

Exploring Knowledge Exchange: Barriers and perceptions.

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Abstract: The aim of this study was to explore contemporary views of Knowledge Exchange (KE) in a higher educational context. There is a commonly held belief that knowledge exchange solely resides in the domain of higher education research and is often seen as a way to either share research outputs or contributes to the development of synergies between external organisations, most often with a financial imperative. Through a detailed literature review, a study of contemporary Knowledge Exchange Portals (KEPs), coupled with a detailed survey of HEI practitioners, our study shows that while KE is widely considered an asset, there are many barriers still present which impact the adoption or success of a KEP. Furthermore, this study highlights there can often be a diametrically opposed view between stakeholders of what KE is, and what KE can and should be used for.

Introduction

The goal of any knowledge exchange platform is to promote the sharing of ideas and expertise, and to foster the development of new ideas and technologies.

Higher education institutions are in the knowledge business, since they are involved in knowledge creation, dissemination, and learning (Rowley, 2020). Knowledge exchange (KE) describes the connections and collaborations that universities have with businesses, public services, and communities (British-Academy, 2021). The stakeholders are thought to be individuals, inside and outside of universities, engaging in a variety of ways, allowing knowledge and ideas to move between creators and users, and the co-production of new insights and methods. This exchange can involve (a) research and/or scholarship, including joint research or scholarship activities, (b) sharing knowledge, expertise, and skills and (c) sharing data and evidence. KE can be achieved through one-to-one relationships, groups and networks, or large communities, HEIs (Higher Educational Institutions) and involve the sharing of evidence, experience, or people (ibid.). This paper provides an overview of the concept of KE and examines how this has been conceptualised in the context of higher education with a focus on practitioners in the distance learning domain.

Background

Academic discourses have promoted the concept of KE and sharing and highlighted associated benefits; however, members of academic communities might be cautious of engaging in KE due to risks identified in this sharing experience (Annansingh et al., 2018).

Research in this area has looked at the relationship between academics within the same institution as well as those externally, and particularly how knowledge sharing is perceived, as well as the associated risks. For instance, knowledge sharing in higher education leads to increased competitiveness as institutions and individuals in the same institution or different institutions compete for the same funding or awards. The overall effectiveness of a KEP is defined by not solely by the ability to store knowledge, but more importantly, who the knowledge is exchanged with (Pullin & Knight 2001). Developing a shared understanding of opportunities and risks of KE seems to benefit such initiatives in the context of higher education by building on trust and the notion of KE as a legitimate activity. Much of the focus of KE has been on the activity that flows from research (Wonkhe, 2019). For example, the clusters of institutions developed as a result of the Knowledge Exchange Framework exercise in the UK were based upon research activity and strengths and did not include any KE activities that can explicitly inform teaching practice or increase awareness among educators of the benefits of KE for professional development enhanced student learning, economic development, innovation, funding opportunities, supporting and improving problem solving.

In our exploration of contemporary KEPs, such as links between research and teaching were absent from the institutional portals we reviewed. It seems that little attention has been paid to the KE elements of teaching. Part of the argument for not doing so is that teaching only benefits the student and not the teacher, however, the act of teaching can benefit the teacher as much as the student – true teaching and learning forms a blend where all parties concerned embark on a knowledge journey together (Wonkhe, 2019). KE is an activity that draws on all three elements of research, teaching and practice and has the potential to continuously improve all three (Advance-HE, 2019). However, as identified in Elezi, E and Bamber (2018), this tri-part synergy is often overshadowed, or obfuscated by the HEIs financial or political direction, or often from a lack of communication between all stakeholders. A transparent and easily accessible portal to knowledge exchange is critical to its success, which is highly dependent on all stakeholder understanding the goals, limitations, and benefits.

Some HEIs have developed resources whose purpose is to improve this relationship, e.g., online spaces as source of teaching materials and ideas to be used flexibly in any courses they provide on KE and research impact (Oancea et al., 2015). In addition, KE is a focus for OFS (2022) initiatives to explore the benefits to students and graduates of being involved in KE activities.

There is a notable imbalance between short-term and long-term goals. HEIs may be motivated to engage in knowledge exchange activities that offer short-term benefits, such as funding for research, but may not consider the long-term implications of these activities. Dependence on funding is a significant area of ethical concern as we know, knowledge exchange can be dependent on funding from external organizations. This can lead to pressure on researchers to prioritize the goals of the funding source over the goals of their research. This form of KE can appear to be biparty model, and unidirectional, Hayter et al (2018), viewed this exchange of knowledge as a linear model. In addition, collaborations with industry partners can raise ethical concerns, particularly if the partnership is focused on developing products or services that may have negative societal or environmental impacts. (Brugnach & Ingram 2012)

Another important aspect is creating and sharing open educational resources (OER), which are teaching materials that are freely available for use, reuse, by tutors and in some cases, by students. However, some HEIs consider

Intellectual property as an issue, for example If proper agreements and contracts are not in place, there may be issues with ownership and control of any intellectual property developed through the exchange.

