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✉ editor.fbmh@gmail.com

creativity a fruitful notion for studies in the humanities and arts?

Gustav Gulbrandsen

Department of MBA

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Abstract

This article presents the argument that innovation may provide a valuable viewpoint on how society and arts and humanities study are interconnected. There are two ways in which innovation—here defined as "something new put into practical use"—may be pertinent to the humanities. One shift is that the term innovation is now more generally used to describe non-financial transformation initiatives in both for-profit and non-governmental organizations. Second, creativity isn't limited to the arts and humanities; in fact, it lies at the heart of every academic field's impact on society and the advancement of knowledge. But this does not imply that encouraging innovation in the arts and humanities, or anywhere else in universities, is a walk in the park. Indicators, infrastructure, teaching vs. research, quality, and other issues are examined using examples from a historical case study at the University of Oslo. All of these must be addressed in a manner that prevents pointless disputes, miscommunication, and ill-conceived university policies and plans.

Keywords

Arts and humanities research, bias, employability, indicators, innovation, universities

Introduction

One of the most popular terms used today, "innovation" has also attracted a great deal of attention from the scientific community (Fagerberg, 2005). Companies praise it, schools report hear positive things about it, and lawmakers are looking to promote it because they believe it will benefit society and the economy. Even in academic institutions, innovation is seen as a must (Mowery and Sampat, 2005). To put it simply, innovation is the application of novel ideas to existing problems. The concept arose from the need to account for variations in national and industry-level economic and social growth (see Fagerberg, 2005). Although most of the early studies focused on technological developments and

technical fields, more recent ones have widened their scope to include a variety of social and cultural phenomena connected to education and skill development (Rosenberg and Nelson, 1994; Lundvall et al., 2002). Policymakers have called on HEIs and their staff to be more involved in society and industry, and they are often given a major role in innovation (Mowery and Sampat, 2005). It is reasonable to assume that when faced with these demands—and perhaps even the idea of innovation itself—a number of arts and humanities professors in many nations have felt perplexed, angered, and disheartened. According to Belfiore (2015), Benneworth (2015), and Olmos-Pen˜ uela et

al. (2015), some professionals in the field view the term "innovation" as a sign of disrespect for the unique nature of their field, while others believe it primarily pertains to the hard sciences. According to the traditional wisdom, innovations in the arts and humanities are rare and inconsequential compared to patents and the formation of new businesses, which are signs of technological and industrial cooperation and economic progress (Abreu and Grinevich, 2013; Bullen et al., 2004; Hughes et al., 2011).

The essay presents an alternative perspective, arguing that researchers in the arts and humanities may benefit from the notion of innovation. This is due, in part, to the fact that innovation is intimately tied to their current work. (Bullen et al., 2004; however also Belfiore, 2015, for a word of caution) The current significant attention to it may even represent a fantastic chance for them to win support among politicians and strengthen their social effect. Knowledge of innovation processes and the roles that HEIs may play in them is, however, of the utmost importance. Many people have the wrong idea about what innovation is and how it relates to creativity and entrepreneurship. There is a disconnect between the consensus in academic and policy circles and the findings from studies on innovation and the role of HEIs in it. To address this knowledge vacuum, this article draws on theoretical and practical studies of so-called university-industry relations—the study of the relationships between higher education institutions (HEIs) and their external environments—and uses a case study of Oslo University, Norway's biggest university, to illustrate its points. The article's key contribution is that it shows how and when conflicting issues arise when the humanities are approached from an innovation viewpoint. The empirical basis is a three-year study on the societal benefit of Norwegian arts and humanities research that analyzed public discourse and documents, conducted interviews and workshops, and used extensive archival material to investigate the University of Oslo's involvement in innovation from 1960 to 2011.

