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Article

Having Nothing but Questions? The Social Discourse on Higher Education Institutions' Legitimation Crisis

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Abstract

Recently, several expectations have been raised towards higher education institutions (HEIs). These expectations are about the roles HEIs should play and responsibilities they should have in society. This article focuses on three different responses. The first section touches upon the organisational template of the entrepreneurial university concerning the economic role of HEIs. Secondly, issues of teaching and present HEIs' attempts to respond to the expectations in relation to human value creation are discussed. Thirdly, social engagement and open science is investigated as a response to the question of societal value creation. Finally, in connection with these topics, the article touches upon the possible consequences of organisational homogeneity and heterogeneity to HE in general.

Keywords

Future of Higher Education, Entrepreneurial University, Teaching and Development, Open Science, Embeddedness of Higher Education Institutions

Introduction

It is worth scanning through the topical messages higher education institutions (henceforth: HEIs) aim to convey to stakeholders. The external communication of HEIs, on the one hand, delineates the contours of an ideal organisation which HEIs attempt to imitate. On the other hand, it reflects the external expectations which are raised in relation to their operation. The growing number of social engagement initiatives and outreach programmes, collaboration with companies and civil society, and public science projects are but a few examples of the numerous activities and initiatives around the globe. Through such programmes, HEIs attempt to build new, renewed or just different connections to the social context surrounding them. The fact that that HEIs engage in such activities signals an effort to prove their contribution to society by defining new roles and responsibilities or redefining existing ones. In other words, the presumption that higher education (henceforth: HE) is a relevant institution of society which operates soundly has been questioned. HE, thus, needs to strengthen its legitimacy (Gumport, 2000) justifying the value of its existence to other social actors.

References to this issue can be found both at international and national policy levels (e.g. EC, 2016; OECD, 2018; WEF, 2018), as well as in academic discourse (e.g. Laredo, 2007; Pinheiro, Langa, & Pausits, 2015; Maassen, 2014; Pausits, 2015). Attempts have been made to delineate different tasks and responsibilities HE should take on, including economic, social and scientific areas. Notably, the expectations voiced by different stakeholders are often aligned with the interests of who voices them. For example, governments pressure HEIs to create a diversified funding base and become more self-reliant financially (Shin & Kim, 2014). Both employers and students are worried about the issue of employability, questioning whether HEIs are capable of teaching and training for future skill needs (Selingo, 2016). Economic actors would like to see academic research which is more goal-oriented and "innovation-friendly".

A social and technological environment in constant change also makes it harder for HEIs to play a meaningful

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social role (Király & Géring, 2019). Ideally, HEIs could contribute to shaping public discourse about how to make sense of both our individual and collective lives. However, there is a chance that this role will be transferred to other types of 'influencers' – ones lacking intellectual rigor and nuance. The fact that various expectations towards HE, be they novel or just reheated, are currently being articulated, points to a legitimation crisis affecting the whole sector around the globe.

In relation to the question of how to deal with this legitimation crisis, universities offer different types of answers (see for example Inayatullah, 2012). In order to map this terrain, the present article relies on a purposeful selection of the most relevant and recent academic literature on the social role of higher education. The discourse is multifaceted, and the following pages discuss the three most dominant concepts in the repertoire of possible responses. The next section, in relation to the economic value production in HE, investigates what types of expectations follow from the concept of the entrepreneurial university. Also discussed are the attempts of the last few years to make this organisational concept more inclusive and more acceptable to the internal stakeholders of HEIs. Secondly, the article examines how and to what extent HEIs can contribute to 'human capacity building', or in a narrower sense, to the employability of their graduates. This question is even more interesting if one accepts the claim that the future environment for which HEIs should attempt to prepare students is fundamentally uncertain and unpredictable. Lastly, the domain of social value creation shall be discussed – namely, the possible roles that HE can play in contributing to social transformation and to collective sensemaking discourses about the pressing global challenges of the day, such as economic and political polarisation in societies, or the effects of climate change.

The following sections of the article identify the main challenges, as well as the possible answers or would-be solutions. The train of thought will follow through the discussion of the aforementioned three areas of value creation.

