The future higher education workforce in locally and globally engaged higher education institutions: a review of literature on the topic of 'the academic workforce'

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Overview

This Working Paper reviews the literature on the topic of 'the academic workforce' published in the three years preceding the start of CGHE research project 3.2 in 2016. An earlier publication (Locke, 2014) reviewed the literature and policy developments up to 2013. We undertook an in-depth review of journals dedicated to higher education studies and other academic journals where contributions to the field may occur. More than 200 publications were identified, including journal articles and monographs between 2013 and 2017, searching by keywords such as "career", "gender + academia", "labour market", "division of labour", "working conditions", "mobility", "casualization", "mentorship", etc. (all '& "higher education"' where the journal was not dedicated to the field). The analysis also considered the traditional disciplines relevant to the topic of the academic workforce, which includes economics, management, sociology, social psychology and public administration.

The selection was informed by the main research questions of the CGHE research project 3.2, *The future higher education workforce in locally and globally engaged HEIs*:

1. In what ways are academic roles and identities diversifying?
2. What are the implications for individuals and institutions, locally and globally?
3. What tensions and/or synergies arise from this diversification, for instance between individual aspirations and institutional missions, structures and processes?
4. How are such tensions being managed and resolved in optimal ways for individuals and institutions?

The aim of the literature review is to highlight trends in the international literature, covering theoretical approaches, policy perspectives and empirical work. We were interested in understanding which perspectives, approaches and methods are most used by researchers in the field, and which less so. We were particularly interested to detect possible gaps to be filled, emerging trends that have not yet been fully explained, and new perspectives on familiar issues.

By undertaking a literature review, this working paper has helped to inform a better understanding of the empirical component of the research for CGHE project 3.2, interpreting the research questions and enriching the rationale of the enquiry itself.

The main findings of this literature review can be expressed as two interrelated aspects of academic work and careers informing our interpretation of the primary data collected for the project so far. These are the personal agency of the individuals who work in academia (the individual career aspect), and the organisation of work and careers within academia (the organisational aspect).

For the first aspect, it appears that, currently, the British higher education system is a collection of heterogeneous employers within which individuals may find different opportunities, not only in terms of career pathways or tracks (e.g. linked to traditional teaching-plus-research, teaching-only and research-only) but foremost in terms of varying degrees of flexibility and autonomy. Although it is possible to describe academia as hierarchical, inequitable and stressful – as some authors do – there are also many opportunities for multiple different types of profiles – although these career paths may not always be planned with precision, challenging the concept of 'a career', as understood in the twentieth century. There is no 'academic career' as such, but instead 'careers in higher education'.

For the second, organisational aspect, this literature review has revealed an institutional tendency for greater intervention in the field of human resources management. Although this organisational imperative aims to achieve clear institutional strategic goals, there are contributions in the literature that suggest that managing people in higher education is not simple or straight-forward. For these authors, their conclusions are nuanced. Overall, the literature review suggested that a greater division of labour may be functional for whole institutions. At the same time, at the middle and local levels (and the respective interpretations and practices at these levels, offering ad hoc adaptations of institutional policies) should not be underestimated when it comes to talking about 'making things happen'. Failure to keep some balance between these aspects could, potentially, lead to a partial analysis and misinterpretation of the evidence.

The methodology for the literature review

This literature review followed a standard procedure to scan the body of relevant academic literature. The volumes from 2013 to 2017 of journals such as *Higher Education*, *Studies in Higher Education*, *Minerva*, *Research in Higher Education*, *Higher Education Policy*, *Tertiary Education and Management*, and *Higher Education Quarterly* were searched for contributions relevant to the topic of the academic workforce. Other journals, such as *Human Relations*, *Research Policy*, *Academy of Management* and *Public Administration* were searched using key words in order to find possible articles on the topic. Book series by Palgrave, Routledge and Springer were also scanned. This search produced more than 200 outputs combining articles in journals and books and/or chapters in book. The selection here discussed list 124 selected outputs privileging these factors: methodological and theoretical insights; the consistency with the British context (more likely Anglo-Saxon ones); the identification of leading publications in specific topics; avoidance of redundancies.

After the completion of this search, we categorised the literature according to whether it employed largely empirical or theoretical (or policy review) approaches. The theoretical approaches are discussed mainly in the introduction to this working paper, below. We categorised the empirical literature, which is more frequent, according to clusters of topics. These clusters are as follows:

- Academic labour and career trajectories

- Productivity and career development

- Governance of the academic workforce

- Division of labour

- The gender dimension

- Working conditions.

Introduction: Why the workforce in academia is worthy of particular attention

To the outsider, the study of 'the academic workforce' might appear to be a specialised niche within the field of higher education studies, in comparison with larger sub-disciplines such as the economics or sociology of work. Even within the field, it is dwarfed by topics such as the employability of graduates, if simple numbers of publications are taken into account. It might also appear to be the epitome of 'navel gazing' by academics talking (and often complaining) about their own conditions of employment. However, to study the workforce in academia means, first and foremost, analysing the most important productive factor (the human one) in knowledge creation (research), its transmission between generations (teaching and learning) and their effects on society (the third mission). In other words, to study the academic workforce involves exploring the creation, transmission and translation of knowledge.

