Higher Education Висше образование

HIGHER EDUCATION AS A PUBLIC GOOD

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Abstract. The purpose of the article is to determine whether higher education is a public good. The society dynamics sets up the nature and functions of higher education. The nexus of interests of society, state and business leads to an umbrella of definitions for public good.

The results of the article show that as a good the higher education can has different forms – public, private and other forms of good. The specific form of good depends on the status and need of the consumer of knowledge, as well as on the state possibilities for financing and regulation of higher education. We define higher education as a public good in performing specific functions in society.

Keywords: knowledge; public benefits; welfare economics; social capital

Introduction

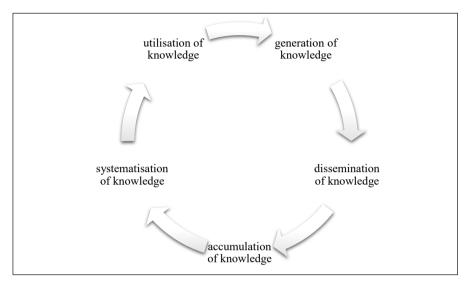
Higher education is not a new phenomenon for society and had never attracted much attention. The society dynamics and the new reality testing traditional concepts related to the purpose and long-term policies for the development of higher education, including for its perception as a public good. The removal of a lot of existing restrictions, which created the possibility of mass access to higher education, as well as the increasingly strict requirements for legal protection of intellectual property and transparency in the distribution of public funds, require a new vision of the concept of "public good".

Our motives for the present article origins from changes in society and in particular the castling of the state in funding higher education. Public attitudes are adapting to the new reality and have oriented towards complying with the social contract for public goods by the higher education, regardless of the funding source.

Dynamics of higher education

Higher education has not born as a public good (OECD, 2006)¹⁾. We will present the dynamics of higher education as a multilevel chain of knowledge (Chart 1). The

modern concept of knowledge does not define a specific stage for the beginning and end of the chain, unlike the traditional concept, in which the chain necessarily begins with the generation of knowledge.



Source: authors' point of view Chart 1. Multilevel chain of knowledge

Some new professions, such as ecology, equal rights and cybersecurity, start with the utilisation of knowledge from related sciences, go through the systematisation stage and end with the dissemination of knowledge. The scientific directions without their own history and dynamics confirm the universality of the multilevel chain of knowledge, rather than refute it, because in them the generation of knowledge is based on individual cases and the inductive approach gives grounds to establish itself as a science when basic principles and as well as exceptions are generally accepted.

For determination as a public good, it is necessary to consider the successive processes contained in higher education:

1. Generation of knowledge. It is a process of acquiring new knowledge (Wang, Peters & Guan, 2006), which takes place on a personal level, develops in an ascending spiral, is based on an inductive approach and has random nature. There are moral norms in society regarding the generation of knowledge, and attempts to go beyond norms are denied and even condemned, for example, the case of Galileo Galilei's achievements. It was precisely for this reason that when the generated knowledge does not meet the socially accepted norms, the authors use diverse and

dynamic approaches to present their knowledge in a manner acceptable for concrete era – for example, in the form of daily stories²⁾ and non-specialized publications³⁾.

- 2. Dissemination of knowledge. Higher education becomes a public good when begins to promote the generated knowledge (Filipova & Yuleva, 2018). Over time, society's attitude towards knowledge, and thus the nature of higher education, is changing⁴⁾. At some stages in the development of society, the dissemination of foreign knowledge is punished (as described in the myth of Prometheus), or had to be paid (for example, the payment of a tax on the utilisation of knowledge for survival in adventures of Robinson Crusoe).
- 3. Accumulation of knowledge⁵. The knowledge accumulation (custody of documents in public libraries⁶) or data storage in scientific databases) is of crucial importance for the society. The knowledge accumulation is a process whose direction is from quantitative growth to qualitative development. Historically, universities have been conceived as a separate institution from the market, and indirectly their function has been to accumulate knowledge (Rikap & Harari-Kermadec, 2019). This is due to the understanding that accumulated knowledge in the form of "ideas" is easily and cheaply to distribute, people do not compete in utilization of ideas, while accumulated knowledge in the form of "skills" is complex, its dissemination is expensive and their utilisation is often generates competition (Conceição & Heitor, 1999).