HE as a driver of producing economic value

The actual and potential economic impacts of universities have long been discussed in the academic and policy literature. The idea, however, that the operation of HEIs should be fundamentally changed to become capable of innovation and thereby directly contribute to economic growth and competitiveness, is relatively new. Such expectations form a more or less coherent system of ideas in the concept of the entrepreneurial university.[1]

The idea of the entrepreneurial university emerged around the 1980s and 1990s (Etzkowitz, 1988; Cowen, 1991; Clark, 1998) in the US and soon became one of the most influential organisational templates for universities today (Pinheiro & Stensaker, 2014). The idea rests on the presupposition that there should be a greater degree of overlap between academia, industry and government, that is, a triple helix model of knowledge production (Leydesdorff & Etzkowitz, 1996). Therefore, traditional universities as separate entities with relatively well-defined missions should be redesigned to become more open, more relational and more outward-looking in nature. The transformation would also entail offering services to public and private actors, as well as directly capitalising on the knowledge created by academic staff, the end goal being the diversification of income sources and a lower level of dependence on public budgets (Andeßner & Greiling, 2017). Such financial self-reliance is particularly emphasised in various national and international policy documents, since it is a global trend that public funding is getting tighter and tighter and universities have found themselves in a situation where they 'have to do more with less' (Shin & Kim, 2014).

In order to be entrepreneurial at the organisational level, the "central core", that is, the management function of the university needs to be strengthened (Clark, 1998), and at the same time, although this is emphasised less often, the collegial function and self-governing capacity of the professoriate need to be weakened (Docherty, 2011). Both are needed to transform HEIs based on the dictates of the market logic, and to apply new types of principles in their daily operation which were previously considered alien to the system, such as efficiency and productivity (Slaughter & Rhoades, 2004).

The concept of the entrepreneurial university is often portrayed as the only possible – or at least the most appropriate – answer to the ills of HEIs. According to that narrative, universities must be incentivised to become more entrepreneurial because they need to be 'saved from themselves' (Thorp & Goldstein, 2013), more precisely, from a self-referential and inbred intellectualism. Instead, they should be made to perceive the key roles to be taken up in an entrepreneurial ecosystem (Guerrero, Urbano, Fayolle, Klofsten, & Mian, 2016; Rissola, Hervas Soriano, Slavcheva, & Jonkers, 2017). On the other hand, the idea of entrepreneurship can also be perceived as a frontal attack on university autonomy and the imposition of market logic on academia, doing more harm than good (Shore,

2010; Lorenz, 2012). As Aavik (2019) highlights, the market logic and its associated discourse, stressing excellence and commercialisation, are often portrayed as self-evident and the only possible and reasonable way to transform universities.

Accordingly, the concept of the entrepreneurial university has been criticised on the basis that it does not offer a path for universities to grow and develop as organisations (Ibarra-Colado, 2007; Dodd, 2018). On the contrary, it represents a reduction and simplification of the multifaceted and complex set of social roles that universities used to have. Historically, for example, rigorous thinking and deliberation on the *good life* were of the utmost importance in every era. The thorough investigation and clarification of these questions presuppose a certain distance from the necessities and needs of everyday existence as well as from the impact (or even bias) of external economic and political actors. Moreover, universities have always had a role to play in general societal development (not only and not even primarily in the economic sense), and were perceived as providing channels for social mobility. Giving up the aforementioned functions by becoming more entrepreneurial and market-oriented, universities would achieve economic gains but would endure considerable losses on the front of societal value creation, ultimately bringing about the impoverishment of the field of HE (Ibarra-Colado, 2007).

Moreover, the market-oriented approach tends to devalue social sciences and humanities. Such areas seem to appear as unproductive, unable to contribute (enough) to economic competitiveness and growth, while their historically useful functions are effaced. The importance of these fields lies in their ability to imagine and elaborate alternative organisational and social realities which can be used both as a means for criticism and for giving shape to transformational aspirations (Wright, 2011).

