

Is Social Networking the future of Project Management?

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Abstract

Communication is the lifeblood of project management, but the increasing geographical dispersion of project teams and stakeholders creates a challenge. Project managers need to exploit a range of tools and methods to communicate effectively with their team, clients and subcontractors. Social networking is ever more widespread, both in the workplace and our personal lives. This paper studies project managers' use of social networking, in an attempt to determine whether, and if so how, project managers could improve their communications by making effective use of social networking platforms. A literature review identified several potentially useful aspects: user profiles, professional networks, blogs and real time communication. A survey found that 74% (n=150) had already used social networking in the workplace. The most widely used sites were corporate platforms (38%) and LinkedIn (37%). The survey found that the most effective uses for social networking were promoting a project within an organization and for intra-project communication. Interviews suggested that the most useful applications of social networking sites in projects are to improve knowledge management, enable quick communications and to introduce new team members. Face-to-face meetings remain the preferred method of communication where possible. The main limitations are perceived security risks and concerns about time-wasting.

1. Introduction

Social networking is ubiquitous. It is self-evident that social networking could be used within organizations to share experiences and lessons learned across the enterprise, but questions naturally arise about effectiveness and appropriateness. Social networking has the potential to be useful to project managers when collaborating with their project team and stakeholders, especially when geographically dispersed, but limitations must be recognized.

There is limited academic literature on the effectiveness of using social networking within a

project management environment, as shown by the Literature Review section of this paper. Given the predominance of social networking in contemporary discourse, this paper aims to help address this perceived gap in knowledge. We present findings from a review of the literature, report primary research that explored project managers' opinions of social networking within the workplace and discuss the limitations of using social networking to support project communication.

The research questions we addressed were: (1) What are the unique attributes of a social networking site? (2) What are the potential benefits of a project manager using social networking? (3) How can a project manager make effective use of social networking? (4) What are the limitations of using social networking for project communications? (5) Does the use of social networking offer significant advantages to traditional project communication methods?

2. Methods

A mixed methods approach was adopted in the research design. This employed a combination of fixed and flexible methods in gathering data, aiming to ensure that both qualitative and quantitative data were gathered within a "single research inquiry" [1]. This approach was used to triangulate the data and to arrive at a holistic view with "complete data and the ability to explain findings from one method by using another method" [2]. We conducted a literature review, a survey and interviews as part of a final year undergraduate dissertation.

The overall aim of the survey was to investigate the application of theoretical knowledge gained from the literature search, by exploring the views of project managers, on the effectiveness of using social networking sites within their project work. The survey was tested through a pilot study to ensure its quality and effectiveness before the main data collection. The pilot study showed that the initial survey was too restrictive, so a combination of closed and open questions were used in the final survey. A range of Likert-scaled and

Boolean questions were also employed. All the questions were focused towards project managers as the target audience to ensure reliance on the results. The survey was conducted online and publicized through a range of project management distribution lists and professional networks. As this study was exploratory rather than aiming to be definitive, formal sample size calculations were not utilized.

Interviews were used to further explore areas of ambiguity or contradiction from the survey findings. A semi-structured approach was followed, with core questions for all participants, while allowing scope for flexible follow-up questions. The interviews assured participants of confidentiality and anonymity. The core questions centered upon negative experiences of social networking, effectiveness of social networking for project work, different sized organisations using social networking and the varying uses of a social networking site that would appeal to project managers. Interviews were conducted with respondents from three large organisations and three smaller organisations to try to gain a comparison based on organisational scale. The individual interviews were carried out by telephone. One face-to-face focus group was conducted. A standard university checklist for ethical issues was used and all participant details remain confidential.

3. Literature Review

Literature searches were conducted using the University library's "Discovery" tool, Google Scholar, and bibliographic databases provided by Emerald, Wiley, and Business Source Complete. The keywords used were combinations of: Corporate Social Networking; Social Networking for projects; Collaborative Project Management; Project Management Communication; and Temporary organisations. Searches were limited to literature published in the previous five years in English. Abstracts were reviewed to exclude irrelevant sources. Thirty papers were identified in the initial searches, five were excluded on initial abstract review and a further six excluded based on full text review. Thus, nineteen papers were considered in total.

