Review

Tracing accountability in higher education

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Abstract
Drawing upon earlier studies of reforms and institutional changes in higher education, the purpose of this paper is to trace how the understanding of accountability has changed over the past twenty years and how it is understood to have impacted on higher education institutions. We do so by reviewing more than 350 papers and by asking three questions: Who answers to whom? For what are they answering? And how to assess those accountability arrangements? With these three questions as guides, our results indicate that higher education institutions have been undergoing processes of what we term accountabilization. These results contribute to the scholarship on higher education governance by conceptualizing the processes of accountabilization.

Introduction

There are strong demands on increasing accountability in the area of HE (Higher Education) from actors and/or stakeholders, both inside and outside HE institutions (Carney, 2006; Coble, 2001; Lahey and Griffith, 2002; Volkwein, 2010). Increased demands on accountability by outside actors and stakeholders often come with requirements of performance management (Burke and Minassians,

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2002; Feller, 2009); a lack of access to public funding (Corbett, 2016; Milliken and Colohan, 2004); financial efficiency (Lahey and Griffith, 2002); and quality assurance (Rodgers et al., 2011; Vidovich, 2002). Strathern (2000) has suggested that accountability is part of a larger regime change in HE, informed by managerial ideology, which seeks to make "the invisible" visible. Other critics have pointed out that this managerial regime change is connected to the declining role of faculty (Waugh, 2003), which has emerged alongside other changes, most notably the internationalization and massification of HE (Rodgers et al., 2011). This managerial regime change has been institutionalized through various reforms within universities, faculties and departments, e.g. through the establishment of new management positions and changes in educational programs offered (Macheridis and Paulsson).

Whilst this change has occurred within the institutional boundaries of HE, it mirrors larger changes in the political and socio-economic landscape of which HE is part. The question is, then, how are these demands for greater accountability in HEI conceptualized and represented in previous literature on HEI? In short, what can we learn from previous studies when it comes to the emergence of accountability processes? The aim of this paper is to trace how accountability is coupled to exogenous changes in the HE landscape, as described in the previous literature

Building upon this aim, this paper is a study of how demands for greater accountability have been coupled with exogenous changes. The study covers the period between 2000 and 2018, of which we have undertaken a systematic literature review, as detailed in our methods section. Yet, this paper is more-than-literature review as we analyze the results from the review by drawing on and applying notions from the rich theoretical literature on the concept of accountability. In fact, to our knowledge no such study or review has been conducted, though there are a few reviews in other areas of HE which have studied accountability as part of social responsibility (Larrán Jorge and Andrades Peña, 2017); image and reputation (Lafuente-Ruiz-de-Sabando et al., 2018); and changing patterns in journal publications (Tight, 2012). Unlike these studies, we trace how accountability has previously been discussed and framed in the literature on HE in three ways: in terms of its form (how has it been represented?), its content (what is it saying?) and its orientation over time (why has it changed?).

Previous studies suggest that accountability in HE is thoroughly studied, but how it relates to changes in the landscape surrounding HE institutions has been barely discussed. This paper fills this gap while also problematizing the notion of accountability by collating information rather than offering a practical assessment of the concept. In the theoretical literature on accountability, three questions are often singled-out as central to understanding what accountability *does*: Who answers to whom? For what is an actor accountable? And, how are accountability arrangements assessed (Bovens, 2007; Lerner and Tetlock, 1999)?

The outline of the paper is as follows: in this section, we discuss the background of the study; in the next section, we discuss the theoretical framework; thereafter,

the methodology of the study is presented. Results, analysis and discussion, and conclusions then follow.

Theorizing accountability

There is a plethora of studies of accountability in higher education. In much of the previous literature, accountability is often seen as ambiguous and fragmented, changing over time, depending on factors such as ideologies and the objectives of governance (Conner and Rabovsky, 2011; Findlow, 2008; Huisman and Currie, 2004; Kniola, 2013). Accountability is also described as context-dependent as it relies on the person occupying a position of responsibility (e.g. Leveille, 2005; Sinclair, 1995). As such, accountability interlinks an individual office-holder with the social system in which this office-holder operates (Lerner and Tetlock, 1999). Despite this rich literature, there is no consensus on how accountability is delivered and how a desire for increased accountability is to be understood (Romzek, 2000). Building on earlier studies, we want to discuss this concept, add some clarity to the debates, while also problematizing previous understandings.