From a more critical perspective, the unidimensional nature of the entrepreneurial university concept can be even understood as the construction of hopelessness (Amsler & Facer, 2017). Labelling fields of critical social thought as unproductive can further disempower and marginalise academics in the debate on the future of HE. Nevertheless, even the perspective of good management suggests that involving members of the organisation who are responsible for its day-to-day operation in the development of core HE missions is a prerequisite for any successful organisational change process in HE (Géring et al., 2018).

However, just as there is more than one understanding of entrepreneurial value creation (Fuller, Warren, Thelwall, Alamdar, & Rae, 2010), there is also more than one reading of the entrepreneurial university idea. Scharmer and Käufer (2000) point out that shared meanings, common visions and co-learning are prerequisites of a university environment where 'entrepreneuring humans' can be formed. Instead of *academic entrepreneurs* focusing on commercialisation, *entrepreneurial academics* can collaborate with students on projects bringing about smaller or sometimes larger scale positive social change. Such a vision offers a more humane perspective on entrepreneurialism, moving away from the spectre of academic capitalism. The authors envision the university as a place where projects concerning human fulfilment and social transformation are elaborated and realised involving students, faculty and practitioners (i.e. external stakeholders; Scharmer & Käufer, 2000).

In a similar vein, Shumar and Robinson (2018) argue that while it is necessary to 'open the gates' of the university so that the expectations and needs of external stakeholders are heard, students and faculty can become entrepreneurial in more than one manner. They argue that an entrepreneurial approach in HE can encompass a broader range of societal issues such as sustainability, human rights and social equality, rather than only focusing on business and economic matters. Lackéus (2015) also emphasises the learning benefits of entrepreneurial projects aiming to create value for external stakeholders without narrowing that value to the economic and business field.

This more humane, and at the same time broader understanding of the entrepreneurial university is more accommodating since it presupposes that every discipline (ranging from philosophy and literature to mathematics and chemistry) can create value for external stakeholders in an entrepreneurial way. Consequently, entrepreneurial education can and need to be a part not only of engineering and business programmes, but also of the arts, humanities, natural and social sciences. The point is not to turn every student into an entrepreneur but the transmission of an entrepreneurial mindset and skills in general (Krueger, 2015). Bearing in mind the uncertainties of the future labour market, the training of such entrepreneurial and adaptive skills is highly desirable at the present time (Aoun, 2017). Which, in turn, ties into the next section of the article, namely, the possible paths to increasing the employability of students.

HE as a driver of producing human value

Employability is a key issue in relation to the future of higher education (Matherly & Tillman, 2015). This is because – apart from HE's perceived role in contributing to innovation and in turn to economic growth and competitiveness – HEIs are also expected to provide the necessary human capital for the labour market and to produce not only economic but also 'human value'. Indeed, exactly how this 'human value' gets produced is at the forefront of attention in HE discourse because "traditional" ways of knowledge transmission no longer seem to work as well as expected (Davidson, 2017).

According to Shin (Shin, 2014a), one of the reasons for this is that HEIs are presently at a post-massified state. Students are more numerous, more diverse and in general less prepared academically than ever before (Shin, 2014b). Therefore, many lecturers today are at a loss as to how teach them. Simple and time-tested knowledge transmission techniques such as lectures and predefined reading lists can no longer guarantee that students learn or develop skills during their HE studies (Arum & Roksa, 2011). Recently, the challenge that lecturers face is first and foremost about how to capture and hold the attention of students at all, and not mainly about the exact methods of providing 'content', let alone being the facilitators of learning and skill development (Ormrod, 2017).

Moreover, not only the role of the instructors and the population of students are changing but there is also a constant technological transformation which impacts the context of education. The traditional context, with a little bit of irony, can be called the 'chicken-feeding model' of education. That model represents a situation where one person, namely the lecturer (or farmhand) has all the knowledge (or bucket of corn), and the students (or chickens) gather around her or him eagerly, being overly grateful for every piece of information (or corn) they receive (Jeffries & Andrews, 2014). From such a pedagogical set-up, in which scarcity of information and access to knowledge content were key issues, we moved to an information-rich environment where the lecturer is but one 'provider' among many. Furthermore, several of the other sources (such as short lectures found on YouTube, Khan Academy or Massive Open Online Courses (MOOCs) developed by leading scholars in their particular field) might be more available, entertaining, personalised and may even seem to be more credible than an 'ordinary' university lecture (even if this is not always the case).

