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# CHER 28th Annual Conference

The Universities' 'Third Mission' and the Experiences and Perceptions of Early Career Researchers in the Arts and Humanities

Track 4

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## **Structured Abstract:**

Increasingly the role of the university is shifting and its remit broadening. The two traditional missions of the university, teaching and research, have been joined by a 'third mission'. Whilst the third mission has been defined in a number of different ways, Sam and van der Sijde (2014) argue that either broadly or narrowly defined, it relates to the contribution of the university to socio-economic development. This widening of scope is reflected in the concept of the 'entrepreneurial university' wherein the university is transformed into a more entrepreneurial actor engaging in innovation, technology transfer and working with external organizations (Clark, 1998). Thus the role of the university has changed significantly (Audretsch, 2014) and these changes have impacted upon academics themselves (Rinne and Koivula, 2009). Consequently, the environments in which researchers begin their careers have also changed and this, we argue, will impact their expectations and perceptions of their academic career. This paper considers the experiences of Early Career Researchers (ECRs) with respect to the third mission and the broader concept of Knowledge Exchange (KE) focusing on the less discussed Arts and Humanities (A&H) disciplines.

Research into ECRs is hindered by the difficulty in defining the population. For instance, Akerlind (2005) emphasises the difficulties in defining postdoctoral researchers with no clear consensus on the role and substantial variations across universities. Moreover employment in academia is often provisional and insecure (McAlpine and Emmioglu, 2014), leading to a shifting population of study. These difficulties are further compounded in the Arts and Humanities where there is a smaller population of ECRs. Laudel and Glaser (2008) note that employment opportunities differ by academic subject, with postdoctoral research positions more common in science disciplines than in the humanities and social sciences.

The qualitative data for the research presented in this paper was collected as part of an ECR training programme, Skills in Action, which built a network of A&H ECRs through a series of 'Digital Salons' (physical and digital discussions with provocateurs) and a two-day 'Festival of Skills' (consisting of interactive workshops and talks from established and peer speakers). Skills in Action participants were largely A&H ECRs but also included doctoral students and a minority of established researchers.

Analysing the data gathered across the programme demonstrates that A&H ECRs are critically aware of the challenges they face in the evolving academic landscape, namely undertaking research and developing independent research profiles whilst negotiating fixed term contracts and collaborating with external actors across the private and third sectors. A questionnaire conducted at the festival supported discussions throughout the event, and indicated that A&H ECRs are already actively engaging in external engagement and collaborative practice, viewing

it as a vital part of their work. Benefits from taking part in such activities include personal growth and career development, yet recognition of the value of such work is situated within an awareness of the current UK research context. This awareness can influence the extent and type of external engagement conducted by ECRs.

The study was exploratory in nature and focused on understanding the UK A&H ECR community through developing and building connections. The sample was relatively small in size (estimated at 50 ECRs across the digital and physical programme of events), and self-selecting, i.e. participants were those that were interested in the skills and challenges associated with their role. However, the findings indicate that this is an area worthy of further study.

The paper sheds light on the experiences of A&H ECRs adding to the body of knowledge about this under-researched group. Understanding these experiences and perceptions may have practical implications for the University and its approach to ECRs and their academic careers.

This paper considers the context of the Arts and Humanities researcher, in particular their attitudes and approach to external engagement, particularly pertinent when considering the third mission and the changing academic culture. Reflection on these practices should therefore be of interest not only to the Arts and Humanities but to all disciplines, as a means of identifying alternative, non-science based pathways towards achieving the third mission.

**Keywords:** Early Career Researchers, ECRs, Arts and Humanities, Third Mission, Knowledge Exchange, Collaboration

## Introduction

Increasingly the role of university is shifting and the remit is broadening. The concept of the 'third mission' has emerged, with the first mission of teaching and the second of research, being joined by that of engaging with external organisations. As universities increasingly focus on external engagement, practices such as Knowledge Exchange (KE) or public engagement may play a more central role in new academics' careers. Whilst the 'triple helix' model of academic-government-industry collaboration is well established in scientific disciplines, in other disciplines such as the Arts and Humanities (A&H), modes of engagement have been less comprehensively discussed. Thus it is timely to explore Early Career Researchers' (ECRs) perceptions and understanding of knowledge exchange as it may play a more pivotal role in their future careers. This article reports on the findings of an ECR training programme, Skills in Action, funded by the UK Arts and Humanities Research Council, as part of the programme 'Digital Salons' and a 'Festival of Skills' were held to build a network of ECRs and develop their understanding of KE. Key findings that emerged from data analysis were insights into Arts and Humanities ECRs' lived experiences of KE, the challenges in understanding and engaging in knowledge exchange and the value of collaboration to new researchers in the changing academic context.

## The Role of the University

In addition to the traditional teaching and research roles of the university, third mission activities aim to link the university more closely to its surrounding society (Pinheiro *et al.*, 2015). The third mission has been defined in a number of different ways and as Pinheiro *et al.* (2015) note consensus on the conceptual foundations is required. However as Sam and van der Sijde (2014) argue, either broadly or narrowly defined, it relates to the contribution of the university to socio-economic development. This widening of the scope is reflected in the concept of the 'entrepreneurial university' wherein the university is transformed into a more entrepreneurial actor engaging in innovation, technology transfer and working with external organizations (Clark, 1998). Indeed academics predict that changes in funding will lead to

increasing co-operation with business and the role of the university shifting from *'ivory towers to knowledge brokers'* (Gassman *et al.*, 2010, p216). Thus the role of the university has changed significantly over time and it continues to do so (Audretsch, 2014) with ever increasing demands placed on higher education (Sam and van der Sijde, 2014). Recently Audretsch (2014) argued that the changes in the role of the university continue apace with a shift from the *'entrepreneurial university'* towards the *'university for the entrepreneurial society'*. Here the role of the university is yet wider and more extensive still, with it playing an increasing role in enhancing entrepreneurial capital in society, and this both broadens and increases the complexity of its mandate (Audretsch, 2014).