Working conditions, in this sense, may involve both those factors that can boost capabilities in undertaking research and teaching. Yet, the complexities of the current environment, including the effects of local and global market conditions, alongside the diversification of the workforce, has engendered responses both from institutions, to create more flexible conditions, and from individuals in adjusting their approaches to roles and careers.

This working paper is structured in the following way: some essential patterns in the field are briefly explored in the next section. The sub-sections introduce the different angles that particular disciplines offer on this topic. The following section analyses in detail the selected sub-topics, or clusters of research as mentioned above. The discussion and conclusion identifies some trends and underpins the rationale for Research Project 3.2.

Essential patterns and main disciplines

The main macro and micro patterns
The literature has focused on two aspects that contribute to the essential patterns found in the academic workforce: the locus of autonomy (Neave 2012), which is a systemic feature found at the macro level; the relationship between different components of the universities as organisations. At the macro level, a distinction is drawn between *internal* and the *external* academic labour markets (Musselin 2005; Musselin 2009). This distinction is critical to understanding the main differences between national systems. The *internal* academic labour market may be characterised by strong autonomy at the institutional level, which gives greater discretion in recruitment, tenure decisions and promotion procedures. These systems are usually more dynamic in terms of academic mobility between universities (e.g. for promotion) (Musselin 2005). They may also be influenced by formal and/or informal acknowledgement of the different levels of prestige of institutions (and their middle layers, such as academic departments). The Anglo-Saxon countries generally have an *internally*-shaped academic labour markets. Many continental European systems, however, are traditionally *externally* driven: states define and dictate the main regulations, leaving less leeway at the institutional level.

Although not necessarily directly connected, a large stream of research on *institutional autonomy* in recent decades has had implications for the study of the higher education internal organisation (Seeber et al 2015; Marini & Reale 2015). Institutional autonomy may be seen as in tension with the nature of academic communities, which is in turn strongly related to the communitarian nature of their disciplines and sub-disciplines. This tension with the "academic tribes and their territories" (Becher 1989) might be seen especially in those systems where *institutional autonomy* has been introduced into a context of stronger *positional autonomy* (Neave 2012; Musselin 2013). This is especially a reflection of the "European Continental" models, whether they are of Napoleonic or Germanic derivations. Although this literature review refers to all the contexts, particular attention is paid to those systems with an *internal* labour market (typically the Anglo-Saxon countries), and including publications focusing on externally driven labour markets where they are of general interest. The other main pattern is universal, that of junior-senior relations between early career academics and more senior academics, such as 'line managers', 'middle managers', including programme leaders and heads of department. At the micro level, this is at the core of the reproduction of academic personnel. The seminal

contributions in the field (Clark 1983; Bourdieu 1990) see in this relation to "becoming a peer", or the construction of an academic identity (Henkel 2000), as the essential mechanism of establishing a career in academia. Although national patterns do play a role and they might be clustered in the above-mentioned types of academic labour market, this micro-level relationship between early career staff, their line managers and institutional managers is critical and at the core of the academic workforce and academic career development.

The contribution of different disciplines and perspectives
In common with other sub-topics in the field of higher education studies, the academic workforce is studied from the perspectives of different disciplines. The main contributions to the topic are introduced here focusing on some of the seminal theoretical contributions and main achievements.

Economics of work. Salary, salary bargaining and salary differentials are a significant concern for scholars in the field, especially for *internal* labour markets, with many contributions especially from the USA, but also with respect to the UK and its evolution (Paye 2015). Another strand of research, primarily inspired by economics, is that of scientific productivity, also referred to as bibliometrics. This field is itself a stand-alone topic, but it is interesting to note that often the matter of analysing productivity – although only in research and predominantly in hard science – is a useful reference point for any discussion about working conditions and the patterns of the academic labour market. Research activity and outputs are the standard measures, followed by a strong emphasis on intellectual property, collaboration with firms and/or patenting, usually grouped under the category of knowledge transfer (Ramos-Vielba & Fernández-Esquinas 2012). The act of measuring productivity is not necessarily confined to research, though. For instance, the idea of measuring teaching quality led to the launch in England in 2015 of the Teaching Excellence Framework (TEF), one of the first attempts to measure the other main mission of universities: the transmission of knowledge. This latter part is almost still virgin territory that is waiting to be studied.