The accumulation of knowledge is at the heart of nations without own script or of geographical regions in which written documents are perishable. In such cases, the society is based on a limited number of wise men who reproduce coded information in the form of tales, fables, myths and legends for utilisation of accumulated knowledge.

4. Systematisation of knowledge. This is a process of prioritisation and classification of knowledge in both basic and related sciences. It underlies the interdisciplinary sciences and allows the transfer of knowledge between traditionally different sciences. The great discoveries of humanity, for example, the mapping of human genome and the creation of Internet, are largely due to the systematization of knowledge.

The systematization of knowledge leads to the elimination of experience in determining personal professionalism. The presence of good practices in systematization of knowledge gives competitive advantages at micro and macro level.

5. Utilisation of knowledge. The knowledge is disseminated on to enlightened people who proved their professional ethics, such as the representatives of the medieval guilds. The opposite is the case of alchemists, who restricted the dissemination and growth of technical knowledge due to the likelihood of competition and private exploitation of knowledge (David, 2008).

Higher education began to generate knowledge during the Renaissance, when it separated from the church – both in terms of funding and in terms of serving⁷). According to Adam Smith (1776), public goods (Latin *publicum bonum*) should benefit society, although sometimes revenues are less than costs and some people

cannot benefit from them, which requires them to be financed by the state. John Stuart Mill (1848) supports the idea of government subsidies for the education of people who cannot afford it. At the same time, the representatives of the classical economy express doubts about the quality of education funded by students and their families, pointing out that this weakens the motivation of universities to succeed and leads to a lack of opportunities for control by society.

After the end of World War II, the social system based on the "elite at birth" collapsed⁸). The need for the formation of a new elite leads to the modernization of higher education, associated with its changed social role – the creation of a new generation of public leaders. With the expansion of its consumer pool, higher education began to offer public goods. The focus is no longer on dissemination as on knowledge generation⁹⁾. New knowledge provides an advantage to its creator (Stiglitz, 1999), and if disseminate to other individuals, it becomes a public good as it retains its value, no matter how often and how many individuals use it. Due to the market failure of research, higher education began to be fund as by the state and by the business. The question is whether universities should produce either public or private goods, depending on the source of funding. In this case, it is important to take into account the spillover effects of higher education, namely that in addition to the general benefits (dissemination of scientific knowledge), higher education also provides private benefits, for example, higher incomes for graduates¹⁰⁾. Value system of countries with a short history of building elite through higher education, even without own Renaissance, has imposed itself worldwide.

The modern vision of higher education is shaped by the rise of the welfare state after the end of World War II¹¹. The generation of this era sees higher education as a public good that the state must provide¹². The establishment of international organizations such as UNESCO contributes to the expansion of the concept of the welfare state, adding to fundamental human rights such as health and the right to education¹³.

A number of economic crises of the past century (the oil shock and the dynamics around the US dollar in the 1970s) testing the vision of the state as a major financial source for the higher education. Retaining their traditional functions for sharing knowledge between generations and forming qualities for active participation in public life, universities beginning to compete for resources that were once guaranteed to them¹⁴).

Neoliberalism and its international dimension, the globalization, are changing the paradigm of funding and placing a new emphasis on higher education as a public good funded by private business. With the reduction of public funding, universities are transformed from public institutions into private ones and so their model of governance is changing (Hazelkorn, 2017). Higher education already has acquiring a new function – to generate knowledge that has an economic return. The knowledge economy creates know-how that is owned by its sponsor and

provides it with an exceptional advantage guaranteed by intellectual property laws (World Trade Organization, Agreement on Trade-Related Aspects of Intellectual Property – TRIPS). The knowledge economy introduces a market failure for higher education, similar to entrepreneurship in private business. Universities are abandoning prejudices about elite education and are beginning to offer mass access to knowledge. However, market orientation reduces interest in education in some sciences and raises the question of the humanity of society. A limited number of educational courses, which generate revenue, survived. A new culture of accountability¹⁵⁾ in higher education is emerging, which, unlike private business, includes information about the fate of products (students). Higher education is under pressure to focus primarily on individualized economic benefits (Marginson, 2014b). In the society the hot question is "Have we lost the 'public' in higher education?" (Zemsky, 2003).

