, pp. 64–65). Such an atmosphere was not conducive to reflecting on the extent to which the achievements of the Third Industrial Revolution improved the position of employees in their relations with organisations for which they performed paid work.

In the Soviet bloc countries, where private property in the economy was tolerated only in selected areas and only to a limited extent, private companies could not develop using the achievements of the Third Industrial Revolution. The situation changed only after 1989, i.e. in the period immediately preceding the Fourth Industrial Revolution.

The confrontation of two systems – the capitalist economy and the socialist economy (actually nationalised) exerted such an impact on the opinion about changes in the economy that almost until the end of the 20th century the model of full employment constituted the focus of interest of economic sciences (Garbicz 1999, p. 15), rather than the impact of

economic development on the liberation of man from the need to fight for physical survival and from the absolute necessity to work. The era of the Third Industrial Revolution brought about changes in the functioning of the economy from the technological point of view, but it did not result in preparing or implementing new concepts of social coexistence and empowering individuals to shape their own well-being regardless of their involvement in the economy. It is noteworthy that in China and India the new era of economic development in the last two decades of the 20th century was also associated with the implementation of modern mass production technologies supported by ICT solutions, but the advancement of individual members of society in both countries was limited to improving the economic status acquired through their increasingly productive work as employees in the classic sense.

Digital Economy 4.0

Thanks to the development and dissemination of various new technologies, among which the digital technologies play a significant role, the Fourth Industrial Revolution leads to the creation of Digital Economy 4.0 whose basic feature is connectivity. The spread of the smartphone, a multifunctional mobile device adapted to work with cloud computing, makes it possible to record, process, and transmit huge datasets. This enables a quasi-complete representation of the real world in the virtual world, including new spheres created by digital technologies which exist only in virtual reality (VR).

DEFINITION: Digital Economy 4.0

Digital Economy 4.0 is a global social and economic system in which consumers, economic operators, governmental institutions and NGOs are networked, and the registering, storage and processing of data in the 'Internet of Everything' makes the functional links in an integrated real and virtual reality that occur in the

process of building and distributing values and are developed through knowledge supported by artificial intelligence, increasingly important until they meet effective resistance established by public institutions.

The definition presented above is fundamentally distinct from the concept presented in 1996 by Don Tapscott (Goliński 2017, p. 5). In the late 20th century, it was not yet possible to comprehend the basic characteristics of an economy typical of the end of the second decade of the 21st century. By making computer systems more efficient, by networking and access to large data sets, we created favourable conditions for the implementation of the idea of artificial intelligence (AI). In the past century, many activities carried out in the real world were not yet replaced by new processes, which have now been transferred entirely or to a large extent to the virtual world. The differences between the late 20th-century economy and the economy of today are substantial. The use of digital technologies in solutions which are made globally available ‘for free’ has led to the emergence of technological giants. The magnitude of their activity and their impact on the environment have become so great that management science must fundamentally rethink a range of specific concepts describing the behaviour of market participants. The economic model of the Fourth Industrial Revolution must take into account in a new type of enterprises, namely virtual platform operators (Nambisan 2017). The concept of an economy dominated by such platforms (Kerkmann 2018) is becoming more and more common. The scale and structure of activity of the two leading operators in the world economy is illustrated in Table 3, which contains data on the revenues of Amazon and Alibaba (the former being the leader in the American-European market, and the latter in the Chinese market). Amazon’s market position is perhaps best illustrated by the comparison of its annual turnover (USD 200 billion, estimate for 2018) with the turnover of METRO Group, one of the trade leaders in rich European countries, whose annual revenues in 2015–2017 totalled only 36.6–37.5 billion euros (Kolf 2018).

Table 3. Amazon vs Alibaba: revenues by business segment in Q2 2018

| Business segment | Amazon | Alibaba |
|--|--------------------------------------|--|
| Total revenue | USD 52.87 billion | USD 12.23 billion |
| E-commerce (own products at home and abroad) | 51% | 0% |
| E-commerce (partners’ products); agency | 18% | 67% from consumers in China 6% from consumers in other countries (Lazada and Ali-Express platforms) |
| Cloud computing | 12% | 6% |
| Stationary commerce (traditional) | 8% (Whole Foods) | 0% (turnover included in e-commerce) |
| Subscription fees from regular customers (e.g. Amazon Prime) | 6% | |
| Gross trade online | 0% | 3% from customers in China 2% from customers in other countries |
| Digital media | 0% (turnover included in e-commerce) | 7% |
| Other revenues | 5% | 9% |

Source: Own study based on Henkel (2018).

The leading role of virtual platform operators in the global economy is evidenced not only by their sales volumes, but also by their spending on research and development (R&D). In 2017, as shown in Table 4, the

American operators, Amazon and Alphabet (parent company of Google), reported the highest figures.

Table 4. Companies with the highest expenditure on R&D

| Company | Country of origin | Expenditure on R&D (billion USD) | Increase or decrease compared with 2016 |
|-------------------|-------------------|----------------------------------|---|
| Amazon | USA | 20.1 | +41% |
| Alphabet / Google | USA | 14.7 | +19% |
| Samsung | South Korea | 13.2 | +14% |
| Intel | USA | 11.6 | +3% |
| Volkswagen | Germany | 11.6 | +1% |
| Microsoft | USA | 11.6 | +9% |
| Apple | USA | 10.3 | +15% |
| Roche | Switzerland | 10.2 | -2% |
| Johnson & Johnson | USA | 9.4 | +16% |
| Merck & Co. | USA | 9.1 | +1% |

Source: Own study based on Sommer (2018).

Digital Economy 4.0 benefits from the discoveries made in the last stage of the Third Industrial Revolution, when significant progress was achieved in two areas: mastering the eye–hand coordination, object recognition and voice communication. Robots acquired ‘intelligence’ when they were equipped with software which uses camera images to recognise objects and automatically adjust the method of getting hold of them depending

on their shape, colour (and other physical characteristics). Moreover, robots gained the ability to communicate with humans via voice messages, thanks to the possibility of recording and sending additional data. In the first decade of the 21st century, the process of creating Digital Economy 4.0 focused on the implementation of Artificial Intelligence (AI) solutions in commercial activities. In order to specify the initial level of sophistication of these solutions, they are referred to as narrow AI. Examples of such solutions, which are already quite common, include Advanced Driver Assistance Systems – innovative technological solutions installed in automotive industry products as on-board equipment complete with appropriate software (Bishop 2012, p. 9). Another spectacular example of narrow AI at work is Echo, an Alexa-enabled speaker, launched by Amazon.com in 2014. It is a voice controlled device which performs a variety of functions, including autonomous control of other household appliances connected to the Smart Home network (Weinberger 2017).

The more widespread the use of ‘intelligent’ devices, the more often people conclude that the term ‘artificial intelligence’ is overhyped. When it was introduced into everyday language in 1956, the idea was to formulate a vision of the development of digital technologies. After more than half a century, it is clear that mastering machine learning has reached its peak. Two basic solutions were applied: IT systems make use of multi-level neural networks, which allows them to self-improve the machine learning processes (deep learning), and the analytic processes involving large data sets (Straube 2018, p. 7). Some representatives of the scientific community even voiced a rather radical demand to abandon the use of the term ‘artificial intelligence’ altogether (de-hyping AI) (Kroeger 2018, p. 18).

The vision of human substitution in the era of the Fourth Industrial Revolution

Robots that can be used in different processes, but must be separated from people since their operation poses a threat to human life or health, hence they are only useful in a very limited set of situations. Large robot

parks are only used in industry. In individual production halls, there are separate areas where robots work. Widespread use of robots outside industry is a stage of the Fourth Industrial Revolution, in which the traditional manufacturing activity is expected to lose its importance. At the turn of the 20th and 21st centuries, man already reached the stage of post-industrial development of the economy, which is characterised by a decrease in the share of industry in GDP to the level of only a dozen or so percent (Winnicki 2013, p. 11). It therefore becomes desirable to use robots outside industry, for example as autonomous vehicles used in closed underground railway networks, where man, both as an employee and a passenger, is completely separated from the vehicles. Only when the train remains motionless at the platform are people allowed to move from the platform to the cars and vice versa. At this point, two pairs of doors are opened at the same time – one in the side of the car and the other – located vis-à-vis the former – in the side wall separating the platform waiting area from the tracks. At other times people are not admitted to the area.

In the second decade of the 21st century, numerous R&D centres representing both the scientific and industrial sectors, work to eliminate the risks posed by robots to humans. Contact with the robot can be considered as devoid of direct physical threat to the human being provided one of the two following conditions is met. The first direction of development leads to the robot having no physical form at all, i.e. it functions as a bot, a system installed in the ICT infrastructure and functioning in the virtual world, with which a human being can interact only via an interface, such as a monitor, keyboard, an array that includes a camera, a loudspeaker, and a microphone (a solution currently employed, among others, in smartphones). The other direction assumes that the robot has a physical form and can directly communicate with human beings, but its autonomous behaviour must ensure that the latter are protected at all times. The improved robots have their arms and other elements equipped with sensors capable of registering both the proximity of a human being and the occurrence of dangerous phenomena, such as high ambient temperature. The robot can modify its actions or warn people in the vicinity of a danger.

Currently, bot development focuses on image processing, speech recognition and production, improvement of learning methods, and movement coordination (Lenzen 2018, p. 33). Progress is being made, although in many cases achieving the set goals turns out to be much more difficult than was originally thought (Dziubiński, Klemt 2018, p. 204). This concerns, among other things, the bots' capacity to master languages spoken by humans (natural language processing). As yet, bots cannot understand every set of words spoken by a human being or articulate every expected message. The progress in eliminating errors in speech recognition is illustrated by the data in Table 5. With the decreasing error rate, achieving a significant improvement requires even more effort on the part of the bot, which is associated with a growing demand of ICT systems for power. This phenomenon is now recognised as one of the important barriers to the dissemination of solutions of narrow AI.

Table 5. Progress in reducing errors in human speech recognition systems

| Year | 1996 | 2001 | 2011 | 2015 | 2017 |
|---------------------|------|------|------|------|------|
| Error rate achieved | 43% | 20% | 15% | 8% | 5% |

Source: Riecke et al. (2018).

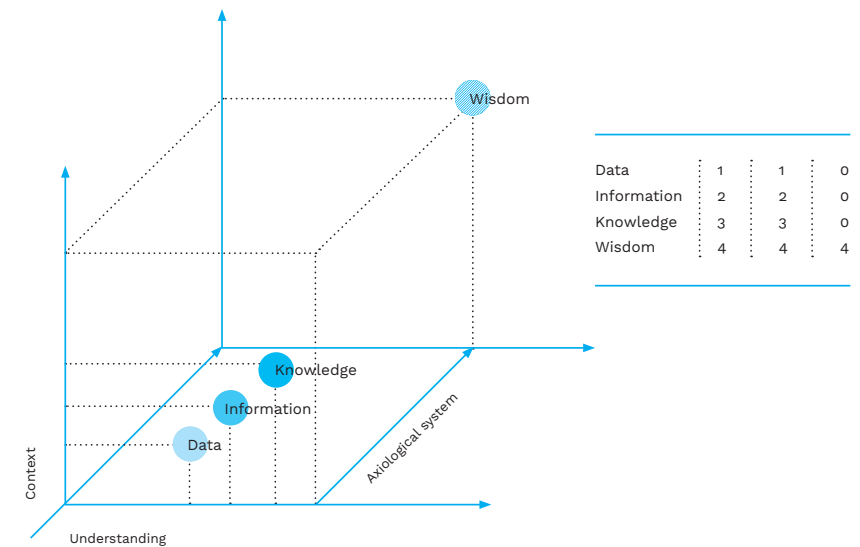
A robot that could become a regular human companion used in billions of copies worldwide is the autonomous vehicle. Although in 2018 numerous such robots were tested in traffic, it seems increasingly unlikely that such vehicles will be allowed on public roads for number of years, or even decades to come (Giffi et al. 2017, p. 8). One of the industry leaders, the American operator of the virtual platform Uber, has already spent more than USD 3 billion on development in this area, but in the summer of 2018, the management of the company expressed doubts as to whether the technical solutions will be commercialised at all (Efrati 2018).

In the era of the Fourth Industrial Revolution, the opinion that man will only find his successor if the robot or bot succeeds in gaining wisdom, is voiced more and more often.

Figure 2 shows the relationship between three characteristics. The first one is perception, the second is context, and the third one refers to an axiological system. The analysis of the nature of the relationship between the first two characteristics leads to the following conclusions. Data are registered states that can be captured in the real or in the virtual world. Measuring human body temperature yields numerical data. For a specific person at a given time, a measurement can be mathematically expressed as e.g. 38.2°C. The data remain useless as long as the recognised states are not compared with other data and the observed status of the observed object or phenomenon is not understood. And understanding it demands associating it with an appropriate context. The reference point for human body temperature measurement is the empirically determined standard value expressed mathematically as 36.6°C. In the cited example, the state (data) and understanding of the context lead to the formulation of information, or determining that the person in question has a fever and possibly a medical condition which needs treatment.

The use of multiple information inputs and capacity for in-depth analysis associated with the accumulation of experience lead to a broader understanding of the observed states. By broadening the range of context, which goes beyond a single issue (discipline), and then synthesising the considerations, it is possible to formulate generalised statements commonly referred to as knowledge. While the analysis of data and the formulation of messages equivalent to information may take place in a process involving only one agent (a man, but also a robot or a bot), the formulation of complex contents of (fragmentary) knowledge usually requires reflection with the participation of a number of individuals (Gardawski 2017, p. 85). In research, the confrontation of views is ensured by subjecting all research reports to a mandatory review in order to have the new findings tested by a competent person capable of critical assessment. Together with access to additional data, including completely new findings (e.g. the presence of a light source in space which was unknown before),

Figure 2. Data, information, knowledge and wisdom – relationships between perception, context, and axiological system



Source: Own study.

information and knowledge are updated. In the era of mass data loggers and machine learning technology, the amount of data increases exponentially. In these circumstances, in 2011, a rather enthusiastic Law of Disruption was formulated. However, the observation of the actual development of knowledge and technology in subsequent years led to a much more restrained vision. Since the set development goals are not achieved so quickly, and in some cases developments were even inhibited (e.g. the dissemination of photovoltaic cells as renewable sources of electricity), it seems that the development in the second decade of the 21st century resembles the shape of the logistic distribution function (the so-called S curve) (more on this subject in Hausner et al. 2018, pp. 52–53).

Making use of data, information, and knowledge is associated with recognising the relations between two features only: the level of under-

standing and the range of context. In other words, recognising reality never reaches a stage that demands a reference to an axiological system. This means that the process of machine learning (carried out by the robot or bot) takes place in isolation from any system of values, which does not interfere with the achievement of the intended purpose. It is a different situation from the behaviour of a person who tries to get to know the world around him or her. In a more or less conscious way, people invoke an axiological system. At the same time, experts indicate that the more often a person uses digital content carriers (text, image, or sound) and skims them rather than assimilates in the traditional way, the faster they familiarise themselves with this content, but in a progressively less analytical way (Wolf 2018). People vary in their individual awareness of the relationship between perception and context, as well as their axiological systems, moreover, the criteria for the recognition of certain values and their evaluation are shaped independently. It depends on the individual's level of intellectual involvement, the level of altruism, as well as on the level of self-motivation to take creative action (ibid., pp. 20–24).

As a result of the difference in the 'research attitude' between man and the robot or bot, the former, by referring to an axiological system, can use their knowledge to develop individual wisdom. In the virtual world, in which robots and bots function, there is no autonomously shaped system of values. As a result, the Fourth Industrial Revolution marks a stage of development which allows for the application of solutions classified only as narrow AI. Progress has not yet led to a state in which solutions reaching the level of human intelligence (Artificial General Intelligence – AGI) would appear in the virtual world. An axiological system (and the associated self-motivation system to act in different areas) and the capacity to develop an altruistic attitude in oneself constitutes a prerequisite for the operation of human intelligence. Beings that belong to the virtual world will probably never meet this condition. Consequently, AGI is unlikely to ever be achieved.

One can speculate that there will never be a substitute for man. This means that man will continue to decide independently in which areas he can be replaced by an entity which is the product of human creativity. The latter will never drive man out of the roles that he would like to con-

tinue to perform regardless of his social role and place occupied in the economic system. Areas of social and economic activity and the prospect of humans being replaced by bots and robots are illustrated in Table 6.

Table 6. Development of robots and bots vs. changes in human resource needs in selected sectors of the economy

| Features of robot or bot (functionality level) | Features of changes in human resource needs Pace of change | Sectors of the economy (examples) |
|--|--|--|
| Multifunctional robot or bot | Highly qualified staff substituted by robots or bots Pace of change: fast | IT Technological development Telecommunications The media |
| Specialised robot or bot | Medium and low skilled staff substituted by robots or bots Pace of change: slow or medium | Stationary retail trade Banking and insurance Highly human-labour-intensive industries |
| Robot or bot designed to work with a human being | Highly- and medium-skilled staff substituted by robots or bots Pace of change: medium or fast | Health service Specialised industry Real estate management |

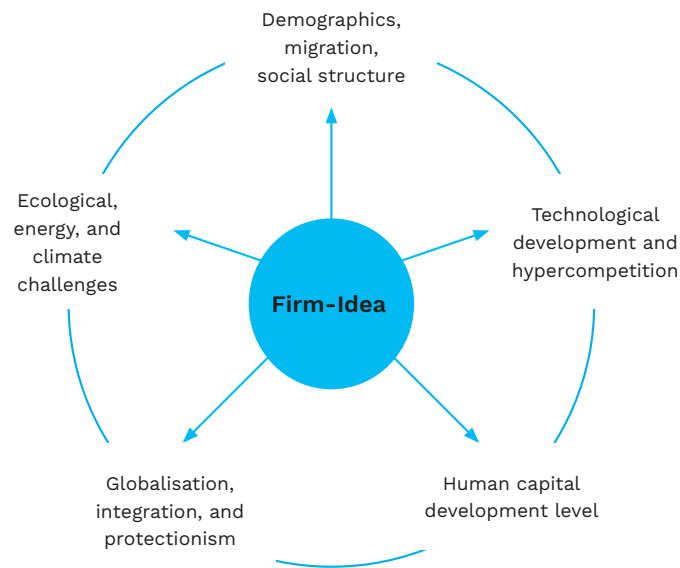
Source: Own study based on (Bughin, Hazan et al. 2018, p. 56).

The exclusive human right to use wisdom is an opportunity that robots and bots, regardless of the level of their development, will not be able to displace man as of a self-controlled entity, which, if it so wishes, can be active in a variety of ways. One of the forms of activity may be a career, the objectives of which will be the same as in the past two hundred years: remuneration and disposable income necessary to finance various forms of meeting one's consumption needs, while the free choice of these remaining within the sphere of individual decision.

The business environment in the Fourth Industrial Revolution

During the Fourth Industrial Revolution, as in the previous periods, a business entity active on the market achieves the capacity to survive and develop provided its revenues exceed costs by sufficient margin and it can settle its obligations on an ongoing basis. In order to sustain this capacity, it must respond promptly and adapt to changing conditions in the environment, which constitutes an element of the social and cognitive space interpreted as Firm-Idea. During the Fourth Industrial Revolution, the greatest attention should be paid to the five basic areas that make up the company's environment. These are shown in Figure 3.

Figure 3. Five business environment areas with an impact on the enterprise in the Fourth Industrial Revolution



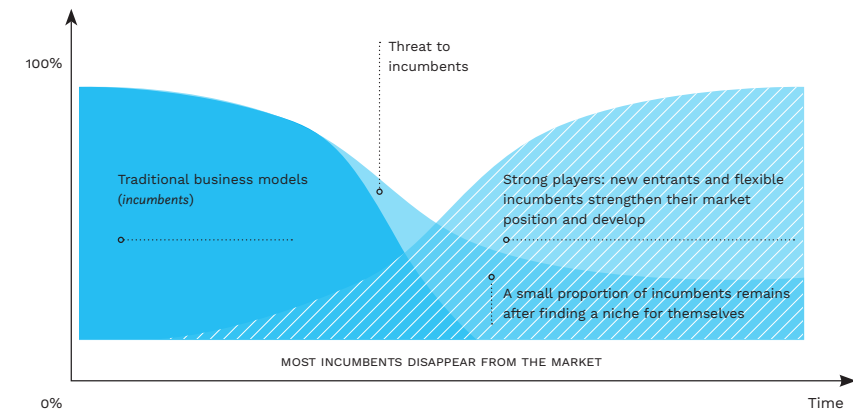
Source: Own study.

The accelerating pace of technological development has led to the phenomenon of hypercompetition. Manufacturers operating side by side ever more frequently introduce new products on the market. In the industries using the latest digital technologies, the life cycle of certain goods has been shortened to such an extent that particular models cease to be manufactured before their first batches have been delivered from the Far East to Europe or North America using the traditional shipping routes. Freight forwarding from factory to port, across the ocean, and from port to retail is still popular, but in the logistics of low value goods. In the context of time pressure on the global high tech market, new products can be placed simultaneously on several continents only by air. The delivery process from the manufacturer to the consumer is thereby shortened to several days. Remarkably, modern logistic solutions are devised using the principles of efficient operation formulated in the early 20th century (cf. Tables 1 and 2), and their improvement is primarily related to the implementation of a much stricter time management regime. The pressure of time – a resource that is very difficult to manage – is the basic explanation why, in today's companies, the supervision of the work of individual employees is becoming even more ruthless than that in the barbaric times of the Second Industrial Revolution. The application of scientific management methods (which have been in use for over a hundred years) and now supported by digital technology systems has led to a situation in which the working conditions offered by virtual platform operators, including Amazon logistics centres, the Uber transportation network and Ryanair, reflect the rule “demand as much as possible, give as little as possible” (Rozwadowska 2018). The owners and managers in almost every company which has to compete on the market with those giants decide to use similar methods of human resources management. They fail to notice that hypercompetition does not have to exclude other solutions. According to the concept of Firm-Idea, the aim should be to ensure that employees, including those who do heavy manual work or perform routine activities, have a sense of importance of their contribution to the functioning of their organisation, that their relations with the employer are stable and that delivering happiness at work is possible

(Kotler 2015, p. 96). This concept should not be interpreted naively. It is about developing interpersonal relations in an organisation (island), which permits each employee to submit his or her own observations and ideas that may contribute to the transformation of social space. Moreover, it is about looking for similar organisations in the environment, including competitors, in order to be able to jointly build an archipelago. Managers of numerous organisations – leaders of the modern economy (e.g. ABB) – declare that they find the concept attractive. At the same time, they acknowledge that it is not easy to find suitable methods of applying it in practice (Feldges 2018). They take into account the process of displacing incumbents by new entrants, which has been observed for two decades now. The latter take advantage of the creative attitude of their founders and employees, focus on the implementation of digital technologies and introduce their own original disruptive innovations. The alternative is to recognise the new entrants quickly enough, identify their innovative action and imitate them rapidly, which can ensure stability of the market niche. In this way, it is possible to prevent complete elimination from the market. The process of changing the position of companies in a market where subversive innovations are introduced, is illustrated in Figure 4. Findings from the American and European markets (where many private companies have been operating for decades or even centuries) show that changes in the consumer goods sector will be particularly rapid and profound (Kapalschinski, Weishaupt 2018a).

Enterprises utilise teams of people who, regardless of their position, are free to opt out. In certain cases, the owners (investors) sell their businesses when they have noticed that the organisation they have founded does not operate as originally expected and/or feel incapable of changing the situation. Such an attitude is often demonstrated by people who inherited a company from their parents and feel emotionally linked to the organisation, but for various reasons decide that they do not wish to own it any longer. Those who take up the challenge in the second decade of the 21st century have to face not only new responsibilities, but also the task of adapting their company's management style to the requirements resulting from technological and business changes (Kapalschinski,

Figure 4. Change in market roles between incumbents and new entrants that introduce subversive innovations



Source: Own study based on Bughin, Catlin et al. (2018, p. 6).

Weishaupt 2018b). At the end of the second decade of the 21st century, the issue of whether children want to take over the companies founded by their parents acquires social significance in Central European countries as the generation of young entrepreneurs from the turn of the 1980s and the 1990s is gradually turning into the silver generation.

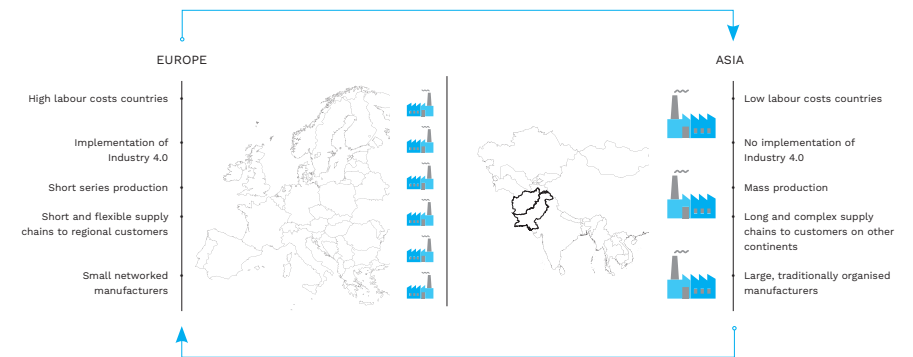
Managers may choose to leave when they are unhappy with their job or when they receive a competitive offer from their environment. If such a manager has original and unique knowledge or special skills, his or her departure may drastically reduce the value of the company. The role of managers, who are both visionaries and specialists, is particularly important in technology companies, especially in start-ups implementing the blockchain technology. The wave of managerial departures significantly affected the valuation of enterprises in 2017–2018, especially companies creating cryptocurrencies (Grundlehmer 2018). Skilled staff and even unskilled workers at a time of shortages on the labour market, can also easily change their jobs. They do not have to feel oppressed in their former workplace; their decision is usually influenced by a plethora of different, subjectively perceived developments.

Analyses representing Critical Management Studies, which cover three main aspects, i.e. the dehumanization of man in an organisation, the ideology of management discourse, and pseudo-science in Human Resources Management (Sułkowski 2011, pp. 75–76), revealed the basic drawbacks of the traditional description of the role of all the stakeholders in an organisation. It is desirable to identify all the opportunities of building and maintaining interpersonal relations that serve to strengthen human capital. In the era of the Fourth Industrial Revolution, it is justified to apply new concepts, which were not formulated until the 21st century. However, one should be cautious, because the HR department’s digital technology support often entails the risk that the process of selecting candidates transforms into ‘eliminating the unwanted.’ If automatic verification serves the purpose of identifying personality traits treated as flaws, it may lead to a situation in which only ideal candidates are sought. Applying one-dimensional evaluation criteria becomes harmful (Gratwohl 2018). In fact, companies must look for people who have the potential to become creative employees. One of the methods that go beyond the algorithm of ‘screening’ candidates is the talent management concept. Searching for the right employees focuses on evaluating their abilities, not their knowledge or experience. Such a search is a difficult challenge if it is estimated that globally, only about 10% of the population has talents that are particularly useful in digital technologies, and the search involves all the generations (Fryczyńska 2015, p. 65).

The globalisation of the economy during the Fourth Revolution may contribute to accelerating the process of moving production back to Europe (known as onshoring). This will alleviate the effects of the previously existing offshoring process, which has led to a significant reduction in the share of industry in GDP in Western European countries. The onshoring scenario was prepared taking into account the rationale presented in Figure 5.

The pressure of the ecological movements is one of the factors that lead to stricter requirements for manufacturing processes, encourage consumers to acquire certain habits, and make trade organisations assume responsibility for waste management. If business activity in Europe is

Figure 5. The offshoring stage from Europe to Asia at the turn of the 20th and 21st centuries and the onshoring stage in the second decade of the 21st century



Source: Own study based on (Wahlster 2018, p. 15).

consistently subject to restrictions related to the application of standards resulting from environmental, energy and climate policy, European consumers will enjoy access to more products that meet the requirements of the circular economy. Europeans and Americans are and will remain the richest consumers worldwide for decades to come, hence it is in the North Atlantic basin that a significant reduction in waste production should occur as soon as possible vis-à-vis the manufacturing of finished goods.

The demographic challenges are also becoming increasingly better recognised. The archipelago of entities operating in accordance with the concept of Firm-Idea will increasingly feel the challenges associated with the ageing European nations, including Poland, and the need to manage the process of assimilation of immigrants from various regions of the Middle East, Central Asia, and Africa. An important test of the Europeans’ capacity to accept newcomers will be the position of the European Union authorities elected in 2019. Two options deserve special attention. The first one corresponds to a programme according to which “our immigration policy reflects the values that we uphold in European culture, including Christian culture.” The other assents to growing populism and

illustrates the principle that “our immigration policy is dictated by our fears.”¹ Future business behaviour towards immigrants will be shaped by three factors: the size of unmet intra-corporate demand for labour; the willingness to employ very talented and productive workers regardless of their country of origin, taking into account the fact that some local staff choose to emigrate and the resulting vacancies need to be filled; and external political, social, and administrative pressure to help immigrants assimilate in Europe (Castels, Miller 2009, p. 7).

Conclusions

The more complicated the economy becomes due to various reasons, including the development of digital technologies and the increasing share of the virtual world in New Space, the greater the social preference for increasing the role of market regulation. Taking into account the numerous cases of failed regulatory actions, which operate at the level of authorities of individual countries or at the international level, experts believe that the complexity of numerous market regulations has already exceeded the limits of what can be controlled (Fergusson 2017, p. 71). In the era of the Fourth Industrial Revolution, it should be more important to take advantage of the wisdom represented by people playing different roles in the social and economic system than by administrative regulations. Generating individual wisdom is becoming easier, as the use of the already available digital technologies permits more extensive analytical work. The synthesis of results facilitates expanding knowledge, with robots and bots more helpful to people in this area. At the same time, knowledge updating and development will be more interesting for people liberated from certain repetitive chores who will have more time and thus opportunity to lead the *vita contemplativa*. An increasingly conspicuous challenge will be posed by the need to continuously analyse the process of shaping axiological systems, which are influenced to a large extent by people representing

¹ D. Avramopoulos, European Commissioner for Migration (see Hoppe 2018).

a single environment (Hofstede et al. 2011, p. 27). The recognition of the effects of the Internet and social media will involve the analysis of the importance of stimuli coming from the global network (Benkler 2008, p. 48).

In the era of the Fourth Revolution, the awareness of the importance of systems of values, promotion of a committed altruistic attitude, and shaping wisdom may be practical activities intended to build islands and create bonds leading to the emergence of development archipelagos in line with the concept of Firm-Idea. Although a number of circumstances described in this study may lead to opportunistic attitudes, one cannot deny the fact that strategic development goals on the market are achieved by entities with certain identifiable characteristics. Perseverance and consistency in building and maintaining long-term relations with stakeholders is of fundamental importance (Young 2015, p. 229).

Continued studies and dialogue involving theoreticians and practitioners, as well as critical analyses of one's own and others' arguments will likely serve to refine the concept of Firm-Idea and the methods of its implementation, taking into consideration the changes taking place during the Fourth Industrial Revolution in the development islands and archipelagos and in their environment.

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Andrzej Sławiński Jerzy Hausner

Values in finance: The perspective of the Open Eyes Economy

*If we learn anything from the history of economic development,
it is that culture makes almost all the difference.*

Landes 2000

Introduction

Recently, we have witnessed three spectacular events in finance: the global banking crisis, the advent of the index revolution, and the emergence of cryptocurrencies. All three resulted indirectly from the diminishing commitment of the authorities to the core free-market and social values.

The global banking crisis of 2007–2009 resulted not only from regulatory mistakes. Some of these mistakes were not fortuitous; they were the product of consolidation of crony capitalism enabled by excessively lax bank regulations facilitating the emergence of the too-big-to-fail financial conglomerates with their excessive risk taking propensity.

The index revolution has resulted in a massive redirection of Americans' savings flows from actively to passively managed funds. This was undoubtedly a positive phenomenon, but such a change could have occurred much earlier had the authorities informed prospective pensioners that index funds were the best option for investing their retirement savings.

The ascent of Bitcoin and other cryptocurrencies was a coup d'état – even if misdiagnosed and unsuccessful – against the crony capitalism of the banking sector. Yet the continuing erosion of trust in banks may lead to renewed efforts to create an alternative monetary system in the future.

In this paper, we suggest certain institutional changes which might avert the erosion of values in the financial sector, but we do not expect them to be introduced in the immediate future. Financial regulation and supervision reflect the existing political and social fabric, which does not offer much hope for decisive changes in the regulatory framework.

Even though we illustrate our considerations with examples taken from the financial sector, we do not intend to impress our readers with the most blatant examples of its transgressions. This would not add much value as the real culprit are not people working in the financial sector, but the foolish bonus culture with incentives so strong that they are capable of switching off common sense and social responsibility in potentially decent individuals (Levis 1989). We analyse the recent developments in finance because they are fairly well known and fresh in people's memories, which relieves us from the duty to describe them in detail.

What we really want to emphasise is the adverse impact of crony and state capitalism on social capital, the latter being so indispensable for a sustained long-term economic development. Our goal is to underscore the role of bottom-up movements, including the Open Eyes Economy, in recreating and preserving the trust-based culture of mutual cooperation. If we compared the negative impact of crony or state capitalism on social and economic life to the slow death of coral reefs, we could see the role of grassroots civic movements as a sea water filter that offers the reef a chance to survive.

The rest of the chapter is organized as follows. Section 2 highlights the vulnerability of the core free-market and social values due to the ascent of crony and state capitalism. In section 3, we reiterate how short-termism and *hubris* amongst the bankers culminated in to the potentially most damaging banking crisis in economic history. Section 4 emphasizes that the long delay of the index revolution resulted from the authorities' neglect to inform the general public about the merits of the passively managed funds. In section 5, we argue that despite the fact that the Bitcoin project

was doomed to fail due its conceptual flaws, its emergence constituted a spectacular response to the eroding trust in the existing banking system. In section 6, we formulate a handful of general conclusions concerning regulation and supervision in the financial sector. Section 7 discusses the lessons to be learnt by the OEE movement. Section 8 calls for intensified public discourse on institutional reforms which would protect free-market mechanisms and foster the bottom-up civic movements.

Endangered values

While everyone benefits from free and competitive market, no one in particular makes huge profits from keeping the system competitive and the playing field level. True capitalism lacks a strong lobby. Most lobbying is pro-business, in the sense that it promotes the interest of existing business, not pro-market in the sense of fostering truly free and open competition.

Zingales 2009

The principal enemy of free market values (open competition, level playing field) and the social core values (shared prosperity) is crony capitalism, i.e. a system in which company profits increasingly depend not on their competitive edge or innovativeness, but on symbiotic relations with the state that offers those firms opportunities for rent-seeking (Zingales 2012; Salter 2014)¹. The main force dragging a given country towards crony capitalism is monopolization, which leads to the concentration not only of the economic but also of the political power.

For a very long time, the United States has been the paragon of adherence to free-market values (Teixeira, Halpin 2010). Anti-trust policy was born there and in 1912, it was the main issue in the presidential campaign. Theodore Roosevelt argued that trusts should be regulated in order to offset the negative consequences of their economic power. Woodrow

¹ An extreme form of crony capitalism is state capitalism (Djankov 2015).

Wilson even wanted to impose regulations which, in fact, would prevent trusts from forming (Kolasky 2011).

The illustration of values-based policies was the New Deal of the 1930s with its progressive labour strategies and the enactment of several breakthrough reforms, which transformed the US financial system. One of such reforms was the Glass–Steagall Act (passed in 1933) separating investment from commercial banking. After World War 2, the Act was systematically watered down owing to effective lobbying by the banking industry. Nonetheless, it gave America 60 years free of a banking crisis, mainly due to the fact that it slowed down the process of consolidation in the sector.

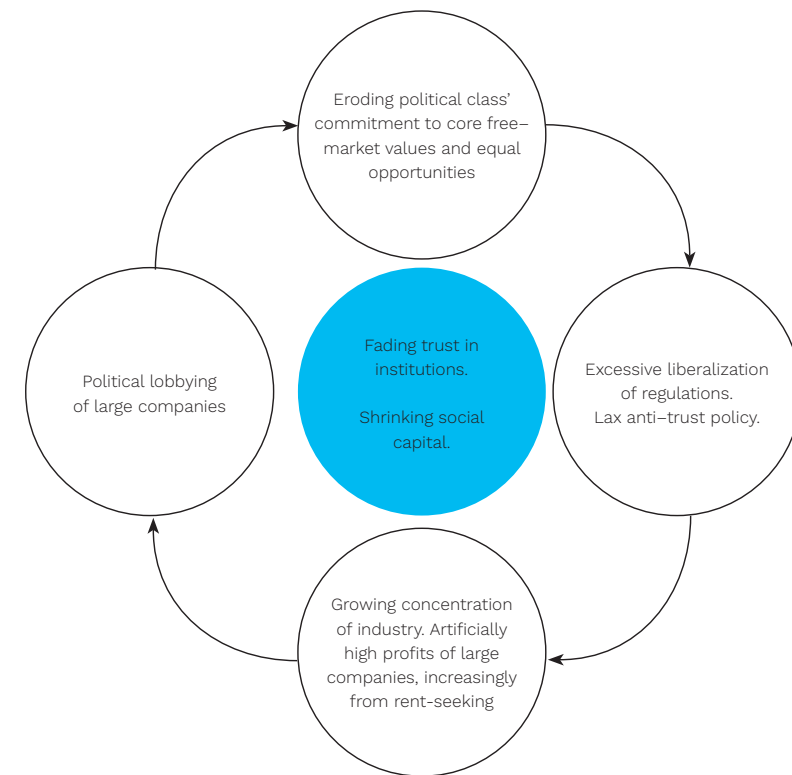
In 1999, the Glass–Steagall Act was phased out by the Gramm–Leach–Bliley Act, which facilitated the emergence of the TBTF banks. In Europe, the lax anti-trust regulation led to the rise of huge financial conglomerates, which subsumed a number of different types of institutions within a single holding company: commercial banks, investment banks, insurance companies, investment funds, pension funds, hedge funds, and private equity. In Europe, the lobbying efforts were not the only a factor paving the way for increasing concentration in the banking system. The other one was the belief that pan-European banks would represent an effective vehicle of European integration (Tumpel-Gugerell 2005).

On both sides of the Atlantic, public opinion intently followed stories about the need to preserve *our* large banks in order to enable them to compete with *their* large banks. The real goal of the large banks, however, was to achieve the informal but actual and desirable status of too-big-to-fail (TBTF) financial institutions. This effectively ensured that the banks would be bailed out by governments during crises. For large banks, gaining the TBTF status opened several opportunities for rent seeking. In comparison with regular (smaller) banks, the TBTF institutions can (1) take larger risks, (2) borrow at a lower cost, (3) have a more extensive knowledge concerning money flows and changing market expectations, which gives them a competitive edge in trading, and (4) exert effective lobbying pressure on authorities (Augar 2005). The implicit insurance obtained by TBTF institutions is stronger when there is a commercial bank within a holding company, as this creates an opportunity to place

riskier business lines, such as trading, under the umbrella of taxpayer’s insurance of household deposits (Hoenig 2018).

Diagram 1 illustrates the feedback loop between the weakening commitment of the political class to core free-market and civic values and the solidification of crony capitalism producing opportunities for rent-seeking by large firms. This mechanism erodes trust in democratic institutions, which, in turn, diminishes social capital (a culture of trust and cooperation) indispensable for long-term growth (Cox 2017; Sztompka 2016; Westlund, Frane 2010).

Diagram 1. Crony/state capitalism’s self-reinforcing vortex



Source: Own study.

A good illustration of the weakening commitment of the US authorities to core free-market values is the difference between the deep and bold reforms of the financial system after the 1929–1932 crisis and the shallow and insufficient response after the 2007–2009 crisis despite the fact that the recent crisis was potentially the worst financial debacle in economic history.

Cronyism in the United States has been on the rise in the last three decades. A telling symptom was the steep fall in the number of cases filed by antitrust agencies (Grullon et. al. 2017). Another illustrative example is that while in the late 1980s, after the savings and loan (S&L) crisis, bankers were being convicted for their fraudulent activities, nothing of the kind happened in the wake of the recent banking crisis (Thornburch 1990).

A stark example of the *benign neglect* attitude on the part of the US authorities to the financial system after the global banking crisis of 2007–2008 was that large banks were bailed out with taxpayers money under extremely favourable conditions (Borofsky 2013) and, in contrast with the 1930s, the prospect of breaking up the large banks was not even seriously considered (Johnson, Kwak 2010; Hoenig 2017),² with the notable exception of the British FSA (Vinals et. al. 2013).

Crony capitalism also took root in international organizations. The Basel process of laying down new bank regulations was captured by large international banks. The new regulations responded to their needs, despite the strong objections on the part of smaller banks and the developing countries (Lall 2012). Moreover, large international banks misused the opportunities given by the Basel Committee. The Committee permitted the large banks to use their own risk models; regrettably, the latter manipulated these models in order to ‘economize’ on equity, which was nothing if not breaching the regulators’ trust (Bayoumi 2017; Dowling, Lucey 2013). The factor that facilitated the capture of the Basel Process by large international banks was the absence of any effective mechanisms of democratic accountability, apart from the short period when G20 was involved in the process (Lall 2015).

2 As far as other countries are concerned, a positive exception was the British concept of ring fencing (Vinals et. al. 2013).

Crony capitalism refers not only to the symbiotic relationships between state authorities and large corporations, but also to the overall inefficiency of the public sector, which leads to a growing dependence of the firms on their close connections with public bureaucracy. This phenomenon may have serious negative macroeconomic consequences. Pellegrino and Zingales (2017) attribute the low rate of productivity growth in Italy to the high level of bureaucratization forcing the owners of Italian firms to select and promote managers whose main skill consists in maintaining good relations with the bureaucrats. In 1990s, as a result of such selection criteria, the country noted a slower progress in implementing new IT technologies with the resultant lower productivity growth rate than in the other EU member states.

The banks’ myopic bonus culture

I was in banking 60 years ago. One of the things I remember was anathema to give individual bonuses, because we were working for the bank as a whole and for customers rather than seeking extraordinary rewards.

Paul Volcker 2012³

Risk and return in finance

One of the consequences of crony capitalism was the excessive liberalization of the banking sector, which revealed the banks’ propensity to take excessive risks. The reason is that finance is a special branch of industry, where the main source of profits is risk-taking. In other words, there is a linear relationship between risk and return illustrated as the *capital market line* (CML), which can be found in any textbook on finance. The message from the CML is that in finance, the principal way to increase return on equity is to take more risk⁴.

3 Quoted from M. Feldstein (2013).

4 The cycle that prompts banks to take excessive risks was described by Hyman Minsky in the 1980s (Minsky 1986), but his financial instability hypothesis was ignored by mainstream economics and was rediscovered only in the midst of the recent global banking crisis (McCulley 2009).

Due to this relationship, banks display an inherent propensity to take excessive risks. If an airline company posts large profits, the regulator can rest assured that the company is efficient. However, if a bank reports unusually large profits, the regulator had better intervene to make sure that the bank does not take excessive risk.

The main method used by banks to increase risk is through increasing leverage – the ratio of assets to equity. In this way, banks increase their expected rate of return at the cost of increasing the volume of potential losses. Banks tend to minimize their equity (the source of funds to cover losses) in order to increase their return on equity. Under the circumstances, the relaxed regulations effectively released the genie of excessive risk-taking from the bottle. Following the ‘big bang’ liberalization of the British financial sector in the late 1970s, the average rate of return in banking went up from 6% to 20%, but its volatility (i.e. risk) tripled (Haldane 2009).

In the run-up to the global banking crisis of 2007–2009, the banks incessantly pressed for the liberalization of regulations. It was argued that due to the progress in risk measuring and risk managing methods, banks would efficiently adjust the volume of their potential losses to the volume of their equity and thereby remain solvent at all times.

The aftermath of the recent global banking crisis failed to confirm this claim. Large banks took huge losses, which had to be covered by taxpayers. The previous belief that the banking sector possessed a strong self-regulatory capacity was undermined from the very beginning of the crisis, when panic among the bankers produced a dangerous feedback loop between the fire sales of bank assets and the steep fall of their prices. In the initial period of the crisis, the Fed intervened massively by purchasing more than \$1 trillion of mortgage-backed securities to save the banking system.

The rise of short-termism

In the past, commercial bankers made their living mainly by offering loans to local corporations. Investment bankers, in turn, advised on transacting on capital markets and on organizing initial offerings of corporate or government securities. Consequently, the bankers’ main asset was the trust of their customers (Vanston 2012).

An important factor which pushed banks towards excessive risk-taking was the rise of short-termism whose advent resulted from two key factors. The first one was the feedback loop between the development of IT technologies and the liberalization of short-term capital flows in the 1980s. IT technologies gave traders immediate access to information on many different markets, whereas the liberalization of short-term capital flows contributed to the emergence of a global financial market. Traders could freely engage transactions all over the world. Opportunities for short-term arbitrage and speculation became endless.

The other factor responsible for the advent of short-termism (not only in finance) was the doctrine of maximization of shareholder value, which became more widely adopted in the 1990s. It resulted in an incentive system that rewarded managers in proportion to the current value of their company’s shares (Lazonick 2015). This provided the stimulus for the CEOs to maximize the short-term return on equity through stock buybacks funded with the firms’ profits. In the banking sector, such an incentive system is particularly damaging, since the RoE is not adjusted for risk. Thus the new system amplified the banks propensity for excessive risk taking (Jenkins 2011; Moussu, Petit-Romec 2014).

The dominance of short-termism began in the late 1970s, when the dealing rooms of large banks grew enormously. In the case of investment banks, short-term trading became such a dominant line of their business that they began to be called broker–dealer banks (Duffie 2009).

But why exactly does trading (short-term arbitrage and speculation) offer profits? Theoretically, it should not be the case, since markets are informationally efficient, which makes price anomalies rare and relatively small. While this true on the stock markets, OTC markets are somewhat different, especially if we recognise the fact that the asymmetry of information is exploited by large financial conglomerates. Knowing more about the flows and changing expectations in a number different markets, they possess an informational edge over the other players, which gives them an opportunity to profit from trading (Stewart 1991; Augar 2005).

Paradoxically, even the recent boom–bust cycle in the mortgage markets was largely a symptom of short-termism in banking. Banks extended

and sold their mortgage loans portfolios (to securitization funds) in order to get rid of the risk and earn fees from extending additional loans without having to increase their capital.

Ironically, quite often the actual goal of securitization was not simply to get rid of risk or economize on capital. Large banks sold loans from their *bank books* with a view to repurchasing them in the form of structured bonds (after loan securitization) and put them into *trading books* with lower risk weights.

The myopic nature of such transactions is underscored by the fact that despite the high ratings of such bonds, they were obviously very risky owing to the low liquidity of their markets. During the crisis, their prices fell precipitously, which especially affected the collateralized debt obligations (or CDOs). The collapse of their market was one of the principal causes of huge losses taken by banks.

Hubris among bankers

The only thing which may, to a limited extent, justify the bankers' myopic approach is that the timing of market crashes is unpredictable. Asset prices do not work not like barometers warning of an impending crash, but rather like thermometers reflecting in real time the investors' panic during the crash and their anxiety after the crisis (Danielsson 2014).

A spectacular example of the fact that the timing of a crash is impossible to predict were the price developments on the credit default swap (CDS) market in 2007. CDOs are financial instruments viewed as insurance policies offering compensation for a possible default of bond issuers. The lower the investors' perception of the risk that a bond issuer may default, the lower the CDOs prices. In 2007, the prices of the CDOs offering compensations for default of large international banks were constantly falling only to skyrocket in the heat of the summer with the outbreak of the global banking crisis (FSA 2009).

Nonetheless, even conceding that the moment of a market crash is never predictable, it is nothing short of mind-boggling that banks did not realize the magnitude of risk related to purchasing large portfolios of illiquid structured bonds. This begs another: What was the other factor –

besides the massive bonuses for short-term profits – that made the banks so disastrously myopic? This factor was *hubris* among bankers.

The gods of the ancient Greeks punished the mortals for their *hubris* by sending Nemesis to exact revenge (Oniszczyk 2017). In the run-up to the recent global financial crisis, bankers went the full cycle from *koros* (satiation and insolence caused by high profits) to *hubris* (conceit, arrogance, and self-indulgence), which prompted them to make highly imprudent decisions (Cudjoe et. al. 2011), such as purchasing CDOs.

Other examples of *hubris* in banking are well known. By manipulating their risk models, large international banks openly breached the regulators' and societal trust (Mariathan, Merrouche 2013; Plosser, Santos 2014). Numerous illustrations of traders' *hubris* can be found, for example, in Satyajit Das' books, in which he summarizes the decades of his work for large investment banks. The common denominator of Das' examples is the mis-selling of different financial products (Das 2007, 2011).

The most famous example of *hubris* among bankers was provided by Lloyd Blankfein (chairman of Goldman Sachs), who said in the middle of the crisis that banks were "doing god's work." What he had in mind was the pivotal role played by banks in efficient capital allocation, but even allowing for poetic licence, Blankfein's words revealed the bankers' utter complacency (*Wall Street Journal* 2009).

Regrettably, the bankers' *hubris* was quite rational. Crony capitalism ensured that they never had to face their Nemesis. They were rescued, when central banks provided ample liquidity and taxpayers covered their huge losses. Hence, *hubris* could well perpetuate among the bankers (*Financial Times* 2009).

Passive investing: The hard-won victory of values

A foolish attempt to beat the market and get rich quickly will make one's broker rich and oneself much less so.

Harry Markowitz⁵

⁵ Quoted from M. T. Hebner (2011).

The mutual funds industry sits at the centre of a massive market failure. The asymmetry between sophisticated institutional providers of investment management services and unsophisticated individual consumers results in a monumental transfer of wealth from individual to institution.

David Swensen

The main building blocks of the portfolio theory – originally created by Harry Markowitz (1952) – include Eugene Fama's market efficiency hypothesis (1970) and William Sharpe's finding that the optimal income to risk ratio is offered by a *market* portfolio whose structure reflects the index of a given market (1970).

The market efficiency hypothesis leads to the conclusion that assets are effectively priced, which makes price anomalies so small that in the long run profits from exploiting them are smaller than the costs involved. In the longer perspective, actively managed funds are not capable of delivering a rate of return that is higher than the passively managed index funds, yet the fees charged by the former are much higher. Consequently, the best solution for long-term investors, such as those who wish to save up for their retirement, is to invest their money in passively managed index funds (Sławiński, Tymoczko 2017).

During the last six decades, empirical research has consistently confirmed such a message of the portfolio theory (Jensen 1968, French 2008). This poses the question: Why were retirement savings rarely invested in index funds for such a time? Among the important reasons was that prospective pensioners were not aware how much of their income was taken over by the actively managed funds.

No one explained to them that if one wanted to assess the cost of active investment, it was necessary to take into consideration the fact that fees paid to the mutual or pension funds work like interest rate. Thus, if one wanted to assess the share of income from investing retirement savings taken over by a pension fund, one had to apply compound interest. Doing this simple arithmetic tells us that even if a pension fund fee is slightly above 1%, in the 40 years of saving up for retirement, more than 40% of the income is paid to the mutual fund (Edesess et. al. 2014). Moreover, if

one takes into consideration not only the management fees but also other costs (which are difficult to pinpoint accurately and are usually omitted in academic research), such as transaction costs, distribution charges, and cash drag, it would turn out that an actively managed pension fund appropriates more than 60% of the income from investing retirement savings (Bogle 2014). This is precisely why David Swensen (quoted above) stated that the mutual fund industry is responsible for a *monumental transfer of wealth* from individual savers to institutional investors.

The magnitude of such transfers was highlighted by the findings of Burton Malkiel's research (2013). In 1980–2010, the assets of the US equity mutual funds grew 135 times (from \$26 billion to \$3.5 trillion), while the remuneration of managers increased 141 times (from \$170 million to \$24 billion). Thus the industry appropriated the whole economies of scale. In the same period, the fees collected by passively managed funds fell well below 0.1%, whereas the fees in actively managed funds remained unchanged at slightly above 1%, i.e. ten times higher than those collected by the index funds. One of the key causes of such a situation is the conflict of interest riddling the mutual funds. The incomes of the fund managers depend on dividends paid to the shareholders. Thus, the managers are reluctant to cut fees as it might force them to reduce the dividend payments.

Despite the obvious merits of index funds for the pensioners, Vanguard (the first passively managed index fund established by John Bogle in 1974) did not attract many followers. The recent global financial crisis initiated a massive shift of savings from the active to passive mutual funds, the reason being that the crisis substantially reduced the rates of return on financial markets, which attracted investors to the low-cost index funds. Likewise, the managers of pension funds found out with time that actively managed funds are expensive and incapable of systematically providing an above-average rate of return (*alpha*). The developments listed above resulted in the recent 'index revolution' (Ellis 2016; Credit Swiss 2017).

The reasons why the fees charged by index fund were substantially lower than those charged by active funds are straightforward. Index funds

are not involved in short-term trading, accordingly, they economize on transaction costs and do not pay capital income tax. Moreover, John Bogle eliminated a potential conflict of interest by making Vanguard customers the owners of the fund.

Sadly, in Europe the index revolution is still nowhere to be found, with the noteworthy exception of the UK. The share of index funds in a number of countries is usually very small, in others, e.g. in Poland, index funds do not exist. Furthermore, in several European countries the mutual fund industry is involved in the unethical practice of *closed indexing*, i.e. investment funds collect fees for active investing, while a large portion of their assets is, in fact, not managed at all (ESMA 2016). In the case of stock mutual funds, the highest ratio of *closed indexing* (almost 60%) is reported in Poland and Sweden (Miziołek 2015; Cremers et. al. 2016)

Yet the saddest aspect of the non-existent index fund revolution in continental Europe is that while one can understand why funds managers do not rank among the enthusiasts of passively managed funds, it is difficult to understand why public institutions fail to inform prospective pensioners that index funds are the best option for investing their retirement savings. The authorities' inaction facilitates the continued, huge wealth transfers from individual investors to financial institutions, which is a stark example of how crony and state capitalism works.