On a theoretical level, accountability refers to" a relationship between an actor and a forum, in which the actor has an obligation to explain and justify his or her conduct" (Bovens, 2007: 450). Three elements are important in this definition, according to Bovens (2007); (1) *the actor*, which may be an individual, an organization or an agency, but this actor has to make an account; (2) *the forum*, which may be a specific individual, an agency or the public, but the accountable actor is required to provide an account to this forum; and (3) *the obligation* to make an account relates to the characteristics of the relationship between *the actor* and *the forum*. The obligation to provide an account may be voluntary or may arise from a hierarchical relationship, or from a contractual agreement. Whether or not the obligation is formal or informal, the actor may face consequences if the obligation is not honored, such as sanctions of some kind.

This definition, like others similar definitions of accountability (Dubnick and Frederickson, 2010; Romzek, 2000), consider accountability as a social relationship. This has to be further clarified considering the context of higher education. With many involved stakeholders, including students, faculty, authorities and the public, various requirements, interests and objectives stretch HE institutions in different directions. In this context "accountability requires that higher education produce evidence that it has fulfilled, in some measure, its various obligations" (Leveille, 2005: 10). The three elements – the actor, the forum and the obligation – are still in focus. Thus, in this article, we use the following definition of accountability: "Accountability is a systematic method to assure those inside and outside the higher education system that colleges and universities - and students – are moving toward desired goals" (Leveille, 2005: 10).

Considering accountability as a social relationship and the definition above, this provides us with the foundation for a theoretical framework. To this end, we ask two analytical questions and one evaluative question. The first question, then, who

is involved in the social relationship (Bovens, 2007; Lerner and Tetlock, 1999; Romzek, 2000), has largely been explored by including the two accountability elements mentioned above: the actor and the forum. This question is the key to understanding where demands for accountability are coming from. In some situations, such a social relationship could include two individuals, whilst in other situations it may include many individuals, e.g. the relationships between formal organizations. One single individual may have several and different accountability relationships with one or more other individuals at the same time (Macheridis and Dergård; Lerner and Tetlock, 1999; Sinclair, 1995). In an organization, a complex system of different but parallel accountability relationships exists, and these may be both externally and internally oriented (Romzek, 2000; Sinclair, 1995). Because accountability is a social relationship, it often relates to formal organizational structures and decision-making processes, and accountability is directed both upwards and downwards in a structure, suggesting that, in the forum, an individual office-holder is simultaneously accountable at various hierarchical levels (Romzek, 2000).

The second question – "for what" an actor is accountable – is about the actor's obligation to the forum (Bovens, 2007; Lerner and Tetlock, 1999; Romzek, 2000). Different accountability classifications indicate different spheres in which an actor can be obliged to be held accountable. Such classifications are based on the nature of the forum (Bovens 2007, compare to Romzek, 2000 and Sinclair, 1995) and may include:

Political accountability. Authority exercised on behalf of elected representatives, e.g. a government is directly accountable to the people.

Social accountability. Usually, this is addressed to the public, such as interested community groups and charities.

Legal accountability. This is based on specific responsibilities, formally or legally conferred upon authorities.

Administrative accountability. Administrative accountability and managerial accountability sometimes construed as identical. Managerial accountability focuses primarily on monitoring inputs and outputs or outcomes, while administrative accountability is concerned with monitoring the processes by which inputs are transformed. Managerial accountability is also about autonomy.

Professional accountability. This relates to professional integrity and professionalism. Being professionally accountable also involves representing the values of a profession.

Depending on autonomy and the source of expectations for enhancing accountability, the social relationship embodying the accountability relationship may be more or less institutionalized (Romzek, 2000). The forum may be in a hierarchical

position to the actor who is expected to provide an account. In fact, expectations of having to give an account of oneself has been understood as part of subject-formation processes, which, as it were, contributes to reproducing hierarchical structures (Butler, 2001). This is the point at which verticality enters the picture, though the direction of the obligation may also be horizontal (Bovens, 2007). Exploring these directions, vertical accountability usually refers to mandatory-based situations, where the forum exercise power over the actor, as in a hierarchical relationship (or relationships based on laws and regulations). Horizontal accountability refers usually to voluntary based relationships between an actor and the forum, with no intervention by the forum, e.g. giving accounts to various stakeholders who are standing on an equal footing. Diagonal accountability can be found in the shadow of the hierarchy and can be both formal and informal. Despite these many conceptualizations, underlying all of these are the social relationships that de facto embody accountability.