For example, collaborations between universities, research institutions, and industry partners can sometimes lead to conflicts of interest, particularly if the partners have competing interests or goals (fazez et al 2013). Furthermore, as we have discovered that KE activities can generate benefits for all stakeholders, Tutors, students, institution.

However, it's important to ensure that these benefits are distributed equitably among all parties.

Confidentiality and data privacy are factors of concern. Confidential information may be shared during the exchange of knowledge, and if not properly protected, can lead to breaches of confidentiality and potential legal repercussions.

Data privacy: Collaborative research might involve sharing personal data, which can have legal and ethical implications if data is not properly protected, shared and handled.

Research Methods

In parallel to the extensive literature review conducted as part of this research, primary data was collected for analysis via a questionnaire. Due to the potentially high number of participants, we opted to elicit responses via an online survey. The survey questionnaire consisted of two parts: perception of what a knowledge exchange platform is; identification of methods used for knowledge exchange. The survey was anonymous and provided us with a reasonable response rate of 94 respondents with a range of experience and backgrounds including academic (research), academic (teaching) and support staff.

Many of the questions were based on the Likert style, and at appropriate points in the questionnaire respondents were given the option to add free text responses. The questionnaire provided a structured set of questions that were designed to elicit meaningful responses from the survey population. It was presented in an easy-to-understand format, which was free of bias, and only sought responses that were relevant to the research aim.

The survey population was derived of teaching and learning practitioners with experience of supporting learners and collaborating with peers in an online context. Although cognisance as to the advantages of structured and semi-structured interview is noted, the high numbers of the targeted population make these approaches impractical. Of our targeted population our questionnaire received 94 responses, which represents a significant sample affording meaningful results.

Survey Results and Analysis

Respondents were asked to describe KE. To facilitate answering this question, they were provided with a generic definition of KE as: 'Process that brings together academic staff, users of research and wider groups and communities to exchange ideas, evidence and expertise.'

In addition, the respondents were asked to decide which ones out of a set of definitions best described KE. Most of the respondents (74.5%) chose the definition that put emphasis on exchange of knowledge but in the context of the interaction between universities and society.

In addition, respondents were asked to offer views on what describes KE and 94 responded. Their views were commonly complementary as they delved into the key characteristics of KE: 'sharing', 'best practice, information and ideas', 'evidence and expertise', 'outside the academia' to 'develop a collective understanding and language to develop them'. This exchange took place 'between interested parties', involved 'diverse groups of staff' in a 'community willing to share experiences to build a body of expertise to the mutual benefit of everyone' and to 'promote the advantage of individuals and the learning community in general.'

Some of the comments applied these descriptions to their professional roles, for instance an AL commented that: "I encounter KE every day in my AL role, simply through email and forum contact with other tutors". Another respondent commented that KE involved sharing good practice between all (not just focussed on researchers). The benefit for the institution was also mentioned as KE brought together all members of the OU and "should be two-way".

Some of the processes and channels of communication for KE to take place were also mentioned: KE took place in formal circumstances (training, conferences) but also in a repository/community where information could be sought on a need-to-know basis (or 'want-to-know'). Knowledge exchange concerned partnerships and disciplinary knowledge.

Importance of knowledge exchange

73% of the respondents declared that KE was important in their role. Those that did not, indicated either that KE was not part of their professional role or that their HEI did not draw as far as they were concerned upon capability or capacity to carry out KE tasks. As someone commented, it is in modules with final year projects and some end of module assignments, especially at postgraduate level, that KE becomes important to lecturers.

Respondents were asked to select platforms that enabled KE in the school. Internal fora of communication, such as the student and tutor forums featured prominently (70.2% and 55.3% respectively) in their choices, as platforms perceived to enable KE. Additional platforms, such as scholarship events, were also rated highly as enablers (68.1%). Other platforms, more traditionally linked to KE, such as the research group communication channels and research group seminars were not rated as highly (37.2% and 41.5% respectively).

In specific comments some respondents identified other channels such as external events that engage academics (e.g., outreach, external collaboration, workshops, industry conferences), informal meetings, communities of practice and team presentations, that facilitated this exchange.

Awareness of knowledge exchange

Respondents were asked to rate their knowledge and awareness of aspects related to KE in the school. Teaching and learning resources were selected as the area where participants were most aware of or most knowledgeable (62.8%). Awareness of specific KE activities scored much lower (19.1%).