The next section addresses the function of

HEIs in innovation after a quick review of the many definitions of innovation. When it comes to the arts and humanities, what are the primary means of communication and how do they function? What follows is a discussion of some of the common biases in real-world initiatives to foster innovation. What follows is a more in-depth discussion of activities, tensions, and prejudices based on a thorough historical case study of Norway's University of Oslo. In the end, we set up a few requirements for the innovation idea to be applicable to the humanities, such as resolving conflicts over quality, indicators, and the teaching-research balance.

The first section of the streamlined literature review is an explanation of the innovation concept, with an eye on the term's broadening definition in recent years. In the meat of the article, we discuss how HEIs contribute to innovation, and we briefly touch on some of the most prevalent misconceptions surrounding HEIs and policy efforts. Isolated or prejudiced perspectives on innovation appear to be at the root of many misconceptions.

Defining innovation

Though there are a number of ways to categorize innovations in the literature, one may find that the straightforward concept of anything novel that finds application in the real world is enough (Fagerberg, 2005). Thus, novel findings, insights, and breakthroughs in the field of study do not constitute innovations per se. It may take decades for scientific breakthroughs to find their way into the real world, and there are typically many unexpected twists and turns along the way (Rosenberg and Nelson, 1994). One would immediately believe that research in the social sciences and the humanities is no more of a catalyst for innovation than research in the hard sciences and technology (Kline and Rosenberg, 1986). Additionally, new technical items and methods of their production are not the only phenomena that are favored by the present viewpoint on innovation. Numerous studies on the topic of innovation have shown that non-private organizations, low-tech sectors, and service industries are fertile ground for new ideas (Pavitt, 2005; Tidd and Bessant, 2013). The fundamental concept of

innovation as something new put in reality may be used to revitalize, transform, and enhance public sector and non-profit organizations and services (Tidd and Bessant, 2013; Windrum and Koch, 2008). The Innovation Union plan, which began in 2010, is one example of this viewpoint in action in Europe. It included a research program, an international award for public agencies, and a "public sector innovation scoreboard" (EU, 2013). In addition, there is a shift in perspective on the need of innovation implying commercial value. As an example, initiatives like microcredit in developing nations, online education, and fair trade are examples of what is often referred to as "social innovation" (Sharra and Nyssens, 2010). Many graduates from the humanities have typically sought employment in public and non-profit organizations; nevertheless, this trend suggests that innovation is becoming more important across all scientific areas.

Additionally, it is worth noting that several organizations have challenges when it comes to innovation (Christensen, 2011). According to Pavitt (2005) and van de Ven et al. (2008), it often encounters opposition and has limited comprehension. Because of the inherent political nature, risk, and uncertainty of innovation processes, they need backing, advocacy, and alliance-building. Students who are adept at managing these kinds of processes are an asset to any society that hopes to foster innovation that leads to better public services, private sector employment opportunities, and social capital. Therefore, the ability to innovate necessitates an essential comprehension of the human element to transformation, and this is partially where the humanities — and higher education in general — play a role.

HEIs and innovation

So far, it has been observed that when it comes to revitalization in business, government, and nonprofits, scientific research and college graduates are important. However, how exactly do colleges and other HEIs contribute to innovation? The academic community and official policy texts tend to favor research initiatives, with the mistaken assumption

that empirical data should form the backbone of any innovation strategy. Abreu and Grinevich (2013), Bekkers and Freitas (2008), and Mowery and Sampat (2005) all agree that the patenting, licensing, and spin-off company formation that occurs as a result of academic science gets much too much attention in comparison to the actual volume and importance of this activity. This kind of innovative contribution, however, is rare and usually only implemented by a small number of well-funded HEIs. When considering the importance of innovation, fundamental research takes a back seat to educating a nation's future workforce. Both training graduates who go on to innovate and contributing to public information that anybody may use to discover answers to problems have a commonality: they both contribute to innovation indirectly (Gulbrandsen, 2011). Although HEIs often play an indirect role, this does not imply that innovation does not occur automatically or is unaffected by their activities; on the contrary, there are techniques in which they might be more actively engaged (Rasmussen et al., 2013). Businesses, nonprofits, civic groups, and government agencies are the primary settings where innovation occurs, rather than at traditional academic institutions. According to Rosenberg and Nelson (1994), a common advice in the literature on innovation is that in order for HEIs to participate in innovation processes, they need be receptive to various forms of social interaction. The basic premise is not that higher education institutions should improve their methods of knowledge transmission, but rather that ongoing dialogue has the potential to bring about small shifts in approach to instruction, analysis, and communication. Academics who work with businesses or other groups in society tend to publish more often and with higher citation counts, which is good for the quality of their study (e.g., Gulbrandsen and Smeby, so long as one stays away from too involved business or social activities (Larsen, 2011; 2005).