The third question relates to how accountability arrangements should be assessed (Bovens, 2007) The answer to this question varies in the previous literature, depending on the norms of the actors involved; the socio-political environment; the nature of the accountability relation; formal institutional frameworks; as well as on trade-offs between costs and benefits (Macheridis and Dergård; Tetlock, 1992). Furthermore, expectations regarding how accountability is to be delivered affect decision-making and the way management in organizations acts to implement decisions (Tetlock, 1992). Should norms be incommensurable, accountability can lead to controversies and open up conflicts (Romzek, 2000). When accountability arrangements are institutionalized, different accountability relationships create different contexts and forums, including and indicating different promises to the forum and its audience (Dubnick and Frederickson, 2010):

To summarize, in this section we have discussed and problematized the concept of accountability, while presenting a theoretical framework that we employ in the analysis. Before analyzing how the understanding of accountability has changed over the past twenty years, and how it is understood to have influenced higher education institutions, we discuss the method and materials used in this study.

Method and materials

The study methodology is based on a systematic literature review, characterized by using explicit and rigorous criteria to identify, evaluate and synthesize all the literature on a chosen topic (Akbari, 2018; Zhang et al., 2016). Central to this methodology is to present criteria used to formulate the research question; to set inclusion or exclusion criteria; to select and access literature; to select relevant qualities of the literature included in the review; and to analyze, synthesize and disseminate the findings. In order to ensure the robustness of the study, this methodology was applied through a structured process, including the five steps described in detail below (Akbari, 2018).

Step 1: Time horizon for selection of the papers. The study period delimited to 2000-2018. This time period is more extended than in other corresponding studies in the area of HE that use systematic literature review, e.g. Tight's study 2000-2010 (2012) and Larrán Jorge and Andrades Peña study 2000-2015 (2017). The analysis also indicates that, during this period, significant changes have occurred regarding accountability demands. The choice of 2000 as the initial parameter was influenced by the fact that, in 1999, European education ministers signed a declaration named the Bologna process, after the University of Bologna (Kehm, 2010). In short, this declaration seeks to ensure comparability and quality of higher education between European countries. Despite the fact that 2000 was the start of the study period, we have in no way tried to trace accountability to the Bologna process where this is not justified.

Step 2: Selection of database. A search engine with access to approximately 200 databases (including Scopus and Web of Science) and just over 78,000 journals used to locate relevant scientific articles was chosen. In addition, Google searches were performed. To update the search, database searches were repeated at various times. In addition to employing electronic databases, the search was supplemented with manual searches. One was based on a review of reference lists for all selected articles; another on researching the names of researchers published in the field.

Step 3: Article selection. We used the following criteria to determine the inclusion or exclusion of an article (Tight, 2012; Zhang et al., 2016). First, that the subject matter should be concerned with higher education, and that the focus should fall on the scope of changes and accountability. Second, a literature search directed to peer-reviewed articles published in academic journals, since these are widely considered to be of high quality because they have been reviewed before being accepted for publication by those knowledgeable in the field. In addition, a requirement for the publication in scientific journals is that the authors declare that there is no ethical conflict. A further criterion is invariably that articles are written in English, as the vast majority of articles on the named databases were.

Three keywords were chosen based on the purpose of the study: higher education, changes and accountability. These were searched for in titles and as "search words". A first search for each keyword itself was made as well, as the paired combination of these keywords resulted in several references. By adding "peer reviewed", "academic journals", "articles in English" and using the built-in function in all LUBsearch actions that "Exact duplicates are removed from the results", a final amount of 1524 references was achieved.

To further narrow down our search, we checked which keywords were specified in the articles in the selection. First, articles published in 2018 and 2007 were selected and subsequently the results of this process were tested from two randomly selected publication years during the study period. The keyword "Higher education institutions" recurred frequently, and so was considered relevant to further delimiting the search. By replacing "Higher education" with "Higher education institutions", the number of references was reduced to 540 non-duplicated articles, at which point this reference list was printed.