It was important to cover the topic of 'project management' and the definition of 'project' to ensure a clear understanding of how a social networking site could be applied appropriately. A project within a project-based organisation is ever changing [3], due to the necessity to keep up with their dynamic environment and culture. Prabhakar [4] identified the best definition of a project as "an organisation of people dedicated to a specific purpose or objective. Projects generally involve large, expensive, unique, or high risk undertakings which have to be completed by a certain

date, for a certain amount of money, with some expected level of performance. At a minimum, all projects need to have well defined objectives and sufficient resources to carry out all the required tasks". This definition gives primacy to the *people* organized to deliver the project – implicitly emphasizing the social aspect and the core importance of human communication.

Project managers are those holding the responsibility to control activities and deliver project goals, and constitute a "specialised branch of management" [4]. This involves planning, organising and directing resources towards an objective. These resources include knowledge, tools and the team members. [3] states that project managers also maintain the communication flow; across five different directions; down, up, horizontal, diagonal and external [3]. These various channels are crucial to project success. Thus it is important for project managers to maintain control of communication, including encouraging the use of tools to spread the message effectively and efficiently.

For research question (1), we identified various definitions of social networking, to aid in identifying the unique attributes of a social networking site. One is that "social networking websites are virtual communities that encourage and foster interaction among members of a group by allowing them to post personal information, communicate with other users and connect their personal profiles to others' profiles" [5]. Alternatively, social networking sites are seen as a set of "web-based services that allow individuals to construct a public or semi-public profile within a bounded system, articulate a list of other users with whom they share a connection and view and traverse their list of connections and those made by others within the system" [6]. Both definitions emphasise the variety of social networking tools available because of the range of intended uses. Thus, there is not a singular precise scope. These definitions, and other literature, identify that the features of social networking vary widely both between software platforms and the kinds of interaction that particular users or communities adopt.

The conclusions to the attributes of a social networking site helped in addressing research question (2); the potentially useful aspects of social networking for project managers. These are displayed in Table 1, which identifies each attribute with their potential benefit to a project manager. The primary dissemination and group interaction features are: collaborating with known and new contacts, displaying a list of connections, sharing personal information within a profile and communicating information publicly or privately in messages. On top of communication

benefits, a social networking site allows for projects to learn from one another. This is through the added ability to store project knowledge, and therefore keep learned information past the closure of a project. Blogs are included in this, as they allow employees to voice their knowledge, and therefore allow project managers to get the most from assets within their team. Knowledge management is becoming the key to any companies' successes, therefore along with communication; this is a vital area to consider.

Table 1. Attributes of social networking potentially useful for project communications

Attributes	Description from the literature	Potential value to projects
User profile	<p>"Identity management": provides views, personality and interests [7]. Profiles are based on a set of "predefined questions" [8] and therefore only show a restricted view of who an individual really is.</p> <p>A site used within IBM introduced the idea of "allowing users to compose their own topics" which made the sites more informative[9].</p>	<p>User profiles allow people to sense-make while viewing a person's profile.</p> <p>It is important that people fully complete their profiles to facilitate sense-making.</p> <p>This could be useful to project managers when deciding who to recruit within their project teams</p>
List of user connections (professional network)	<p>A list of friends, connections or people is shown on a user's profile and is updated when a user connects to someone new[10]. Ability to connect with new people by using friends' connection lists to identify friends in common[7].</p> <p>Primary use of social networking sites is to stay in touch with people already known[7].</p>	<p>The list of connections could allow people to extend their professional network by discovering people they would not otherwise meet, especially because of geographical locations[11].</p> <p>Such opportunities may be useful for future recruitment or personal career advancement[7].</p>

Attributes	Description from the literature	Potential value to projects
Lightweight communication	<p>Micro-blogging or posting on someone's 'wall' is a form of lightweight communication[10].</p> <p>Ability to post a "short message in a public space"[13].</p> <p>Messages typically inform contacts about a topic of interest, or "meform" – where the user tells their contacts about something relevant to themselves[14].</p>	<p>The receiver can choose when to reply, in contrast to perceived expectations that email responses should be almost immediate [12].</p> <p>Project managers could use a social networking platform to quickly notify the project team about important information related to the project.</p>
Instant messaging	<p>Users can have a conversation using "real time communication" over the Internet[10].</p>	<p>Capability to run team meetings through the messaging tools, which could be extremely useful and cost-effective for quick meetings when geographically dispersed.</p>

As identified by [11], it is important to distinguish between external/public and internal/corporate social networking. This paper focuses on the use of corporate social networking because it is designed for a business purpose rather than personal use. Corporate social networking is "developed with the primary aim of promoting collaboration across hierarchical and geographical structures within an organization" [15]. They therefore encourage personnel to meet employees they wouldn't normally get the chance to meet; because of geographical location or position within the hierarchical structure. To allow for comparison, an external social networking site includes those similar to; Facebook, LinkedIn and I-meet, which can be recognised through consumer's needs. [11] Groups external sites into categories; Free for all (Facebook), Professional (LinkedIn) & Industry specific (I-meet).