Until recently, government inaction in promoting index funds as the vehicle for investing retirement savings resulted from the fact that such funds played only a minor role even in the United States. Nowadays, after the index revolution, government inaction is completely baffling.

Bitcoin: A misdiagnosed onslaught on crony capitalism in the banking system

The root problem with conventional currency is all the trust that's required to make it work. The central bank must be trusted not to debase the currency, but the history of fiat currencies is full of breaches of that trust. Banks must be trusted to hold our money and transfer it electronically, but they lend it out in waves of credit bub-

bles with barely a fraction in reserve. We must have to trust them with our privacy, trust them not to let identity thieves drain our accounts.

Satoshi Nakamoto 2009

Money is entirely a sociological phenomenon, a form of human interaction.

George Simmel 1907

As can be gleaned from the quote from the mysterious Satoshi Nakamoto's statement, Bitcoin was conceived as a *coup d'état* against the crony capitalism of the banking system. However, it was a misdiagnosed attempt. Banks were not without blame, especially in the run-up to the recent global banking crisis, but Nakamoto's arguments represent conventional wisdom rather than facts.

Contrary to Nakamoto's statement, it is difficult to imagine central banks propensity to debase money after they became independent from governments in the 1980s. Judging by the date publication of his manifesto, Nakamoto believed that central banks' quantitative easing (QE) programs involved money printing on a massive scale (Nakamoto 2009), which was not true. The QE programs were not about increasing money supply, but about increasing bank liquid reserves.

As regards Nakamoto's comments on commercial banks, the credit bubbles indeed resulted from their irresponsible lending policy, yet their root cause was not the fractional reserve system, but excessive deregulation of banking before the outbreak of the crisis.

Therefore, if the goal behind launching Bitcoin was to provide the foundations for a new monetary system, the whole initiative was misdiagnosed and therefore doomed to fail. To illustrate the conceptual flaws of the Bitcoin project, let us briefly recap the factors that make up a trusted and efficient monetary system.

For a start, let us remember that money supply is made up by the funds at the disposal of individual people and companies – in the form of cash or bank deposits – intended to cover their current spending on goods and services. If money is used to cover household and firm current spending, it has to be both stable and universally accepted.

In the past, cash and deposit money were universally accepted means of payments, since they were redeemable for gold at a fixed rate. Nowadays, money is accepted as the legal tender. For example, the dollar is “legal tender for all debts, public and private”.

Bitcoin might have had a chance to become money, had central banks agreed to convert it into cash (legal tender) at the rate of 1:1, as it is the case with deposit money created by commercial banks. Yet the creators of Bitcoin assumed that central banks were not necessary to issue money which would be trusted. They thought that it was sufficient to limit the supply of Bitcoin to make it stable, that is why the upper limit for its issuance was set at 21 million.

Such a belief was based on an overly simplistic understanding of the gold standard. During its operation, inflation was stable not because the supply of gold was limited, but due to a lucky coincidence – the discoveries of gold increased the gold and money supply more or less in line with the long-term global GDP growth (Cassel 1936).

Nowadays, central banks stabilize inflation exactly by adjusting money supply to the demand consistent with the potential (long-term) rate of GDP growth. They have been successful in stabilizing inflation especially since the 1980s, when they became independent from governments.

The ingenious IT men, who created Bitcoin, did not take all this into consideration, which was one of the reasons why Bitcoin’s career as money ended within such a short period of time. From the very start, no mechanism stabilized Bitcoin’s purchasing power. Consequently, Bitcoin ended up as a speculative asset.

Another important shortcoming of the Bitcoin project was that it had no mechanism for efficient allocation of the currency in the economy. Under the existing monetary system, such a mechanism does exist. Contrary to common belief, money is created not by central banks, but by commercial banks extending short-term working capital and consumer loans (McLeay 2014).⁶ Hence, the newly created money is allocated ef-

⁶ Contrary to what is popularly thought, central banks do not create money. They issue paper money, but this is not tantamount to increasing the money supply, since they only

ficiently to those who are efficient enough to repay the loan. The task of central bank is to ensure trust in the currency mainly by controlling the rate of credit and money growth. Other public institutions also contribute to maintaining the trust in money, including regulatory and supervisory authorities and the entire legal system.

The main conceptual flaw of the Bitcoin project was that it did not take into account that trust in algorithms cannot replace trust in the existing institutions preserving efficient operation of the monetary system (Simmel 1907; Laidler, Rowe 1989; Dodd 2015, 2017).

Nonetheless, due to the shallowness of the recent banking reforms, it is hard to believe they will be sufficient to fully reconstitute trust in the banking system. Thus it cannot be ruled out that in the future, a group of imaginative IT individuals will again come up with yet another alternative monetary system with a view to disrupting the existing one.

What could be done?

If we want ‘better’ money, then tinkering around with its form will have little impact unless we change the incentives that are often built in to society’s structure.

Avinash Persaud 2014

As far as reforming the financial system is concerned, the question, “What can be done?” borders on irrelevance. The recent situation illustrates that the lobbying efforts of the financial sector have been effective enough to preserve the status quo. Despite certain positive changes, like imposing on banks the obligation to manage their liquidity, the previous model of banking, guided by the incentive system based on short-term RoE un-

supply commercial banks with cash into which the customers of commercial banks convert their pre-existing deposits. Central banks only create the banks’ liquid reserves, which are not part of the money supply, as they are used only for settlements between financial institutions.

adjusted for risk has not changed much. In Europe, such lobbying⁷ was effective enough to prevent authorities from promoting index funds as the best way for investing retirement savings, with the laudable exception of the British NEST (2016).

Likewise, we do not attempt to answer the question “What should be done?” as it would also border on wishful thinking by implying that a certain proposal would be put into practice just because it is right. Had it been the case, index funds would have dominated the pension fund industry years ago, because passive investing has always been advocated by all the economists who were awarded the Nobel Prize for their contribution to portfolio theory. Moreover, the question may easily assume turn into sermonising on the wrongdoings of the financial sector, and yet it is not the only industry where the “phishing for phools as a business model” is not an exception (Akerloff, Shiller 2017).

For these reasons, we restrict ourselves to posing the question “What *could* be done if the political classes in different countries genuinely wanted to implement systemic changes in finance?”

As far as banks are concerned, the starting point for thinking about a systemic banking reform should take into account the fact that the cognitive capture of regulators is difficult to avoid as was underscored by Stigler – the father of the literature on regulatory capture (Stigler 1971). The reason is fairly simple: the representatives of the regulated industry have more information about their business than do the regulators. An extra factor, especially important in finance, is cultural capture. Regulators often want to be perceived as being a part the high-finance elite and the industry happily meets these expectations, which reinforces the cognitive capture (Kwak 2014).

A change that might help to reduce the extent of regulatory capture in finance would be to nominate for chairmen of supervisory agencies individuals who enjoy a long established reputation for being highly independent and have an in-depth knowledge not only of finance, but also of macroeconomics and other social sciences. Such persons would more

⁷ In contrast to the United States, European mutual funds are owned mainly by banks.

effectively shield the staff of supervisory agencies from cognitive and cultural capture, instead giving them the sense of acting in the interest of the whole society and not only in the interest of a select few.

The solution to the problem of investing retirement savings in index funds would be to follow the example of the British NEST, which vigorously promotes passively managed funds that charge very low fees (NEST 2016). Empirical research shows that as soon as future retirees become aware of the significance of this impact, they shift their choices towards index funds (Fisch, Wilkinson-Rayn 2014).

In general, restoring values to finance depends on recreating a genuine commitment of the political class to core free-market and social values, such as open competition, anti-trust policy, and shared prosperity. Without such a change, we will repeatedly (after every crisis) discuss various regulatory mistakes well aware that these alleged mistakes are not, in fact, mistakes but an unavoidable products of the overall fabric of the social and political structure of a given country.⁸

The operation of the financial system does not result from specific regulations, but depends on the general functioning of the state. John Bogle’s struggle for passive investing was motivated by his concern about the gradual deterioration of business culture in his country. He perceived the practice of overcharging investors by mutual funds as “the triumph of salesmanship over stewardship” (Bogle 2005, 2008).

We believe that the way towards reforming the financial system leads through changing the overall business culture. The developments we mentioned in the previous sections underscore the risks of drifting away from a trust-based business culture. The quest for short-term profits, augmented by the foolish bonus culture, reduced people’s trust in banks. The

⁸ Quite possibly, in the wake of the next financial crisis we will discuss the regulatory mistakes related to shadow banks. These bank-like institutions are still not properly supervised or regulated. One of the reasons for their popularity is that they are allowed to hold much less equity than banks. Hence, they can use higher leverages than banks and offer their customers higher rates of return. Needless to say that is occurs at the cost of taking much larger risks, but the strategy only backfires during a crisis.

mutual fund industry's road from stewardship toward salesmanship was, in fact, a journey away from being trusted. The plan of Bitcoin creators to re-establish trust by way of introducing innovative technologies was commendable even if they did not take into consideration the fact that trust is a social phenomenon which cannot be secured by technology no matter how ingenious it is.

It is not a very difficult task to put together a list of regulatory changes that may improve the operation of the financial system. However, the really crucial reforms, such as breaking up large financial conglomerates, turned out to be impossible to implement (in contrast to the 1930s) due to the increased economic and political clout of the financial sector. Financial reforms comparable with those of the 1930s no longer seem to be within our reach (Wilmarth 2013).

The Open Eyes Economy movement: To the rescue of values

Of particular relevance here is that institutions that evolved in high trust societies... nearly always fail when implemented into low trust societies.

Rose 2015

Crony or state capitalism tend to cause a gradual erosion of trust in democracy and its institutions, which, in turn, leads to an overall decline in social capital as has been observed in many countries with the notable exception of the Nordic countries (Siisiäinen 2000). The principal task of bottom-up movements is to prevent the process of value erosion by protecting and rebuilding a trust-based culture in business and society in general.

In order to be effective, bottom-up movements should not focus only on pontificating on values. Their primary goal should be initiating civic activities to build islands and then archipelagos of cooperation culture, which is so important for economic and social development (Guiso et al. 2006; Gorodnichenko, Roland 2010). A breakthrough book by Robert Putnam et al. (1993) confirmed the role of culture in economic growth. The

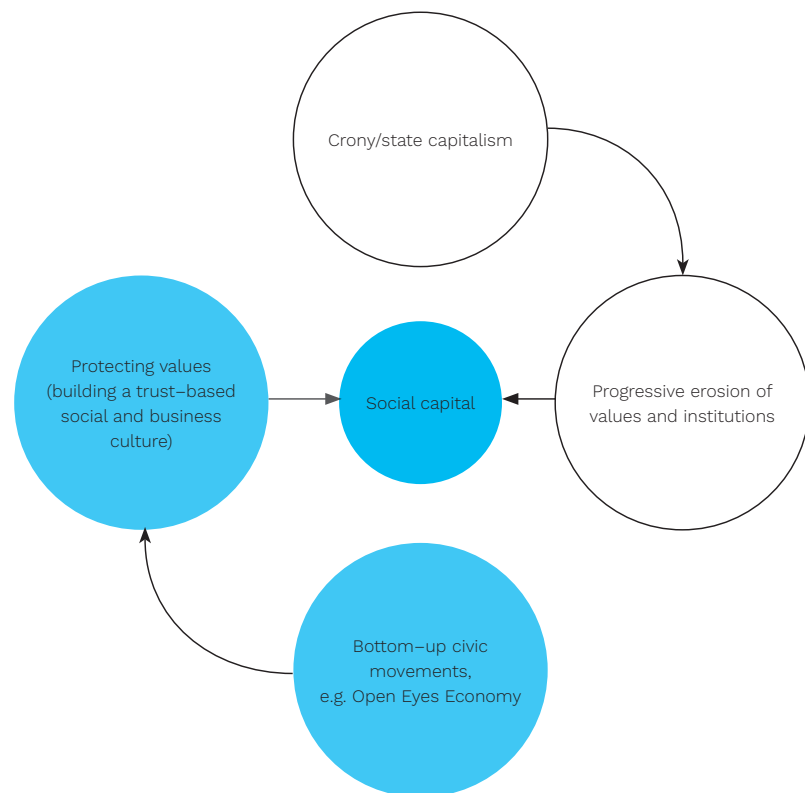
northern regions of Italy, with their long-standing tradition of horizontal social alignments, enjoyed a higher rate of economic growth than the southern regions lacking the ethos of mutual trust. Even though we are aware that our tradition does not particularly abound in examples of civic cooperation and cultural codes are notoriously difficult to change, we believe that investing in culture based on interpersonal trust and civic cooperation is indispensable for fostering long-term economic growth and innovativeness of Poland's economy (Sztompka 1998; Rose 2015; Sztompka 2016).

The underrated potential of bottom-up movements may release people's readiness to act for the common good. Fortunately, the assumption present in the economic macro models – that society is made up of atomistic consumers who think exclusively in terms of maximizing utility from their consumption decisions – is not an accurate description of our specie (Hausner 2017). Hence there is not only the need, but also the space for long-term investment in social capital.

However, bottom-up movements should not yield to the temptation of building a kind of parallel world in the hope that it would gradually replace the existing one. Such a philosophy was behind the rise of cryptocurrencies. The failure of the Bitcoin project shows that the existing institutions, especially the public ones, cannot be simply disrupted by innovations. The long-term goal should be to improve them through rebuilding the culture of values.

By and large, there is no other choice than to gradually re-conquest the state through civic activities. Globalization and political polarization limited the governments' ability to act (Porter et al. 2016). One of the outcomes is underinvestment in the commons (Mills 2015). This creates the need for innovative collaboration between many different social groups, which is by no means easy due to its cross-cultural character. Nonetheless, civic initiatives may bring about a number of positive outcomes. The obvious one includes upgrading the commons (education, environmental protection, and general infrastructure), whereas the others will be the rise of a new breed of leaders capable of successfully managing innovative cross-sectional forms of collaboration. The latter will aid in developing new tools, including new financial instruments facilitating the funding of social goals.

Diagram 2. Bottom-up movements: a velvet revolution against crony and state capitalism



Source: Own study.

In 2012, Robert Shiller published a book titled *Finance and the Good Society* whose key message was that the opportunities created by financial engineering are mainly designated for commercial uses, such as short-term arbitrage and speculation, even though it could also be employed to achieve social goals (Shiller 2012). Shiller provided examples of financial instruments, including *benefit bonds* and *social impact bonds*, which may secure funding for a variety of social goals (reducing marine pollution, prisoners rehabilitation, etc.). The remain to be used on a large scale, but, as illustrated by the story of Vanguard, the way towards the tipping point can be long.

Having said that, bottom-up movements should aim at slowing down the wheels of crony or state capitalism to prevent a gradual extinction of values. Paraphrasing the title of John Lennon’s unforgettable song “Give Peace a Chance,” bottom-up movements give values a chance.

The case for systemic reforms

The general goal of civic initiatives, such as the Open Eyes Economy movement, is to counterbalance the effects of a situation where free-market forces are increasingly constrained by the adverse feedback loop between the lobbying efforts of large firms and the government weakening commitment to free market economy and social values. Neutralizing such self-reinforcing mechanisms is an extremely difficult task. Let us use the example of financial institutions. Excessively lax regulations, which caused the global banking crisis, were not regulatory mistakes, but resulted primarily from institutional solutions having left too much room for bank lobbying. The recent global financial crisis was also due to the absence of sufficient democratic control over the regulations affecting the banking sector (Lall 2012, 2015).

If the goal is to protect the economies of different countries from the advancing crony or state capitalism, the bottom-up civic initiatives, like the Open Eyes Economy movement, may help, but the crucial issue is overall institutional reform. This, in turn, cannot be achieved without rethinking how the economy should work in a world rapidly transformed by technological change and globalization.

The enormousness of the challenge is illustrated by the amazingly short period of time within which several IT companies have recently become global monopolies. The other challenging phenomenon is that the rapidly progressing globalization has substantially limited the effectiveness of domestic economic policies. Under such circumstances, there are no easy solutions. Hence, what is needed is an open discourse on the future functioning of the economies and the societies.

Such a discourse should proceed through the following stages: (1) recognising the contradictions inherent in the existing economic and social

systems, (2) formulation of dilemmas, (3) development of new cognitive perspectives, (4) initiating public debate on the possible solutions, (5) proposing a new institutional framework, and (6) implementing socially acceptable reforms.

Such a discourse should not be limited to macro issues. Without implementing changes at the micro level, no macro changes can be effectively achieved. This is particularly evident when trying to devise an institutional framework to protect the mechanisms of the free-market economy from the destructive forces of crony or state capitalism (Zingales 2012, 2009) and to promote civic bottom-up initiatives.

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Konrad Grabiński

Measuring social obligations in accordance with the concept of Firm-Idea

Introduction

The concept of Firm-Idea prompted a new way of thinking about the role of enterprises in the economy. The model is being developed in a variety of fields, including copyright protection, human resources management, and ways of managing organisations. One of its more important areas is the accounting side of organisational resources, including, in particular, the identification and measurement of social obligations. The fact that so far no social obligations have been included in accounting reports does not mean that they do not actually exist. A more limited view of the economic reality presupposes that a business entity identifies and fulfils only those obligations which it cannot avoid. The recognition of other responsibilities, the so-called social obligations, as understood by a given entity, is considered not only inappropriate, but also a sin of mismanagement. As a result, numerous businesses feel no responsibility for the fates of local communities or their environment. More socially aware entrepreneurs recognise that their company's existence and future depends on the future of the environment and communities in which they operate, including suppliers, customers, employees and other stakeholders.

Despite the many attempts, measuring social obligations, or much more broadly, measuring pro-social activity, has yet to succeed in terms

of financial reporting. This is likely due to the fact that these obligations are not mandatory (but voluntary, dependent on the generosity of company management) and are specific for a given business entity. As a result, measuring their value seems impossible or at least very difficult. Notwithstanding the numerous failures, however, certain tools were developed to measure the so-called social performance of enterprises. In international literature they are included in the current of thought defined as corporate social responsibility or integrated reporting, or environmental reporting. These concepts are very popular worldwide in scientific research on accounting and financial reporting. Regardless of certain significant differences from Firm-Idea at the conceptual level, it seems that social activity can be measured using a set of similar tools.

The following text presents the most important instruments used worldwide to measure social responsibility, their methodology, as well as evaluates their applicability and adaptability to the concept of Firm-Idea. Accounting theory is based on the observation of accounting practices, which leads to the formulation of recommendations regarding accounting standards expressed in relevant laws, standards and regulations. Initially, adherence to these recommendations is voluntary, but over time they become part of the accounting practice in order to eventually constitute part of the regulatory sphere. That is why it is so important to monitor the existing practices and the environment of recipients, including their expectations as to the actual accounting information reported, as well as their perceptions: what they focus on in the process of making investment decisions.

Social obligations – the origin of the term

There are two opposing views in economic discourse. The first, liberal one, represented, among others, by the outstanding economist Milton Friedman, assumes that the only task of an economic entity is to engage its resources in profit-generating activities and to multiply capital, provided that it does so in accordance with the law and within the framework of

fair competition. In this approach, social problems should be solved by democratically elected governments, which collect a contribution in the form of compulsory taxes to that end. Any involvement of managements of private enterprises in community service activities is perceived as a negative phenomenon since it is thought to relieve governments of their responsibilities and impose an extra tax on the economic entity, which could otherwise make its shareholders richer. Such an approach excludes the recognition of additional social obligations and their fulfilment, as this can have an adverse impact on the company's financial performance.

For years, the largest international corporations exhibited a marked tendency to accumulate capital. The World Bank figures show that among the 100 most economically powerful global entities, 31 are national governments, and as many as 69 are private corporations (cf. <https://oxfamblogs.org/fp2p/the-worlds-top-100-economies-31-countries-69-corporations/>). Hence the capacity of economic entities in comparison with that of the individual governments is growing. The sheer size of these economic entities means that even a single company's activities may have a significant social impact. On the other hand, the social and political situation in a given country may have a large effect on the financial results of even a large multinational corporation. The degree of interdependence between companies and society is increasing in the sense that the capacity of national governments, especially of the smaller countries, to influence developments is gradually diminishing. The question thus arises whether the increased wealth of private companies should be associated with their larger responsibility for local communities. Can a private company ignore the situation of its stakeholders – customers, suppliers, and the environment? Should the company focus solely on its own economic standing without taking into account the situation and interests of its suppliers, customers, and local communities?

In the context of these questions, interesting conclusions were reached by S.-Y. Ahn and D.-J. Park (2018, pp. 117–118), who discuss the case of Samlip, a Korean bread producer founded in 1945. The company was famous not only for its products, which were part of the staple diet of entire generations of Koreans, but also for its friendly corporate culture

characterised by respect for its customers and employees alike. During the 1997 economic crisis, the company faced serious financial problems including the prospect of bankruptcy, as a result of which it was placed in receivership. After finding out about the company's problems, its employees voluntarily offered to work longer hours. Samlip's customers responded by increasing their orders almost by a quarter. Retail customers launched a sales campaign for Samlip's products, and more than 400 of the company's business associates and partners declared support in various forms. As a result, the entire environment of the company, all stakeholders fought for Samlip's survival, because in their view it represented something valuable for society, an important part of the social fabric. Ahn and Park conclude that social factors are more important than economic ones for the survival of an economic entity.

The research findings by other authors are consistent with those cited above (e.g. Gimeno et al. 1997; Carrol and Huo 1989). The authors invoke the legitimacy theory, which M. Suchman (1995, p. 574) defines as a general belief or assumption that the actions of an economic entity are desirable, appropriate and fit within a socially created system of norms, values, beliefs and definitions. The theory assumes that companies which fail to respect social and moral values are punished by society and gradually eliminated from social life. As a result, economic entities should avoid causing social and environmental damage.

The legitimacy theory presupposes a passive attitude of the company in the face of sanctions once it violates certain limits set by the society. In contrast, the concept of Firm-Idea presupposes voluntary and active involvement in the generation of social resources and values, as well as the identification of social obligations and their fulfilment. In this context, it is appropriate to mention the concept of sustainability, i.e. avoiding wasteful exploitation of natural resources in order to maintain biological balance. The concept of Firm-Idea transposes this approach not only to the sustainability of environmental resources, but also to the sustainability of social ones.

The key issue in this respect appears to be the time horizon adopted to assess the company profitability. In a short timeframe, the recognition and fulfilment of social obligations may not be economically viable in the

traditional economic accounts. However, in a longer time perspective the economic calculations may yield different results. The long-term success of a company cannot be achieved at the expense of the community or its local environment. Each company draws on different social resources, consequently, all the activities focused on their exploitation without an attempt to replenish them in the future are doomed to failure, which will affect the local community and the company in equal measure. Therefore, it is crucial that society develops new principles of economic calculation to protect and sustain social and environmental resources, which are important for the development not only of the societies themselves, but also of economic enterprises. Moreover, as will be shown later in the text, the economic environment develops tools to assess the companies' compliance with social obligations or lack thereof, which is associated with the interests of its stakeholders, including capital providers. As a result, it can be expected that in more socially aware societies, companies which fulfil their social obligations will be rewarded with lower capital costs and better development opportunities.

Recognising social obligations requires the concept of social capital, which is defined by the OECD as "networks together with shared norms, values and understandings that facilitate co-operation within or among groups (not only those legally established) (cf. <https://www.oecd.org/insights/37966934.pdf>). Social capital enables individuals and groups of people to build the mutual trust, which is a prerequisite for cooperation. It controls the particularistic approach in interpersonal relationships, facilitates and encourages exchange of ideas, and inspires innovation. In instrumental terms, social capital is identified with the intangible capital of an organisation, which has the potential to significantly influence its development and its financial results (Nahapiet, Ghosal 1998). Putnam (1993) defines social capital as the relationship of assets to the immanent features of a social organisation, such as trust, social norms and the network of interpersonal relationships, which enables increased efficiency, i.e. obtaining higher benefits from capital investment and investment in human capital. Nahapiet and Ghosal (1998) identify the following three aspects of social capital:

1. Cognitive capital – a system of meanings and concepts common to many social groups and individuals, the basis for building lasting relations, which permits values to be generated and to permanently influence social behaviour. At the company level, it entails building long-term relationships with the company's environment and stakeholders.
2. Structural capital – refers to patterns of behaviour between social groups and individual economic entities.
3. Relational capital – the dimension of social capital, which consists in translating it into psychological benefits in terms of socialisation, which should lead to developing people's trust in others, mutual help, responsibility towards one another, changes in the attitude of community members towards others.

The academic world has also formulated the so-called social resources theory (Lin 1982) which identifies two kinds of resources/values: individual (private) and social ones. Individual resources comprise tangible and intangible assets, such as ethnicity, culture, religion, education, occupation and income, as well as the assets held. These resources constitute the property of the individual and are at his or her disposal. Social resources are defined in opposition to them as subsisting in the social network and in social bonds. These resources are owned or available to others with respect to the individual. An individual can access these resources with the permission of others when social ties exist. For example, such resources include the social, economic or political position of others and the privileges they provide, or have the potential to provide, to the individual. The social resource theory investigates how individuals gain access to and use social resources in order to achieve their own goals. Social resources therefore mean a certain state of potential benefit to the individual, which can be activated by means of specific social activities. They are usually associated with the individual's personal benefits, such as finding a better-paid job, access to reliable information, literature, art, provide better education for oneself and one's own children, clean environment, opportunities to practise sports, or the pursuit of one's own cultural interests. It is assumed that opportunities for individual development with the aid of social resources should lead to the development of society as a whole.

Social Resource Theory assumes that access to social resources is limited, which means that in order for an individual to benefit from them, they must pay for them in one way or another. In most cases, the principle of reciprocity applies, i.e. granting access to an individual's private resources or the performance of a job or service. An important issue is the availability of these resources to the individual, i.e. the question of how they are made available, the degree of formalisation and whether the resources are generally available or whether barriers or social exclusion apply. The key element of this theory is the existence of a social fabric and mutual relations of individuals based on trust, which together form a community. Thus, the concept of an ideal community is born, where individuals can realise their personal dreams and aspirations, develop thanks to the availability of social resources belonging to other community members, not necessarily owned by the individual. Such a community should be more effective and innovative in principle, and enterprises operating in such an environment should be more profitable in the long run. In this context, the issue of impact of enterprises on the local community, available social resources and their operation should be addressed. Do private companies contribute to creating social bonds? Do they build mutual trust among community members and do they enable community members to use social resources? Or maybe it is the other way around – enterprises have a negative impact on social bonds, undermine trust, force social individuals to postpone their personal goals and dreams. The other fundamental question to be asked is whether corporations also use social resources and how such resources can be defined in the case of private companies.

In Poland, private companies have not yet been forced to bear significant costs of using social resources, which include, among others, access to environmental goods, human resources, cultural goods, the market, etc. This state of affairs can be illustrated in terms of access to human resources. Until recently, the Polish labour market supplied seemingly unlimited numbers of university graduates at a relatively low price. In the last thirty years, private enterprises have rarely been involved in cooperation with universities in the area of e.g. curriculum development, support for scientific conferences or conducting joint research. Most

activities of large international corporations were confined to organising the so-called job fairs for students in order to recruit the best. Large private companies, with few exceptions, paid no heed to the fate of universities, the quality of research, neither were they willing to make any efforts or outlays to improve the quality of teaching. At present, when the situation on the labour market is dramatically changing and a qualified university graduate has become a rare good, the cost of hiring keeps increasing, a change in the attitude of private enterprises can be observed. In this context, the university can be defined as a social good from the point of view of an individual, who can realise his or her dreams with its assistance (be educated, obtain a better job, etc.), but also as a social good from the point of view of private enterprises, a repository of the most important resource, namely educated employees. As a result, companies are no longer indifferent to the situation of local universities, how they operate, and whether they have a chance to survive.

Another example of draining social resources may be the approach of private companies to their female employees' maternity leaves. For a number of years, employers were reluctant to employ young women on account of their childbearing plans. After several decades, the difficult economic situation of young people on the labour market and the new, more consumerist culture led to a significant demographic decline. This shows how the policy pursued by private companies, with the consent of the government, has depleted a very important human resource in Polish society.

The examples cited above show that drawing on social resources without any effort to replenish them for the future is dangerous not only for local communities, but also for the companies themselves. From the accounting point of view, the situation is difficult since social resources are usually generally available, which means that companies that devote their time and resources to sustain these resources will not necessarily benefit themselves from these resources in the future. It can be compared to investing significant resources in research and development projects in a country where patent law is not observed. Patenting an invention will in no way secure the interests of the company – the originator of the project, instead the benefits will accrue to others, including the competition.

Quantitative evaluation of companies in terms of fulfilment of social obligations

The basic question posed in this study concerns the dilemma whether it is possible to quantify the value of social obligations. In response to this question, various measures and indices evaluating enterprise social responsibility will be discussed. Fundamentally, two groups of tools can be identified:

- Synthetic measures, which provide a single measure of social activity of an economic entity,
- Databases, which offer a wide range of information on the social activity of enterprises in different areas, usually using the so-called ratings vis-à-vis their closest competition in a given industry.

The measures and indices in the first group usually contain information provided by the databases (second group), but appropriately weighted and compiled. The most popular ones applied worldwide include the ratings prepared by Kinder, Lydenberg and Domini (known in the literature as KLD) and the MSCI KLD 400 Social Index constructed on its basis. Other indices comprise the FTSE4Good index of the London Stock Exchange, which was first published in 2001, the Asian Sustainability Research (ASR) and the Calver Social Index. The tools that represent the second group include SiRi Pro (Sustainable Investment Research International Company) and EIRIS (Ethical Investment Research Service) databases.

The main aim of developing such indicators is to support investors in making investment decisions by identifying socially responsible companies, the so-called SRI (Socially Responsible Investment). Wu, Lodorfos, Dean and Gioulmpaxiotis (2017, p. 238) define SRI somewhat more broadly, as a set of investment strategies and approaches that take into consideration the environmental, social and corporate governance criteria in making informed investment decisions. SRI has become very popular on the capital markets and in academic circles. The findings of empirical research do not clearly show, however, whether SRI-compliant investments are more profitable than other investment strategies.

The MSCI KLD 400 Social Index comprises 400 listed companies which meet certain criteria of social and environmental excellence, with a particular emphasis on employees and human resources, product safety, environmental safety, and corporate governance issues. Companies operating in the tobacco, alcohol, arms, gambling and nuclear energy production industries are not eligible. The index was launched in 1990 as the Domini 400 Social Index, and in 2010 its name was changed to MSCI KLD 400 Social Index. Its main objective was to draw investors' attention to socially responsible companies. The index includes:

- At least 200 large- or medium-capitalisation companies from the S&P 500 index,
- 100 companies outside the S&P 500 index that provide adequate industry diversification and exceed certain market capitalisation criteria,
- 50 companies which have demonstrated excellence in social activities.

Companies can be removed from the index every quarter if their ESG (Environmental, Social and Governance) rating falls below a certain level or if they are taken off from the MSCI USA IMI index. In this case, they are replaced by those with a higher ESG rating so that the number of companies included in the index still totals 400. Currently, the index includes such giants as Facebook, Microsoft, Alphabet, Intel, Procter & Gamble. The ESG rating uses data from various suppliers (Huber, Comstock 2017, pp. 1–2), including:

- Bloomberg ESG Data Service,
- Corporate Knights Global 100,
- DowJones Sustainability Index (DJSI),
- Institutional Shareholder Services (ISS),
- MSCI ESG Research,
- RepRisk,
- Sustainalytics Company ESG Reports,
- Thomson Reuters ESG Research Data.

For example, Bloomberg ESG Data Service collects data on approximately 9,500 public companies in 83 countries and ranks them annually on the basis of data available in annual financial statements, integrated reports, CSR reports, data from the websites run by the rated entities, and direct-

ly sourced information. The data is then verified and standardised. The rating comprises approximately 120 indicators, including environmental awareness, social, corporate governance, carbon emissions, climate change, environmental pollution, waste disposal, renewable energy, resource depletion, supply chain, discrimination, human rights, political commitment, and others. The rating is based on a comparison with similar companies in the same industry and is downgraded in the case of lack of data or refusal to disclose it. Nearly 15,000 investors worldwide currently use this data.

Another important source of information used in the KLD index comes from the Thomson Reuters ESG Scores database, which assesses four key areas within which further sub-areas have been identified.

1. Environment: resource use, carbon dioxide emissions, innovation.
2. Social: employees, human rights, local community, product responsibility.
3. Ownership control: management board, shareholders and CSR strategy.
4. ESG controversies: controversies from all the above categories.

Over 400 ESG parameters and 178 comparable measures are used in the assessment. The database is updated on a biweekly basis by 150 analysts. The rating includes more than 7,000 companies worldwide. Based on the scores awarded, companies fall into 12 categories from D– to A+. As a result, the database offers a very broad spectrum of information and data analysis capacity.

The second synthetic index, FTSE4GOOD, was created in 2001 in cooperation with UNICEF (Charlo et al. 2015, p. 279). It is based on a set of criteria proposed by the relevant committee and updated every six months. The committee members are independent experts, NGO consultants, academics and governmental institutions, investors, etc. The index utilises information from the ERIS database. FTSE4GOOD covers several large markets and develops individual versions of the index for each of them, for example:

- FTSE4GOOD Global Index for international companies,
- FTSE4GOOD USA Index for American companies,
- FTSE4GOOD Europe Index for European companies,
- FTSE4GOOD Japan Index for Japanese companies,
- FTSE4GOOD IBEX Index for Spanish companies.

This index is intended to help investors choose socially responsible companies. The companies may be audited on a voluntary basis; for example, Nestle was audited by PricewaterhouseCoopers (PwC) in areas such as human rights, environmental protection, and supply chains.

The indices mentioned above seek to quantify social effectiveness of enterprises and are mainly used to inform investment decisions. Ratings are awarded by experts on the basis of a wide range of information sourced both from the entity itself and its environment. It is worth noting that Poland's Social Rating Agency (ARS) provides information for ratings and assessments based on the ESG idea. The topics discussed above are related to the area of reporting without determining specifically how social accounting should be conducted. In particular, it primarily targets larger listed companies and for this reason it is more and more often accused of being yet another form of PR for large enterprises. The concept of Firm-Idea applies much more widely – not only to large listed companies, but also to smaller ones, moreover, rather than focus solely on reporting, it emphasised the way and philosophy of operation, self-positioning in the social structure, and response to social obligations.

Measuring social obligations and social accounting: A proposal drawing on the concept of Firm-Idea

Measuring social obligations according to the concept of Company-Idea demands a new approach to accounting principles. This is especially true of such fundamental ones as the economic entity principle, which states that economic reality should be considered from the point of view of a specific economic entity. The adoption of this principle implies the definition of an asset as a resource controlled by a given entity as a result of past events that gives rise to economic benefits to which a monetary value can be reliably attributed. Adopting the assumption that an economic entity operates in a social environment with social assets/resources – which do not belong to it, but also generate economic benefits for it (and for others) and often have a decisive impact on the existence of the entity and are not measurable,

i.e. cannot be quantifiably attributed a monetary value – stands in conflict with the subjectivity principle. It should be noted that social assets/resources cannot, in principle, be controlled by an individual entity even though it has an impact (even a minimal one) on the resource. As a result, at least at the current stage of accounting, the measurement of social obligations must remain off the balance sheet.

The second aspect involves the properties of social resources as viewed from the perspective of a given economic entity. The point is that different social resources may be significant, depending on the entity's area of operation. It should, therefore, be assumed that each of them enters into strong relationships with at least a number of social resources. From the point of view of the entity, this assumption is important inasmuch as focusing on a few key social obligations enables it to be more effective in sustaining these resources.

The third aspect of measuring social obligations is the unit of measure. The question arises whether the monetary unit is the only and most appropriate one. Perhaps other measures should be considered, such as the time spent by the company's employees on a given resource/social obligation, the scope of activities, and projects aimed at fulfilling a given social obligation.

In a simplified way, the process of recording economic operations in accounting can be divided into the following stages:

- Event identification,
- Recognition of a balance sheet component (e.g. obligation),
- Value measurement,
- Accounting records,
- Presentation and disclosure in the financial statement.

In the case of measuring social obligations, each of the stages listed above can pose substantial difficulties. The first component in the Firm-Idea is the identification of social obligations with respect to social resources, with which the company maintains strong relationships. The existence of such a relationship can be ascertained once the company recognises that:

- It uses a particular social resource, which brings it economic benefits,
- It has at least the potential to influence the resource in question in terms of its future sustainability,

- It may be dependent on a particular social resource (but not necessarily).

Therefore, in the case of Firm-Idea, the first accounting component should involve the identification of social resources which meet the above criteria. For these resources, it is possible to create off-balance sheet accounts where social obligations will be recorded. This should result in a continuous monitoring of the company's social resources by its management. For example, it the account can be called "social resources" with relevant subaccounts, e.g. "employee rights," "environmental protection," "owner's supervision," "supplier relations," "cooperation with the university," or separate synthetic accounts for each social resource category.

After a due review, the management of the economic entity should devise an action plan to meet its identified social obligations. These activities are likely to entail costs, which can be estimated in monetary terms, as well as expressed in terms of the time spent by the company's employees or described in other ways. Wherever possible, success criteria for meeting social commitments should also be established. All the above information should be recorded on the credit side of the off-balance sheet of the social resources account. In the course of fulfilling the social obligations assumed by the company, relevant provisions should appear on the debit side of the social obligations account.

The last stage in the concept of Firm-Idea would be to report on the fulfilment of social obligations. The task would be quite simple because it consists in reviewing the individual social resource accounts. As a result, as at the end of the accounting year, information would be presented on the most important social resources from the point of view of the entity and the obligations that the entity has assumed, as well as the actions that it has taken to fulfil them. Such information should be supplemented with data on the status of a given resource and the potential to sustain it in the future.

Summary

This paper proposes a way of measuring social obligations as stipulated by the concept of Firm-Idea. Part One presents the theoretical aspect

of the concept of social resources and social obligations illustrated with examples inspired by the author's reflections. The concept of resources is usually defined in the literature from the point of view of an individual – a human being construed a member of a community. The concept of social resources may also be discussed from the perspective of a firm/company – an economic entity and its impact on this resource, the benefits that the former derives from the latter, as well as responsibility for its condition and capacity to sustain it in the future. In the definition adopted for the study, social resources are understood as benefits that accrue to an individual/economic entity from the use of resources held by others (in particular, those not held by a given individual, but at the disposal of other individuals, companies or the state), to which the individual/economic entity can have access and with the aid of which they can realize his or her aspirations and dreams. In the adopted concept, societies that offer a wide range of social resources fairly easily accessible to individuals are more efficient and innovative, as well as offer a more favourable environment to enterprises.

Part Two outlines the most frequently used quantitative measures of corporate social responsibility, i.e. their capacity to fulfil social obligations. The tools can be divided into synthetic measures/indices, such as the KLD or FTSE4Good index, or databases such as Bloomberg ESG Data Service or Thomson Reuters ESG Research Data. The text summarises the methodology and criteria used for the ESG rating. The design and structure of these tools make it possible to identify the aspects of company operation to which investors currently pay particular attention. This is especially important from the perspective of SRI (socially responsible investment), which has become popular on the capital markets in the last twenty years.

Part Three presents an original concept of measuring social obligations in line with the concept of Firm-Idea. The accounting dilemmas are discussed from the perspective of conflicts with the basic accounting principle, namely the subjectivity principle. Next, individual stages of the accounting process in relation to social obligations are discussed. An important element of the proposal is the presentation of criteria for the identification and recognition of social obligations, as well as for

a quantitative measurement of their value. The proposed modification of the chart of accounts includes augmenting them with items representing social obligations and resources. The suggested modifications in the accounting approach should arise from changing the philosophy of thinking and acting in accordance with the concept of Firm-Idea. They should be consistent with the company's strategy and its positioning in the social structure. On the other hand, changes in accounting should force company managements to take a constant interest in its relationships with the key social resources of the local community.

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Bartłomiej Biga

The Possibility of replacing legal monopolies in the pharmaceutical sector with broad conditional access to intellectual property

Introduction

The rationale for the existence of a legal system to protect inventions based on temporary monopolies can only be perceived in a dynamic perspective. In static terms, restricting the dissemination of innovation from a social vantage point should be viewed as a decidedly negative phenomenon. However, the promise of exclusivity offered by intellectual property rights is intended to boost the incentives to engage in inventive activities by providing favourable and safe conditions for the dissemination of the effects of such work over a certain period of time.

It should be emphasised, however, that the promise of obtaining a patent is not the only motivation to innovate. Quite often, considerable importance is also attached to prestige or the opportunity to secure benefits thanks to business models which presuppose a wide dissemination of the invention, i.e. when the commercial potential is based on the prospect of selling complementary goods and services or on the network effect. It is also impossible to ignore such circumstances as the time advantage (which considerably benefits the innovator), or the positive impact of the leading edge on a number of intangible resources held by the company.

The dominance of the legal monopoly approach results from the inadequacies in the area of effective identification, universal measurement, and reliable valuation of intangible resources (Biga 2017, pp. 147–162). Patents, registered design or copyright understood as ‘all rights reserved’ are treated as default solutions, and for a number of enterprises it even constitutes the only strategy for effective monetisation of intellectual property. On the other hand, the approach promoted by the Open Eyes Economy considers this characteristic as an opportunity, a fuel driving company development, instead of wasting resources on an unwinnable battle against the immanent feature of intellectual property, i.e. the ease of copying. This means, however, that companies need to adopt a long-term perspective and be willing to reorganize the structure of their revenues in order to make the sale of complementary goods and services their main source, instead of activities which generate the greatest costs and are considered to be primary.

It cannot be denied, however, that despite the archaic nature of the traditional system of protecting inventions, in certain sectors the role of legal institutions – primarily patents – is still very important in the context of stimulating creativity. It is clear that the law continues to have a strong impact on changes that affect the socio-economic reality. Not only the pace of change, but also their quality will depend on the nature of patent protection. Specific solutions in the area of industrial property law may, for example, mitigate the general rule that ‘the winner takes it all.’ The exceptions to patent monopoly or the requirements to be complied with prior to launching a given product on the market will also impact on readiness to invest in a given sector.

The pharmaceutical industry – two contrasting values

In discussions about the shape of industrial property rights, the defenders of the current shape of the patent system most often cite the pharmaceutical sector. In their view, this area is particularly vulnerable to easy

unauthorized copying of inventions, which are created in an extremely time-consuming, costly, and economically risky process. The pharmaceutical industry is also the focus of ethical dilemmas. Therefore, despite the adoption of the economic perspective of legal analysis in this text, it cannot be allowed to be practiced in a purely efficiency-oriented form or to completely disregard the ethical considerations.

Reflections on the moral justification for the existence of intellectual property protection in the pharmaceutical industry always lead to contrasting two fundamental values – health and property. A good starting point for this discussion is offered by John Rawls’ views, who underscores the importance of fundamental freedoms – including the individual right to be healthy – which take precedence over secondary rights, such as property. It is based on a theory of justice that supports redistribution when elementary values are at stake. Rawls’ views are so categorical only with respect to medicines needed to treat the most serious diseases. In this context, e.g. limited access to analgesics is not considered immoral a priori.

On the other hand, Robert Nozick believes that the individual has a fundamental right to intellectual property and claims that s/he deserves extensive state protection in this respect. This belief is rooted in John Locke’s views, his understanding of property and ownership (Gewertz, Amado 2004, p. 295 &ff.). However, it must be remembered that the approach to intellectual property in terms of natural rights as based on Locke’s views is inappropriate since his theories of property rights essentially applied to land. Moreover, he identified two conditions that must be met in order to consider property right to be fair, i.e. an adequate amount of property must be left for other community members and the individual must not possess more than he is capable of using (Sterckx 2006).

According to Sigrud Sterckx, patents on pharmaceuticals in their present strong version cannot be defended on the grounds of natural law, the principle of equity, or even the concept of utilitarianism. However, on the basis of economic analysis of law, invoking other categories of arguments, patenting in this industry may be considered justified.

The specificity of the pharmaceutical industry

The pharmaceutical industry is one of three branches extensively drawing on technology, where the patent essentially equals the product (the other two are the chemical industry, including agriculture, and biotechnology) (Lehman 2013, p. 7). This fact contributes to the importance of intellectual property rights in these sectors, which is much greater than in other sectors of the economy, although intangible resources also play an increasingly important role in them.

Placing a medicinal product on the market is a long-term process. The identification of a disease ('therapeutic goal') is followed by the search for molecules that can modify the target biological processes ('therapeutic hits'). This stage, which takes 2–3 years to complete, leads to selecting several molecules from which a 'candidate drug' is selected. Next comes the pre-clinical research stage, including experiments on animals, followed by clinical trials. Only then can the product be registered and launched on the market. It should be noted that drug research is not very effective: only one in five molecules that made it to clinical trials in the 1990s was actually introduced on the market as a new drug. On the other hand, in 1990–2001, the average development time of a drug from the moment of assigning a code to a selected molecule to its placement on the market was eleven and a half years (du Vall 2008, pp. 353–354 and the literature quoted there).

Patent protection of medicinal products differs in several respects from the standard protection of inventions. First of all, there is the distinctive understanding of the criterion of novelty. Apart from cases where a chemical compound is not included in the state of the art, it is possible to patent a substance that has already been disclosed, but whose therapeutic use has not yet been established. Initially, a substance was eligible for protection only if no therapeutic use of the substance had previously been known, which was referred to as "the first medical use." It was not until the European Patent Convention was amended in 2000 that the second and subsequent medical applications became eligible for patent protection (ibid., pp. 344–348).

The other characteristic feature of the industry in question is the institution of authorised use, which may occur in two cases: 1) the exploitation of an invention in efforts aimed at introducing a generic¹ version of a drug, and 2) the extemporaneous preparation of a medicine in a pharmacy on a physician's prescription (Article 69(1)(5) of the Industrial Property Law Act). From the economic point of view, the aspect related to the placement of a generic medicine on the market, which, after the expiry of the patent protection, will directly compete with of the original medicine, is particularly important.

Without this exception, the duration of patent protection of the original medicine would be significantly longer in practice, since manufacturers expecting to develop an equivalent drug would be unable to use information on the original one in their application for marketing authorisation for their generic product. After all, the latter by its very nature has the same effect on the patient. This would delay the launch of generic drugs on the market – instead of occurring shortly after the expiry of the patent, it would happen much later. In this case, the formalities, although less complicated than in the case of a completely new drug, also take time, since according to procedure, the manufacturer must demonstrate not only the identity of the generic drug's composition² and form, but also the same bioavailability and identical pharmacological effect.

The conflict of interests between the manufacturers of original and generic drugs is obvious. This dispute became international – the expectations of the richer countries supporting the manufacturers of original drugs clearly opposed those voiced by developing countries, which pushed for expanding the use of generic drugs. A milestone in supporting manufacturers of substitute drugs was the Hatch–Waxman Act adopted in 1984 by the U.S. Congress in the wake of the well-known dispute between Roche Products Inc. and Bolar Pharmaceutical Co (733 F2d 856 Fed. Cir.

- 1 A generic drug is a replacement product that has the same active pharmaceutical ingredient as the drug that was originally developed and patented.
- 2 Generic drugs may contain other excipients, provided that they do not alter the properties of the original product and do not affect its efficacy.

1984). A similar regulation was also adopted by the European Union (du Vall 2008, pp. 350–352).

An important aspect of the cost–benefit balance of patent protection for medicinal products is the so-called data exclusivity, which derives from the belief that it would be unfair for generic drug manufacturers to use the results of tests submitted by the original applicants as part of the registration procedure.

However, this solution contradicts efficiency. There is no point in incurring research costs on a generic drug whose composition is the same as that of the original one, and it has the same clinical effect. It would be sufficient to provide proof of identity of the ingredients. This constitutes an example of unjustified implementation of the peculiarly understood idea of justice, which stands in blatant opposition to the overriding goal of saving human health and life. It is difficult to consider it fair to protect research findings in a way that requires them to be duplicated, which directly translates into slower innovation in the industry. Re-research does not offer any benefits in this respect; instead, it only generates costs. This, in turn, results in higher prices charged for generic drugs or less funding available for research into new drugs.

In the end, a compromise solution was adopted. The law grants to an entity that has obtained a marketing authorisation for an original drug a fixed period of time during which the manufacturer of a generic product may decide: 1) to undertake its own non-clinical and clinical studies (and to apply for marketing authorisation on their basis) or 2) to wait for a period specified by law and obtain the same authorisation after its expiry without the need to perform own research. Due to the research costs as well as its duration, generic drug manufacturers usually choose the latter option. Data exclusivity does not apply if at least 8 years have elapsed from the date of issuance of the first marketing authorisation for the reference medicinal product to the date of submission of the application for marketing authorisation of the equivalent (Article 15 of the Pharmaceutical Law of 6 September 2001; Journal of Laws of 2008, No. 45, item 271, as amended).

In the cost-benefit balance of the manufacturer of the original medicine, the pricing policy and the diffusion speed of substitutes are ex-

tremely important. Studies show (Magazzini et al. 2004), however, that these significantly differ by country. Systems based on market competition draw a clear distinction between companies that innovate and those that imitate after the expiry of the patent. Original manufacturers are guaranteed pricing freedom during the monopoly, which generates sufficiently high revenues, making it much easier for them to engage in price competition with generic manufacturers at a later stage. This facilitates the implementation of public policies considered to be effective, which at such a later stage encourage price competition and thus the diffusion of medicines. This model is being implemented, among others, in the United States. The opposite is the case with systems based on administratively set prices, e.g. in France. There, the benefits of the originator are limited by administrative price regulations (ibid., 2004).

The very time-consuming process of developing and registering a new drug, usually lasting several years, justifies yet another regulation in patent law in this sector. It is possible to obtain an Supplementary Protection Certificate (SPC), a form of extended patent protection. The certificate becomes effective upon expiry of the term of the original patent and covers a period of time equal to that which elapsed between the date of filing an application for the original patent and the date of the marketing authorisation less 5 years, but in no case may it exceed 5 years.

Thus, although formally speaking, the total term of protection for a product is 25 years (20 years patent protection plus 5 years granted by the supplementary protection certificate), in fact, it does not exceed 15 years. For example, if the marketing authorisation period is 6 years, the SPC then totals $6 - 5 = 1$ year. That is to say, the combined term of protection totals 21 years. However, since the marketing authorisation period was set at 6 years, the actual length of protection was $21 - 6 = 15$ years. If the term of protection was 5 years, there is no SPC at all, because $5 - 5 = 0$. Consequently, in this case the actual term of protection of the product will amount to $20 - 5 = 15$ years. In exceptional cases, the actual length of protection may even be less than 15 years, which happens when the period of authorisation exceeds 10 years. For example, if the last specified period was 12 years, then the SPC would be in force for the

maximum permissible period, i.e. 5 years. As a consequence, the actual term of protection of an invention would be 20 years (patent) + 5 years (SPC) = 25 years. However, since it was not possible to exploit the invention economically for 12 years, the actual length of protection will amount to $25 - 12 = 13$ years: $25 - 12 = 13$ years. The above calculations prove that, contrary to appearances, medicinal products are invariably protected for much shorter periods of time than the standard term of patent protection (ibid. 2004).

Public policy challenges

In fact, the search for optimal public policies in the area in question comes down to attempts to answer the question of what kinds of regulations can reconcile or balance moral responsibility for health in global terms with intellectual property protection sufficient to guarantee further research and hence development. In other words, Rawlsian emphasis on the right to health encounters practical limitations to its implementation in comparison with purely economic rules. On the one hand, the enactment of its demands would make it impossible for the pharmaceutical industry to operate properly. On the other, however, if the legal system were to draw heavily on Nozick's views, it could have tragic consequences in the face of such pandemics as AIDS. At present, such a policy has been largely implemented based on the TRIPS agreement. Among others, economic sanctions have been imposed on certain countries (Brazil, India) for the introduction of compulsory licensing of anti-HIV drugs (Gewertz, Amado 2004, p. 305). However, subsequent discussions in the World Trade Organisation resulted in this policy being relaxed.

It appears that the only solution would be for governments and global health organisations to take greater responsibility themselves, including the risks associated with the research into and production of drugs to treat the most serious diseases, in particular by co-financing clinical trials, manufacturing, and distribution processes. This would make it possible to mitigate the regime of intellectual property protection without de-

priving the pharmaceutical companies of their ability to operate (cf. the context of transformations and functioning of nation states, taking into account economic and social changes, which affected various aspects of contemporary state activity in the global order; Możdżeń 2016, pp. 93–116).

Such a model would also relieve the main problem related to the implementation of the idea of distributive justice, i.e. the lack of financial security for costly initiatives. Moreover, the proposed financing system would also generate significant advantages for governments, which in effect could lower the costs of health care programmes, such as Medicare. Besides, investment in R&D in the public sector strongly correlates with increased private sector expenditure. Data collected by the European Commission (European Commission 2002) reveal that each US dollar invested by the public sector in R&D stimulates 2.26 dollars' worth of spending in the private sector (cf. Gewertz, Amado 2004, p. 306). Naturally, such relationship is not universally present, since state expenditure often competes with private one, which leads to increasing researchers' salaries (especially in higher education) or reduces their willingness to achieve own research goals.

From a purely theoretical point of view, we may also consider the geographical diversification of the intellectual property rights regime in the pharmaceutical industry. There is no doubt that the interests of rich countries, which generally represent the original drug manufacturers, versus developing countries, whose objectives coincide with those of generic drug manufacturers, stand in conflict. To put it very simply, it is a clash between the North and the South. There is no denying that even if poor countries respect the international intellectual property standards, they still constitute a very small potential market for expensive original medicines. Therefore, facilitating the diffusion of generic medicines in Third World countries by shortening patent protection and streamlining the procedures permitting the production of substitutes may be a good solution, all the more so because the citizens of those countries much more often fall victim to the epidemics of the most deadly diseases.