The changes in the role of the university have fundamentally altered the university within itself and impacted upon academics themselves (Rinne and Koivula, 2009). Although it could be expected that these changes would take time to permeate academic culture, many academics recognise the requirement to collaborate with external partners and act entrepreneurially (Rinne and Koivula, 2009). Kyvik (2013, p526) identified a number of stages that have occurred, which have impacted upon academic staff and their role, including the *'massification'* and *'marketization of universities'*. The combination of increased funding pressures and increased managerialism (Price *et al.*, 2014) are also impacting upon the context within which academics operate.

Academics may contribute to the third mission through a variety of activities for instance through the practice of knowledge exchange or public engagement. Whilst the *'Triple Helix'* model of university-industry-government relations (Leydesdorff and Etzkowitz, 1996) offers insight into the new mode of operation this is most commonly discussed in terms of science and technology. For example, Etzkowitz *et al.*, (2000) and Etzkowitz (2003) discuss the Triple Helix and the role of the university in depth and with a focus on technological innovation.

Nonetheless, research indicates that there may be obstacles in engaging with the third mission. A significant barrier may be the organisational culture of universities that was found to inhibit third mission activities by discouraging intra-organisational knowledge sharing (Martin and Turner, 2010). Challenges in collaborations between industry and university were encountered due to differences in the systems of knowledge production and a weak alignment of attitudes (Bruneel *et al.*, 2010). Difficulties also emerge at the individual level, and recent research by Watermeyer (2015) emphasised the problems that participating in public engagement may create within academic identity. For academics taking an active role, public engagement was found to have *'diluted and despoiled their reputation as researchers; and had caused distancing from research activity'* (Watermeyer, 2015, p4). This fracturing of their academic identity led to an exclusion from opportunities to engage in research (Watermeyer, 2015). Consequently the extant literature demonstrates the difficulties for academic staff in engaging in third mission activities within the university.

## Defining the Early Career Researcher

Given these changes in the university context, and the competing demands in the academic environment, it could be expected that the environment in which new academics begin their careers has changed and this may impact upon their perceptions and experiences. Here the experiences of ECRs are of particular interest. Research into the experiences of postdoctoral researchers is hindered by the difficulties in defining the postdoctoral population (Akerlind, 2005). Indeed the definition of an Early Career Researcher differs across the literature. For example, Bazeley (2003, p274) offers a definition as *'An early career researcher is one who is currently within their first five years of academic or other research-related employment allowing uninterrupted, stable research development following completion of their*

*postgraduate research training.* Whilst the UK Arts and Humanities Research Council define an ECR as *'researchers that are within 8 years of the award of their PhD or equivalent professional training, or within six years of their first academic appointment'* (AHRC, 2013, p7).

Additionally, varying terms are used, and as Tynan and Garbett (2007) note, the labels confer differences in understanding. For example, the term Early Career Academic may also be used however there is also a lack of an agreed definition for this term (Price *et al.*, 2014). Chen *et al.*, (2015) utilise the term 'Early Career Academics' arguing that the use of the term 'academic' offers a broader approach than the term 'researcher' and can include doctoral students, postdocs and assistant professors. Hence it is acknowledged that there is no agreed definition of terminology and in this article, given the focus on Arts and Humanities researchers, the AHRC definition will be adhered to.

The experiences of ECRs are of particular interest as *'the scholarly literature ... has largely neglected the experiences of postdoctoral scholars in their immediate post PhD years'* (Scaffidi and Berman, 2011). Furthermore as a *'marginalised group in a highly complex context'* (Tynan and Garbett, 2007, p412), ECRs may encounter particular problems in the academic environment. Previous research has found that employment in academia is often provisional and insecure (McAlpine and Emmiöglu, 2014). There remains no clear consensus on the role of the postdoctoral researcher with substantial variations in the role across universities such as unstructured and ad hoc training and career support (Akerlind, 2005). Regarding PhD students and researchers' understanding of academic work, McAlpine and Turner (2012) found that individuals transitioned from a naïve understanding of academic work to a more grounded experience of academic work. McAlpine and Emmiöglu (2014) offer the recommendation that doctoral programmes should ensure that students understand the now extended academic career paths required to be competitive.

ECRs also encounter a number of challenges including demanding teaching commitments that may hamper research progress (Bazeley, 2003; Tynan and Garbett, 2007; Hemmings, 2012), a lack of a career structure (Scaffidi and Berman, 2011), concerns due to job insecurity (Bazeley, 2003; Price *et al.*, 2014; Scaffidi and Berman, 2011) and short-term contracts and competition for academic posts (Hakala, 2009). A lack of guidance for junior researchers by senior researchers was also identified as problematic (Hakala, 2009) with the highly competitive funding environment making it difficult for new researchers to compete with established researchers (Bazeley, 2003). The problem of professional isolation (Price *et al.*, 2014) also emerged. This sense of isolation arose as academic newcomers expected an open and collegiate environment but found an individualistic and competitive environment resulting in their experience of the academic environment as alienating and lonely (Gravett and Petersen, 2007). Peer networks may offer a potential remedy to this however these networks may be dynamic and shifting. For instance, in their study of a doctoral network, Pilbream *et al.* (2013) found it to be transient and therefore difficult to manage. Thus the networks established at the doctoral stage may not sustain and continue to support researchers at the ECR stage. Indeed prior research found that many post-doctoral researchers were not sufficiently embedded in the university system to take advantage of professional development and networking opportunities were lacking (Scaffidi and Berman, 2011). To summarise, ECRs may be presented with a number of obstacles and barriers. Attention will now turn to those ECRs in the Arts and Humanities field.