The knowledge economy is the anchor of competitiveness by the European Union (Commission of the European Communities, 2008). Higher education no longer disseminates indirectly knowledge between generations, but meets them now. The mass and simultaneous access of several generations to higher education is already seen as a new form of public good financed by business. A new form of economics is emerging – behavioral economics. In determining success, the motives for students' economic decisions and the benefits of higher education are leading.

With neoliberalism, "elite" higher education¹⁶⁾ gave way to "mass" higher education ¹⁷⁾ and, in a number of more economically developed countries, to "universal" higher education¹⁸⁾ (Trow, 1974).

To this dynamics, we add the modern form of higher education – distance learning. It is an emanation of the information society for the dissemination of knowledge because it offers a public good by systematizing the knowledge acquired from spontaneous surfing in Internet and providing equal access to knowledge regardless of age, geographical location and free time for learning.

Universities offer new forms of education that provide flexibility according to the individual needs and working hours of the student. The development of the IT sector provides opportunities for universal access to knowledge regardless of national borders and time zones. On the other hand, the IT industry has a negative impact on one of the main pillars of higher education, the public libraries, as well as their providing of public goods. Innovative approaches to education have had an impact on the business itself – changing not only the perception of working hours, but also the workplace, incl. for macroeconomic approaches for measuring employment.

In Eastern Europe, higher education follows its own trajectory of development – initially the reforms in education were copied from the developed economies and the regulations were adopted at a later stage. The need for a new liveware exceeds the capacity of state universities, and this peak of demand of university graduates has led to the emergence of private universities, which have continued the education

process by the state methods. Higher education is recognized as a public good based on the number of students and because it contributes to addressing a number of macroeconomic indicators such as reducing unemployment, lower social assistance costs and to minimise ethnic segregation.

The state is beginning to play a dual role – both as an owner and a regulator. The goals of the state become contradictory and competing with each other, for example, to preserve academic autonomy of universities from the source of funding both in supply side¹⁹⁾ and in demand side²⁰⁾. The stakeholders play essential role – their number is increasing, a need arise to balance their competitive interests and the forms of accountability is already a challenge²¹⁾. The new status of higher education poses social challenges that can be compared to the social effects of the invention of the steam engine, which trigger the Industrial revolution, and of emerging of new professions since the discovery of the printing press and the beginning of the Renaissance.

In Bulgaria, the continental system of supply-side funding through government subsidies and tax incentives for some universities is applied (Petrova et al., 2014). Most of the reforms of more economically developed countries in the higher education sector are being incorporated – the Open University from the United Kingdom, Radio University from American practice and the European system of Free University. This approach softens the transition from elite higher education to mass higher education. While in Europe higher education reforms coincide with political innovation, economic growth and demographic boom, in Bulgaria, the modernization of higher education precedes social change and coincides with the demographic collapse. In order to overcome the difficulties, Bulgaria turns to education (Savova, 2012). For example, higher education is an underrated factor in keeping young people in Bulgaria and for modernization of the economy.

Higher education and public good

The term "public good" is used primarily in a political context, but has never been precisely defined (Marginson, 2012)²²⁾. Political theory models the public good as a shared and unlimited resource (Mansbridge, 1998)²³⁾. The concept of "public good" originates in political vocabulary and enters economics and sociology through its two characteristics – non-rivalry and non-excludability. In this sense, from the point of view of the state, higher education is both a public good and a public responsibility²⁴⁾.

At all stages of the development of society there is a "public demand" for public goods (Tilak, 2008). Despite the significant history of the public good, there are relatively few generally accepted definitions of its essence²⁵⁾. It is often described by "beautiful" concepts (Tilak, 2008) that are unstable over time (Dill, 2014). Existing information on public goods is often anecdotal or limited due to insufficient research on the topic²⁶⁾. The core researches are based on individual

cases – the use of such inductive practice probably means that the methodological approach to higher education is not sufficiently developed²⁷⁾.

