

Skills in Sight: How Social Media Affordances Increase Network Awareness

Iris Buunk, Hazel Hall, Colin Smith
Edinburgh Napier University, Edinburgh, UK
i.buunk@napier.ac.uk
h.hall@napier.ac.uk
cf.smith@napier.ac.uk

Abstract: The discussion in this paper derives from an analysis of data from twenty interviews conducted with members of an online knowledge sharing platform between October 2016 and February 2017. The empirical work is part of a larger doctoral study that investigates tacit knowledge sharing, online platforms and social media use within the public sector in Scotland. These are themes that, to date, have been under-explored by researchers. The work reported in this paper is a contribution that addresses one of the aims of the larger study in that it examines the extent to which social media afford new capabilities in the sharing of tacit knowledge.

The methodological approach deployed for the larger study uses both quantitative and qualitative methods (Buunk, Hall & Smith, 2016). The sample approached to participate in the interviews was identified from survey responses gathered in late summer 2016. The sampling strategy chosen was based on criterion sampling. This is a form of purposive sampling commonly used in qualitative studies (Palys, 2012). As a result, only heavy users of social media tools were selected from the survey returns for invitation to interview.

Prior work suggests that the visibility of individuals' competencies can enrich "knowledge awareness" (Cooke & Hall, 2013). In addition, when social interactions are facilitated publicly on an online platform, awareness of these enhances opportunities for knowledge transfer (Leonardi & Meyer, 2015). The preliminary findings from the analysis of the interview data gathered for this study suggest that online platform and social media affordances increase network awareness and – as a consequence – the skills of individuals are rendered more visible. Some interviewees made this explicit by underlining this positive outcome of sharing details of their expertise online.

Skills belong to the technical dimension of tacit knowledge (Nonaka, 1994; Panahi, Watson & Partridge 2013). Thus, it can be argued that when online platforms and social media offer the affordance of enhancing skills' visibility (for example through making it possible for network members to see social interactions within a network, and understand network shape) they bring new capabilities to the facilitation of tacit knowledge sharing.

Keywords: heavy user of social media, knowledge sharing, online platforms, social media, social network awareness, tacit knowledge

1. Introduction

Crucial to communities of co-workers is quick access to suitably-skilled individuals available to assist with the problems that are inherent in professional work activities. Identification of skills can only be achieved when there is an awareness of their distribution across a group's membership (Cross, Parker, Prusak et al., 2005). In this paper online platforms and social media are discussed in terms of the affordances that they offer to enhance access to skills in work settings by making visible the expertise of others across large groups, irrespective of the constraints of space and time.

Although there is an increasing use of social media within the public sector (Mergel, 2011, 2013; Zavattaro & Sementelli, 2014), empirical studies that deepen comprehension of this phenomenon are scant (Panahi, Watson & Partridge, 2013), as is extensive work on knowledge sharing within such settings (Yusof, Ismail, Ahmad et al, 2012). It is therefore worthwhile investigating (alongside online platforms) the role of social media in knowledge sharing practice within public sector organisations.

The discussion here derives from an analysis of interview data collected from twenty heavy users of social media between October 2016 and February 2017. These individuals are members of the online knowledge sharing platform 'Knowledge Hub' (KHub - <https://khub.net>) - a cross-organisational UK online social network

that provides access to online communities of practice, fora, groups (opened, restricted and private), blogs, a wiki, and instant messaging to a membership that is largely public-sector focussed. This empirical work contributes to work towards a doctoral study that investigates tacit knowledge sharing, online platforms, and social media use within the public sector in Scotland.

2. Literature review

It has long been recognised that individuals' skills and expertise, as derived from their experiences and lessons learned, have substantial value for organisations (for example, Bennett, 1998). Equally a lack of organisational commitment to ensure regular transfer of valuable knowledge increases the risk of its loss (for example, Lee, 2000; Smith, 2001). More important, however, is knowledge of *where* such skills and expertise reside within the organisation so that these can be readily accessed and exploited as knowledge (Cross, Parker, Prusak et al., 2005).