## Early Career Researchers and the Arts and Humanities

The experiences of ECRs in the Arts and Humanities are of particular interest for a number of reasons. Recently there has been a notable rise in the number of students undertaking

doctoral studies in subjects that comprise the Arts and Humanities. For example, in Creative Arts/Design between 1996/97 and 2009/10 there was a 338% increase with a rise from 105 students to 460 students in England. In percentage terms the Creative Arts/Design had the largest rise of all the subjects (HEFCE, 2011). Similarly over the same time period the percentage of students undertaking doctoral studies in the Humanities increased by 66% (HEFCE, 2011). Although PhD research varies from subject discipline to discipline, it is the production of the autonomous researcher that forms the common strand between doctorates across the University (Gurr, 2001). Hence the PhD process produces *'a licensed scholar, a doctor, who, appropriately credentialed, is deemed safe to pursue research unsupervised, autonomously'* (Johnson *et al.*, 2000, p136). Whilst it is acknowledged that not all recipients of a doctorate pursue an academic career, nor conversely do all ECRs enter academia through the PhD route, nonetheless, more students pursuing the doctoral path may translate into the emergence of more ECRs in the Arts and Humanities.

Furthermore the experiences of ECRs within the Arts and Humanities may differ from their colleagues in other disciplines. In the first instance, employment opportunities vary by academic subject with postdoctoral research positions more common in science disciplines than in the humanities and social sciences (Laudel and Glaser, 2008). Thus Arts and Humanities ECRs may be less prevalent than their colleagues in other disciplines. In addition, Arts and Humanities ECRs may operate in emerging research contexts. For example, for those pursuing research in the field of Art and Design, this is a relatively new practice in comparison to other academic subjects. As Durling (2002, p80) summarises *'with few exceptions, art and design has not been notable as a domain with a well established research ethos'*. However, research activity is increasing steadily (Durling, 2002). Hence ECRs in this subject area are entering an emerging research environment set against the wider background of a changing university environment.

There may also be differences in the structure of the research context. For instance, Scaffidi and Berman (2011, p694) found that *'postdocs in the Faculty of Arts, Humanities and Social Science and the Faculty of Law work as sole researchers, rather than part of a larger research group. In fact, isolation and a lack of collaborative research environment were mentioned by some postdocs working in these faculties'*. Similarly Price *et al.* (2014) reported that workplace isolation was more acute for humanities academics rather than those in science where research is conducted in teams. Consequently there is evidence to suggest that Arts and Humanities ECRs may be more isolated than their colleagues and there is a need to further understand their experiences. This isolation may further impact on their experience of third mission activities.

## Rationale for the Programme

In recognition of the changes taking place in terms of the university, its role in society and the impact at the individual level, it is timely to explore how these changes may impact on ECRs. As universities increasingly focus on the third mission, external engagement may become more prevalent and play a more central role in the career of academics. Thus it is pertinent to explore ECRs' perceptions and understanding of these practices as it may play a more pivotal role in their future career than previous generations of academics. ECRs in the Arts and Humanities disciplines are of particular interest because they are less prevalent and more likely to be isolated therefore their experiences may have been overlooked. It is acknowledged that academics in the Arts and Humanities have long practised external engagement working with partners in cultural, arts organisations, the creative industries and government organisations. However these practices and modes of engagement have not been discussed as comprehensively as those in the science disciplines (e.g. the concept of the Triple Helix).



## Methodology in Practice

Empirical data that supports this paper was gathered during an Early Career Researchers programme led by the authors, Skills in Action, which aimed to bring ECRs together to explore and develop their understandings of knowledge exchange through a series of ‘Digital Salons’ and a ‘Festival of Skills’ (see Table 1) that took place in 2014. Six Higher Education Institutions (HEIs) were actively involved in the programme as well as three external partners (two arts organisations and creative industries consultant). ECRs at each of the HEIs contributed by hosting events in their local area (e.g. Digital Salons in Aberdeen and Dundee) as well as helping to promote and develop the programme for the concluding two-day festival in Edinburgh. An additional #ECRchat event was hosted on the social networking platform Twitter, as part of the Early Career Researcher Chat. This enabled ECRs from across the UK and internationally to join in the debate; the online discussion attracted twelve participants from a range of backgrounds including post-doctoral researchers, an independent researcher, knowledge exchange officer and lecturer with participants based across the UK, mainland Europe and Australia.

Event	Description	Documentation	Attendees
<b>2 x Digital Salons</b>	Lunchtime seminars discussing knowledge exchange and best practice for collaboration with pairs of provocateurs from academia and industry in a panel discussion hosted by an ECR.	Live video streaming and archiving on the network website. Live tweeting, archived using Storify <sup>1</sup> .	Digital Salon 1: 8 physical + 7 live viewers. Digital Salon 2: 9 physical + 13 live viewers.
<b>#ECRchat</b>	Authors hosted a live Twitter debate as part of the #ECRchat programme <sup>2</sup>	Public debate accessible via Twitter and archived on Storify, linked to by network website <sup>3</sup> .	12 active contributors from across disciplines, unknown observers.
<b>Festival of Skills</b>	A two day event in Edinburgh exploring collaboration, with sessions focusing on networking, challenges for ECRs, communication, and alternative publishing. A World Café (i.e. Fouché & Light 2011) session on Day 1 unpacked experiences and understanding of knowledge exchange.	Day 1 visual sketching, and World Café flip chart documentation. Day 2: photographs. Both days: attendee questionnaires, some sessions live streamed.	36 attendees, many of whom attended on both days, comprising 9 PhD students, 3 senior academics, 24 ECRs (all Arts and Humanities).

**Table 1.** The Skills in Action programme of events

Event attendees were recruited through the networks of the multi-institution programme team as well as forwarding information to other UK HEIs and networks. All events were free to attend, with a limited set of bursaries available to support attendance by early career researchers and doctoral students (ECRs are often unable to access institutional research or travel budgets).