Step 4: Screening the articles. For each reference in the printed list, the title, the author and information about the publishing journal and publication year and subject were included. After reviewing the list and classifications, a final selection of more than 350 articles was made, including not only references from the university database, LUBsearch, but also from other search engines. A built-in function in the university database, LUBsearch, was used to sort articles by publication year. Except for the first four years, the number of articles was more than fifteen per year. Because of space limitations, the reference list for these articles shortened substantially. The number of journals in which the articles were published was more than fifty.

Step 5: Analysis and further classification of articles. The analysis was carried out according to the following process (Lafuente-Ruiz-de-Sabando et al., 2018; Larrán Jorge and Andrades Peña, 2017). First, each article was examined to determine its focus and orientation in order to map changes and accountability. Based on this mapping, we identified changes and categories of accountability. Second, the articles were analyzed by identifying relations between changes and accountability demands. It is worth mentioning that our study includes articles that are both supportive of and antagonistic to the research question informing this exploration.

Changes that spark accountability

We traced how changes in the area of HE were understood in the literature as follows. Firstly, articles that contained "change" in the title were marked. Secondly, terms such as "decentralization in", "pressures" and "trends", or formulations such as "from... to" and "the changing role" were marked. We also read the abstracts from the selected items. The result of this selection process was that fifty-eight articles chosen to form the basis for mapping changes in higher education.

This reading of the articles was undertaken to reproduce a chronology. References to articles with different publication years show the spread of events over the study period. Analysis of changes resulted in the identification of a range of categories into which different types of change are organized, as given below. Boundaries between categories are not clear. Identification of categories was made to achieve the purpose of the study – i.e. to trace accountability coupled to changes in the HE landscape. Both of these changes refer to higher education institutions' processes, structures and constituencies.

Efficiency

In the literature analyzed, changes in HE that aim at efficiency quickly emerged. When analyzing the articles, we found that the focus varies over time, depending on which aspects were included. Improving performance (Burke and Minassians, 2002) and operations (Varghese, 2004) as well as justifying costs and keeping

tuition levels as low as possible (Lahey and Griffith, 2002) were the focus of the early period this study covers. Later, the focus shifted to include providing greater value (Hoffman 2013; Huisman and Currie, 2004) and improving financial management (Taylor, 2013). Efficiency of administrative areas as facilities and information technology was emphasized, not least because accreditation agencies enforce standards that require universities to assess administrative routines (Kniola, 2013).

Efficiency is thought to have led to changes related to the funding of universities (Shin, 2010; Taatila, 2017) and to issues concerning incomes (Regehr, 2013), and proficiency (Corbett, 2016). Performance measurements were also mentioned, as a way in which pressure can be exerted through continual reforms to increase efficiency (Feller, 2009; Marginson, 2018; Vidovich et al., 2007).

Market orientation

Another category that emerged concerned market orientation: how it impacts on and brings changes to HEI, and how these relate to students. Universal access to higher education (Trow, 1999) and globalization (Porter and Vidovich, 2000; Vidovich et al., 2007) were much in focus. These changes depend on and are marked by increased numbers of students (Kalpazidou Schmidt and Langberg, 2008; Marginson, 2018) and mass education (Taatila, 2017; Woodard et al., 2011). Market orientation leads to adaptation to student demands, e.g. developing student services (Locke and Guglielmino, 2006) and harmonizing teaching with other HEIs, e.g. based on benchmarking (Levy and Ronco, 2012). A consequence of this market orientation is that students are viewed as consumers (Buckley and Hurley, 2001; Marginson, 2018).

Market-orientation here also means that HEIs perceive their operation as dependent on market conditions. This is marked in the literature by the common consideration of market forces (Murphy, 2011); of globalization (Huisman and Currie, 2004; Woodard et al., 2011), which in this case usually means universal access to higher education (Conner and Rabovsky, 2011); and increased competition (Olssen, 2016), not least to attract students (Milliken and Colohan, 2004). In this endeavor, mediatization (Friedrichsmeier and Marcinkowski, 2016) and trademark orientation (Rooksby and Collins, 2016) becomes important. Market orientation interacts with changes related to business orientation (Murphy, 2011); the adaptation of education programs to the labor market (Carney, 2006); and the adaptation of academic planning, budgeting and daily administration to processes developed in the private sector (Waugh, 2003).