According to the literature on university-industry interactions, engagement is seen as a two-way street of communication that opens up a variety of avenues of influence

(Bekkers and Freitas, 2008; Spaapen and van Drooge, 2011). An example of an indirect route would be the widespread practice of consumers reading scholarly publications as a means of exchanging information. One kind of direct engagement is collaborative research. Academics and businesspeople agree on the most essential routes, according to empirical studies: transfer of students and other staff, followed by frequent scientific and popular science publications (Bekkers and Freitas, 2008). On the other hand, collaborative research and other forms of assistance and consultation are considered somewhat significant, whereas patenting and other direct commercialization efforts are seldom considered vital. According to Spaapen and van Drooge (2011), the effects are often indirect and manifest themselves over a long period of time. Academics are expected by key society actors to focus on high-quality teaching and research, even though there are tensions between academics and societal actors over topics like time frames and perspectives on utility (Mowery and Sampat, 2005).

In the past, leading higher education institutions have been fast to adapt their curricula and teaching programs to meet the changing demands of society. This was especially true in the field of engineering, where the focus has been on developing subject areas rather than innovation as a whole (Rosenberg and Nelson, 1994). 'Innovation and entrepreneurship' classes for humanities and social science majors have proliferated in recent years, although these classes tend to be on the smaller side, and their impact is hard to tell (Gulbrandsen, 2011). The fact that external stakeholders' capacities and capabilities often impede productive knowledge exchange more than the academic activities' "relevance" does is an essential context for rethinking research priorities and course offerings (Cohen and Levinthal, 1990; Rosenberg and Nelson, 1994). Because the problem with innovation processes is not a shortage of ideas (which tend to multiply) but rather the corresponding lack of competence to put those ideas into action, creativity-only courses may not be very

effective (van de Ven et al., 2008). Could the humanities likewise benefit from these insights and observations? There are undoubtedly distinctions among the several scientific disciplines, yet every one of them makes a claim to exclusivity. However, a common claim about social involvement is that, in contrast to the humanities, the hard sciences are seen as producing immediate advantages and involving external stakeholders in direct communication on a regular basis (cf. Olmos Pen˜ uela et al., 2015). This article's short literature review disproves that claim. It is more difficult for representatives from the arts and humanities to distance themselves from conversations about innovation due to the fact that all scientific disciplines share the idea that scientific influence is indirect and long-term, and that technology transfer and commercialization are not very important. First of all, this is an chance to showcase commonalities between disciplines and have fresh conversations on the arts' and humanities' social importance. However, this presents its own set of difficulties, as it prompts inquiries about the solutions to the problems of innovation and public involvement.

There are a lot of factors that determine the nature of the connections between higher education institutions (HEIs) and the community at large. These include industry, academic field, institution type, and even personal choice (Gulbrandsen et al., 2011). Their educational paths often diverge significantly from those of their classmates. We are aware that researchers in the arts and humanities are more frequently than those in other fields engaged in public debates, popular science publishing, and consultancy. Furthermore, comparative studies disprove the idea that they are 'less relevant' (e.g., Abreu and Grinevich, 2013; Hughes et al., 2011; Olmos-Pen˜ uela et al., 2015). However, there are also huge individual differences in terms of creativity and social participation across these fields. Public policies and university initiatives can suffer from oversimplifications and misinterpretations due, in part, to this variability.