Such a solution would not pose a significant threat to the manufacturers of original medicinal products. North America, Europe and

Japan account for 80% of the world medicine market, where the latter expect to generate revenues. Even though the US authorities fear that inexpensive substitutes could be smuggled into their country, this argument is not decisive since highly developed countries can effectively defend their borders. Moreover, rich consumers from London, Paris or New York would have a limited interest in black-market medications (Sterckx 2004, p. 73).

In practice, however, such a diversification would be impossible to achieve due to the competitive nature of international relations. Countries and companies form coalitions – companies aim to accumulate capital, whereas countries aim to locate such accumulation at home and force companies to share the profits. The way this system works makes it difficult to achieve a compromise given the opposing aspirations of poor and rich countries. The aim is to accumulate, even at the expense of the poor.

Naturally, the innovation potential of developing countries should not be discounted. For example India's Council for Scientific and Industrial Research (CSIR) introduced an aggressive programme to commercialise the research of scientists working in its laboratories. The aim was to quickly identify useful inventions and patent them not only in India, but also in other markets, such as the United States.³ Numerous patents involve medicinal products developed using traditional knowledge and India's local ecosystem. One of the greatest successes proved to be Asmon, a multi-herbal medication to relieve the symptoms of bronchial asthma. In India, the drug is available at a price affordable to most patients. Similar commercialisation attempts are being made with regard to leprosy, HIV, and cancer drugs. These projects are being developed through a partnership between CSIR and private Indian pharmaceutical companies, such as Cadila Pharmaceuticals Limited (Lehman 2003, p. 13).

Another example is Brazil, where the São Paulo authorities allocate 1% of tax revenue to support public R&D activities. (It should be mentioned that São Paulo alone generates 32% of GDP of this world's ninth largest

economy⁴). Initially, this investment did not translate into a commercialisation of specific medicines. It is hardly surprising, however, since not long ago Brazil did not ensure any patent protection at all for inventions related to human health (ibid., p. 13). It can be assumed that over time this country will see effects similar to those noted in India.

To remain in the context of developing countries, it is hard to believe that ensuring more robust legal protection of intellectual property will benefit them in terms of knowledge and technology transfer from the global corporations, which are unwilling to enter such markets without sufficient safeguards. If we look more closely at these assurances, such a mechanism is unlikely to actually work. Firstly, simple, traditional process-based medicines and indigenous plants are available in these countries anyway. Secondly, the medicines that require sophisticated technologies are not usually manufactured in developing countries due to technological constraints. Moreover, the high price of these medicines in relation to local purchasing power will mean that they will remain beyond the reach of the majority of citizens of developing countries (Sterckx 2004, p. 69).

It is also worth mentioning an interesting provision adopted in 1983 by the US Congress as part of the Orphan Drug Act. The regulation was supposed to provide at least a partial solution to the problem of insufficient benefits for the inventor of a medicine under standard patent protection due to the rarity of the disease, which translates into a low potential demand. The term *orphan drug* was defined as referring to diseases or conditions affecting fewer than 200,000 people in the US. Under the Act, manufacturers of orphan drugs have been granted tax credits for the costs of clinical trials and other subsidies to cover the manufacturing costs of these agents. Additionally, manufacturers were granted exclusivity for seven years, i.e. no alternative medicines with a different chemical composition were authorised during this period. This exclusivity could

³ In the USA, CSIR obtained 6 patents in 1991, and as many as 145 patents in 2002.

⁴ In his text John B. Lehman refers to Brazil as the world's tenth economy, but in 2015 the country, with a GDP of USD 1,772,589 million, was ninth in this list.

be revoked if a given entity did not provide patients with the medicine or stopped manufacturing it (Cooter, Ulen 2011, pp. 157–158).

The Act achieved its planned objective. In the 20 years before 1983, only ten orphan drugs were authorised, but in the first 15 years after the adoption of the new regulations, the number of such drugs on the market increased fivefold, while the number of other medicines only doubled. In 1993, an amendment was passed which allowed for the patenting of a second and third orphan drug used to treat the same disease, provided that it was better than the original one under strictly defined clinical terms (ibid., pp. 157–158).

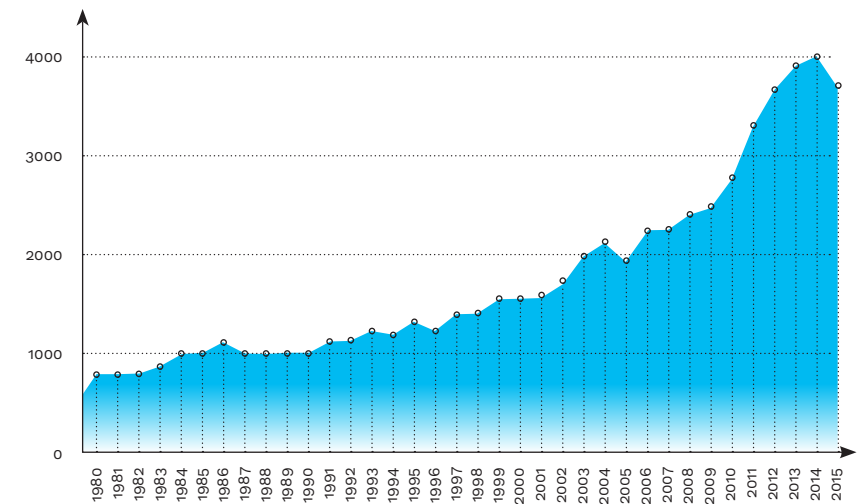
Summary

To summarise, an optimal patent policy in the pharmaceutical sector from the social perspective must involve a compromise between Rawls' and Nozick's approaches. Only then will this sector be sufficiently stimulated to innovate, while a rigid understanding of exclusive rights will not render it inhumane or defenceless in the face of the most serious health threats.

Despite the numerous doubts raised in this text, it should be emphasised that patenting as an institution in the pharmaceutical sector operates much better than in other sectors. The growing importance of this area in social and economic reality does not, in fact, permit giving up patent protection of inventions. Therefore, such proposals can only remain intellectual experiments intended to make it easier to identify the areas where industrial property protection may be reduced since it does not generate tangible benefits.

Pharmaceutical companies can hardly be expected to acquiesce to a decline in their strong position rooted in the law. In order to achieve social goals, it is therefore necessary to search for new (and to improve the existing) mechanisms to make patent protection more flexible, which will not contravene its essence. The very core of such protection of inventions in this sector, in general works well.

Graph 1. Number of pharmaceutical patents granted worldwide



Source: WIPO Statistics Database.

Interchangeability is a particularly prominent feature of the pharmaceutical industry. On the one hand, the legal system of protecting inventions encourages innovation and disclosure of discoveries, yet on the other, the positive effect of these phenomena is limited by strong restrictions placed on access to new solutions. The patent system keeps the prices of individual medicinal products at unnaturally high levels for a number of years. It is estimated that the implementation of the TRIPS agreement in developing countries has led to an increase in drug prices by 200–300% (Watal 2018). The dilemmas that arise in this area are indeed questions concerning the costs that societies are willing to bear in order to catalyse positive changes – in this case innovations in the pharmaceutical industry.

As a result, the adoption of the approach to intellectual property management recommended by the Open Eyes Economy movement, which advocates limitations on the use of legal monopolies in favour of wide

conditional access, faces serious constraints in the case of the pharmaceutical sector. This proves that the tools described in the targeted diffusion concept must be tailored to the specific features of individual industries. Naturally, it should not be taken to imply that patents offer the only effective tool in the pharmaceutical sector. For example, a number of drugs, such as Aspirin, which, even after the expiry of exclusive rights and despite the availability of cheaper substitutes, still dominates the market. Their position is mainly due to the appeal of their trademarks.

Moreover, to a certain extent strategies based on defensive publications can be used instead of patenting. Although such an approach is characteristic of the IT sector, it can also be exploited to extend the protection of a previously patented innovation in the pharmaceutical sector. Defensive publications describing solutions similar to the original patented invention effectively discourage imitation. None of the potential imitators can build their competitive advantage over other imitators on such a solution, since once it has been described in a defensive publication, it ceases to meet the criterion of novelty and no one can patent it.

For these reasons, overcoming the dominant approach to managing intangible assets, which places legal monopolies at the core, cannot begin with the pharmaceutical industry. In this area, it would be difficult to find economic justification for taking bottom-up actions to that effect (even in a long-term perspective characteristic of the Company-Idea). This does not imply, however, that a certain kind of openness cannot be introduced via public policies, since those related to health care consume huge amounts of money, a large proportion of which represents the cost of purchasing medicinal products. A more active state policy, i.e. investing in the development of new drugs, would offer public authorities an opportunity to control the pharmaceutical part of intellectual property, and allow them to reduce the costs of health care programmes in the long term.

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Proposal of a new method for formulating patent claims

Introduction

This article presents a new method for formulating patent claims called the ssm (Strictly Syntax Method) and explains the idea behind it as well as its properties. The descriptive part of this paper focuses mainly on the logic of patent claims, offers a brief introduction to mathematical logic and set theory, including Venn diagrams, and relevant aspects of patenting rules. This method was the subject of a doctoral dissertation defended by the author at the Warsaw School of Economics.

Work on the new method of patent claim preparation and on patent descriptions is still in progress, although at the moment, it focuses mainly on its proper management, both at the implementation stage and once it has been fully commercialised. ssm-dedicated software is also being developed. These issues will be discussed in more detail later in this article, after the ssm system and its proposed modifications have been outlined. Next, the author analyses the possible stakeholders' behaviour in the process of implementing the method in question. The article concludes with an overview of the institutional aspects of the use and dissemination of the modified ssm system.

The origin and properties of the SSM system

The new method was developed in the course of intensive research conducted between 1988 and 2010 carried out in several countries, including Sweden (Atlas Copco, law journals, etc.), Switzerland (Rolex, Patek Philippe, Swiss Science Academy, Patent Office, law journals, etc.), the United Kingdom (Ricardo), Germany (Bosch, University of Braunschweig). In Poland, the inquiries were conducted in cooperation with the Polish Patent Office (UPRP), the Polish Chamber of Patent Attorneys (PIRP) and the Institute of Technology Transfer of the University of Warsaw. As a result, a clear picture of the issue in question began to emerge.

At the time, all the institutions and companies mentioned above were trying to develop a method for examining and formulating patent claims based on mathematical logic and set theory, although, in a number of publications, the latter was discreetly omitted. To date, a number of in-depth studies have been produced on this subject, yet most of them exist only as publications which have never been applied in practice (such as those authored by M. Gagnon – *Logique descriptive et owl*, M.J. Shih – *Patent classification using ontology – based patent network analysis*, M. Giereth, S. Koch, Y. Kompatsiaris, S. Papadopoulos, E.E. Pianta, L. Serafini i L. Wanner – *A Modular Framework for Ontology – based Representation of Patent Information* czy J.Y. Béziau – *Le Château de la Quantification et ses Fantômes Démasqués*). The reason is that the above-mentioned authors failed to address certain details important for correctly formulating a verbal message. By way of justification, it should be mentioned that these missing details concern not only mathematical logic, but also set theory using Venn diagrams. In order to build a correct model for analysing and formulating patent claims, it is necessary to partially extend (modify) set theory by adding certain new operations, which will be explained later. Without these modifications, it would have been impossible to develop a properly operating system.

The starting point was the question why patent claims are so often open to challenge by competitors, and in the event that the defendant emerges from the proceedings unscathed, the litigation itself in numerous

cases takes a very long time. After a careful analysis, it was found that the reason was the way in which the sentence that constituted the patent claim was phrased. According to the current regulations, such claims must be expressed in a single sentence, even if it is very long (stylistic considerations are of secondary import in this case). As was already said, patent regulations do not specify whether it is supposed to be a sentence function (*open sentence*) or a sentence variable (*atomic formula*). After preliminary research, it was found that a significant proportion of patent documents is expressed using sentence functions. If a given statement is expressed by a sentence function, in certain cases it may be unambiguous, although quite often it is not.

A patent claim must be expressed using exactly one sentence variable

In order to avoid any misunderstandings, it should be remembered that a sentence variable, also called a sentence in the logical sense, expresses exactly one and only one thought. If a given sentence contains more than one thought, even if it repeats exactly the same thought, it automatically becomes a sentence function (*open sentence*), also called a sentence in the grammatical sense. For the sake of clarity, patent law allows for patent claims to be expressed using a sentence function, requiring only that the sentence be unambiguous. This should be considered inappropriate, since any sentence formulated using a sentence function contains at least two sentence variables (*atomic formulas*). If both sentence variables express the same idea, albeit in a slightly different way, their structures automatically become incorrect from the grammatical point of view. However, if they contain two different thoughts, they are ambiguous, although in most cases the ambiguities remain hidden and usually very difficult to detect by people who analyse it. What follows from this analysis is that if a sentence is to be unambiguous, it must be expressed using a sentence variable, which is proof of the acceptance of the principal hypothesis under the relevant provisions of the patent law.

The main hypothesis implies the following partial hypotheses, which are called conclusions in this article.

Conclusion #1

The application of the ssm system for formulating patent claims will reduce the losses caused by litigation concerning the intellectual property rights. Any competitor planning to challenge the intellectual property on which the defendant's business activity is based, begins by carefully and thoroughly examining the wording of the invention, focusing on any weaknesses in the patent claim. The more such shortcomings are found, the easier it is for the lawyers to argue their case in favour of the competitor. The purpose of such activity is to protract litigation for as long as possible (even for several years), since at that time, the production activity of the defendant entity becomes limited or even stopped, resulting in financial losses for the company, loss of market position and damage to its reputation. It should be made clear that, in the eyes of the law, such conduct by the contesting party is perfectly legitimate. However, if patent claims are built using the ssm system, even a very good lawyer will be incapable of continuing the trial for more than three sessions, and thus the financial benefits obtained by interfering with the defendant's production activities may not suffice to cover the costs of a usually expensive court hearing.

Conclusion #2

This conclusion is largely speculative and is based on human behaviour. The ssm system may facilitate the drafting of a patent claim in such a way that it can be filed with a selected patent attorney. The better quality of the documentation, the lower the costs of using the latter's services. At present, a number of inventors refrain from patenting their inventions owing to the relatively high costs and the complicated procedures involved in drafting an application. The ssm system can largely remove this barrier.

Conclusion #3

To a considerable extent, it draws on partial hypothesis #2. Quite often, both natural persons and legal persons decide not to seek patent protection for their projects in their home countries and transfer it elsewhere. An important factor behind their decision is the fear that local competitors will challenge the project and its financial consequences. The ssm system minimises such a risk.

Conclusion #4

The ssm system will make the job of the patent attorneys easier. This statement may be somewhat controversial, depending on the adopted point of view. Patent attorneys are not interested in shorter working hours, since it will likely translate into a substantial drop in their income, although if a patent application has been formulated using the ssm system and is subsequently challenged in court, they will find it both easier and more effective to argue their case in court. If the ssm system becomes more widely implemented, the financial losses sustained by the patent attorneys may be compensated for by increasing their hourly rates.

Conclusion #5

The examination of existing patent applications with respect to claims will be greatly facilitated. It should be noted that patent applications are mainly examined by three groups of entities:

1. The patent attorneys.
2. Examiners at patent offices.
3. Professionals employed by economic operators seeking to invalidate a given patent application or its selected patent claims.

Cases 1 and 2 do not require any special comment, but case 3 is interesting. It can be treated as a reversal of the partial hypothesis or conclusion #1.

A business entity with a well-functioning and efficient technology transfer department may seek to challenge a competing business with a view to removing it from the market for a period of time. The procedure is the same as that described in conclusion #1 with the only difference that here the roles are reversed. If the patent claims of the patent application relied upon by the defendant are not based on the SSM system, a good lawyer of the complainant may protract the trial, with appropriate advantages accruing to the latter.

Legislation clearly states that a patent claim must be expressed unequivocally, but specialists who produce this kind of documents very often unintentionally introduce into it certain ambiguities, which are usually deeply camouflaged. Having found the reason for these irregularities, another question arose: how can they be prevented? At this stage, it was necessary to examine whether any work was being carried out to that end and if so, what its nature was. The existing publications that addressed the issue in depth were examined (see, for example, D.R. Liu – *Patent classification using ontology – based patent network analysis*). The conclusion of the study was unequivocal. The authors of all these publications applied mathematical logic, while few also made use of set theory.

The next question was why these works never found their practical application. Answering it took some time and a thorough analysis not only of the existing publications, but also of the existing patent applications in WIPO's archives. The comprehensive analysis resulted in the following conclusions.

1. The new method should be based not only on mathematical logic, as is the case in most existing publications, but also on set theory using Venn diagrams. The analysis of the existing publications revealed that not a single one used Venn diagrams in conjunction with mathematical logic.
2. In most cases, the elements of these sets are of an intangible nature (syntax) and cannot be rationally treated as tangible ones (semantics), as is the case where the sets are composed of elements such as numbers or events. For the sake of clarity, the authors who also applied set theory in the above-mentioned publications treated the sets of intangible elements in exactly the same way as they treated the sets of tangible ones. Such an

approach yield good results in a number of areas, but in this context, it may lead to false conclusions, which is why it has never been put into practice.

3. In order to be able to properly handle the sets whose elements are not only intangible by nature, but also cannot in any way be treated as tangible elements, the existing set theory should be expanded by introducing a new operation known as “exclusive union” or “symmetric difference.” New concepts have also been introduced, such as the confounding component/element. When modifying a given theory, it is necessary to introduce new terms and definitions, which will be done here.

In order to be able to apply this method correctly to relevant cases, for example when developing dedicated computer software to support the system, one should also draw on selected areas of mathematical analysis.¹ The development of a new method or theory usually represents the easier part of the work. Difficulties begin to emerge when the hypotheses are tested and when a given invention or a new method is being implemented in practice. Following the completion of largely analytical work, the testing of the new method was commenced, which was simultaneously carried out in three ways.

1. Examination of the existing patent applications in the WIPO archives in terms of their accuracy and incontrovertibility. Between 2004 and 2009, during cooperation with the API (Association pour le Patrimoine Industriel) in Geneva, the author assisted young inventors in preparing the descriptions of inventions and proposals of patent claims to be submitted to patent attorneys, approximately two thousand applications were analysed. Nearly 30% of those claims were found to contain logical irregularities in their structure. Patent law specialists were consulted on these findings.
2. Formulating mock patent applications, where the description of an invention was used to generate patent claims in accordance with the regimes of the new method.

¹ The following references were used: A.Ф. Бермант, Курс математического анализа, Moscow 1951; P.W. Zehna and R.L. Johnson, *Elements of set theory*, Boston 1975; A. Grzegorzcyk, *Zarys logiki matematycznej*, Warsaw 1969; T. Traczyk, *Wstęp do teorii algebr Boole’a*, Warsaw 1970; K. Kuratowski, *Wstęp do teorii mnogości i topologii*, Warsaw 1972.

3. Consultations with legal and patent specialists. In the discussions, a thorough morphology of the new system was produced, drawing on a point-by-point analysis. The consultants included reputable patent attorneys, representatives of patent offices and legal institutions in several of the countries mentioned previously as well as specialists in this field from the Swiss Academy of Sciences.

Venn diagrams

Any discussion of the new system should begin with the introduction and explanation of the concept of Venn diagrams. These diagrams are graphical representations of sets and the relationships among them. Figures 1a–1d below illustrate four different relationships between two sets.

Fig. 1a. A and B are disjoint sets

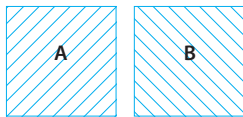


Fig. 1b. Intersecting sets A and B have a common part

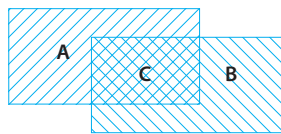


Fig. 1c. Set A includes set B

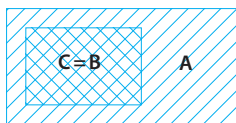
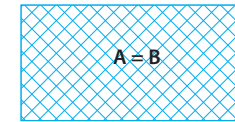


Fig. 1d. Sets A and B coincide



The drawings reproduced above are Venn diagrams, although the space in which they are located remains unspecified. In most cases, however, it is important to specify such a space. A brief analysis of certain characteristic features of the sets to be found in Venn diagrams follows below:

1. A fairly precise definition of space in which the sets in question are located. This is important in the case of applying these diagrams in a logical way, especially when the elements of the sets are intangible.
2. A good understanding of what the elements of the sets in question are. To be more precise, one must specify whether they are of a tangible (semantic) or intangible (syntax) nature. The numerical sets or events can be treated in the same way as sets of material elements; however, it is always necessary to ascertain what the given numbers actually represent as well as what is conveyed by a given event.

In logic, the space in which the sets are to be found is usually limited. If the characteristics of the space in question do not imply that it is limited, a certain subspace is selected from it, bearing in mind only that it should contain all the sets in question. In logic, such space is usually the time or place where the events of interest occur. These events, or their selected packets, constitute specific sets in this space. In logic, such elements, depending on the adopted division, include both the sentence variables and sentence functions. Most often, however, sentence functions in a given set should be factorised, which in this case are sentence variables. It is not without reason that the term ‘factorise’ is used here to refer to the sentence variable. If a given sentence variable can be broken down into simpler factors, it is not a sentence variable, but remains a sentence function. In the case of Venn diagrams in logic, the elements of the sets will usually be intangible in nature. Intangible elements are events such as actions

performed by physical objects or persons. Within the non-material elements, the following two groups may be distinguished:

1. Intangible elements which, after the adoption of certain assumptions, can be treated in the same way as tangible elements, such as numbers or events.
2. Intangible elements which can in no way be treated in the same way as tangible elements. For example, the relationships that hold between specific subjects or objects, certain physical patterns in technology, or certain administrative relationships. What is important here is that these relationships cannot be represented as a specific sequences of events. Nevertheless, they still constitute the elements of the analysed sets.

Table 1. Two different notations of alternative exclusive

| p | q | $(p \vee q) \wedge [\sim (p \wedge q)]$ | $p \otimes q$ |
|---|---|---|---------------|
| 0 | 0 | 0 | 0 |
| 0 | 1 | 1 | 1 |
| 1 | 0 | 1 | 1 |
| 1 | 1 | 0 | 0 |

Source: Own study.

When building the Venn diagrams, the existing models are not used; instead, they are built according to specific verbal regulations, and they are generalised on the basis of verbal texts containing information relevant for the message. Once the space and the sets contained in it have been selected, the resulting diagram may contain a number of important pieces of information for the potential recipient, yet despite its logical correctness, it may be insufficiently intelligible and hence useless as a means of information transfer. By applying the fundamental laws of logic, it is possible to attempt to build other logical records. The problem of errors does not arise, since the emerging description can be checked

at any time by replacing the variables with sentences to which they have been assigned. If the resulting text does not contain gaps or repetitive information of the same kind, and if it also provides a clear description of the implementation of the invention, it means that it has been formulated correctly. The notation using alternative exclusive has the following equivalent representation without using the symbol.

$$(p \otimes q) \Leftrightarrow \{(p \vee q) \wedge [\sim (p \wedge q)]\}$$

The validity of this notation can be checked by using table 1 above, where zero represents an untrue event, whereas one stands for a true event. A certain new symbol has also been introduced – the symbol of the exclusive union or the symbol of the symmetric difference for the sets, represented by \sqcup . Using this symbol, the following definition (*) of the new operation can be written as:

$$[q \in (A \sqcup B)] \Leftrightarrow [(q \in A) \otimes (q \in B)]$$

Further analysis requires a detailed discussion of the new operation on sets and its properties. This operation is introduced in order to allow a proper handling of sets whose components are intangible (syntax). These elements should not be treated in the same way as tangible ones (semantics) or as numbers/events. Apart from the new operation, certain new terms and laws associated with them were also introduced. This particular modification of set theory is based mainly on the operation in mathematical logic called alternative exclusive. In set theory, each operation (each action) has its counterpart in mathematical logic, for example, the union of sets corresponds to the alternative, and the product of sets corresponds to the conjunction, and so on. However, there are two operations without their counterparts in set theory or in mathematical logic. These are the subtraction of sets in set theory, which can be expressed in logic by a combination of the logical symbols of sum and conjunction, whereas in mathematical logic it is the logical symbol of alternative exclusive, which has no equivalent in set theory; and in the case of sets having elements

that cannot be treated as material ones, it cannot be expressed by any combination of operations used in set theory. This explains the need for a new operation in set theory. Tables 2 and 3 show both notations for mathematical logic and set theory.

Table 2. The notation of alternative exclusive in logic

$$(p \otimes q) \Leftrightarrow \{(p \vee q) \wedge [\sim(p \wedge q)]\}$$

Table 3. The notation of symmetric difference in set theory

$$[q \in (A \cup B)] \Leftrightarrow [(q \in A) \otimes (q \in B)]$$

The notation presented above represents at the same time the definition of the new operation, where q is the element of the set resulting from the exclusive sum of sets A and B . In order to present the new operation using only the sets and the previously known operations on them, the notations above should be analysed. The truth value of the notation of exclusive disjunction using other symbols has already been demonstrated, hence it can be concluded that the notation of the exclusive sum presented in Table 3 is also true. In order to thoroughly analyse the truthfulness of the above notation (\otimes), one must draw on the definition of the exclusive sum provided below.

The result of the exclusive sum of two sets A and B is only that part of set A that contains the elements of set A , but not the elements of set B , or only that part of set B that contains the elements of set B , but not the elements of set A . Any other combination of sets A and B is considered untrue.

At the same time, the analysis reveals the uniqueness of the new operation. The following three laws apply to the exclusive sum/exclusionary aggregate:

The law of commutation:

$$(A \cup B) = (B \cup A)$$

The law of distribution with respect to exclusive sum:

$$[C \cap (A \cup B)] = [(C \cap A) \cup (C \cap B)]$$

The law of association for exclusive sum:

$$[A \cup (B \cup C)] = [(A \cup B) \cup C]$$

Besides, the operation also exhibits two following properties:

$$A = B \Rightarrow [(B \cup A) = \emptyset]$$

$$(A \cup A') = [(A' - A) \cup (A - A')]$$

The properties highlighted here can be used to check the validity of a patent claim being formulated or to examine an existing one. The term 'validity check' is used here to describe whether the sentences formulated in this way are sentences in the logical sense. In order to properly understand the meaning of the definitions and the given properties more fully, one should go back to Fig. 1a–d, where Venn diagrams for two sets A and B are shown complete with detailed explanations. In Fig. 1b, sets A and B have a certain part in common, which is marked as set C . The product of exclusive sum of sets A and B is only set A minus set C or only set B minus set C , as shown by formula (#6). Set C in Fig. 1b is called the confounding component/element.

$$(A \cup B) = [(A - C) \cup (B - C)]$$

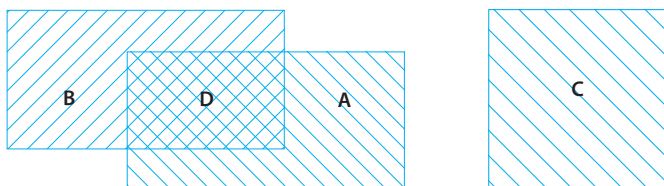
or

$$[q \in (A \cup B)] \Rightarrow \{[q \in (A - C)] \otimes [q \in (B - C)]\}$$

If sets A and B overlap, as shown in Fig. 1d, then the product of the exclusive sum is an empty set. If set B is included in set A , as shown in Fig. 1c, the product of the exclusive sum is set A less set B . Both cases are presented as the properties of the exclusive sum (#4) and (#5). In Fig. 1a,

sets A and B are disjoint. In this case, the product of the exclusive sum is either only set A, or only set B only.

Fig. 2. Three sets, one of which is disjoint from the others



Now the question is how to proceed in the case illustrated in Fig. 2? At the outset, it should be noted that the product of these three sets is an empty set, cf. formula (#7).

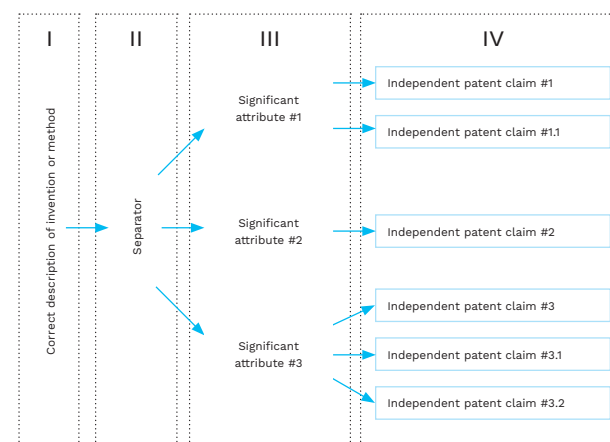
$$(A \cap B \cap C) = \emptyset$$

This formula does not imply whether all three sets are disjoint or some of them may have a common part. What is only certain is that at least one set is disjoint from one of the others. The exclusive disjunction for three or more events is becoming an increasingly complex expression. It is used, amongst others, in certain kinds of computer software, such as parity check, and in cryptography. The exclusive union for a larger number of sets will also become more complicated, together with more extended Venn diagrams, which resemble pyramids. In order to simplify this method, individual sets should be considered in pairs, and then the resulting pairs should be analysed by successively moving from the upper to the lower part of the pyramid. The result will be the same, but can be achieved in a less complicated and time-consuming way. In the case of patent claims, with the exception of applications in the field of chemistry or medicine, the number of sets examined is usually not too large. The best solution would be to use dedicated SSM software. More information about such software follows.

Proposed modifications of the SSM system

The principle of operation of the SSM system is shown in the block diagram in Figure 3.

Fig. 3. Block diagram for formulating patent claims



Block # I: Description of an invention or method correctly compiled in accordance with the requirements of the SSM system.

Block # II: Separation and extraction of significant attributes from the description of the invention.

Block # III: Analysis of the attributes of an invention or method extracted from their description. Characteristic attributes #1 and #3 are sentence functions, while attribute #2 is a sentence variable.

Block # IV: Patent claims built with significant attributes extracted from the description of the invention or method.

Clearly, the material discussed above is challenging for the average user, which also applies to most patent attorneys, the main group of intended users of the new system. They will not be interested in learning how to operate it, preferring to continue using the current procedures due to lack of time. Preparing a simplified manual may be an option, but it will not solve the main problem, which is the lack of a good working knowledge

of mathematical logic and set theory amongst the potential users of this method. Taking this into account, certain remedial measures have been taken, which include both modifying the SSM system and developing structures to allow it to be used in a simpler, more accessible and comprehensible way. The optimal way to access the new system for a wide range of users is to write dedicated software to permit those who do not need to study mathematical logic in depth to use the SSM system. Similar computer software exists for accountants as well as for certain administrative departments. Taking this into account, when the SSM system was being developed, studies were initiated on the possibility of developing the software to support the system in cooperation with SATW, and from 2013 on, WIPO became partly involved in the project. At present, the so called text vectorisation (i.e. a correctly prepared description of an invention; see J. Sievering – *Integrated patent editing environment*) is being carried out. The software under construction analyses the text (in English) using a text processor and a grammar check. The spelling correction is not used at this stage, since it does not play a major role in the process and may itself generate uncontrolled misrepresentations. The system analyses the texts drawing on patent claims databases in which the combinations of technical descriptions and significant attributes may yield new significant attributes. At this stage (Block III in Figure 3), the sentences can still be sentence functions. The next step involves the generation of patent claims (Block IV in Figure 3) from the significant attributes thus construed. To all intents and purposes, at present, this kind of software is available only to IT specialists who have appropriate software at their disposal. In order to be accessible to the average user, it needs to be compiled, i.e. a bridge built between the software and its potential user. Developing a compiler as well as editing Block IV and partly Block III properly is a task for an analyst programmer.

Every invention or new method ages over time and if no modifications are made to it, there is a high risk that it could disappear from the market or be taken over by competitors. The same applies to the SSM system. It is currently being developed and for this reason it is likely to contain a number of shortcomings or errors which will start to surface once it has been launched on the market. These flaws must be rectified successively as and

when they occur. When developing new computer software or modifying it later, it may prove to be necessary to embed other existing computer programmes in it. It is already known that the existing text processors will have to be used. Discussions are currently under way on the choice of the right manufacturer and on the terms and conditions. Developing certain kinds of software would be completely unjustified from the economic point of view. Finally, it should be noted that Tom Gruber's publication (*Ontology* from 2007) was very helpful in the development of the new method. Due to the constraints of space in this article, it is listed only in the Bibliography. Remarks made in this publication may aid in the understanding and proper interpretation of the new method of formulating patent claims.

Methods for estimating the costs, benefits and risks associated with the operation of the new method for formulating patent claims

At the outset, it should be made clear that the SSM system constitutes the intellectual property of the author of this article. The objectified form of the system consists of a full documentation of its operation and the software being written. While the former still belongs to the author, the latter will belong to the entities that fund its development. The question is whether it is possible to patent it. Due to its certain distinctive features, it would be extremely difficult to patent, moreover, a certain conflict of interests would arise. It is easy to discover it by asking who is to be the patent attorney and who will examine it at the patent office. The only patentable part is the computer software, which will be patented before it has been completed. In the case of the SSM system itself, copyright protection, which is currently being sought, is the only possible option.

Following these preliminary clarifications, the methods for estimating the costs, benefits and risks associated with the new method of formulating patent claims can be defined. As with any invention or new method, the costs and risks should be clearly separated at the development stage and during implementation as well as the administration costs afterwards,

as well as risks inherent in the administration. The product is highly complicated and therefore the costs of its implementation may be fairly substantial. The risk involves losing the right to receive royalties on the product if the contract is not properly drafted.

1. Currently, the ssm system has not been commercialised yet, and apart from a group of potential users who are enthusiastic about this project, there are no other objective indicators as to the possible response of the market. In order to obtain more complete information, it is necessary to create a network of service points operating the system. This entails initial outlays, which may not be recouped if the product fails to gain popularity as originally intended. Conversely, the market response turns out to be positive, it will give the green light to the final work on the dedicated software. The latter stage will entail much higher costs than those associated with creating the network of service points. However, the risk will be lower given that the product will have already been accepted by the end-users. At the moment, it is difficult to determine the amount of funding necessary to commercialise the product in both its manual and computerised versions. An important factor in the cost estimations will be the attitude of potential users to the application of the new method. Two groups of those have been identified, which are discussed below.
2. The first group consists of natural or legal persons preparing patent applications in the form in which it is to be filed with the selected patent attorney. The advantage of the new system is that the application formulated using the new method will significantly reduce the working time of the patent attorney, which will reduce the costs, although it should be noted that the user will have to be assisted by the ssm administration offices when writing the application or acquire the rights to use the system. This entails additional costs, although, taking into account the costs of the services of the patent attorneys, the balance will prove advantageous to the users of this method. Account should also be taken of the fact that notifications made using the new method will be more difficult for competitors to challenge, which will reduce the possible litigation costs.
3. The second group are individual patent attorney offices. Less working time on a given patent application can significantly reduce their revenues, but

these losses can be compensated for by increased hourly rates (depreciation of the licensed ssm method). In the long run, it will also be offset by an increased number of customers, but in this so-called transition period, their income is likely to decrease. Thus, their attitude towards the new method is likely to be negative, although taking into account the fact that most applications will be framed using the new method, it will eventually force them to adapt to the new situation and purchase a licence.

Running the service points constitutes a separate issue both in the case of manual operation of the ssm system and in the case of its computerized version. Such a network, as was pointed out previously, will require a certain infrastructure, which also involves initial outlays. It is assumed that in the case of the service point's network, hybrid solutions will constitute the best option (cf. new approach to evaluating effectiveness/performance measurement). Depending on the efficiency of the infrastructure and the performance of the management, it may generate both profits and losses. However, if the system is accepted by the market, the two are likely to balance each other out.

A clear distinction should also be made between the business aspects of the service network and those of the entity administering the ssm project as a whole. In the case of the administering entity, the issue of further development, i.e. the modification of both the ssm system itself and its supporting software, becomes of paramount importance. If this concern is not properly addressed, and the system itself has a significant market value, competitors are likely to eliminate the ssm from the market. At present, such risk has not materialised yet due to the fact that no one can predict the popularity of the product once it has been launched, and that the potential competitors are sceptical about it. Most of them believe that this product is not likely to be accepted by the market. Given the complexity of the system in its manual version, their attitude is not entirely unfounded. In its computerised version, the system will still remain complicated, although any inherent complications or difficulties will no longer pose a problem for the average user.

In summary, this paper offers a fairly straightforward presentation of the proposed new method of formulating patent claims. The new solution

was compared with the current ones, highlighting the latter's shortcomings and weaknesses. Further plans for the development of the ssm method were also presented, together with computer software currently being written to facilitate its use not only by patent attorneys, but also by persons preparing the descriptions of inventions before submitting them to a selected attorney or before filing a relevant application with the patent office.

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PART II – CITY-IDEA

Zbigniew W. Kundzewicz

Climate change and its impacts

Possibilities for mitigation and adaptation

Introduction

Climate can be defined as a series of complex atmospheric processes influenced by physical and geographical features of a given area. Climate reflects an image of the weather averaged for a longer period of time (e.g. 30 years), or the state of the atmosphere on a certain distant future day that can be expected at present. The weather will be the state of the atmosphere that will actually occur on that day. Consequently, the actual weather may significantly differ from the averaged expected conditions.

For several decades we have witnessed a clear and undisputed climate change. Nature broke the global average temperature records three times in a row – in 2014, 2015, and 2016. In the history of observations, out of the 18 warmest years, 17 have occurred since 2001. In other words, each completed year of the 21st century ranked amongst the 18 warmest years. The time series of decadal average global temperature trends shows that each of the last three decades was warmer than the previous one. Globally, the first decade of the 21st century was warmer than the 1990s, which, in turn, was warmer than the 1980s, whereas the 1980s saw higher temperatures than the 1970s.

Climate history in a nutshell

By nature, climate is not constant, yet natural changes used to happen slowly, on the geological timescale, taking tens and hundreds of millennia, or even millions of years to complete. Currently, a marked climate change has been observed over the life of a single generation of people.

It is estimated that the Earth was formed 4.6 billion years ago and, for the first half of its existence, it was free of ice. Hot climate prevailed, even though it changed with the evolution of the Sun and the chemical composition of the atmosphere. About 3.6 billion years ago, ocean was formed, and 3.5 billion years ago life came to exist. Roughly 2.3 billion years ago, the first glaciation occurred followed by a series of periods of varying length during which the Earth was either almost completely free of ice or remained largely under a thick ice cover. The last billion years saw a number of glacial periods interspersed with warmer ones. About 2–3 million years ago, the hot Tertiary climate changed into the Quaternary glaciation, during which glacial periods (i.e. relatively cold periods) and interglacial periods (i.e. relatively warm ones) followed one another.

About 70,000 years ago the last cold period began. Some 20,000 years ago, a significant portion of the Northern Hemisphere was covered with a three-kilometre layer of ice at a global temperature of only 4–5°C below the present one. The continental ice sheets, which now exist only in Greenland and in the Antarctica, covered a large part of North America and Europe, including Poland. The continents held c.a. 50 million km³ of extra ice cover. The masses of water evaporating from the ocean fell to the Earth in the form of snow, so at low temperatures the ice-snow cover grew as the ocean levels fell (by over 100 m compared with the present state). Water disappeared from a number of seas. About 11.5 thousand years ago, the last warm period known as the Holocene began, which lasts until today. The friendly climate enabled human civilizations to flourish.

How do we find out about climates in the past given that regular temperature measurements using thermometers started only in the second

half of the 17th century? A lot of useful information concerning various weather-related phenomena can be gleaned from written sources, such as chronicles, parish registers, personal correspondence, commercial and financial documents. Harsh winter landscapes typical of the Little Ice Age can be found in Bruegel's paintings. Insight into a still more distant past of the Earth's climate is made possible thanks to advances in paleoclimatology, based on the interpretation of indirect impacts of old climates. It is extremely important to be able to read the Earth's archives, where laminar layers or incremental deposits with features related to the climate can be found, enabling us to decipher the natural records. It is possible to estimate the features of the past climates by analysing the annual growth of coral colonies, tree rings or the composition of ice cores obtained from glaciers or ice sheets. The observation that the content of deuterium (an isotope of hydrogen) and the ¹⁸O and ¹⁶O oxygen isotope ratio in the air bubbles from the ice core depend on the ambient temperature at the moment of bubble formation, makes it possible to use them as a 'geological thermometer.'

According to the Fifth Report of the Intergovernmental Panel on Climate Change (IPCC), see <http://www.ipcc.ch/report/ar5/> (IPCC, 2013), the global warming of the Earth's climate system is beyond doubt, moreover, the observed changes are unprecedented on the timescale ranging from decades to millennia. The temperatures of the atmosphere and oceans have increased, the amount of snow and ice has decreased, and the sea level has increased. Globally-averaged temperatures of terrestrial and oceanic surfaces warrant the conclusion that since the end of the 19th century, the temperatures have risen by nearly 1°C.

The warming of the ocean predominates as the main recipient of the energy increase accumulated in the Earth's climate system (over 90% of the energy stored in 1971–2010). Two-thirds of the energy warmed the upper layer of ocean waters to the depth of 700 m. from 1971 to 2010, ocean waters to the depth of 75 m became on average warmer by 0.11°C per decade (IPCC, 2013).

The consequences of climate change

The shrinking cryosphere

Over the past decades, glaciers have been shrinking, moreover, Arctic sea ice and spring snow cover areas in the Northern Hemisphere have continued to decline. The average rate of ice loss from the Greenland ice sheet increased almost sevenfold between 1992–2001 and 2002–2011, while the average rate of ice loss from the Antarctic ice sheet increased almost fivefold.

In most regions, the temperature of permafrost rose. In northern Russia, the thickness of permafrost and its extent have been significantly reduced.

Sea level

The present rate of sea level rise is much faster than the average rate for the last two millennia. From 1901 to 2010, the global sea level rose 1.7 mm/year on average. The rate of sea level rise has accelerated, reaching 2.0 mm/year in 1971–2010 and 3.2 mm/year in 1993–2010. The most important mechanisms of sea level rise include the thermal expansion of ocean water (1.1 mm/year), the melting of glaciers (0.76 mm/year), and the loss of Greenland and Antarctic ice sheet (0.6 mm/year).

Other consequences of climate change

A number of extreme weather and climate phenomena have been observed, including an increased amplitude and frequency of warm extremes (e.g. the number of hot days and tropical nights, the frequency of heat waves) accompanied by a decrease in the cold extremes (e.g. the number of cold days and nights).

The impact of the current climate change has been observed in numerous systems, sectors, and regions. The increased temperature and changes in precipitation have had a significant impact on water resources. In land areas located in the medium and high latitudes of the Northern Hemisphere, the average amounts of rainfall have increased since the beginning of the 20th century. In general, humid areas tend to become even more humid, whereas the dry areas get even drier. The frequency or intensity of heavy precipitation has increased in numerous regions.

A number of fauna and flora species have shifted their geographical range (e.g. the upper forest border in the mountains), modified their seasonal behaviour, migration patterns, abundance and interactions (e.g. in the predator-prey systems). The impact of climate change on crop yields has also been observed. The patterns of occurrence of pests and diseases, vectors and hosts has changed. Several periods of rapid growth in world prices of food, including grain, have been recorded after extreme climatic conditions in key production regions, as well as due to the introduction of large-scale biofuel production. The differences in sensitivity and exposure to extreme meteorological and hydrological phenomena result to a considerable extent from factors unrelated to climate, such as uneven development. Climate-related hazards are undeniably aggravated by other stressors, which often adversely affect people's well-being, especially those living in poverty.

The mechanisms of climate change

The mechanisms of climate change can be divided into two groups: those caused by natural factors and those caused by human activity (so-called anthropogenic effects). In the past, climate changes were prompted only by natural factors, such as fluctuations in solar radiation (solar activity), changes in the Earth's orbit around the Sun, and changes in the Earth's atmosphere (e.g. as a result of mega-eruptions of volcanos) or collisions of celestial bodies with the Earth's surface. Feedbacks related to the properties of the Earth's surface (ice and snow, permafrost, vegetation, water vapour) played an important role in climate changes. The change in the amount of energy reaching the Earth has been fluctuating. Strong sunspot activity (explosions on the surface of the Sun) is correlated with increased temperatures on Earth. The number of sunspots is subject to quasi-periodic fluctuations, with an average cycle of about 11.1 years.

Climate oscillations regulating the occurrence of glacial and interglacial phenomena are explained by the astronomical theory of paleoclimate, which permits us to understand the climatic conditions prevailing on

Earth and the mechanisms of their changes over time, depending on astronomical cycles. Changes in the elliptical eccentricity (i.e. the Earth's orbit can become more spherical or more elliptical) have a cycle of about 96,000 years, changes in the Earth's rotation axis relative to the Earth's orbital plane around the Sun have a cycle of about 40,000 years, and the precession cycle is 21,000 years. These three cycles significantly affect the amount of solar radiation reaching the surface of the Earth and explain the occurrence of warming and cooling on the time scale of thousands of years. However, they do not explain the current warming, which is occurring much faster.

The amount of solar radiation reaching the Earth has a fundamental impact on the planet's climate. Its part reaching the outer surface of the atmosphere is reflected or absorbed, but most of it reaches the surface of the lands and oceans on our planet, where it is also reflected or absorbed. The Earth, in turn, emits long-wave radiation. The climate of the Earth is determined not only by the amount of solar radiation reaching the outer layers of the atmosphere, but also by the composition of the atmosphere itself. A proportion of the invisible long-wave radiation emitted by Earth escapes into space, but the rest is absorbed by particles of greenhouse gases. In consequence, the lower layers of the atmosphere and the surface of the Earth become warmer. The amount of energy absorbed by the atmosphere depends on the atmospheric content of greenhouse gases, such as carbon dioxide; methane, nitrous oxide, and ozone, not to mention the gases synthesised by man. Furthermore, the atmosphere contains water vapour, which in itself is a potent greenhouse gas. Although greenhouse gases constitute less than 0.5% of the atmosphere, they play a very important role in shaping the climate.

According to the IPCC (2013), the entire natural change of the so-called radiative forcing due to solar radiation and stratospheric volcanic dust, only to a small extent contributes now to a change in the net total radiative forcing, except for short periods of time after great volcanic eruptions. Although the Earth's history saw numerous climate changes, the current process differs from all the previous ones. Only now do we, as humans, have the power comparable to huge geophysical processes, and thus can

significantly affect the climate. The latest IPCC report (2013) minces no words in its interpretation of climate change: "It is extremely likely that more than half of the observed increase in global average surface temperature from 1951 to 2010 was caused by the anthropogenic increase in greenhouse gas concentrations and other anthropogenic forces together." The phrase "extremely likely" reflects at least 95 per cent confidence.

A special time series of observations of concentrations of carbon dioxide in the atmosphere, conducted over 60 years at the Mauna Loa Observatory (Hawaii, USA), reveals its steady, season-modulated growth that reflects vegetation phases. The Mauna Loa observation record is the world's longest time series of CO₂ concentration measurements in the atmosphere. The observations began in March 1958, when the monthly average was 315.71 ppm. For comparison, in March 2018 it reached 409.46, and in June 2018 – 410.79 ppm.

Thanks to the study of ice cores, we now know that atmospheric CO₂, CH₄ and N₂O concentrations far exceed the highest concentrations ever observed over the past 800,000 years.

The possibilities of human impact on climate

Since human activity is responsible for the majority of the current warming process, it should be possible to limit future warming by appropriately modifying human behaviour. If global greenhouse gas emissions continue to steadily grow, the effects of warming can be dangerous. However, the global climate system is characterised by considerable inertia, consequently, we are unable to influence it in the coming years or even decades.

The magnitude of warming over the next decades, which determines the level of its accompanying adverse effects, can be mitigated by measures to reduce the atmospheric concentration of greenhouse gases, provided that they are taken sufficiently early. Numerous adverse consequences in certain sectors and regions could therefore be avoided, lessened or delayed by implementing effective policies to prevent climate change. In order to limit the warming, it is necessary to modify the composition

of the atmosphere, the roof of 'our Earth's greenhouse' so as to prevent a build-up of the greenhouse effect. A lot of greenhouse gases still find their way into the atmosphere, it is thus crucial to reduce carbon dioxide emissions and increase carbon dioxide sequestration by vegetation (e.g. by preventing deforestation and enhancing afforestation) in order to reduce the greenhouse effect. It is also important to reduce the emissions of methane and nitrous oxide. Properly thought-out actions preventing climate change and counteracting its adverse effects may constitute an integral part of sustainable development and can mutually reinforce one another as part of a positive feedback loop.

At the UN International Conference on Environment and Development, also known as the Earth Summit, held in Rio de Janeiro in 1992, numerous world leaders expressed their concern about the problem of global climate change and the effects of human activities that intensify the greenhouse effect. By adopting the United Nations Framework Convention on Climate Change (UNFCCC), they agreed that efforts must be made to avoid "a dangerous level of anthropogenic impact on climate" (Article 2 of the Convention). To achieve this goal, it is necessary to appropriately limit atmospheric concentrations of greenhouse gases to safe levels and within an adequate timeframe. The Climate Convention requires that industrialized countries show the way to other countries and set a good example by taking action to reduce greenhouse gas emissions. This would be an expression of historical justice, since the industrialized countries have amassed their wealth and stimulated economic development by increasing energy production from fossil fuels, and therefore are largely responsible for the increase in atmospheric carbon dioxide concentration and climate change, the effects of which particularly affect (to an increasing degree) the developing countries. The Convention calls for the developed countries to help, financially and technologically, the developing countries to pursue an active climate policy and adapt to the effects of climate change. The Convention provides the basis for international action to mitigate climate change. Its provisions have been laid out in detail in the subsequent agreements, including the Kyoto Protocol (1997), according to which the developed

countries and countries with economies in transition were expected to reduce the emission of six greenhouse gases in 2008–2012 by, on average, at least 5.2% below the level of the base year (generally 1990). The parties adopted a common but differentiated responsibilities – the individual signatories to the Protocol committed themselves to comply with the CO₂-equivalent emission caps stipulated for each country. Under the Protocol, the developing countries were not obliged to achieve specific levels of greenhouse gas reduction. In order to achieve the goal of global emission reduction, limits have been set for each country. Poland pledged to reduce greenhouse gas emissions by 6% below the level of the base year, which was set to be 1988. Owing to the choice of the reference year, meeting the obligations became easier, because in 1988, Poland's emissions were much higher than in 1990, when production fell due to the collapse of the communist rule. Thus Poland succeeded in implementing the Climate Convention's provisions, and the target levels required by the Kyoto Protocol proved to be easy to achieve. To a large extent, this was due to the fact that outdated, energy-intensive industrial plants from the communist era during the transformation of the system either collapsed or dramatically improved their efficiency (including energy efficiency). A significant surplus of emission reduction compared with the requirements of the Protocol was therefore noted.

The European Union is a global leader in the policy of combating climate change. A step towards reducing global warming is the EU energy and climate package, containing targets for the EU (known as 3 times 20). By the year 2020, the Union agreed to reduce greenhouse gas emissions by at least 20% compared with base year 1990, increase energy efficiency by 20% and obtain at least 20% of final energy from renewable sources (including a 10% share of biofuels in all fuels). At present, Poland lags behind many other European Union countries with respect to climate policy.

During the Conference of the Parties to the Climate Convention in Paris in December 2015, the so-called Paris Agreement was adopted, which sets the following objectives for climate policy: to keep the average global temperature increase well below 2°C above the pre-industrial level and to continue efforts to limit the temperature increase to 1.5 degrees.

In order to achieve such a drastic reduction in warming, it is necessary to ensure negative total carbon dioxide emissions. Energy saving is very important and always needed, yet we must go much further. It is essential to decarbonize the energy sector, develop renewable energy sources (wind power plants, photovoltaic cells, hydropower, biomass energy, etc.). An increase in carbon dioxide sequestration through afforestation is important, but by no means enough. The possibilities for removing carbon dioxide from the atmosphere through geo-engineering (i.e. climate engineering on the scale of the whole planet), so far not applied in purposeful activities, are being considered. Possible activities on the Earth (on land and waters) and in the atmosphere may include increasing the albedo of land, ocean and clouds, strengthening the 'ocean pump' by 'fertilizing' the oceans with iron and phosphorus, stimulating reuptake of carbon dioxide from exhaust emissions and storing the latter underground, 'cosmic blinds,' as well as deploying stratospheric aerosols.

Projections for the future

Concentration scenarios

The trajectories of carbon dioxide concentrations depend on various factors, such as demographics, economics, technology, policy, and, in particular, the effectiveness of the greenhouse gas emission reduction policies. The available scenarios represent a wide range of climate policies, but all of them envisage that CO₂ concentrations in the atmosphere in 2100 will exceed the current ones.

Climate projections

The scenarios of greenhouse gas concentrations in the atmosphere anticipate further warming and changes in all the constituents of the climate system. The average global temperature in 2016–2035 will likely be higher by 0.3–0.7°C than in 1986–2005, assuming that there will be no major volcanic eruptions or changes in solar radiation. Next, it is expected that in 2081–2100, depending on the adopted scenario, the likely tempera-

ture changes will range from 0.3 to 1.7°C with a very strong reduction of global emissions (RCP2.6 scenario) to 2.6–4.8°C if the emissions are not significantly reduced (RCP8.5 scenario). The Arctic region will be warming faster than the global average, and the warming over the land will be more significant than over the ocean. However, the warming will continue to demonstrate a high time-related variability, both in particular years and decades. The temperatures of the ocean will continue to rise with heat penetrating from the surface to its deeper layers and thus affecting the ocean circulation.

Projections of global consequences of climate change

As the temperature rises during the 21st century, the Arctic ice cover will shrink and become thinner as will the spring snow cover throughout the Northern Hemisphere. The global volume of glaciers will also decrease.