The design of the programme was informed by the authors’ insider perspectives as ECRs, and this is reflected in the methodological approach, adopting a participatory, action research perspective (Townsend, 2013). Whereby community engagement and participative inquiry sought to better understand both the current state of A&H ECRs as well as reflect on our collective practices and experiences of knowledge exchange and collaborative practices.

Each event was documented in a variety of ways (Table 1) and data was collected from a number of sources including: a) questionnaire responses from attendees at the two-day festival on their experience of and understanding of collaboration and knowledge exchange, b) documentation and reflections on a lunchtime World Café discussion session at the two-day festival, and c) a Storify archive of #ECRchat. Sources are referenced throughout the paper by source name and, where possible, an anonymised participant number, for instance:

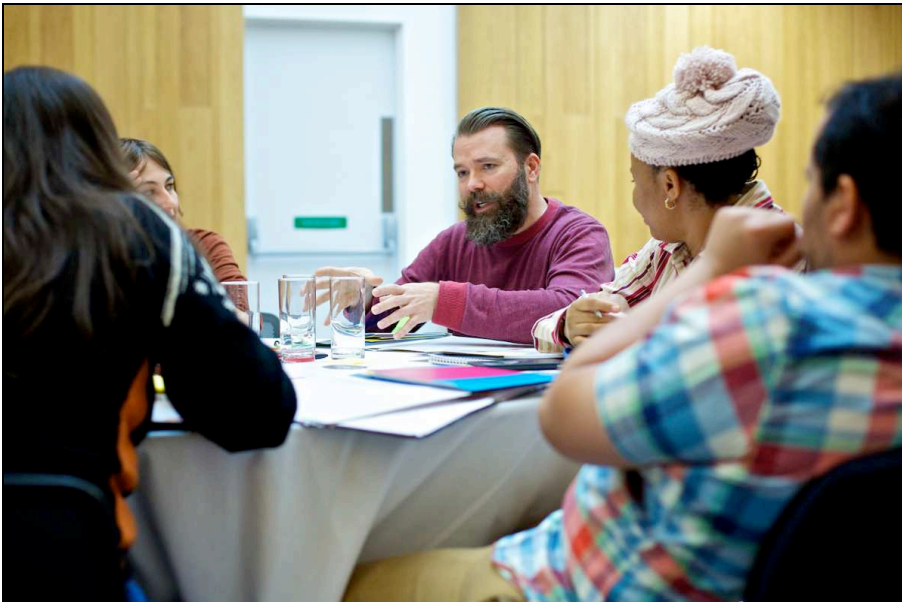
- [ECRchat1] refers to #ECRchat event, participant 1
- [WorldCafe] refers to documentation from collaborative World Café discussion, with participant identity unknown
- [ECR1] refers to an ECR response to questionnaire

Collated material was analysed using an open coding system (Rubin and Rubin, 2005) allowing themes, concepts and their relationships to emerge from the coded data.

## Findings

Reflections on the data gathered from across the Skills in Action programme of events and network reveals findings in three key areas;

- 1) Extent and the *experience of knowledge exchange and collaboration* undertaken by arts and humanities ECRs
- 2) *Understandings and ambiguities of Knowledge Exchange* as a term and concept; and
- 3) Consideration of the *perceived value of Knowledge Exchange* for individual researchers.



**Figure 1.** Peer learning and experience sharing at the Skills in Action Festival

As this section explores, each of the above points are grounded in the diverse and rich experiences of the ECRs who took part in the network. Of the festival attendees, all self-identified ECRs had experience of working collaboratively as an academic with external partners and/or organisations. Indeed, a significant anticipated and realised benefit of the programme was the peer learning and sharing of experiences that occurred at events (Figure 1).

### 1. A&H ECRs' Experiences of Knowledge Exchange and Collaboration

As we will explore, the definition of Knowledge Exchange is subject to a multitude of ambiguities and interpretations, therefore, in the Skills in Action programme we often chose to use the broader, less contentious, term 'collaboration' to identify and unpack ways of working across disciplines and organisations.



ECRs attending the Festival of Skills shared experiences of collaborating, with many researchers stressing the central importance of collaborations for their research, e.g.:

“[I] work within the arts so all my research in the field is with artists, galleries etc. Research includes and is mostly collaborative... It forms the core of my data. My work is about others, so it is the essence of what I do.” [ECR1]

“Collaboration to further my research has been imperative, broadening my opportunities and expertise. Collaboration is central to the [project name] research agenda.” [PhD24]

The nature of these collaborations (and, we argue, knowledge exchange practices) varies, from engaging and informing policy to industry consultancy, to shaping new business practices, arts outreach, and third sector collaborative working;

“[Experience includes] knowledge exchange project with the Edinburgh International Festival, local television project with STV [local television station] and digital media project with Grid Iron theatre.” [ECR23]

“My work is policy driven and advises policy. I must work with policy makers.” [ECR20]

“[I] collaborate regularly with industry (small scale businesses) that are willing to move into and accommodate new creative practices.” [ECR13]

“Worked with industry retailer Marks & Spencer, Oxfam and other universities” [ECR10]

The above range reflects the A&H context, showing creative practices and the impact of humanities research in policy. Indeed some ECRs felt that knowledge exchange is “almost mandatory. We are compelled to collaborate.” [ECR16]

Reflections on collaborations (predominantly between academia and external organisations, rather than intra-academia/intra-institutional collaborations) indicated a range of experiences, highlighting some of the challenges of managing expectations between stakeholders, and a need to align these various expectations across the lifespan of projects [WorldCafé]. Whilst many ECRs stressed positive experiences, a recurrent cited challenge was *time*. Time for undertaking and managing collaborative projects as resource intensive activities, and time to balance knowledge exchange with other academic pulls such as teaching and research:

“I agree that presents a challenge #ecrchat orchestrating KE takes time” [ECRchat9]

“So I guess another question is how to find the time and energy for KE when there’s so much pressure to teach and research” [ECRchat10]

“Time pressures within teaching workload, nature of part time employment” [ECR13]

Systemic differences and “different logics driving behaviour /defining interests” [ECR26] were also noted between academia and industry collaborations and the “different perceptions of appropriate timescales; money - lack of; unlikely to produce research that can be published” [ECR11] were also challenges. How might ECRs (and researchers more generally) be able to negotiate and identify mutually beneficial dissemination channels for all parties? Does research need to realign itself? One independent ECR commented that they publish as sole

authored to better meet paper deadlines, co-authoring when “the writing would be better than I can do alone.” [ECRchat1] Open access of publications for publically funded research is well underway and might begin to address these issues, in addition, online publishing such as Object Lessons<sup>1</sup> and The Conversation<sup>2</sup> offer alternative avenues.

Strategies of addressing challenges of collaborating and KE included developing shared language and “common ground”, a need to become “bilingual”, and ways to explain the rationale and value of the research.

## 2. Understandings and ambiguities of Knowledge Exchange

A key aim of the Skills in Action programme was to consider what knowledge exchange means and what ECRs understand by the term. It is clear however, that a uniform set of understandings does not exist, as also evidenced by Graham *et al.* (2006). Formal definitions, as defined by funding bodies for instance, generally agree that it relates to knowledge being exchanged between academia and at least one external agent, such as industry, policy or arts and cultural organisations:

*‘a co-production of new knowledge through the interaction of academics and non-academic individuals and groups, which is of benefit to both parties and is distinct from the one-way dissemination of research findings.’* (The University of Nottingham, n.d.)

Definitions of KE emerging from the research programme included broad forms of engagement that spanned from, “every time you open your mouth [to speak]” [WorldCafé], to “any discussion of my topic area outside traditional university teaching/research setting” [ECRchat3], and “Maybe just getting to talk with people outside the ‘normal’ research/teaching environment?” [ECRchat5] More conventional definitions such as “exchange of know-how” [PhD3], and “Creating networks and sharing expertise” [PhD7] also emerged.



Figure 2. Illustration of World Café, Skills in Action festival.

<sup>1</sup> <http://objectsofobjects.com>

<sup>2</sup> The Conversation is “a collaboration between editors and academics to provide informed news analysis and commentary that’s free to read and republish” <http://theconversation.com>

A discursive world cafe session (Figure 2) led to a set of requirements or characteristics of knowledge exchange projects:

- Industry partner (large body or SMEs [Small and medium enterprises])
- Shaping body/policy partners
- Interdisciplinary
- Creative/creative practice
- Can be led by academia or industry or communities
- Needs to be flexible/organic to evolve – but with a set of aims
- Requires key person to keep it on track

There was some confusion throughout the network events as to the distinction between KE and interdisciplinary working. That KE demands external collaboration appears to be a definition not based on common-sense or understanding of the processes but rather a criteria determined by funders or at institutional levels. The live Twitter debate considered this issue;

“I’m a bit disappointed that we are only focusing on academics -> public, vice versa, and not between academics of diff disciplines.” [ECRchat4]

“We also need KE between disciplines. I admit this is my hobby horse, but still - STEM & AH can do much more KE between them.” [ECRchat4]

Similarly, at times during the network programme, discussions on KE merged into public engagement,

“Wondering if KE counts as an informal “engagement” activity?” [ECRchat10]

“My university talks of “engagement”, which is, I think, a similar thing.” [ECRchat10]

Even teaching as knowledge exchange was mooted;

“...Would teaching need to be two way to qualify? (i.e. lec[turer]. learns too)” [ECRchat3]

“I would argue \*good\* teaching is always two-way... although I think we need to pinpoint the ways in which it is so” [ECRchat5]

One common theme however was the reciprocal nature of KE, “mutual cooperation between groups of people for the benefit of both” [ECR1] and “Reciprocal learning” [ECR11].

Several definitions from ECRs were aspirational, with clear societal aspects, e.g.

“Sharing new and existing forms of knowledge, openly for the greater benefit.” [ECR13]

“The facilitation and ability to share and reflect on learning to widen horizons and benefit others.” [PhD12]

However, another theme that emerged was that of limitations to KE that it “might work for some disciplines but NOT all” [WorldCafé], and that it is about “Establishing what partners want, redefining research goals” [PhD17]. This last quote suggests a set of unbalanced power dynamic between academic and external organisations, perhaps reflective of the respondent’s

past experiences of collaborative working. One discussion from the World Cafe disliked KE, seeing it as a commoditisation of knowledge through conducting transactions, reminiscent of the culture of academic capitalism (Slaughter and Leslie, 2001).

Other responses embedded wider academic frameworks, with one respondent stating that collaborative working “cuts to the core of understanding what impact is for research and helps to achieve it” [ECR19], and likewise “[KE] Sets the foundations /potential for impact.” [ECR19] Once discussed in a wider academic context, a degree of cynicism about knowledge exchange and the genuine value institutions placed upon it was debatable:

“Pity it doesn’t count the same as academic publishing...or can it?” [ECRchat10]

“In terms of universities and their attitudes, surely ‘impact’ (that dirty word!) can be flagged up when talking about KE.” [ECRchat4]

The ECRchat session suggested anecdotally that some institutions require evidence of public engagement or knowledge exchange as criteria for promotions, this could be an additional factor in encouraging the marginalised ECR community to engage. However, some researchers suggest that KE “maybe describes a behaviour we have always engaged in” [WorldCafé].

