The social network is the m(a)ssage: virtual social capital and real-world business opportunities

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Abstract: - This paper compares the relationships between virtual social capital acquired on two mainstream social networks – Facebook and LinkedIn – and real-world business opportunities. Using quantitative research methodology, the case of Facebook has already been explored at the sample of more than 100 students of the Polytechnic of Zagreb in the recent study conducted by the same group of authors [1]. This study explores the relationships between social capital acquired at LinkedIn and real-world business opportunities and compares found results with the case of Facebook. On such basis it draws connections between real and virtual habitatsof students at the Polytechnic of Zagreb and their career prospects, identifies methodological restrictions to found conclusions, and proposes several directions for future research.

Key-Words: -social capital, social networking, virtuality, reality

1 Introduction

During the past few decades,structure of human interaction has rapidly changed. Significant part of human activities has been transferred into online worlds; scope and extent of this transfer has brought into question the basic relationships between reality and virtuality. Such developments have significantly influenced all human activities. Social capital has always been inherently productive: since the beginning of humankind, it has enabled achievement of certain ends that in its absence would not be possible [2]. However, face to face interaction has slowly but surely given way to online social networking, thus introducing the distinction between the real social capital and the virtual social capital. Certainly, the concept of social capital can be refined much further. First, social capital can be used for various purposes from grooming to education. In order to frame the research question, we shall concentrate to social capital as the means for gaining business opportunities. Second, social capital heavily depends on context of its acquisition [2]: in the real world, social capital acquired at the workplace is not the same as social capital acquired at the pub. We shall therefore assume that features of virtual social capital will depend on the used virtual platform or environment, and inquire social capital gained through two different social networks (Facebook and LinkedIn) as themeans of gaining business opportunities for students of Polytechnic of Zagreb.

2 Theoretical Background

2.1 Social Capital and Networking

All networks consist of nodes and ties. Nodes are individual actors within networks, and ties are connections between those actors[3]. Human interaction consists of real and virtual relationships, which either strengthen or weaken those ties. In general, social capital refers to various resources available in personal and business networks. These resources include information, ideas, leads, business opportunities, financial capital, power, emotional support, goodwill, trust and cooperation. Natural talent, intelligence, education, effort and luck are not merely individual attributes: they are developed, shaped, and expressed through relationships with others. In the expression 'social capital', the term 'social' implies that those features reside in networks of relationships and cannot be owned by single persons.

Social capital is productive, because it enables people to do things, achieve their goals, create added value, and make own contributions to their environments. For this reason, social capital is prerequisite for achieving personal and / or business success and having a fulfilling, satisfying life[4]. In general theory of social networks, ties created at school and workplace are generally considered as weak ties. At the first glance, it seems that strong ties would always provide more business opportunities than weak ties: in this case, this research would immediately become obsolete. However, in his important article

The strength of weak ties, Granovetter shows that "empirical evidence that the stronger the tie connecting two individuals, the more similar they are, in various ways". While strong ties are obviously superior to weak ties, they tend to create closed circles of similar people thus restricting business opportunities to immediate social surroundings. On the contrary, weak ties are those that connect people to new opportunities and new resources outside of their circles [5]. In the long run, therefore, weak ties are at least as important as strong ties in terms of creating business opportunities.

Many people have found their jobs through offline and online social networks. In their study of the relationships between social networks and labour market, Franzen and Hangartner show that individuals with large numbers of friends, especially at the workplace, have higher income than individuals with smaller social circles. Furthermore, jobs found through networks of friends, colleagues or relatives have higher educational adequacy with employers requiring a specific university degree. They are more often perceived as long term engagements that are compatible with their career plan and not short term jobs with little or none relation to career plan. Network jobs are perceived as an opportunity to exert influence and apply ability. Even thoughjobs found by network contacts do not seem to provide significant monetary benefits, they do offervarious non-monetary advantages which are particularly relevant for those enteringlabour markets [6]. For this reason, this research is particularly relevant for student population, at the Polytechnic of Zagreb and elsewhere, which predominantly consists of people at the very beginnings of their careers.