Quality

Changes related to quality have constantly affected higher education (Milliken and Colohan, 2004). Often this is about quality assurance (Beach 2013; Rowlands, 2012) in teaching and learning (Milliken and Colohan, 2004). Requirements on

quality measurement (Buckley and Hurley, 2001) and appropriate quality indicators (Hoffman, 2013) also affect the management and work of HEIs. Changes in the category of quality assurance were also linked to globalization (Vidovich, 2002).

Whilst changes caused by market-orientation have led to an increasing focus on external evaluations and accreditations (Reddy, 2008), accreditations and rankings are also often named as pressures that ensure and improve quality and the academic and educational offers made by HE (Eaton, 2007). Key stakeholders named in the literature are students and their parents, especially when making education choices, and administrators, who perceive these instruments as important for their institutions' future, such as access to funding opportunities (Hoffman, 2013). In general, changes in quality assurance has meant that governing at a distance has emerged in HEI and taken a key position as a managerial ideal (Vidovich, 2002).

Technology

Technology is causing changes within HEI in different ways and in many areas. The implementation and use of technology is increasingly affecting ongoing operations (Huisman and Currie, 2004; Woodard et al., 2011), especially with regard to the bureaucratization of university operations (Buckley and Hurley, 2001; Hoffman, 2013). Technology also affects parts of the university that aim to support education, such as libraries (Cervone, 2015). Changes caused by the internet and digitalization and how this impacts on students and teachers have attracted attention (Regehr, 2013; Soares, 2013).

Online education is also linked to technological changes. One reason behind this has been the increasing access to higher education and the widespread access to the internet (Shea et al., 2005). In parallel, technological changes supporting distance learning and teaching, for example e-learning (Barajas and Gannaway, 2007), blended learning (Jones and Lau, 2010) and teaching via MOOCs (massive, open online courses) (Lowendahl et al., 2018) have grown very rapidly.

Governance

Governance is a broad category, including many of the other categories as well. Nonetheless, as described below, we did manage to trace certain effects on accountability related primarily to governance. According to the studies we identified, HEIs have been adapting to ongoing internal and external pressures (Kalpazidou Schmidt and Langberg, 2008; Salter and Tapper, 2002; Shin, 2010; Taatila, 2017) related to global changes in the way institutions of higher education are defined and run, and how they justify their institutional existence and practices (Beach, 2013).

Governance-related changes in accountability has brought greater emphasis on improving managerial competency (Reddy, 2008); an increasing emphasis on

stakeholders and actors such as business leaders and students (Magalhães et al., 2018; Rodgers et al., 2011; Varghese, 2004); and leader roles being redefined - e.g. deans, in terms of the tasks they are supposed to solve and the specific responsibilities and authority their role involves (Arntzen, 2016).

Furthermore, governance-related changes in terms of accountability also included the need to respond rapidly to changes based on shorter decision-making periods, resulting from increased competition and technological developments (Kalpazidou Schmidt and Langberg, 2008; Lahey and Griffith, 2002; Taatila 2017). Providing greater value and innovating to meet new global challenges means that applying processes of accountability and accreditation to demonstrate quality are underlined (Hoffman, 2013; Milliken and Colohan, 2004). Governance changes are interwoven with organizational changes that depend on factors such as increasing professionalization (Waugh, 2003); the declining role of faculty in HEI governance (Carney, 2006; Lahey and Griffith, 2002; Waugh, 2003), and the changing role of external stakeholders at the institutional level (Magalhães et al., 2018; Rowlands, 2012).

Governance-related changes in accountability moreover affect autonomy (Magalhães et al., 2018; Pandey, 2004), which, for example, leads to the strengthening of the role of administrative staff at the expense of the academic community (Meyer, 2007; Waugh, 2003) and shifts control from governments to HEIs in the areas of staffing, finance, curricula and admissions (Varghese, 2004). Also, the interest in sustainability has meant that greater focus has been placed on the ways in which teachers integrate sustainability in their teaching. This emerging accountability relationship has led to a reorientation of the curriculum and the education content towards sustainability (Junyent and de Ciurana, 2008), and universities have taken on a key role in achieving global sustainability goals (Wright, 2009) and are expected to foster sustainability competences among students (Rieckmann, 2011).

Accountability changes

We traced accountability through the following steps. First, articles that contained "accountability" in the title selected while articles that included "autonomy", "demands" and "follow-up" in the title related to accountability were also marked. The second step in the selection process was to read the abstracts of the selected items. The result was that twenty-five articles were identified. By reading the articles with the theoretical framework in mind, we delineate how accountability has been approached during the study period. Three categories were identified that reveals how accountability is coupled to changes in the HE landscape.

