



Supporting PhD students' acculturation through social media: a research agenda

Katherine Sang, Intercultural Research Centre, Heriot Watt University, EH14 4AS
k.sang@hw.ac.uk Submitted 9th November, 2015, Accepted 18th March 2016

Abstract

The high rate of attrition from PhD programmes in Western countries is an area of growing international concern. There is some evidence that socialisation into university life can support students' studies, via the accumulation of social capital. This study proposes a research agenda for understanding the role which social media can have in facilitating socialisation and acculturation into PhD study, and potentially reduce attrition rates. This research note suggests that a participatory action research approach can be used, which recognises the expertise of the key stakeholders, specifically PhD students, and academic staff who are engaged in supervision. A participatory approach can help to enhance the uptake of any resulting intervention, including social media. The potential benefits of the study are outlined, including supporting academics' and PhD students' use of social media, the impact of resulting research and increased retention of postgraduate researchers.

Introduction

The attrition rate from PhD programs is of concern across universities in Western countries. Reports from the USA suggest the attrition rate is approximately 50% (Cassuto, 2013) with a slightly lower level of 40% in the UK (Sokol, 2012). Similar concerns have been expressed within the higher educational system within Australia (Bourke, 2004). PhD programs require significant investment from institutions, PhD students and academic staff. The high levels of attrition are of concern to the student, the production and dissemination of knowledge as well as the future supply chain of academic staff. Given evidence that social networks and social media can facilitate adaptation to university life via the accumulation of social capital at the undergraduate level (deAndrea et al., 2011), this report explores the potential for social media to support PhD students and their acculturation into academic life. The report begins by setting out, in more detail, the current situation with regards to social media use in higher education and its potential use for PhD students. It then sets out a proposed methodology for developing and evaluating an intervention for the use of social media by PhD students to facilitate their acculturation into academia. Drawing on the extant literature and my own experiences as a PhD supervisor and PhD programme coordinator, it concludes by identifying the potential impact for learners and recommendations for future work.

The current situation

The socialisation of PhD students into academia has been seen as a factor in the retention rate of doctoral students (Tores and Zahl, 2011) and may be particularly problematic for first generation doctoral students. Using a Bourdesueian framework, Gardner and Holley (2011) have argued that those students whose parents did not attend university lack the social and cultural capital which can facilitate their '*feel for the game*' (Bourdieu, 1994: 9). Accordingly avenues should be explored that can support students in their acculturation (through the accumulation of capital) into



university life, particularly in light of universities' desires to widen participation. The socialisation and acculturation of international PhD students, may be of particular concern given institutions' failure to full understanding and accommodate difference (Tsourfouli, 2015).

Doctoral students may also feel too intimidated by their supervisor to ask for support or help (Gardner and Holley, 2011). Further, students report a lack of institutional support, consequently relying on informal guidance and support from other PhD students within their institution (Gardner, 2007). These studies suggest that PhD students experience a range of concerns which may affect their attrition from doctoral programmes, including lack of cultural capital, power differentials between student and supervisor and lack of broader institutional support. However, the extant literature neglects PhD students' experiences and relationship to social media despite the popularity of Twitter as evidenced by hashtag discussions such as #phdchat and #ecrchat (early career). However there is evidence of the usefulness of social media for acculturating students into undergraduate degree level study. The use of social media by undergraduate students has become an area of interest for researchers. In particular, there is evidence that use of social media can facilitate acculturation into campus culture for new entrants to university. Selwyn (2007) has argued that use of social media such as Facebook is a useful tool for students to learn how to perform the role of student and shape their student identity. Further, Facebook may facilitate this socialisation process even before new students register at university, with the development of peer-to-peer support networks (deAndrea et al., 2011).

A further limitation of the current literature rests on narrow methodological approaches. A review of the studies on students' social media use reveals a tendency towards large scale surveys which may mask the diversity of experience. The Higher Education Academy (nd) has called for greater attention to be paid to sociocultural pedagogic approaches which allow for the heterogeneity of student experience to be understood. Teemant et al (2005) have argued that sociocultural pedagogical approaches are particularly useful for adult learners engaged in distance learning. The form of learning that takes place through social media is outside the traditional confines of the classroom or the PhD supervisor's office and as such could be considered to constitute distance learning.