### 3. The Perceived Value of Knowledge Exchange

The Skills in Action programme showcased different examples and types of collaboration and academic experiences, in particular through our opening Digital Salon events, with pairs of provocateurs from industry, third sector and comparatively new academics making a transition from industry. This breadth mirrored the experiences of ECRs who took part in the programme, as we have seen above. However, given the varied experiences and the challenges and limitations of KE mapped against the other pulls on an ECR’s time (i.e. teaching, research, publishing, grant writing, life) what incentivises ECRs to do KE? How should we frame it? As collaborative research projects, or actively as ‘knowledge exchange’? KE provides opportunities to expand connections and networks, potentially carving out a niche but at what cost?

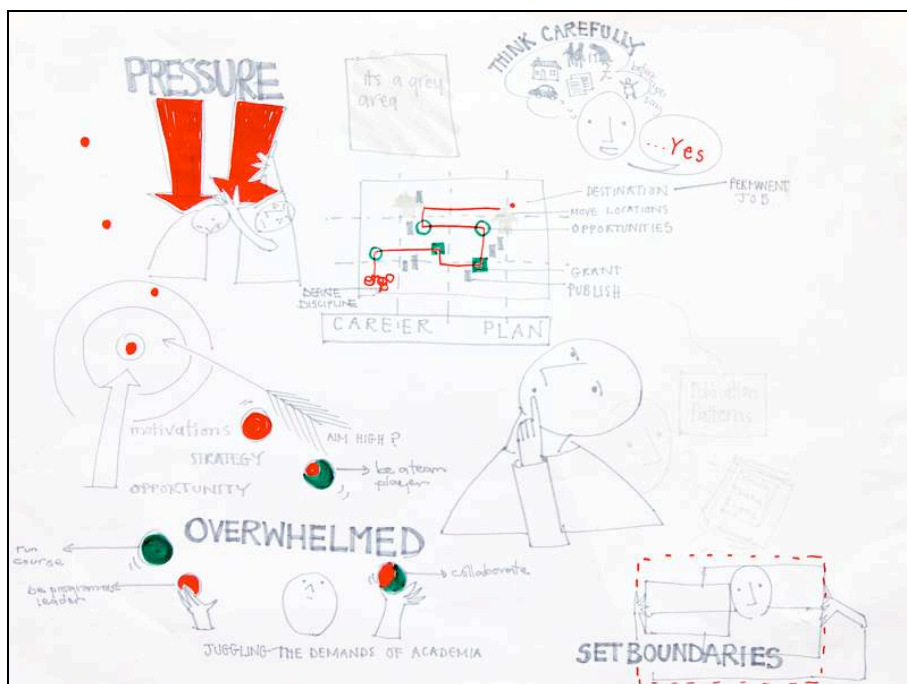
Perhaps unsurprisingly, participants felt that KE gives “[a] broader input to my research” [PhD22], and is “interesting to get a new perspective on research - considering writing” [ECR6], even reflecting that, “It’s not necessarily the project, but the people you meet” [WorldCafé]. As evidenced by the literature on previous studies, being an ECR can be an isolating experience. However we define knowledge exchange, by necessity it involves communication and networking, resulting in input and feedback on research from a wider set of perspectives.

Whilst it was acknowledged that funding should not be driving force behind undertaking collaborative or ‘impact’ rich work, a key incentive for KE is the potential of funding;

“Incentives [for KE] include support, funding, may lead to further opportunities in future” [ECRchat11]

“[Incentives include] funding, but often with strings attached, which not all universities implement effectively.” [ECRchat3]

The challenge and implications for research quality inevitably came up in network discussions, with “choices driven by ‘REF’able outcomes” [WorldCafé]<sup>3</sup> (see Figure 3).



**Figure 3.** Challenges facing early career researchers, Skills in Action festival discussion.

Although collaborative working was almost universally considered to have some positive outcomes, it was tempered by a need to align with research, being potentially “inspirational but not necessarily rewarding in research terms.” [ECR26]

Concerns on “selfishness” [world cafe] and being driven by a research culture defined by self-interest reflect the transient and insecure nature of the ECR condition, whereby considerations of career, CV building, keeping options open for non-academic careers are ever present. Traditional publishing remains an imperative;

“at least in the UK I think pub[lications] still trump everything else when looking for an ECR job” [ECRchat5]

“Quite tricky when I see PhD students being encouraged to pursue KE - a good thing generally but maybe not so smart career-wise if it leads you to neglect trad[itional] publications.” [ECRchat5]

Critically therefore, was the understanding that “you have to know why you are engaging in KE in order to maximise the benefit of it.” [WorldCafé]

## Conclusion

The findings from the Skills in Action programme indicate that A&H ECRs are critically aware of the challenges they face in the evolving academic landscape, in terms of undertaking research and developing independent research profiles whilst negotiating fixed term contracts and

<sup>3</sup> REF: Research Excellence Framework – the system for assessing research quality in UK higher education institutions.

collaborating with externals across private and third sectors and this correlates with the broader literature on the ECR experience (e.g. Scaffidi, 2011).