At a fundamental level the 'location' of any individual's skills and expertise, as derived from experience, may be conceived as the mind of the person in question. The nature of this knowledge is tacit, as commonly classified in the knowledge management literature (for example, Chennamaneni & Teng, 2011). This tacit knowledge may be further categorised according to two dimensions: (1) the technical dimension, i.e. 'know-how' and (2) the cognitive dimension, i.e. perceptions of the world, such as beliefs, paradigms, schemas and viewpoints, as identified by Nonaka (1994). The former dimension may be aligned to skills, and the latter to expertise, as explored in the study reported here. Tacit knowledge is also incorporated in people's actions and experiences, as identified by Polanyi (1966). Tacit knowledge may therefore be conceived as a skill in its own right, as one for problem-solving.

Intangible by nature, tacit knowledge has been acknowledged as essential to organisations and companies (Panahi, Watson & Partridge, 2013; Suppiah & Singh, 2011), and its value realised through sharing in social interactions (for example, Haldin-Herrgard, 2000). In the past it has been argued that this tacit knowledge sharing is generally achieved through direct and face-to-face interactions (for example, Mascitelli, 2000). More recently, however, it has been asserted that tacit knowledge can be shared with an equal efficiency through online virtual networks (for example, Falconer, 2006, Tee & Karney, 2010; Panahi, Watson & Partridge, 2013).

Meta-knowledge is of key importance here, i.e. knowing where skills and expertise are located in the network. This depends on two types of awareness, the first of which has been labelled 'knowledge awareness' (for example, by Cooke & Hall, 2013). Levels of knowledge awareness depend on the visibility of resources created - and communicated - by individuals (Garcia-Perez & Mitra, 2007). Such resources may be found, for example, on an organisational intranet. The second type of awareness is 'ambient' (Levordashka & Utz, 2016) or 'peripheral' (Ellison & Steinfield, 2006). This is the awareness of others' online activities from regularly witnessing status updates and communications on social network sites (such as microblog platforms) or the enhancement of online personal profiles (Leonardi and Meyer, 2015). Exposure to such practices provides opportunities to follow (often unconsciously or passively) the activities of colleagues: who is working on what, with whom, why, when and how, and gain access to associated resources (Ellison, Gibbs & Weber, 2014). It also builds trust (Razmerita, Kirchner & Nabeth, 2014). When these interactions are facilitated publicly on online platforms (in general), this enhances opportunities for knowledge transfer (Leonardi & Meyer, 2015), learning (in cases of employees sharing social interactions around common issues (Haghshenas, Sadeghzadeh & Nassiriyar, 2014; Ryan & O'Connor, 2013), network growth through the forging of new connections (Kane, Robinson-Combre & Berge, 2010), and collaboration (Zavattaro & Sementelli, 2014). Equally, it has been argued that this can apply to social media (Treem & Leonardi, 2012). For example, wikis help employees discover sources of expertise within the network (Mansour, Abusalah & Askenäs, 2011).

The empirical work discussed below addresses the question of the extent to which online platforms, including social media, can facilitate the sharing of tacit knowledge, in this case in the public sector. The qualitative approach based on an inductive study is explained, and the results evaluated in the context of the literature summarised above.

3. Methodology

The data for analysis in this study were collected through semi-structured interviews. The interview questions were prompted by an extensive review of the literature on the themes of knowledge sharing, tacit knowledge, online platforms and social media, and were informed by the results of an online survey completed by 1062 members of the online platform.