Research agenda

This section presents a proposed method and methodology which may be appropriate to investigate the potential for social media to facilitate and enhance PhD students' acculturation into academia. As this work is proposed there are no data to present at this stage, however, I do draw on my own reflection as a social media user and how it has enhanced my own learning and research activities.

Reviewing the extant literature it becomes apparent that studies rely on quantitative methods, particularly surveys to understanding students' social media use. Such approaches allow for data to be collected from large sample sizes which can be subjected to both basic and sophisticated statistical analyses (Bryman, 2012). However, within large scale quantitative research, the voices and perspectives of



participants are lost. The proposed research agenda aims to understand the potential for social media use to support PhD students' acculturation into academic life through the development of social networks and social capital. As such the perceptions of both students, and the staff they may engage with online, are the focus of this study and qualitative methods which allow rich data to be collected are appropriate. Further this project adopts a social constructivist perspective for the underlying pedagogical approach. This is rooted in the work of Vygotskij (2012 – also known as Vygotsky and originally published in 1962) who argued that learning was an activity which could not be divorced from the social context. Specifically, that learning and knowledge cannot be seen as a product of the individual, rather it is constructed through interactions between the individual and their social context (Azzarito and Ennis, 2003). Further, social constructivist pedagogical paradigms are particularly useful for understanding the relationships between learners and computer mediated learning where students can develop shared understandings of meaning (Pear and Crone-Todd, 2002). Further, it is argued by Pear and Crone-Todd (2002) that adopting a social constructivist approach can assist learners' engagement with the highest levels of learning as outlined by Bloom et al (1956)

This paper proposes a participatory action research approach to developing and evaluating an intervention to investigate the potential of social media to enhance PhD student acculturation into academia. Participatory action research approaches are guided by democratic principles which recognise and value multiple voices and therefore epistemological authorities (Cassell and Johnson, 2006). More precisely, given the domination of the extant literature of Western perspectives and the lack of voice of non-Western voices, such an approach follows an emancipatory perspective to broaden knowledge to include a range of cultural forms of knowledge (*ibid*). As such any future study should also include those outside of Western universities to explore the potential of social media to overcome geographical inequalities. For the purpose any proposed study a PhD student is one who is engaged in full or part time doctoral level study and academic or academic staff refers to those who are on academic contracts (primarily those who are involved in PhD supervision). Some academic staff would also be enrolled on PhD courses and these could be considered as PhD students for this study. Table 1 presents the proposed phases of the research, guided by Reason's (1994) framework. Details of a proposed research agenda are set out on the following page, with particular note paid to ethical concerns as they arise.



| Phase | Action |
|--|---|
| Researchers and participants agree on the area which will be studied | Online interviews and focus groups |
| Researchers and participants work together to identify an initial change in workplace practice which will aim to reduce an identified risk | Online interviews and focus groups Researcher's experience and expertise |
| Participants implement the proposed intervention | PhD students and supervisors use of social media |
| Researchers and participants work together to develop, implement and assess the efficacy of the participant initiated intervention | Online interviews |

Table 1. Proposed actions and research methods for each phase of the participatory inquiry.

The following section sets out a proposed research agenda based on Reason's (2004) participatory enquiry framework. Prior to commencing the study, the research ethics of working with vulnerable research participants should be considered. The vulnerability of postgraduate students to mental health problems (Hyun, 2007) makes this group potentially vulnerable. Researchers should consult their own institution's research ethics committee and follow standard ethical procedures. Standard procedures should include preserving the anonymity of participants (should they wish), and right to withdraw from the study. Using Twitter as a source of data provides particular issues in terms of research ethics. Twitter users may expect to maintain some anonymity (Rivers and Lewis, 2014) while engaging in microblogging. However, tweets are stored, and those tweets from open accounts are accessible by anyone. Researchers may wish to consider contacting individual Twitter users to ascertain permission to use tweets as data. Given the participatory nature of the project, it is likely that the details of the research will shift across the duration of project. Accordingly researchers should be open to maintaining a dialogue with their research ethics committee which allows for ongoing ethical approval to be sought.