Changes in the global water cycle will not be uniform. The differences in the amount of rainfall between wet and dry areas and between wet and dry seasons are expected to increase, thus the dry areas or seasons will become even more dry, and wet even more wet. Precipitation will post further gains in intensity and in frequency.

The amplitude and pace of climate change in the 21st century, resulting from the medium- and high-emission scenarios, will increase the risk of a sudden and irreversible change in the composition, structure and function of terrestrial and freshwater ecosystems, including wetlands.

The average global sea level will continue to rise, with the rate of the process increasing due to ocean warming (thermal expansion) as well as the increasing loss of glacier and ice sheet mass. According to the IPCC (2013), the average global sea level in 2081–2100 compared with 1986–2005 is likely to increase by 0.26–0.55 m (RCP2.6 scenario) to 0.45–0.82 m (RCP8.5 scenario). However, it is possible that it will be still higher if, for example, the melting pace of the Greenland ice sheet significantly increases.

Low-lying coastal areas will increasingly experience the negative effects of the rising sea level, such as flash floods and coastal erosion. As a result of increases CO₂ concentration, the world's oceans will become more acidic. The ensuing reduced biodiversity of marine life in sensitive

regions will pose a substantial challenge to the sustainable fisheries and other ecosystem-based services. Ocean acidification poses a serious threat to coral reefs and polar ecosystems owing to its impact on the physiology, behaviour and population dynamics of a number of species from phytoplankton to large animals.

There are several categories of key threats covering sectors and regions (according to IPCC, 2014):

1. The risk of death, injury, ill-health, or disrupted livelihoods in low-lying coastal zones and small island developing states and other small islands, due to storm surges, coastal flooding, and sea level rise; as well as risks for large urban populations due to inland flooding;
2. Systemic risks resulting from extreme weather events (e.g. heavy rainfall, floods, droughts, heat waves, frost waves, strong winds) leading to infrastructure network failures (water and electricity supply), as well as breakdown of health care systems and emergency services;
3. The risk of mortality and morbidity during periods of extreme heat, particularly for vulnerable people (elderly people and those with cardiovascular diseases), urban populations (where warming is enhanced by the effect of the urban heat islands) and those working outdoors;
4. The risk of food insecurity and the breakdown of food systems linked to warming, drought, flooding, and precipitation variability and extremes, particularly for poorer populations in urban and rural settings;
5. The risk of loss of rural livelihoods and income due to insufficient access to drinking and irrigation water, and reduced agricultural productivity;
6. The risk of loss of terrestrial and inland water ecosystems, biodiversity, and the ecosystem goods, functions, and services they provide for livelihoods.

Many of the key threats pose difficult challenges for less developed countries and vulnerable communities due to their limited ability to cope with problems.

Five groups of reasons for concern summarise the key threats related to the consequences of climate change and adaptation limitations (IPCC, 2014):

1. *Unique and threatened systems*: Some unique and threatened systems, including ecosystems and cultures, are already at risk from climate change. The number of such systems at risk of severe consequences is higher with

additional warming of around 1°C. Many species and systems with limited adaptive capacity are subject to very high risks with additional warming of 2°C, particularly Arctic-sea-ice and coral-reef systems.

2. *Extreme weather events*: Climate-change-related risks from extreme events, such as heat waves, extreme precipitation, and coastal flooding, are now moderate, but will increase further at higher temperatures.
3. *Distribution of impacts*: Risks are unevenly distributed in space and are generally greater for disadvantaged people and communities. Based on the projected decreases in regional crop yields and water availability, the risks of unevenly distributed impacts will be even higher.
4. *Global aggregate impacts*: Risks of global aggregate impacts are moderate for additional warming between 1–2°C, whereas extensive biodiversity loss with associated loss of ecosystem goods and services results in high risks around 3°C additional warming (high confidence). Aggregate economic damages accelerate with increasing temperature for additional warming around 3°C or above.
5. *Large-scale singular events*: With increasing warming, some physical systems or ecosystems may be at risk of abrupt and irreversible changes. Risks associated with such tipping points become moderate between 0–1°C additional warming. For sustained warming greater than some threshold, a near-complete loss of the Greenland ice sheet would occur over a millennium or more, contributing up to 7 m of global mean sea level rise.

It is predicted that in tropical and temperate regions, climate change without adaptation will negatively affect the production of wheat, rice and maize with a temperature increase of 2°C or above relative to the temperature level as at the end of the 20th century. However, areas situated in the north (e.g. Siberia, Canada) may benefit from such warming.

A number of global threats associated with climate change will expressly affect urban areas, currently inhabited by most of the world's population. However, significant and unfavourable effects on rural areas should also be expected owing to the impact on accessibility to and supply of water, food security, and agricultural income.

The projected climate change will adversely affect human health not only by aggravating the existing health problems, but also by contributing

to the increase in morbidity in many regions, especially in low-income developing countries. In particular, morbidity and mortality caused by heat waves and infectious diseases are expected to become more prevalent. There are also certain complex, multi-sectoral impacts of climate change (and on climate change), such as the water–energy–food relationship.

The estimates of global economic effects related to climate change depend on the adopted assumptions, of which some are quite arbitrary. Given such limitations, incomplete estimates of global annual economic losses due to a temperature increase of 2°C range from 0.2% to 2.0% of income. Moreover, considerable differences in this respect between countries and within them are expected to arise. As the warming increases, the losses are bound to grow faster. However, there is a significant discrepancy between the estimates of the increasing economic consequences of carbon dioxide emissions, from several to several hundred US dollars per tonne of coal. The estimates vary considerably depending on the assumptions regarding the loss function and the discount rate.

Areas in northern Europe will become hotter and wetter, which will be beneficial for agriculture, whereas the south will become even warmer and drier, which, in turn, may ruin the local agriculture. Tourism will likely develop in the north and become more limited in the south, where the summer season will simply become too hot. This may substantially change the traditional summer destinations. It is expected that the ski season in Europe will be much shorter. Hydroelectric power will probably be limited throughout all regions, and during the hot and dry periods, it will be impossible to fully meet the demand for cooling water in fossil fuel or nuclear power plants.

Projections of climate change in Poland

The projections of climate change affecting Poland were obtained under the Polish–Norwegian project CHASE-PL (see Kundzewicz et al. 2018) and are based on simulated regional climate models (using bias-correction coefficients and downscaling techniques to a 5 km x 5 km grid) for two future periods: the near future (2021–2050) and distant future (2071–2100). Two greenhouse gas emission scenarios were selected (RCP4.5 for medi-

um emissions and RCP8.5 for high emissions). The simulations for the historical period (1971–2000) were used as a reference point.

The anticipated changes affecting Poland, estimated on the basis of a set of models, revealed that the average annual temperature will have increased by about 1°C by 2021–2050 and by about 2°C by 2071–2100 as compared with 1971–2000 according to the RCP4.5 emission scenario. According to the RCP8.5 emission scenario, the warming may increase to almost 4°C in the 2071–2100 timeframe. The regional annual average rainfall is also expected to increase by 6–10% and 8–16%, respectively, in the near and distant future.

The projections regarding the number of days with heavy precipitation suggest its increased frequency both in annual and seasonal terms. Extreme rainfall is also expected to increase throughout all the seasons, time horizons and scenarios, with higher increases in the distant future and in the RCP8.5 scenario. It is anticipated that the maximum snow depth will significantly decrease (Kundzewicz et al., 2018).

Adapting to climate change

Climate change has both disadvantageous and beneficial impacts on all the world's regions, sectors, and systems. As a result, both the 'losers' and the 'winners' will need to adapt to the changing conditions: the former will try to mitigate the adverse effects of climate change, whereas the latter will undoubtedly seize the emerging opportunities. The number of 'losers' will increase with the magnitude of climate change. Man has already successfully adapted to the existing climate, accordingly, every climate change requires adaptation to new conditions, and entails costs. An example of costly and energy-intensive adaptation to more frequent heat waves is the tendency to maintain fairly low temperatures (e.g. 22 °C) in air-conditioned rooms.

The current projections of future conditions, especially for small areas, such as individual cities, are subject to considerable uncertainty and depend on the model used. In consequence, the question "What to adapt to?" has

no unambiguous and convincing answer. A number of general adaptation rules apply in the European Union, and Poland must observe them. One of them, the so-called precautionary principle, determines how to behave under uncertainty. The lack of certainty should not, however, prompt us to refrain from preparing for situations which are not likely to occur, but if they do, their consequences can be extremely serious. Although adaptation to the consequences of climate change is, in fact, regionally and locally conditioned, the European Commission is well advised to create a favourable environment and promote good examples to that effect.

The special concern areas, which require the development of detailed, integrated, and long-term programs to counteract adverse effects of climate change in Poland (Starkel and Kundzewicz, 2008), include:

- the mountain areas draining surplus water that generate floods;
- the Baltic coastline affected by the impact of the rising sea level;
- the bottoms of river valleys that require protection, especially the activities aimed at stopping all construction on floodplains where flash floods are more likely.

What Poland needs is to adapt its spatial planning to the increasing risk of weather extremes (certain extremes may become the new norm) as well as to modify the existing building regulations in line with the changed conditions. It is necessary to ensure that infrastructure that has a long anticipated usable life is capable of resisting climate change. Adaptation to climate change requires improved protection systems against natural disasters associated with weather extremes (downpours, floods, landslides, heat waves, droughts, fires), which are becoming more frequent. It is necessary to strengthen the early warning systems against weather extremes, as well as develop ways to prevent, prepare, respond to and recover from crisis situations. Specific adaptation measures may include not-too-expensive activities which do not require investment in infrastructure, such as effective promotion of water savings technologies, agro-technical changes, sometimes implemented autonomously (e.g. changes in crop rotation, sowing and harvesting time, use of drought tolerant plant species, adaptation to longer growing seasons), and raising awareness. It is more expensive to build a structural defence system

(e.g. reinforcement of embankments) or relocate ports, industries and entire cities and villages from low-lying coastal areas or from floodplains. The insurance sector should develop new risk-reducing products. Water management requires increased retention, especially polder-type basins.

Adaptation (Starkel, Kundzewicz, 2008) includes restricting settlements and infrastructure on floodplains in the vicinity of streams and on steep slopes at risk of landslides. In agriculture, crops need to be adapted to the changing conditions, including fluctuations in temperature and precipitation (e.g. introducing thermophilic crops, increasing crop resistance to drought and heat). The modified forest stands will have to include multiple species expected to better protect them against blowdowns and pests. The road network (e.g. bridges and culverts) and sewage systems should function properly in the event of more frequent heavy precipitation. The tourism economy development programs should be revised to take into account the likely snow cover, especially on lower, south-facing slopes.

It is likely that the high season of beach tourism in the Mediterranean will shift towards spring and autumn to avoid the hot summer months. Conversely, the weather conditions in Poland on the Baltic Sea may become more favourable for this kind of tourism and attract more visitors provided that we manage to ensure good water quality (and avoid blue-green algae blooms like those in the summer of 2018). The 'conventional' burdens on the ecosystems, such as fragmentation, degradation, pollution, and overexploitation, are worth considering in the context of 'climate proofing'. Healthy ecosystems (such as mixed multi-species forests) are better equipped to cope with climate change and keep generating multiple benefits on which the quality of our lives depends. Special attention should be paid to protected areas and ecological corridors.

Concluding remarks

The warming of the Earth's climate system observed in recent decades cannot be questioned. The many observed changes are unprecedented in the timeframe spanning decades to millennia. The interpretations of

climate change clearly highlight the difference between the mechanism of the current change and numerous previous changes in the history of the Earth. Most of the observed increase in the average global surface temperature since the middle of the 20th century has been caused by anthropogenic factors, in particular, increased greenhouse gas concentrations in the Earth's atmosphere. Projections for the future envisage further ubiquitous warming, but human activities may affect its rate. Climate change is not limited to temperature increases and its associated consequences (cryosphere shrinkage and rising sea level), but it leads to many changes in various systems and sectors.

The intensifying magnitude of warming increases the likelihood of serious, pervasive, and irreversible effects. Projections for the future show that the risk of climate change significantly grows with the rising concentrations of greenhouse gases in the atmosphere.

The issues and consequences of climate change, recognized as very important in many European countries, do not usually enjoy a comparably high status in the public discourse in Poland. Generally, Poles are aware of climate change, but the issue itself is not universally recognised as a priority. Opinions that the weather is becoming more and more weird prevail after the occurrence of anomalies (e.g. long-lasting above-average temperatures in spring and summer 2018). The temperature is rising, which affects air and water movement leading to the disruption in the global distribution of winds and ocean currents. The Gulf Stream, thanks to which the weather in Europe was warmer, is getting weaker. The fact that the weather is becoming progressively less predictable is a new property of climate. However, despite the fact that science reveals the imminent threats, politics either ignores them or takes far too little action.

The observed effects of climate change in Poland are not yet dramatic, hence their interpretation is complex due to a variety of contributing factors. The combination of high natural variability of hydro-meteorological phenomena with the considerable uncertainty of projections for the future affects public discourse.

Despite the significant increase in the strength of scientific evidence on climate change, as well as its interpretations, consequences, and pos-

sibilities of mitigation, the phenomenon known as climate scepticism still persists. It can be perceived as a feature of a general decline of trust in scientists, as well as the triumphant emergence of alternative realities and post-truths, whose discourses are based largely on emotions and misrepresentations far removed from facts. Considering the close relationships between climate and energy policy, it can be concluded that public discussion in Poland focuses, to a large extent, on issues of energy security and energy independence, identified with national coal resources. Access to domestic fossil fuels is supposed to guarantee regular economic development and affordable electric power, which is often quoted as an argument in favour of refraining from developing the allegedly more expensive renewable energy sources. Moreover, as the environmental dimension of energy policy is largely ignored, most politicians, supported by the media and lobbies associated with coal mining, industry and energy, openly undermine the scientific evidence of climate change. Thus, the policy of limiting climate change poses a great challenge to Poland, since the social perception is driven by the deep-rooted belief that Poland abounds in coal. The carbon footprint per capita and per GDP unit in Poland has been and still is high compared with the Western European countries, so in aggregated terms, our country is responsible for a greater proportion of global warming than its population would suggest. This is an inconvenient truth.

In principle, the main political parties in Poland unanimously question climate change and criticise ambitious international attempts to implement policies to contest it as ineffective or financially disadvantageous. Quite often, the discussion about climate change and its consequences comes down to a dispute between the supporters and opponents of certain opinions on the mechanism of change, or even the very existence of change, which produces a false image of two opposite, but equally valid views supported by serious scientific evidence. The truth is that the 'evidence' of sceptics is not credible, whereas their scientific exposure does not meet the conditions necessary for publication in recognised scientific journals. There is an urgent need to improve people's awareness of climate-related issues. Such websites as <http://doskonaleszare.blox.pl>

and <http://naukaoklimacie.pl/> play a significant role in this respect, as does popular science literature (e.g. Kundzewicz 2013 or Kundzewicz et al. 2017). I hope that popular knowledge about climate in Poland will distinctly improve thanks to the recent publication of an excellent book titled *Science on Climate* (Popkiewicz et al. 2018).

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Anna Januchta-Szostak

Water-friendly cities?

Don't divorce the river from its basin

H.B.N. Hynes 1970

Introduction

In 2015, the World Economic Forum for the first time placed the water crisis at the top of the world’s greatest threats. In subsequent reports, apart from weapons of mass destruction, climate and environmental threats were mentioned: weather extremes, natural disasters and the failure of climate change adaptation, which may further exacerbate the water crisis (World Economic Forum 2018).

In the context of projected urban population growth, particularly in low and middle-income countries where the pace of urbanisation is expected to proceed the fastest (UN DESA 2018), the risks associated with water scarcity, excess and pollution in urbanised areas may have global effects (Kundzewicz, Kowalczak 2011).

Europe experienced a similar urban boom and its environmental consequences in the 19th and 20th centuries. Today, European cities are increasingly sustainable, even though they are home to 74% of the Old Continent’s population. The experience of previous centuries allowed us to raise the environmental standards, but are European cities actually water-friendly?

Friendship is a cordial relationship based on mutual kindness, trust and respect. In order to characterise a bond as friendship, there must be at least two entities that respect each other's individuality. While cities, as human communities, are treated as entities in legal and economic terms, water has long since lost its subjectivity. Is it possible to make friends with a substance – an object to be used? The term 'water-friendly city' seems to be an oxymoron, much like 'nomadic urbanism.' After all, the history of urbanisation illustrates a struggle with nature. And yet... last year's reports about the Whanganui,¹ the Ganges, and the Jamuna² – rivers which acquired legal personality – prompt the following questions: How has the relationship between cities and water changed? Do we learn from our mistakes? And is friendship possible after a divorce?

Changes in the relationship between cities and water – periods of RESPECT, CONQUEST and RETURN

The relationship between man and water derives from the values generated by socio-economic systems which have evolved under the influence of religion, philosophy and science, geopolitical transformations and technical progress. The history of human settlement, which dates back to the Paleolithic, was inextricably linked to water and naturally resulted from the need to satisfy the basic survival needs. With the development of civilisation, the relationship deepened, encompassing not only defensive, transportation, sanitary or productive functions, but also spiritual-religious and cultural-political ones.

The first, great ancient civilisations, in which cities began to emerge in the 3rd and 2nd millennium BC, were born along great rivers,³ which marked

- 1 The New Zealand Parliament granted the river revered by the Maori the status of a legal entity (Michalak 2017).
- 2 India: sacred rivers have been granted the status of 'living beings' and legal personality (PAP 2017).
- 3 The Egyptian one on the Nile (approx. 3000 BC), the Babylonian one (approx. 3500 BC) on the Euphrates and Tigris, the Indus Valley (approx. 2500 BC), the Ganges and Brah-

the backbone of settlements with their network of waterways, drainage and irrigation systems. Karl Wittfogel (1957) called them the "hydraulic civilisations," which reflects not only their close association with water, but also with the form of society organisation. According to Wittfogel, in this historical period, only despotic forms of government based on slavery made it possible to control the element using primitive technologies.

Adopting the level of development of navigation as a measure of progress, Tadeusz Ocioszyński (1968, pp. 24–25) identified three stages of civilisation: potamic, thalassic, and oceanic, which were characterised by the extent to which water spaces had been conquered.

Relationships between man and river in the natural and economic system were analysed by Krzysztof H. Wojciechowski (2000, pp. 187–201), who discussed the causes and directions of change in three fundamental periods: 1. the original equilibrium of river functions, 2. the dominance of priority functions initiated by the industrial revolution, and 3. multi-functional economic use of rivers, in which the negative environmental effects of hydrotechnical works and the new recreational functions of rivers began to be perceived.

Similar stages were identified by Marek Kosmala (2011, pp. 5–6), who adopted the relationships with the environment as a measure of civilisational development. Changes determined by man's attitude towards nature clearly fall into three periods: the stoic-sacral one (from the earliest settlements to the industrial revolution), the subjugation and exploitation one (from the beginning of the 19th century until the 1970s), and the ecological-hedonistic one (initiated by U Thant's 1969 Report in 1969 and developed in the 21st century).

When analysing the stages of the relationship between city and water, it is hard to overlook developmental circularity (Bendyk, Hausner, Kudłacz 2016). Changes in the values determining man's attitude to nature and the perceived importance of water in the development of settlements assume

maputra basin, the Chinese one (approx. 1500 BC). 1500 BC) from its cradle in the Huang He basin to the entire Yangtze basin and further south, as well as the intercontinental Iranian one on the Amu Darya and the Syr Darya.

the form of a spiral. I discuss them in three stages: RESPECT, CONQUEST and RETURN.

The RESPECT period⁴ – from the earliest settlements to the era of great geographical ‘discoveries’ at the turn of the 15th and 16th centuries – was characterised by the rationality of resource use and a balance between human river management and natural environment’s capacity to regenerate. The then level of technical knowledge made it impossible to control the element, while the scale of spatial interventions and the low level of urbanisation did not threaten to degrade the environment. Even the largest ancient projects, such as the irrigation systems of Egypt and Mesopotamia, Chinese waterways, urban water supply and sewage systems (e.g. in Mohenjo-Daro, ca. 2550 BC), or Roman aqueducts, had little effect on the health of the natural environment. The resilience and dynamic quality of natural systems compensated for the consequences of anthropogenic transformations (Wojciechowski 2000).

Ancient and medieval cities were poised on the verge between benefits and threats, on the one hand, taking advantage of water’s transportation, defence and production capacities, and on the other – being acutely aware of flood hazards. A characteristic feature of this period was also the element’s subjective quality. According to Stoic philosophy, Nature as a whole was reasonable, harmonious and divine; and water’s holiness was worshiped in the form of a pantheon of deities.

The mediaeval technological regression ended the process of river subjugation, although the Dutch developed a specific culture of coexistence with water, combining respect with expansion. They drained successive polders, but they were keenly aware of the fact that that every interference came at a price, and that the element could claim its due space back at any time.

4 The word *respect* is synonymous with esteem with the added undertones of fear, and aptly reflects people’s attitude towards rivers in the early stages of civilisational development. Respect resulted from their sense of total dependence on water, admiration for its life-giving power, and the fear of incomprehensible and unpredictable whims of the element.

The CONQUEST period⁵ – from the 16th century to the 1970s – was marked by antagonism between culture and nature. Advances in science and technology gradually reduced the limitations associated with the use of water resources and strengthened the belief that complete control over water was only a matter of time and cost. Moreover, the dominant Christian religion in Europe not only ended the pagan beliefs in the sanctity of rivers, but also strengthened the anthropocentric perspective in the perception of the environment. Such an attitude to nature, first justified by invoking the “divine law of power,”⁶ followed by utilitarianism and economic liberalism, led to wasteful exploitation of resources, while the extent to which nature was subjugated to man became a measure of progress.

The path to conquest was gradually opened by ancient hydrotechnical inventions, but it was only the cultural, political and technical changes of the modern era that endowed it with a global dimension, introducing Europe into the colonialism era which lasted until the 20th century. The great geographical ‘discoveries’ at the turn of the 15th and 16th centuries instigated the conquest of overseas non-Christian cultures, the exploitation of natural resources, urban development, and intensive transformation of the hydrographic network from the 17th to the middle of the 19th century.

The peak of the conquest period coincided with the industrial revolution. Intensive industrialization of riverside areas and chaotic urbanisation led to the disappearance of green areas, environmental pollution, the sealing of drainage basins, and deterioration of living conditions. The construction of waterworks solved the problem of water supply, but the disposal of urban waste for a long time resembled the cleaning of the Augean Stables. Establishing a link between the regular outbreaks of epidemics and water pollution was the reason for the ‘declaration of war’ against all wetlands

5 *Conquest* is characterised by aggressive expansion, confrontation, struggle and subjugation of the opponent, and eventually, by suppression and exploitation. This approach began to dominate the man–water relationship with the strengthening of anthropocentric dogmas and intensified technological development.

6 The philosophical and political concept put forward by Robert Filmer in his treatise *Patriarcha* (1680) not only justified the absolute power of monarchs as divine in origin, but also referred to power over nature.

within cities. Marshes and pools of stagnant water were treated as disease habitats, mosquito hatcheries, hard-to-exploit wastelands occupying valuable urban space. No wonder that land reclamation and ‘recovery’ of these areas became a desirable objective of municipal investment. Large rivers and their valleys were subjected to extensive regulation, including flood embankments (e.g. the Rhine, the Danube), while the smaller ones were turned into sewers (e.g. La Bièvre in Paris, the Fleet in London, the Poltva in Lviv, Łódź streams, and numerous others). In the 19th and 20th centuries, most small rivers and streams disappeared from European cities, floodplains were cut off by embankments and built up, wetlands were drained, vast stretches of urban land were sealed and drained, whereas rainwater was channelled to collective sewerage systems.

The scale of urbanisation, industrialisation, and exploitation of natural resources, which was previously unrecorded in history, caused global environmental and climate change, bringing the world into the Anthropocene.

The RETURN period⁷ began in the second half of the 20th century, when we entered the stage of “ecological–hedonistic civilisation” (Kosmala 2011, p. 5). This term aptly captures the transformation of social values, although it was rather the hedonistic development priorities that induced environmental awareness and its legislative aftereffects.

In the wake of post-war reconstruction hedonistic socio-cultural arguments came to the fore: the expectation to improve living and leisure conditions in cities and the quality of riverside spaces,⁸ which drew planners’ attention to degraded river banks. In the late 1960s, environmental pollution became a serious obstacle to social and economic development

7 In this instance, *return* does not signify coming back to the starting point. In the civilisational development spiral, we are at a completely different stage hence it is impossible to revert to the original state of equilibrium prevailing before the *conquest*. Gradually regaining respect for the environment marks a clear symptom of change.

8 In the 1990s, a new direction was set by the regeneration of the areas along the Nervión River in Bilbao. The spectacular Guggenheim Museum triggered a cultural phenomenon called the Bilbao effect, and the watersides of a number of cities have become areas of choice for displaying architectural icons.

and it was then that the process of recovering waterside areas⁹ was initiated. Cities reached a development threshold following which the regeneration of degraded waterside areas became not only profitable, but outright necessary. Substantial revitalisation investments in London and Rotterdam in the 1980s, which focused primarily on economic and infrastructural factors, paved the way for coordination and financing. Their main objective was to transform the image of cities, attract capital and new residents.

A breakthrough in city-river relationships began in the 1970s, when it was no longer possible to ignore the linkage between river basin transformation and its effects on valleys, and need to minimise environmental and flood risks acquired urgency. In 1985, the EIA Directive 85/337/EEC obliged European countries to assess the environmental impacts of projects, and in subsequent years key environmental directives were adopted.¹⁰ Water-related problems, both qualitative (the condition of rivers, the kinds of pollution) and quantitative (droughts, floods, water resource management) remained outside the scope of common legal regulations of the European Union the longest.¹¹ Although the Europe-

9 Urban renewal (revitalisation) refers to the processes of ‘reviving’ urban structures, which, due to long-standing neglect, found themselves in crisis, having lost their social and economic vigour and attractiveness. The recovery of harbour watersides, initiated by the United States with the Inner Harbour project in Baltimore (1963), catalysed the development of subsequent waterside cities: Boston, Toronto (Harbourfront, 1972), New York (Battery Park City, 1979, Hudson and East River coastline in Manhattan), Vancouver (Grandville Island, 1979) and numerous others (Breen, Rigby 1996, Lorens 2001). In Europe, examples of pioneering revitalisation of former harbours include London’s Docklands on the Thames (since 1981) and Kop van Zuid on the Meuse in Rotterdam (since 1987). In Poland, the renewal processes of riverside areas started only at the turn of the 20th and 21st centuries (e.g. the Young City district in Gdańsk).

10 Including the Urban Waste-Water Treatment Directive 91/271/EEC, the Nitrates Directive 91/676/EEC, the Habitats Directive 92/43/EEC, the Bird Directive 2009/147/EC, the Environmental Liability Directive 2004/35/EC and others.

11 In the United States, the Clean Water Act of 1972 set ambitious goals to eliminate sources of pollution, restore and maintain water purity, enable fisheries management, protect wildlife and ensure recreational uses of water. In Europe, similar objectives were laid down in the Water Framework Directive (2000), which came into effect almost

an Water Charter was adopted as early as 1968, it was not respected like most declarations without a relevant legal basis. Water management and flood protection paradigms changed only at the turn of the 20th and 21st centuries as a result of the key water directives: the Water Framework Directive (2000) and the Floods Directive (2007).

The need to integrate water management into spatial planning and environmental protection was also recognised at city level. The Baltimore Charter (2007) marked a commitment to develop new, decentralised urban water systems which imitated natural cycles. In the first decade of the 21st century, new planning and design trends emerged, highlighting the need to become more sensitive to water aspects in urban planning. Australia originated water-sensitive urban design (wsUD) – spatial planning and engineering design taking into account the urban water cycle, aimed at minimising environmental risks and improving aesthetic and recreational value (BMT WBM 2009). In the United States, similar objectives were formulated under low-impact development (LID) and in the United Kingdom under Sustainable Drainage System (SuDS).

The evolution of values

The process of return was closely associated with raising societal awareness – from the perception of problems (e.g. U Thant's 1969 Report; Brudland Report 1987, IPCC reports) and the determination of the public, to changes in development values and priorities (e.g. UN declarations and programmes 1972, 1976, 1992, 1996; the New Athens Charter 2003), to the search for tools to achieve sustainable development goals (e.g. EU environmental and water directives).

An important stimulus for change was the development of ecology and environmental ethics. Understanding the dynamics of ecosystems (Holling 1978; Peterson et al. 1998) drew researchers' attention to the pos-

30 years later. In Poland, it was not included in the Water Law Act and other legislation until 2011.

sibility of imitating natural cycles in urban development (Tjallingii 1995). The environmental values lost as a result of degradation were noticed and economically appreciated as ecosystem services (Daily 1997; Pedersen-Zari 2012), and the development of ecological engineering (Odum 1971) offered tools for designing sustainable systems, taking into consideration the ecological foundations integrating the needs of society and the natural environment for mutual benefit (Bergen et al. 2001).

The perception of the environment is slowly changing. It assumes the forms of physio-, eco- or biocentrism, although the anthropocentric perception of water in terms of benefits and risks still predominates, whereas environmental needs are expected to be justified in economic terms.¹² The integration of environmental protection into the economy was clearly articulated at the Rio+20 Summit on Sustainable Development (2012) and in the Green Growth Strategy (OECD 2011), aimed at achieving economic growth and development, taking into account the fact that natural capital will sustainably provide goods and services that underpin the quality of human life.

However, urban regenerative development (Cole 2012) is still a long way from not only ensuring damage minimisation, but rebuilding (regenerating) the natural environment and creating viable ecosystems, of which human habitats constitute an integral part.

¹² This is evidenced, for example, by the economic and technical language employed: *ecosystem services* are described in the language of economics either as a contribution of natural ecosystems to human well-being in the broad sense of the term, or as income from natural capital. "The metaphor of nature as a stock that provides a flow of services is insufficient [...] for the task ahead" (Norgaard 2010). Greenery structures in cities have acquired economic importance as *green infrastructure*, whereas *ecological engineering* was defined as the use of natural processes taking place in the environment, with the aim of benefiting both man and the environment itself (Odum 1971, p. 331).

London – Thames: A study from the RGB¹³ perspective

London is a city which has probably committed all the possible ‘sins’ against water. The brief historical outline below illustrates the path of conquest – the exploitation of the Thames and its tributaries, cutting it off from the basin and pollution, as well as the return – the restoration of the relationships between the river and its urban basin.

Development thanks to water

Already at the beginning of our era, Londinium became one of the richest cities in the Roman Empire thanks to its trade contacts with continental European countries. In the late 16th century, England joined the European colonial rivalry, and in the 17th century it became a maritime power. Along the Thames, cargo handling wharves, shipyards and warehouses were built, turning riverside areas into a vast port area. The dense urban tissue lacked greenery and public spaces.¹⁴ For Londoners, the Thames had always been not so much a source of beauty as wealth, and water transport had become the driver of the industrial revolution and the city’s economic development. With the rise of London’s industrialisation and population,¹⁵ water quality in the Thames noticeably deteriorated, and the densely built-up city was regularly ravaged by epidemics (Halliday 2013). In 1844, in response to public pressure, the British Parliament adopted building regulations, which limited the use of cesspools and imposed the obligation to drain all sewage into the sewerage system. Paradoxically, however, this made the situation worse and further increased the pollution of the river.

13 A holistic approach to the environment, including the following structures: R (red) – urbanised areas, G (green) – natural areas, and B (blue) – water.

14 Urban squares became a characteristic form of London’s greenery structures. In the 19th century, two large parks were known as the lungs of the city: Hyde Park, which became a public place as early as 1637, and Regent’s Park, designed by John Nash and opened to the public in 1835.

15 In 1811, the city’s population exceeded 4.5 million, and the urban area was inhabited by 7 million people (for more on this subject see *Demography of London* 2018).

The Great Stink of 1858 was caused by the contamination of the River Thames with municipal and industrial wastewater. Due to the river’s slow current and its susceptibility to tides, most of the wastewater was not flushed out to the sea, but was deposited on the river bed. A record-high heat wave caused the water level to drop and exposed the effluent, and a horrible stench paralysed London’s life (ibid. 2013). It was only a planned construction of the city’s extensive wastewater and water supply system supervised by the civil engineer Joseph Bazalgette that brought the long-awaited relief. Thanks Bazalgette’s efforts, a total of about 130 kilometres of interconnecting sewers along the River Thames was built, which transported the effluent eastwards of London by means of pumping stations and sewage treatment plants. In the districts of Victoria, Chelsea and Vauxhall three wharves were also built to improve water flow and shipping conditions. According to Peter Ackroyd (2011, p. 80), the importance of these works places Bazalgette in the pantheon of London’s greatest creators, next to John Nash and Christopher Wren. At that time, it was certainly the best solution, but due to the construction of the new sewage system, many small rivers disappeared from the map of London (e.g. Fleet, Tyburn or Effra).

Eco-hydrological costs of city development

The Thames was a source of wealth and a symbol of London, but it bore high costs of the city’s development. In the past, the lower reaches of the river were wide and shallow, with vast swampy areas. Over the years, the wetlands along its banks were drained, wharves were raised and the valley was made narrower by embankments, whereas the river itself was deepened and regulated. As a result, the River Thames Valley in London is only a fifth of its original width (less than 300 m vs. about 1.5 km), and many urban tributaries now supply it underground. The port and storage facilities cut the city off from the river along the entire length of the downstream portion of the river. Only the city’s central waterfront became a public space accessible to its residents. Until the 1960s, the river was catastrophically polluted and completely devoid of life. It was not until the 1990s that fish appeared again in the Thames as a result of changes

in environmental standards and purification efforts. Its urban tributaries suffered even more. Some of them were transformed into transportation waterways in the 19th and 20th centuries, like the Lee, while others drained surface run-off (e.g. the Ravensbourne), with their central sections running via covered culverts, with smaller streams having been turned into receiving drains (e.g. the Fleet). London's water network covers more than 600 km of watercourses. As much as 37% of the tributaries of the River Thames run underground, 25% have fortified banks and house hydrotechnical infrastructure, whereas 7% are habitats of invasive alien species (Oates 2012). As a result of sewerage and development, London's rivers have been cut off from their environment, consequently, their valleys no longer naturally support urban green areas.

Revitalisation of waterfronts and regeneration of London's rivers

London's riverside port and industrial functions continued to develop intensively until the 1960s. In the following decade, its importance gradually declined and by the end of the 1970s, all of London's docks were abandoned, leaving a 21 sq km strip of brownfield land. Although a government report on the redevelopment plans was drafted as early as 1971, it was not until 10 years later that the London Docklands Development Corporation was founded and a special economic zone (1982) was established with a mandate to revitalise London's Docklands. The initial experiences with the construction of the Canary Wharf (1980–1990) revealed a host of investment and organisational problems. The stagnation was due not only to the real estate crisis, but also to the inferior transportation infrastructure, poor landscape quality, and water pollution.

Waterfront renewal proved to be a challenge that required coordinated investment in the areas of the economy and culture (RED), environment (GREEN), and water (BLUE). Moreover, investment was not limited to the Thames and its immediate vicinity, as originally planned, but had to cover the entire area of Greater London, taking into consideration the extent of urban catchment areas.

Successful waterfront transformation in the RED area was based on the following factors:

- revitalisation of neighbouring riverside areas, e.g. Greenwich, Deptford, Royal Docks,
- development of transportation links (including the Isle of Dogs in the London underground network, extension of the Jubilee Line and development of the DLR),
- improving waterfront access, enhancing the recreational value and attractiveness of public spaces by creating parks (e.g. the Thames Barrier Park), promenades, walkways as well as recreational and sports infrastructure (e.g. the Millennium Dome [the O2Arena], water sports centres, marinas, urban farms, etc.),
- socio-cultural renewal (cultural facilities, promotional and educational events),
- improving the landscape quality of waterfront areas (the Thames as the main axis of the city's composition, protection of the cultural landscape of its downtown section, spectacular architectural objects in the waterfront area and the City),
- promoting the economic, cultural and environmental values of the River Thames (and later other London rivers, such as the London Rivers Week organised by Thames21).
 - In the GREEN area:
 - improving the quality of the environment and riverside greenery structures, implementation of pro-environmental construction standards (Greenwich Millennium Village, Greenwich Peninsula Ecology Park and others),
 - increasing the proportion of green areas in the city (reconstruction of natural capital and eco-system services via green infrastructure, e.g. the London Water Strategy [LWS 2011] and London Environment Strategy [LES 2018]),
 - linking scattered green areas into recreational routes (e.g. the Green Chain Walk),
 - restoring the river's biological life (pollution run-off control, regeneration using environmental engineering tools).
 - And in the BLUE area:
 - reduction of risk and adverse effects of floods, including surface and underground run-offs, sewage system overload (implementation of SuDS/

GI), river floods (reconstruction of the retention capacity of the tributaries of the Thames River Thames: LARP 2009) and effects of tides and storm floods (the Thames Barrier 1972–1984),

- linking and multifunctional development of London's hydrographic network (The Blue Ribbon Network strategy: The London Plan 2004),
- sustainable use of water resources,
- improving the quality of the River Thames and its tributaries (integrated management of the IRBM river basin, Thames Tideway Tunnel 2016–2023).

Today, London's waterfronts are a tourist showcase – a space for displaying the city's historic panorama and new, spectacular architecture. Yet there is still a lot to be done to make the metropolis a water- and citizen-friendly city, especially as London's population continues to grow and climate change poses new challenges.

Return strategies

The process of restoring eco-hydrological and socio-cultural exuberance to London's rivers required a long-term vision and systemic remedial actions aimed not only at environmental regeneration and modernization of water and sewage systems, but also education and public involvement in revitalisation processes as well as the creation of public-private partnerships.

Ideas meant to contain London's spatial expansion and improve recreational conditions emerged already at the beginning of the 20th century¹⁶ in the form of the Green Belt concept surrounding the metropolitan area of London. The Metropolitan Green Belt provided a zone for weekend recreation, but its negative effect was the amalgamation of the internal structure of the city, which worsened the conditions for everyday recreation. The dispersed greenery (parks, squares) did not ensure natural or recreational continuity. In response, the concept of the Green Chain Walk¹⁷ – a combined system of parks on the city's outskirts – was developed. The

radially arranged corridors, binding both rings, are being created along the former river valleys. One of the first projects involved the creation of the Lee Valley Regional Park in 1967. Further changes were catalysed by the 2012 London Summer Olympics, with Queen Elizabeth Olympic Park becoming a showcase for London's pro-ecological development.¹⁸ The way the landscape of the Lee River was shaped was intended both to preserve the local industrial identity and to re-naturalise river sections while restoring the local fauna and flora habitats.

The Blue Ribbon Network (BRN) is a spatial policy of the Great London Plan (2004, 2008, 2011 and 2016), comprising not only the Thames, but the entire interconnected hydrographic system of London, i.e. rivers, their tributaries and canals, and interconnected water areas, such as docks, lakes, and artificial water reservoirs. Importantly, the network idea takes into account not only surface waters, but also parts of underground sewerage and their interrelations with the environment. The London Plan 2004 formulated the main principles for the development of the BRN network:

1. To accommodate London's growth within its boundaries without encroaching on green spaces, policies should make the most sustainable and efficient use of space in London, by protecting and enhancing the multi-functional nature of the Blue Ribbon Network so that it enables and supports those uses and activities that require a water or waterside location.
2. Policies should protect and enhance the Blue Ribbon Network as part of the public realm contributing to London's open space network. Opportunities for sport, leisure and education should be promoted. The Blue Ribbon Network should be safe and healthy and offer a mixture of vibrant and calm places.
3. To promote social inclusion and tackle deprivation and discrimination, policies should ensure that the Blue Ribbon Network is accessible for

16 The concept of the Metropolitan Green Belt was first proposed in 1935, and in 1947 it was included in spatial development plans.

17 In 1977, the southern part of the Green Chain Walk was completed, which linked open spaces between the Thames and Crystal Palace Park into a system of public green areas.

18 The Olympic Park (area of 2.5 sq km) covered the Olympic village and a number of spectacular sports facilities, including the Aquatics Centre (designed by Z. Hadid) and the Velodrome (designed by Hopkins Architects) and a system of paths and public spaces with playgrounds and spaces for rest.

everyone as part of London's public realm and that its cultural and environmental assets are used to stimulate appropriate development in areas of regeneration and need.

4. The attractiveness of the Blue Ribbon Network for investment should be captured by appropriate waterside development and regeneration. This will include the restoration of the network and creation of new links.
5. To improve London's accessibility, use of the Blue Ribbon Network for water-borne transport of people and goods (including waste and aggregates) should be increased. Alongside the Blue Ribbon Network there also opportunities for pedestrian and cycling routes.
6. To make London a more attractive, well-designed and green city, policies should protect and enhance the biodiversity and landscape value of the Blue Ribbon Network. The network should also be respected as the location of a rich variety of heritage that contributes to the vitality and distinctiveness of many parts of London. London must also have reliable and sustainable supplies of water and methods of sewage disposal and a precautionary approach must be taken to the risks created by global warming and the potential for flooding.

The principles and action plans for river regeneration were formulated in consultation with the Environment Agency and a number of environmental organisations as The London Rivers Action Plan (LARP 2009). The five key objectives of the plan include: 1. to improve flood management using more natural processes; 2. to mitigate the negative effects of climate change; 3. to make the environment accessible to residents through urban and natural regeneration; 4. to improve recreation conditions and quality of life; and 5. to strengthen wildlife habitats.

The Greater London (1579 sq km) covers a significant part of the River Thames drainage area. The river's surface area within the city is 24 sq km with 80% of its floodplains being urbanised. Approximately 45,000 properties are at risk of a one-hundred-year flood (1% of annual flood risk), most of which constitute socially handicapped areas (LARP 2009). Nearly 40% of London's area has impermeable surfaces, hence heavy rainfalls cause a rapid rise in watercourse and sewage run-offs, moreover, and the flood warning times are very short. The main measure to reduce

flood risk in London is to appropriately adapt buildings and to pursue a river reconstruction programme included in the Thames Catchment Flood Management Plan (2009).

In 2011, Boris Johnson, the then Mayor of London, emphasised that "We should undo the hydrophobic policies of the 1960s – which saw natural rivers and waterways encased in concrete – and find ways to work in harmony with water in our landscape to ease the consequences of heavy rainfall and beautify our city at the same time. These strategies will help us to stand on the shoulders of Bazalgette and future-proof London for the challenges ahead." (HLG 2011, p. 6). An important issue in the London Water Strategy (LWS 2011) was the use of green infrastructure (GI)¹⁹ and a more creative approach to flood risk management, aimed at slowing down the run-off 'from rain to drain' and the use of rainwater to reduce the demand for treated tap water.

The latest London Environment Strategy (LES 2018) further highlights the importance of GI²⁰ and SuDS²¹ in managing flood risks and improving the quality of London's waters and recognises the ecosystem services provided by London's natural capital.²²

19 London's green infrastructure consists of a network of parks, open areas, gardens, forests, rivers and wetlands, as well as street trees and green roofs.

20 Green infrastructure is planned and used to promote healthier lifestyles, mitigate the effects of climate change, improve air and water quality, encourage active leisure activities, absorb carbon dioxide and improve biodiversity and ecological resilience (LES 2018, p. 135).

21 Sustainable drainage systems reduce surface water flood risk, treating polluted run-off, preventing pollution from entering tributary rivers and streams offer and opportunities to save water through reuse. Sustainable drainage can be 'green' or 'grey.' Green systems use natural vegetation to treat and store water. Grey systems use hard engineering, such as oversized pipework or underground tanks, to store water for slow release back to the drainage system once there is space available. However, green systems also offer further benefits by increasing green cover and creating more pleasant landscapes and healthier, more attractive streets in London. (LES 2018, p. 365).

22 London's 8 million trees provide at least £133m of benefits every year in terms of air pollution removal, carbon sequestration and reducing the amount of water going into drains. (LES 2018, pp. 137–138).

The development of blue-green infrastructure is closely linked to natural regeneration of London's rivers, with the aim of restoring biodiversity, richness of local ecosystems and environmental sustainability in order to re-establish its capacity for self-regeneration. Achieving this goal requires the cooperation of authorities, residents and numerous governmental and non-governmental organisations,²³ but consistent implementation of this long-term strategy yields results. Thanks to the availability of information, numerous guides and educational campaigns (e.g. London Rivers Week Thames21), more and more local river and stream regeneration initiatives are emerging in the various districts of London. By 2018, 27 km of rivers in London (the London Rivers Action Plan 2009) were re-naturalised or discovered, including Brent, Crane, Colne, Roding, Beam, Ingrebourne and Lee. Restoring the ecosystems of London's rivers serves not only to provide space for water (BLUE) and enhance biodiversity (GREEN), but also to improve the quality of life of its inhabitants and their ecological awareness (RED), putting London on the right track to becoming a water-, environment- and people-friendly city.

Lessons from the past for the future

Clean water constitutes the foundation for urban life, and its quality depends on the condition of the environment. A healthy environment is therefore a prerequisite for urban development. This simple relationship still appears to be ignored in the planning and design of Polish cities. The new approach to man-water relationships often tends to be reduced to the renewal of riverside areas, but as long as it focuses solely on aesthetics and activation of waterfronts, it resembles putting on successive layers of make-up instead of treating the underlying condition.

²³ London Rivers Restoration Group comprises Environment Agency, Thames21, the Greater London Authority, the Wandle Trust, London Wildlife Trust, Green Corridor, the Thames Estuary Partnership and the River Restoration Centre, itself being member of a larger group, the Catchment Partnerships in London (CPiL).

Investments in blue-green infrastructure, including natural regeneration and river restoration, are long-lasting, yet not as spectacular as transformations of urban waterfronts – they do not bring short-term profits,²⁴ are sometimes surface- and capital-intensive, and are invariably associated with numerous risks and uncertainty.²⁵ However, they constitute a necessary stage in restoring the natural water circulation and purification processes in urban drainage areas. Moreover, raising environmental awareness turns into a sense of social responsibility for the environment and water quality.²⁶ London's example proves that re-establishing good relations and 'friendship' is possible even after a city's 'divorce' from its river.

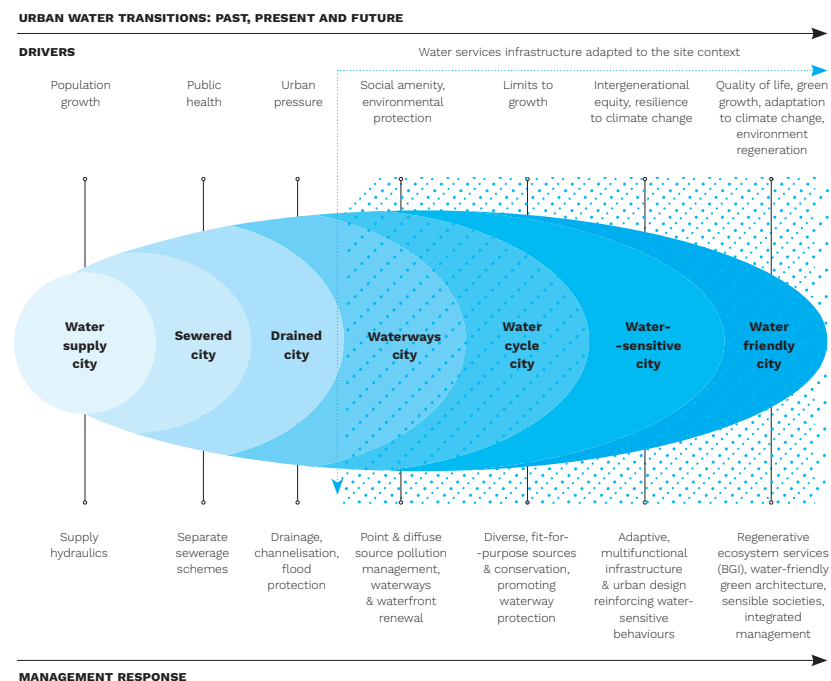
Compared with global metropolitan areas, Polish cities are small, are characterised by low-density development and low water consumption. This is a huge potential, which offers us an opportunity for green and water-friendly development, especially since our cities are substantially water-deprived (Fig. 1 – stage 3). For the time being, cities are making attempts to revitalise their riverside areas (stage 4), and few are beginning to invest in green infrastructure. Subsequent stages of development, which involve taking into account the urban environment water cycle, integrating urban planning with water management as well as developing the public's and planners' sensitivity to water-related issues, are still an issue of the future.

²⁴ In the longer term, "every £1 invested in river renewal brings £7 long-term new benefit" (Oates 2012, quoted from Mayesbrook Ecosystem Services Report 2011).

²⁵ "For example, it is impossible to precisely determine the capacity of the channels after re-naturalisation, morphological changes in the river bed and the valley, or to anticipate the response of the natural environment to changes caused by it. Therefore, a very important element of the process is the monitoring of changes in environmental conditions" (Bańkowska et al. 2010, p. 195).

²⁶ Apart from the above-mentioned activities in London, an example of effective social policy is offered by the ABC Waters programme (Active, Beautiful, Clean Waters 2007–2030) implemented in Singapore. Due to the scarcity of drinking water and the very high level of urbanisation of the country/city, water management is the focus of innovative solutions and close integration with spatial planning and social policy.

Figure 1. Urban Water Transitions: Past, Present and Future



Source: Own study based on Brown et al. (2009).

Under Poland's current urban management system, spatial planning is not interoperable with water and sewage services, rainwater management or flood risk management. These areas are supervised by different entities which do not coordinate their activities. In order to achieve synergy effects in the implementation of economic, social and environmental objectives, it is indispensable to integrate water and spatial management in urban drainage areas (Bahri 2015), create mechanisms for ensuring the resilience and flexibility of cities, adaptability to change, efficiency, spatial order, and the quality of life.

Cities are created by people for people. In order to establish friendly relationships between city and water, what is needed is a change in social

values. Developing water culture starts with expectations and strategies, but the aims include improving the management of water resources, space and the environment, empowering rivers and their ecosystems, but above all, creating a sense of joint responsibility of residents (decision-makers, designers, contractors and users) for water's vitality in every area of city life. Large changes result from the accumulation of small 'drops,' such as pocket parks and wetlands, green roofs and living walls in architecture, gardens and rain squares or riverside buffer parks.

Half a century has passed since the Council of Europe adopted the European Water Charter, which laid down the guidelines for quantitative and qualitative protection of water. At that time, it was such a revolutionary declaration that the basic rights of water, including as the right to cleanliness and self-purification in connection with its drainage area (especially the vegetation), the right to circulate and restore resources, and the right to swell and flood, came to be respected only after 30–40 years. We tried to take over water, but we are only its administrators. It is time to open our eyes and accept the fact that water does not belong to people. It is people who depend on water, just like the millions of species that make up the global ecosystem that shapes our existence. It is therefore our responsibility to share the planet's resources and regenerate them.

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The Right to the city as a public subjective right

Explaining what the right to the city is, or rather what it may be in the context of the discussion which started in the 1960s, causes lawyers a lot of problems. First of all, they must give a clear answer as to what the right is in general, for its very concept is hotly debated. As Immanuel Kant already pointed out, this issue may dismay many a scholar, who, for fear of falling into tautology and the lack of a general notion of right, will invoke legal regulations that prevail in a certain place and at a certain time (Kant 2015, p. 39). In the contemporary debate on the right to the city, it is rather not the question of referring to a certain legal practice based on the regulations in force in a given country which guarantees this right. When considering the problem of the right to the city today, we often mention an idea, a vision, and a postulate (Lefebvre 2012, p. 184) which rarely find a positive expression in the legal systems in some countries, and if so, they tend to be quite generally formulated (Izdebski 2017a). However, even if the lawyers invoke a general definition of the right, they must not stop there. They still need to explain what the city is, which is not a simple matter either. The concept does not always refer to a physical space with a strictly defined development structure or its specific features. The origins of the city can be sought not so much in its spatial layout or architecture, but in its functions, which are often identified with those of a centre of power (Benevolo 1995, p. 15). It is also possible to identify the city not so much with power as with knowledge. It is worth recalling that the legal definition of city (town) adopted in

Jewish culture (as an entity distinct from the village) states that the city, unlike the village, is inhabited by at least ten *batlanim*, or “people who do not work,” having abandoned their own benefits in order to study for the benefit of the community (Johnson 2014, pp. 214–215). As we can see, this definition tells us nothing about space and development as constitutive features of the city. Therefore, the answer to the lawyers’ question concerning the city does not seem as obvious as it would seem at first.

However, when we ultimately choose a general definition of right, such as that proposed by Kant (“right is ... the sum total of those conditions within which the will of one person can be reconciled with the will of another in accordance with a universal law of freedom” (Kant 2015), if we decide to define the city as, for example, a centre of knowledge or power, another problem arises. What does it mean to have a right? Consequently, we are compelled to answer the question what it means to have a right to a city. As it is often emphasised among the representatives of Polish legal sciences, the term “have a/the right” is particularly ambiguous, since it can be used in at least three basic senses (Wronkowska 1997, pp. 106–108): first of all with reference to a situation in which a subject enjoys a certain legally protected freedom, i.e. the right to act as it sees fit, because no legal norm either prohibits or requires it to act in a given way; secondly, it can be used to designate the rights of one entity with respect to another, and thus specify legally sanctioned norms of appropriate conduct towards each other, including prohibitions and orders; and thirdly, it may designate the authority of one entity in relation to another, i.e. it can be synonymous with the possibility of undertaking conventional activities on the basis of competence norms (Czepita 2017, pp. 85–102). However, in this case it is also necessary to make a choice, to reach a certain compromise, which may be relevant to the discussion about the right to the city. The outstanding philosopher of law Herbert Hart formulates the problem of having a right, which he identifies with entitlement, thus framing it more generally than Polish law theorists. He claims that an entity has a right if there is a legal system, moreover, when, under a provision or a group of provisions of this legal system, another entity is obliged to act or refrain from acting, and additionally, the obligation is established by law as de-

pendent on the choice of the entity thus entitled.¹ Accordingly, it is the existence of an obligation of another entity corresponding to a certain right that determines whether or not someone actually enjoys this right. However, the question of having a right cannot be completely reduced to this, because the obligation in question must be enforceable, i.e. its execution must be guaranteed, which law theorists often forget about when discussing this expression.