The sample approached to participate in the interviews was identified from the survey responses gathered in late summer 2016. Criterion sampling (a form of purposive sampling commonly used in qualitative studies, (Palys, 2012)) was deployed. Only heavy users of social media tools were invited to interview in order to investigate further the influence of online social platforms and social media tools (in particular) on tacit knowledge sharing practices. One hundred survey respondents had indicated that they would be willing to take part in follow-up interviews. These individuals were then ranked according to the number of social media tools they used, and their self-reported frequency of use. Those who featured highest in this list were contacted with an invitation to interview. This process recruited 20 individuals from the top ninety-four survey respondents listed. Prior to each interview, respondents received a reminder of the research topic, including a short explanation of the two main concepts that would be addressed during the meeting: tacit knowledge, and social media. An explanatory diagram about tacit knowledge was also available for them during the interview as a support. A conceptual grid served as a guideline to track the various concepts addressed by the respondent.

The data analysis process involved coding the textual transcription of the audio-recorded interviews. This was undertaken both manually (in the first instance) and with NVivo software. The codes are based on the concepts addressed in the literature review. This methodological approach follows grounded theory methods, where systematic and flexible guidelines to the collection and analysis of data are applied, and theories are later constructed (Charmaz, 2014).

4. Preliminary findings

The preliminary findings of this study reveal that online platforms, including social media, offer a number of affordances concerned with awareness in the network of skills and expertise, plus a number of associated benefits. These are related to: (1) awareness of the skills and expertise of others (knowing what people know); (2) widening networks and collaboration opportunities; (3) opportunities for learning; and (4) access to resources. Each of these is considered in turn below.

- It is clear from the data analysed that *online platforms and social media increase the knowledge and ambient/peripheral awareness* of users. For example, one interviewee reported:

‘You’re aware of something and I think it’s just awareness rather, even if you’re not active in something directly that you’ve read. You’re aware that somebody has got an interest or, you know, it’s lodged and you can go back. It just gives a bit more... It’s just your awareness of professional interests.’ (Respondent 9.)

- Another strong message on awareness relates to the *scale of access*. Respondent 4 mentioned this when he/she said:

‘It just makes it a whole lot easier to make connections, to find people, to find out what’s going on quite quickly. Clearly, that’s much easier than the pre-social media age, just to see what’s happening.’ (Respondent 4.)

- *Speed of access* is also important, as illustrated in the following quotation:

‘[The] awareness of the huge amounts of individuals that are out there [when] previously that wouldn’t exist. [Before] everything would be through professional bodies or specific groups that you would go to. So now you have got this ability to be able to search across

millions of people, pick their skills or experience or the positions they might have held, and super-fast and that is just absolutely invaluable.’ (Respondent 13.)

- The easy access to a large number of contacts on online platforms such as social media make it possible for *users to enlarge their networks* as explained by Respondent 10:

‘If I wanted I could make contact with people as well. I suppose that [it] has helped me make better connections in Scotland and it has given me a greater awareness of what else is happening beyond.’ (Respondent 10.)

- This includes the *development of sub-networks for the purposes of knowledge sharing and collaboration*:

‘If somebody got in touch with me via the Knowledge Hub and says, I see you are a Development Officer, they may have looked me up on LinkedIn and got an idea of what my profile is and say ‘Can you tell me more?’ I would be happy to go through the Knowledge Hub either as a one-to-one communication within a closed group where there are half a dozen, or a dozen people, who may be interested in what I am doing, and share my experience with them.’ (Respondent 11.)

- Some interviewees shared the stories of how their *relationships have grown* through their use of social media tools. For example:

‘It started off that we followed each other on Twitter and it’s not someone that I am in contact with through Knowledge Hub but [...] because I followed him on Twitter I was aware of work that he was doing on poverty and social networks. [Since regular interactions occurred on Twitter, exchange of emails followed] to the point where I felt I could pick up the phone and speak to him, and on the back of that phone call he ended coming and doing presentations.’ (Respondent 6.)

- Network membership offers opportunities for *skills development*, predominantly in terms of *learning from others*:

‘I am picking up skills through other people’s knowledge and experience [...]. It is really more picking up what other people have found.’ (Respondent 6.)