Among other factors, the interaction of less prepared students in information-rich environments necessitates a shift in emphasis from teaching to learning. In other words, the key question of HE in the 21st century is less about what to teach to students from the ever increasing (and continuously decaying) universe of scientific facts. Instead, it is much more important to find new ways to help them acquire the skills to process information, check credibility of sources and create scientific accounts on their own in relation to topics of their own choosing (Shin, 2014b; May, 2011). In other words, the focus is less on the content provided by HEIs and more on how students can be prepared to seek out, select, understand, organise or even create knowledge themselves (Aoun, 2017; Hammershøj, 2019).

In the meantime, however, the very question of 'how' to teach is relegated behind the 'where' and the 'when' in debates concerning the technology of education (Fevolden & Tømte, 2015). MOOCs, for example, seemingly subvert the usual temporal and spatial settings of education, making content accessible to everybody, everywhere, at any time. However, MOOCs remain a simple translation of 'traditional' pedagogical setups to online platforms and do not question the underlying assumptions of the model (Zemsky, 2014). That might be one of the reasons (among many) why MOOCs failed to revolutionise teaching and learning practices at the HE level. Therefore, it is reasonable to claim that without seriously dealing with the 'how' question of education, deep and effective learning – resulting in long-lasting and transferable skills and knowledge – only remains a distant point on the unattainable horizon.

Nevertheless, the question of what kind of learning environment can be considered 'successful' is far from straightforward. The literature provides alternative perspectives of learning to the one dominating the policy discourse of education (Decuypere, Simons, & Masschelein, 2011). The "official" discourse depicts learning as a relatively straightforward process which can and must be speeded up (Masschelein & Simons, 2015) to produce workers for the labour market as rapidly and efficiently as possible. Such a conception of learning – to evoke the metaphor of chicken feeding once more – is similar to factory farming where a pregiven amount of material must be shoved down the throats of the given subjects – students or poultry – who will then be utilised for economic purposes as soon as possible. In contrast, an alternative vision of learning emphasises that the learning process is more contemplative and at the same time more complicated and uncertain than to be easily standardised (Biesta, 2015). Instead of providing ready-made and one-size-fits-all answers to isolated individuals who compete with each

other on academic leaderboards and, in turn, in the arena of the labour market, deep and long-lasting learning involves identifying and asking vexing questions about our present and future conditions as a community (Simons & Masschelein, 2009). Eventually, taking the harder path in education can prove to be more "effective". More precisely, more effective in the sense that it is more likely to endow students with human capacities crucial for meeting future challenges in the labour market, in society, as well as in their private lives (Ashwin, 2019).

The most vitriolic view and the most crushing critique of education (and in a narrower sense higher education) has been elaborated by the American economist Bryan Caplan in his book *The Case Against Education* (2018). In his view, a large part of the education system is kept in operation superfluously. Similarly, the state subsidies received by higher education could be cut back, thereby limiting access and the level of participation. According to the argument, several subjects at all educational levels are totally useless in terms of contributing to students' later private or professional lives in any measurable way. Of course, a counterargument can be made that all the seemingly redundant knowledge and skills are there 'just in case' students need them in any life situation that might arise later. Caplan (2018) is overly sceptical about this perspective, citing several empirical investigations which show that the transfer of knowledge or skills from one area to another is rather limited and only occurs under very specific circumstances. One of the reasons for that is rather simple, it is because students forget much of what they learn. No matter how much cognitive effort is invested into studying, only a tiny fraction of the material is retained in the long term.

If learning in education is so limited, then this fact raises the question of why societies maintain such expansive institutional systems at all. In Caplan's (2018) view, proofs of school completion (especially the university degree) actually do not testify to the improvement in one's thinking or knowledge over their years of education. Instead, credentials serve a *signalling* function, proving that their holder is intelligent, conscientious and rule-abiding (ultimately: a conformist).