Prejudice in the innovation plans and

policies of HEIs

Put simply, according to the literature on university-industry connections, academic institutions may greatly benefit by focusing on high-quality research, teaching, and dissemination as well as actively seeking out opportunities to engage with relevant social actors when developing innovation strategies. In large part, this stems from empirical studies of the innovation process rather than ideologically charged views of what colleges should and should not be. To foster innovation and boost the 'societal relevance' of universities, administrators, scholars, and legislators often seem to have other, more normative viewpoints in mind, which may lead to a variety of prejudices. The authors' involvement with Nordic area policies and initiatives since the mid-1990s forms the basis of the following discussion. One typical tactic is to look for success stories and attempt to mimic them, but without fully comprehending the background or what made them tick. A handful of highly visible US universities and regions have achieved waves of legislative changes, science parks, biotechnology research centers, and technology transfer offices (TTOs). The global archetypes of success are MIT/Route 128 and Stanford/Silicon Valley (Mowery and Sampat, 2005). Even with the right infrastructure in place, biotechnology commercialization is unlikely to achieve significant success in the absence of a solid biotechnology foundation. Such endeavors often aim to generate fresh concepts and entrepreneurial endeavors; yet, as previously said, the greatest obstacle to innovation is typically associated with its execution and the establishment of strong user connections (van de Ven et al., 2008). See, for example, Bullen et al. (2004), Molas-Gallert (2015), and Hazelkorn (2015) for examples of how many nations' policies on innovation and higher education have taken a strictly techno-economic stance. Many unsavory reactions from HEIs might originate from this. As an example, there is a common misconception that innovation just means starting new businesses. With the help of a thriving support system, students and faculty learn to draft company plans and participate

contests where the top ideas get cash prizes. Naturally, there may be a need for entrepreneurship assistance, and there may be unrealized potential in inspiring students, particularly in the humanities, to think creatively and explore other career paths. The major issue with this method is that it only considers universities' ability to create new enterprises. While certain universities may excel in this area, the simplistic indicators of 'number of new firms' and 'number of new jobs' obscure and misrepresent the many other significant impacts that HEIs may have on innovation. Despite this, HEIs may be concerned about their credibility and funding. There may not be a sincere desire to innovate, but rather a pursuit of symbolic processes or recognition by "raising the visibility" of current operations.

Stankiewicz (1986) refers to this phenomenon as "externalization," and it describes how certain HEIs see innovation and the assistance it provides as occurring outside of their core units and operations. Typically, TTOs and other units with limited interaction with the university's centers and departments handle innovation after the standard procedures for research and teaching have been established. The problems are the same as those that arise from an oversimplified understanding of innovation: externalization fails to account for the myriad of direct societal connections to fundamental scholarly work.

These biases generate problems, the most significant of which is likely to do with indicators. Here is where the gap between theory and practice about innovation is most apparent. We know that innovation takes time and that HEIs mostly have indirect effects, yet the most popular metrics, such as patenting and the number of new businesses started, only quantify the direct and, at times, somewhat short-term effects (cf. Benneworth, 2015). When discussing the arts and humanities, this becomes an even bigger problem since many academics are naturally skeptical of indicators—including those in which they may excel, like media coverage and popular scientific publications. Many policymakers' apparent preference for commercialization's techno-economic measures or vague ideas

of "creative industries" does nothing to assuage their cynicism. Conflicts may also arise when external stakeholders misinterpret academics' reasonable skepticism of some metrics or an imbalanced selection of indicators as a lack of interest in activities that are becoming more important for institutions. However, how are these conflicts resolved? In real life, how can prejudices and misconceptions manifest? The Norwegian University of Oslo will be used as an example to answer these concerns, with the use of extensive historical materials gathered in 2011 to celebrate the university's 200th anniversary (Gulbrandsen, 2011).