Views on accountability

The first category that link accountability to changes in the HE landscape focuses on what we term views on accountability. As attention to accountability has

increased over the years, several views on accountability have emerged, such as viewing accountability as a trend (Coble, 2001) materialized within a market-driven environment (Jankowski and Provezis, 2014) characterized by neoliberal competition (Olssen, 2016; Tolofari, 2005; Vidovich and Currie, 2011). Another is to view accountability as a pressure for change, not least in management and governance (Culver and Warfvinge, 2013; Salter and Tapper, 2002), globalization (Vidovich et al., 2007) and performance orientation (Woodard et al., 2011) and in the homogenization of higher education (Neal, 2008). A third view is that accountability is a context (Volkwein, 2010) that includes political and social drivers (Tolofari, 2005) or that affects individuals (Craig, 2010). Finally, accountability can be viewed as an effect of change in other areas, such as technology (Woodard et al., 2011).

   Views on accountability relate to changes in the following way: accountability as a trend relates to changes in terms of market- and business-orientation. Accountability as a context is beyond the HEIs locus of control, which relates to governance changes. In these ways, different views have emerged about how internal accountability arrangements affects external accountability (Vidovich et al., 2007).

Questioning accountability

The second category that link accountability to changes in the HE landscape is related to the questioning of accountability. Accountability has been problematized and critically assessed in much of the HE literature. One point of criticism concerns the implicit move from policy issues to issues of management as a way to implement the private sector's "solution" to what is purported to be a public sector "problem" (Milligan and Colohan, 2004). The embedded idea of measurability, competition and efficiency in accountability is questioned (Halffman and Radder, 2015). A second criticism concerns the way accountability is managed – e.g. external accreditation as a source of accountability – can be uncomfortably close to self-accountability because it is a process of self-study and review (Carey, 2007). A third criticism is that accountability involves the underlying assumption that accreditation-guaranteed quality provides space for accrediting agencies to impose their own standards and agendas, driving the homogenization of higher education. The extent to which this is beneficial for individual HEIs is questioned (Neal, 2008; Porter and Vidovich, 2000).

   Another point of criticism concerns the intention and expected effects of accountability. While the effects of certain accountability arrangements, such as the use of performance-based instruments, have propagated in HEIs, it is often difficult if not entirely impossible to measure increased institutional performance (Shin, 2010), and it is also unclear whether such accountability arrangements improve educational quality (Volkwein, 2010). Linked to this discussion is the question of whether autonomy would increase flexibility in HEIs and thereby allow them to better allocate resources in order to achieve stated goals and thus

to meet the needs of society (Pandey, 2004). There has also been a controversy surrounding the value of externally appointed members on faculty boards, and how this affects institutional autonomy and accountability arrangements (Craig, 2010; Lazerson et al., 2000). Questions on the value of audit-driven and ex-ante accountability in relation to academic innovation have also been explored (Findlow, 2008). All in all, these forms of questioning disclose broader discussions about the value of HE in society in the literature.

Focus on accountability

The third category linking accountability to changes in the HE landscape relates to what we term focus on accountability. We find that the research focus on accountability in HE started to shift at the beginning of the 2000s to studies of managerial and market-oriented reforms. During the time-period studied, accountability emerged as being linked to strengthened requirements in especially two areas of HE: on new public management inspired quality assurance systems, in particular evaluations and accreditations; and on performance measurements, including financial evaluations and assessments.

Where accountability was related to quality assurance, the emphasis was on processes focusing on accreditation and accountability (Hendel and Lewis, 2005). A change from informal quality control systems, often based on local practices and trust and professional autonomy, to a highly prescribed process of audit-based quality control, became evident (Hoecht, 2006). Quality assurance systems and thus accountability arrangements related to such quality assurance have evolved in Europe in the context of the Bologna Process (Kehm, 2010).

Accountability has also been related to performance measurement, as it refers to both the economic aspect of HE, mainly its impact on the development of so-called "human capital" (Praveviciene et al., 2017) and the efficiency of its operations (Varghese, 2004). Inspired by new public management ideals, the focus of accountability arrangements has moved away from regulations to results, from processes to outcomes (Burke and Minassians, 2002). The long-range purpose of accountability, then, has been to enhance productivity in terms of individual staff, grading, and HEI as a whole (Woodard et al., 2011).