Perhaps this lack of recognition of the role of the guarantor of rights in defining ‘having a right’ results from the most frequently adopted convention of describing the right, which was imposed at the turn of the 19th and 20th centuries by Kelsen’s perspective on legal normativism. Kelsen interpreted the law as a set of legal norms addressed to people, while often disregarding the state as a subject of the law and a participant in legal relations. The dispute between supporters of the positivist and naturalistic concepts of law may also have contributed to this; as a result, today’s discussion about the right to the city take place in the context of fundamental human rights (Izdebski 2017a, p. 17). With the possible and historically developing concepts of human rights (as expressed in their classification in terms of successive generations²), we are ever more distant from identifying the positive content of this right,³ since it is becoming more and more clear that it belongs in the sphere of freedoms remediable only by law. At this point, we are once again touching upon a problem which has already been mentioned, namely do we actually mean the right to the city in a descriptive sense (i.e. about the right as it is), or the right in a directive sense (i.e. about the right as it should be) (Ziemiński 1995, p. 8)? If the latter, we can try to shape its contents in accordance with social needs. Consequently, we are entitled to the privilege of constructing

1 Hart uses the term *choice* in the sense of a possibility of deciding about a certain conduct or refraining from such conduct until such time as another kind of conduct is decided on by that entity (Hart 2001, p. 35).

2 On human rights and their evolution see e.g. Garlicki (2017, pp. 101–108).

3 However, such an attempt is made by sociologists (see Szczepański 2017, pp. 19–29), and by urban planners (see e.g. Szpak 2017, pp. 177–188).

the right. Guided by such an intention to construct a new right, we should remember, however, that laws and rights are political phenomena associated with the state – a certain provision is law as long as it is a part of the law of a certain state (Raz 2000, p. 80), which for the time being (despite all the mostly moderately successful attempts to universalize the law [Tokarczyk 2002, p. 39]), is always the ultimate guarantor of rights. Therefore, when discussing the right to the city, we necessarily refer to a specific state tradition, which we are changing, rather than to a certain universal view – the right to the city thus appears to be the product of a specific state and society that endows it with content.

In these general considerations about the law, it is worth mentioning that adopting the normative concept of law as a starting point, one can safely claim that in law we are dealing with three distinct types of activities of legal entities, which lead to legal acts. These are: 1. law-making actions which conclude with legal acts⁴ that introduce legal norms into the system; 2. actions aimed at applying the law, i.e. deriving legal norms from the norms already existing in the system, which culminate in law enforcement acts; and 3. legal control aimed at removing legal norms from the system, which culminate in legal control acts removing legal norms from the system.⁵ In this approach to the legal system, the expression “to have the right” means to have a specific power, which may involve the power to legislate, to apply the law and to control the law, and the related obligation or obligations of another entity. Enforcing this right – whether it is exercised in the process of making, applying, or controlling the law – depends on the initiation of proceedings aimed at applying or controlling the law.⁶

4 In the sense discussed by Hans Kelsen, namely the legal act as the product of a legal procedure (for more on this subject see Kelsen 2014, p. 56).

5 I have devoted a monograph to these issues, in which I call these three categories of legal actions *legal relations*, trying to prove that we are dealing with legal relations that delineate the legal sphere, both at the level of public law and private law (for more on this subject see Zachariasz 2016).

6 More and more often, in theoretical considerations on the law, it is recognised that it is necessary to separate control of the law, the essence of which is to eliminate legal norms

However, the term “to have the right” may also mean something else: it is often used in a situation in which an entity is entitled to a number of things, which add up to the possibility of performing an act of making, applying, or controlling the law. We often mention the right of ownership or the right to a court, and these rights, considered not objectively but subjectively, constitute a group of rights of a specific entity, and at the same time entail the obligations of other entities, which lead to specific, legally important consequences in the form of concluding or adopting an act of law.

The identification of legal relations – as processes aimed at establishing a legal act, the essence of which consists in establishing the law, its application or control – makes it possible to distinguish between public-law and private-law relations. Thus, the approach to law based on its description using the notion of legal relations thus conceived offers the possibility to regulate and describe the relations between legal entities in terms of public law and private law – as two separate, but dependent legal regimes. From this perspective, any legal relations entered into by a public entity become public law, whereas any legal relations which do not involve a public entity become private law. As Georg Jellinek wrote more than a century ago, “Public law is the law that binds a community equipped with the power to rule over peers and to subordinate individuals” (Jellinek 1924, p. 245). More specifically, “public law is the law that governs the organisation of the State and the relations between the State and its subjects, while private law is the legal order of the sphere of life of peers who are collectively subject to the order of the State” (1905, p. 9). The separation of private from public law in the 19th century was undoubtedly an important process, both from a practical and scientific point of view. It not only contributed to the study of mutual relations between these parts of law, but also provided a basis for the formation of the law governing their organisation in the actions of the states at the time. In the 19th century, German lawyers even came to believe that public law was

from the system, from law-making, which consists in introducing legal norms into the system, as well as from the application of the law, the essence of which is to derive legal norms from legal norms already existing in the system (see Izdebski 2017b, pp. 13–14).

superior to private law. At the turn of the 19th and 20th centuries, public law became a separate and autonomous branch of law, in opposition to private law, and was perceived as a guarantor of the existence of the private law system. As Jellinek wrote, “there is no private law without public law” (ibid., p. 10), because “all the private rights converge in the public-law claim to their recognition and defence” (1924, p. 244). Otto Mayer in his discussion of the development directions of public law, argued that public authority should act on the basis of public law regulations and support private law in order to protect it and use it, but should not itself participate in private trade as a rule (Mayer 1924, p. 16). In this way, public law became the foundation of social order, a more general order, of which private law was only a part, and also provided the basis for the operation of the modern rule of law. And despite its 100 years of development, it needs to be developed still further.

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There is therefore a close association between the law (divided into public and private law), the state and the mutual relations among legal entities, including the state and its subjects, which is referred to as legal relations. It was the concept of legal relations, which had not yet been sufficiently recognised and explained in legal theory in the 19th century, that became the basis for the development of public law and, above all, the point of reference for thinking about public subjective rights. It was in the late 19th century that Jellinek formulated the exclusive concept of public subjective rights in the German legal doctrine, and developed their classification, which is still considered exhaustive in legal sciences today (Brugger 2011, p. 26). His concept can be useful in the ongoing discussions on the right to the city, as it provides an opportunity to theoretically organise considerations in this area. It starts with the distinction between objective law and subjective law often made in legal theory. Objective law is the order of duties that regulates the ways in which individuals and the community as a whole

act together, or sociologically speaking, the sum total of the laws in force in a given state. Subjective law is conferred by objective law, and thus results from the objective legal order; it is the legal area of power that a legal entity has over other entities, including public authority, or private-law entities (e.g. property rights, claims against a person). Objective law constitutes a different aspect of the general legal system in the state than subjective law and, as a research perspective, provides a new outlook on the fundamental issues of modern legal sciences – in public law, especially on the issues of citizens’ and residents’ rights in relation to the state (Stawecki, Winczorek 2003, pp. 78–79).

The notion of public subjective rights, as well as its content, are the products of the 19th-century German science of the state (Ramsauer 1986, p. 503), although in modern times, the first theories of subjective rights still based on natural law, were formulated by Hugo Grotius in the 17th century (Izdebski 2001, p. 109). However, three 19th-century events with public implications were of primary importance for the formation of a modern civil society, and made it possible to notice the importance of the issue of citizens’ rights in relation to public authority, as one of the most important modern legal issues. These were: the positivization of natural law and the emergence of the concept of the rule of law, the distinction between public law and private law, and the introduction of the tripartite division of power, in particular, the institution of administrative and constitutional judiciary. As Franciszek Longchamps wrote about the development of the concept of public subjective rights, “The postulate of individual rights, put forward by the doctrine of the rule of law, in the initial phase was a kind of a combat slogan. However, as this slogan was implemented in positive law, the main subject of investigation became the correct construction of individual rights against authority on the basis of positive law” (Longchamps 1961, pp. 123–124). In legal terms, public subjective rights derive from the recognition of human freedom and belonging to a national community, and thus from his recognition as a subject of rights in relation to the state. As Jellinek pointed out, “only as a member of the State ... is man the bearer of rights. Personality, in fact, is *iuris publici*” (Jellinek 1905, p. 82). The recognition of the legal

subjectivity of a person vis-à-vis the state requires recognising that the state, as a subject of law, is also subject to an objective legal order.

In Jellinek's classic approach, a subjective right is "a human power of the will recognised and protected by the legal system and directed towards some good or interest" (ibid., p. 51), which assumes the possibility of asserting the obligation to act in a certain way on the basis of a legally enforceable claim held by another subject. Distinguishing between public and private subjective rights, differentiated according to whom the claim is directed (public subjective rights result from the citizen's attitude towards the state, while private ones involve the citizen's attitude towards things or persons), Jellinek proposed a classification system of public subjective rights, i.e. public-law claims based on the individual's relationship to the state (*Status*), distinguishing four groups of such situations (relations), which constitute the status of the citizen, and may result in claims: (1) the passive status (*der passive Status, status subiectiois*), including the citizen's obligations towards the state, i.e. a status in which the citizen is not entitled to any claims; (2) the negative status (*der negative Status, status libertatis*) which includes the citizen's demands that the state refrains from certain actions; (4) the active status (*der Status der aktiven Zivität, status activae civitatis*) which includes the demand to participate in state activities (ibid, pp. 86–87).

The exercise of a public subjective right can only materialise in the state, since "by belonging to a state, by the membership status which a person assumes in the State, he can be classified according to different directions. The relationships in which he or she may enter in the state provide him or her with a number of legally relevant situations. The claims (*Ansprüche*) that arise from these situations are what is referred to as public subjective rights" (ibid., p. 86).

Referring to the notion of a legal relationship, it can be argued that it is precisely this status of a subject vis-à-vis the state that gives rise to a legal relationship between him and the state. Its purpose is to issue an act that constitutes a law, to introduce legal norms into the system or an act that applies the law, or derives legal norms from the already existing ones (less abstract and general ones than the already existing ones), or an act of control which removes an existing norm from the body of legal

norms in force. So much for theory. However, it should also be noted that the practice of the modern legal state rarely uses 'pure' acts of law-making, application or control. In each legal act, these activities intertwine, which makes their classification more of a logical explanation of the legal processes than a rationale for introducing distinctions between legal acts.

A special role in affirming the concept of subjective rights in the 19th-century Germany was played by Mayer, who developed his own theory of public subjective rights under administrative law. He wrote that "public rights would have to appear to us as control of a part of the public authority which is exercised by the legal order for its own benefit" (Mayer 1924, p. 104). He associated the concept of subjective rights with the state authority and saw in certain kinds of behaviour of citizens towards the state the same imperative element that the state exerted on a citizen. As Franciszek Longchamps wrote, "The author understood his notion (of public subjective rights) as something almost adjacent to the competence of state bodies. (...) Despite all the criticism that Mayer's position may have and did arouse, its significance for the affirmation of the concept was very important – the concept of public subjective rights gained a rightful place in the German science of administrative law" (Longchamps 1960, pp. 66–67).

According to Mayer, insofar as a part of such public authority is granted to a subject to act in his own interest against the state, a public subjective right is born (Mayer 1924, pp. 107–111). Mayer divided public subjective rights into: (1) freedoms (*Freiheitsrechte*), which included certain entitlements that, in the event of a threat to freedoms on the part of the State, legitimised the citizen's claims against the state, e.g. concerning restitution, remedying, compensation for damages, etc., (2) participatory rights (*Mitwirkungsrechte*), which allowed citizens to influence the state authorities and public affairs in order to realise their benefits, e.g. the right of an official to hold office, and (3) separate subjective rights (*abgesonderte öffentliche Rechte*), or these rights, where the public authority is as if not entirely legally bound, quite freely serves its interests, including the right to self-government.

Mayer's views, now forgotten despite all the criticism that they received, allowed not only to permanently anchor public subjective rights in the doctrine of administrative law, but also having found a fertile political ground

(since they were proclaimed at the time when the administrative judiciary gradually developed in the German states), made the issue of public subjective rights to some extent the exclusive domain of administrative law. From then on, court proceedings ceased to be the remit of the state administration and were transferred to a separately established judicial authority. All the citizens gained easy access to it in order to protect their rights against state interference. The administrative judiciary in southern Germany grew out of the need to protect public subjective rights (Wyrzykowski 1990, p. 123). The connection between public subjective rights and the administrative judiciary became so strong that Ottmar Bühler, in his definition of public subjective rights, made their existence dependent on the possibility of asserting the resulting claims before the courts (Ramsauer 1986, p. 504). With the benefit of hindsight, we know that the issue of guaranteeing the exercise of public subjective rights is not limited to the administrative judiciary, but is also strongly associated with the constitutional one.

In Polish legal science, Jellinek's classic concept of public subjective law still attracts negligible interest as an example of doctrinal considerations. In a fairly recent work, Wojciech Jakimowicz provided the following definition of subjective law: "Public subjective law is: a derivative and simple legal situation, i.e. a situation defined by a norm of statute law, universally binding and arising directly from a norm of this law, or one that additionally requires for its existence the issuance of an appropriate individual act, having, in the case of natural persons, its primary source in natural human rights, and in the case of organisational entities, exclusively in the norms of objective law, whose subject is a natural person or an organisational entity such as a state or local government unit, providing this entity with a claim, i.e. the instrument enabling effective enforcement of the right to effectively demand a specific positive conduct corresponding to the legal interest of the requesting party or effectively demand non-interference in specific legally guaranteed spheres of freedom in respect of another legal entity governed by public subjective law" (Jakimowicz 2002, p. 246). However, in my further deliberations on the right I shall not refer to Polish science, but to the German tradition and the division of public subjective rights proposed by Jellinek.

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It appears that the right to the city can be analysed in terms of a sum of public subjective rights resulting from the negative, positive, and active statuses, since such a discussion then takes place on the doctrinal ground. As lawyers say, we will not refer to a legislative act as such, but to its legal interpretation, explaining the meaning of the formulation by invoking the legal regulations that shape the law. Under Polish law, such a discussion, in the absence of clear legal regulations establishing the right to the city, seems to be particularly justified – the right to the city in Poland, for the time being, can only exist as a subject of doctrinal deliberations. Therefore, we have no choice but to try to identify the rights of legal entities that combine to form the city, which are directed against the city and state authorities and have collective life in the city as their subject.

The discussion on the right to the city places a particular emphasis on the need to grant rights to influence the spatial and architectural shape of the city, environmental protection, the use of public spaces and facilities, the use of private spaces in the context of public spaces, the location of buildings within the city area, etc. (cf. Piskozub 2013, pp. 02–34). Therefore, it concerns the rights resulting from the status of an active resident which, under indirect democracy, allow him/her to demand participation in the activities of the city authorities and the state that affect the spatial environment. In the legal sphere, in order to broaden this catalogue of rights, it is necessary to develop procedures enabling city residents to broadly participate in the adoption of legal acts, as well as law application and control in order to pursue their interests. In the discussion on the right to the city, the categories of demands or claims directed to city authorities, resulting from a negative or positive state of affairs, are rarely mentioned. They constitute an important part of entitlements included in the right to the city, but since they are better theoretically recognised and described (as related to state freedoms or obligations), they may constitute a separate object of interest (in this text, it has been omitted).

The theory of law identifies final norms, which impose the obligation to implement projects defined in time and space (Morawski 2012, p. 60).

Spatial planning acts undoubtedly make use of final norms. These norms, however, as Robert Alexy pointed out in his works in the field of theory of law, are subject to optimisation in the planning process. By introducing the division into norms-rules and norms-principles, Alexy emphasised that rules are “norms that can or cannot be met – if a rule is in force, then everything that it requires should be done, no more, no less – the rules thus contain decisions in the space of real and legally possible actions.” On the other hand, principles “are norms that dictate that something should be realised the greatest possible given the factual and legal possibilities at hand – i.e. principles are optimisation guidelines, whose characteristic is that they can be fulfilled to varying degrees and that the extent to which they can be fulfilled depends not only on actual possibilities, but also on legal possibilities” (Alexy 2010, p. 78). Therefore, when considering the right to the city in its part that comprises the right to shape the final norms aimed at planning the city in legal acts, in the Polish legal context, we primarily refer to local plans and studies of conditions and directions of spatial development. However, we must also refer to administrative decisions concerning zoning and spatial development conditions, as well as construction permits or decisions regarding the environmental impact of projects in terms of proportionality, recognition of the interests of participants in the law-making, law application, and control processes. In those cases, proportionality of action is nothing more than a requirement to respect the right to the city, to which each participant is entitled and which is expressed by each participant in those processes in his or her own way in accordance with their interests.

Proportionality means that interference in the shaping or exercising the law must not be greater than necessary to achieve the objective pursued. It concerns not only the intentions of public administration, but also those of private entities. A procedural reflection of the principle of proportionality is the principle of weighing interests (equal consideration of interests). This principle was formulated in the verdict of the Supreme Administrative Court of 19 June, 2008 (II OSK 437/08, Lex no. 490102), in which it stated that in spatial development ‘social interest’ does not gain primacy in relation to the individual interest, which entails the obligation to “carefully balance” individual rights of citizens and the

public interest in the spatial planning process. In the Court’s view, the fundamental principle of equality before the law requires a balancing of all interests in a given case, and the essence of balancing involves a proper implementation of two elements of this principle – the balancing of the value of interests and the result of such a balancing process. The obligation to balance interests is violated when: (1) no attempt has been made to balance interests; (2) not all the interests to be balanced have been included in the process; (3) an interest has been unjustifiably adopted as dominant or the principle of fairness has been violated. This verdict, which must be emphasised, significantly limits the importance of the interest weighing process to relations between private and public entities. Balancing interests, which are actual interests in the planning process (to use the doctrinal categories of law application), should also include weighing private interests, because the planning process serves, as has already been mentioned several times, to shape the normative order, in which the exercise of rights of an entity external with respect to the administration is limited by the exercise of rights of other external entities. This verdict, however, contains guidelines on how to safeguard the subjective rights of persons interested in changing the city. The procedural rules contained in it require doctrinal development and practical application in administrative proceedings.

As was already mentioned, proportionality should be taken into consideration not only in the process of adopting legal acts that introduce legal norms into the system, such as local plans or studies of urban spatial development and planning. The recognition of the need to protect interests should also result in changing the procedural basis in administrative court proceedings, admitting of the possibility of lodging complaints against legal acts, provided that they do not realise the actual interests of the residents, expressed in the law-making process in the form of motions, comments, and public discussions. However, the instances of such openness of law-making and control processes in the Polish legal practice are few and far between. Not only are we dealing with a tendency to limit the right to participate in law-making or law control decisions, but also where the regulations do not create barriers to a wide participation of interested entities, the juris-

prudence of administrative courts attempts to limit them. The same tendency to limit the broad participation of residents and interested entities in making spatial decisions is also discernible in the law application processes, when administrative acts are being issued (Zachariasz 2013, pp. 73–87).

Previously I pointed out that the right to the city implies corresponding obligations on the part of other entities, and that the law as a mechanism that structures social activities is, in fact, a mixture of rights and obligations of legal entities that adopt, apply, and control legal regulations. The question arises, then, what obligations arise as a result of the right to the city in its part that entitles interested parties to participate in shaping spatial development? City or state authorities are obliged to weigh the interests and make decisions based on the proportionality principle. However, these are not the only obligations, because in the European tradition, the right to shape urban space entails the obligation to finance the construction of common city infrastructure by entities that benefit from it. Hence, the quite common betterment levies (special assessments) paid by people whose land has been converted into building plots. In our legal context, this system fails. Even though it was apparently established, it shows major dysfunctions and requires changes that would link the amount of levy to the actual costs of building public infrastructure (Gdesz 2012, pp. 173–189).

The lack of obligation to build public infrastructure, as provided for by the local plan, within a specified period of time, is a practice widely accepted by Polish courts. In one of the verdicts, the Supreme Court explicitly stated that “the fact that the construction of technical infrastructure is an obligatory task of the municipality and the fact that the claimant purchased land designated for housing construction in a local plan providing for the obligation to build a sewage treatment plant in this area does not imply that the municipality has the obligation to build a sewage treatment plant in this area in the time, place, and for the purposes related to the construction works carried out by the claimant” (Verdict of the Civil Chamber of the Supreme Court of 21 March, 2003, II CKN 1261/2000, LexPolonica No 377433). The Court’s opinion is not surprising, because in view of the chaotic development of Polish cities for

over twenty years, it would be difficult to construct such infrastructure wherever people choose to build their homes. Such undertakings would contravene the elementary principles of economy. Hence the obligation to bear the costs of public infrastructure in cities by those who benefit from the transformation of undeveloped land areas into construction areas (or by those who benefit from the modernisation of existing buildings) not only has an axiological dimension, is socially just, but also has a practical value that is difficult to overestimate. Associating development processes with economic viability eliminates speculation with urban land. At the same time, the obligation favours a responsible exercise of that part of the right to the city which includes the right to shape space, both private and shared, as these intentions are subject to economic verification.

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In the Polish legal context, the right to the city can be discussed doctrinally, or interpreted using legal language, since it would be difficult to derive a positively established or identified as natural right to the city from the current legal provisions. This concept may mean a number of groups of public subjective rights resulting from the different statuses of resident. It can be treated as a rallying cry, which motivates city residents to broaden the sphere of their freedom, reflect on their duties towards other residents, or their participation in the legal activities of the city and state authorities. As is shown by the above-described sample of rights and obligations of the entities that make up the city to shape its development and spatial structure (as a certain portion of the doctrinally conceived right to the city), the issue of the right to the city is extremely broad and complex. In order to describe it comprehensively, it would be necessary to refer to the other spheres of city activity, where the rights resulting from the active status are or, more importantly, should be implemented in the law-making, application, or control processes. We should also try to describe those rights which result from the positive or the negative status, and which undoubtedly comprise to form the right to the city,

such as ownership rights, the possibility to use public space and facilities in cities, preventing the interference of city authorities in the sphere of numerous rights and freedoms of man and citizen.

Undoubtedly, however, in view of the fact that Polish cities are managed under various forms of indirect democracy, the most interesting group of public subjective rights are those that result from the active resident status, which allows them to pursue their interests in the processes of law-making, application, and control. They are not numerous, they are being implemented only to an extent, as is the case with environmental impact assessments of projects under the influence of the legal culture of Western European countries. The discussion on the right to the city primarily concerns their development vis-à-vis the key legal acts – not only those that influence the spatial shape of the city, but also other activities of municipal authorities viewed as important by the residents. For example, this is already the case in developing cooperation programmes with non-governmental organisations. In short, it is about replacing public consultation processes with public subjective rights and thus strengthening the position of the residents by giving them the opportunity to protect their interests in court. For these reasons, it is difficult to consider the right to the city as a collective right, although it is asserted as such by residents in their community of interests. Intrinsically, it still remains a doctrinal name for the rights of individual entities.

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Mateusz Zmyślony

Urban development strategies. City-Idea or which way to a new home

Long-term planning and thinking about how to manage urban development deserves an entire series of books. The aim of this text is to offer a brief summary Polish experiences in this area in the last 20 years.

Why Polish experiences? It is not only about our local perspective. Taking an objective look at the development of our cities over the last two decades, we can safely say that we are witnessing a distinctive and unique phenomenon – an extremely interesting case study.

Why cities? We are witnessing a historic change. Before our very eyes, people move out of villages. They are no longer needed there – mechanisation and industrial breeding methods have changed the old world. Until recently, 90% of humankind lived in rural areas. Today, this proportion has been reversed.

People eventually moved into cities, which have become completely different organisms from they it used to be. It is hypothesised that the system of nation states will be succeeded by a global network of cooperating super-cities. Robert Biedron, The Mayor of Slupsk, spoke about it during the 2017 Open Eyes Economy Summit. Super-cities, which develop on the foundations of the existing urban areas, are the elements that we are only trying to control. Few people are aware of the pace of their growth. The populations of the largest ones already exceed 20 million people. An extreme case in point is Lagos, the former capital of Nigeria. This largest city in Africa recently boasted 21 million inhabitants, but is still expanding rapidly. According to the more pessimistic scenarios, by

2030 it will be home to over 40 million residents. In other words, it is as if all the Poles chose to live in a single city. Moreover, other urban centres around Lagos are briskly growing as well; eventually their borders may blur, which will give rise to a nightmarish urban system. By 2050, it will likely be inhabited by well over 100 million people. Even though it sounds unimaginable, these are the facts. Today, Nigeria has 190 million inhabitants, but in 25 years the number will rise to 300 million, half of whom will be living in a single city.

Such a gigantic habitat must have an adequate infrastructure. While large urban areas in rich countries have budgets to match their size, know-how and often a long tradition of more or less conscious and sustainable development, Lagos is thoroughly African. It is developing uncontrollably, without a hint of urban planning, without a blueprint. Slums are even constructed along waterfronts. The world's largest floating poverty district, Makoko, is the Venice of Africa – a huge concentration of houses stretching along the longest bridge in Lagos – a third of those houses are built on stilts. Huts without electricity, water or sewerage are home to around 100,000 poor people.

Compared with Lagos, Polish cities develop in a slow, prudent, and controlled manner. But let us not be fooled by these appearances.

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There are no two identical cities in the world. Each of them is a complex system with a unique history and identity, different resources, and potential. This makes devising new urban development strategies an extremely complex, multidisciplinary task, which requires advanced analyses and enormous responsibility.

Adopting the wrong methodology or simply having none at all causes the city to change chaotically. Under such circumstances, development results from current observations, political decisions, it is shaped by more or less spontaneous reactions of public opinion, pressures and needs of developers or investors. This is tantamount to abandoning greater coher-

ence. On the other hand, a professionally drafted plan directly contributes to a significant increase in the pace of change, it also substantially increases the effectiveness of development, contributes to a synergy effect, combining various kinds of investment into a meaningful whole. A good strategy equals an idea for the city. The right diagnosis means success in demographic, cultural, investment, tourism, and marketing terms.

Cities are becoming multi-layered. Skyscrapers are growing ever higher, office and apartment buildings are piling up. Their populations are growing, property prices are rising rapidly. Under the densely populated centre, more and more tunnels are drilled, to make room for water supply, electricity and sewage, as well as the whizzing underground trains. Parking lots and technical infrastructure are descending ever deeper underground. Successive layers of the transportation network of flyovers, viaducts, bridges are also piling up. On a macro scale, multi-layered structures of the kind can be observed in cities such as Tokyo, Mexico, and Seoul (all with over 20 million inhabitants each). In the more 'Western' dimension, this phenomenon attracts interest, for example in London. Multilevel construction and population density causes numerous anomalies: limited access to green spaces, nature, light, clean water and air. Living expenses and prices are becoming absurdly high. These days, apartments in London cost ten times more per square metre than its counterpart in Warsaw and about 20 times more than that in a small Polish town. Nevertheless, almost everyone wants to live in London and almost nobody wants to live in the Scottish countryside. Moreover, one can buy a tiny apartment in the centre of the capital or a castle in Scotland for the same kind of money. London provides a huge amount of data for a case study. It is worth taking a walk or car trip through it to compare the history of its development and the problems faced by its authorities with the situation in Polish cities.

For the belief that there is nothing to compare is false. Polish cities are undergoing a revolution, they are developing very quickly, and some of them – such as Warsaw or Cracow – are growing rapidly, and become more and more densely built up. At the same time, Polish urban planning is practically non-existent, the market is not regulated by quality architectural regulations. The responsibility for urban development falls directly

on local governments and Civil society. This complicated situation due to the unrelenting pressure on the part of developers and investors. The possibilities to defend public space against greed are very limited. The situation would have been much better if, after the fall of communism, the then Voivodship Spatial Planning Offices, had survived. They worked very well, ensured the right proportions between the various components of the urban tissue. If their activity had been supported by sensible regulations – e.g. forcing investors to adopt aesthetically pleasing and spatially workable solutions – Poland would boast urban spaces of much higher quality than that at present. But instead of complaining, let us think about what should be done. After all, no one forbids cities to take their own initiative – each urban centre can devise its OWN DEVELOPMENT STRATEGY.

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Modern strategies are based on the assumption of sustainable development, which was far from obvious in the 20th century. Striving to create closed circuits, underscoring pro-ecological activities, struggling for green areas, common spaces and attractive public spaces – this is just a handful of the numerous phenomena shaping today's strategic approach to city management.

Today's urban communities in Poland are a completely new generation of citizens who share common goals, because they share similar values. They feel jointly responsible for the public space in which they live. Things that used to be state-owned until recently, i.e. belonged to nobody in particular, are now becoming ours, or mine. One must not throw garbage in the streets, one should clean up after one's dog, one should discuss the aesthetics of a square and fight for urban greenery. Poland has imperceptibly skipped several stages of social development. The consequences of the infrastructural revolution, which we have witnessed in the last two decades, are difficult to imagine (or even perceive). "Everyone can benefit, not everyone can see," was the slogan of the European Funds in Poland. It was very apt. Most Poles are not aware of the process in which they par-

ticipated more or less consciously. In order to understand this, it is worth looking at Poland from two perspectives. First, let us compare Poland with Ukraine. In 1990, both countries chose different paths of development. Both countries started from the same level – before 1989, Ukraine's GDP was marginally higher than Poland's. Ukraine was a larger country, a bit more modern and richer, with an incomparably stronger economy, with a huge potential of its Donbass coal mines, and a population twice as big. It also had an advanced aerospace and nuclear weapons industry. Just over 25 years have passed. Poland caught up economically with Portugal and Greece, and in a flash, it will catch up with Italy, exceeding the GDP threshold of USD 30 thousand per capita. During this time, Ukraine's per capita GDP reached just over USD 8 thousand. Poland therefore ranks somewhere in the middle of Europe, quickly catching up with the rich West. On the other hand, Ukraine landed in a rather exotic company of Asian and African averages. The differences are shocking. A trip to Ukraine is somewhat like a trip to another planet or a journey in time. Passing Poland's eastern border reveals a landscape of poverty, roads full of potholes, worn-down infrastructure, corrupt authorities, lawlessness, and chaos. Coming back to Poland resembles a return to civilisation. The even asphalt surfaces, clean pavements, neat cities, rich-looking houses, and sometimes impressive infrastructure do not cease to amaze. It is worth looking from a distance at the multi-lane tunnel under the centre of Katowice, the Gdansk ring road, ten lanes wide in places, the intensity of traffic at the giant Gliwice junction, trains running on a huge flyover over Podgorze in Cracow.

The other perspective involves a conversation with an average tourist from a rich Western country, preferably a first-time visitor in Poland. Let us assume that it takes place in Cracow – a city that boasts a comparable number of tourists to... London. Such a person is usually deeply shocked. They do not see our everyday problems, too densely built housing estates, smog, and traffic jams. Instead, they focus on the beautiful showcase of a city, walk through elegant cobbled streets, admire hundreds of well-kept pubs, lush social life, city centre teeming with energy. Confronted with civilisation and development, they say, "I wasn't expecting that, it's really

great here...” Today, Cracow keeps pace with London and Barcelona without any problems. It belongs in the world’s top urban class. It is time other Polish cities found out about their potential and developed further in an ambitious yet thought-out way. The key to such a transformation is, of course, the residents.

Civil society gets involved in participatory budgeting, in the protection of urban nature and confidently discusses a variety of issues with the authorities. In the Polish reality, this slowly translates into a fight against the flood of junk in public space, criticism of poor architecture, and increasing expectations regarding the quality and accessibility of culture in the city. City residents are demonstrating their commitment on a massive scale. Groups such as the Igers (Internet users taking affectionate photos of their city and posting them on Instagram within an aware community) or urban movements and numerous local communities on Facebook reveal the potential of people involved in the life of their place of residence. The emerging civil society is becoming increasingly effective in putting pressure on politicians, participating in elections, expressing its needs and ideas. It has its own opinion and can fight for its priorities. This is a good thing.

Such groups appreciate the idea of sustainable development. After two decades of devising success-oriented urban strategies at all costs – because I could self-critically summarise my previous work in this way – the time has come to develop more mature concepts. The time has come for practice, so I will illustrate it with a series of concrete examples.

Kolobrzeg

More than a decade ago, the city developed a strategy to offer high quality wellness and spa tourism. At that time it was a revolutionary concept. Kolobrzeg was then a slightly declining assemblage of old-fashioned holiday homes and a somewhat dusty resort in the style of the late communist Poland. Identifying a clear priority of combining local business with entrepreneurship turned out to be equivalent to hitting the nail on the head: the plan worked and Kolobrzeg has completely changed in just

over a dozen years. Today, the city of only 46 thousand inhabitants is an international tourist hub with an unbelievable potential. Few people in Poland are aware of the fact that in terms of the number of overnight stays, Kolobrzeg is the third largest player in Poland, after Warsaw and Cracow. It is ahead of Gdansk, Wroclaw and Poznan! Today, Kolobrzeg is visited by wealthy customers looking for a quality holiday offer. There are a number of five- and four-star hotels, where German and Swedish are heard as often as Polish. This translates into the absence of budget deficit problems, high tax revenues and the attendant investment opportunities. The strategy of focusing on a specific and clearly defined goal resulted in Kolobrzeg gaining a completely new hotel district, called by some the Polish Hurghada. This unquestionable success story not only brought profits, but also led to conclusions. The old strategy lacked balance, so in 2017 a new one was devised. Tourist success is to be converted into social and urban success. The implementation of the new strategy is also supposed to help to control the element, which turned out to be the crowds of visitors in high season. In the next 10 years, Kolobrzeg should become a city of satisfied, wealthy people inhabiting an aesthetically pleasing space endowed with recreational value. The key to their happiness is to be, among others, the Resident’s Card, which provides free access to tourist infrastructure and public transportation. On the other hand, with tourists in mind, the best, year-round and weather-proof offer of spending free time by the Baltic Sea is being prepared. The ambitious plan drafted by Kolobrzeg’s authorities has great prospects for success – after all, they have already succeeded once.

Cracow

Fifteen years ago, the city did not know where it was going. Like most urban areas of this kind, it developed blindly. The times were difficult, the economic crisis throttled Europe. Cracow was visited by just over 3 million tourists annually, mainly school trips from Poland. Tourist attractions included the ‘Market Square and Wawel’ package and the best offer of

the café and restaurant industry in Poland, namely over 300 premises concentrated within a few hundred meters of the Cloth Hall. Subsequent three well thought-out strategies completely reversed this situation.

The discovery of a USP (a unique selling proposition), i.e. what distinguishes the city from others, led us directly to creating a conscious answer to the question: Why should I go there? This distinguishing feature of Cracow boils down to the best walking distance – even Paris or London do not provide tourists with so many cultural, historical and entertainment attractions during a single leisurely walk. This tip, skilfully picked up by the hotel, tourist, catering and related industries, supported by a series of advertising campaigns, completely changed the image of the city. According to its own plan, it became a weekend tourism hit first for Poles and then for guests from all over the world. Every year Cracow is visited by over 10 million tourists more than in 2000. The city is rapidly developing and expanding, and it is the pace of development and the number of tourists that have become, apart from smog, the main problems to be solved today.

It is worth knowing that the city of Cracow with its just under 1 million of residents is already trampling on the heels of London, fourteen times its size. The difference is that 14 million tourists in Cracow are hosted by 1 million inhabitants, whereas the 18 million visitors to London are welcomed by only a slightly smaller local community. In this context, it is easier to imagine both the actual scope of the problem and the success achieved by the former capital of Poland.

What were the main ingredients of the recipe for this transformation? Apart from the idea of the best walking distance, which still operates reliably (there are more than 1.5 thousand places worth seeing and tourist attractions within 2 kilometres of the Main Market Square), several strategic decisions were of key importance. The first one concerned diversification. It involved, among other things, the regeneration of the Kazimierz district, which became an alternative to the Old Town and a world hit. Few people today remember Kazimierz from before 2003 – a failed seat of poverty, filth, and despair. The second one was the construction of Father Bernatek Footbridge, which links the re-energised Kazimierz with the other bank

of the Vistula and facilitates access to Podgorze. It became a catalyst for change and today it makes us aware of the importance of such investments. A new life began across the river – fashionable apartments, more and more populous walkways along the banks of the Vistula, pubs and tourist trails leading to Cricoteka, Schindler's Museum, MOCAK, etc. The third one concerned two strategic investments concerning the offer of spending free time. These were a large congress centre in the very heart of the city and, outside the city centre, a large sports and entertainment hall open year-round. This is how the ICE Congress Centre and Tauron Arena were created. Thanks to them Cracow joined the world's first league. On the one hand, profitable congress tourism has revived, and on the other, the region's inhabitants can participate in premium concerts, in cultural and sports events. A provincial, though historic city, in the 20th century still on the sidelines of mainstream tourism, today has become a truly European metropolis, which repeatedly ranks amongst the top ten most attractive tourist cities worldwide. This success is exploited in other fields. Cracow is one big construction site, full of residential and office buildings as well as transport hubs. Naturally, it has its problems – crampedness, traffic jams, smog, and urban chaos – but the residents are well aware of them and quickly find solutions. No matter how critical one might be of the increased tourist traffic and the influx of new residents, today these two criteria constitute the basic parameters determining the attractiveness of the city and its development potential. In Cracow, both are enormous.

Warsaw

At the same time, Warsaw's *Capital of New Europe* strategy, written a long time ago, was shelved. According to the City Hall, the strategy "informs its decisions," although I personally consider it as rather insignificant. Despite the lack of a clear action plan, Warsaw's potential as the capital city turned out to be so great that it made a giant leap forward regardless. Comparing these two approaches to urban development (i.e. consistent implementation of a strategy or a complete lack thereof), we can easily

notice a significant difference: for example, the lack of key investments for the city in the form of a large congress centre and a large event hall. As a result, Warsaw misses numerous important events. Likewise, there are no plans to seriously develop congress tourism, which translates into a net loss of hundreds of millions of zloty for the capital. Another grave mistake is the complete neglect of Warsaw's promotion as a weekend destination. As a result, the city, which has the richest cultural and entertainment offer in Poland, becomes deserted on Saturdays and Sundays. Failure to implement the strategy results in serious losses, although this does not mean that the city will not develop. One should be aware, however, that the inability to plan in the long term does not permit the city to fully exploit its potential and the favourable economic situation. If Warsaw were not Poland's capital and a big business centre, the situation could have been much worse. Fortunately, the momentum of change resulted not only in the development of technical infrastructure. Places such as the Warsaw Uprising Museum, Copernicus Science Centre, the development of several local cultural and social areas (the Saviour's Square or recently the Vistula boulevards), as well as the discovery of today's fashionable district of Praga, gave the city a completely different image than that in 2000. The then Warsaw was almost impossible to like, whereas today's Warsaw is very easy to love. The current situation certainly does not match the actual aspirations and potential of the city. As the capital of New Europe, Warsaw intended to become the most important urban centre east of Berlin and west of Moscow. This has not happened so far, although it may still occur in the future. What I liked about the *Capital of New Europe* strategy, apart from the above ambitions, was Warsaw being compared to New York. As the only European city with a skyline composed of high-rise building and inspiring combinations of symbols (Statue of Liberty vs. Sigismund Column, Great Apple vs. Warsaw Mermaid, yellow taxi vs. Warszawa cult car, I♥NY vs. Fall in Love with Warsaw), Warsaw could have attained a much higher profile than today. In order to do so, it should become a conscious heart of this part of Europe, e.g. by investing in a great Festival of Slavic Culture or in a museum devoted to this issue. It is nothing short of surprising that Central and Eastern Europe with its

extremely clear and attractive Slavic identity, is incapable of exploiting its strengths or uniting around them. Non-Slavic countries could be invited to join this society as integrated neighbours.

Katowice

The capital of positive energy has completed numerous key investments and has probably experienced the greatest change in public space of all the Polish cities. The whole region implemented a coherent strategy, which resulted in the creation of such gems as the Industrial Monuments Route, and in Katowice itself, a completely new city centre with its revitalised Spodek (a multipurpose event complex), the sensational congress centre, the extraordinary Silesian Museum and the delightful seat of the National Symphony Orchestra of the Polish Radio. If you have not seen it, you are unlikely to know – Katowice is the best idea for a weekend in Poland. It is worth going there to participate in the ARCHITEC_Tour, see the beautifully revitalised railway station, ambitiously designed walkways leading from the centre to the surroundings of the Silesian Museum. One must get inside and see really good exhibitions, and then visit the NOSPR, which is the most impressive. It is best to attend a concert, because the acoustics there is unsurpassed on the planet. A word of caution: it is very hard to buy tickets.

Another important and successful investment in Katowice was the strategy implemented for a decade in the whole region entitled *Silesia. Positive energy*. Its aim was to awaken the previously dormant pride and release the potential of the original Silesian culture and identity. Today, this tradition can be seen with the naked eye while walking around the new Katowice. And this is not only about big projects, such as the aforementioned Industrial Monuments Route or the Silesian Museum. What is even more important is the fact that the Silesian dialect has become fashionable again, it is present on T-shirts, in everyday speech, even *Despacito* is sung in Silesian on YouTube and the website *Rubens came from Bytom* reigns supreme on Facebook.

Sopot vs. Zakopane

Zakopane and Sopot are partner cities, in a sense, mirror reflections of each other. On the one hand, a seaside resort and summer capital of Poland, and on the other – a mountain and winter sports centre. At a time, they were the favourite destinations for bohemians, equally charming. Crowds of not always well-behaved tourists have not deprived Sopot of its charm, the legendary SPATIF café is still agreeable, the city has its climate, especially in the off-season. Zakopane... well, in my opinion it has lost its charm, but let us hope not forever.

Sopot has gained self-awareness thanks to its strategy *Naturally – culturally*. Despite its huge popularity among tourists, it has retained its intimate atmosphere, the values of a holiday resort, is still perceived as a prestigious place of rest. *Naturally – culturally* meant that it was time to restore the status and reputation of Sopot's tennis courts, hippies, yachts, the Forest Opera, take care of high culture and greenery in the city. In no small measure, Sopot succeeded thanks to its mayor Jacek Karnowski (nicknamed Soltys [Village Head] by the residents) Many years of consistent implementation of priorities translated into numerous thriving undertakings. It is also worth mentioning the president's legendary personal supervision over everything and his daily inspection walks.

Conversely, Zakopane did not adopt any clear strategy, which resulted in its having been “trampled down” and becoming a synonym for bad taste. Over the next decade, Sopot together with Gdansk and Gdynia, will become the most attractive cities on the Baltic Sea. What will happen in Zakopane is hard to predict. It is only certain that the crowd ruining this once beautiful place makes it a paradise for lovers of other people's wallets – pickpockets. Lowlanders' money is also of interest to the materialistic and greedy highlanders. However, substantial revenues hardly translate into reasonable development of the city, but rather trigger the process of its venetianization. Too bad, since the Tatra Mountains are beautiful, Podhale priceless, and the memory of the pre-war Zakopane – extraordinary. Fortunately, one can always try to save the day.

Lodz

Lodz chose the path of a creative city... and it has become creative. Intensive revitalisation restored a lot of former glory to Lodz. Although the city is shrinking demographically (which will not stop), it has certainly become one of the most attractive places in Poland to live or visit as part of weekend tourism (city breaks). I myself am an ardent fan of Lodz and it is with great pleasure that I stroll around it, discovering further backstreets off Piotrkowska, such as the amazing Pasaż Róży (Rose Passage) by Joanna Rajkowska. I am always on a lookout for new murals and absorb the Lodz culture emanating from OFF Piotrkowska. I dress in T-shirts made by the cult Lodz brand Pan tu nie stał, I sleep in the Cinema hotel, I love to wander around local pubs. Why? Because the strategic declaration of *Lodz Creates* gave the city a chance to take long-term, consistent and coherent actions. Creativity is a great feature around which one can build a vision of the development of the entire city.

The choice of this path led to the fact that today in Lodz we will see the stunning EC1, but also the architecturally provocative Stajnia Jednorożców, Poland's first successful *woonerf* (in Dutch “living street,” a pedestrian-friendly street, where one can spend their free time in the company of other people). With a beautiful, renovated, historical Lodz in the background, it is really impressive. It will certainly be a challenge to restore the city's position similar to that in the times of the partitions and the industrial revolution, which will never return. But post-industrial cities often breed new ideas. If I were the decision-maker, I would focus, for example, on raising the profile and quality of the Lodz Film School, and try to attract companies associated with the industry.

Piotrkowska Street, perhaps somewhat commonplace for Lodz residents, is also waiting to be really discovered. It is fairly easy to create Polish and then international fashion for spending weekends in Lodz using a similar method as we used in Cracow. A walk along Piotrkowska Street, the longest city promenade in Europe, is a brilliant tourist product.

Gdansk and Gdynia

Gdansk and Gdynia linked by Sopot is another Polish hit with a bright future. The diversity of the Tri-City's offer is incredible, its location and surroundings have an enormous potential, yet its full use is still ahead of us. Gdynia is the youngest city in Europe. This observation is important, we have to remember about it, it is a city-phenomenon. Gdynia's youth is not only history, it is also its state of mind, a true *genius loci*. This place has its own style, it is architecturally coherent, maritime- and designer-oriented, truly an open city for open people. The Emigration Museum beautifully presents an important part of its short and hit history. But Gdynia does not appear in this game of thrones (competition for the coolest city) on its own. Whether it wants it or not, it always appears in a trio with Gdansk and Sopot. The very young Gdynia has an opportunity to combine its potential with the offer of the old Gdansk – elegant, Hanseatic, Gothic, and serious. Both these beautifully different organisms are linked by the cult city of Sopot. The popular saying “Gdynia to live in, Gdansk to visit, Sopot to party” contains a grain of truth and sounds like a sensible plan. Thinking about the development of the whole Tri-City, it is worth realising that there is **NOTHING LIKE THIS IN THE WHOLE WORLD**. And the whole world is not aware of the existence of the Tri-City. The location of Sopot near Gdansk is not surprising. A number of large cities have their own holiday resorts (Lviv has Truskavets, and Vilnius – Druskininkai). Nowhere, however, is there any juxtaposition with yet another city, such as Gdynia. This anomaly was created by history. Just as the existence and location of Lodz was determined by the partitions and their borders, Gdynia was built owing to the unfortunate geopolitical situation after World War I. Poland gained access to the sea, but not to the port. The latter had to be constructed quickly in order to break the historic monopoly of Gdansk for control over almost all the exports of the Republic of Poland flowing down the Vistula River.

Since it is history that writes the best scripts, the effect of these turbulences is the Tri-City. Not only is it an attractive port city, not only is

it located “in beautiful natural surroundings” (the Gulf of Gdansk with the Hel Peninsula and the mouth of the Vistula, many undiscovered moraine hills with forests and walking trails, and further wonderful Kashubian Mountains), not only is each of the three parts of the complex very interesting in itself, but in fact, they constitute a single organism. Both for residents and tourists, they come in one package, linked by a ring road, a fast urban railway, and a diversified offer. That is why my final conclusion for Tri-City is quite obvious. While preserving and cultivating the separateness and unique appeal of each of the three cities, it is worth managing them as a single entity. This applies to all the key development aspects, not only to tourism. I wonder if in the future Gdynia and Gdansk will cease to compete and begin to fully cooperate with Sopot, which links them. It is certainly worth it, because Tri-City would then have an opportunity to advance and compete with St. Petersburg, Copenhagen and Stockholm, and thus enter the top league in the world cultural tourism.

Walbrzych and Dolnoslaskie (Lower Silesian) Voivodship

Walbrzych is small and to a certain extent remains on the sidelines of the mainstream development of Polish cities. In my opinion, however, it is worth mentioning for several reasons. First of all, the former voivodship cities constitute a separate category, usually called ‘difficult cities.’ Secondly, the most popular trend described above means that today's societies wish to live in the largest metropolitan areas. Thus, the largest centres are growing (in Poland the big six, i.e. Warsaw, Cracow, Lodz, Poznan, Wroclaw and the Tri-City). The smaller ones are doomed to redefine their development paths. Demographically, they will shrink rather than grow. Nevertheless, it is possible to consciously shape the quality of life, as well as develop their economic, social, and cultural specialties. Every city with an idea to reinvent itself will ultimately fare better than those without such an idea.

We are approaching Walbrzych. What can we see? A city beautifully situated in the mountains, but also a town traumatised by the loss of its voivodship city status, former economic importance, and finally the collapse of industry in the 1990s, which led to the emergence of poor man's coal pits and the stereotype of a city overwhelmed by poverty, unemployment, and depression. The echoes of these depressing phenomena are clearly visible in culture and pop culture. It is no accident (in my opinion) that Tomek Tryzna's excellent, but far from cheerful book *Panna Nikt* (*Miss Nobody*) is set in Walbrzych. Joanna Bator paints a similar picture in her novel *Ciemno, prawie noc* (*Dark, almost night*).

For some reason, a lot of dark stories have been recently written in Walbrzych and about Walbrzych, both literary works and film scripts (including TV series). Can such a fashion be regarded as a positive potential, and tapped to create an idea for the development and promotion of the city?

Of course, it is possible!

Administratively, Walbrzych is situated in the Lower Silesian Voivodship, which has a very good strategy entitled *Mysterious Lower Silesia*. It draws on an incredible number of mysterious stories linked with Wrocław, the Karkonosze, Lower Silesian castles and palaces. It so happens that Walbrzych fits in it perfectly, having become the protagonist of the legend about the golden train commented upon all over the world. And it hardly matters whether the train actually exists or not. The story should be processed, invested in and make Walbrzych... the Mystery Capital. It is not only an 'idea for the city,' which will be natural and therefore credible (if the concept is unrelated to the history of the place, its nature or character, it can be misguided or simply a ghastly overpromise). By becoming the Mystery Capital, Walbrzych will gain the capacity to tame the more difficult elements of its identity, exploit the potential of Mysterious Lower Silesia, the golden train, the Ksiaz Castle, the Old Mine and all the unexplored nooks and crannies of the city and its surroundings. And mysterious weekends or holidays full of riddles hold a promise of great adventure for tourists. The city would thus attract attention and arouse interest. And this, in turn, is very important for the residents.

Slupsk

Slupsk illustrates a completely different development strategy. I would call it the strategy of a committed leader. Before Robert Biedron's term of office, it was one of the least attractive places in Poland, unfavourably located and somewhat apathetic. It was beset by problems similar to those in Walbrzych. Suddenly – BANG! President Robert Biedron materialised. The most famous gay man in Poland, a very charming person, unexpectedly popular for the Catholic Poland, and yet, how outrageous! well-educated and worldly. He is socially sensitive, genuinely committed, always smiling and, above all, competent.

What happened to Slupsk during Robert Biedron's mayoral term? The city attracted the attention of the whole Poland, becoming the most progressive in the country. Cult civil weddings in Slupsk, cycling, and a red sofa to talk to all residents – these are just a few of the many initiatives of the new leader. The austerity policy has resulted in a rapid improvement of the city's financial standing. Numerous civic initiatives drove apathy out of Slupsk. The city quickly began to become more aesthetically pleasing as well. What is Slupsk's strategy? To be honest, I do not know, I did not devise it, and I have not had the opportunity to read it. In this case, what is important to me is that all the urban visual materials I saw there were professionally designed. The city has a new, professionally designed system of visual identification, it communicates disarmingly directly, clearly and honestly with its residents. The city budget is available for everybody's inspection, and the municipal office uses every possible opportunity to emphasise that it is for the people, not the other way round. The president implements the key changes starting with himself and his staff, to mention only the custom of drinking tap water.

When we took a walk with President Biedron around his city, I was struck by one thing: all the people we passed just smiled at him. The gesture was reciprocated. Robert Biedron's openness can be seen at every step. Every city resident can easily access his office. This is really a new quality and, in my opinion, a novel approach in Poland.

Lubliniec

Finally, I would like to prove that the smallest towns can also have a strategy and an idea. I had the pleasure of visiting Lubliniec, a small, beautiful town in Silesia. Local inspections and data analysis quickly revealed the city's uniqueness. We considered the forest to be the main source of its potential. Lubliniec is not only surrounded by a huge forest, one of the largest woodland areas in Poland, but is actually itself nestled in greenery. Over 70% of its area is covered with trees. It is for this reason that it is home to holiday centres for pensioners and nervously ill people or the base of largest commando unit in Poland. How to use the forest as an asset of a small town? It is enough to notice that Lubliniec lies next to the Silesian conurbation with its almost 3.5 million inhabitants. A forest and such a neighbourhood add up to a simple recipe for success. It is enough to invite the inhabitants of the region and effectively encourage them to spend time there. This is of course a very brief outline of the strategy, neatly summarised by one of my favourite slogans, the essence of the brand: *Lubliniec. A huge forest right here.*

Clearly, size does not matter. An idea for a city can be found anywhere and anytime, and the lack thereof is, in my opinion, a crime.

*

The final conclusions are as follows: a good strategy changes everything – provides direction, builds identity, shapes the brand of a place. An awareness of priorities and their proper choice accelerate the desired changes by decades. At the same time, rapid urban development poses a new kind of threat, particularly serious in a country where urban planning is almost non-existent. The situation is saved by 'islands' of good architecture, fortunately quite numerous, as well as cultural parks and other initiatives of the kind.

Until 2030, the main responsibility of all cities will consist in revitalisation (in this respect, Lodz is the leader), expansion of green areas,

strengthening the trend that "the city is first and foremost for its residents, not for investors, developers or tourists." There is still much to be done. We are facing a revolution in electromobility, the creation of closed urban circuits, the introduction of Polish universities into the world's top hundred, the humanisation of public spaces, and the restoration of the balance disrupted by too rapid development of the so-called heavy infrastructure.