Innovation in the Humanities: The University of Oslo's Story

Founded in 1811, the University of Oslo has been a leading Norwegian institution of higher learning ever since, with a focus on the arts and humanities. For more than a hundred years, the University of Oslo was the only all-encompassing HEI in the nation, even though specialized institutions focused on agriculture, fishing, and engineering started to spring up in the latter part of the nineteenth century. From educators and physicians to public officials and clergy, it played and continues to play a significant role in preparing a wide range of public workers. Several fields have benefited, including two economists who won the Nobel Prize and several significant scientific discoveries. A prime example of a tangible contribution to innovation is the meteoric rise of Norsk Hydro, which began as a small academic spin-off in 1905 but eventually became a massive multinational and the leading industrial performer in the country for many years. The university's most significant social contribution, including innovation, had been through a consistent stream of highly qualified, hard-working, and not least trustworthy public servants, according to a large historical analysis conducted for the anniversary in 2011. Other impacts, however, have been more subtle.

When we examine the university's approach to innovation during the last half-century,

we may discern three parallel changes in perspective on the institution's fundamental goals of education, research, and information sharing. External events have been the driving force behind all of these shifts, including changes in the job market for graduates starting in the 1960s, shifts in industry R&D starting in the 1980s, and shifts in policy all during this time period, with a focus on higher education institutions (HEIs) and innovation starting in the 1990s. These changes have affected the humanities, and they show how uncomfortable it is to expect the humanities to make bigger social contributions.

Prospects for employment for college grads

After World War II, Norway finally saw substantial investment in research and the emergence of research policy as its own policy domain. This ushered in an era of consistent expansion in research funding and student enrollment. A new research council was formed, one of which will promote the arts and humanities via fundamental research. Aside from the unique circumstances surrounding the education of medical professionals and others, the institution provided education at three levels: a bachelor's equivalent (three years), an intermediate level (one year), and a master's equivalent (two years) with heavy emphasis on thesis work. Teachers in secondary schools were the most common occupation for those who completed these university programs, which were available to almost anybody who met the minimal requirements.

The labor market saw a number of noteworthy transformations beginning in the 1960s. This began in the natural sciences, when employers began employing a disproportionate number of graduates even as they began to doubt the practicality of their skills. Prominent business leaders and the national trade group claimed that the university was ignoring their concerns; in response, the Rector and others argued that businesses had also shown little interest in the institution, igniting a long-running discussion about separation. In 1966, the university launched a massive new

curriculum for graduate students, with introductions to subjects like accounting, marketing, computer programming, industrial strategy, and production and quality control as well as guest speakers from industry and applied research organizations. A master's degree "critical management" program catering mostly to students from the humanities and social sciences, it was subsequently relocated to the social science department.

In the 1970s, issues with the labor market began to affect the field of humanities. Worryingly, a growing percentage of advanced level students are unable to get employment in their field of study. Fewer teaching posts were available, and efforts were undertaken to encourage private sector employers to recruit college grads with a background in the arts and social sciences. In 1977, for instance, there was an extensive study of large companies, a number of meetings, and information campaigns promoting the graduates' marketable skills. Sixty philologists were out of work that year; a related research predicted that, by 1990, 10,000 philologists throughout the country would be looking for work as instructors, a decline of 85 to 60% from the previous year. The oil and gas business was not a shout in the philology and other humanities departments.