Furthermore, Caplan (2018) is convinced that educational systems are not able to change due to their sheer organisational inertia. Consequently, no change can be expected in the status quo: educational institutions will continue to act as if real, long-lasting learning was happening within them, while continuing to perform the latent – and *real* – function: to select, sort and rank potential future employees in the service of the labour market.

It is probable that a significant proportion of overworked and underpaid instructors would at least partly agree with Caplan's characterisation of the situation of HE. Nevertheless, there are several interesting ongoing experiments aimed at redesigning teaching and learning as we know them (Davidson, 2017). Such attempts at organisational innovation are focused on the issue of *learning* (in the sense of 'development' and 'transformation', as opposed to 'information transfer'). One interesting initiative is Minerva University in the United States, where new frameworks of teaching and learning were intentionally designed in accordance with the most recent findings of educational science. This intentional design effort stands in stark contrast with what is a crucial point of inertia in traditional HEIs, namely, that these latter offer courses according to the instructors' interests (in both senses of the word). In other words, the structure and content of the curricula are mostly determined by what and how the instructors like to teach. As a result, educational portfolios are mostly supply- and not demand-driven (Selingo, 2016).

It is instructive to observe a teaching and learning process which was painstakingly designed according to how people actually learn (Gee, 2013). Minerva, for example, opted for an online approach in which there are interactive seminars based primarily on the participation of students and only to a lesser degree on the knowledge-transfer of the instructors (Kosslyn, Nelson, & Kerrey, 2017). The knowledge required for participation is acquired by the students individually prior to the classes using online sources. After the seminars, instructors give detailed feedback to each of the students in relation to their class contributions and arguments (Sertu, 2018).

A pedagogical system which is based on frequent, constructive feedback and individual responsibility differs from the traditional educational framework in a number of important aspects. First of all, in the former setting, students constantly and consistently practice mental habits (such as the differentiation of correlation and causation), on which they reflect again and again when covering a new subject matter. Secondly, there are foundational concepts which arise from time to time in the curriculum – for example, systems thinking which is (re)acquired and deepened every time students learn about various (biological, social, technological) systems (Kosslyn et al., 2017). The pedagogical practices of reflection and reappraisal provide solutions for the problems of forgetting and transfer mentioned above, as well as facilitate the creation of a densely woven net of cognitive connections between various pieces of knowledge (Ormrod, 2017).

HE as a driver of producing social value

Promoting and creating social value is an important role that the HE sector might play in shaping future societies. The two aspects discussed above – economic and human value creation – are mainly about how HE can adapt to and cope with challenges posed by an unknowable and uncertain future (Barnett, 2012) by internal transformation and reorientation. In contrast, the question of social value creation entails the possibility that HEIs can directly or indirectly shape future societies and contribute to positive social change (Bussey, 2016). An indirect way to shape societies is through the training of students who are socially and economically active, and responsible in their outlook. Graduates can utilise their skills and knowledge for the betterment of their own lives and those of others, in both professional and private capacities. 'Producing' responsible citizens is not at all a small feat, yet HEIs can and are now also expected to create and contribute to social value in more direct ways.

A more direct role is often associated with the rather unspecified discourse on the 'third mission'. It should be noted, however, that the themes of this discourse partly overlap with the entrepreneurial university concept discussed above. Accordingly, at the moment, third mission initiatives and programmes are mostly about boosting measurable and comparable indicators (such as number of patents, university-industry joint projects or spin-offs etc.), and mostly belong to commercial activities with a strong orientation toward the economy. Other academic engagement initiatives are typically voluntary, sporadic and informal (Loi & Di Guardo, 2015), and as such cannot grow beyond the level of personal 'academic hobbies' or they are simply not affordable to everyday academics, who already have too many balls in the air (Pinheiro et al., 2015).