External social networking sites are those that relate most to having different attributes depending on the consumer need.

A limitation that is commonly associated with use of social networking sites within the workplace is that they may promote time-wasting. This is because their nominal purpose is “social” – in the sense of “friendly or affable in company; disposed to conversation and sociable activities”, as opposed to the more work-friendly “living or disposed to live in groups or communities” (Oxford English Dictionary). [7] states that, “when using external, general tools, professionals replicate the usage patterns set in place by other users and participate to socialize”. However, [13] argues that the use of enterprise blogging, a specific social networking feature, is “vastly different from public microblogging”, which [7] notes is because of their distinct motivation and purpose. This suggests that even though time-wasting within a social networking site is a risk, professionals in the work place can recognise the distinction between personal and enterprise social networking.

A leading problem for projects is that given their temporary nature, knowledge and lessons learned are fluid and easily lost. This is because once a project is closed, the project team separates which “fragments the project knowledge” [16]. It has been recognised that some project based organizations have “failed to learn from their mistakes for years on end” [17]. This suggests there is a requirement for a tool to store this project knowledge, which could then help future projects to avoid repeating mistakes made by earlier projects. This could be achieved through having a central repository for project managers, which would store lessons learned, and other documents that may become useful to future projects.

There is also implicit demand for social networking capabilities because of general industry developments and worker expectations that their managers will provide the tools and technologies that “allow them to work the way they have been raised and educated to work” [18]. This is mainly focusing on the new generation of workers who have grown up with the use of social networking sites and digital devices which they commonly regard as indispensable.

Given that corporate social networking is designed to promote collaboration across the hierarchy and geography [15], the use of social networking within geographically dispersed, multi-disciplinary project teams would seem a natural fit. A social networking site could allow the project manager to host a real time conversation to facilitate quick meetings with their team digitally, where face-to-face meetings often cannot be achieved. It would also facilitate the project manager

getting to know new team members that they are bringing to the team along with the project team getting to know the capabilities of each other. This is through the user profile. Therefore, ensuring the team utilise the full skill set of each other, and operate at maximum efficiency.

4. Analysis

After carrying out the research, the results were then analysed using a range of methods such as graphs; in order to present the results as below. Two of the graphs created while analyzing the results are shown.

The survey gained 150 responses, 142 of whom were project managers. 65% of respondents were male, in line with expectations that males remain predominant in the project industry. 57% of respondents were aged 45+, suggesting that the opinions expressed are based on a reasonable level of professional experience but perhaps with some age bias against ‘digital first’ in projects. However, 68% of respondents worked in the IT and Telecoms sector, which might imply bias in the opposite direction – being more willing to consider social networking within the workplace given their professional awareness of its capabilities in client projects.

74% of respondents said that they had previous experience in using a social networking site within the workplace. Corporate social networking sites were the most used (38% of respondents) followed by LinkedIn (37%). The existing common uses of a social networking site include: sharing documents, networking, seeking expertise, knowledge sharing and real time communication – all uses that were identified in the literature review. Responses confirmed the crucial importance of communication within project work. Fig. 1 shows how participants rated the relative effectiveness of social networking for selected activities. The most effective were listed as: communication between team members and their project manager, promoting a project within an organization, followed by storage of project knowledge. Communication was further identified as a crucial area of project management, where a question asked how important communication was between a project manager and their team. 99% of the respondents were in unison, stating that this type of communication was in fact ‘very important’.

Survey responses identified that useful pieces of information in a social networking user profile would include: key skills, industry experience, project history, education and qualifications. Just under half of respondents thought that a user profile would be useful

in recruiting a project team. This was selected as an important aspect to explore within the interviews.