Table 1: Awareness of KE.

1	Teaching and learning resources	62.8%
2	Scholarship and research projects	39.3%
3	Widening access participation	24.7%
4	<i>Scholarship and research outputs</i>	19.2%
5	Knowledge exchange activities	19.1%
6	<i>Others</i>	4%

Importance of knowledge exchange and professional roles

Respondents were asked to prioritise knowledge exchange initiatives and resources related to their practice based on their perception of how important these initiatives were for their role. Initiatives and resources prioritised by most of the respondents were in teaching and learning and in widening participation.

Figure 1: Initiatives and Resources Related to Practice

Methods of searching and accessing resources

Participants of the survey were asked to select the tools they used to access and search for resources. The most popular tools were search engines, (inc. Google Scholar), 92.6% and the OU library, 76.6%. Other tools or platforms linked to KE initiatives such as ORO or ORDO (Open Research Data Online), were not as popular (22.3% and 12.8% respectively). Social media tools also featured in this set of tools (26.6%).

Respondents were asked what external KE platforms they used. Favoured external platforms were social media sites, mainly Twitter and Facebook, academic social networks (of which, ResearchGate was the most popular), professional networks such as LinkedIn, and disciplinary/professional websites in IT and Computing. Other universities' sites were also mentioned by 11 respondents and interestingly, only 3 respondents considered their own institution as an external KE platform.

Barriers to knowledge exchange

The survey respondents were asked whether they experienced any barriers to either accessing or sharing KE resources. Overall, access, technology, time, and professional roles were perceived as the main barriers. Perceived barriers were associated with poor usability of a platform or portal and lack of consistency. How resources and information were organised created access problems in navigating and finding relevant information. As someone commented, "Online portals are chock full of all kinds of things, it is hard to see the wood for the trees". Paywalls for accessing journal articles or 'proprietary' content, access to only part of a resource and barriers when sharing resources (IT, systems, receipt of timely information during/after research projects etc) also created access obstacles according to the respondents.

Another aspect of access had to do with poor search skills and inadequate knowledge of how and where to access knowledge. It also related to digital skills (or lack of) of the users and lack of awareness of the existence of resources.

Technology

The type of technological platform used, and its functionality was perceived as a potential barrier. Respondents commented on "non intuitive" technologies and technologies that "do not always work." Some of the poor communication features or the platforms for KE that featured in the survey were also mentioned. As someone commented: "Forums are so 'noisy' in the modern age that I tend to avoid them." Another similar comment pointed to "text being subject to misinterpretation, meaning is lost sometimes, there is little room for negotiation of meaning."

Workloads were perceived as a barrier stopping engagement with KE. This was also linked to lack of time to engage with research or scholarship, absence of compatible research areas and equipment.

Finally, maintenance, cost and accessibility were mentioned as barriers when accessing or sharing KE resources on platforms.

51% of the participants indicated that there was a need for a unified KE platform for their school and faculty. Some of the comments referred to the need of a centralised location that would be easily accessible. This would offer benefits in navigating between sources of information and reducing central communication from the HEIs. As someone commented: "(The platform) would help navigate between sources of info - could also link to reducing volume of messages from their organisation's communication team on a variety of things that aren't relevant to recipients." Other comments referred to the pandemic impact. As someone commented: "KE really dropped due to lack of informal networking over the pandemic."

Discussion and conclusion

Our investigation looked at KE initiatives in the UK higher education and internationally. A common characteristic of all these initiatives was that focus has been on research excellence and related impact rather than teaching. Our results and findings are derived from a survey of HEI practitioner, mainly teaching staff focusing on KE and their perceptions in relation to KE.

The results from our study confirm that little attention is given by institutions to the synergy of teaching and KE for the benefit of staff and students. This discrepancy between research and teaching in the context of KE is starkly reflected in the results of empirical data we collected.

Our findings indicate that perceptions of knowledge exchange were shaped by professional identities. In this respect, learning and teaching resources featured prominently in the notion of KE and perceived priorities and scored highly in key categories of the survey. Teaching and learning resources were also selected as the area of KE where participants were most aware or most knowledgeable. It was also highlighted that HEIs fail to accommodate teaching significantly in the context of KE. In addition, a key objective of our investigation was to identify staff perceptions of KE. The respondents' perceptions pointed towards the centrality of teaching in a KEP, mainly in the form of learning and teaching resources, many favouring external platforms such as social media sites, academic, social, and professional networks. Our study also highlighted perceived barriers as being lack of access and lack of functionality in terms of operational features of a KEP.

In further work this study could be extended to develop a theoretical model of a KEP that could be of significant benefit to all stakeholders.

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