- Such learning can *cross wide geographical boundaries*, as noted by Respondent 10:

‘I think it is just building up my awareness of what is out there [...] [S]ome of the things that are done in England are different but that is not to say that you can’t learn from it [...]. Sometimes you don’t know you are curious about something until something crops up and you think well that is really interesting so actually it can probably take your learning in new directions.’ (Respondent 10.)

- The final category of benefits identified in the data set to date are pertinent to *access to resources*. Respondent 19 mentioned the sharing of document attachments in an online forum:

‘It’s a lot easier just to post something on the forum. [It’s faster], absolutely. You post that on the forum with your attachments, everyone can see it. The forum alone has got a lot of the attachments. So if you go to [...] to a specific subject, you’ll be able to see the discussions and any attachments.’ (Respondent 19.)

- *People may represent such resources*, for example as Respondent 2 explained:

‘If you are a new officer and you’ve not met anybody yet and you join and you are a bit shy about asking a question you can still go on and see all these conversations and maybe get an

answer. [...] It's giving them an easy way to get the messages we want them to get.' (Respondent 2.)

- Sharing resources in such ways *reduces duplication of effort* across the network:

'[By] following their group on Yammer, and also seeing their posts on Yammer, I could see that they were also developing digital skills materials, so that enabled me to contact them and say, "That's great you're doing that. Do you know, we have something similar? Do we want to work together? Or, do you want to incorporate what we have into your material, and we can do likewise?' (Respondent 4.)

5. Discussion and conclusion

The preliminary findings from this empirical work show some strong alignments with established knowledge in the domain, as noted in the literature review above. For example the reported positive influence of social media on broadening ambient (or peripheral) awareness of the network can be tied to the work of Levordashka and Utz (2016) and (Ellison & Steinfield, 2006) through making skills and expertise more visible (as noted by Leonardi & Meyer, 2015), and to that of Ellison, Gibbs and Weber (2014) in respect of furnishing access to a wider set of resources. Similarly the comments related to network growth and collaboration confirm the views of Kane, Robinson-Combre and Berge (2010) and Zavattaro & Sementelli (2014) respectively, as do those on learning opportunities relate back to the work of several researchers (for example, Haghshenas, Sadeghzadeh & Nassiriyar, 2014; Leonardi, 2015; Ryan & O'Connor, 2013). It is clear that the social interactions supported by online platforms provide members with opportunities to discover solutions in a creative way, inviting them to go beyond their own understanding of the issues as their ideas and experience become intertwined with others in the network. It appears, therefore, that social media seem to enhance not only the socialisation process between employees but also the sharing of tacit knowledge, as has previously been proposed by Panahi, Watson & Partridge (2013).

Some new themes, which have not been prefaced by the literature review work completed to date, have emerged from the analysis. The first of these is the emphasis on speed of access to the resources held within the network. Another is the value of access to resources (including people) for the reduction of duplication of effort in everyday work tasks: this is explored in general in the knowledge management literature (for example, Pemsel & Wiewiora, 2013), but not with direct reference to social media.

In conclusion these preliminary results indicate that affordances of online platforms and social media contribute much to increasing the network awareness of group members, and consequently render employees' skills and expertise more visible. In particular, when social media offer the affordance of enhancing skills' visibility (for example through making it possible for network members to see social interactions within a network, and understand network shape) they bring new capabilities to the facilitation of tacit knowledge sharing. These findings are important to public sector employees and the information-intensive organisations in which they work, especially in a climate where resources (including access to knowledgeable staff) are limited. For example, workers in local authorities can reach a much wider base of expertise from which to draw new knowledge. This is particularly valuable to workers in remote locations where their local networks are restricted, and funding to travel and meet others in face-to-face is not always available. Further analysis of the full data set is expected to develop further the work presented here and generate new theory on the sharing of tacit knowledge, with particular reference to social media.

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