Phase 1: Researchers and participants agree on the area which will be studied

Within this participatory framework a research team would begin by working PhD students and staff to identify the ways in which social media may be useful for PhD students and other early career researchers. This may involve discussions with the research team's existing contacts, beyond their institution. This will help to ensure that both PhD students and academic staff are able to participate in the project without concerns of negatively affecting their relationship with staff within their own institution. Such approaches recognise the expertise of research participants (Gyi et



al., 2013) while doing research with, rather than 'on' participants (Cassell and Johnson, 2006).

Phase 2: Researchers and participants work together to identify an initial change in workplace practice which will aim to reduce an identified risk

Given the proposed participatory nature, the initial change will be specific to the particular project. However, this could be facilitated through the interviews and focus groups used in phase 1, for example, in addition to asking PhD students and academic staff to indicate where they would like to target an intervention participants would be asked to suggest a proposed intervention. As previous work has suggested (Gyi et al., 2013) participants are changed by the process of participating in the research and as such the start of such interventions needs to be considered as phase 1.

Given that twitter is widely used by PhD students and academics already it would not be feasible to develop a new social media tool, or perhaps even a new hashtag. A review of Twitter shows that PhD students and early career researchers are already engaging with the broader academic community through two hashtags (hyperlinks included) [#PhDchat](#) and [#ECRchat](#). Any study should not dilute or damage these important networks in anyway by proposing a new network. However, it is anticipated that any intervention may include introducing those who are new to social media to these hashtags. Or perhaps those who use social media might be encouraged to use them. Alternatively engagement could be formalised through existing systems within universities.

Phase 3: participants implement the proposed intervention

It is important that any proposed intervention is implemented by participants themselves, supported by the researcher. Researchers should assist with implementation, keeping a detailed research diary of my observations. These are important in monitoring uptake of interventions and the responses of participants (Gyi et al., 2013). For example, this could include guiding students and staff on the use of social media, setting up and securing timed hashtag discussions

Phase 4: researchers and participants work together to develop, implement and assess the efficacy of the participant initiated intervention

Given the emphasis on the social construction of knowledge through these social media networks, the intervention should be evaluated using appropriate methods. Therefore, qualitative interviews, are appropriate to evaluate any participatory study. Given the dispersed population, these interviews could be conducted through social media or Skype and would cover the lived experiences of using the technology, barriers and facilitators to use and uptake, the perceived benefits and limitations and suggestions for enhancing the use of the media. Crucially interviews would also cover the perceived impact on acculturation to academic life. Interviews will also be able to draw geographical and disciplinary differences. This evaluation phase has to investigate the potential for social media to overcome the barriers faced by those academics and PhD students working in countries where accessing networks and knowledge is problematic. In addition, the researcher's diary will be useful for



evaluating the effectiveness of the participatory process. Table 1 presents the proposed research methods.

Potential impact on learners

Drawing on the extant literature and my own experiences as a PhD supervisor and coordinator of a PhD programme, I would anticipate that such a project would impact learners in the following ways:

- *Increased expertise in the use of social media.* Eysenback (2011) has suggested that use of Twitter by researchers can increase the citation rates of published journal articles, suggesting that there are links between the dissemination of research through formal and informal means. As such competence and comfort with social media may be important for those students and staff who wish to increase the citation rates of their published research.
- *Enhanced social networks.* The use of social media may provide opportunities for students and academic staff to interact with each other without geographical restrictions. I am a keen user of social research and have used to develop my own academic networks, enabling me to make contacts outside of my normal disciplinary boundaries. This has allowed me to develop my learning as a researcher, but also as a PhD supervisor as I have been able to witness and participate in discussions with PhD students. More recently I was able to use Twitter to disseminate a call for participants for a research project, consequently doubling my sample size. While it is not desirable to generalise from my own experiences, they point to the value of social media as a tool for research, but also as a pedagogical tool.
- *Research impact.* Twitter can be a valuable tool for enhancing the impact of research (Eysenack, 2011). As such learners (both students and staff) may be able to widen access to their research and increase its impact.
- *Acculturation and retention.* Given that PhD students cite the importance of informal social networks for supporting their socialisation into academia (Gardner, 2007) particularly if they feel too intimidated to approach their supervisor (Gardner and Holley, 2011), this project has the potential to understand the extent to which these informal networks can enhance acculturation and retention on PhD programmes. My own observations of the use of social media for PhD students and early career researchers would suggest it is a valuable source of information and support and has potential to be explored in depth.