Sociology of work. In recent decades, the sociology of work in higher education has been focused often on the precarious conditions of academic labour. Usually this is a consequence of the marketisation of higher education and institutions' need to introduce flexible employment conditions (Slaughter & Rhoades 2004). Casualisation and grievances have become an issue in the debate, creating a niche of radical

sociology in the field, whilst the coverage of academic unionism is limited (see Rhoades 1998 for an extensive study in the US). In this sub-field, there is a lack of clear and convincing evidence, as these developments are recent and both employers and unions (or associations speaking on behalf of scholars) do not necessarily agree about data, definitions and actions to be taken. Evaluation of changing roles and identities is one of the most recent developments in the study of the academic workforce (Whitchurch 2013, 2018), combining the sociology of work with the sociology of organisation, revitalising classical studies for organisational scientists about how a university is organised. The contribution by Freidson (1994) also introduced the sociology of professions as a useful perspective: a more hierarchal academic structure challenges the traditional assumption that academic personnel are a self-organised community, giving space to the concept of "professionalism reborn". Yet, this latter point is more evident in those contexts where the breaking down of a division of labour and the internal labour market have created more fluidity within and between universities.

Social psychology. From a broad perspective, *sense-making* is an approach to understand higher education and how it operates from the individuals' point of view. This approach recalls the seminal studies by Karl Weick and neo-institutionalists about the "unclear technologies" of the educational sector (Charlier & Croché 2016). Social psychology is very relevant whenever the term "career" is used, as it may refer to many individual dimensions, such as *identity*, *insight* and *resilience* (London 1983) that are increasingly coming under pressure within academic institutions. *Agency* is a powerful concept for understanding individuals' capabilities and their consequential "strategies and tactics" for coping with complex contexts that offer shifting opportunities. Interestingly, the concept of 'agency' has emerged as a useful perspective particularly in those contexts where there is delegation by a "principal" to an "agent" (see Eisenhardt 1989 for the theoretical roots of the concept; Henkel 2000 for the application to the higher education field). Universities represent one of the most explicit examples of this situation. In fact, Pickering (1993) wrote that "being a scientist" (or having a career in science) is one such endeavour that can be defined as *human agency*. Whilst we agree that this is a worthwhile analysis, nowadays agency is more likely used to highlight the assumption *of agency* in professional life. Agency is defined as autonomous action by an agent (i.e. an academic, whatever their form of employment contract) to survive, if not to thrive. McAlpine and Amundsen (2016) define agency

as "efforts to be intentional, to plan, and to construct a way forward in light of constraints over time, whether expected or unexpected, and whether such efforts lead to successful outcomes or not". They see current conditions for Early Career Researchers (ECRs) situated in an interplay of *opportunity structures* and *horizons for action*. In fact, the possible implications of a less certain position and at the same time desirable profession is particularly relevant today. Another approach that this literature review acknowledges refers to the work of Michel Foucault, for instance, one study sees the construction of tighter career steps as the *demise of selves* (McKinlay 2002). In higher education, this might relate particularly to critical developments such as research evaluation exercises and other mechanisms for "steering at a distance" (Reale & Primeri 2015; Reale & Marini 2017).

(New Public) Management in higher education refers to a sub-field analysing the role of management in contemporary universities. Increasing institutional autonomy has been a constant preoccupation of the whole field of higher education, at least since the 1980s (Trow 1994), which is a fundamental factor in understanding changes in the ways universities are managed. This also has implications for understanding working conditions, given that management itself has been a way of organising academic work (Sousa et al 2010), often emerging from a situation close to the concept of "organized anarchy" elaborated by Karl Weick. Starting from the assumption that higher education is a set of "anomalous" institutions, which is indeed a derivation of Karl Weick and neo-institutionalism theories, Amaral (2013) maintains that current approaches have the potential to disrupt institutions with the risk of "petrifying [universities] into something merely mechanical, like a soulless organisation reduced to dead matter". A recent study of the UK higher education professions also considers this possible drift: from "university" to "business" (Brennan et al., 2017). Thus, the approaches taken by "New Public Management", at least to some extent, imply changes in the traditional fabric of universities. This phenomenon dates back several decades in the UK, if the changing identities of those academics performing management roles are considered (Henkel 2000; Deem, Hillyard and Reed 2007). One of the contradictions of this "tightening" of universities is that it is nevertheless necessary to ensure good conditions for "talent" (Thunnissen et al. 2013), which may be a correction to the tightening process. Ren and Li (2013) reinforce this point by reviving the concept of *academic freedom* in a potential trade-off with institutional autonomy. Other reflections take a more radical perspective on this vision (Burawoy 2016).

In these sometimes overlapping disciplines (political science, sociology, economics and management studies), an increasing set of differentiated working conditions are visible: full-time and part-time work; permanent, fixed-term and occasional work; 'zero hours contracts'; the increasing diversification of roles within academic institutions (whether labelled 'academic' or not), and also increasing overlap of academic and professional roles (Whitchurch 2013). Those who apply public management in the higher education sector – whether as scholars or as practitioners – face all these aspects.

A literature review by clusters of research topics

We now turn to the more empirical literature which is categorised according to six clusters of topics.