Discussion

In this section, we continue to analyze and discuss accountability in HE by tracing how the understanding of it has changed over time. We do so by returning to the three questions given above: who answers to whom; for what are they answering; and how accountability arrangements should be assessed (Bovens, 2007; Lerner and Tetlock, 1999; Romzek, 2000). As will be shown below, accountability is conceptualized as an emergent phenomenon in relation to perceived changes in stakeholder engagements, sparked, in turn by an increased attention to, and

pressure from, market-orientations and a managerial regime built on a simple, formal, modernist economic theory.

Who is involved?

Our analysis suggests that, due to marketization, HEIs are held accountable by a set of different actors, such as students and their parents, accrediting agencies and those that rank HEIs, as well as other HEIs, the media, and the business community and dominant players in the labor market. Changes related to technology, as well as the increased focus on accountability in quality assurance and performance measurement, suggest that HEIs are accountable to administrators, to the formal requirements of accrediting agencies, as well as to students and governmental authorities. As discussed in the literature (e.g. Lerner and Tetlock, 1999; Sinclair, 1995) accountability can be seen as emerging from a network of stakeholders with varying interests and demands on HE. Yet, as accountability is first and foremost a social relationship (Bovens, 2007), different stakeholders are also held accountable to each other, again suggesting that accountability is networked and complex (cf. Leveille, 2005; Romzek, 2000).

At the same time, there are degrees of voluntarism involved in this. HEIs sometimes choose which stakeholders to be accountable to. HEIs tend to choose to consider researchers as their primary forum. On other occasions, the forum is unknown, for example as in the case of students and their parents (e.g. Tetlock, 1992).

The previous literature has suggested that accountability is linked to expectations, as when an actor is expected to explain what they say and do to a forum (Romzek, 2000; Tetlock, 1992). Our study, however, shows that actors asking for "more" accountability also base their demands on formal grounds, not only on expectations. In this way, accountability becomes both a formal and an informal process. One example of this is students. With increased openness, more demands for student rights have emerged, resulting in students being represented on different boards at different university levels. Another example is accreditation agencies. As HEIs see other HEIs being subjected to accreditation, they not only formalize accountability relationships but also make themselves accreditable, hence giving legitimacy to these international accrediting agencies. Our literature study suggests that accountability relationships involve intermediaries between actors and forums, such as when HEIs get together to establish a student exchange program.

What an actor is accountable for?

There is a diverse range of forums to which HEIs are held accountable and many situations that concern accountability. As our study above has suggested, this includes administrators who ask for quality assurance systems and performance measurement instruments, thereby seeking managerial accountability (Bovens, 2007; Sinclair, 1995). Such new public-management-inspired accountability arrangements demonstrate that what HEI are accountable for may be characterized in two

ways. First, different issues are connected to each other, e.g. when national authorities ask HEIs for financial results, they also ask for information on administrative routines and processes; and when accreditation agencies ask to see quality assurance systems, they also ask for evidence of competence development, since they assume that this affects quality assurance. Second, HEIs are held accountable for (i) processual issues, e.g. internal evaluations within universities on quality; and (ii) outcome issues, e.g. rankings that ask for which positions and what salary students receive when they enter into working life. Whilst managerial and administrative accountability indicates hierarchical and legal accountability processes (Romzek, 2000), the low degree of autonomy in the aforementioned examples, combined with expectations on education and research results, means that accountability forums can be internal and external at the same time, depending on to whom one is held accountable.

What HEI are accountable for also relates to the conduct of the social relationship that embodies accountability (Bovens, 2007). It can be financial, procedural, such as quality assurance, ethical or involve other aspects individually or in combination. When accountability concerns quality or financial management, university teachers and departmental management denote what has been termed "professional accountability" (Sinclair, 1995; Romzek, 2000). When accountability is about relationships to students, this includes aspects such as the fair and equal treatment of students, which can be associated with social or legal accountability (Sinclair, 1995). When accountability concerns funding, performance or students' employability, political and social accountability arrangements emerge, as these stakeholders place high expectations on HEIs (Bovens, 2007; Romzek, 2000).