Pinheiro and colleagues also highlight that third mission activities are currently often treated separately from the everyday operation of HEIs, which is reflected organisationally in the fact that dedicated departments or offices (such as Technology Transfer Offices) are tasked with carrying them out. Instead, HE's role of creating social value should permeate institutional practices, even the whole institutional set-up (Pinheiro et al., 2015). This reasoning leads us to the topic of open science.

The open science approach is more future-oriented than the third mission concept. Open science challenges traditional practices of knowledge creation and knowledge transfer by focusing on access to science in general (Fecher & Friesike, 2014). Access is provided via three main entry points: one, access to the knowledge-creation process, in other words, to the research-process itself; two, access to the knowledge created, that is, to the output of research; and three, the possibility of collaborative research.[2]

'Access' is conceptualised as the explicit involvement of the wider public, that is, the engagement of non-academics, in the scientific research process. The depth and the form of inclusion might vary significantly from project to project. At the 'deep' end of the spectrum are 'citizen science' initiatives, involving lay people as potential co-researchers (Catlin-Groves, 2012; Irwin, 1995). Several projects demonstrate that engaged citizens can generate a huge amount of data or provide capacity (e.g. the data processing power of their computers) for research projects. In this sense, citizens are a 'mass volunteer workforce' (Fecher & Friesike, 2014, p. 23) who, by participating in such projects, can also learn about scientific knowledge production and create lay epistemic communities around problems and issues important to them. Having a more scientifically literate public who can generate knowledge and understand the difference between facts and "alternative facts" is highly desirable today. However, such projects, even the most successful ones, can only reach a tiny fraction of society. At the same time, citizen science represents a feasible alternative to knowledge produced for niche audiences either in the academic or in the policy sphere.

The next facet of accessibility is related to the sources and results of research projects, namely open data and open access to publications. The practice is justified with reference to the fact that most academic research projects are publicly funded, therefore, the results also belong in the public domain (Cribb & Sari, 2010). However, the problem that a wide lay audience, lacking scientific training in the given field, is unable to benefit from data and results, is not solved by simply providing availability. 'Access' is only attained if scientific communication is enhanced both in terms of intelligibility and prosaic style (Cribb & Sari, 2010). In most societies, HEIs have by now lost their monopoly as sole providers of scientific knowledge. Knowledge production today happens at several sites such as private or semi-public research institutes, companies, think tanks, and newspapers. There is a risk that public discourse will be shaped not by the most accurate, valid and scientifically sound results but rather by those which are framed and communicated in the most understandable and straightforward manner. Therefore, academics need to find ways to develop good stories based on scientific facts (Gee, 2013).

Translating scientific results into actionable knowledge and storied truth are, however, activities that require specific skills. Accordingly, the role of the researcher is changing dramatically. Murphy and Costa (2019) point out that the position public intellectuals today is shaped by two contradictory forces. On the one hand, the content of and the scholarly approach to academic work is shaped by strict standards of accountability (i.e. a burden to prove the worth of 'scientific output'). Academics have to navigate a well-established system of professionalised research and dissemination channels overseen by gate-keeper institutions such as powerful and profit-driven publishing houses and rankings based on a particular definition of prestige and excellence. On the other hand, digitalisation is inevitably shaping both social reality and the future of HE (Barzman et al., 2020). Therefore, open digital scholarship – including among others open access, open discussion, and peer review – could provide the opportunity to reach beyond the walls of academic circles and rebuild the lost connections with society and the wider public.

The future of the HE sector: homogeneity or heterogeneity?

The issues discussed so far all point to the question of what kind of organisational set-up fits best the various and multifaceted purposes HEIs need to serve in order to stay relevant. At the moment, there are two influential organisational templates for HE at a global level: the entrepreneurial university as the new contender and the research university as the old champion.