It cannot be denied, however, that in the last twenty years Polish cities have developed the fastest in Europe and, despite numerous mistakes, they have caught up unexpectedly quickly with it. Now is the time to introduce harmony.

PART III – BRAND-CULTURE

Jerzy Bralczyk

Truth

Zilu said, "If the ruler of Wei were to entrust you with governance of his state, what would be your first priority?"

The Master said, "Most certainly, it would be to rectify names."

Zilu said, "Is that so? How strange of you! How would this set things right?"

The Master said, "What a boor you are, You! A junzi¹ keeps silent about things he doesn't understand."

"If names are not right then speech does not accord with things; if speech is not in accord with things, then affairs cannot be successful; when affairs are not successful, li² and music do not flourish; when li and music do not flourish, then sanctions and punishments miss their mark; when sanctions and punishments miss their mark, the people have no place to set their hands and feet. Therefore, when a junzi gives things names, they may be properly spoken of, and what is said may be properly enacted. With regard to speech, the junzi permits no carelessness."

The Analects of Confucius, 13.3, pp. 66–67³

The very notion of post-truth appears to be homologous: it reflects well both what it means and what it is supposed to diagnose. By virtue of its vagueness, it can be used in a number of ways without incurring any special responsibility, hence it is also convenient. Moreover, it sounds good as a member of a group of words built with the prefix *post-*, which

1 A cultivated gentleman.

2 Custom.

3 Open access [http://www.indiana.edu/~p374/Analects_of_Confucius_\(Eno-2015\).pdf](http://www.indiana.edu/~p374/Analects_of_Confucius_(Eno-2015).pdf)

attractively, albeit unclearly, designate certain situations, states, periods or phenomena for many people. *Postmodernism* (together with its related *postmodernity*) offers the best example of a quasi-term which caught on unexpectedly quickly, whereas the ideologically tainted *post-communism* is a secretly biased name for a transitional state (in history), the name of certain past threats (in political science), or an unremovable shell of mentality (in sociology). Certain expressions link those who actively opposed communism with an old association with it, and thus, if they were not *post-communists* themselves, they somehow fitted together. *Post-communism* also constitutes a good example, because it additionally simplifies, and thereby makes even less clear the already muddled notions of *communism* and *communists*, in which connotation prevails over denotation – the cry *Communists and thieves!* was a good illustration of this phenomenon.

Post-truth as a concept not only makes a handy tool in political and ideological contexts, but also provides a good excuse for those who try to explain complex phenomena using simple formulas. It can be a good term for expressing both a phenomenon and a time whose specificity is always natural and attractive to those who live in it. Such terms are intended to underpin well-being or, perhaps more often, to justify the natural tendency to complain about *our times* – note that while the expressions *in my time* or *in my times* often generally and positively refers to the good old times, whereas *our times* tends to imply our dissatisfaction with the present. The Golden Age is usually that which has already passed.

Our times may be perceived as the end of a certain history or as something that just happened after such an end; the phenomena that occur now can be defined and described using the characteristics of time. Demonstrably, communication today is something specific, the relationships between its participants are characteristic, and some of its features deserve to be noticed and presented – this much is clear, but with time, such features become so significant that they reflect certain other qualities. The notion of post-truth, when applied to a certain sphere of communication-related phenomena, and supposedly appropriate for naming a certain (our, the present) time – may influence the description of all the phenomena

present in linguistic communication. In fact, many of them are timeless in nature. The expression “language in the time of post-truth” may also include linguistic phenomena less closely related to the perception of the relationship between a message and truthfulness (after all, it concerns phenomena placed in time). However, although it is not very clear and somewhat simplistic, it seems to point to a rather important issue the recognition of which may affect other important social phenomena.

Post-truth as a term in current use affects the understanding of truth itself. The very word *truth*, by naming one of the most frequently ideologically invoked values, offers a broad range of possibilities in its linguistic-pragmatic dimension. By talking about *suffering* or even *dying for the truth*, we can express our attachment to so many different and indefinite values which are usually difficult for us to refute, even if it is clear that the word is used instrumentally. Moreover, language reveals our ambivalence towards truth, by exploiting the word in downright unpleasant collocations: truth tends to be *bitter* and *cruel* rather than *sweet* or *nice*, it *hurts* and is *inexorable*; *a few words of truth* never please those who have heard them, and when asked *if they want to hear the truth*, few people respond enthusiastically. At the same time, truth is becoming a commonality, since word combinations with *truth* rank among the most popular filed pauses in colloquial speech.

Yet the need for truth is not expressed only instrumentally or solemnly. Living in truth is seen as a value and virtue, whereas lie and deception belong among the most dangerous anti-values. In any community action, it is indispensable to be guided by truth. On the other hand, in a world perceived as a series of conflicts of interest, truth ceases to have absolute value; accordingly, the word itself becomes a pompous and often false adornment for some, whereas for others the changeability of meaning justifies its different uses. Hence denotation often gives way to connotation with the set of associations being more important than the observance of strict appropriateness conditions. Besides, these two attitudes do not contradict each other.

Truth as a value tends to be absolutized, but our attitude towards it does not have to be guided by hard and fast distinctions. Indeed, talking about

living in truth or *standing in truth* may imply a certain finality of ethical choice, but we may be *closer to* or *further from* the truth. The distance from the truth also determines our attitude to lies and hypocrisy. Although clearly these are anti-values, there are views that reflect other priorities. Dostoyevsky's statements regarding truth are widely known. For example, confronting truth with patriotism under extreme conditions may give rise to such assertions as "when the fate of my homeland is at stake, I am ready to lie." One may also notice that in arguments, a clearly and unambiguously formulated accusation of lying is no longer imbued with a sense of the ultimate, which used to be the case. What is also worth mentioning is a kind of terminological 'institutionalisation' of lies, which reveals its consequences and defines the way a certain group perceives the world. There is "the Auschwitz lie," "the Katyń lie," "the Smolensk lie"... The criminal penalties proposed in the draft amendment to the Institute of National Remembrance Act for specific statements about Poland and Poles belong to this sphere of phenomena. All the kinds of behaviour that instrumentalise the notion of truth in various ways may justify such ironic, but attractive and easy to use expressions as *being economical with the truth* or *hybrid truth*.

Two metaphors seem to dominate public language: the metaphor of theatre and the metaphor of war. This is the case both in politics (political scene and its actors; political struggle and election campaigns), commercial messages (especially in advertising, but also in PR releases), and even in entertainment-oriented mass-media texts. In a reality thus described or presented, using a specific truth appears to be convenient in various respects: theatre is based on conventional symbolism, it involves on play-acting, pretending; whereas war justifies the means that first and foremost lead to victory – lies and manipulation fit in it extremely well.

The extension of the self-promotional and image-related aspect, which has long been present not only in the public domain, resulted in a more and more justified or even sanctioned conventionality of description in all dimensions. Language names, describes, and relates: in order to give a biased account, we use words intentionally equipped with universally recognized associations; the subjective perspective is natural in a description, which offers us the opportunity to choose such ways of presenting things that seem

advantageous to us; in an account endowed with interpretations, we can be concerned more about the coherence of the argument than about meticulous attention to detail. Fashionable terms, which help us to accept such a prejudiced use of language, include *terminology*, *discourse* and *narrative*.

Accustomed to ideologised use of language in the public sphere, to conventionality, concealment and one-sidedness of information and commentaries, we can naturally sanction image creation in all the texts intended for public reception. After all, this practice is as old as rhetoric itself. PR, recognized as a mandatory activity to be pursued by institutions, demands the participation of specially trained specialists, copywriters, spin-doctors, as well as trainers or coaches in public speaking, or even mentors, to use a nobler name. Rhetoric, in a sense the mother of all humanities, is old, but probably never in history has the dominance of the image been so socially sanctioned. Communications revealing the primacy of image effectiveness over other goals are not uncommon. The head of one of the political campaigns mentioned the decision to show the candidate "as the real him" as a deliberate persuasive trick, which implied that it was just one of the possible options. Yet another advertising operation involved the following message: "If you drive a hybrid car, you show that you care about your company's image. And these days it pays off." Somehow the ultimate argument in favour of using hybrid cars contains a double reference to image.

Not so long ago, one of the topics eagerly taken up with regard to the vagaries of public communication was the issue of manipulation, including language intended to manipulate. A number of works devoted to it, both scientific and journalistic, have been published. Today, even if we characterise the linguistic habits of certain public entities, rarely do we apply such a stigmatising quasi term. It can be said that linguistic manipulation is inherent in the activities of public entities: in trade, politics, and entertainment. The manifestations of excessive aggression or incomprehensibility in public communication are more often criticised as reprehensible and less justified. True, critical journalistic descriptions identify semantic abuses, but mostly in order to deprive them of their effectiveness by exposing them. It also has certain features of a game in which detecting the opponent's manipulation offers an opportunity for eristic victory.

An important tool in such a game is the attractiveness of expression, both succinctly capturing or presenting a state of affairs and taking up a safe position vis-à-vis the truth. This end has always been achieved via the use of slogans with a peculiar relationship with truth: they cannot be said to be true or false, at best they can be considered as more or less honest. Likewise, the tweet, a completely new genre of public expression, is fundamentally simplistic and openly subjective owing to its inherent brevity.

Next, expressing contents in an appealing manner, the desire for an easy and satisfactory reception, requires the use of humour, which has been justified for centuries. Today, humour emerges in and constitutes new genres, such as the meme. Other rhetorical tools include the use of hyperbole and aggravation. All kinds of rhetorical amplifications have been known for thousands of years, but the abundance of hyperbolic prefixes, such as *super-* or *extra-* seems to be a property of modern language. Active participles, such as *horrifying*, *appalling* or *shocking*, are pseudo-objectively used to achieve the same ends.

Finally, it is interesting to note that genre terminology, which, by naming a given communicative phenomenon, may sanction its occurrence in its own way. The media lie, formerly known as *newspaper gossip* and then a *press fact*, ceased to be a lie in the strict sense of the word. Today, calling a deceitful statement *fake news* makes it almost a special genre. The conventionality of humorous memes is understandable, but if we strongly reject what we call hateful or offensive statements, the activities of *online haters* can often be considered as fairly natural phenomena, as a consequence of the democratisation of the media and a generally beneficial change in the relationship between the sender and the receiver in public space. On the other hand, the notion of an *information bubble*, referring to a kind of intentional refusal to accept arguments undermining one's beliefs or convictions, also emphasises the appeal and advantage of the coherence theory of truth over the correspondence one.

The concept of post-truth clearly refers to the sphere of language. Its rhetorically justified conventionality, the assumption of equality of all its functions, may lead to undermining the absolutisation of values. Indeed, we know that the informative function of texts, rooted in the

cognitive function of language, is fundamental, but is the persuasive function (persuasive, conative, and emotive) not equally important? The phatic function, associated with establishing and maintaining contact, is a precondition for the message; the self-presentation function is inevitably present in any message which has a sender. We cannot deprive the message of its aesthetic function; likewise, when creating a message, everyone must equip it, often unconsciously, with a ritual function, even if only at the phraseological level. All these functions are intertwined, one cannot exist without the other, but our hierarchisations are important. Thus, emphasising the informative function, whose actual aim is positive self-presentation, or persuasion hidden behind the desire to maintain contact with the recipient, can be viewed as instances of manipulation.

In the era (epoch, or even time) of post-truth, these functional shifts are evident. At the same time, however, people – citizens and consumers – demonstrate a natural tendency to place their beliefs in the stable ground of truth, or authenticity. And even noticing the ever-changing communication technologies, which offer attractive alternative worlds or at least their images, even the tempting prospect of participation in shaping or creating these alternatives, does not invalidate the pragmatic aspects of finding oneself in the world of verifiable and usable facts.

Language, by naming what we perceive, provides us with a framework for thinking about the world – sometimes clearly, sometimes intentionally, and sometimes wishfully. Yet what we generally understand is what we want to understand, without venturing into the spheres which are less translatable into experience for us. We leave quite a lot of space for free, even openly intentional naming, without scrutinising the appropriateness of names, we treat bias or even false names as something justified and natural, not to mention the acceptance of descriptive freedom or the so-called narrative building or story crafting. The multitude of new communication techniques, not completely assimilated by most people, facilitates this kind of relativistic attitudes towards truth.

We are not always aware that, contrary to popular belief, what we say does not correspond to verifiable or falsifiable judgments, conversely, a large proportion of it (probably even most of it) are unverifiable and

thus non-falsifiable utterances: questions, orders, emotionally charged statements, presenting subjective impressions or observations. False presuppositions, but especially the implicatures which are difficult to refute, make more room for biased descriptions and stories, in no small part owing to the ambiguity of concepts and words. Politically and ideologically tainted names produce lasting images associated with specific emotions, and thus, with the choice of attitudes. The proper name *Poland* imbued with its almost unlimited metonymy can be made to refer to a sports team, the products of individual entities or creators, owing to the natural effect of identification. The statement “Poland’s defence before the EU Tribunal” may be understood as a presentation of the government’s position, but it may also evoke the image of the country being attacked by foreign institutions (the quote comes from a source that does not support the present ruling party). The Prime Minister may quite freely declare that in the 1960s, Poland did not exist if he wants to remove the sense of responsibility for specific political actions from a large part of his compatriots. It is also obvious that exaltedly metaphorical pronouncements about Poland *rising from its knees* cannot be falsified in any way. In Polish, the use of the word *suweren* (*the sovereign* in John Austin’s sense), whose referent does not admit of partialisation (one can say *the majority of society, part of our nation*, but not *part of the sovereign*) safeguards against thinking about division, suggesting the uniformity of electoral decision. The manipulative use of the notion of *patriotism* is widely known and has been described countless times. On the other hand, it seems quite interesting to note that certain words with primary negative connotations, have been applied to express wholly different meanings, for example the participle *wyklęty* (literally *cursed*), present both at the beginning of the Polish version of *The Internationale* (in English sometimes translated as *victims of oppression*) and in the expression *cursed soldiers*. The emotional charge of the phrase precludes any arguments which might be possible when dealing with such expressions as an *independent journalist*. The expansion of meanings of words with predominant evaluative or emotional references has already been mentioned. Words such as *crime*, *disgrace*, *treason*, *heroism* or *glory* used to be much more powerful, but now their

impact has been markedly reduced. Ideological concepts (e.g. *leftism*) almost tend to be condensed to arbitrary connotations, whereas new words, which are catchy owing to their past associations, such as *kaczyzm* (Kaczyński’s rule) or *demokracatura* (*democratorship*), are completely safe.

Whatever in politics and propaganda, in advertising and in general in all the statements praising or condemning the very old (and even understandable as elements of struggle or promotion), in the *post-truth period* may gain justification in specific supposedly different communicative situations owing to social changes, as well as techniques which have been developed as never before. In a world where our attitude to reality is shown to be more subjective, where *creativity* and *innovation* (these are also words-magic charms) represent the better recognised virtues, whereas the concept of *management* refers to things notoriously difficult to manage, such as time or even risk, we cannot rule out the emergence of ideas justifying *language management* or *truth management*. The sphere of political approaches and concepts, by describing social divisions, offer a number of participants in public discourse the opportunity to feel appreciated through identification, a sense of commitment and the possibility to easily identify one’s advantages over others, usually resulting from membership. An attitude reflecting the primacy of language use over the need for objective reliability (incidentally, so often present in the declarative sphere), is a dangerous phenomenon, which was predicted by Confucius in the opening quote.

The very concept of post-truth seems to have an ambivalent effect: on the one hand, in a somewhat ironic way it is supposed to draw people’s attention to their weakening attachment to the value of reliability of communicated contents, and on the other, it facilitates making a mental connection with other manifestations of social change, which may make the critical impact of such an approach wane or disappear. However, as we all know, in general we find ourselves in the *post-* era. Perhaps it indeed marks the end of history, or perhaps the culmination of development? There are numerous changes ahead of us, that much is certain, but we tend to see them as quantitative rather than qualitative in nature.

Which, incidentally, may have always been the case.

Joanna Sanetra-Szeliga

Culture – a strategic resource?

Introduction

Culture can be thought of and defined in a variety of ways. However, what seems to be the most important is its human dimension – culture is everything that is not necessary for one's survival in the physical sense, but essential to feel human. It is an expression of values which can be conscious, as in the case of works of art or religious practices, or not entirely conscious, but still commonly present, as in the case of family celebrations or ways of spending time (Matarasso 2001, p. 3). Culture does not express biological necessity, but rather “our lives begin to be shaped by setting goals which, in a biological sense, are above or beyond any purpose, which cannot be deduced from the need for further existence or a better satisfaction of our natural needs, or which do not reflect man's biological situation in the cosmos” (Weber 1927, p. 39). If so, it is difficult to look uncritically at Maslow's hierarchy of needs, in which cultural needs gain in importance only after other, more fundamental ones, have been fulfilled. It is next to impossible to treat culture as a kind of luxury or an aspect of life that is necessary and important only for some people. On the contrary: “From cavemen to Australian aboriginals, from African American slaves to contemporary African tribes, people in the most deprived conditions find time, resources, and energy to make music, build religious temples, maintain sacred places,

engage in extensive burial ceremonies, cherish icons, and fashion all sorts of art” (Klamer 2004, p. 139). Shocking examples of works of art created by Auschwitz prisoners are now displayed in the museum at the site of the former camp (over 1500 items). For their authors, engaging in art and culture was a way of surviving and preserving their humanity. Despite the tragic conditions, sculptures were made, drawings were produced, and poems were composed (Olszewska 2018, *Muzeum II Wojny Światowej* 2018).

The very fact that art and culture have accompanied us since the dawn of history, that thanks to figurative art and music our ancestors managed to remain together and survive, while creativity and artistic talents proved to be “key to survival and as such were written into our genome for good and bad” (Bojs 2018, p. 46), that people never cease to create art even in the most difficult conditions, should constitute a sufficient argument for recognising the strategic importance of culture to us as individuals, as well as for entire communities.

Naturally, the debate about the importance of culture can be extended to include other important points. Research conducted in recent years provides us with ample arguments (both qualitative and quantitative ones) that culture is an extremely important element of social and economic development. At this stage, it is worth noting that the relationships between culture and the economy in particular are somewhat complicated. Three approaches are the most common in this respect: appreciation of the value of culture and simultaneously ignoring its economic dimension, looking at culture only from the perspective of its economic potential, and the assumption that the full worth of a cultural good consists of both its cultural and economic value (eftec 2005). Arjo Klamer and Peter-Wim Zuidhof (1998) call the parties to the dispute “economists” and “culturalists,” respectively. The “culturalists,” who represent such fields as history, history of art, sociology, and anthropology, usually tend to focus on the cultural and social value of cultural goods, whereas the “economists” focus on utility value and the potential for market-based exchange. In my view, this dispute has no *raison d'être* in the modern world. If we wish to discuss the potential

impact of culture on its socio-economic environment, we must look at it in an interdisciplinary and holistic way. Identifying and exploiting the full value of cultural potential requires an analysis of its economic, social, and cultural aspects – only in this way can we paint a complete picture of the value of culture, which can then inform our thinking about culture as a strategic resource.

Culture as a response to the challenges of the 21st century

If culture is to be a strategic development resource, let us look at its potential from the perspective of the most pressing problems faced by cities today. These involve the environment, its pollution (e.g. smog, the scourge of numerous modern cities, including Cracow), land degradation, water availability, declining phytosanitary status, breaking noise limits, and the need to develop and implement clean energy production methods. We are beset by various social problems as well – from an ageing population and depopulation of certain areas, housing problems, to marginalisation of social groups, declining social cohesion and polarisation of society, and an increasingly frequent sense of alienation of citizens from public life. The problem of increased migration from North Africa and the Middle East to Europe has also become more urgent over the last few years. Urban development problems include uncontrolled urban sprawl, low quality of public spaces, degradation of historical centres, inefficient transportation systems, as well as expanding areas in need of regeneration. Numerous cities are struggling with economic difficulties and the threat of losing their attractiveness for investors, tourists, and residents. This is primarily related to the changing structure of their economies, i.e. the collapse of heavy industry, the relocation of manufacturing to countries with lower labour costs (mainly outside Europe), as well as the mismatch between human resources and the needs of the new labour market in the third-sector economy. This is accompanied by infrastructure degradation, and, in

many cases, the lack of sufficient investment. The development of a new economy based on knowledge, innovation, and creativity requires time and resources. Budgetary instability and lower revenues resulting from economic difficulties do not help.

To what extent can culture respond to these challenges? Can it become a mechanism to influence the development of particular localities, i.e. lead to “desirable changes in the state of the economy, social systems, the state of the environment, and spatial organisation of cities” (Korzeniak 2011, p. 97) and improve the quality of life for residents? In order to answer these questions, we must first think about the way the notion of culture is understood. I propose to focus on the functional approach, i.e. on various forms of cultural activity conducted by public institutions, non-governmental organisations and the artists themselves, as well as on products, goods, and services generated by these entities.

In Table 1, I have highlighted only some of the problems mentioned above, while presenting the possibilities for the potential involvement of culture in solving them. However, I did not take into account those that are commonly called ecological problems. The impact of culture in its broadest sense on the natural environment is probably one of the least studied (in comparison with e.g. ties between culture and economy or culture and social issues), which does not mean that the impact of culture can be excluded from this area. The issues related to the protection and renewal of historical sites deserve attention in this respect. Firstly, together with regeneration efforts aimed at adapting historical buildings to contemporary standards (e.g. in terms of insulation and heating) and the need to work with the existing building stock, they contribute to the preservation of embodied energy of the facilities while generating much less waste and rubbish (than the demolition of old building and construction of new ones). Secondly, in the context of culture–environment relationships, the traditional building materials and techniques often prove to be more durable and less harmful to the environment than their contemporary substitutes (see e.g. Itard et al. 2006; Nypan 2003; Kampmann 2010).

Table 1. The potential of culture and challenges of the 21st century: Examples

| Challenges | Cultural activities |
|--|---|
| Demographic change and migration | Activities aimed, on the one hand, at getting to know and accepting the Other, on the other, getting to know the local community (aimed at new residents) Access to a wide range of cultural offerings improves the quality of life that attracts residents/prevents them from leaving |
| Alienation of residents and the lack of sense of belonging to the place of residence | Involvement of citizens in cultural activities at local level (including volunteer work) Organisation of mass events related to the history of a given locality and common points of residents' identities Cultural institutions can become 'social capital infrastructure' and 'third places' |
| Unemployment and labour market gap | Creation of new jobs in the cultural sector (high labour intensity of the sector), especially in cultural industries Demand for both highly qualified staff and manual workers Building human and social capital |
| Building competitiveness and attractiveness of a city | Culture (including heritage) influences the genius loci and aesthetics of public spaces A wide range of cultural offerings and friendly public spaces contribute to the quality of life Historical buildings can be prestigious locations for company headquarters, whereas post-industrial areas may attract start-ups (especially in the creative industries) |
| Economic growth | New jobs in the creative sector Creative and cultural clusters (new companies) Creating new needs (e.g. lifestyle-related) and meeting them by producing goods and providing cultural services |
| Degradation of urban areas and urban sprawl | Culture-led regeneration Regeneration of (historical) city centres by organising additional cultural events and making public space available to artists and representatives of the creative industries |

Source: Sanetra-Szeliga (2016, p. 187).

Culture and social issues

We know much more about culture's potential to solve social problems, e.g. in terms of social cohesion, alienation or intolerance of the Other. Culture gives people a sense of belonging and constitutes an important part of local identity that binds local communities (e.g. Matarasso 1997). Institutions and organisations involved in cultural activities play an important role in this respect, offering residents both passive and active participation in initiatives which, on the one hand, help them to learn about the history and culture of a given place (and thus builds local identity) and, on the other, introduce the culture of new residents while engaging the entire community.

Nowadays, one of the increasingly often mentioned problems is a declining sense of security. While cultural activities might not be capable of stopping warfare or preventing epidemics, they can play a role at the individual level. It is primarily about allaying the fear of the unknown and the educational potential of cultural projects. In the context of a subjective sense of security, Gregory J. Ashworth (1993, p. 34) made an interesting comment: knowing a place, a sense of continuity rooted in the existence of historical city districts, may be a valuable contributor to building individual psychological stability (the impact of a sudden loss of access to these places is often compared to that of amnesia). The individual sense of security is also associated with the level of social capital in a given community. Events arranged by cultural institutions and organisations may function as meeting spaces for local communities, offering opportunities for the development of bridging social capital and binding various age groups, the new and the old residents, as well as various ethnic and religious groups (Murzyn-Kupisz, Działek 2013, p. 27).

Apart from the subjectively perceived health and life satisfaction, it is the sense of security that constitutes one of the elements of quality of life indexes on which, in my view, culture can have the greatest impact (cf. Sanetra-Szeliga 2017).

In the context of links between culture and health, research reveals a clear correlation between participation in culture (passive – as a spectator, and active – independent engagement in cultural activities, such

as reading books, painting, taking part in dance classes, etc.), one's own assessment of physical and mental health, and satisfaction with life (cf. e.g. Hill 2013; Wilkinson et al. 2007; Grossi et al. 2012; Thiel 2015). Although these findings should be approached with caution (especially when it comes to determining the cause-effect sequence and the individual contexts of respondents), they cannot be completely disregarded in these considerations. Other issues worth mentioning here are cultural animation activities in hospitals and care facilities, and art.

Moreover, the quality of public space is an important element that contributes to a sense of well-being and security. The role of squares as meeting places (with the flagship positive example of Siena's historic Piazza del Campo), art in the urban space, as well as green areas and city illumination (night-time illumination of buildings and street architecture) create favourable sensory experiences, which make one of the twelve criteria of a good quality city developed by Jan Gehl (2014, pp. 176–181). What is also important is the historical fabric of the city – with its diverse architecture, public space and small scale – which is much better perceived by residents than modern, but impersonal housing estates (Paszkowski 2011, p. 227).

Culture can also be of great importance in fostering individual satisfaction with life. Satisfaction with spending free time is associated, among others, with art consumption, participation in cultural life (including sports activities), opportunities for pursuing hobbies or a sense of self-development. It translates into a subjectively perceived satisfaction with life. In the case of active participation in culture, regularity seems to be important, which in a way combines satisfaction with personal effort put into such a form of spending free time. The diversity of cultural offer and the possibility to choose different activities as a form of entertainment also seems important (Cuypers et al. 2012; Wheatley, Bickerton 2016).

Culture and the economy

Discussions about the economic importance of culture often raise objections on the part of the “culturalists” mentioned above. Inasmuch as

this aspect cannot be omitted, it is essential that the instrumentalisation of culture is not taken too far, and its autotelic value continues to be respected and supported.

The broadly understood cultural sector – which includes, on the one hand, state and local-government run cultural institutions, and, on the other, economic entities classified as cultural or creative industries (e.g. publishing houses, record companies, architectural offices, design and industrial design companies) – constitute an important job resource. In Poland, over 300,000 people find employment in culture with two-thirds of them working in the cultural and creative industries, mostly in micro-enterprises. It is worth noting that the wages paid by companies classified as cultural and creative industries exceeds the average wages in the non-financial enterprises sector; moreover, the remuneration in the former increases more dynamically than in the case of all non-financial enterprises (Bińczycka et al. 2018, pp. 35–40).

Nevertheless, the economic aspects of culture include not only jobs available in the sector or those created as a result of multiplier effects; it is not only its share in GDP – the latest available calculations put it at 3.2% (GUS 2014), but the data for the last several years will most likely reveal higher figures. When considering the economic importance of culture, it should also be remembered that art and heritage provide an inspiration or ‘creative contribution’ to mass-produced and distributed goods and services (above all, to the cultural and creative industries). Likewise, culture has a much broader impact on creativity; suffice it to mention the distinction made by Francesca Cominelli and Xavier Greffe (2012) between the two dimensions of intangible heritage, which are important in building creativity and innovation. The first aspect is technical – the possibility of achieving synergies amongst different fields of knowledge, where heritage is treated as a reservoir of knowledge, skills and practices that evolve over time and adapt to specific situations (e.g. the development of traditional crafts, taking advantage of new technical and technological developments). The other aspect involves the social dimension, namely treating heritage as a collection of tacit and formal knowledge that can be discovered and disseminated amongst individuals who possess this

knowledge and companies that can exploit its creative potential. In this situation, heritage, both tangible and intangible, can inspire the creation of new products and services (no longer necessarily belonging in the cultural sphere). Multiple examples can be offered, to mention only the fashionable area of ethnic design.

We should also mention built heritage, especially post-industrial heritage, often associated with opportunities to establish creative hotbeds. Individuals and companies are attracted to such places not only by snobbery or temporary fads for a given type of space, but also by the special atmosphere of the place, its inspiring character or a sense of personal connectedness with the space and what it symbolises in the context of the place’s past. “New ideas need old buildings,” claim the authors of the report commissioned by the Heritage Lottery Fund. Their research shows that commercial activity in historic buildings in British cities is “more productive and generates more wealth than the average for all commercial businesses operating across the economy” (2013).

Culture, attractiveness and competitiveness

All cities are expected to enhance their attractiveness and compete against one another not only for tourists and business investors, but also for their residents. Endogenous resources, history, heritage, and genius loci constitute extremely important factors in uncovering local uniqueness, thanks to which this competition can be won. Numerous city and town leaders are beginning to appreciate it and apply it on an increasing scale. On the one hand, the activities may involve referring to the history of a place, organising events related to local heritage (e.g. festivals) and trying to create a specific heritage-based genius loci. On the other, historical areas are being regenerated – not just the old city centres, but also post-industrial or post-military areas. Naturally, historical cities find themselves in a privileged position owing to their unique characteristics and properties accumulating over the years, including historical buildings inherited from previous generations, which may represent a competitive advantage on the international market.

Cities can craft their offer for business, residents or tourists in various ways. Previously, I mentioned the quality of life and the role of culture in it – now I could add that investing in culture enhances a city’s attractiveness not only for its residents, but also for investors. In the case of the latter, it may not be so obvious, but entrepreneurs also prefer to locate their businesses where employees (and especially the managerial staff) can live comfortably, but first of all, where such employees can be found (attracted by places characterised by a high quality of life). Dutch researchers (Marlet, van Woerkens 2005) analysed the factors that attract people, especially the creative class (Florida 2010), to a given locality. It turns out that people’s decisions to settle down in a specific place is influenced by aesthetic values, the presence of historical buildings, and the beauty of nature. Other studies have shown (van Duijn 2013) that the influence of culture and heritage on the attractiveness of a city results from two factors – on the one hand, historical architecture is perceived as more attractive, on the other, an appealing historical centre, as an indirect effect, encourages shops, cafes and restaurants to open, which increases its positive perception as a place full of life and opportunities to pursue one’s hobbies as well as engage in various leisure activities.

Culture and regeneration

The wide range of potential impacts of culture on the social and economic environment means that it is often employed as one of the elements of regeneration programmes, i.e. restoring degraded city areas (mostly post-industrial ones) to life. Charles Landry (2003) created an interesting typology of ‘cultural regenerators’ depending on the main constitutive cultural element of regeneration activities (see Figure 1).

If we look at the best known regeneration efforts, we can see that the most common ‘regenerator’ is a new building (a flagship investment in a given area). It can be a completely new investment (as in the case of probably the most quoted example, i.e. the Guggenheim Museum in Bilbao), although more often than not it is an already existing property

Figure 1. Examples of cultural regenerators

| | | | |
|---|-------------------|---|---------------------------------------|
| New building (flagship projects, e.g. museum, opera) | Artists’ activity | Single artist or a charismatic person | A cultural event (e.g. a festival) |
|---|-------------------|---|---------------------------------------|

Source: Landry 2003, pp. 28–35.

(post-industrial, post-military, disused docklands) adapted to new needs. This was the case in the Bankside district in London, where a historical power plant was transformed into Tate Modern, the now famous museum of contemporary art, or in the Cultural Zone in Katowice, where the Silesian Museum, located partly underground, was established in the area of the former Katowice coal mine.

Artists’ activities can also represent an effective regenerator. Birmingham’s Custard Factory demonstrates how groups of artists through their activities focussed on a certain area can change its perception and transform it step by step into, for example, a fashionable creative district. The Łódź-based OFF Piotrkowska was also created in a similar fashion (FabrySTREFA’s activities, see Finn et al. 2017, p. 138). Interestingly, the role of a regenerator can also be played by a single person – it can be a well-known historical figure or even a fictional character (e.g. a literary hero), who attracts visitors, contributing to the development of cultural, literary, and film tourism. For example, the small town of Stratford on Avon, William Shakespeare’s birthplace, is visited annually by 3.5 million tourists for whom the English poet, playwright, and actor is the main reason for coming. The town of Matamata in New Zealand, the location of the Hobbiton Movie Set (The Shire) used for *The Lord of the Rings* trilogy (directed by Peter Jackson, based on J.R.R. Tolkien’s saga) supports itself mainly by catering to international tourists (Stasiak 2009). Sometimes a single charismatic person is enough to change the entire city, as ex-

emplified by Richard Booth of Hay-on-Wye in Wales, who transformed a small town into world's second-hand book centre.

Cultural events are yet another regenerator. The most effective are probably those that take place periodically or in a series for a longer period of time. They play a varied role in the regeneration process – they can be a factor accelerating change, broadening its reach, endowing it with the right narrative and identity (Smith 2012, p. 120). Due to the high costs of investment in infrastructure, cultural events are often seen as a more flexible form of reviving degraded spaces.

Culture as the fourth dimension of sustainable development

If culture boasts such a huge and multidimensional potential to overcome the challenges of the present day, as was briefly outlined above, it is necessary to consider what should be the place and role of culture in policies pursued by individual cities. “The traditional paradigm with three dimensions or pillars of sustainable development (environmental sustainability, economic growth, social inclusion) is in crisis today, because it is incomplete and does not contain the basic component: the cultural dimension of society,” wrote the researchers associated with Agenda 21 for Culture (Duxbury, Cullen, Pacual 2012, p. 73). The United Cities and Local Governments Association (UCLG), in a document signed by more than 400 representatives of cities from all over the world, advocates, on the one hand, support for the cultural sector (thanks to which cultural resources in a given community are protected and renewed) and, on the other, ensuring culture's place in all the policies pursued by the city (*Agenda 21...* 2004). It appears to be the only way to effectively utilise the strategic importance of culture.

In Poland, a change in the way of thinking about the role of culture was brought about by accession to the European Union; first of all, in the form of participation in various operational programmes (cultural projects which contributed to economic and social development were eligible for support from the Structural Funds) and the preparation of Polish cities for

the European Capital of Culture 2016 competition. This external impulse triggered fundamental changes in the approach to culture as a catalyst for economic and social development. These changes, although still slow and not equally successful everywhere, correspond with the concept of City-Idea promoted by Jerzy Hausner at the second Economy of Values Congress (Open Eyes Economy Summit 2), which took place in Cracow in 2017. The paradigm of imperative and technocratic management, which often comprised copy-and-paste solutions adopted from other cities, has lost its impetus. In order to meet today's challenges, political leaders must remember that the cultural perspective is crucial in thinking about their city's development. “The city must first be ‘symbolic,’ ‘engineering’ comes second.” (Bendyk et al. 2016). Therefore, the crucial process of value creation, unique for each city, occurs not only in its physical space, but also, or perhaps above all, in its social space. Culture and cultural policy can play an enormous role in this respect, but only a policy that recognises culture as something more than cultural institutions dependent on the local government budget or an opportunity to promote the city and increase tourist traffic. A policy which acknowledges culture as the fourth dimension of sustainable development.

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Tadeusz Gadacz

The University in times of thoughtlessness

In terms of civilisational evolution, we have found ourselves in a peculiar situation. The enormous development of science, new technologies, and almost universal access to knowledge not only did not alleviate thoughtlessness, but even intensified it, or perhaps only revealed it. One has the impression that we are currently experiencing an exceptional escalation of irrationalism, lack of critical thinking, naivety, questioning of scientific authorities, e.g. as regards vaccinations, but most of all, the flights of creative fancy, which prevail in the form of new words and which, when considered to be the actual reality, shape our individual and social lives. A symbolic manifestation of this trend is the recently quite fashionable word *post-truth*. A post-truth is not a lie, but a certain state beyond the truth and untruth, once identified by Friedrich Nietzsche, in which we no longer have the time or even the opportunity to verify information, since we are forced to respond to hundreds more pieces of information that demand our attention. Moreover, we do not know whether such information comes from man or from an algorithm. We no longer deal exclusively with facts and their interpretations, but with alternative facts. Post-truth has become possible owing to the development of information and communication technologies, their dissemination, and in no small measure to thoughtlessness. We are already in a completely different position than a certain Cracow bookbinder running an old workshop with tradition. Years ago he was approached by a university graduate who wanted to have his master's thesis bound. The elderly, respectable

gentleman jotted down the graduate's phone number and promised to call him. Two days later he did and said: "Come and pick up your work. I did not bind it. Its contents is so poor that binding it would be beneath my professional dignity." The bookbinder did find the time to read the work. He was also a well-read and thoughtful person.

The situation outlined above prompts three questions, which I will try to answer in this paper: 1. What is thinking and how do we think? 2. What are the contemporary causes of thoughtlessness? And 3. What should be the role of universities in times of thoughtlessness?

1. What is thinking and how do we think? Viewing man from the perspective of nature, we must state that he is a faulty animal, with various natural deficiencies, as Immanuel Kant observed. He is not as strong as a lion, his teeth are no match for a tiger's or his claws for an eagle's. Nature, however, has given him a different path of development to survive. By not giving man a natural instinct, it forced him to develop his intellectual potential. It was thanks to it him that he was able to overcome his natural deficits. Man has not only compensated for them, but also created devices thanks to which he can travel faster than the fastest animals, or fly despite the lack of natural abilities to do so. He has even mastered the processes of nature, tries to control social processes, as well as his own life.

However, this kind of compensation is ambiguous. As Max Horkheimer and Theodor W. Adorno have shown in their *Dialectic of the Enlightenment*, it is the source of power. The Renaissance thinker and researcher Francis Bacon most accurately captured this relationship between power and knowledge: "We can do as much we know." Knowledge is not only the key that opens up a vast field of opportunity, but also the source of domination. In the Renaissance, anyone who knew how to sail, use a compass and gunpowder, enjoyed not only the opportunity to discover new lands, but also, once the latter had been conquered, to destroy the native cultures, and kill off the natives. We have unleashed unimaginable powers. In the 20th century, we built concentration camps and gulags. We still produce ever more technologically advanced weapons and fight wars. We scare one another off with our nuclear potential. From the perspective of Renaissance humanism, we can no longer validly claim that the word 'man'

sounds proud. Indeed, we have created works that give us the reason to feel, as Blaise Pascal put it, "the pride of the universe." At the same time, however, as the thinker said in the same sentence, we are "its refuse."

Sixty years ago Otto F. Bollnow in his article "Reason and Irrational Forces" stated that "the situation of today's man, in the unanimous opinion of various observers, is characterised by an awareness of the total lack of protection in the hostile world. Man has become homeless in a far-reaching sense and feels, to quote Rilke, that 'he is not safe at home in a world he wants to understand'" (Bollnow 1979, p. 1188).

What is the reason for such an ambiguity of thinking? We make a serious error if we reduce thinking exclusively to actions of the intellect. The intellect is instrumental in essence; it is the art of constructing concepts with a superimposed technical mastery of the tasks allocated to man by life. No doubt that thanks to our intellectual capacity we have developed science and made unimaginable technical progress.

However, the intellect constitutes only a small part of our thinking processes. Convictions, also sometimes referred to as beliefs, play an extremely important role in our thinking. Every one of us believes in something, so there are no non-believers. We only differ in terms of the object of our beliefs. Some believe in the existence of God, whereas others believe in the non-existence of God. Some believe in matter, others in the spirit. There are also those who believe that the Earth is flat. Beliefs are formed in the process of our lives and are identical with it. We do not think about them, but think within them and thanks to them. They are unquestionable for us, since we think from the depths of our lives. Beliefs are formed in a rather mysterious way; we can only identify certain threads in them.

First of all, our beliefs are influenced by the historical epoch in which we live. Nobody decides about the time of their lives, and hence about the ideas of their epoch. On countless occasions we have the impression that we were born out of time. This was the case, for example, with Jan Hus. If he had been born in the 20th century, not only would he not have been burned at the stake, but perhaps he would even have sat next to Karol Wojtyła on the benches of the Second Vatican Council. His 'guilt'

or ‘mistake’ was not that he proclaimed, among other things, the idea of religious tolerance, but that his epoch was not ready to embrace his ideas. Under similar circumstances, every genius anticipating his epoch faces a dilemma: Do you proclaim your thoughts and risk being misunderstood and persecuted, or even killed, or do you conceal them? Further, beliefs are influenced by culture and language. We differ in our beliefs because of cultural circumstances. These are also individual conditions related to the family, its tradition, religion, and worldview. Then there are random events. We have no influence on any of them. We do not decide about the time of our lives, culture, language, family, or random events. These circumstances make us take different sides in worldview and political disputes.

We do not know how beliefs, which radically make us different from one another, arise. Certainly, the process is influenced by our sensitivities, family, reading, and teachers. We can only identify the opening and closing beliefs – the former develop our thinking, whereas the latter essentially limit and confine them. Closed beliefs evoke emotions, fear, they give priority to the creations of our imagination, which we consider to be reality. In this way mythical thinking is formed. The essence of myth is that it does not distinguish between reality and the sphere of imagination. Contrary to what Auguste Comte thought, the development of science did not supplant myths at all, but only updated them as a tool of social change. Mythical thinking, as shown by Ernst Cassirer in *The Myth of the State*, is what we resort to in times of social crisis, when intellectual thinking turns out to be powerless.

Another power of thinking is reason, which I would like to set apart from intellect, as Bollnow did. Intellect is only instrumental in nature; it is neither good nor bad, just like the tools it uses. The Internet as a tool can be used for communication, but also for assorted cybercrimes, including cyberhate. The capacity to replace a gene is neither morally bad nor good, but whether we use it to treat genetic defects or for eugenic purposes does not depend on our intellect. Blaise Pascal once said: “Let us endeavour, then, to think well; this is the principle of morality.” (Pascal 1953, p. 113). Well does not only mean correctly, flawlessly, observing the rules. This is

how the intellect thinks. That is why it can be associated with goodness and values, as well as with irrational, fanatical beliefs and mythology. Bollnow wrote, “A cold and calculating intellect can enter the service of criminal passion. (...) The intellect *a priori* conceals an authentic danger, and in connection with passion it gives rise to extreme fanaticism. Fanaticism can even be defined as rationalized passion” (Bollnow 1979, p. 1203). Therefore, the intellect should be guided by reason. And reason “thinks well” not when it thinks correctly, but when it is guided by goodness. It is the power of thinking that is formed under the influence of conversation and is capable of understanding others. “Reason means the medium of community where people, listening to one another, can meet in conversation. (...) Whoever allows others to speak with himself is a man who does not stubbornly cling to his intentions, who, on his part, meets the other, and in mutual efforts is ready for a creative compromise. (...) Remove tensions and create the possibility for conflict-free coexistence – this is the achievement of reason.” (ibid., pp. 1203–1204). Intellect, as Bollnow said, will teach us how to build a house. But that is not enough. Only reason will teach us how to live together peacefully in it.

Reason comes close to wisdom. The latter word is now rarely used. It does not appear in the National Qualifications Framework, as if the aim of the university was only to educate intellectually competent, but not necessarily wise people. This very difference between intellect and reason reveals that one can be incredibly intellectually competent and thoughtless at the same time. Our times appreciate intellect more than reason. This is a good transition to the second point.

2. What are the contemporary causes of thoughtlessness? Out of the many reasons, I would like to discuss four main ones. The first is mediocrity, the second pragmatism, the third measurability, and the fourth is mercantilism.

In her poem *Otchłań* (*The Abyss*) Ewa Lipska bitterly notes:

I sit beneath any old sky

And I listen to what mediocrity has to say. (Lipska 2005, p. 29).

Mediocrity can be defined as being imprisoned in an easy-to-repeat, verbal pap coming from the radio, TV and flooding the Internet. Father Józef Tischner aptly expressed it in his metaphor of the marketplace:

“Markets have their own power of attraction. They enslave our eyes, force us to look at what is on display. They enslave our ears, force us to listen to what is shouted out. The marketplace does not allow us to leave its space, keeps forcing us to return, to watch the same thing over and over again. But first of all, the marketplace imposes its own language on us. Anyone who spent some time there cannot speak any language other than the language of the marketplace. Neither can he think differently – he becomes a part of the marketplace” (Tischner 2008, p. 63).

The contemporary analyst of thoughtlessness and mediocrity was the Spanish thinker José Ortega y Gasset. He called it “the revolt of the masses.” He stated, “The characteristic of the hour is that the commonplace mind, knowing itself to be commonplace, has the assurance to proclaim the rights of the commonplace and to impose them wherever it will. (...). Here we have the characteristic for the moment that average and banal minds, knowing their mediocrity and banality, have the audacity to demand the right to be mediocre and banal, and to impose these qualities on all others” (Ortega y Gasset 2002, pp. 78–79).

The modern, new revolt of the masses, which spreads across various regions of Europe and the world, has been further strengthened by the development of new information and media technologies. The Internet has become today’s marketplace, which has made the lives of many people into a continuous carnival. A medieval carnival, which turned the existing order upside down and disregarded the hierarchies of norms and values in force, lasted several days. The Internet carnival of life is permanent. The medieval carnival used a mask. The essence of today’s carnival is unmasking.

Paradoxically, the development of new technologies does not support our responsibility, but instead releases us from it. Progress means not only accumulation, but also improvement. If it meant accumulation only, we would have to describe a refuse collector as a progressive person on account of his resources growing by the day. In the Middle Ages, when books were handwritten for years on expensive parchment, only masterpieces were copied. Since Gutenberg invented the printing press, it has been getting worse and worse. Later, whoever used the typewriter, felt

himself responsible for what he put down. He knew what would happen if he formulated his thought badly. Today, when we cut and paste using computers, the quality of our thinking has plunged dramatically, flooding library shelves and the Internet with mediocrity.

New technologies not only relieve us of responsibility, but also make us lazy. The contemporary technical civilisation, which is a civilisation of facilitation, also contributes to intellectual idleness. Everything is effective in the world of technology, we just need to flip our thumbs. We press or touch a button and it works. In the spiritual sphere, nothing works like this. Reading books, rethinking thoughts, reflecting requires a lot of effort and focus.

Finally, the dominance of mediocrity is influenced by the lack of courage to think. For mediocrity is always present amongst those who live by ideology or off ideology and the few daring enough to reflect critically on it. In his article “Sapere Aude” Immanuel Kant wrote, “For this enlightenment, however, nothing is required but freedom, (...) the freedom to make public use of one’s reason at every point. But I hear on all sides, “Do not argue!” The officer says: “Do not argue but drill!” The tax collector: “Do not argue but pay!” The cleric: “Do not argue but believe!” (...) Everywhere there is restriction on freedom. Which restriction is an obstacle to enlightenment, and which is not an obstacle but a promoter of it? I answer: The public use of one’s reason must always be free, and it alone can bring about enlightenment among men” (Kant 1966, p. 166).

The second contemporary cause of thoughtlessness entails the reduction of thinking to its pragmatic dimension. It reflects the preference for developing the intellect at the expense of reason. In an era in which the economy and various indicators wield decisive influence, thinking counts only to the extent to which it offers tangible effects. Change which has occurred in European thinking is particularly evident in the concept of theory. From the very beginning of modern scientific development, *theory* has meant a bold research hypothesis which could be tested experimentally and, most importantly, has significant pragmatic effects. Therefore, researchers submitting grant applications to the National Science Centre must declare what patents, new technologies or at least solutions to social

problems will ensue from their research. Meanwhile, for Plato, *theoros* was a soul which, before it came to subsist in the body, lived in an ideal world and followed divine souls to the place of true and beautiful existence that constituted its food. When the soul partook of the food, it fell into awe, that is to say, into *theory*. For Plato, *theory* meant taking delight in a view. The theoretical approach is therefore espoused by a person, who becomes enraptured when listening to Pergolesi's or Mozart's music, reading Celan's or Herbert's poems, or contemplating Rembrandt's paintings. A mathematician can be enraptured by a fractal or a particularly elegant formula. That is why humanists, when submitting grants to the National Science Centre, should rather answer the question: What kind of delight do they intend to feel in the course of their research? How will it alter their souls? But who is going to give them the money to do so, especially if the applicants are unable to demonstrate the pragmatic benefits of their delight? Thinking cannot be measured only in terms of consequences; it would be tantamount to thoughtlessness. The very process of thinking that educates and changes us is more important. Once a certain student, during an examination in the history of philosophy, was unable to answer my third question, and complained: "Why do you demand this kind of knowledge from me? After all, I have it all on my hard drive." I answered, "What you are saying is inspiring. But my generation, since hard drives were hard to come by, had to rely on its soft drives. And the difference between them is that the former only store data, whereas the latter educate us. When they turn off the power, your database will disappear, and my education will remain."

One of the causes of thoughtlessness is also the modern ideology of measurability associated with purely pragmatic thinking. According to Descartes, science can only deal with measurable objects. That is why the freedom and trust that have always constituted the basis for the university is now being replaced by bureaucratic control. The university slowly begins to resemble Jeremy Bentham's Panopticon, a system of supervision and control, in which most of the time and attention is devoted not to thinking, but to planning and reporting. To make matters even worse, we no longer only plan and report, but we plan reports and report

on plans. When the boundaries between plans and reports have finally blurred, the tiny window of opportunity for free thinking will disappear. Does bureaucracy amplify the effects of our thinking? I seriously doubt it. Copernicus, oh horror! had never participated in an Erasmus exchange programme. However, when he arrived at the University of Padua, he had no problem communicating with the local professors. Immanuel Kant was characterised by zero 'researcher mobility.' He left Königsberg only on a single occasion, for Morąg, to give a few lectures to Prussian officers stationed there. He was unproductive for eleven years, because he did not publish anything. Admittedly, afterwards he did complete his *Critique of Pure Reason*, but by the current evaluation standards, he should have received negative tenure reviews every four years. I would like to make myself clear: I am not saying that the effects of our work do not count, however, we overestimate our achievements at the expense of who we are as people and as citizens.

Finally, today's source of thoughtlessness is the dominance of the mercantilist orientation associated with the economic function of the market. According to its logic, we are turning ourselves into a commodity to be put on the market. Such an orientation has a fundamental impact on the educational process – it is no longer about development and self-fulfilment, but about achieving success in the process of selling oneself. In the mercantilist orientation, as Erich Fromm writes, thinking "has the function of embracing the world of objects as quickly as possible in order to be able to manipulate them effectively. Fast, wide, and effective education leads to the development of intelligence, not reason. For manipulative purposes, only knowledge of the external characteristics of things, superficial knowledge, is needed. The truth, which should be achieved by exploring the essence of phenomena, becomes an outdated concept. (...) Comparative categories and quantifiable measurement, rather than an in-depth and comprehensive analysis of a given phenomenon and its qualitative features are the essence of this kind of thinking (...) thinking and knowledge become tools at the service of success." (Fromm 1994, pp. 67–68).

3. What should be the role of universities in times of thoughtlessness? First of all, they should instil the courage to think critically and inde-

pendently into students, to reflect on one's own beliefs and to respect the beliefs of others. This will only be possible if we return to the original sense of education, of which universities are only the culmination. We cannot limit education to the acquisition of knowledge and the improvement of the intellect alone, ignoring the education of intellect and reason. We face unpredictable opportunities inherent in technological development. The intellect will tell us how to build an autonomous weapon equipped with artificial intelligence, but only reason will tell us whether we should develop one at all. That is why Max Horkheimer in his famous lecture on *Responsibility and Studies* given in 1952 (after his return from the USA, where the entire Frankfurt School emigrated after the Nazis came to power) said, "Isn't the student necessarily witnessing that the development of reason and all the skills it implies are the duty of someone who takes the truth seriously – and without that, can we talk about studies at all? (...) The very fact that a graduate is unable to combine the strength and courage necessary to solve life's problems with professional competences leads to a combination of expertise and obscurantism that justifies the assumption that educated people could no more resist totalitarian madness in the past and will not do so in the future than uneducated people" (Horkheimer 2011, p. 244).

Currently, education is meant to equip people with knowledge, skills and competences necessary for operating efficiently on the labour market. However, the aim of education cannot be merely to prepare individuals for the labour market. Let us once again quote Horkheimer – education "should involve learning what we care about as people and not just as members of industrial society" (ibid., p. 240). Education must consist in equipping people with knowledge, but also with moral values, existential senses as points of support, aesthetic experiences to last them a lifetime. It must occur via cultural transmission, because it is the great works of European culture, great moral models that reveal the sense of humanity and the sense of life. That is why Lucius Annaeus Seneca once wrote to his student, the procurator Lucilius: "You know what is needed to be a good procurator, because you studied with me *littere* (literature, art, philosophy). Without them you cannot be a cultured person, and without culture you cannot be a good procurator."

Culture is needed to educate reason. Our lives are too short to be able to assimilate in its entirety and thus achieve wisdom. That is why works of culture play such an important role. Thanks to reading, as Wilhelm Dilthey wrote, we can experience numerous and varied kinds of existence. Tied up and circumscribed by the reality of life, we gain freedom in time and space (Dilthey 2004, p. 205). We can imitatively experience the lives of people in different times and different places. We can live a number of times within our single lifetime and thus gain reason. "Contrary to tradition (...), we understand ourselves only by the long detour of the signs of humanity deposited in cultural works. What we would we know of love and hate, of moral feelings, and, in general, of all that we call the self if these had not been brought to language and articulated by literature?" (Ricoeur 1989, p. 243).