Future plans and recommendations

One of the limitations of this study is access to social networks. Not only is access to the internet limited, certain countries such as China block access to sites such as Twitter (BBC news, 2013). This may limit the possibility for the proposed project to help overcome geographical barriers to full participation in a global academic community. Further, disability shapes access to, and experience of, use of the internet for communication (Dobrinsky and Hargittai, 2006). Any future work may wish to explore the potential for social media to support disabled students, and whether its use may further disable those with impairments.



While this research proposal does not allow for recommendations to be developed based upon empirical work, the literature review does suggest that use of social media can facilitate the socialisation of undergraduate students into academic life. Given that PhD students report the benefits of informal social networks and difficulties navigating power differentials between staff and students, social media may provide a forum to widen social networks and enhance the student experience. Given the depth of research user engagement required for research such as this, it would benefit from research funding to enable a rigorous, longitudinal, global study which would be able to explore these issues fully. The findings from which should be disseminated, not only through peer review journal papers, but also in the form of other media such as blogs to facilitate rapid dissemination.

References

Azzarito, L., & Ennis, C. D. (2003). A sense of connection: Toward social constructivist physical education. *Sport, Education and Society*, 8(2), 179-197.

BBC News (2013) <http://www.bbc.co.uk/news/technology-24218415> 25th September, 2013 accessed 9th December 2013

Bloom, B. S., Engelhart, M. D., Furst, E. J., Hill, W. H., & Krathwohl, D. R. (1956). Taxonomy of educational objectives: Handbook I: Cognitive domain. *New York: David McKay*, 19, 56.

Bourdieu, P. (1994) *In Other Words*, Polity Press, Cambridge

Bourke, S., Holbrook, A., Lovat, T., & Farley, P. (2004, November). Attrition, completion and completion times of PhD candidates. In *AARE Annual Conference, Melbourne* (Vol. 28). Available at <http://publications.aare.edu.au/04pap/bou04849.pdf> accessed 13th November, 2013

Bryman, A. (2012). *Social research methods*. Oxford university press.

Cassell, C., & Johnson, P. (2006). Action research: Explaining the diversity. *Human Relations*, 59(6), 783-814

Cassuto, L. (2013) Ph.D attrition: how much is too much? *The Chronicle of Higher Education*. 1st July, 2013 <http://chronicle.com/article/PhD-Attrition-How-Much-Is/140045/> accessed 13th November, 2013

Correa, T., Hinsley, A. W., & De Zuniga, H. G. (2010). Who interacts on the Web?: The intersection of users' personality and social media use. *Computers in Human Behavior*, 26(2), 247-253.

DeAndrea, D. C., Ellison, N. B., LaRose, R., Steinfield, C., & Fiore, A. (2012). Serious social media: On the use of social media for improving students' adjustment to college. *The Internet and Higher Education*, 15(1), 15-23.