Academic labour and career trajectories
'Academic labour and career trajectories' is a very representative cluster in this field. Whether academic staff are employed as civil servants or by their university under a national or institution-specific agreement, they constitute a body of people on a career ladder, the structures and associated processes of which change over time (Altbach 2015; Åkerlind & McAlpine 2010; Marini 2017). Furthermore, points on the ladder may change in name and meaning – as illustrated by recent examples in Germany and Poland (Waaijer 2015; Majcher 2008). The trend is for individuals to attain their first permanent position at an older average age than hitherto (Finkelstein et al. 2015; Teichler & Cummings 2015). In empirical studies, the problem is usually addressed whenever bottlenecks emerge. Post-doctoral researchers, for instance, are usually PhD holders who are hoping for a full-time teaching and research post and, in due course, a permanent or tenure track post. This path is nevertheless becoming the exception rather than the norm (Kehm 2009), even in the USA (Maxey & Kezar 2016). The trend in many countries is to reduce the possibility of obtaining tenure, if not to abolish it entirely.

Whilst the Humboldtian model of research-informed teaching has dominated continental Europe, this link is being decoupled throughout the world. Future employment for PhD holders has recently become the subject of attention (Pearce & Metcalfe 2016; Marini 2018). A notion has been widely held that post-doctoral researchers are in a phase of intellectual enrichment, but recent research has demonstrated that there is a tendency for them to move from one fixed-term post to another, often requiring a geographical move, which can create work life balance issues (Locke *et al* 2016, McAlpine 2012). For instance, the problem of

Dutch post-doctoral researchers having very few opportunities to become permanent academic staff has been recently addressed (van der Weijden et al. 2016), revealing that most postdoctoral researchers wish to continue to work as academics. In the Netherlands, the degree of satisfaction with being a postdoctoral researcher is directly related to the length of the employment contract they have. Authors suggest improvements to policies and practices are needed not only at institutional, human resources division, level, but also at micro level, within departments and teams (van der Weijden et al. 2016). In a longitudinal study undertaken in Austria, the attractiveness of the academic profession is similar, albeit young sociologists complain that they usually continue to work in academia even though the employment conditions are not ideal (Wöhrer 2014). Wöhrer describes how, over time, people who fail to obtain tenure may move outside academia or obtain positions that are unlikely to involve research. On the other hand, Whitchurch (2013) has found in the UK increasing numbers of individuals in professional or "third space" roles who are likely to have doctorates and find it fulfilling to work in research-related posts, often with a project orientation. In the UK, the definition of jobs, the nomenclatures of positions and their respective duties have changed across time. What are seen by some as managerially oriented practices have brought about the "destruction of the craft profession that is academia" (Strike 2010: 95).

Another study comprising eight European countries arrives to much more tempered conclusions, finding a possible coexistence between managerialism and collegiality (Marini & Reale 2015). These changes may diminish some opportunities and trajectories, but at the same time generate new career paths and opportunities. In any case, what makes a person 'successful' in continuing to be a scholar over time is an issue to be investigated. A survey of researchers in Taiwan suggested that undertaking a post-doctoral position is likely to increase the probability of an academic career (Lin & Chiu 2015). Other qualitative longitudinal studies stress the relevance of resilience and agency in pursuing a career based on research or teaching (McAlpine & Amundsen 2016; Whitchurch and Gordon 2017; Whitchurch 2018). The evidence of these contributions would appear to be that the bottleneck is somehow inevitable and that 'to run the gauntlet' of insecure post-doctoral positions is a *condicio sine qua non* of an academic career and can be seen as a positive expanding of experience if it leads to a permanent post. On the other hand, van Balen *et al*. (2012) found that it is important to have contacts and to have the opportunity to develop one's career,

whereas the type of higher education system, personal skills and family background are unlikely to play a role, with the exception of women having maternity leave, which may slow down career progress. Mentorships are also important in increasing the probability of a PhD holder to continue their career in academia (Thomas *et al*. 2015). Recent evidence suggests that mentorship via social media is also valuable (Ferguson & Wheat 2015; Whitchurch and Gordon 2017). In general, social capital matters, whatever opportunities are available. In a study led in South Africa, mentorship has a valuable effect for recently recruited lecturers' careers, and also improves innovation and engagement (Reddy et al. 2016).

The relationship between early career staff and line managers remains pivotal to building a career (Curtin et al. 2016, Whitchurch and Gordon 2017). However, in another longitudinal study, it was found that personal circumstances matter, relying also on the key concepts of resilience and agency (McAlpine & Emmioğlu, 2015). This highlights that from the early career individual's point of view, the double dynamic of becoming more aware from experience and – at the same time – having fewer opportunities as time passes, is a common pattern for everybody (McAlpine & Emmioğlu, 2015). Better prospects appear to be on offer during the first steps of a career, when people are still PhD students (McAlpine & Amundsen, 2016). In STEM disciplines, PhD holders today have a problem of understanding their actual potential as highly-skilled personnel, especially if they envisage a career outside academia; a decline in the attractiveness of academia as a career is also detected (Skovgaard & Pedersen 2014). Under these conditions, for other disciplines such as social sciences or humanities the problem is likely to be no less relevant.