For different societies, the concepts of "higher education" and "public good" differ from cultural features and path dependence (Enders & Jongbloed, 2007)²⁸). The development stage of a society is another determinant that must be taken into account when defining higher education as a public good (OECD, 2006). The greatest variety of definitions and different interpretations of higher education and the public good was observed in the 1990s when basic concepts related to universal human rights, such as access to education, and unique protection of intellectual property, which determine the opportunity to access knowledge (Locatelli, 2018). Whether a good is "public" or "private" is seen as intrinsic to the nature of that good: universal, unchanging and unrelated to context (Marginson, 2018).

The public / private distinction is central to the study of higher education issues, but no consensus has been reached on the content of the term "public" in this context (Marginson, 2018). In political theory, "public" is often understood as state ownership and / or control by the state, but in public and private property the distinction is determined not by ownership (public or private) but by the social nature of the good (Samuelson, 1954). Therefore, it can be said that none of the existing definitions is completely satisfactory – each offers something and can be used for critical debate with the others²⁹.

The linear "society-state" system and their satellite, the higher education, is being broken after a number of discoveries in physics, chemistry, geology, biology, etc. There is a growing public concern about the knowledge generated and its utilisation³⁰⁾. This is mainly due to the increasing number of cases of extracting private benefits in the form of higher incomes for people related to higher education, as well as paying for higher education (given that access to universities is free).

The liberal model and private funding of higher education call into question its ability to generate public good. Outside of political rhetoric, the public good is not reflected in higher education topics (Marginson, 2014a). The centuries-old tradition of higher education as a public good to disseminate knowledge for a short time has for a short time was capitalised in a semi-public good for knowledge generating. Only a limited number of advances in medicine and pharmacy continue to be considered an ideal public good. The need for large investments and the lack of transparency in the functioning of universities transforms the focus on the social benefits of higher education. The opinion is established that higher education is financed by both the state and private funds. In other words, the source of funding is no longer a benchmark for defining higher education as a public good – rather, its benefits are important, whether public or private. The state monopoly over higher education and its results has been replaced by the principles of the market economy, in accordance with which the vision of the essence of the public good is being adapted.

In the New Reality, higher education is seen as both a public good and a public responsibility (Prague Communiqué, 2001). The self-regulation and accountability of universities has raised to a higher degree the tandem higher education-public good and the emphasis is now on the benefits of higher education rather than funding it. Calls for a new social contract have been reduced. The center of gravity is shifting from the public good to social capital (Nedeltchev, 2004). A new special form of public good generated by higher education is emerging – the social capital (Polcyn, 2015).

Although a public good, higher education is not a "free" good (Gambardella, 1995). As a result of changes in the external environment, higher education is adapting to the entrepreneurial requirements of the knowledge economy (Sorlin & Vessuri, 2007). Applying the neoliberal approach allows higher education to generate private good (Marginson, 2014a), as this model takes into account private investment in human capital in a competitive market (Marginson, 1997). The established consensus in society regarding higher education turns into a "quarrel", which according to many has serious dimensions in both the public and private spheres.

In parallel to determination as a public good, the economic literature argues that higher education provides both private and public benefits and goods (Dill, 2014). Beyond this understanding of economists, there are numerous publications by sociologists, political scientists, and educators who are critical of the thus defined link between the public good and higher education. The common view is that the society also receives benefits from higher education, but they are smaller than private ones (Browne, 2010). The prevailing view is that when looking at higher education outcomes, the private good is more clearly defined than the public good (Marginson, 2012).

Whether a public or private good, higher education is sensitive to politics, it is an integral part of culture and varies according to the specific time and place (Calhoun, 1998). Whether the good is defined as "public" or "private" is a matter of policy choice, i.e. it is a social construction (Kaul & Mendoza, 2002). The clear distinction and classification of the good in one of the two categories is relevant to a specific historical context and depends on social arrangements (Enders & Jongbloed, 2007).