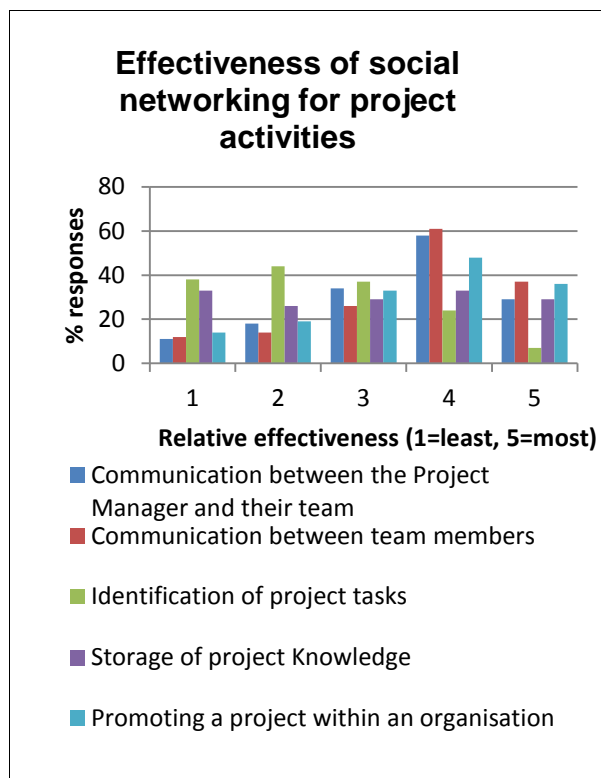


Figure 1. Effective uses of social networking within projects

The effectiveness of using the site to transfer knowledge was also explored. Transferring knowledge is important because of the temporary nature of projects. It was found that 72% of the respondents felt that the sites would be a good tool for this purpose. Specific examples of social networking sites were explored to quantify their effectiveness. LinkedIn was indicated as the most appropriate tool, against Facebook, Myspace, Titter and Yammer.

Creating contacts is important within project based organisations, because of the geographical nature of their work. It was found that the majority (75%) believe a social networking site to be a very useful tool when meeting people they would not normally interact with. Having this ability is extremely valuable, especially when finding an individual with a particular skill set that is required. On this, 76% see a User Profile as being a useful feature when looking for new members to join their project team. Useful pieces of information to include within a User Profile comprise of the following: key skills, industry experience, project history, education and qualifications.

47% of the respondents stated that social networking sites would result in a little time-wasting (not enough to affect the tasks at hand). This supports one theory in the Literature Review, where it stated that professionals would not use social networking sites for their traditional social uses. However 20% stated that it would result in substantial time-wasting, supporting the opposing theory. Overall the limitations of using a social networking site for project work are displayed in Figure 2, which clearly states that security is the biggest concern. This was an expected result due to the nature of project work, where there is a considerable amount of confidential information that could be stored.

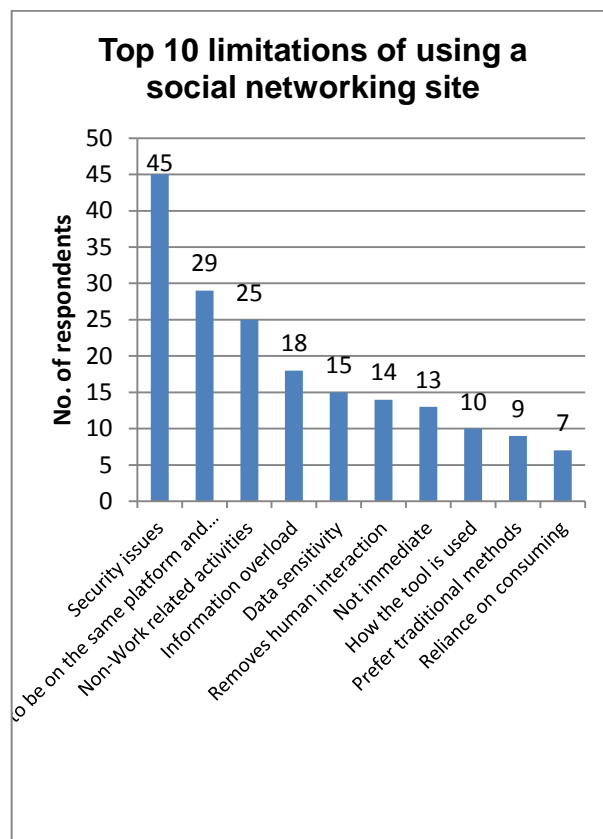


Figure 2: Top 10 limitations of using a social networking site

On the question of whether a social networking site could effectively replace traditional communication methods, the results were widely dispersed. Therefore this formed a large part of the interview structure, to ensure this question could be answered.