Mobility is also an aspect of career trajectories. PhD holders have been investigated in a cross-sectional way (Auriol *et al*. 2016), as a PhD alone is not enough to guarantee a career in academia and the flows of personnel from academia to other sectors (and vice versa) are becoming more frequent. Early and mid-academic scholars in Germany were studied via a survey to understand the impact of pursuing mobility (Netz, Jaksztat 2015). The authors developed hypotheses about socio-economic status, children and career perspectives inside and outside academia, as well as different types of mobility. Findings are in line with literature suggesting that choices in mobility are often predictable when previous experiences are taken into account. PhD holders see mobility as inevitable, as also a proxy, to commit to, and engage oneself in, an academic career (Gopaul & Pifer 2016). Mobility also affects the extent

to which a country is able to attract talent and confirm itself as world-leading. In the case of the UK, special attention is now paid about possible consequences of Brexit as a period of uncertainty (Marini 2018).

Using Social Cognitive Career Theory, Curtin et al. (2016) test whether mentoring received during a PhD predicts success in the pursuit of a career in academia. Academic success is however defined in this study by scientific productivity. Scientific productivity is both "objectively measured" by bibliometric indicators, but also subjectively recognised inside academia (Sutherland 2017). The author maintains that – in countries such as Canada, New Zealand and Sweden – working outside academia hampers one's probability of success as it distracts from undertaking research. In Estonia, a study found that externally funded junior researchers are exposed to the worst conditions, not only contractually, but also in terms of capacity to obtain further funds, which is less likely to happen as they do not have tenure and they work under specific pressures of being on fixed term contracts (Eigi *et al*. 2014). The evidence is that being externally-funded in the humanities does not necessarily lead to a long-lasting career. A low probability of obtaining a permanent position may also exacerbate the existence of less than ideal working conditions, as early or mid-career researchers may be obliged to accept existing conditions (Eigi *et al*. 2014). In Australia, fixed term contracts create a *secondary labour market* dominated by frustration, and constraints on the ability of academics to undertake their own research (Broadbent & Strachan 2016). Heavy teaching loads also reduce the chances of improving one's situation.

Scientific outcomes and professional development
Scientific outcomes is a traditional area in the study of the academic profession, which has its roots at least in the 1950s literature in the USA about the sociology of science, if not earlier. Bibliometric analyses can be seen as related and perfectly coherent with a mechanistic assumption, often made by economists, of human beings as 'factor of production'. The typical 'unit of production' – the article (and/or journal in which it is published) and its citations – tend to be the main proxies for, respectively, the quantity and the quality of this academic output. Academic publications, in turn, are often considered the core of what universities produce. However, as this only reflects one aspect of research activity, one may raise doubts about its comprehensive relevance. Citations, for instance, increase by time, but the moment of actual production of that publication is typically at least some years

earlier. A paper may continue to be cited for some time. Meanwhile author(s) may be more or less productive. For instance, Japanese academics dedicate less time to research when they are older, in part due to not needing further research outputs once they reach the professoriate (Kawaguchi et al. 2016). This finding is related to shifts in workloads, for example, between teaching and research. Early stages of a career are critical here also. Horta and Santos (2015) test the hypothesis that publishing during study for a PhD has a positive impact on overall publication count and productivity later in an academic's career. This study from Portugal also indicates that publishing more during PhD study reinforces international ties for those working in academia.

This sub-topic is also subjected to long-term cycles in recruitment policies. Hargens (2011) reveals that academics working in less prosperous times in terms of the labour market (i.e. when the supply of young academics is greater than the demand for new scholars in academic departments) produce more (i.e. scientific publications) when compared with those working in times of better opportunities. The point is that the hypothesis of higher expectations by employers in times of abundance (good times, or 'a seller's market' as opposed to 'as buyer's market') is substantially counterbalanced by the fact that during difficult times people work harder (Hargens 2011). Other studies arrive at similar conclusions from a different angle: greater recruitment in a certain span of years generates less productivity as less prepared and talented people will be absorbed into the system, whereas in hard times only the best get through the bottleneck (Pezzoni *et al*. 2012).

Nevertheless, persuading academics to play the game of productivity is not always a profitable strategy, even if working conditions are good and scholars are satisfied. Clarke and Knights (2015) adopt Foucault's theory of identity in order to analyse the contemporary "frantic" obsession for publications as a way to develop a career (in their study, this is a result of the UK Research Excellence Framework, or REF). They argue that scholars comply with careerism, as they want to have a career, at the cost of publishing on something which is not necessarily their primary interest, in contradiction with traditional values. The extent to which the UK system has became more market-oriented makes academics realise that they are not motivated by *love* for their job inasmuch as the REF compels control and predictability in productivity (Clarke & Knights 2015). Mingers and Willmott (2013) also pinpoint the negative consequences of the requirements for "good publications". In other words, the scientific endeavour is no longer guided and led by

personal unfettered interests, but by the obsession of publishing in "top ranked" journals (Clarke et al. 2012). Leišytė (2016) in a study led in the Netherlands finds that higher productivity is achieved by personnel employed with clear and transparent rules for progression in their careers. She also finds higher productivity among scholars who are engaged in both teaching and research, yielding counterintuitive evidence about the productivity of those in research-only roles.