2.2 LinkedIn and Facebook

Strong ties between individuals are hard to maintain, because they require lot of time and attention. On the contrary, weak ties easily connect people to resources outside of their immediate surroundings and are fairly easy to maintainusingonline social networks [7].In this research, we shall assume that virtual social capital is not a homogenous entity; instead, we shall propose that it heavily depends on the used virtual platform or environment. This research is based on quantitative inquiry into the relationships between virtual social capital acquired in two mainstream social networks – Facebook and LinkedIn – and real-world business opportunities.

LinkedIn is social networking service specifically designed for professionals. It started in 2003 and in January 2013, LinkedIn reports more than 200 million users in more than 200 countries and territories. Almost half of them are within the USA[8].

Facebook is social networking service predominantly used for private purposes such as staying connected with friends and family. It started in 2004 and has more than 1 billion worldwide users, 82% of which reside outside USA and Canada [9].

3 Research Methodology

Research on real-world business opportunities created by LinkedInis based on questionnaire completed in March 2013 by 83 students of Specialist graduate studies in information technology and Specialist graduate studies in electrical engineering at the Polytechnic of Zagreb. Using the same research methodology, the case of Facebook has already been explored with the same population (on the slightly larger sample of more than 100 students) at the end of 2012 and published in early 2013 by the same group of authors in the paper called Building social capital through social networking: strategy or coincidence [1]. In this way, we have achieved comparability of research results and have managed to improve our methodologies by acknowledging feedback to our previous work.

4 Virtual Social Capital and Real - World Business Opportunities
4.1 Population

64% of analyzed students are employed, either in high tech jobs or in jobs which include regular usage of information and communication technologies. 57% of all LinkedIn users are male[8], while 92% of students researched in this paper are male. 77% of students use Facebook, while 23% use LinkedIn. Unfortunately, overlapping between the two groups could not be researched due to anonymity of questionnaires.

All researched students use the internet on daily basis, while over 60% of the population uses Internet for more than 3 hours a day. 56 % of researched students are from Zagreb, while the rest are from 21 other places in Croatia. Average student age is 27. Facebook is predominantly used on daily basis, while LinkedIn is predominantly used on weekly basis. Most students have 50-400 Facebook friends, whilemore than 90% of researched population has are 0-49 LinkedIn connections.

4.2 Trust relationships within the community

Business opportunities acquired through social networking are analyzed using 16 questions. 11questions inquire trust relationships within the community, while 5 questions inquire types of ties created and maintained within the network. Trust relationships within the communityare represented in Figure 1. Answers are graded on scale 1 –5, where 1 stands for'strongly disagree', 2 stands for'partially disagree', 3 stands for 'in average I agree', 4 stands for 'I mostly agree'and 5 stands for 'I strongly agree'. Scale is graded linearly.

Answer 'colleagues will recommend me for the job' is graded with 3.57, which indicates a fair level of trust within the community. 'I can contact someone for advice before important decision making' scored 3.70, which shows slightly above average level of trust between individual students.

'If I need an urgent loan of 100 Kuna, I know whom I can ask' scored 3.50. This indicates open communication about finances, which are usually considered as sensitive topic, and confirms depth of the identified trust relationships. It is to be expected that the community which openly talks about money and important decisions will also have enough trust to share business proposals and recommend each other for vacancies.

'There are several colleagues who might be able to resolve my personal problems' is graded with 3.41. This implies high levels of mutual respect within the community, which is prerequisite for future business connections. 'I constantly meet new people at the Polytechnic' is graded by 3.31. This implies that the Polytechnic provides vibrant environment and a good place to expand the existing networks with new people and establishing new ties. In combination, answers to the last two questions indicate high levels of student expectations and shows that those expectations have mostly been met.

'I would take time to support student activities at Polytechnic' scored 2.74, showing thatties created in business context will not be much strengthened in informal student activities. Questions about belonging to Polytechnic community scored 3.71, implying that students mostly agree that they feel as a part of community, are interested in what is going on at Polytechnic and they are actively thinking about Polytechnic of Zagreb.