There has been an ongoing discussion on the value of the humanities, sparked by critical voices in national media. The 1984 special edition of the University of Oslo journal, "The Humanities and Industry," is illustrative; in it, outside parties raised three points of contention. To begin, graduates from the arts and social sciences were expected to follow more conventional employment paths. Students were not taught about creativity, entrepreneurship, or the use of new technologies, and few options were considered outside of teaching as a profession. Second, some people thought that the humanities did not provide enough variety in their course offerings. There was hardly little outside-the-box thinking or real project work, and much of it was lecture and classroom centered. Third, during the late 1960s, the university began to become politically radicalized,

which led to criticism of some academic units for what some called a "fanatic aversion to industry." This was a feature of discipline cultures as well. The University was 'isolated' and required a 'change of culture,' according to prominent politicians and business leaders. The first move in reaction to the problems and complaints was to provide a variety of practical classes for advanced humanities majors. Particularly, enrollment had to be limited for the very popular "IT for humanists" course, which taught students the fundamentals of word processing and other applications. 'Entrepreneurship and innovation for humanists' has been offered annually since the 1990s, but no evaluation of its impact has been conducted. While there have been some successful initiatives in recent decades, the majority of humanities students have chosen to work alone on their theses. Introducing brand-new curriculum usually took an externalist approach, but the common belief is that the humanities have a more fundamental problem that calls for even more radical changes in how we do research and how we interact with society. The fast evolution of Norway's industrial structure in the 1980s prompted these changes to become apparent.

Public support for academic studies

Increasing research and development spending in other sectors of society, especially industry, was a major factor in the 1980s change. During the decade, Norwegian enterprises increased their spending on research and development by a factor of four, thanks to the booming oil and gas industry and innovations in fields including information and communication technology (ICT), biotechnology, environmental technology, and achievements in fish farming. Businesses actively sought out partnerships with HEIs as their ability to absorb new information grew, both to broaden their pool of potential graduates and to meet the growing demand for knowledge-intensive goods and processes.

This mostly included enhancing the University of Oslo's connection to industry.

In order to handle the formalities of contracts and finances, a secretariat for activities that receive funding from outside sources was set up. Not long after that, a Research Foundation was established with the goal of launching new interdisciplinary research initiatives, including those in the humanities, and an Innovation Centre was established. The original intention of the Innovation Centre was to serve as a conduit between academia and business, connecting academics with firms that may benefit from their expertise and providing researchers with opportunities to implement their ideas. But in the end, overseeing the construction of a scientific park next to the university became its primary and overarching objective. Although it was designed at a time of robust economic expansion, the park did not open until 1989, coinciding with a recession and increasing unemployment rates.

While many of these groups' efforts focused on the hard sciences, the idea that the soft sciences "should also be on board" was brought up time and time again. This wasn't just empty rhetoric; important players intended to incorporate humanistic viewpoints into a number of the new endeavors, and they were partially successful. The Innovation Centre helped launch a business incubator for students in the arts and humanities, while the Science Park attracted new humanities research groups and the Foundation launched interdisciplinary initiatives that bridged the gap between the hard and soft sciences. "There ought to be a philosopher in every board of every stock exchange-listed firm," the University Rector, who had previously served for the better part of a decade and had come from the Faculty of Theology, had declared as the aim of the new innovation-oriented endeavors.

There were a number of reasons for wanting to include the humanities. The most basic one was that influential people thought the soft sciences had a lot of social and industrial promise for innovation. For instance, research into the implementation of ICT in more conventional sectors has shown that the cultural, institutional, and ethical dimensions of contemporary work

life, rather than technical ones, provide the greatest obstacles to such operations. Also included is a political explanation.

significant: the university's new innovation support initiatives threw the delicate balance between the various departments into disarray, and some worried that the Innovation Centre and Science Park would help move money away from the "less useful sciences" and toward the "more useful ones," to use one professor's phrase.

All of the faculty members voted in favor of building the scientific park, and the inclusion of the humanities helped appease the opponents. The institution was able to have a scientific park constructed without using any of its own resources because it sought out innovative financing structures that allowed it to invest interest on existing and prospective external research funding. In the late 1980s, there was a big dispute about the Innovation Centre and Research Foundation's unachievable goal of becoming self-sufficient. Eventually, all of these organizations merged under the scientific park administration. The park is still going strong and has constructed four more buildings since its inception, but it has failed to fulfill its vision of being the hub where society and academia converge. Even with the introduction of new institutional channels, such as research programs, the connection between the humanities and societal innovation remained relatively hidden. Despite being a component of the new university infrastructure and cross-disciplinary projects, the humanities did not undergo a comparable transformation as the hard sciences, which reaped the benefits of increased industry research and development.