The concept of the entrepreneurial university, often presented as a solution to several ills of 21st century HE, has been discussed in detail above. The idea of the entrepreneurial university has proved quite enticing for international and national policy-makers because it creates synergies between the key missions of the university (centred around the third mission), and also calls on innovative and opportunity-seeking HEIs to generate income (Etzkowitz, Webster, Gebhardt, & Terra, 2000). According to this idea, being entrepreneurial as organisations, HEIs can not only ease the burden on the public purse but can also contribute to regional and/or national economic growth and competitiveness. While the 'template' is indeed promising in theory, it is also naïve in its presuppositions since it is not clear how to change organisational cultures to turn staff, departments and the whole organisation into being more entrepreneurial (Fini, Fu, Mathisen, Rasmussen, & Wright, 2017). Moreover, the commercialisation of academic research results is not at all straightforward (Harrison & Leitch, 2010; Kitagawa, 2015; de Barros, Goedegebuure, Meek, & Pettigrew, 2015), and measuring the impact HEIs have on their socio-economic contexts is also fraught with methodological difficulties (Jonkers, Tijssen, Karvounaraki, & Goenaga, 2018).

Such drawbacks might have contributed to the fact that the entrepreneurial university is far from becoming the new dominant global template. On the other hand, the research university model seems here to stay and has so far been able to resist its dethronement. The organisational template can be traced back to the German type of research university with a strong influence of the American HE system distinguishing undergraduate, graduate and post-graduate levels of education (Pinheiro & Stensaker, 2014). The organisation is supposed to be underpinned by the principles of academic freedom and self-governance, while research and scholarship are the highest prised outcomes (Marginson, 2014). Arguably, HEIs around the world still strive to live up to this ideal by boosting research excellence, enhancing both the quantity and quality of publication output.

In fact, research activity has not only maintained its dominance but also strengthened its position in the hierarchy of HE missions. At the moment, there is a strong status competition between institutions both at national and international levels (Marginson, 2014), in which the relative position of HEIs is not based on the innovative nature of teaching or the learning gain of students but mainly on research excellence (i.e. research output). Moreover, the so-called Matthew effect plays out strongly in the field, that is, resources in form of grants, academic talent, sponsors, and the best and brightest students (with the richest parents) accumulate at those institutions which already have high prestige and a favourable position in the status order. While the competition between HEIs is not new, the quantification of metrics and ranking made it fiercer and it is now played in a global arena given the growing internationalisation of HE (Marginson, 2014).

Apart from the two main organisational templates (that is, the research and the entrepreneurial university blueprints), there is another trend in HE worthy of attention. Academic discourse refers to the process as 'unbundling' (Gehrke & Kezar, 2015; Robertson & Komljenovic, 2016; Bass & Eynon, 2017). Unbundling means the breaking up of certain products and services which were formerly considered a unit. In general, it may allow the emergence of more cost-effective, personalised and user-friendly consumer options. In case of music and

entertainment, examples are buying separate songs instead of purchasing the whole album or paying only for preferred cable TV channels instead of buying whole subscription packages (McCowan, 2017).

As a general economic trend, unbundling has affected several services and products and will likely intensify in the future. In relation to the issue at hand, the main questions are whether unbundling affects HE, and if so, how. Both the research and the entrepreneurial university models take the current bundle of key HE missions (teaching, research and service) for granted – even if they differ on the relative importance assigned to these missions. Conversely, the proponents of unbundling question whether elements of HE should be kept together at all costs. When it comes to the transfer of knowledge and skills, HEIs are already facing strong competition from new entrants which only focus on that single mission. New contenders have the advantage of being able to start from scratch and to design a whole pedagogical and organisational set-up based on the newest findings on learning while taking advantage of developments in ICTs (Kosslyn et al., 2017; Levine, 2018). In the meantime, "traditional" HEIs have to overcome deeply ingrained and inflexible organisational and mental structures so as to make themselves more learning and/or research and/or entrepreneurial oriented (Bates, 2010).

Levine (2018) argues that private, for-profit education providers, whose main aim is to offer high quality teaching services, bring a new logic into the game. Such institutions will not promote themselves by referring to excellence in research since it is in their interest to totally ignore that type of status competition. Instead, private providers will find ways to measure student development and learning gain and make it transparent and available in order prove that they offer a superior service at a lower cost compared to traditional institutions. There are already examples of such a trend: Minerva (an institution established very recently) presents itself as one of the most effective teaching institutions in the US (THE News, 2017). The claim is based on the results of the Collegiate Learning Assessment which measures "students' performance in analysis, problem solving, scientific and quantitative reasoning, critical reading and evaluation, and critiquing an argument" (Fain, 2018).