Contemporary vision unequivocally defines higher education as a public good, and any discussion outside this framework is a "poorly motivated and unjustified dispute" (Tilak, 2008). We agree with the understanding that the public benefits of higher education outweigh the sum of individual benefits (Williams, 2016). The new social contract in the field of education requires the unification of universities and governments to form a common vision with coherent results – the different goals should not be mutually exclusive (Hazelkorn, 2017).

Features of higher education as a public good

– Identifying. Higher education acquires various dimensions that further complicate its identification as a public good³¹⁾. Another source of difficulties is the

wide range of stakeholders and their views, which form and determine the diversity of definitions of the public good³²⁾.

- Measuring. There is no single approach to measuring the benefits of higher education³³. Most research related to the definition of higher education as a public good uses short-term economic indicators to analyze long-term social effects³⁴. Many authors approach higher education through financial methods similar to investment management³⁵, while another group of authors looks at higher education from the perspective of business administration and provides recommendations universities to be run as business corporations³⁶.
- Evaluating. Higher education contributes to the improvement of a number of macroeconomic indicators it leads to economic growth and high standard of living³⁷⁾. Its social dimensions are also important³⁸⁾, including a combination of economic and social benefits³⁹⁾ universities have an impact on civic and social engagement⁴⁰⁾.

Conclusions

Modern society needs a new hero in the field of higher education. The tribulations of Prometheus, who dissemenated knowledge to the people in the form of fire and was therefore punished by the gods; the adventures of Robinson Crusoe, who survived among the natives thanks to knowledge utilization of some laws of physics and postulates of astronomy; the devotion of monks, who reproduced a limited set of books and thus disseminated the knowledge, remains in history as a reflection of concrete eras. The embodiment of modern society are students who approach higher education pragmatically, not for their own well-being, but to generate public goods, whether funded by the state or business.

On the public agenda is the issue of reformulating the public role of higher education, which is adequate to the new reality, including the trend of new professions. The new role of the state should be to direct public resources to areas that are of particular importance to society, as well as to preserve the independence of higher education in view of its funding from business.

Public attitudes are changing towards complying with the social contract for the generation of public goods from higher education, funded by business. At the present stage, the generation of knowledge from higher education is of particular importance to society, such as gravity for physics or the atom for chemistry. A society without public goods by higher education is like the Flying Dutchman – a dynamics with a compass and without direction.

Higher education is a public good if:

- generates knowledge regardless of ownership form;
- preserves academic autonomy regardless of funding source;
- creates benefits for the society;
- bears public responsibility;

- complies with the social contract;
- increases social capital;
- observes the behavior norms in the society;
- provides transparency, accountability and information disclosure on sources of funding and the institutional autonomy.

NOTES

- 1. Only higher education as a public good is discussed in the scientific literature: "Almost all scholars agree that elementary and secondary education is a public good but for the higher education, the views are different" (Kocaqi, 2015).
- 2. Based only on observation as a scientific approach and by analogy with natural phenomena, Archimedes understand the volume-density ratio while bathing in a bath; Isaac Newton formulates his law of gravity as he watched an apple fall from a tree; Alexander Fleming has discover the antibiotics when he returned to the lab for his hat. It can be assumed that all these "lucky cases" found "by accident" were preceded by scientific research and are target result of significant resources.
- 3. For example, The "Little Prince" presents, in the form of children's literature, a guide to relationships with established people and real-life situations for adults. "Robinson Crusoe" is in a similar situation the book provides instructions for achieving higher levels of needs in the Maslow's hierarchy of needs. In such cases, it is unlikely that the knowledge was generated by the author himself, as the knowledge exceeds the experience gained in one geographical region or during one historical stage, i.e. in such cases the public good is expressed in the dissemination of accumulated knowledge.
- 4. The first mention of modern type of higher education is the *Akademia* of philosopher Plato (IV century BC), where knowledge was (1) generated, (2) disseminated, (3) accumulated, (4) systematised and (5) utilised.
- 5. "The use of the word "accumulation" is not, however, intended to suggest that research proceeds along a linear path to ultimately culminate in a complete and clear picture of the focus of inquiry" (Shavelson & Towne, 2002).
- 6. The largest library was in the city of Alexandria, Egypt (III century BC) and has stored 400,000–700,000 scrolls. The Library of Alexandria is currently one of the Seven Wonders of the Ancient World.
- 7. The existence of universities is aimed at serving the needs of the church: "Universities have educated clerical and courtly elites" (Scott, 2015); "The earliest European universities owed their origin to the exercise of local political authority by the church or state" (Vallance, 2016); "During the early colonial days in the US, colleges were created with an emphasis on religion" (Hazelkorn & Gibson, 2019).
- 8. Until 70 years ago, higher education was a privilege for a limited group of people: "When access to higher education is highly limited, it is generally seen as a privilege, either of birth or talent or both" (Trow, 1974).