Education is, therefore, an internal process of formation which leads to humanitarianism. Horkheimer emphasised the latter aspect in particular, bearing in mind the horrors of war: "After this horror that has recently occurred, and in spite of it, I cannot abandon the hope that not only in the first period after the catastrophe, but also in the coming decades, this already forgotten attitude will again become the goal of university education. Limiting studies to the acquisition of skills (...) is not enough. A judge without empathy means the death of justice" (Horkheimer 2011, p. 245).

But how to carry out this task of education in a situation where universities, forever the strongholds of independent thinking and search for the truth, become a part of global entrepreneurship. Before our eyes, the university is transformed into a corporation, into a knowledge factory, where knowledge becomes a form of capital accumulation and professors become database managers.

The University-Corporation has become the subject of the market game, subject to the law of demand and supply. Given the tyranny of mediocrity, this forces us to face a dramatic question: Should humanities and culture be removed from university just because they no longer find mature buyers, as is already the case in a number of countries? Should the university serve the truth or society? Is the alternative false? What should such service involve? Is it about succumbing to the lowest tastes, direct

democracy imposing its beliefs and rules on the Internet forums and in the streets, or about educating society? Is the university supposed to act as a source of authority or approve a further lowering of the educational standards in order to realise the ideal of equality? Is it supposed to defend models, canons of language culture, or to submit to social pressure? The answers are related to what we think it means to be a human being and what his or her goodness involves. Is it to be determined by social and cultural fads, labour market needs, economic opportunities, or politics? Or should its definition require reflection on the European tradition of culture and thought? The point is that nowadays, the university offers ever fewer opportunities to ask such questions and try answering them.

The University-Corporation has also ceased to be a University-Temple – a place to stop and reflect. Instead, it has become a University-Arcade – a place of hasty transition from home to work and vice-versa, from there to another university or other courses, to and from volunteer jobs. The University-Arcade ceases to be a place of education and becomes a place to clock up credits needed to obtain a degree and to prepare a CV to match the expectations of the labour market. The University-Arcade fills up only during the recruitment period and end of term examinations. It floats in a 'liquid modernity.' Everything about it is temporary, variable and shallow, including laws, regulations, grading systems, authorities, and even student notes circulating on the Internet.

What kind of future can we expect? The university should once again become a space for free thought, independent of political and market pressures. It should liberate itself from the bureaucratic yoke and regain trust in order to devote itself to full, universal education. It is not only the intellect that counts, but above all, reason. Let us revisit Bollnow's metaphor: the intellect may teach us how to build a house, but even if it is modern and energy-efficient, it will be of no use if we do not know how to inhabit it wisely with others.

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Bob Jessop

Varieties of academic capitalism and entrepreneurial universities

On past research and three thought experiments¹

In his once highly acclaimed book, “The Coming of Post-Industrial Society” (Bell 1973), Daniel Bell predicted that (1) knowledge would replace capital as the critical factor of production as societies moved to post-industrialism, (2) intellectual technologies for planning the public good would displace mechanical technologies used to boost private profit, and (3) universities would supersede industrial enterprises as the dominant kind of social organization. The first prediction is reflected in late modern societal self-descriptions such as ‘information society’, ‘learning society’ or ‘knowledge society’ (UNESCO 2005; Souter 2010). But there has also been a shift in primacy from industrial to financial capital as well as a growing financialization of most social relations (van der Zwan 2014). The second prediction has been controverted by use of intellectual technologies to promote the economization and financialization of social life rather than to identify and advance the public good. And prediction 3 is challenged by the uneven trend for universities to act more like rival

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enterprises that seek to maximize their reputation and revenues than as disinterested, public-spirited institutions.

Bell's predictions provide the initial frame for my critical reflections on academic capitalism. I begin with a brief review of past work on how higher education and research have adapted to changes in contemporary capitalism and how this adaptation is mediated through the hegemony of discourses around the 'knowledge-based economy' as opposed to the knowledge society. This economic and social imaginary, which is strongly endorsed by various state agencies and not just a reflection of economic processes occurring in the background, is guiding the structural reform and strategic reorientation of higher education and research (hereafter HER). It thereby contributes performatively to the emergence of an already posited, but still incomplete, transition towards knowledge-based economies. This review involves a thin account of academic capitalism because it focuses on the structural coupling and co-evolution of the increasingly dense ties between the academy and capitalism. Attention then turns to thicker accounts that provide theoretical frameworks for assessing whether and how far higher education and research are being directly reorganized on capitalist or entrepreneurial principles. These accounts rest on three 'thought experiments' that speculate on past and future developments in these fields and are based on conceptual reflection as well as extrapolation of theoretically framed historical trends. As such, they do not offer a meta-analysis of past research or present new empirical results. Instead, they suggest new lines of primary or secondary inquiry about academic capitalism (on thought experiments, see Sorensen 1992). The first experiment relies on *reductio ad absurdum* arguments intended to identify some real limits to a fully developed academic capitalism. It suggests several analytically distinct steps on the path to a profit-oriented, market-mediated form of academic capitalism and shows that progress down this path is far from complete. Experiment 2 reflects on five current forms of academic entrepreneurship and how far innovation is being reoriented from substantive academic purposes towards commercial, capitalist or even financialized ends. The third experiment reflects on the ways in which higher education and research

could profit literally as well as metaphorically from forms of political rather than market-rational pursuit of profit. Some brief concluding remarks suggest how to take these arguments beyond what are currently essentially efforts at plausibilization.

Performing the knowledge-based economy

Social imaginaries are crucial in simplifying complex natural and social worlds as a basis for 'going on' and, perhaps, transforming and stabilizing social relations (on imaginaries, see Sum and Jessop 2013). Here, I focus on visions of the knowledge-based economy (KBE) and their transformative influence in higher education and research. At the centre of this imaginary is the production, valorization and application of knowledge as a key driver of the economic efficiency, competitiveness, profitability or effectiveness of the private, public and third economic sectors, of good governance and of an enhanced quality of life. This vision was heavily promoted in the 1990s by, among other agents, the Organization of Economic Cooperation and Development (OECD 1996). It arose as a late response to the crisis of post-war Atlantic Fordism, which rested on a virtuous transatlantic circle of mass production and mass consumption (Jessop 2002). And its resonance was reinforced by growing global economic integration, which intensified pressures to move beyond Fordist growth dynamics. One side effect of these changes was proliferating critiques of education from many quarters for failing to meet the human capital needs of an allegedly ever more competitive, globalizing KBE (see Carter and O'Neill 1995).

The KBE imaginary has powerful effects on capital accumulation and other social arrangements (for a survey of the relevant lexicon, see Carlaw et al. 2006; on its genealogy, Godin 2006; Jessop 2008; and on knowledge society and knowledge economy discourses in higher education, Peters 2004; Valimaa and Hoffman 2008). While the KBE is a novel concept, it was prefigured in earlier changes in education and science as economic relations were rationalized (Weber 1968, 130-63) and created demand for

diverse forms of knowledge as major inputs into accumulation, whether through the intellectual commons or via intellectual property rights (hereafter IPRs). This helped to reorient university teaching and research from alleged ivory-towered intellectual isolation towards closer and more continuous contact with the economy, the state and wider community as co-producers and consumers of useful knowledge (e.g. Etzkowitz 1994). These trends were already evident in university-corporate ties in US private universities from the eighteenth century onwards. But they were intensified in the 1990s as the KBE was regarded as crucial in defending US technological and industrial competitiveness and promoting the interests of newer knowledge-intensive and creative 'industries'. One aspect of this shift was changes in federal funding for research, enabling universities to keep and licence the intellectual property rights in their discoveries and inventions. Similar developments occurred elsewhere, partly coordinated through international agencies such as the OECD, partly arising independently in response to the same competitive pressures and the relative hegemony of the KBE imaginary as a way of making sense of disruptive technologies and economic crises. In the post-Fordist era, this is reflected in expectations that universities get engaged with technology transfer, build science and technology research parks, host incubators, enable commercial spin-offs and spin-outs, provide consultancy services and so forth (Slaughter and Leslie 1997; Horta 2009). This trend is clearest in science, technology, engineering, mathematics (STEM) subjects but has penetrated the social sciences and even the arts and humanities when deemed relevant to competitiveness (notably in the creative, cultural and copyright industries), government agendas or social control. It is nonetheless unevenly developed, and while many are called to join in, fewer can respond effectively. A related trend is intensified global competition for talent—including undergraduates and masters' students, doctoral and post-doctoral researchers, skilled knowledge workers, members of the 'creative class' and high-flying and effective entrepreneurs.

These developments occurred unevenly at many scales from cities through regional and national economic spaces to quasi-continental and supranational spaces. A good example is the European Union's Lisbon

Agenda to make Europe the most competitive KBE in the world (European Council 2000; on the role of the Anglo-American model in this regard, see Slaughter and Cantwell 2012, 583). This reflected a general European consensus that '[g]iven that they are situated at the crossroads of research, education and innovation universities in many respects hold the key to the knowledge economy and society' (Commission of the European Communities 2003). Besides its emulation of the US model and response to growing competition from East Asian developmental states, which were shifting from investment- to innovation-led catch-up strategies, the Lisbon agenda also reflected traditional features of local Rhenish capitalism (on the latter, see Albert 1993).

This suggests that HE is increasingly construed as a directly economic factor to be governed in conjunction with similar factors to boost economic competitiveness. Whether, against recent global trends, public universities remain firmly embedded in the public sector or, in line with these trends, are integrated into the private sector or, at least, forced to compete with private players, the HER sector was increasingly judged from the 1990s onwards in terms of its economic efficiency and contributions to national systems of innovation, the learning economy, the KBE and 'enterprise culture,' economic competitiveness and growth at pertinent scales (Etzkowitz 1994; Godin 2006; Olssen and Peters 2005). This has influenced state funding strategies and mechanisms and the ways in which universities are evaluated and supported. For similar reasons, efforts are now made to boost business influence in curriculum design and to adapt education and research to perceived economic needs by developing private-public partnerships (Levidow 2001).

Two apparently contrary but mutually complementary strategies were adopted. The first reaffirms 'the state functions of education as a "public good," while the second subjects education to the disciplines of the market and the methods and values of business and redefines it as a competitive private good' (Marginson 1999, p. 122). The second strategy reflects the hegemony of KBE imaginaries and strategies, its supporters' growing role in shaping education mission statements (to the detriment of concerns with citizenship, equity, social inclusion, social investment and nation

building), the growing financial dependence of HE on third-party revenues, including contract research, domestic and international tuition fees, consultancy, intellectual property revenue streams, fund-raising and endowment income and third mission activities (Clark 1998; Etzkowitz 2002; Slaughter and Leslie 1997). Overall, these strategies boost research universities at the KBE frontier and even produce ‘winner takes all’ dynamics with strong polarizing effects. But the diversion of resources into research creates pressures in many universities to reduce the teaching costs. This can benefit local or regional institutions that specialize in cost-effective mass credentialization and opportunities for life-long learning. It also guides efforts to deregulate higher education to allow low-cost private sector entrants into the academic market place.

This has important consequences for university governance. This is seen in changes in internal management organization and capabilities, the introduction of internal markets and quasi-markets, quality assurance mechanisms, differentiated career tracks and new intermediary bodies for managing and transferring knowledge internally and with external partnerships (Slaughter and Cantwell 2012). Reflecting this reorientation towards serving the KBE, universities have adopted the latest management fads for increasing efficiency, such as New Public Management principles, enterprise resource planning, business process re-engineering, total financial management, customer relations management (for students), data mining and the sale of data to outside commercial interests (Eaton et al. 2013). In addition, employers and practitioners are getting more involved in curriculum development, managers of private enterprise are drawn into educational governance and agenda setting, accountants and financial managers acquire more influence over strategic formulation, and mobility is fostered between the academy and non-academic worlds. Thus, the traditional model of university governance, depicted most famously (if sometimes more in rhetoric than practice) in the Humboldtian community of scholars and students, is being challenged by demands for greater accountability to a multi-tiered state system, to diverse business interests ranging from small- and medium-sized firms to national and international champi-

ons and, more generally, to the treadmill demands of competitiveness over many scales and around an ever-expanding range of economic and extra-economic factors (Slaughter and Cantwell 2012). This holds even for world-class universities, which gain some autonomy from national pressures only to face them globally.

Experiment 1: rethinking the rise of academic capitalism

This thought experiment uses a *reductio ad absurdum* strategy to challenge the ‘economistic fallacy’ in analyses of academic capitalism. For Polanyi (1982), the economistic fallacy leads observers to describe all economies in terms of categories that are, in fact, unique to the (capitalist) market economy. This *epistemic* fallacy is distinct from the economically reductionist *ontological* error that explains all social change via the changing economic imperatives and/or effects of economic class struggle. Here, I challenge the economistic fallacy by distinguishing six stages on the path to a developed capitalist market economy and then a finance-dominated economic and social order. It applies this framework to possible steps in the development of academic capitalism. Both steps in this thought experiment are historically grounded but remain essentially conceptual. No claim is made that these stages follow each other in a smooth, unilinear sequence that unfolds across all spheres of society until it is eventually completed. On the contrary, each stage requires much effort by interested social forces to extend market principles despite resistance, frictions, conflicts and crisis tendencies. Some steps may never occur; others may be reversed. An important preliminary conclusion from this analysis is that a full traversal of all stages has not yet occurred in the HER fields and is unlikely to occur. Moreover, to avoid the charge of economic reductionism, the social forces promoting or resisting these changes are not restricted to social classes, however defined, but include many other agents with quite varied identities, interests, values and goals.

From commercialization to financialization

1. An *exchange economy* develops when useful goods and services are circulated through direct barter, debt relations or use of a medium of exchange. Exchange replaces other modes of economic organization, such as largely self-sufficient house holding, reciprocity among complementary economic units and politically organized redistribution (Polanyi 1982). This step does not require the primacy of exchange relations, let alone of money, in these arrangements. Indeed, historically, markets existed mainly at the interface of house-holds, reciprocal networks and redistributive communities (Marx 1963; Weber 1968; Polanyi 1982).
2. A *commercial economy* develops when commodification and monetization become basic features of economic organization and goods and services are explicitly produced for sale and exchanged for money. This occurs so far as material provisioning takes the form of commodity production and/or as economic agents seek to derive monetary revenues from material provisioning or immaterial activities that previously circulated outside monetary circuits. Merchant capital plays a key role in the development of this stage across space-time.
3. A rational *market economy* involves rational organization of production based on formal bookkeeping principles, free trade in commodities and profit-oriented trade in money and credit instruments (Weber 1968, 2009). Rational organization of production along (quasi-)corporate lines can be tied to non-competitive principles (e.g. monastic production, military efficiency, research laboratories or social enterprises), but it is now closely linked with profit seeking in competitive markets.
4. A *capitalist economy* develops when the commodity form is generalized to all four core inputs into production: land, labour power, money and knowledge (cf. Marx 1963; Polanyi 1957, Noble 2002). These are best interpreted in the first instance, albeit on different grounds in each case, as *fictitious commodities*. That is, while they are bought and sold and may enter as inputs into a capitalist production process, they are not themselves produced for sale in the same kind of process (for important qualifications to this claim, see Jessop 2007). Yet their circulation in the commodity form has fundamental effects on the na-

ture and dynamic of the production of material and immaterial goods and services.

5. A *competitive financialized economy* develops when production, distribution and exchange are closely articulated with, even subordinated to, the circuits of capitalist credit money. This intensifies competition by (i) enhancing the equalization of profit rates across the entire market economy as finance capital *qua* functioning capital is reallocated among competing profit-generating investments and (ii) promoting the equalization of interest rates and rents as finance capital *qua* property, i.e. fictitious capital, is re-allocated among asset classes (e.g. government bonds, asset-based securities, gold, fine art or, indeed, student loan portfolios).
6. A full-fledged *finance-dominated capitalist economy* emerges with continuing movement towards world *market completion*, with the use of ever more rarefied forms of fictitious capital (including, notably, derivatives) and with increasing use of debt leverage in the search for superprofits. This reinforces the dominance of finance capital *qua* property rather than as functioning capital and works to universalize competition for gain and to intensify capital's inherent contradictions.

While transitions between stages 3 and 4 are often associated, at least among the first movers in capitalist development, with *liberal* imaginaries and practices, *neoliberal* ones are significant in economization strategies from stage 4 onwards. In general terms, neoliberalism emphasizes the virtues of liberalization, deregulation and privatization; privileges (capitalist) market competition as a principle of economic organization even more than liberal imaginaries and practices; and promotes the fictitious commodification of land, labour power, money and knowledge and their integration into profit-maximizing accumulation. Neoliberalism also demands to transfer state activities into a commercial, market or capitalist economy where these are deemed to lie outside the state's core functions, to organize these through internal markets inside the state or to use various market proxies to simulate competition (see Jessop 2002). In addition, in periods of austerity, attempts to maintain marginal or unprofitable, but substantively beneficial education and research activities, are undermined by budget cuts, demand for regular 'efficiency gains' and call for

fiscal consolidation. These aspects help to explain why neoliberalization may drive or assist shifts to the fifth and sixth stages. Yet these changes also generate such powerful tensions and crisis tendencies in capitalist market economies that, as Karl Polanyi (1957) noted, ‘society’ eventually fights back against their environmentally and socially destructive effects.

Economization in higher education and research

I now consider whether these general stages can plausibly be said to occur in higher education and research. If so, these would eventually be reoriented towards rationally organized competitive knowledge production for profit (stage 4) and, in further moves, integrated into finance-led or finance-dominated accumulation (stages 5 and 6). Higher education and research typically traverse these steps, to the extent that they do, in an economy already dominated by capitalist market relations. This creates scope for overlap or fusion between the stages 2 to 4 as already established business practices are applied for the first time in higher education and research. These two fields nonetheless have specific features that impede the full traversal of all six steps.

One obstacle is that, as Claus Offe (1975) noted, whereas capitalist enterprises typically have a clear formal maximand easily measured in monetary terms (profits), governments and other public bodies have several, often vague and inconsistent, sometimes contradictory substantive goals that are contested and hard to quantify, sometimes deliberately so. Education and research generally belong to the second group (on the ambivalent goals of universities, see Weiler 2005; on confused government aims for education, see Brown and Carrasso 2013). Only if HER institutions were fully privatized and integrated into a financialized market economy (with securitization of their assets and revenues), would profitability and shareholder value override all other goals.

Another obstacle is a potential contradiction in the production, circulation and valuation of knowledge seen as intellectual commons or as intellectual property (Jessop 2007). This creates conflicts around (1) the traditional commitments to free circulation of ideas, innovative products and practices and (2) the commodification or commoditization of knowl-

edge and its deployment for private profit to the neglect of unpriced, but real, positive externalities. This is a fractal problem that occurs at many scales of the HER complex and can create multiple conflicts of interest in various knowledge-intensive, design-intensive or creative fields. This led Marginson (2013) to claim that capitalist markets cannot be fully established in higher education (see also Hemsley-Brown 2011). Recent OECD discourses on universities reflect these tensions, switching uneasily between their role in providing public goods or private benefit for students and other stakeholders (Hunter 2013, Komljenović 2016).

The starting point for judging whether the stages of economization and, eventually, financialization apply to education and research is the proportion of society’s time devoted to these activities as sources of general or specific *want-satisfying* goods and services. In this context, stage 1 begins when more of society’s time is devoted to supplying education and research without an explicit, defined quid pro quo, whether in kind or cash. Such provision could occur in households, reciprocal communities and redistributive networks (Polanyi 1982). The classic case in universities is communities of students and scholars organized on collegial, commercially disinterested principles, whether pre-modern or Humboldtian in spirit and practice.

The second stage involves commercialization as education and research are explicitly *produced* to be sold. Once capitalist markets have emerged in the wider economy, this stage often overlaps with that of rationalization. The main forms are fee-paying universities, whether for profit or not, and commercial research. Secondary examples include private tuition and distance learning (on distance learning and the commodification of knowledge, see Noble 2010). As stage 2 is consolidated, students become sought-after customers, knowledge and creativity are commodified, and later, as research findings are commodified, IPRs gain scope and duration and thereby increase in value to universities and research institutions. One index of this stage is the adoption of commercial criteria in decision-making, efforts to increase revenues, a focus on cost reduction and cost recovery and financial risk management. Where this occurs, it encourages a shift from collegiality in university governance towards

key roles for finance professionals, outsourcing and consultancy. These pressures are reinforced when government funding is also contingent on the same or similar performance targets. Indeed, states often play a key role in commercialization as part of their fisco-financial strategies as well as for ideological reasons.

Stage 3 involves the development of a capitalist market economy in education and research. Indices of this would be free trade in knowledge, a rational organization of production based on double-entry book-keeping or other measures to ensure efficiency and control and recover costs, and the raising of necessary capital costs not only from savings or revenues but also from commercial and financial markets. Some HER systems have long had private universities, often to a significant degree, that operate on these lines (for a broadly similar analysis of stages 1 to 3, see Marginson 2013). Otherwise, this stage begins the transformation of universities and research into private profit-maximizing enterprises or, at least, non-profit private, public or hybrid organizations that seek to maximize net revenues, especially where the state is no longer the primary source of funds (on three types of corporate university, see Waks 2002, and on the construction of higher education as an industry to be governed in these terms, see Komljenović 2016). One aspect of this is greater investment in revenue-generating operations such as medical centres, sporting facilities, student accommodation and the conference trade at the expense of core education functions (e.g. Eaton et al. 2013). As we shall see, this also boosts creditworthiness.

Stage 4 would involve the *quasi-commodification of mental labour* as an input, including the *separation of intellectual labour from the means of intellectual production* (especially in STEM subjects with capital-intensive production), the loss of professional status, attempts to limit freedom of teaching and research, an increased hierarchization and precarization of intellectual labour, the formalization, codification and embodiment of knowledge in smart machines and expert systems, including digitization of lectures and teaching materials enabling their virtually costless reproduction and circulation for the producer, even if consumers must pay fees (Agasisti and Catalano 2006). This reinforces the subordination of

mental labour to commercial considerations in ways analogous to the role of machinofacture in subordinating manual labour to capitalist control (Bell 1973, 29). The real subsumption of intellectual labour under capitalist control is an essential step towards a competitive market economy. The first steps began when the bourgeoisie converted “the physician, the lawyer, the priest, the poet, the man of science, into its paid wage-labourers” (Marx and Engels 1976, 487). Under neoliberal globalization, with its ideological supports in the neoliberal theory of property rights and the legal principle of creative ‘work for hire’ (which transfers rights in intellectual property to the employer or, for students, to their educator), this is also linked to commodification of teaching materials, scholarship, scientific research and scientific publications. Three other aspects are, first, the enclosure of the intellectual commons created within the public education and research systems; second, the subordination of knowledge production to IPR regimes (Bollier 2002, Perelman 2002); and third, commercial and capitalist colonization of new scientific domains, especially in STEM subjects. These forms of privatization and marketization contribute to the erosion of any residual public interest in education provision, research and scholarship (Frow 1996; Brown and Carrasso 2013).

Related to these last three broad stages, we see a growing global industry of standardization, accreditation, quality assurance and benchmarking of higher education and research institutions (Hazelkorn 2015). There are many specific rankings for universities (notably, the *Shanghai Jiao Tong University Academic Ranking of World Universities*, *The Times Higher Education Supplement World University Rankings*, *QS World University Rankings* produced by Quacquarelli Symonds Ltd. and *US News and World Report Global University Rankings*). Annual revisions institutionalize a continuous gaze through a ‘paper panopticon’ (Sum 2009) with performative effects that far exceed their robustness and face validity. They drive an accelerating treadmill of competitiveness that creates pressures to follow best practice and adopt the latest strategic recipes based on the most recent, or still fashionable, economic imaginaries.

The next two stages concern the penetration of finance capital and financial speculation into higher education and research. These stages

are less often discussed in work on academic capitalism because they concern in the first instance their articulation to financial capital rather than productive capital and seem far removed from the discourses of the knowledge-based economy, the competitiveness agenda and so forth. They can nonetheless have significant effects, when taken to an advanced stage, on HER aims, activities and governance.

Stage 5 develops as *money as functioning capital* engages in profitable investment activities in these fields and, likewise, as HER-related finance becomes a distinct 'asset class' for *capital as property*. This reflects demand and supply side incentives. Thus, universities and research institutes must look beyond public sources of capital and income and compete over the quality of their estate; conversely, financialization leads to the supply of new asset classes that diversify risk for wealthy individuals, family trusts and financial institutions. The convergence of these trends is facilitated insofar as external credit ratings of education and research institutions influence their ability to raise loans and issue bonds, make public offerings of shares, attract investment capital through private placements and private equity, collateralize general revenue streams and otherwise boost their total debt-raising capability. The interaction of these trends strengthens market forces and subjects HER enterprises individually and collectively to the tendency to equalize profits (revenues) and risk-discounted interest rates within this sector and in relation to returns on other asset classes.

Sixth, a finance-dominated education and research system could emerge as the knowledge economy is subordinated to external demands for the profitability of 'capital as property' (securitization) that emanate from outside the HE and research sector. Examples include the development of a global secondary market in Student Loan Asset-Based Securities (SLABS), which are extensively used in the USA² and Chile and will also develop in the UK when the student loan portfolio is collateralized in 2017. As student enrolment and tuition fees have grown and the employability

² The Student Loan Marketing Association (Sallie Mae) pioneered SLABS in 1992 and remains the key market player in the USA. Chile introduced a student loans scheme in 2006 and now has an advanced secondary market.

and income gaps between graduate and non-graduate incomes have risen, the SLABS market has become increasingly attractive as an asset class (Sallie Mae 2013; Fried and Breheny 2005). As a source of securitized assets, the volume of student loans in the USA now exceeds the volumes of auto loans, credit card receivables and home equity (excluding first mortgage) loans. Another significant asset class is university bonds with fixed or adjustable rates for new or refurbished teaching and accommodation, research facilities, equipment, medical centres, etc. Such bond issues are driven in part by competition for students based on top-class teaching and learning facilities, quality accommodation and well-equipped sports and leisure facilities. Public university bonds in the USA are tax-privileged and tax-exempt security loans, and synthetic leases have also been developed for private non-profit universities (Pylypczak-Wasylyszyn 2015). Likewise, special investment vehicles to fund student accommodation in public and private universities and the private rental sector are promoted as secure (and securitized) investments. Such developments contribute to the rise of education as a distinct asset class with two kinds of private investment opportunity:

[F]irst, via full material privatisation where the private investor fully owns and operates the education institution with the possibility of service provision via accreditation by public authorities. ... Second, via functional privatization where the public sector seeks private investors/partners to build new or to upgrade existing education facilities, such as schools (Weber et al. 2016,254).

These trends are not limited to neoliberal economies. For example, Engelen et al. (2014) show how Dutch universities are now big consumers of investment banking products, including interest rate swaps, derivatives, risk management consultancy and cash flow management, and also speculate financially as 'sophisticated investors'.

A little-remarked aspect of financialization outside specialist circles is that credit ratings partly depend on the scope for HE institutions to cut costs as well as increase revenues. This creates pressure to close small loss-making units regardless of reputation and reinforces the shift from a tenure system to casual, short-term or other forms of precarious

employment (Eaton et al. 2013, Moody's Investment Services 2011, 8). Other criteria that boost credit ratings include diversified income streams, high tuition fees (and the ability to hike them further), a high proportion of foreign students, stable or rising research and foundation income and the financial expertise of university management and its advisers (Moody's Investment Services 2011).

Experiment 2: rethinking entrepreneurial universities

This thought experiment is less speculative than the first because it provides a map of current entrepreneurial activities rather than positing a sequence of increasingly implausible stages towards an 'absurd' and not yet realized, academic capitalism that is fully integrated into finance-dominated accumulation. Accordingly, this experiment applies a Schumpeterian perspective on entrepreneurship to universities as organizations (for a review of the incoherence of earlier work on entrepreneurial universities, see Sam and van der Sijde 2014). Entrepreneurial universities have become a major research theme, reflecting the rise of KBE discourse; the priorities of neoliberal discourse and practices in post-Fordist economies; and trends towards commercialization, capitalization and financialization in higher education (on entrepreneurial universities in the twenty-first century, see Deem 2001 and Thorp and Buckstein 2010; on types of enterprise university, Marginson and Considine 2000; and for the lexicon of such institutions, Fairclough 1993; Mautner 2005). Nonetheless, the potential contribution of Joseph Schumpeter, an evolutionary economist, to the study of entrepreneurial universities is little remarked.

Schumpeter identified five areas of innovation: (1) introduction of a new good or a new quality of a good; (2) introduction of a new method of production or a new way of commercially handling a commodity; (3) the opening of new markets for one's own products; (4) securing a new source of supply of raw materials or half-finished goods; and (5) reorganization of an industry, e.g. the creation of a new cartel or

monopoly position or the breaking of existing cartels or monopolies (Schumpeter 1934,129-35). In the short term, he observed that successful innovation allows monopoly profits. In a well-functioning market, however, these are competed away as other firms adopt these innovations or counter them with other innovations. This maintains the treadmill of competition. There are interesting parallels and treadmill effects in higher education (cf. Jessop 2016).

Schumpeter did not restrict his account to the economic field but extended it throughout the social world (see especially Schumpeter 2002). This is reflected in the widespread literal or metaphorical use of entrepreneurship to discuss activities in extra-economic fields. By analogy, one should not restrict the conceptual scope of academic entrepreneurialism to the economic or financial fields. Indeed, historically, freedom of teaching and research offered many opportunities for innovation and entrepreneurialism that were not motivated primarily, if at all, by profit maximization. Entrepreneurial universities have a longer history than academic capitalism, but their significance for commercial and economic competitiveness develops as higher education and research are disembedded from religious, political and other orders. An interesting question, then, is whether academic entrepreneurialism is increasingly oriented to profit maximization, satisfying the demands of credit-rating agencies, or otherwise constrained by capitalist market criteria or remains open and wide ranging.

Drawing on Schumpeter's analysis, entrepreneurial HE institutions may:

1. Provide new preparatory courses; extend degree programmes and introduce new or enhanced programmes in HE, professional training and research that reflects new disciplines, new economic and political priorities or major shifts in cutting-edge and complementary technologies for new waves of economic and social growth.
2. Introduce new methods of teaching and research, copy 'best practices' from other HER institutions or private business, reorganize departments as 'profit centres', exploit new or enhanced information and communication technology infrastructures and 'infostructures', seek to cut costs and boost efficiency by standardizing learning and commoditizing education, find

new ways to deliver their ‘products,’ such as offering online rather than correspondence courses for part time, continuing and distance learning or providing English-medium teaching.

3. Open new markets – for example – by validating degrees awarded by other institutions at home or abroad or engaging in the internationalization of education. This occurs by diversifying the source of students (Wildavsky 2010), opening international branch campuses (whether alone, through twinning, partnerships, consortia and franchising or other commercial ties), introducing courses with 1 or 2 years spent in the home country and 2 in the host country or creating new kinds of regional education hubs in Asia (Knight and Morshidi 2011).
4. (a) Secure a new source of supply of raw materials or half-finished goods—analogs could include widening the recruitment base for students of all ages, scouring the globe in the competition for talent (sourcing post-graduate and post-doctoral researchers from abroad, mobilizing international diasporas to return home on high salaries, introducing peripatetic or ‘flying faculty’ or recruiting world-class or international faculty, signing international cooperation agreements with top global universities). This may be linked to the rise of private sector firms or agencies that recruit students for a fee or organize ‘trade fairs’ for universities to recruit students and find partners (Komljenović 2016). Conversely and possibly in complementary ways, universities may resort to adjunct, flexible or casual intellectual labour to reduce costs and increase flexibility in the face of changing demand or shocks to the financial viability of courses, programmes, faculty or entire institution. (b) Find new funding sources besides the public purse or student fees—including business and third sector research contracts, third mission activities, patents and royalties, ancillary activities (e.g. sports centres, medical facilities), real estate development, private-public partnerships, wealthy donors, the shifting of endowments from safe to riskier, preferably hedged, alternative investments and alumni programmes (increasingly tied to data mining and sophisticated marketing). In addition, at the macro level, states may open the education and research sector to private enterprise and foreign direct investment (cf. Ball 2007)

5. Reorganize the ‘education industry’ and scientific research by investing heavily in creating ‘world-class’ universities that can challenge existing educational and research hierarchies in the interests of boosting the competitiveness of national КВЕС and develop new circuits of knowledge that move away from peer review and professional judgement as arbiters of excellence (Slaughter and Cantwell 2012). One effect of this is the marginalization of regional universities where they cannot offer specific local benefits.

The overall result of the first four kinds of innovation is an ‘academic capitalism’ based on ‘intrapreneurialism’ (internal profit centres and franchises) as well as externally oriented entrepreneurialism that generates reputation and profits (Slaughter and Leslie 1997; Slaughter and Rhoades 2004). This need not be limited to commercial entrepreneurship but can extend to social entrepreneurship oriented to social problems rather than private profits. The fifth kind of innovation can also be related to the shifting horizons of catch-up competitiveness, whether at a local, regional, national or supranational level (Jessop 2016) and to efforts to engage in innovation-led development and expand the scope and size of the HER ‘market’.

Experiment 3: rethinking varieties of academic capitalism

I now conduct an ideal-typical *Gedankenexperiment* inspired by Max Weber’s classification of orientations to commercial gain. The initial review and the two preceding thought experiments examined capitalism and entrepreneurship in higher education and research in conventional terms. This section is more heterodox in approach. Much of Weber’s early work focused on traditional commercial or mercantile capitalism. He then examined two kinds of ‘rational’ capitalism, oriented respectively to trade in free markets and the rational organization of capitalist production and identified various factors conducive to their maximum formal rationality. Rational capitalism is easily related to stages 2 to 5 of economization,

namely, commercialization, marketization, capitalization and financialization. However, Weber also identified three internally heterogeneous kinds of political capitalism that rely heavily on extra-economic factors and actors. These involve, respectively, the use of force and domination, predatory activities and unusual deals with political authority (see Table 1). These can be related to the rise of finance-dominated accumulation. For, rather than being the product of spontaneous market forces, this financial regime depends heavily on such political factors (Jessop 2014; cf. Polanyi 1957, on the political planning behind economic liberalism). Accordingly, I now ask whether these political forms might occupy specific niches within a broader ecology of academic capitalism and entrepreneurial universities that is otherwise dominated by rational capitalism(s).

Table 1. Weber's typology of orientations to gain and its relevance to academic capitalism

| Type | Source of gains | Link to economization | Examples from higher education and research |
|--|--|-------------------------------------|--|
| Traditional commercial and mercantile capitalism | Trade and trade finance in traditional markets | Exchange economy, commercialization | <ul style="list-style-type: none"> • Branch campuses, internationalization activities • Agencies for student recruitment and marketing universities |
| Rational capitalism I | Continuous trade in non-traditional markets and continuous production in capitalist enterprises with formal accounting | Marketization, capitalization | <ul style="list-style-type: none"> • For-profit private universities, corporate universities • Rational organization of research laboratories • Real subsumption of academic labour • Casualization of academic labour • Secondary activities undertaken to boost general revenue |

| | | | |
|--------------------------|---|---|---|
| Rational capitalism II | Speculation in financial markets and products, financing new enterprises, controlling finance to gain market or political power | Financialization | <ul style="list-style-type: none"> • Education or research loans and bonds, notably general revenue bonds that maximize debt bearing capacity • Securitization of student rents, loans, etc. • Role of private credit rating agencies in disciplining colleges and universities in terms of business and financial risks |
| Political capitalism I | Funding revolutions, wars and party leaders for share in economic spoils Predation more generally | Commercialization Capitalization Financialization | <ul style="list-style-type: none"> • Exploitation through false prospectuses, fake diplomas • Extortion through petty or grand corruption • Predatory publishing based on monopoly power • Corporate ghost writing of academic articles |
| Political capitalism II | Business activity based on continuous use of force or domination or exploitation of public authority | Commercialization Capitalization Financialization | <ul style="list-style-type: none"> • IMF conditionalities that affect education and research • Privatization of the intellectual commons • Imposition of <i>acquis communautaire</i> in education and research as condition of EU membership |
| Political capitalism III | Unusual deals with political authorities | Monetization and capitalization of political networks | <ul style="list-style-type: none"> • Private finance initiatives • Trade and investment treaties • Revolving doors between state and private sector |

Source: Column 1 (Swedberg 1998); column 2 (Weber 1968 and Weber 2009); and columns 3–4 (own research).

First, there are predatory forms of academic capitalism based on false prospectuses; usurious student loans; overcharging; petty or systemic corruption; and cheating by students, teachers, administrators and researchers, enabling perpetrators to gain undeserved reputation or income at the expense of those who are honest (Washburn 2005; Nichols and Berliner 2007; Temple and Petrov 2004; Weidman and Enkhjargal 2008). False prospectuses are especially significant in the private further and higher education sector and, in attracting students, may generate further profits from student loans. Trump 'University' is a recent and now notorious example in the USA (Cassidy 2016). A more significant example is Education Management Corporation, once the second-largest³ American for-profit education provider, which, following many complaints and successful prosecutions by state attorneys, was sued, fined and eventually delisted from NASDAQ in 2015. A different kind of predatory academic capitalism is seen in the expansion of 'degree mills', which sell fake diplomas, degrees and doctorates (Ezell and Bear 2006). More generally, we can observe the 'gaming' of performance indicators such as exam results, 'value added' in student performance, drop-out rates and competitiveness indicators (e.g. Kuttner 2014).

Another form of predatory capitalism in research that also damages teaching and learning is the rapid expansion since the 1960s of profit-oriented scientific journal publishing that charges authors for processing and publishing their papers to supplement the publisher's income from subscriptions, downloads and copyright licences. This is related to the growing concentration of commercial publishing houses, which enhances their ability to exploit both the 'publish or perish' imperative of career-oriented scholars (and their current or future university employers) and the need of scientists to access the latest scientific output (Broad 1981; Association of Research Libraries 1998; Bauerlein et al. 2010; Herndon 2016). The profitability of journal publishing and the need for authors to publish something somewhere have contributed to an increase in journal numbers,

³ Laureate Education is the largest for-profit company with a million of students worldwide; the second largest is now Apollo, which also owns subsidiaries around the world, including BPP, which operates four for-profit colleges in the UK.

salami-sliced research reports, poor science and unethical editorial practices intended to boost profits (on predatory publishing, see Beall 2015). Moreover, in some fields, such as the pharmaceutical industry, scientific or pseudo-scientific papers are ghost written on behalf of scientists and research institutes to lend credence to commercial products and services. Conversely, private firms or public bodies may fund research but then, demanding prior review or non-disclosure, block or censor publication where results are unwelcome for commercial or political reasons. Another long-standing and often-remarked predatory feature of academic publishing is the exploitation of the unpaid labour of editors and reviewers.

Second, profit from force and domination can be illustrated from the effects of neoliberal conditionalities imposed as a condition of loans to sovereign states. These conditionalities include the introduction or hiking of student fees, the privatization of education, the opening of markets for education and research to foreign suppliers and the introduction of robust IPR regimes (see also the discussion under 'unusual deals' in the following). While some of these conditions may be substantively rational, especially when they reduce predatory academic capitalism and boost education and research standards, they also create conditions for profit-oriented education and research, the penetration of foreign providers and the expansion of financial products issued by, or tied to, education and research. The key institution in this regard is, of course, the International Monetary Fund. The World Bank has promoted similar changes in a less coercive manner from the 1960s in the form, content and governance of education in the belief that investment in education generates better returns than infrastructural investment (World Bank 1999). However, a later report by the World Bank and UNESCO (2000) concedes the limits of market reforms, recognizes market failures and calls for more government steering. This marks, at least rhetorically, a shift away from the neoliberal agenda in education and research.

Third, unusual deals with political authority are seen in the promotion of private finance initiatives in education, the tax privileges associated with targeted and general revenue loans in higher education and the mobilization of personal networks to win state subsidies. However, the most

important examples, some now probably abortive, are the secret deals negotiated between capitalist interests and sovereign states around trade in education services. These include measures to promote internationalization, commercialization, market access to foreign providers of a wide range of educational services (including higher education and consultancy on education services), cross-border supply of distance learning courses (including fee-based MOOC provision), student mobility for study abroad, staff mobility (visas to allow staff to teach abroad on a short-term basis on the grounds that they count as 'business persons' within the terms of trade treaties), commercial presence (permitting branch campuses abroad) and privatization of education services and research. Other measures are the extension and protection of IPRs (which harm access to teaching, library and research materials) and the imposition of investor-state dispute settlement arrangements that can be initiated by foreign (but not domestic) firms where they claim that state action threatens their commercial interests and/or future profits. These measures have the biggest potential impact where education is not a pure public service but is delivered in part by private suppliers, whether profit-oriented or non-profit. The biggest beneficiary of such trade treaties is reckoned to be US for-profit education providers.

Conclusions

Following a brief review of the historical context for debates on academic capitalism, this article presented three different kinds of thought experiment that offer new ways of thinking about the past and future development of academic capitalism (and the limits thereto), possible activities of entrepreneurial universities and interstitial political forms of academic capitalism.

While some of the trends considered in the first experiment are familiar in mainstream literature, financialization and finance-dominated accumulation and their implications for the orientation and governance of higher education and research are less often remarked. Likewise, while there is a growing literature on entrepreneurial universities, the potential

value added in experiment 2 stems from its explicit use of Schumpeter's interesting typology of innovation. The third experiment was more speculative without involving *reductio ad absurdum* arguments and explored possible political bases and mediations of commercial gain in the education and research fields. Each thought experiment aimed in its own way to suggest new approaches to old questions and, in some cases, to open new lines of investigation.

In addition to research to test the heuristic power of these thought experiments, four other issues are worth exploring. The first is whether different kinds of academic capitalism and their embedding in different varieties of capitalism might interact in an emerging global education and research system to complement or contradict each other. This is a topic explored in the comparative capitalism literature under the rubric of 'variegated capitalism' in contrast to the more conventional 'varieties of capitalism' approach (Jessop 2013). Second, research is needed on the growing tension between the public functions of universities, which still depend on maintaining a certain autonomy from economic imperatives, and their direct integration into a profit-oriented, market-mediated economic order in which universities act like commercial or capitalist enterprises and become indistinct from other organizations in the market economy. Third, while there is extensive research on the impact of neoliberalization, this could be fruitfully linked to broader typologies of academic capitalism and entrepreneurship. And, fourth, building on the first thought experiment, one could usefully examine the colonization of HER by interest-bearing capital through financialization and how this affects their activities via the securitization of HER expenditures and revenue streams.

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Jerzy Hausner

The Social space-time of economic value creation

Introduction

The starting point for the argument presented below is the recognition that social reality exists in the form of a social space-time continuum. If we wanted it to relate to the physical world, perhaps we could stop there, recognising that we are dealing with two complementary dimensions of space-time. But I want to deal with the dimensioning of social space-time, which, in my opinion, cannot be confined solely to space and time. Social space-time is not a being. It does not exist outside people's knowledge and action: it is their product. For this reason, I want to offer a handful of considerations on what is implied by such an assumption, especially with regard to value creation.

My reasoning follows Piotr Sztompka's theoretical thought (1991), who in his concept of "social becoming" proposes a synthesis of individualistic and collectivist thinking, and argues that what is collective must be de-objectivised, whereas what is individual must be de-atomised (ibid., p. 53).

Michael Hardt and Antonio Negri (2012), among others, develop this current of thinking by associating becoming with a multitude of social actors. They postulate a change of orientation of the ethical horizon from identity to becoming (ibid., p. 79).

In my view, before we start discussing society, we should mention community first. Community is not just a community of individuals. It is not given. It is their product. People do not so much form a community as they produce it, acting together and thus generating the bonds that make them communitarian. If their cooperation disappears, the community also disappears, since the ties disappear. It is only through their constantly sustained cooperation of individuals that the community emerges and empowers itself. No community is an eternal or universal being; it is specific and contingent: it emerges and becomes.

If we want to consider society as a community, it is only as a community of communities. In general, however, such large aggregates as societies do not become such complex communities. But if this does happen, it occurs at certain moments of distinct danger or exaltation, and only for a limited period of time. Societies are therefore essentially communities which exhibit spontaneous or forced coordination of certain behaviours of their constituent individuals. Thus, they do not become a social entity thereby. They do not display attributes of subjectivity.

Collectivities, with their considerable extent of spontaneous coordination of behaviours and actions of individuals, constitute an intermediate product between communities of different kinds and societies. They are aware of this, and hence they actively maintain such coordination. As such, they display specific collective behaviours and actions.

For me, Sztompka's approach is also convincing where it emphasises the continuity of social phenomena (ibid., p. 54). They are neither strictly necessary nor strictly random. They may or may not be revealed. Whatever happened – happened, but things could have turned out differently, since what is social is the resultant of the actions of various actors. They could have chosen to do this or that. Their actions are not programmed and predictable only to a limited extent. They are not completely free, because they operate under certain conditions, but they are not predetermined either. Social processes are emergent and contingent, and this is the founding principle of the “theory of social becoming.”

The temporal dimension of social space-time

Autonomy is necessary for the actor to acquire self-knowledge, or knowledge whose object is the actor himself. In this sense, autonomy is tantamount to self-objectification. Self-knowledge does not guarantee subjectivity. If this were the case, subjectivity would be a given, whereas it becomes. It emerges in the actor's relationships with other actors. It becomes in the social movement, allowing the actor-subject to determine his own trajectory of movement, the path of life to follow, and hence control over one's own time.

Whether our time is getting shorter or longer, we are ready to attribute to our emotions. However, I think that it depends more on our actions than on our emotions. The point is whether they are oriented on what was, on what is, or rather on what will be. We seem to read time geometrically. We capture it spatially, but it is difficult to illustrate unambiguously. We experience time by covering a distance, but whether it is illustrated by a straight line, a circle, or maybe a spiral, is hard to determine. We perceive covering this distance in a variety of ways, probably depending on the direction in which we are headed in our actions.

The individual understanding of time lies at the heart of the Time Perspective Theory developed by Philip Zimbardo (cf. Zimbardo, Boyd 2015). The basic premise of this theory is the recognition that the way in which people understand and experience the flow of time as well as perceive distinctions between past, present, and future might provide great insights into various patterns of human behaviour (Stolarski et al. 2015, p. IX).

It is not that people are only oriented towards the past, the present or the future, but they tend to take a dominant orientation (perspective), which in psychological research reveals itself in several basic versions. Consequently, our past, present and future constantly “fight” for resources, whereas the dominant orientation pushes the other two beyond the main field of attention. This results in their specific temporal bias, with one time perspective being clearly more frequently activated than the others. We conceive of a dominant time perspective as situ-

ationally determined and as a relatively stable individual-differences process (Zimbardo, Boyd 2015, p. 19). To a certain extent, individuals try to maintain a proper balance of time perspectives, reveal a certain propensity to adapt to the dominant time orientation, but it is never a perfectly balanced time perspective (Stolarski et al. 2015, p. 7).

In developing his theory, Zimbardo included cultural (social) variables, emphasising, among others, that the Eastern understanding of time, which draws on Zen Buddhism, is more circular in comparison with the Western one, which tends to be more linear (Zimbardo, Boyd 2015, pp. 17–18). Thus, he concluded that the conceptualization of time has both an individual and social basis.

Another close association with the experience of time is the flow. Time flows. But maybe it is us who flow – or pass by – in time? Does time influence us or do we influence it? If we freeze motionlessness, time flows by itself, and flows inevitably. Yet if we want to achieve something important, we influence time, endow it with the right rhythm and direction via our actions. Then we sail, flow, striving for a specific goal or point. We impose the measure of time on our efforts. It is not us who belongs to time, but time belongs to us.

If my action dies out, I become a point in time. I remain motionless, I pass by, whereas time flows. If I make an effort, strive to meet a specific challenge, want to do something important, time does not destroy me, time helps me. I need it to cover a certain distance, to move to another point. If nothing happens, I am a point that fades away in space-time. When I act, I shape my space-time and move within it in a direction chosen by me.

In the former case, the source of time is beyond me and it is absolute with respect to me, whereas in the latter, it is me who becomes the source of time which becomes relative to me. These are the two extremes between which man seeks the sense of his existence. If we look at it this way, it becomes clear that meanings do not come exclusively from me, but from my orientation with respect to someone else. Or to the Other as the absolute, as the necessary and permanent source of time given to me. Or to the Other as my personal reference to specific people, with whom

I take actions important for me, without whom such actions cannot be taken and are doomed to failure. It is in a relationship with them that I formulate a common space and move time.

Time is one of the dimensions of social life – for me, it is a dimension necessary to produce values. In his characteristic manner Kant discusses the relationship between time and ethics. For him, time is an a priori form of sensuality. Consequently, as Radosław Strzelecki (2017) emphasises, the ethicality as postulated by Kant excludes time.

The positive relationship between time and ethicality can be grasped if one adopts a dynamic and relational concept of subjectivity. The key point of contact appears especially when time is understood as a *kairos*. Strzelecki thus describes this concept: “Hence *kairos* is a critical, decisive moment, the only moment among the multitude, a perfect and dramatic moment, a series of circumstances, fate and readiness to act in the blink of the eye.” (ibid., p. 5). *Kairos* is interpreted as a turning point, a moment in which one takes up the challenge. If so, it means that *kairos* signifies an escape from the present, a way out into the future. *Kairos* opens the time enclosed in the circle of the present.

Antonio Negri (2005) describes *kairos* as an individual modality of time, which opens time to a vacuum that needs to be filled by giving it meaning, thus updating the future, transforming the future into a new present. Negri compares embracing vacuum to an archer who knows what he is aiming for, but cannot be sure whether he will hit the target. He is restless. His restlessness is typical of a journey into the unknown, beyond the here and now, associated with gaining new experience. For Negri, it is particularly important to link temporality, especially that understood as *kairos*, with knowledge and its production. Real knowledge is produced precisely at the point where the restlessness of time reveals itself as power (ibid., p. 152).

If so, it is not about the knowledge acquired, but the knowledge generated, resulting from man’s action, the knowledge that links the human being with the world that changes. This challenge cannot be taken in a vacuum. It means entering the existing space-time continuum with the intention to transform it, a readiness to give it a new form.

Kairos – as an open time – is a time oriented from now on into the future, a time in which man's freedom as an active individual manifests itself, a time of becoming a subject and taking up the challenge, a time of taking responsibility for oneself and for others, a time of development. Strzelecki writes: "The openness of time has man face his freedom, but the price of this indeterminism in both its communitarian and individual dimension is the lack of *telos* and the resulting fundamental uncertainty, which eats into individual existence and can thus destroy the free community" (2017, p. 6–7). Indeed, *kairos* may lead to the destruction of the community, but if the former had not existed at a certain point, the latter would not have come to exist either. And thanks *kairos*, the community can always be reborn. Time – understood as *kairos* – is essential for the becoming of subjectivity.

The transcendent dimension of social space-time

Adopting the notion of the becoming of a subject (a social being) does not preclude the recognition of the existence of an absolute and unchangeable being, including God. This approach can be found in Karl Jaspers' considerations (1990). Among other things, he recalls the position held by Giovanni Pico della Mirandola (ibid., p. 29), who believed that God created man in his likeness and told him: "You, by contrast, impeded by no such restrictions, may, by your own free will, to whose custody We have assigned you, trace for yourself the lineaments of your own nature [...]. We have made you a creature neither of heaven nor of earth, neither mortal nor immortal, in order that you may, as the free and proud shaper of your own being, fashion yourself in the form you may prefer. It will be in your power to descend to the lower, brutish forms of life; you will be able, through your own decision, to rise again to the superior orders whose life is divine."

Jaspers himself expressed this sentiment differently. For him, "man's freedom cannot be separated from the awareness of man's finiteness." (ibid., p. 36). Human cognition, unlike the divine one, is finite. Man can overcome his finiteness, but he cannot bear it, as long as he becomes

aware of his finiteness and is able to relate it to the unconditional and the infinite, to transcendence (ibid., pp. 37–38).

In my view, social space-time requires transcendence, though not necessarily understood in Jaspers' terms. In order to explain my understanding of transcendence as a social component of social space-time continuum, I will recall an example used elsewhere concerning the way money 'works.'

The fact that money 'works' is not only based on public guarantees but also stems from a well-established social experience and belief that by using money, we can expect to receive equivalent value in broadly understood acts of exchange. In this respect, public authority does not act as an intervening market regulator; the state operates as a transcendent guardian of social and economic order. The state 'works' because it exists, and not because it takes any specific practical action. It works as long as there is a social order, including its various components, such as constitutional order, legal order, social normativity.

Public authority (the state) plays both an exogenous and endogenous role in relation to money. One strengthens the other, but each requires the other as well. Without them the money economy would not be sustainable; it would be displaced by other systems, including barter economy.

Modern megatrends undermine the ways in which public authorities fulfil these two roles. The progressive financialisation of the economy means, among other things, that new forms of money creation emerge, hence the state loses its monopoly in this area. Cryptocurrencies provide but an extreme manifestation of this. However, as a consequence, the regulatory capacity of the state, and therefore its transcendent power, becomes feebler, since the new economic order gains autonomy and undergoes segmentation. As a result, the relationships and dependencies that constituted the rules of economic governance are subverted. In this context, the macroeconomic balance sheets collapse. If capital is indeed a liability, what is the other side of the balance sheet today in the macroeconomic sense? It disappears. The economic game still continues, but it is barren. Money makes money, but gradually in an increasingly empty cycle, in which, since there is no increase in productivity, there is no development.

What is socially important must have a reference to what is transcendent. For me, the transcendent dimension of social space-time is the axionormative order in which people act and cooperate. It is given to them, yet at the same time it is produced by them, even though it occurs in a different order. People neither do it individually nor freely. It emerges and is gradually modified as a result of the sharing of knowledge and actions. And it grows weaker when such communality disappears. Thus, interpersonal relationships are an essential factor in shaping the social space-time. Thanks to them it is possible to become the subject, but they can also cause the objectification of individuals and communities.