All ECRs who completed the festival questionnaire were or had engaged in collaborative research with external agents, not simply public engagement or dissemination of their research, but in partnership with organisations and businesses. Many A&H research methods openly advocate outward facing approaches, from ethnography, collaborative community-based artistic practices, to participatory action research and participatory design practices, and this was reflected in the intrinsically collaborative nature of research conducted by some of the programme participants. Furthermore, several UK funding streams actively support and demand meaningful community engagement as requirements for successful proposals. Therefore, we argue that conducting KE is an important experience and skill set for ECRs and in particular A&H ECRs, who are less likely to work in a research team than science ECRs. These activities will support their ability to network and build relationships with potential future collaborators for research grants in the increasingly competitive academic environment (Kyvik, 2013). Additionally, as the increase of completing doctoral students is not matched by an increase in available research posts (Hakala, 2009), many ECRs may need to seek alternative, non-traditional academic career pathways. Experience of “real world” [PhD12] knowledge exchange, may aid these transitions, a view echoed by the ECR community:

“And you never know - if you decide to leave academia in the future, all that KE will serve you very well.” [ECRchat4]

The findings have shown how understanding of the term ‘knowledge exchange’ is bound up with understanding of the academic system, including awareness of how funders define it. To mitigate concerns that the KE terminology may be considered to be alienating and jargon, more open, inviting language was intentionally adopted to publicise the two-day festival, building on learning and insight gained from the earlier Digital Salons. Hence the event was titled more broadly, ‘Confessions and Realities of Early Career Research’ with a subtitle ‘Lifting the Lid on Today’s Challenges and Skills for Collaboration, Knowledge Exchange, and Just Being an Early Career Researcher’.

The Skills in Action programme offered a means for ECRs and doctoral students to converge, creating a temporary community of interest, particularly in the case of the two day festival event, where networking breaks over coffee reinforced peer learning and shared experiences. The programme provided ways of learning best practices for collaborative working and knowledge exchange (through interactive discussions in the Digital Salons), opportunities for peer learning (through the festival) and ways to work through early career challenges (e.g. through discussion, networking, and World Café session in the festival). Specific training, for example storytelling and communication by encouraging self-reflection and reflective practice, was also delivered. However, due to finite resources the network developed was in essence transient, much like the ECR community.

The authors approached the programme from an insiders’ perspective, recognising that potential attendees would predominantly be of ambiguous postdoc status, not students but also “not considered as ‘real’ staff by some” (Scaffidi, 2011 p697). As anticipated, in most instances ECRs and doctoral students who expressed interest in the festival were not able to access institutional resources in order to finance attendance. Therefore, the budgeted bursaries to support attendance were invaluable in facilitating researchers and doctoral students to travel (from across the UK) to attend the festival. Even with this however, there were a couple of late apologies due to unforeseen work requirements (e.g. teaching) that ECRs were not in a position to turn down, reinforcing the extent of instability that is inherent for



ECRs. Nevertheless, it is our strong recommendation that any existing and future ECR network programmes consider likewise financially assisting members who may not otherwise be able to attend.

There are indications that the challenges for the Arts and Humanities ECR community are being acknowledged and defined, for instance the British Academy and UK Arts and Humanities Research Council (AHRC) recently commissioned a report that drew together a set of best practice guidance for institutions and senior academics to support A&H ECRs (Renfrew and Green, 2014). Yet as the academic environment continues to evolve at pace, *'the young cannot rely on their elders to socialize them, to teach them the new rules, for the rules are in flux'* (Hackett 1990, p272).

Despite the relatively small network size (approximately 50 ECRs), the changing academic context and our findings indicate that this is an area worthy of further study. We recommend that ECR initiated and led networks, however fleeting, should be supported by the wider academic community as a means to bridge transitions and support a range of career opportunities for ECRs.

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## References

- Akerlind, G.S., 2005, Postdoctoral Researchers: Roles, Functions and Career Prospects, *Higher Education Research and Development*, 24(1), pp. 21-40.
- Arts and Humanities Research Council, 2013, *Collaborative Skills Development Call 2013, Call Guidance*, Arts and Humanities Research Council.
- Audretsch, D.B., 2014, From the Entrepreneurial University to the University for the Entrepreneurial Society, *Journal of Technology Transfer*, Vol. 39, pp. 313-321.
- Bazeley, P., 2003, Defining 'Early Career' in Research, *Higher Education*, Vol. 45, pp. 257-279.
- Bruneel, J., D'Este, P. and Salter, A. (2010) 'Investigating the Factors that Diminish the Barriers to University-Industry Collaboration', *Research Policy*, Vol. 39, No. 7, pp. 858-868.
- Chen, S., McAlpine, L. and Amundsen, C., 2015, Postdoctoral Position as Preparation for Desired Careers: A Narrative Approach to Understanding Postdoctoral Experience, *Higher Education Research and Development*, DOI: [10.1080/07294360.2015.1024633](https://doi.org/10.1080/07294360.2015.1024633)
- Clark, B.R., 1998, *Creating Entrepreneurial Universities: Organizational Pathways of Transformation*, New York: IAU Press.
- Durling, D., 2002, Discourse on Research and the PhD in Design, *Quality Assurance in Education*, Vol. 10, No. 2, pp. 79-85
- Etzkowitz, H., 2003, Innovation in Innovation: The Triple Helix of University-Industry-Government Relations, *Social Science Information*, 42, pp. 293-337.

Etzkowitz, H., Webster, A., Gebhardt, C., Terra, B.R.C., 2000, The Future of the University and the University of the Future: Evolution of Ivory Tower to Entrepreneurial Paradigm, *Research Policy*, pp. 313-330.

Fouché, C. and Light, G., 2011, An invitation to dialogue 'The World Cafe' in social work research, *Qualitative Social Work*, Vol. 10, No. 1 pp. 28-48.

Gassman, O., Enkel, E. and Chesbrough, H., 2010, The Future of Open Innovation, *R&D Management*, Vol. 40, No. 3, pp.213-221.

Graham, I.D., Logan, J., Harrison, M.B., Straus, S.E., Tetroe, J., Caswell, W. and Robinson, N., 2006, Lost in Knowledge Translation: Time for a Map?, *Journal of Continuing Education in the Health Professions* Vol. 26, No. 1, pp.13-24.

Gravett, S. and Petersen, N., 2007, 'You Just Try to Find Your Own Way': The Experience of Newcomers to Academia, *International Journal of Lifelong Education*, Vol. 26, No. 2, pp. 193-207.