- 9. Public funding of universities is aimed at disseminating knowledge, while knowledge generation was earmarked for funding by philanthropists and the private sector: "A publicly subsidised institution intended to perform all the functions of a university that suddenly decided to devote the greater part of its resources to research, to the almost total neglect of teaching, would doubtless be something of a scandal" (Robbins, 1963).
- 10. "In the case of public and common benefits, assumptions are again determining. A large and eclectic literature, drawing as noted on various social science disciplines, asserts that a range of different public goods are created in higher education" (Marginson, 2012).
- 11. "In every advanced society, the problems of higher education are problems associated with growth" (Trow, 1974).
- 12. "Basic education, as well as health care, is a public good that can be made fully private but that is often made nonexclusive by policy choice" (Kaul & Mendoza, 2002).
- 13. "Education has been considered a human right and a public good in global public policy at least since 1945" (Daviet, 2016).
- 14. "Even public universities rely on diverse funding sources, including state and national governments, foundations and corporate supporters, tuition revenues, and alumni gifts" (Allansdottir et al, 2002).
- 15. "External funding of higher education can lead to the beginning of commercialization and to the end of independent universities, which explains the emergence of an "accountability culture" (Gibbons, 1998).
- 16. "Elite higher education is concerned primarily with shaping the mind and character of the ruling class, as it prepares students for broad elite roles in government and the learned professions" (Trow, 1974).
- 17. "In mass higher education, the institutions are still preparing elites, but a much broader range of elites that includes the leading strata of all the technical and economic organizations of the society. And the emphasis shifts from the shaping of character to the transmission of skills for more specific technical elite roles" (Trow, 1974).
- 18. "In institutions marked by universal access there is concern for the first time with the preparation of large numbers for life in an advanced industrial society; they are training not primarily elites, either broad or narrow, but the whole population, and their chief concern is to maximize the adaptability of that population to a society whose chief characteristic is rapid social and technological change" (Trow, 1974).
- 19. "Public subsidies for nongovernmental services can be structured as supply-side subsidies, in which the government provides grants directly to the supplying institutions. If supply-side subsidies are to be effective, however, it is often important that the supplying institutions be organized as a nonprofit rather than for-profit firms. Otherwise, the benefits of the subsidy may be captured in substantial part by the firms' owners rather