Productivity, in effect, is shaping the identity of being an academic, creating three emergent types of fragilities or insecurities: "imposters" (i.e. a sense of inadequacy); "aspirants" (i.e. personnel ambitious for better positions); and "existentialists" (i.e. having a sense of continuous doubt about one's efficacy) (Knights & Clarke 2014). In their study, Knights and Clarke find that contemporary academia in UK is compelling in raising motivation, but also that complying with current managerial and academic demands is a source of stress that cannot easily be overcome. To instill uncertainty in the intellectual domain does not increase by much the performance management already featuring in UK academia, this study finds. The quest for good publications does not detract from (on the contrary, it seems to reinforce) a common need among scholars to do something that is meaningful to them (Knights & Clarke 2014). The long-term aim of academics remains the same: to achieve relevant scientific conclusions for the community (i.e. through publications) in order to be recognised by peers. Given this universal motivation, it has been argued that current mechanisms for demonstrating productivity are reducing, rather than increasing, motivation (Knights & Clarke 2014).

Productivity is also at the root of the topic of inbreeding: the practice of recruiting early career staff from within the same institution resulting in possible patronage between senior and junior staff. Apparently only a matter of mobility and academic career trajectory, this traditional American issue has, in time, become relevant in other countries allegedly afflicted by nepotism (Tavares et al. 2017). Recent studies, nevertheless, find that inbreeds are not necessarily less productive than others (Yudkevich *et al*. 2015).

Division of labour, diversification of the workforce and re-engineering of roles
The division of labour and diversification of the workforce and re-engineering of roles in higher education is a more recent area of interest, affecting especially a number of Anglo-Saxon countries (Whitchurch 2013; Locke, Whitchurch, Smith & Mazenod 2016). According to some, the increasing proportion of academics in teaching-only roles is creating

a purely vocational profession whose prime satisfaction is a personal one and/or related to the fulfilment of contributing to society (Giersch 2016). This may, at least in part, be used to justify the less favourable working conditions these staff have. But it is not only a question of people undertaking research or teaching. People are also working beyond the traditional boundaries of academia, according to the concept of a "boundaryless career" – a good descriptor of the phenomenon (Chudzikowski & Mayrhofer 2011; Whitchurch 2018). Recent reflections adopt new terminologies as well, talking of a "psychological contract" between an academic and their institution (Whitchurch and Gordon 2013; 2017). To guarantee and to promote more challenging environments for scholars is considered more productive (Baruch 2013). Institutional policies and firms may have common interests in considering PhD holders as "bridge-persons" between themselves (Kitagawa 2014). These policies "build S&T human capital, scientific and technical knowledge, skills for innovation, as well as social capital as part of the innovation systems" (Kitagawa 2014). In the same light, the role of "knowledge brokers" – people in-between universities and enterprises, or other stakeholders, in charge of boosting the return on investment of research – is also being investigated. An empirical study by Lightowler and Knight (2013) recommended better recognition of this brokerage function, as knowledge brokers' identity is neither clear nor strong, and their employment conditions and career prospects can be poor. Using the "Third Space" metaphor (Whitchurch 2013), Veles and Carter (2016) believe that, in different countries, this division of labour can be consistent with the necessity for universities to develop their institutional capability-building.

Governance of the academic workforce
Governance of the academic workforce has always existed. Nevertheless, changes in how the academic workforce is organised have shaped the world of scholars, especially in Anglo-Saxon countries, making the occupation of being an academic a more 'regular employment'. The types of activity for which individuals are formally required to be accountable is increasing, impact of research, for instance, being the latest. Examples of the implementation of a stronger emphasis on management that nevertheless always existed in universities are discussed also as a case of success (Kekäle 2015). Hazelkorn (2015) compares how stakeholders see humanities in the Republic of Ireland, The Netherlands and Norway. This study finds that humanities staff sometimes try to use the motto of "science for science's sake" in order to eschew new metrics to assess performance, or the

impact for society. The point is that, nowadays, it is essential to be able to demonstrate specific impacts of academic research, not simply generic impact (i.e. to serve the community) (Hazelkorn 2015). The stress of 'measuring the unmeasurable' and the tightness of accountability to funding and regulatory agencies is at the heart of many practices and changes in the organisation of academic labour – for which apparently more research is needed. This interplay will probably continue to interest scholars in the future as the approaches to evaluating academics' efficacy are still in the early stages.