Interviews were then used to confirm results found in the survey, gain clarification where required or fill any gaps, such as the possible replacement of traditional communication. We conducted five individual interviews and one focus group with three participants. Interviewees included some from large organisations

and some from small, with the aim of building a comparison between the applications at the different sized organizations. Based on a semi-structured interview approach, a transcript of each interview was produced and qualitatively analyzed to identify the most important or the greatest mentioned topics. The qualitative data were coded thematically. Quotations in this section are given verbatim from the interview transcripts.

Overall the participants expressed that a social networking site would be good for project communications if “used in the right way” and by the “whole of the team”. It was identified that the benefits of using a social networking site to perform project activities include, “a strong enhancer of project communications”, and having a central repository would “remove the requirement of sending large files”. This provides the benefit of “finding information quickly”, “keeping up with competitors as the tools are becoming commonplace” and “provide one version of the truth”.

Additionally, using a social networking site to transfer knowledge from project to project would “strongly enhance communication between projects, as the only current form of communication is highlight reports, emails or project team based meetings”. Therefore it would be useful to share “lessons learned and identify dependencies between projects” while removing repetition. However one view was, that the value one project provides to another is “fully dependent on the level of expertise of the project manager”. This comes with the assumption that a new project manager would provide a lot less value than one that has managed many different projects.

This is supported by comments about the limitations, that social networking sites are only as good as “those that are using it”. Therefore good quality information within the site would depend on the “expertise of the users and the project manager”. The tool would also only be useful if the whole organization were using it, as if not, then users would not know if messages were being received or actioned. This could be an issue as “a lot of people prefer traditional methods” or simply do not know how to use the tools. To ensure the whole of the organization use the tool, and are using the tool correctly, thorough training would need to be put in place to ensure the benefits of the tool are realised over the traditional methods where possible.

General negative experiences that the interviewees had had previously with using a social networking site included: “quickly falling back into old methods” because some people “do not like change”; duplication of documents when “people work on the same

document”; and issues with having to be online to use the tool. However, on the whole, people did not experience too many negative instances with the tools, and when they did, they were easily overcome.

The general consensus of the interviews stated that a corporate social networking site would be much better suited to project work than a public site because of confidentiality of the information that would be stored within the site. This therefore would ensure the data is stored locally, within the virtual private network of the organisation, rather than letting an external site own the data. In order to communicate with clients, there was agreement that there could be a separate portal for the client to log into – because of confidentiality issues with the main site. However, it was also stated that traditional methods may be better, because it can never be assumed that “information will not be leaked” through sharing information outside the portal. If this was to happen, it could have a serious negative impact on the client relationship.

As expected, it was agreed that smaller organizations have less need for social networking sites than larger organizations, and that if both did use the sites, they would be used very differently. Social networking sites would be “more useful in larger organizations”, because there is no direct access to every employee, and therefore it is harder to find employees with the exact skills you require, than that of a smaller organization, because everyone is more likely to know each other. Alternatively, it was noted that the likely use may not differ depending on the size of an organization, but rather on the maturity or type. This is because an organization within the IT industry may be more willing to uptake such sites through being more aware of their capabilities.

Furthermore, it was expressed that a user profile can never be used to “replace face-to-face interviews”, as a recruiter can gain a lot more from an interview compared to reading the information that is given within a profile. Potentially, this would be more valuable for a recruitment consultant at the initial long-list candidate selection stage rather than for individual appraisal and hiring decisions. The interviews showed that project managers had little involvement with the recruitment of their project team; however that may be something peculiar to this small sample. Alternatively, it was stated that when project managers are required to recruit their project team, the sites would be extremely useful to new project managers. This is because they will not have a network of employees to use, therefore would rely on tools such as the user profile, to quickly locate the skills they require. In comparison, experienced Project Managers would have an abundance of a network to turn to, and therefore

wouldn't necessarily need to use such tools to find a team.

On the other hand, the project managers did feel that a user profile would be extremely useful in "doing the ground work" on the members of their team. This is because the usual practice was that the project manager did not meet the employees before they were assigned to the project team. Therefore a user profile could give the project manager a solid image of who is joining their team and how they might best be utilized. However, just like the tools themselves, the user profile is only as good as the information entered on them. Therefore it is important that all employees enter the relevant information, and keep them up to date. It was identified, that it can sometimes be found, that only the 'technology adopter' actually put the effort into updating their profile.