Innovation strategy

Perhaps the most innovatively chaotic years in the university's history occurred in the years after the turn of the century. Many prominent humanities scholars marched in torchlight protests in Oslo around the turn of the millennium, with signs reading "No to commercialization of research" and similar slogans. Concerns of future

reductions in funding and changes to the research council's role were major factors in this. The common belief that the demand on universities to prove their social relevance had become too great sent a message of cynicism about their treatment. But by the decade's end, the University had settled on innovation as one of its four guiding principles, alongside teaching, research, and dissemination. In 2013, the Faculty of Humanities was among the first to enthusiastically participate in the implementation of the University's Action Plan for Innovation. What was going on? This third transformation occurred as a result of changing perspectives on the university's role in society, as well as changes in research and policies governing higher education. At the turn of the century, policymakers believed that there were real obstacles to exploitation and entrepreneurship, thus they advocated for increased commercialization of university research. Higher education institutions (HEIs) now have a statutory obligation to guarantee that "research results benefit society," according to legislative reforms in 2003 that transferred ownership of research findings from individual professors to the institution. Despite certain concerns, the University of Oslo has chosen to launch a TTO.

funding. Starting out as a publishing business, the TTO had the goal of "working equally with all disciplines." At the time, it saw books as a "commercial product" of the social sciences. Following the failure of this strategy, the TTO refocused its efforts on providing commercialization assistance for ideas generated by the natural and biological sciences. Services to the hard sciences have benefited from clearer TTO specialization, while employees in the social sciences and the humanities now feel more free to pursue other interests. Policymakers have become more realistic in their expectations, even if they would have like to see more spin-off companies and employment generated by students and professors. As the definition of innovation has broadened beyond just producing monetary value, the prevailing vocabulary has also evolved. In research and innovation white papers, the terms "grand challenges"

and "societal challenges" have been used in ways that are obviously pertinent to academics in the arts and humanities, such as when discussing the cultural sector in a globalized **world or immigration concerns**.

The University of Oslo responded by designating 2013 as the "Year of Innovation" and coordinating an interdisciplinary team of faculty and staff to carry out the necessary initiatives to ensure its success. A lot of effort went into providing reasonable definitions of innovation and a wide range of examples pertaining to research, teaching, and dissemination. The representative from the humanities played a pivotal role in this process, gathering examples of humanities-related innovation-related work in a document that covered everything from 'digital humanities' initiatives to massive industry-creative sector partnerships. The final plan included objectives, a glossary with four pages of definitions and examples, and specific steps to be implemented in the areas of personnel and leadership policies, education and information sharing with outside parties, and enhancing the marketing of current innovative projects. A portion of the Faculty of Humanities' strategic funding were used to support activities in the plan's follow-up, including new types of student project work and incentives for engaging in projects that were sponsored outside. Although it is yet unclear if the plan and other efforts will produce significant new outcomes, the current process is far less marked by disagreements and frictions than what was typical in previous attempts at comparable endeavors. Some prominent scholars in the humanities have found innovation to be a helpful term for expressing their research, and the wide meaning of innovation appears to be partly to blame for the decreased stress level. This might be associated with a generational transition at the University of Oslo, where some younger faculty members come from different backgrounds and views, or with changes in academic leadership, such as a new rector and deans who are on board with the new viewpoints. All things considered, this may indicate a heightened

consciousness and comprehension of innovation as a process and the long-sought transformation in academic culture is now coming to fruition.