- Dobransky, K., & Hargittai, E. (2006). The disability divide in Internet access and use. *Information, Communication & Society*, 9(3), 313-334.
- Ellison, N. B., Vitak, J., Steinfield, C., Gray, R., & Lampe, C. (2011). Negotiating privacy concerns and social capital needs in a social media environment. In *Privacy online* (pp. 19-32). Springer Berlin Heidelberg.
- Eysenbach, G. (2011). Can tweets predict citations? Metrics of social impact based on Twitter and correlation with traditional metrics of scientific impact. *Journal of medical Internet research*, 13(4).
- Gardner, S. K. (2007). "I heard it through the grapevine": Doctoral student socialization in chemistry and history. *Higher Education*, 54(5), 723-740.
- Gardner, S. K., & Holley, K. A. (2011). "Those invisible barriers are real": The Progression of First-Generation Students Through Doctoral Education. *Equity & Excellence in Education*, 44(1), 77-92.
- George, D. R., & Dellasega, C. (2011). Use of social media in graduate-level medical humanities education: Two pilot studies from Penn State College of Medicine. *Medical teacher*, 33(8), e429-e434.
- Gyi, D., Sang, K., & Haslam, C. (2013). Participatory ergonomics: co-developing interventions to reduce the risk of musculoskeletal symptoms in business drivers. *Ergonomics*, 56(1), 45-58.
- Higher Education Academy (nd) *Pedagogic Theory*
http://www.heacademy.ac.uk/resources/detail/internationalisation/isl_pedagogic_theory
accessed 15th November 2013
- Hyun, J., Quinn, B., Madon, T., & Lustig, S. (2007). Mental health need, awareness, and use of counseling services among international graduate students. *Journal of American College Health*, 56(2), 109-118.
- Junco, R. (2012). The relationship between frequency of Facebook use, participation in Facebook activities, and student engagement. *Computers & Education*, 58(1), 162-171.
- Pear, J. J., & Crone-Todd, D. E. (2002). A social constructivist approach to computer-mediated instruction. *Computers & Education*, 38(1), 221-231.
- Park, C. (2005). New variant PhD: The changing nature of the doctorate in the UK. *Journal of Higher Education Policy and Management*, 27(2), 189-207.
- Reason, P., 1994. Three approaches to participative inquiry. In: N.K. Denzin and Y.S. Lincoln, eds, *Handbook of Qualitative Research*. Thousand Oaks: Sage Publications. 324-339.



- Rivers, C. M., & Lewis, B. L. (2014). Ethical research standards in a world of big data. *F1000Research*, 3.
- Selwyn, N. (2007, October). Web 2.0 applications as alternative environments for informal learning-a critical review. In *Paper for CERI-KERIS International Expert Meeting on ICT and Educational Performance* (pp. 16-17).
- Silius, K., Miilumaki, T., Huhtamaki, J., Tebest, T., Merilainen, J., & Pohjolainen, S. (2010). Students' motivations for social media enhanced studying and learning. *Knowledge Management & E-Learning: An International Journal (KM&EL)*, 2(1), 51-67.
- Singson, M., & Sunkara, R. (2012). Post-Graduate Student's Acceptance of Social Networking Sites: A Survey. *Asia Pacific Journal of Library and Information Science*, 2(1), 28-49.
- Sokol, D. K (2012). Is a PhD the right option for you? The Guardian 12th December 2012 <http://careers.theguardian.com/phd-right-career-option> access 12th November 2013
- Sweitzer, V. B. (2009). Towards a theory of doctoral student professional identity development: A developmental networks approach. *The Journal of Higher Education*, 80(1), 1-33.
- Teemant, A., Smith, M., Pinnegar, S., & Egan, M. (2005). Modeling sociocultural pedagogy in distance education. *The Teachers College Record*, 107(8), 1675-1698.
- Torres, V., & Zahl, S. B. (2011). On Becoming a Scholar: Socialization and Development in Doctoral Education (review). *Journal of College Student Development*, 52(6), 761-763.
- Tsourfouli, M. (2015). Hybridity, Identities and Inclusion of International PhD Students in England. *Interdisciplinary Perspectives on Equality and Diversity: An International Journal*. 1(1) <http://journals.hw.ac.uk/index.php/IPED/article/view/11/5>
- V. Shah, Nojin Kwak, R. Lance Holbert, D. (2001). "Connecting" and "disconnecting" with civic life: Patterns of Internet use and the production of social capital. *Political communication*, 18(2), 141-162.
- Valenzuela, S., Park, N., & Kee, K. F. (2009). Is There Social Capital in a Social Network Site?: Facebook Use and College Students' Life Satisfaction, Trust, and Participation. *Journal of Computer-Mediated Communication*, 14(4), 875-901.
- Vygotskij, L. S. (2012). *Thought and language*. MIT press.
- Zhu, Y and Procter, R. (2012). Use of blogs, Twitter and Facebook by PhD Students for Scholarly Communication: A UK study. China New Media Communication Association Annual Conference, Macao International Conference ; 06 Dec 2012-08 Dec 2012; Macao 2012.

Interdisciplinary Perspectives on Equality and
Diversity
Volume 2, Issue 1.