Although face-to-face interviews are the ideal and help to discover the personality of a new employee, the reality of the modern world is that this cannot always happen. It is a question of efficiently balancing cost, risk, and benefit. It may be that eventually social networking sites become the best option for rapid and effective recruitment for project teams that are geographically dispersed.

When discussing the 'multi-conversational feature' of the real time communication ability, it was suggested that these would be a good idea to avoid "wasting time through too many meetings". They would therefore allow project managers to convey "quick communication effectively to the team" thus reducing the amount of required meetings; especially good for presenting a quick question. This tool would especially be useful for project teams who are globally dispersed, and therefore may never meet in person.

During the survey, it was concluded that further clarification was required on whether traditional communication methods can be replaced. The interviewees gave this, by stating that social networking sites can never entirely replace traditional communication methods but would act as useful supplementing tools. This is because traditional methods like face to face meeting are invaluable. One interviewee stated that the communication order of usefulness went, "face to face first, followed by teleconferencing and social networking sites third".

The final way to gather information was through a Student Research Conference. The question 'Why do you think Social networking sites have not yet secured a primary role in project communications?' was posed to the attendees of the event. The expected results were presented as security, source control and competition with established systems.

5. Conclusions

Research questions (1) and (2) were addressed in the literature review (section III above). This section discusses research questions (3), (4) and (5).

For research question (3), "How can a project manager make effective use of social networking?", we noted that 74% of survey respondents said they were already using social networking in the workplace. However, this does not necessarily mean they were using it for 'formal' project management purposes. We determined that the predominant platforms were corporate sites and LinkedIn, with the latter rated as the most effective. Yammer was virtually unknown. The most highly rated applications of social networking for project management were for intra-project communication, knowledge management, project awareness within the organization, and personnel recruitment. A user profile was especially useful to a project manager if kept up to date, and used as a reference tool for new team members.

Research question (4) was "What are the limitations of using social networking for project communications?" Overall, we identified ten main factors (not in ranked order): (1) security issues, (2) needing the whole team to be online, (3) unproductive use, (4) information overload, (5) data sensitivity, (6) removal of human interaction, (7) lack of immediacy, (8) variations in use of software tools, (9) employees preferring traditional methods and (10) assumed reliance on team consumption of information provided. The issues of greatest concern were security, users needing to be online and time wasting.

Research question (5) asked "Does the use of social networking offer significant advantages to traditional project communication methods?" Our results suggest that for particular aspects of project management, such as the needs for quick communication of simple messages and for dissemination to geographically dispersed teams, there is a good case to consider the use of social networking tools as well as 'traditional' methods such as email and websites. However, they can never replace traditional methods.

One crucial risk is whether social networking media enable the originator to know if the 'message' has been received and acted upon. Obviously, this is true of any form of communication. However, as with any relatively novel technology, there is the additional question of trusting 'the new thing', especially for project managers trained and experienced with more linear and analogue-like forms of electronic communication.

In summary, we conclude that social networking platforms have much to offer project managers in large organisations with geographically dispersed teams. Mature project managers are willing to adopt social networking as an adjunct to more familiar methods. Younger project managers are likely to adopt social networking capability as the 'natural' mode of sharing data and status within a project team. Risks remain, as with any method of information sharing, but a competent and versatile project manager will find ways to adapt social networking methods to make genuine improvement in their stakeholder engagement rather than merely 'jumping on the bandwagon'. It seems likely that, before very long, professional culture and practice will evolve such that our research questions appear superfluous.

6. Further Research

Following the primary research reported in this paper, further investigation into Corporate Social Networking sites used in the workplace has concentrated upon Yammer, an "Enterprise Social Network and Microblogging Service" [19]. The primary research identified that 75% of the respondents did not have an opinion on Yammer, and only 0.5% had previously used the site. However, Yammer has been used in several large companies such as Cognizant and Telephonica. Therefore possible further research could look into these companies use of Yammer, to gain analysis of actual project managers' use of the tool. The first author (RF) is piloting a deployment of Yammer in her workplace. Further work is required to differentiate the features and benefits of various Corporate Social Network platforms and their uses.

7. References

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