- than by the consumers who are the intended beneficiaries of the subsidy" (Hansmann, 1999).
- 20. "The other alternative is demand-side subsidies, in which the government makes grants to consumers that can be used (only) for purchase of the service involved. In higher education, supply-side subsidies are particularly easy to administer simply by granting scholarships and subsidized loans that the students can spend at the institution of their choice. This form of subsidy can work with for-profit service providers as well as with nonprofit and governmental providers, since competition among the providers for consumers' patronage will assure that the principal benefit of the subsidy goes to the consumers rather than to the providers" (Hansmann, 1999).
- 21. "Funding for higher education from both the state and private business leads to an "audit culture" associated with the preservation of academic freedom" (Strathern, 2000).
- 22. "As noted the practical interests of policy makers are more narrow, and systematic attempts to track public good outcomes have been largely confined to social equity (including the participation of under-represented groups), engagement with industry and local communities, and internationalization" (Marginson, 2012).
- 23. "In the economics, higher education is regarded as a public good with limited capacity" (Kraan, 2005).
- 24. "Politically, European Union considers higher education as public good and responsibility of state" (Kocaqi, 2015).
- 25. "I wish to suggest that these differing uses of the term "public good" tend to obscure rather than illuminate the most important challenges now confronting higher education around the world" (Dill, 2005).
- "Public good will probably always be, and should be, a contested subject" (Mansbridge, 1998).
- 27. "The scholarly literature makes the distinction between public and private higher education sectors on the basis of funding, ownership, governance, and function, but it also notes that delineating the boundaries between the two sectors is a complex task, which should be approached inductively" (Klemenčič & Zgaga, 2014).
- 28. "The way to a generic analysis of higher education and public goods lies through nuanced exploration of national practices and regional cultural variations, enabling the identification not only differences but also commonalities of approach" (Marginson, 2014a).
- 29. "While there is no general theory of higher education it is clear many of the goods produced by higher education institutions are not captured as benefits for individual students or companies but are consumed jointly" (Marginson, 2014a).
- 30. "Under societal pressure from the 19th century, universities received state funding, and research and knowledge generation were added to the

- responsibilities of universities. There is a need for accountability and disclosure of both results and funding" (Altbach, 2015).
- 31. "In most of the writing on higher education in recent years, the problems are treated in isolation. Curriculum reform and finance and administration are commonly discussed by different people, with different methods and assumptions and often with different values; they are reported in different conferences and published in different journals for different audiences" (Trow, 1974).
- 32. "First, what is the "public good"? The answer is complex and largely dependent on the perspective of those asking and answering, making it difficult either to model (and standardize) or to measure (and quantify), especially since the ordinary use of the term applied to higher education has evolved and come to be a proxy for contributing positively to societal well-being in many different ways" (Shaker & Plater, 2016).
- 33. "The absence of an agreed nomenclature for classifying public outcomes, the lack of tools for monitoring and measurement in most areas, and the normatively-charged nature of the discussion, have generated policy lacunae in relation to the difficult problem of higher education and public goods. As noted, policy-makers take an approach that is too broad or too vague, so that the extant notions of public goods become meaningless; or an approach that is too narrow, using a priori economic methods solely focused on readily measured benefits. Both approaches disable policy. Either way, public goods cannot be effectively identified and regulated" (Marginson, 2014a).
- 34. "The narrow economic approach mostly understands the higher education institutions outcomes as private earnings and rates of return" (Marginson, 2014a).
- 35. "Unfortunately, the increase in productivity arising from an increase in educational expenditure does not lend itself to easy measurement. It is comparatively easy to apply commercial measurements to private investments of this kind" (Robbins, 1963).
- 36. "New Public Management means the transfer and adoption of practices and instruments of business administration in the higher education sector, the focusing on efficiency and on empirical data" (Ziegele, 2005).
- 37. "The shortsightedness of individuals also justifies state intervention when considering the spillover effects of education. Education generates collective benefits, called positive externalities, which far exceed individual benefits. These collective benefits entail notably a country's economic growth, innovation capacity and competitiveness as well as social cohesion and shared values. They are generally not taken into account by individuals who, having to pay to attend school or university, would therefore complete levels of education that are too low to maximize collective benefits. Expressed in economic terms, this is a case of market failure and state provision of education is required in order to bring the private costs and benefits in line with the social costs and benefits. From this perspective, education is a public good: it requires state intervention" (Daviet, 2016).
- 38. "The societal benefits of higher education include a better functioning society, a healthier population, enhanced regional development, enhanced social cohesion,

- reduced crime, enhanced parental promotion of education, and support for social skills" (Murray, 2009).
- 39. "While policy makers widely recognise the fact that education serves as an engine for economic growth through the accumulation of human capital, education is also strongly associated with boosting levels of social capital" (Campbell, 2006).
- 40. "We outline the seven dimensions of engagement: political engagement, civic engagement, voting, trust, tolerance, and political knowledge" (Campbell, 2006).

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