Agency is now studied also not only as a spontaneous behaviour, or a theory for understanding how academics cope with more demanding environments, but as condition to be appreciated by employers. Corbin, Campbell and O'Meara (2014) aim at investigating which departmental factors influenced faculty's agentic perspective and agentic action. By analysing perceptions of tenure and promotion process, work-life climate, transparency, person-department fit, professional development resources and collegiality, they arrived at the conclusion that the level of agency exercised by individuals may depend on departmental conditions (Corbin et al 2014). "Policy techniques" (i.e. internal human resource management) in universities can create primarily three sorts of reactions in everyday work: a culture of fabrication, time-consuming bureaucracy and moral dilemmas (Jauhiainen *et al*. 2015). Kekäle (2015) provides a more optimistic view of how the governance of the academic workforce may improve institutional standing. Despite the official justifications of efficiency, academics report that this is not met in reality (Jauhiainen *et al*. 2015).

The gender dimension
Women are still not fully represented in academia (European Commission, 2016), despite a number of significant initiatives to promote gender equality in recent decades. The evidence of inequality is most obvious at the higher levels of the profession, with fewer women reaching 'the top' in comparison to men (Marini & Meschitti 2018; Baker, 2012; Galaz-Fontes & Scott Metcalfe, 2015; Ward, 2001 for a specific study in Scotland; Blackaby *et al*, 2005 for an empirical work in English higher education; Coate & Howson, 2014 for a study led in the Republic of Ireland). Gender also appears to play a role in what scholars choose to focus on. A study on gender and academic work in Spain (González Ramos *et al*, 2015), for example, found that gender partly explained differences in career progression between men and women. In general,

in this study women seemed to have a lower preference than men for knowledge transfer activities and focused on more diversified activities. They also created feminized groups of researchers, whereas men were more focused on traditional scientific production, which opened up better opportunities for career progression (González Ramos *et al*, 2015). Focusing on the "micropolitics of resistance" to New Public Management in universities, Thomas and Davies developed a "Foucauldian feminist framework" in order to reveal the complexities and nuances of how women academics opposed, conformed to and complied with the 'gendered cultures' and managerial practices of three universities in the UK. They noted the persistent and increasing 'masculine discourses' of competitiveness, instrumentality and productivity (Thomas & Davies, 2002).

Gender inequalities have also developed along unexpected lines. Toffoletti and Starr (2016), for example, demonstrated that flexible approaches to academic working patterns can undermine rather than enhance work-life balance. Hence, any female academic who was unable or unwilling to meet the extra demands could be passed over for promotion opportunities in favour of men. This is reinforced by empirical evidence that domestic and caring responsibilities are still unequally divided between heterosexual academic couples (Rafnsdóttir & Heijstra, 2013). Positive action to encourage women to progress in fields formerly dominated by men may also take unexpected forms. Drawing on social cognitive career theory, empirical research in the US into programmes for female undergraduates in STEM fields, suggested that women-only groups tended to be most effective for those progressing to postgraduate study in these subjects, while mixed groups were more successful for those women preparing for careers in these fields (Szelenyi *et al*, 2013). Another qualitative study, in Austria, investigated the ways in which female academics reached leading positions, the different patterns of career development they took and how these influenced their advancement (Fritsch, 2016). The analysis yielded three main patterns of career development, consisting of the following characteristics: (1) *the individualistic and output-driven*, which emphasised excellent research outputs, taking the initiative and pursuing ways to promote personal advancement; (2) *the political-sustainable* which involved bringing about and accelerating sociopolitical change towards gender equity in academia; and (3) *the adaptive-flexible*, which encompassed drifting between different opportunities and choosing the best alternative. The author suggests

these patterns could form the basis for developing practical measures for promoting women in academia (Fritsch, 2016).

Comparative analysis led by Cummings and Bain (2016) argued that gender inequality in careers is primarily governed by national higher education systems. Although national policy and/or cultural assumptions are also influential, they argue empirically that gender disparities are derived from a set of issues that are specific to those working in higher education. These issues are: 1) care duties; 2) interruptions of work; 3) types of entry positions (tenure track or otherwise); and 4) whatever may lessen the combination of experience and productivity, which in turn explains academic progression (Cummings & Bain, 2016). Another study suggests that, in comparison to the previous generation, younger women do not expect to witness gender discrimination. Nevertheless, in the act of competing for a career "they still struggle with often invisible and indirect discrimination that slows their career progression" (White & Bagilhole, 2013). Finally, in relation to mobility and gender, more recent data about the UK (Guthrie *et al*, 2017) confirm that mobility among early career researchers is very common and often expected, but that gender inequalities due to family responsibilities are less prevalent than in previous studies.