The continent, islands and archipelago as forms of social space-time

Social change does not happen spontaneously, but neither is it programmable or controllable – it is contingent. It takes place through the activity of various actors. Those who strive for change and try to bring it about can be called animators. They are social innovators who try to implement solutions to problems other than those applied so far. Without their determination, change would not have occurred. However, they will not trigger the change by themselves. Their social invention is necessary, but not sufficient. Change still requires that the solution implemented by them should be accepted and disseminated. It also depends on whether there are catalytic mechanisms in the community. As a rule, they are rooted in various forms of social communication. But their actions should not be reduced to communication; they should also involve cooperation and co-existence. Change occurs as a result of the transformation of behaviours and social relations, thanks to which a given community learns new ways of operation and adapts to them.

The functioning of mechanisms that catalyse social change, including creative diffusion, results from a particular kind of links between social actors. These are communication links and as such, are weak. They are often described using the helix metaphor. Such links exist both within and between organisations. Their occurrence causes that the social space-time

performs catalytic functions. It guides and stimulates change. Thanks to such catalytic properties, social space-time promotes the emergence of organisational multidimensionality. Without it, an organisation cannot be subjective or shape its trajectory of development, it cannot define and fulfil its idea.

Andrzej Nowak (Nowak, Vallacher 2018) describes social change using the term “bubbles of change.” Such a bubble is an analogy of local social innovation, which exists when a leader (animator) of change manages to form a circle of actors who communicate and cooperate in order to be able to resist routine and pressure of the environment. Their aim is to break out of the gravitational field (at least partially) created by the environment. They strengthen their autonomy, but in order to be able to voluntarily cooperate with other actors who also strive for it. They limit their relations with the dominant group of actors in order to develop them more fully only with the selected few. In this way, they become islands in their surroundings, and at the same time they attempt to form an archipelago with other islands, intensively communicating and informing one another.

Their activity consists in developing tools that are appropriate and specific for their individual and group aspirations. The ‘production’ of such tools also leads to the development of appropriate forms of cooperation. In this way, however, the capacity of the participants in the archipelago to cooperate and produce the necessary tools is born. They both generate knowledge and share it. In this way, a common resource pool emerges, which calls for a certain form of its management.

As a result, the archipelago-forming actors-islands become a community – they gain subjectivity. This allows them to influence their environment. Now they want not only to break out and gain autonomy, but also to bring about a change in the environment that will benefit their community and foster development. What binds such a community is not only an immediate benefit or interest. If this were the case, the actors would not have to create an archipelago and risk being excluded from their original environment, but would simply form various alliances in order to obtain certain benefits or capture certain resources. It only makes sense to form an archipelago and invest in it if it is a far-reaching goal expressed in the form of an idea. A goal that cannot be achieved without social change. And if the actors

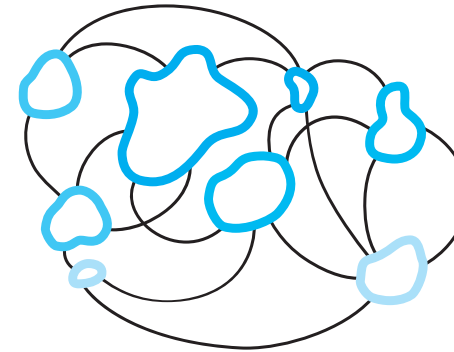
making the effort of change persevere, the ways of acting that they adopt match the goal. This means that they not only want to act effectively, but also with a certain intention, which requires them not only to shape the operational order of their cooperation (organisation), but also the axionormative order. And only this makes them a community.

It can be destroyed not only by the fact that it is operationally ineffective, but also by the fact that it loses its social purpose, loses its idea, loses the idea of itself, concentrating only on the instrumental, operational dimension of action. Thus, it objectifies itself. Subjectivity becomes not through autonomy or flexibility, but through axionormative co-production.

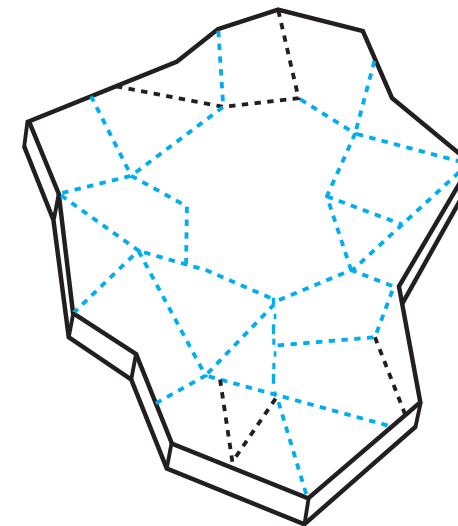
The route to social change leads through autonomy (islands) and cooperation (archipelago). For me, the “bubble of change” is an archipelago composed of a variety of islands. They are different, i.e. they are also unequal in terms of potential and location. The impact and attractiveness of the archipelago depends on each of the islands, not just the largest and best appointed ones. If we assume that the archipelago is a small gravitational system, its power and independence are determined by the extent to which peripheral islands are attracted to the centre of the archipelago instead of being pushed out of it. One may say that such a system operates according to the following rule: If you want to be stronger, make sure that the weaker ones who cooperate with you become stronger. The strength of a small gravitational system, such as the archipelago, depends on partnership and solidarity. Only this makes the archipelago independent of the continent (its environment). For the islands, their archipelago is a way of dealing with unexpected and unfriendly developments.

The continent is an empire, and its rulers must constantly prove their imperial power and expand their territory. The space of the continent becomes panoptic and monocentrically controlled. Its diversity and subjectivity are weakening and disappearing. Its social space is torn apart and shrinks, but in consequence, its temporality also shrinks. Even if the continent’s rulers think in the long run and want to immortalise their regime, in the shrinking social space their practical action becomes more and more reactive. In the occupied continent, they strengthen and

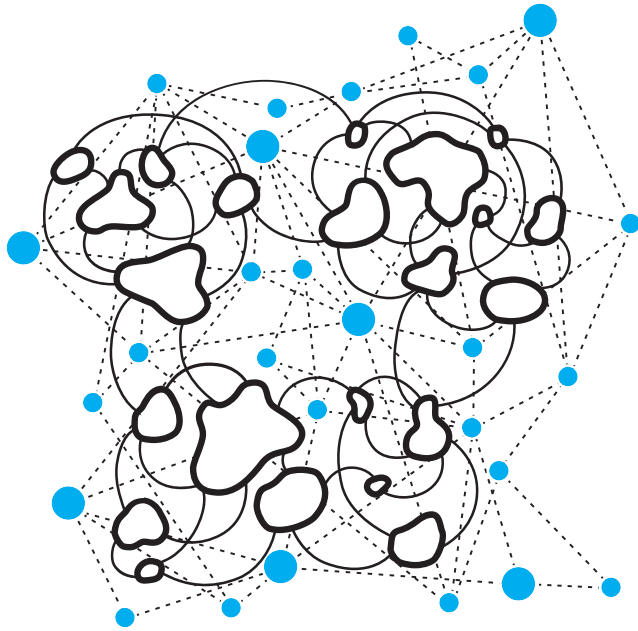
Fig. 1. Islands, continent and archipelago



Islands in an archipelago attract, but do not absorb one another; they remain in close proximity. Each island (subject) must be aware of its uniqueness and diversity, but also correlate its activities with what others do and who they are.



In general, continental players are stronger than island ones. They draw strength from making the weaker ones still weaker, increasing the latter’s dependence, and offering them favours.



The pressure of the continent on the archipelago is an undeniable fact. The survival of the archipelago and whether it maintains its distinctiveness depends on whether the islands (subjects) forming the archipelago are capable of finding other archipelagos, which are interested in preserving their independence in the whole 'planetary system.'

perpetuate mainly strong ties and relationships, as a result of which the social space-time loses its flexible and catalytic properties. The continent lasts, but it stops developing.

The archipelago operates according to different principles: nobody defeats or conquers anyone else. Everyone has to work in partnership with others to ensure their own subjectivity and development. Continental players are generally stronger than island players. The former draw their strength from destabilising the weaker ones, their dependence and their treatment as customers, whereas the latter exclusively by strengthening their weaker partners. They must therefore agree with them on the cooperation principles, including economic activity, the market, and ensure that they are respected.

The continent's pressure on the archipelago cannot be switched off, hence the survival of the archipelago and the maintenance of its gravitational distinctiveness depends, in the long term, on the capacity of the actors that constitute the archipelago to find other archipelagos in the whole 'planetary system' which are vitally interested in maintaining their independence. An alliance of such archipelagos leads to disseminating the models applied in them and making them more attractive.

This metaphor reflects the fact that the dissemination (scaling) of innovation does not have to result in the archipelago becoming transformed into a continent, imposing one's own solution on others or subordinating them. From the developmental perspective, it is more beneficial to disseminate innovation through creative diffusion. And if so, the social conditions of such diffusion and their production are of fundamental importance. This seems to be the key task of a public authority that intends to implement development policy. It will be effective if its representatives understand that development takes place only in a favourable social space-time, which is not a consequence of the system's complexity, but stems from the relationships between its various participants and how they perceive the dependence of their development on the behaviour of other actors.

Empowerment – the individual vs. the community

Karl Marx (2005) emphasised that in order for an actor to become a subject, he must deny and overcome his self-objectification. This is a manifestation of positive negation, which only gives meaning to individual autonomy and existence. And this means a kind of communitisation, going beyond alienation, which leads to the replacement of self-knowledge (as a cognitive act) with communitised knowledge, which is a generative process. The autonomous individual finds himself and empowers himself in the community. He co-produces the social reality which is supposed to ensure its capacity to remain autonomous. Giambattista Vico (1744) compared it to the eye that needs a mirror to see itself (Krzemień-Ojak, 1966, p. XXII).

For Marx, the mirror is the community. Conversely, according to Hegel (1830), the subjectification of the individual takes place within the individual himself, in his inner self-cognitive and continuous circulation between the specific – physical and the absolute – spiritual. For him, subjectivity is a process of gaining absolute self-knowledge, leading the individual from the world of the concrete to the world of the absolute – a pure idea, from self-objectification to divinity. For him, man self-creates himself in the course of “divine dialectics”: a denial of reality and abstraction. Reality is imperfect. It is sublimated through abstraction, which imbues it with spirituality. The Spirit is the absolute that makes the empowered individual a free man.

For me, the individual becomes human thanks to his communal participation in the production of good. For Hegel, man (subject–object) reaches self-completion, for me – he constantly becomes in the social process of co-production of values. For him, cognition is an absolute self-knowledge, whereas for me it is communal action and insight. For him, real movement is a movement of an individual self-cognitive thought, whereas for me it is a movement of communal productive activities, in which becoming and cognition intertwine.

A number of these themes have been taken up by Adriana Wambier (2014) in her interesting presentation of the dispute on the subject in contemporary philosophy. She emphasises that this dispute is taking place in the field of rejection of the Cartesian belief in a limitless and unconditional possibility of self-knowledge resulting from the assumption of direct access of the subject to oneself. Such a monadic approach to the subject was undermined by Emmanuel Levinas, Paul Ricœur and Charles Taylor (*ibid.*, p. 2).

The key to overcoming the monadic concept of the subject seems to be the assumption that its existence is defined by time, but time understood not in transcendental or absolute terms, but in social and relational terms. Only then can we accept the dynamic concept of the subject, which exists because it becomes. A social being is an living entity because it becomes, and not because it is. It is what it becomes.

In this respect, it is not enough to accept only the dualistic concept of the subject as “self and non-self.” This kind of dialectic of opposites still

locks our thinking in the Hegelian pattern. It can be called a synthesising dialectic, but it is probably more accurate to describe it as schematic – reflexive, symmetrical, synchronous, and in a way deterministic. Subjectivity in this approach is a consequence of the specific feedback between identity and non-identity, self-knowledge and self-ignorance, which drive each other in a closed circle and time, which is always the present. This dialectic describes movement, but only back and forth.

Paul Ricœur demands an open dialectic (2003, p. 591), but it entails accepting the view that the subject becomes not only through self-knowledge, but also through cooperation with other actors. The cooperation not only modifies the cooperating actors, but also the social conditions of their cooperation. Becoming a subject is not a linear or cumulative process, but proceeds in a spiral. In this case, movement cannot be locked in a circle and never leads to the same point.

Subjectivity becomes in a process in which different actors co-produce values – both existential and instrumental ones. By forming a community, they give meaning to their individual existence. Subjectivity becomes a circular process in which the existential and the instrumental, the axionormative and the operational, intersect. In the process of becoming a subject, in order to express one’s expectations, one has to make commitments. And we cannot use personal ‘pocket ethics,’ but have to co-create the axionormative order, which also limits us. In order to develop and self-form, we must create a community. In order to maintain autonomy, we must build bridges that connect us with others. Becoming a subject takes place in the social time, in the time of becoming, not in the time of being.

Production and instrumentalisation of value

The grammar of values cannot be understood by someone who does not participate in their co-production. And the production of value results both from necessity and need (as Vico pointed out centuries ago and saw it as a source of human activity; cf. Krzemień-Ojak 1966, p. xxv). I interpret necessity existentially, and need instrumentally. Necessity

does not boil down to biological survival. Besides, satisfying needs also serves this purpose. I see in necessity what makes human existence meaningful and what requires communitarianisation of the individual. Necessity places human existence in an axionormative order, in the world of becoming a subjectivity. Thus, for me it is a transcendence understood as a dialectic necessity, whereas satisfying needs refers to the world of objectiveness.

Adopting the assumption that values are socially produced rather than only individually recognised and related to the world around us, means that they cannot be forced into any system. They escape such a framework, because the production of values requires an open space, including the purely symbolic and communicative one. The notion of a 'value system' is cognitively empty for me. It implies a functional and synchronous understanding of the social world, whereas the latter pulsates and happens: diachrony and transformation are necessary. Of course, this dimension of the social world can be constrained, but then the process of value production grows weaker. It is possible to impose a restrictive axionormative order on the social world, through the hegemony of a specific 'value system,' or a specific ideology, but as a result, social dynamism dies down and such an order will disintegrate over time. Stanisław Brzozowski (1990, pp. 96–97) warns against ideological hegemony, postulating that ideas should grow out of life. He opposes the imposition of ideas on life.

The consequence of imposition and hegemony of a certain system of values is tyranny, regardless of how large a group, including the majority of the society, considers it justified. Such an objective, as Adam Węgrzecki rightly emphasises (1996, pp. 124–125), results from the belief that values are objectively entitled to rule over man, that they are 'superhuman.' They would not be produced by people, but would control the latter, equipped a some kind of force to direct people.

Tyranny, also founded on ideology, always leads to an instrumentalisation of values. Max Horkheimer and Theodor Adorno's description of this process employs Nazism as an example. They write: "That the hygienic factory and everything pertaining to it, Volkswagen and the sports palace,

are obtusely liquidating metaphysics does not matter in itself, but that these things are themselves becoming metaphysics, an ideological curtain, within the social whole, behind which real doom is gathering, does matter" (1994, p. 15). This is an example of confusing good with goods. In this field, fundamentalisation and instrumentalisation of values converge.

Friedrich Nietzsche (2015) noticed it and presented it in his own distinctive manner. Accused of nihilism, he rather warned against it. To me, this much is clear from the following statement (ibid., p. 5): "[We have an] old habit of supposing that the goal must be put up, given, demanded from outside — by some superhuman authority. Having unlearned faith in that, one still follows the old habit and seeks another authority that can speak unconditionally and command goals and tasks." This leads to the fact that the imposed "highest values lose their value" (ibid., p. 4).

The contact between the consequences of fundamentalism and instrumentalism can also be seen when we consider how they affect the "common good." In my opinion, both extreme orientations lead to its disappearance (see Hardt, Negri 2012).

The opposite pole of fundamentalism is utilitarianism, which proposes a simple, and in its classic version, even a crude concept of man. This is well illustrated by the views of Jeremy Bentham (1958) expressed in his *Introduction to the Principles of Morals and Legislation*, the Bible of utilitarianism, published in 1781. The basic thoughts contained therein reduce the nature of man to wavering between sadness and pleasure. That is why man is guided by the principle of utility: he avoids unpleasantness and strives for pleasure. What is utility? It is a property of an object that offers pleasure or prevents pain. What is pleasure? All that is pleasant, what people desire. What is pain? What people avoid.

A good social system is one in which, through reason and law, people can achieve a good balance between the sum total of pain and the sum total of pleasure. According to Bentham, people who contest the principle of utility do so, albeit unconsciously, because of this very fact. Is it possible to formally prove that the utility principle is wrong? No, because what serves to prove all other things cannot be proved itself. Besides, such a proof is both impossible and unnecessary.

Neoclassical economics was founded on such a concept of man. Of course, it was then subject to scientific refinement and formalisation, but it was never negated in mainstream economics.

Profit and loss account vs. value account

The market is a social device (institution), which is primarily intended to facilitate the exchange of goods. Production without a market cannot develop. But in this sense, every market is a space of flows. Their intensification stimulates the market and economic activity. As a consequence, the market is a space of transactions and opportunism. The actors participating in it follow such an orientation. This does not mean that they have to be limited to it, since the market does not cover the entire economic space. Some of it is taken up by investment and manufacturing activities. It cannot be detached from the market, but it does not operate entirely within the market space. In the dominant part, it takes place in a space next to the market, in which the relations between its participants are shaped differently than in the market – they are subject to different, non-market rules, which are not strictly commercial in nature.

The problem begins when various kinds of organisations are given the form of an internal market, which applies to companies, such as universities or theatres, by becoming commercialised. Such a regulation of manufacturing activity leads to the strengthening of transactional and opportunistic orientation of economic actors, and, in particular, nowadays it constitutes the foundation of corporate opportunism, both on the part of managers and lower-level staff.

The instrumentalisation of existential values is necessary for business activity. The problem is whether such an instrumentalisation supports existential values or destroys them. If the latter, a given economic system becomes wasteful and unsustainable.

If the instrumentalisation of value is to support the existential values, it is necessary to see the difference between the income statement and the value statement. Unfortunately, the present accounting systems do

not see and hence fail to include the latter dimension. This is because the accounting books reveal, first of all, the transactional dimension of a business and marginalize its resource dimension. Accounting organised in such a way promotes narrow-mindedness and short-sightedness.

Even if the resource dimension is taken into account, it is only to a certain extent. The basic measure of the income statement, i.e. return on equity, refers to the use of a resource, but only to financial capital, i.e. the most liquid component of all the resources. Consequently, it strengthens the liquidity and transactional orientation of managers.

Income-oriented accounting promotes instrumentalisation of values. It makes it possible to assess the short-term effectiveness (profitability) of a given business activity. In its case, the key question is: How to measure? If the result is the goal and measure of business success, other questions such as What to measure? or Why to measure? lose their significance.

Companies focussed on short-term financial performance strengthen those structures and activities that contribute to maximising this parameter. Since it reflects and depends mainly on the effectiveness of transactions concluded in a given period, management is expected to serve this purpose. Preference is therefore accorded to organisational and staff features such as flexibility and agility, or the features that mobilise opportunistic attitudes.

If the situation is to change, accounting would have to be primarily geared towards capturing the productivity (efficiency) of the various resources used by companies. Yet this only makes sense when we become aware of the fundamental difference between productivity and efficiency, which is by no means obvious. Economic efficiency in its basic sense is a synthetic measure of the result (financial result) in relation to the expenses (costs) incurred. We measure efficiency understood in this way in relation to the organisation and/or what it undertakes to do (investment, transaction, implementation). Productivity in its basic sense is a measure of the effect in relation to the resource expended in generating this effect. Productivity is primarily related to a specific production process. While efficiency is a synthetic measure, productivity is an analytical one. Of course, it is possible to measure productivity in

relation to a specific organisation, but then it becomes a generalising measure, which is not the same as a synthetic one. Productivity can be expressed in terms of financial measures, but the starting point for their calculation will be physical or related measures that allow us to capture how much we have consumed and how much we have produced. Then it can be converted into financial measures. Thanks to this, we can proceed from productivity to efficiency.

This fundamental distinction makes it possible to capture the difference and convergence between the resource statement and the result statement. The most important thing, however, is that it is now clear that productivity provides the basis for economic efficiency. If manufacturing processes are not productive, long-term efficiency cannot be ensured. Unproductive economic activity is unsustainable. However, if it ensures efficiency, it must be wasteful – also in the sense that it involves intercepting undue benefits (rent seeking).

This highlights the fact the issues of productivity and efficiency cannot be ‘enclosed’ within the boundaries of a particular economic organisation. They are trans-organisational, they ‘take place’ in the inter-organisational space, at the interface between the enterprise and its environment. In the case of productivity, it is so, among other things, because the enterprise uses resources which it has not created itself. On the other hand, in the case of efficiency, among other things, it is because efficiency is a function of transactions concluded by a given company.

Although we analyse productivity and effectiveness with reference to a specific economic organisation, i.e. we consider them from the microeconomic perspective, they have a wider, macroeconomic dimension. While at the enterprise level the relationships between productivity and efficiency are multifaceted and thus complicated, in the case of the macro level they are, in my opinion, more pronounced. The basic relationship is as follows: productivity determines efficiency. An unproductive enterprise can be effective (at least for a certain period of time). On the other hand, an unproductive economy cannot be effective, which in this case means its current level of competitiveness.

The economy of flows and transactions

It seems particularly important to me to compare interactions to transactions, which makes social life similar to the market. This has a huge impact on social sciences. Interactions and transactions are both kinds of flows generally treated as closed ones, i.e. which balance each other out. However, most flows are open ones, or ones that do not balance each other out: they generate excess or shortage. Water flows offer a good analogy in that they can be partly kept closed, but they are usually open.

The economy of flows is a simplification which, once dogmatised, becomes a dangerous lie. Flows drive the financialisation of the modern economy, which reinforces the tendency to underscore the importance of efficiency at the expense of productivity.

If we only see flows (transactions) in the economy, it seems to us that, by their very nature, they are balanced – plus on one side, minus on the other side of the balance sheet. But these flows result from the use of specific resources – without the latter, they would have been impossible. Economics cannot ignore this. An economist cannot limit his interest to flows and possible costs and benefits associated with them – he must also take into account the issue of resources: their consumption and replenishment. Then, firstly, it becomes clear that economic flows must be seen as open and generate not only specific transactions, but also drive a much wider economic cycle. Secondly, if the economist wants to assess the efficiency of specific flows, he cannot ignore the issue of the resources associated with them. Only then can he determine whether these flows are beneficial or not, and consequently, whether they lead to the sustainability of the economic activity that they manifest. Thirdly, he will then see that this wider economic cycle has a circular nature. Thus, flows can lead to excess or scarcity. They do not lead to equilibrium, but cause imbalances. And the latter are inevitably linked to flows. The problem is whether the imbalances caused by flows are stable or unstable. Fourthly, an economist who understands economic activity in such a way, will inevitably notice that there is a spiral movement in the economy, which may lead to an increase or decrease in the resources available for economic activity.

Both interactions and transactions occur among people, but involve material objects. They are operational and instrumental in nature. It is only by analysing them in the context of resources that they form more lasting and subjective bonds.

Resources in relation to a specific social actor can be internal and external. The former are at his disposal and are not available to others without his consent. The latter are either controlled by other actors and can only be used by a given actor under certain conditions, or they are generally available, but taking advantage of them does not require specific actions or predispositions.

Importantly, actors must use both internal and external resources. Every one of them can try to keep more resources at their disposal, but this has its economic and physical limits. Therefore, rational behaviour consists in using one's internal resources in such a way as to multiply and replenish them in such a way as to be able to use the external resources effectively. If so, from the point of view of the actor, it is important how external resources are generated: how large is their pool, what is their availability, how are they generated, what is their structure. He must also bear in mind that, like him, other actors strive to take control of external resources. So he faces a dilemma: is it really the best strategy to capture resources and prevent others from using them? Perhaps, however, it may be preferable to leave a certain pool of resources available to the public and possibly manage them jointly.

However, there is no single, simple solution to this dilemma. It is always complex and has to be modified depending on the changing situation. There is also the problem of how to ensure that the right solution is effectively applied. If this issue is ignored, focusing on the current shape of economic flows, sooner or later it will lead to a crisis and economic collapse.

The adoption of a one-sided and narrow-sighted perspective in neoclassical economics results from the fact that it is based on a one-dimensional model of man (the so-called rational man). The dispute between the two Nobel Prize winners Oliver Williamson and Herbert Simon (see Saravathy 2010), which took place at the turn of the 20th and 21st centuries, illustrates the essence of this problem. Simon was critical of Williamson's transac-

tion costs economics (TCE) founded on the assumption that individuals behave in opportunistic ways. Simon challenges this view and claims that from the empirical as well as historical, especially biological-evolutionary, point of view, this assumption is indefensible and the theory based on it is false. He does not claim that individuals are not opportunistic, but this is certainly not their dominant pattern of behaviour. He demands that components such as docility and intelligent altruism be included in the model, which corresponds to his basic concept of "bounded rationality." Key to this reasoning is the concept of docility, which Simon explains as (1993, p. 156) "the tendency to depend on suggestions, recommendations, persuasion, and information obtained through social channel as a major basis for choice." He emphasises that individuals in their social lives are dependent on each other and that people rely on the opinions of others, especially those with whom they interact, in making decisions. Individuals are always somehow socially embedded as is behaviour, which changes over time. Social evolution not only favours opportunistic individuals, but also intelligently altruistic individuals, or those who rely on others and help others remain in the group (community). Information obtained from other individuals is much more useful than that obtained individually (*ibid.*, p. 157). The more open we are to cooperation with others, the better we can use collective knowledge and skills dispersed in society (Simon, 1997, p. 41). Docility promotes cooperation and devising innovative solutions to social problems.

TCE also involves social interaction among individuals, but based on their selfishness and opportunism, leading to transactions. In this model, the dominant form of social interaction is transactional negotiations, the subject of which is the sharing of risk, costs and benefits. Its recognition as the foundation of economics means that mainstream economists are only interested in what is related to the system of incentives that affect the behaviour of market participants, and, consequently, only in what leads to operational efficiency. Simon comments on this as follows (1993, p. 160): "Economic theory considers economic benefit to be the basic motive for people's behaviour." The axionormative dimension of human activity remains outside the area of interest of neoclassical economists.

Moreover, dealing with it is unscientific and burdensome for them. Steve Keen emphatically summed up such one-sidedness: “Mainstream economists resembled the naked emperor of the fairy tale who admired his beautiful robes in a distorted but suggestive mirror, but at the same time naked in the face of those forces that really shape the economic reality around us” (2017, p. 18).

Simon challenges neoclassical economics as empirically unfounded, since it adopts counterfactual and unclear assumptions. Therefore, he questions the analytical models used in it, including the concept of company treated as a particular achievement of transaction costs theory. One of his key observations is that neoclassical economists claim that people maximise benefits, but fail to define benefit as such (*ibid.*, p. 158).

Looking from the practical point of view of measuring economic phenomena and processes, the issue I consider is being addressed by a growing group of economists. They believe that economic analyses based on statistics referring exclusively to economic flows and annual increments of selected parameters is flawed. The 2008 report prepared at the behest of the French President (Stiglitz et al. 2009) is particularly important in this respect.

Its authors emphasised (*ibid.*, p. 9) that neither the private nor the public accounting systems were able to deliver an early warning, and did not alert us that the seemingly bright growth performance of the world economy between 2004 and 2007 may have been achieved at the expense of future growth). Their main recommendation is to supplement macroeconomic measures with measures showing changes in the quality of life and well-being of citizens – measures of social progress. They are therefore particularly interested in whether economic growth leads to positive social effects. They recommend the introduction of wealth accounts into national accounts.

This is, of course, legitimate. But if we think in more depth about the basic tenet mentioned above – the fact that result accounting has failed – it seems equally important to include the issue of resource accounts in these discussions. The main problem lies in the fact that national accounts concern mainly incremental changes in certain economic quantities, showing

their fractional (positive or negative) change over a given time, usually in a year. This means that measured economic values are understood as linear, cumulative and gradual changes. In fact, they make it possible to watch the surface of the water, but all that is above and underneath it escapes view (even if it is a hurricane).

Watching incremental changes (result account) may lead to a misleading picture of the economic situation if it is not supplemented by accounting for the resources which were expended to obtain a specific result. Only then can one assess the value of the end result and whether the economic activity conducted in this way is sustainable. The results may improve, but through the use of resources that will make it impossible to maintain such improvement in the future. This can be compared to the accumulation of a hidden debt. It is not immediately apparent, and yet it keeps increasing imperceptibly in subsequent economic cycles until, in a longer, circular process, it eventually causes a crisis and collapse. Environmental and climate change are a practical manifestation of the build-up of such debt. If it is not taken into account, a false choice appears between GDP growth or environmental protection (*ibid.*, p. 7). Standing by such a false choice leads over time, but inevitably, to dramatic consequences.

Accordingly, the quality of measurement is one thing, whereas the quality of the tools is quite another. It is not only about its accuracy, but above all, about what it illustrates and what it is supposed to serve. The authors of the cited report astutely observe (*ibid.*, p. 9) that what we measure should stem from what we want to achieve as a society, and only then do the measurement results permit us to see if our actions have been correct. It follows that the measurement or the account must not be divorced from its axionormative basis. The result account has a social significance if it is a value account. In the operational order, the proof precedes the action. In the axionormative order, it is the other way around. The former is about whether what we do is effective, the latter – whether it is right.

This narrow, instrumental understanding of economic value is perpetuated by the commonly used term ‘value chain.’ It implies a linear and transactional approach to economic activity and cooperation. The essence

of the chain then lies in the repetitive making of profitable transactions. Innovation is reduced to taking advantage of opportunities.

Productivity orientation is associated with a different, broader understanding of value and the perception that economic value is generated in a social process: it is the result of cooperation of a number of different actors. Then, however, it is not a matter of exploiting the 'value chain,' but forming value creation networks, which can be defined as productivity clusters.

Unicorns vs. Zebras

The tension between efficiency and productivity is becoming aggravated in the digital economy. The implementation of information technology increases the opportunistic and transactional orientation. Jennifer Brandel, Mara Zepeda, Astrid Scholz and Aniyia Williams, the founders of the Zebras Unite initiative (Zebras 2017) clearly state their case. In their view, the digital economy rewards quantity over quality, consumption over creation, quick exits over sustainable growth, and shareholder profit over shared prosperity.

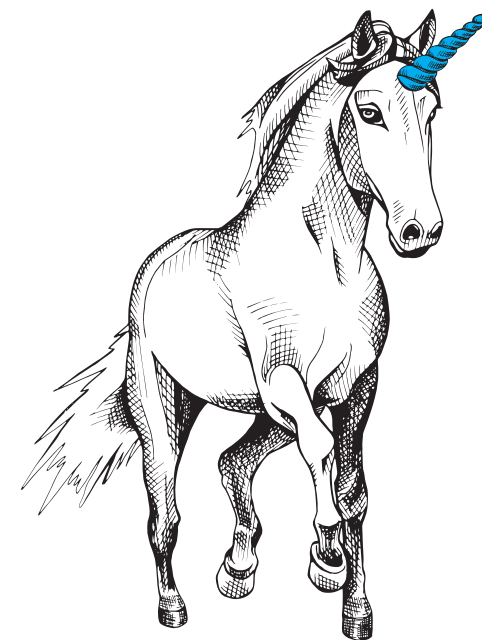
In their perception of the digital economy trend, the authors of the quoted essay contrast two models of a modern enterprise. They describe it metaphorically, using the names of animals, namely Unicorns and Zebras. The Unicorns express the dreams of the founders of technological startups to create companies such as Google, Facebook or Amazon – a large and dominant one, with an exponentially growing capitalisation. Conversely, the Zebras are herd animals and build their success not on size and strength, but on partnership and joint production of values. For the Unicorns, it is the financial result that counts and nothing else, whereas the Zebras focus on productivity.

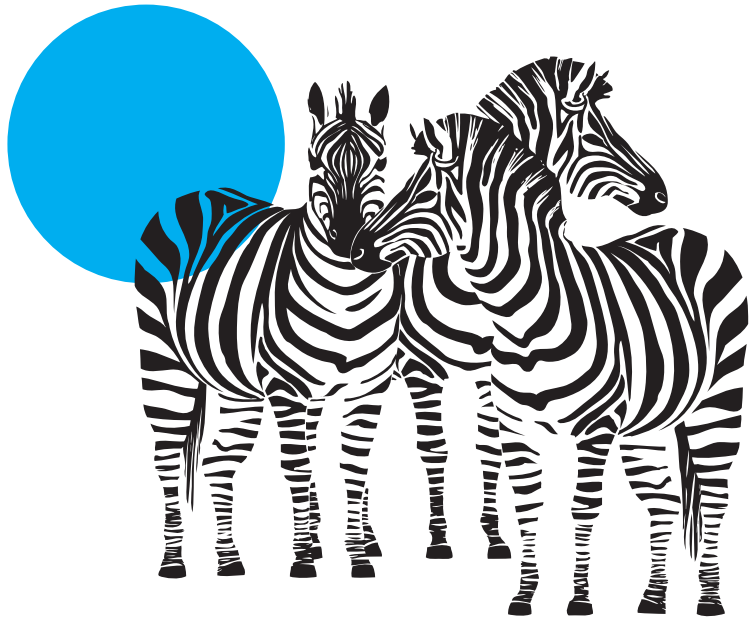
The main problem is that there is only room for a few Unicorns. Their success is based on the fact that they are capable of imposing market conditions that effectively weaken their competition. Beat your competitors or they will beat you – that's their doctrine. In such an economic environment, few win and survive. It is a non-cooperative game, which stimulates

and favours predatory behaviour. At the same time, it is a game in which the most important thing is financial capital obtained mainly from the market, from financial organisations that specialise in the game of assets.

The Zebras' success depends on whether they can create their own economic environment in which they are not dominated by the Unicorns. They draw strength from productivity, which requires a value-production network, or an archipelago in which the success of each of the companies (islands) depends on the success of their partnership arrangement (archipelago). The archipelago is not necessary for islands to make current transactions, but to manufacture together, innovatively and productively. This is also a game characterised by cooperation and rivalry. And it is a cooperative game, stimulating and favouring relativity, not just transactionality.

Fig. 2. A Unicorn and Zebras





Unicorns and Zebras can metaphorically represent two models of a modern company. The Unicorns express the dreams of the founders of technological start-ups to create large and dominant companies, with an exponentially growing capitalisation. The Zebras are herd animals which build their success not on size and strength, but on partnership and joint production of values. For the Unicorns, it is the financial result that counts, whereas the Zebras focus on productivity.

Both Unicorns and Zebras operate in their interdependence networks, but they are of a different nature. The former are dominated by exploitation networks based on synchronisation and linearity. The latter are dominated by diachronic and circular development networks and relations. The categories (variables) such as time, resources, relationships, knowledge, space, continuity and changeability operate in different configurations, hence these environments produce a different social space-time.

In the Unicorn environment – an opportunistic and transactional game – the most important thing is what is here and now; what counts is self-interest and immediate benefit. The rule is to shift risks to others

and capture undue benefits (moral hazard). The present pushes out the future, whereas the sense of community disappears.

In the Zebra environment – a relational and cooperative game – the most important thing is development understood as empowerment resulting from the capacity to determine one's own path, the trajectory of movement. The present reaches into the future, and community strengthens this orientation. Community is understood not only as cooperation, but also as a common space for action, where joint responsibility for sustaining it is born. The actors are guided by their own interests, but in a way that does not destroy the social fabric of the production of good or common goods. In such a space, a sense of social rightness and purposefulness emerges. It has its clear axionormative dimension, which allows its participants to enter into discourse about what is common, right, and appropriate to them.

The economic imaginary

Old economic theories and ideas do not fit into the new reality. Their application does not make it possible to shape a proper macro-economic framework. We need a new economic imaginary to influence the economy through public policies in order to prevent the occurrence of unstable imbalances.

Such an imaginary can only emerge as an effect of discourse held in a specific social space-time, whose task (objective) is to shape the latter in such a way that helps various social actors to empower themselves. The current dominant (hegemonic) economic imaginary destroys such a space-time by ripping it apart. The discourse that will permit to reintegrate it must involve a reinterpretation of the basic categories applied in economic sciences and related social sciences, including value, money, ownership, productivity, efficiency, and development. And the point is not to formulate new definitions, but new approaches to the contents of these concepts. Only in this way will it be possible to gradually generate new rules, or the macroeconomic framework for the operation of individual businesses.

The social space-time continuum has two interlinked dimensions and determines our capacity to act in two ways. On the one hand, it specifies what we can do in the sense of enabling. On the other, it indicates what we can do in the sense acceptability or allowing.

The hegemony of the old imaginary means that the macro-economic framework is becoming blurred, and ceases to 'work,' to fulfil its functions. Thus, we are allowed to do more while being able to do less. As a result, the market forces do not encounter a sufficient counterweight. They drive unstable imbalances, which are increasingly difficult to prevent and remedy. One of their manifestations is the emergence of economic organisations which are more powerful in terms of capital than individual states. This makes them 'too big to fail,' but also 'too big to check' and 'too big to manage.' They impose the rules of the game and even the course of economic discourse. Thanks to them, the economy and turnover may still grow, unlike the social effects of the economy, which is reflected in the slogan 'high growth, low impact,' which well reflects the fundamental problem of the modern economy.

The discourse which would contribute to the modification of the macro-social framework of the economy must be characterised by openness. This does not mean that every actor is expected to participate in it, but nobody should be excluded from it *ex officio*. In my opinion, it is possible to identify several fundamental stages of such an axionormative discourse:

1. Recognition of the contradictions inherent in the economic system.
2. Formulation of dilemmas.
3. Developing new cognitive perspectives.
4. Open debate about their relevance.
5. Proposing a new macro-social framework for the economy.
6. Agreeing on the necessary actions.

These stages of axionormative discourse in no way constitute the steps of any previously adopted procedure. They are intuitively (not analytically) adopted stages of a complex and poorly structured social process – a process that may not advance and may be stopped. There is no determinism here, contingency dominates: something may, but does not have to be the case.

Importantly, this discursive process does not only relate to the macro-level of the economy, but also covers its individual segments and dimensions,

including enterprise and the nature of entrepreneurship. Without changes at this level of management, no change in the economic system can take place. Historically, every now and then comprehensive transformation processes were set off by micro changes, for example the introduction of the assembly line.

Risks inherent in the digital economy

If we subscribe to the view that the digital economy is a knowledge-based economy, the central issue of economics is how to generate knowledge and learning, how to share knowledge. However, the learning process in the digital economy is completely different: there is no longer a clear division between educators and learners.

Access to knowledge is becoming a crucial issue in the digital economy. Solving this problem is not easy, because large corporations are trying to appropriate knowledge and make it a rare good, even though information and knowledge are abundant thanks to electronic media.

It would be an exaggeration to say that everyone is now learning from everyone, which is particularly true of companies. A modern company has to be an organisation of people learning from one another. Mary Adams and Michał Oleksak (2010, p. XIII) emphasise that a modern company will not succeed unless it becomes a "knowledge factory." They hasten to add that knowledge assets are generally missing from accounting systems, and hence they remain almost invisible in the information system available to the management (*ibid.*, p. XVII).

In order to exhibit such qualities, a company must be a kind of community which becomes thanks to such bonds among its employees which provide internal obligations. It cannot be an enforced community, but a voluntary and authentic one. It cannot be created by signing contracts, since it results from the mutual commitment and integrity of the people who make it up, because a community is produced, not given. As it is dominated by personal relationships, employees cannot be objectified. On the contrary, to become 'somebody,' they are treated as 'somebody.' Their dignity and sensitivity are respected.

In a learning company, employees feel and become stakeholders. Customers must be seen in a similar way. Becoming a stakeholder derives from the relationship between a given organisation and a specific individual. The essence of this relationship is not in an exchange transaction, although it reveals itself through transactions, but in a repetitive and sustainable process of co-generation of value. Such a relationship cannot be reduced to exchanging a service for a fee. Its meaning must run deeper and consists in the fact that the stakeholder becomes the co-producer of value: what they receive, they co-produce to a certain extent. In this case, 'value for the customer' becomes 'value from the customer.' And by the same token, 'value for the employee' becomes 'value from the employee.' Only then can the value production process become sustainable and development-oriented.

Jeff Bezos, President, CEO, and Chairman of the board of Amazon.com, used to emphasise that his company should "be obsessed with the customer." Does this automatically entail that for him the customer is a stakeholder? I think not. It depends on how the company views its customer: as a milch cow or as a partner. It depends on how the customer is influenced and what role is assigned to him/her. If the company's attitude boils down to making the customer dependent on or even addicted to its services, the latter cannot be its stakeholder. In my opinion, this is what Amazon does: it makes its customers as dependent as possible on its services in order to do the same with the manufacturers. That is why the company separates suppliers from manufacturers and customers. In this way, Bezos fulfils his main objective: "Your margin is my opportunity."

Addicting customers is the opposite of reliance on one another. Addiction excludes accepting responsibility, and yet relying on one another is a manifestation of responsibility. Addiction aims to ensure favourable transactions and the use of resources held by individuals and organisations to be addicted. Reliance on one another leads to the formation of lasting ties that generate a sense of duty and joint responsibility, which, in turn serves a mutually beneficial use and multiplication of resources, including the production of shared ones.

Trust appears in both types of business (also all-human) conduct, even though its nature is different in each case. In the former, it is only

situational and instrumental and its 'operation' is invariably associated with a specific collateral, because of the limited and conditional quality of trust. In the latter, trust is broader and results from the experience of cooperation to date. It is based on reliability rather than on security. It 'works' in the axionormative order, not only in the operational or instrumental ones. As a result, it has a repetitive, self-sustainable, and circular nature. It seems to be constantly present in the common space-time rather than being only temporarily occasioned by subsequent transactions. And since it is shared in space-time, it helps people to undertake innovative and long-term ventures, not just to repeat routine transactional patterns. The instrumentalisation of trust does not block economic activity, but stimulates its specific forms.

Profit is a financial result which reflects the operational efficiency of a company. Company value belongs in another category – it shows its potential to co-produce value, which cannot be reduced to accumulated profit, because it also reflects the company's capacity to transform and develop. Naturally, it is possible to estimate the value of individual resources and assets held by a company, but the result will only be an approximation of their actual worth.

Transaction is the basic analytic unit for the advocates of transaction costs economics. That is why their primary interest lies in allocating resources (allocation paradigm) rather than in producing them (see Williamson 2010, p. 9). This means that they are interested in prices, commodities, supply, and demand.

Both Ronald Coase and Oliver Williamson, the main originators of this theoretical and research approach, go beyond the analysis of transactions, dealing at the same time with governance. But governance is of interest to them in terms of its impact on the effectiveness of transactions carried out within the organisation and by the organisation. Therefore, they are only interested in the operational dimension of the organisation's functioning. Williamson argues that such a consciously adopted limitation of research has its general justification: social sciences should avoid dealing with general theories, and researchers should focus on specific (partial) mechanisms (ibid., p. 10).

I share Williamson's view to the extent that when practicing social sciences, a specific cognitive perspective must be identified and adopted. This, however, cannot imply continuous adherence to such a perspective if it turns out to be too narrow and no longer capable of providing new knowledge – it becomes ossified. This, in my opinion, is the case with transaction costs theory.

The relational and processual approach leads to a different concept of company. A company exists because it is changing and has a capacity to develop. In order to be able to change – to develop – it must be subjectified, which is possible only when it enters into long-term partnership-based relations with other entities. In order to be somebody (a subject), it must be somebody for others. It implies that together with others it must produce an appropriate and empowering gravitational field, or a social space-time.

Summary

Every kind of human activity, including economic activity, takes place in a space-time defined by the social relations established by various actors. Consequently, all human activity is multidimensional. The social space-time is both ontological and epistemological. It exists, because it becomes. And it becomes a result of what these actors do and how they are influenced by the material environment in which they operate.

Subjectivity is a function of determining one's individual development trajectory, which means the capacity to create one's own future, one's own history. Such an approach strongly emphasises that subjectivity is becoming, which can be included in storytelling. At the same time, becoming subjectified generates meaning; it entails giving meaning to one's existence, both in the case of individuals and organisations. As such, it results from the production of existential values.

The production of such values is associated with grand questions about the meaning of life posed by individuals and communities. Such questions go beyond the here and now. They are located in the space of what has been and what will be. Answers to such questions do not offer

certainty, they are not definitive once and for all. Such questions revisit us; even having answered them countless times, we do not come close to certainty, but only ensure that the answer satisfies us for the time being, which makes our existence and actions more meaningful.

The diversity and autonomy of the actors is one of the foundations for the emergence of the axionormative order. Without those qualities, no discourse or axionormative order is possible. The existence of multiple (diverse and autonomous) actors implies the need to balance their influence and actions. Without it, it is impossible to preserve such a multitude of actors. Such a balance is neither static nor synchronic, but should be approached diachronically. The axionormative order must be maintained dynamically, since it derives from both actions and counteractions of the various actors. Their influences do not remain constantly balanced, but they should be dynamically balanced so that the axionormative order in question remains continuous and susceptible to modification. There is no room for a superarbitrator who would impose his will and order. The emergence of such an entity would be tantamount to tyranny, which destroys the very foundations of the axionormative order.

The axionormative order is not produced by individuals but emerges as a consequence of an 'ethical discourse' joined by different autonomous actors who represent different cognitive perspectives and rationales. Such discourse may result in the adoption of specific normative regulations, including legal and codified ones. But this is not the end of the matter. The norm must be embedded in the axionormative order, otherwise it does not work – actors do not know how to apply it in socially unrecognised situations.

The discourse must continue incessantly, if only because humanity develops and reaches for ever more advanced technologies. In civilizational terms, our transformation must be accompanied by cultural transformation, otherwise, mankind would destroy itself.

Without an axionormative order, there is no developmental circularity. Thus, development derives from a specific social space-time, which must be open to allow for the formation of a new imaginary.

When axiological reflection and ethical discourse disappear, a tyranny is born, which imposes its own axiological perspective on others. Under its 'rule,' social life is gradually but consistently 'de-axiological:' instrumental values supplant existential values.

In social systems, including their economic aspects, fragmentary changes merge and permeate, meandering towards a more general change. Mental (cultural) and material (civilisational) changes also, or perhaps especially, intertwine. Frederic Laloux aptly observes (2015, p. 22) that the types of organisation invented over the centuries have always been associated with the worldview and state of consciousness prevailing at a given time.

It can be assumed that the essence of economic activity is to obtain a surplus. However, the ways of achieving it can be very different. How we economise defines the essence of the enterprise and constitutes the core of entrepreneurship. In classical economics, in which Joseph Schumpeter's thought is rooted, the entrepreneur is someone who creatively and productively combines resources (factors of production) and thus introduces innovative solutions in the manufacturing sphere. Entrepreneurship understood in this way is a source of innovation and competitiveness in the market economy. But in the case of neoliberal economics, the entrepreneur is a market participant who makes effective use of opportunities and thus is more efficient than his competitors: he does not drive innovation or competitiveness, but only takes advantage of it.

Productivity-oriented Schumpeterian innovation is not only market-oriented, but also social: it is understood as a processual change triggered by the entrepreneur, which leads to development, because it finds its market followers. It is a key component of the "creative destruction" mechanism. Thanks to his innovations, the entrepreneur gains market advantage and captures the resulting rent, which, however, gradually disappears. The entrepreneur cannot rest on his laurels, because the competitors never cease to breath down his neck. In this way, being an entrepreneur becomes a socio-economic role. It is not a status. An entrepreneur becomes, not just is.

Efficiency-oriented innovation is mainly imitative and consists in improving the financial result. In this case, the rent results from the acquisi-

tion of a part of the market and taking over the competitors' margins. It is more incremental than processual. It basically results from management decisions and organisational efficiency, not from a creative approach to economising. It is, by its very nature, Druckerian.

Referring to the aforementioned observation made by Laloux, the way we economise becomes a way of life regardless of whether we realise it or not.

Nowadays, the economic model, in which efficiency dominates over productivity so much that it weakens and ruins it, is doomed to fail. The desired changes will not happen without a different perspective on enterprise and entrepreneurship. This is the intellectual soil for the notion of Company-Idea.

The economics of knowledge requires the processual approach, which is inherently relational and diachronic, rather than the transactional approach, which is inherently occasional, opportunistic and synchronous. The transactional approach focuses on operational and instrumental efficiency. What counts is a profitable use of the available resources, which is well reflected in result accounting. On the other hand, the processual approach focuses on productivity (structural efficiency) understood as the use of resources in such a way that they can be replenished and multiplied. In order for such a value-generating process to be accounted for, we would have to have value accounting. More and more economists seem to notice and appreciate this need.

Social change essentially involves a change in social relations (see Jesop et al. 2013, p. 123). And it is a consequence of the process in which the following features intertwine: (i) the actions of numerous individual and collective actors who perceive social reality in different ways and follow different patterns of behaviour; (ii) different social norms; (iii) different learning and adaptation practices, and (iv) different cultural references (ibid., pp. 122–123). Thus, social change requires social space-time and implies its transformation.

The modification of social space-time is a consequence of learning, knowledge generation and communitisation. It reflects not imitative, but creative learning. It is not about adopting a different point of view,

but about creating a new view that will make it possible to perceive and understand the social world in an innovative way.

To sum up, the arguments deployed in this article imply that social space-time is multidimensional. In my opinion, its following aspects should be taken into account: (i) space, (ii) time, (iii) rhythm (pace), (iv) configuration, (v) knowledge, (vi) subjectivity, (vii) discourse (modality), and (viii) transcendence.

The key question is whether social space-time is given and external to individuals, or whether it is socially produced and thus internal to them. I strongly favour the latter option. If we believe that the capacity to create value is socially determined and generated, we can say that it belongs to a given individual – he or she makes use of it, but at the same time it constitutes a kind of common resource, a good which individuals can use and reuse as long as it is continually produced and re-produced. Accordingly, it is partly synchronic and partly diachronic in nature.

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Cracow as a CITY-IDEA



From idea to development strategy

City-idea is one of the most important OEEs themes. It represents an open, citizen-friendly urban area, where public space has been returned to the people. It is a place where the capitalist market game gives way to values which are crucial for society and the environment. Cracow has hosted the OEEs for several years not without reason – the capital of Małopolska Region has a remarkably successful track record in implementing solutions that bring it closer to the City-Idea paradigm.

A huge change has taken place in transport and communication. City residents can take advantage of the Wavelo bike rental system, with the ever-expanding network of bicycle paths. The MPK (municipal transport operator) has modernised its bus fleet – currently, 100% of the city buses are low or zero emission vehicles.

In recent years, Cracow has undergone a genuine green revolution, systematically increasing expenditure on urban greenery. Apart from the consistent expansion of conventional green areas, a number of innovative solutions are being introduced, such as pocket parks or wildflower meadows, which are very popular among the residents. This is particularly important in a city with air pollution issues. A lot has been done to combat smog. In 2012–2018, the Low Emission Reduction Programme (PONE) managed to eliminate approximately 22.5 thousand coal-fired stoves. This is an instance of nationwide success. In this context, it is worth mentioning the local waste incineration plant, one of the most modern facilities of the kind in Poland.

What else? The city managed to purchase Zakrzówek, a spectacular lake in and old quarry with its surrounding wooded areas situated close to the centre. Ambitious architectural plans have been implemented, to mention only the Tauron Arena, where almost 500 events had been organised until mid-2018. Since May 2018, an innovative solution called the Virtual Clerk has been tested to facilitate cooperation between the town hall and the residents–entrepreneurs. It may well prove to be a true revolution in e-governance.

Although city-idea is still a development model, some of its features have materialised in numerous initiatives intended to improve the quality of life of Cracow's residents.

This is a region for investors!



Małopolska's recipe for entrepreneurial success

Why does Małopolska account for 8% of Poland's GDP? Why as many as 384 thousand companies chose to operate here, and the region has occupied the top of national investment attractiveness rankings for years? Why was it awarded the title of a European Entrepreneurial Region 2016 by the European Commission and the Committee of the Regions?

Małopolska was awarded this title thanks to its perfectly prepared strategy drawing on several areas, which are considered the most important from the vantage point of further development of entrepreneurship, such as optimal management of European funds, partnership in the preparation and implementation of business-friendly measures and effective use of its potential, especially in those sectors that offer opportunities for rapid development, known as intelligent specialisations.

Knowledge and competencies constitute the core aspects of intellectual capital in this part of Poland. Almost half a million people have found employment in Małopolska's manufacturing sector, including highly educated graduates of the best Polish universities. Together with the research and development centres, they represent a huge scientific potential. In order to ensure smooth cooperation between science, industry, and business, numerous technology transfer centres have been established.

In Małopolska, entrepreneurs will find everything they need to develop their businesses smoothly and dynamically. The local investment environment provides all manner of substantive support for business. The region boasts an excellent transport infrastructure, one million square meters of modern office space (second only to Warsaw), and a thriving network of banking services. Małopolska offers perfectly prepared investment areas – the Business in Małopolska Centre database contains 150 such investment opportunities. Fifty-nine innovation and entrepreneurship support centres operate in the region, which ranks it second nationwide. As many as 21 cluster initiatives have been launched here, including the LifeScience, MedCluster or the Balanced Infrastructure Cluster. Multi-level business support is provided by 150 BPO centres with almost 70 thousand employees.

The data may impress, but the region refuses to rest on its laurels. Since 2009, the Business in Małopolska Centre (CeBiM), established by the Małopolska Voivodeship, Małopolska Regional Development Agency JSC, Cracow Technology Park LLC, and Małopolska Industrial Parks LLC, has implemented successive initiatives aimed at attracting both international and domestic investors to the region and at developing exports. Given the fact that all these efforts bring tangible results, the current dynamic pace will not only likely to be sustained in the coming years, but will significantly accelerate.

If we were to underscore the importance of civic initiatives, such as Open Eyes Economy, we would say – to paraphrase the title of John Lennon’s unforgettable song “Give Peace a Chance” – that grassroots social initiatives are needed to give values a chance

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