Overall, investigating the question of "homogeneity or heterogeneity" in the global HE sector, it is clear that both of the two main global templates presuppose a potential and beneficial synergy between the main missions of HE. These two templates, so to speak, 'lay the tracks' for isomorphism in the field, meaning that eventually, HEIs will become similar to one another by aligning their organisational set-ups and modes internal operation with one of the ideals. Nevertheless, the similarity can be understood in terms of family resemblance in a wittgensteinian sense[3], not in the sense that institutions would become identical. Path dependency of former developments and orientation, as well as the socio-economic contexts of particular institutions largely determine how the global templates are translated to the local context (Pinheiro & Stensaker, 2014; Sam & van der Sijde, 2014). For example, it is not enough in itself to decide that a particular HEI should become entrepreneurial. The transformation is only possible if the socio-economic context in which the institution is embedded does have an innovative entrepreneurial ecosystem and a national or regional economy with the necessary resources to invest in cooperative projects (Göransson, Maharajh, & Schmoch, 2009; Mascarenhas, Marques, Galvão, & Santos, 2017). Similarly, it can be particularly difficult to shift teaching-oriented institutions towards the ideal of the research university in the absence of a critical mass of researchers who can catalyse an organisational change process.

Conclusion

The article discussed how HEIs attempt to respond to expectations regarding the issues of economic, human and social value creation. Unsurprisingly, no universal solutions were found. Instead, HEIs need to tailor their own development plans and future visions to the opportunities and external or internal resources available. Individual adaptations are likely to lead to increasing diversity behind seemingly uniform façades of organisational templates.

Furthermore, unbundling processes may also increase the diversity of the HE sector. In the coming years, new constellations and completely new forms of HE will arise which defy traditional notions of how HE services are organised and delivered. Interestingly, the spectre of unbundling can also push traditional institutions towards rethinking the possible interrelations and attempting to forge new synergies between core missions. Most probably, traditional institutions will attempt to creatively rebundle (Bass & Eynon, 2017) the main functions in order to stay the dominant actors in the field.

One way forward for HEIs is to become more socially and/or economically engaged. While there can be many forms of social engagement, research universities can attempt to translate research results into actionable knowledge

and disseminate findings among members of the public, harnessing the potential of digital media. Another important function would be to become 'laboratories' for new forms of public dialogue in societies, which are becoming increasingly polarised economically and politically in many parts of the world. In a similar manner, entrepreneurial universities can take on a broader societal mission. Rather than only focusing on economic issues, they can foster an entrepreneurial mindset in several academic fields (i.e. not only in business and engineering, but also in arts, social sciences and humanities) and attempt to integrate learning, research and service by instigating processes of value creation for external stakeholders.

Therefore, redefining key missions and forging new synergies between them can offer a way for HEIs to regain the institutional legitimacy lost in previous decades.

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Notes

1- The concept of the 'entrepreneurial university', of course, does not capture the whole topic. There are other concepts which are strongly related to the discussion, such as academic capitalism, new public management and managerialism (Jessop, 2018). While these are not only interesting in themselves but also form an interrelated set of ideas, they are also beyond the scope of this article. The article cannot discuss them in detail but instead focuses solely on HEIs' economic value creation capacity in connection with the entrepreneurial university idea.

2- Fecher and Friesike (2014) labelled these sites as the public school, the democratic school and the pragmatic school of thought, and added two further ones: the infrastructure and the measurement schools. However, in our opinion, infrastructure and measurement issues can be regarded more as technologies and frames for providing open science and, hence, are less focused on the contents of open science.

3- Family resemblance refers to the phenomenon that in a family all members are similar to each other, but having no essential physical trait shared by all, the respective members are connected to others by different features. The reasoning can be generalised to other categories like HEIs: there may be several overlapping similarities between institutions without the existence of one common, essential feature.

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