Working conditions
This cluster of research issues is apparently emergent, even though a long-term historical perspective might indicate that the academic workforce has never been homogeneous. In previous decades, salary and salary bargaining (and related issues such as pension scheme and age of retirement) were the main issues. This issue is still present in some contexts. In the Republic of Ireland, in 2014 salaries were cut by 14% (Ivancheva & O'Flynn 2016). Contracts of Indefinite Duration (CID) have been used by academic employers to implement a '*divide and rule'* policy. As a result, previous agreements with unions were increasingly ignored (Ivancheva & O'Flynn 2016). Baldwin and Blackburn (1981) found that an individual academic's working conditions depends significantly on the stage in the career ladder that they were on at any given time. We can deduce that nowadays these differences can only be wider as far as working conditions have become very different. For instance, we may see fewer tenured academics and more people in the pursuit of becoming so (with further differences between them as well). Nowadays casualisations, stress, overload, precarity of positions, and part-time contracts are all relevant conditions, if only compared to some

years ago. In a study led in Denmark, for instance, women and part-timers are more stressed (Opstrup & Pihl-Thingvad, 2016). Being involved in research helps to lessen the stress and increase the sense of being an academic, in comparison with generic professionals. If management aims to reduce academic freedom, stress goes up. Casualisation is a by-product of organisational cultures in some perspectives (Crawford & Germov 2015) and it is a by-product of a dual or segregated labour market in Australia (May *et al*. 2013).

Gupta *et al*. (2016) in a book with a radical thrust, argue, among other things, that nowadays management is not fit for the purpose of organising scholars: managers are assuming that scholars are intrinsically "skivers", recalling the "X" mode of the seminal theory by Douglas McGregor. Morgan (2016) refers especially to the current poor prospects for humanities and social sciences academics. Agency theory can be used to see how people, especially early career researchers, cope with the trade-off between 'being trapped' on the one hand, opting to leave the university sector to look for better conditions on the other hand (Lam & de Campos 2015). In addition, the number of working hours is found to be a by-product of contemporary universities in the UK and Australia: they are systems where somehow "self-exploitation" practices are not tackled by academics who continue to look for betterment through academic achievements (Sang et al. 2015). A quantitative survey of 250 employers covering all the types of HEIs in Australia investigates the problem of harassment and bullying at work (Skinner et al. 2015). It is found that the type of professional development can explain why harassment and bullying is more frequent in regional HEIs, and much less in the Group of 8 (also Aboriginal people are more likely to be harassed). Apparently, "organizational culture" is the main source of higher harassment rates (Skinner et al. 2015). Institutional policies to develop personnel nevertheless are found to be effective in tackling the issue (Ricketts & Pringle 2014).

Su and Bozeman (2016) investigate the policy side of working conditions. They try to understand under which conditions a STEM academic department in a US university can be more sympathetic to those with family responsibilities. Departments are found to possess more knowledge of family friendly policies if they also have a diversity strategy. This suggests that the more a department is conciliatory in family issues, the more it will be so in gender related issues. However, the empirical study finds that those departments with more diversity-oriented policies are also those that are not in the top ranked universities.

Discussion and conclusion

The dynamics found in this literature on the academic profession could be summarised as critical of continuing attempts within different systems, especially Anglo-Saxon ones (other systems nevertheless being followers towards analogous paths), to make universities "normal", or "complete organisations" (Seeber et al. 2015) – implying *inter alia* that universities are able to manage staff in the same way as other sectors. The workforce is also revealed to be, ultimately, the core of many problems of implementation (Kallio et al 2016; Sousa et al. 2010; Anderson 2008). Whilst work within universities is more tightly organised – with a greater attention to the peculiarities of a highly creative environment, and also creating new forms of staff contracts and roles – the capability of such systems to capture all functions and relationships is now being questioned (Whitchurch & Gordon 2017; Kenny 2016). Within these conditions, the traditional career (PhD attainment, rite of passage into teaching+research position, climbing ranks etc.) is redefined into possible plural paths that each person learns to navigate in order to extract the best they can for themselves.

Divisions of labour, controls and incentives in many aspects of academic outputs (the evaluation of research being the clearest and most enduring example, but not unique) may be effective ways of improving university performance. However a number of studies question the extent to which such changes might be productive or counter-productive. The following quotation may help in understanding the relevance of the "human factor":

> "Governments and academic managers increasingly see the professoriate as employees rather than as a community of scholars [...] our belief is that, even in challenging times, the professoriate is the core of the university and that it must continue to be a community of scholars with a strong sense of commitment to the values of higher education. Academics serve as more than just employees." (Yudkevich et al. 2015)

We might call this phenomenon of tightening the loosely coupled organisations the 're-engineering of academic work for more efficient and effective universities'. As far as this process may raise some contradictions or problems, we propose the use of the term 'over-engineering', to mean that attempts to design a more efficient and effective academic institution may have unintended consequences.

What works and what doesn't work, in the complex search for organisational efficiency and effectiveness, is still not fully understood. Researchers will contribute by exploring the interplay of impacts on the workforce that emerges from the literature. It is apparent that, from a staff point of view, the better the conditions are for those working in universities, the happier and more productive they will be. Counter-intuitively, academics will always complain about their conditions, and at the same time will always be enthusiastic about what they are working on, as David Watson observed (Watson 2009). To disentangle those elements of complaints that may actually reduce morale and productivity is not an easy task. Yet, the employers' perspective should also to be taken into account. A balance is needed (Whitchurch and Gordon 2017), and research in the field of academic work and careers may lead to improvements if this balance can be achieved.

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