Assessing accountability arrangements

The question of how to assess accountability arrangements is answered differently, depending on organizational, political, institutional, financial, and environmental conditions, as well on the complexity and intricacies of the social relationships that embody accountability arrangements.

Our study show that accountability arrangements are built upon mechanisms that highlight performance and performance measurements. When accountability emphasizes such performance measurements, this restrains autonomy, not least by encouraging the HEI departmental management to focus on managerial issues rather than collegial processes of academic decision-making. Thus, the social life of the organization matters greatly to how accountability relationships are delivered (Lerner and Tetlock, 1999). Other managerial and market-oriented accountability arrangements rely on formal mechanisms in which HEIs are held accountable to government authorities. Setting goals, performance budgeting and evaluating performances and other processes all creates a context where accountability is institutionalized. Assessing outcomes related to justice and equity creates a context where accountability is about linking a heteronomous

forum to HEIs operations. Achieving these forms of accountability arrangements ultimately rely on an understanding of fairness and on policy tackling these issues.

Accountability and changes in the HE landscape – a process of accountabilization

In this study, accountability appeared as an emergent phenomenon in relation to perceived changes in a variety of stakeholder engagements. Whereas accountability was related to an increased attention to, and pressure from, market-orientations and a dominant new managerial regime, different stakeholders also held each other accountable, again suggesting that accountability is networked and complex, involving a process of what we term accountabilization. Both the forum and the actor initiate processes of accountabilization.

Accountabilization can be seen as an extension of the accountability concept, denoting a process where the aim is to make individuals accountable (Baroutsis, 2017; Butler, 2001). Usually, this process is formalized but it can also arise informally, depending on individual behavior and local practices. Drawing upon accountability understood as a social relationship, accountabilization signifies an organizational context and a social system in which organizations operate. Just as social relationships incorporate, build upon and reify social norms, ethical concerns and personal values, so do accountability arrangements in HEIs. In order to highlight how accountability, as an evolving social relationship, has changed over the past twenty years, we suggest that the concept of accountabilization is introduced, as this concept captures both this processual complexity of HEI and the new strategy that has been imposed on HE institutions by neoliberal reforms.

Concluding remarks

The purpose of this paper was to trace how the understanding of accountability has changed over the past twenty years and how it is understood to have affected higher education institutions. We achieved this by asking three questions: Who answers to whom; for what do they answer; and whether and how accountability arrangements are assessed. With these three questions as guides, we traced how accountability in HE has been discussed in in previous literature by using a comprehensive literature review. This review revealed five dynamic change categories discussed in the past two decades, namely efficiency, market-orientation, governance, technology and quality. At the same time, the content, the focus and the direction of accountability in these categories have also changed during the period studied.

These results contribute to the scholarship on higher education governance by identifying the processes of accountabilization that have transformed, and continue to transform, higher education institutions. While many of the changes have led HEIs to become aware of their stakeholders' interests, desires and requirements, accountability has also emerged as being about obtaining greater social legitimacy.

HEIs are held accountable by many different forums, partly due to globalization, partly due to the marketization of HE.

A main contribution that this study makes to the previous literature is to have enhanced understanding of how changes and accountability relate to each other in the processes of what we term accountabilization. This paper moreover contributes to an understanding of why accountability arises, the conditions behind account-ability demands, and why those accountability demands are understood as impor-tant to certain stakeholders. Another contribution is the analysis of who is accountable to whom, and for what, and how accountability arrangements are assessed. Our analysis suggests that many ways exist in which to trace trends and institutional path dependencies in HE. At the same time, this study highlights a need for research that explores and develops the concept of accountabilization.

Looking at the more recent past with this the results of this paper in mind, we suggest that current and ongoing exogenous changes are sparking new changes in accountability, which are, we believe unfolding new obligations towards new stake-holders and forums. However, there is uncertainty in the content and focus on such accountability demands, as greater *community engagement* and *impact* on society probably will cause yet new demands on accountability. One way to deal with this uncertainty is, we argue, to continuously identify and analyze exogenous changes in relation to higher education, since such changes affect how higher education institutions may deal with newly emerging accountability demands.

Finally, accountabilization has here been introduced to denote the ways in which accountability evolves and becomes institutionalized. Based on this, we propose that accountabilization should be further explored in relation to particular organizational and policy reforms, as such reforms often are bought about by techno-economic and political changes in the HE landscape.

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