Gurr, G.M., 2001, Negotiating the "Rackety Bridge" – a Dynamic Model for Aligning Supervisory Style with Research Student Development', *Higher Education Research and Development*, 20(1), pp. 81-92.

Hackett, E. J., 1990, Science as a Vocation in the 1990s: The Changing Organizational Culture of Academic Science, *The Journal of Higher Education*, Vol. 61, No. 3, pp. 241-279.

Hakala, J., 2009, The Future of the Academic Calling? Junior Researchers in the Entrepreneurial University, *Higher Education*, Vol. 57, pp. 173-190.

Hemmings, B., 2012, Sources of Research Confidence for Early Career Academic: A Qualitative Study, *Higher Education Research and Development*, Vol. 31, No. 2, pp. 171-184.

Higher Education Funding Council for England (HEFCE), 2011, *PhD Study Trends and Profiles 1996-97 to 2009-10*.

Johnson, L., Lee, A. and Green, B., 2000, The PhD and the Autonomous Self: Gender, Rationality and Postgraduate Pedagogy, *Studies in Higher Education*, 25(2), pp. 135-147.

Kyvik, S., 2013, The Academic Researcher Role: Enhancing Expectations and Improved Performance, *Higher Education*, Vol. 65, pp. 525-538.

Laudel, G. and Glaser, J., 2008, From Apprentice to Colleague: The Metamorphosis of Early Career Researchers, *Higher Education*, 55 (3), pp. 387-406.

Leydesdorff, L. and Etzkowitz, H., 1996, Emergence of a Triple Helix of University-Industry-Government Relations, *Science and Public Policy*, 23(5), pp. 279-286.

Martin, L. and Turner, P., 2010, Entrepreneurial Universities – The Key Ingredient in the Recipe for UK Innovation? Realities of Working in Business Engagement Roles in Academia, *Entrepreneurship and Innovation*, Vol. 11, No. 4, pp. 273-281.

- McAlpine, L. and Emmioglu, E., 2014, Navigating Career: Perceptions of Sciences Doctoral Students, Post-PhD Researchers and Pre-tenure Academics, *Higher Education Development*, DOI: [10.1080/03075079.2014.914908](https://doi.org/10.1080/03075079.2014.914908)
- McAlpine, L. and Turner, G., 2012, Imagined and Emerging Career Patterns: Perceptions of Doctoral Students and Research Staff, *Journal of Further and Higher Education*, 36(4), pp.535-548.
- Pilbream, C., Lloyd-Jones, G. and Denyer, D., 2013, Leveraging Value in Doctoral Student Networks Through Social Capital, *Studies in Higher Education*, Vol. 38, No. 10, pp.1472-1489.
- Pinheiro, R., Langa, P.V., Pausits, A., 2015, The Institutionalization of Universities' Third Mission: Introduction to the Special Issue, *European Journal of Higher Education*, DOI: [10.1080/21568235.2015.1044551](https://doi.org/10.1080/21568235.2015.1044551)
- Price, E., Coffey, B. and Nethery, A., 2014, An Early Career Academic Network: What Worked and What Didn't, *Journal of Further and Higher Education*, DOI: [10.1080/0309877X.2014.971106](https://doi.org/10.1080/0309877X.2014.971106)
- Renfrew, K. and Green, H., 2014. *Support for Arts and Humanities Researchers Post-PhD*. [pdf] The British Academy and AHRC. Available at: <http://www.ahrc.ac.uk/documents/project-reports-and-reviews/support-for-arts-and-humanities-researchers-post-phd-final-report> [Date accessed: 14 August 2015]
- Rinne, R. and Koivula, J., 2009, The Dilemmas of the Changing University, in Shattock M., (ed), *Entrepreneurialism in Universities and the Knowledge Economy. Diversification and Organizational Change in European Higher Education*, Maidenhead: Open University Press, McGraw-Hill, pp. 184-199
- Rubin, H. J. and Rubin, I., 2005, *Qualitative Interviewing: the Art of Hearing Data*, Thousand Oaks, Sage Publications, California.
- Sam, C. and van der Sijde, P., 2014, Understanding the Concept of the Entrepreneurial University from the Perspective of Higher Education Models, *Higher Education*, 68, pp. 891-908.
- Scaffidi, A.K. and Berman, J.E., 2011, A Positive Postdoctoral Experience is Related to Quality Supervision and Career Mentoring, Collaborations, Networking and a Nurturing Research Environment, *Higher Education*, Vol. 62, pp. 685-698.
- Shattock, M., 2009, Entrepreneurialism and Organizational Change in Higher Education, in Shattock, M., (ed), *Entrepreneurialism in Universities and the Knowledge Economy. Diversification and Organizational Change in European Higher Education*, Maidenhead: Open University Press, McGraw-Hill.
- Slaughter, S. and Leslie, L.L., 2001, Expanding and Elaborating the Concept of Academic Capitalism, *Organization*, Vol. 8, No. 2, pp.154-161.
- The University of Nottingham, n.d. *Research Partnerships and Knowledge Exchange (KE)* [online] Available at: <https://www.nottingham.ac.uk/cas/researchsupport/researchpartnerships/index.aspx>. [Date accessed 14 August 2015].

Townsend, A., 2013, *Action Research: The Challenges of Changing and Researching Practice: the Challenges of Understanding and Changing Practice*, McGraw-Hill Education, UK.

Tynan, B.R. and Garbett, D.L., 2007, Negotiating the University Research Culture: Collaborative Voices of New Academics, *Higher Education Research and Development*, Vol. 26, No. 4, pp. 411-424.

Watermeyer, R., 2015, Lost in the 'Third Space': The Impact of Public Engagement in Higher Education on Academic Identity, Research Practice and Career Progression, *European Journal of Higher Education*, DOI: [10.1080/21568235.2015.1044546](https://doi.org/10.1080/21568235.2015.1044546)

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