Discussion and conclusion: Tensions and innovation

To address the question of whether innovation is a relevant concept for studies in the arts and humanities, we have summarized the key points from studies on university-industry connections and the literature on innovation in this article. Most academic fields, including the arts and humanities, see innovation to be very important in the present day, thanks to the widespread support for a definition of innovation that encompasses both private and public sectors. But it doesn't imply there aren't any kinks or difficulties in supporting it. Among the common biases in academia and policymaking that we've identified, the most pervasive is probably a narrow techno-economic view that rewards certain forms of innovation. We have also included a case study from the past that shows how one big Norwegian university overcame innovation's obstacles. Changes in thinking and doing about education, research, and community service are visible throughout time. Complex concerns, such as leadership and financing of HEIs, are associated with encouraging innovation, as shown by the case study and literature analysis. Many conflicts may be exacerbated by an innovation strategy that is not well implemented, and this is especially true among the many academic fields represented in universities. By analyzing the literature and the historical situation, we can identify four more conflicts that must be resolved in order to create an environment that is conducive to innovation in the arts and humanities.

Indicator tensions

Both of these things are likely to be challenging to avoid and cope with. As is well known, innovation is a lengthy process, and HEIs are often only involved indirectly. Though it may be required to support patenting and entrepreneurial activities in some instances, it is not possible to rely only on these metrics since

patents and new businesses are still very uncommon university outputs, particularly in the hard sciences. Indicators pertaining to the fundamental tasks of teaching and research, in particular, are contentious. Some humanities researchers in Norway have sought diffusion as an indicator, but others have been opposed, and two committees have failed to develop a set of indicators of dissemination (such as the number of popular books, newspaper pieces, readers, viewers, etc.). With no pushback, the University of Oslo has introduced six budgetary indicators. Selecting the least contentious metrics (student throughput, research council funding, etc.) and limiting comparisons across departments to their own historical performance rather than to other departments seems to be the best approach to deal with the problem.

Quality tensions

Is there a risk that participating in society may lower academic standards? Are colleges and universities too focused on academics to engage in creative problem-solving? These concerns crop up again and time again in discussions about colleges and the humanities. Without a doubt, the empirical research establishes

High-quality teaching and research constitute HEIs' most significant innovation contribution, and scholars who actively connect with the outside world tend to be well-respected in their own fields. The primary goal of HEIs should be to carry out their basic tasks to the best of their abilities, according to these two results, which may alleviate certain conflicts associated with the innovation notion. This does not, however, imply, that there is no friction in the link between quality and innovation. First, conflicts may arise in societies with a poor absorption capacity, when there are few possible collaborators and few companies that appreciate top graduates. One possible solution for research institutions is to form partnerships with nearby colleges and other like organizations. Secondly, it is not necessarily easy to achieve the positive relationship between innovation, societal contributions, and quality through funding structures that aim to do so during individual research projects; rather, it may

be the result of opportunities for sustained scientific work and good relations with communities outside of academia, which have a longer-term impact (Gulbrandsen and Smeby, 2005). We also know that various college and university kinds contribute differently to society's innovation processes; this suggests that a more nuanced quality discourse beyond scientific brilliance may be necessary. The university–industry relations literature has shown that collaboration with university departments with low ratings in academic excellence may lead to useful results in external partnering organisations.

Teaching versus research tensions

Much innovation support is biased in favour of research activities: more research collaboration, more ideas based on research results, more exploitation of these ideas and so on. For individual academics, the main promotion criteria remain related to research in most countries. But as we have seen, teaching is a central contribution to innovation in society by HEIs, and the current and former students are of course a valuable source of new initiatives and experiences about how their training fits their careers. Many linkage mechanisms between universities and potential employers are initiated by students, who are often motivated by practice and project work related to problems in their local communities. Perhaps, most importantly, it is good graduates that give firms, government and civil society the capacity to absorb university knowledge and apply it effectively for innovation, and the broader idea of social innovation implies that humanities graduates are as important for this capacity as their 'hard' science equivalents.

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