Despite differences in number of friends and frequency of usage between Facebook and LinkedIn, this research has shown no significant difference between trusts between connections on two networks. In contrast to our earlier assumption, it can be concluded that sources of trust lie beyond the choice of tool for social networking.
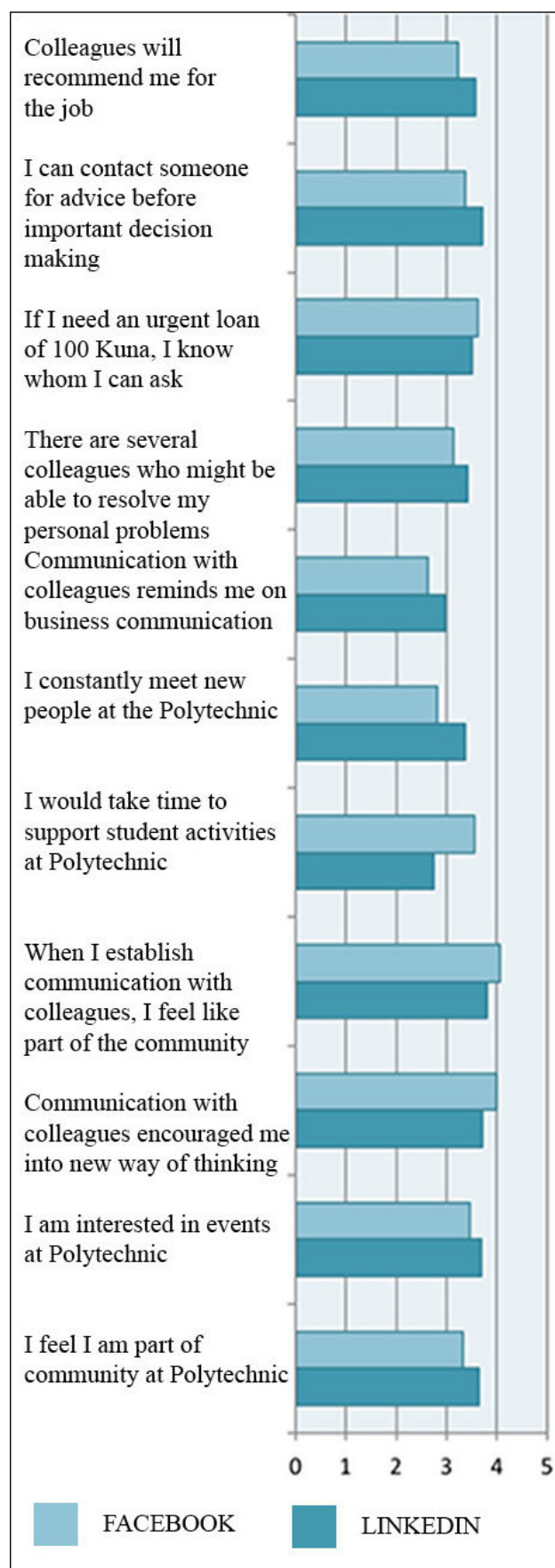

Fig. 1: Trust relationships within the community.

4.2 Types of ties created and maintained within LinkedIn

In Figure 2, types of ties created and maintained within LinkedIn are given in six distinct classes: none, 1 – 2, 3 – 4, 5 – 6, 7 – 8, and more than 8.
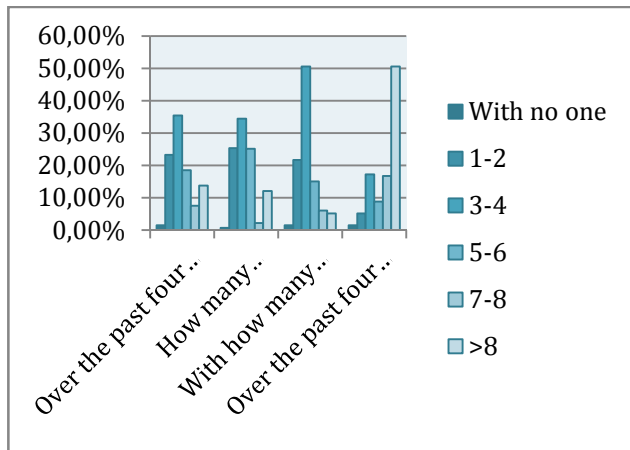

Fig. 2: Types of ties created and maintained within LinkedIn.

Question 'Over the past four months, with how many people have you discussed important issues related to your career' reveals that only 14% of interviewed students have talked about important issues regarding their career with more than 8 people thus using their weak ties to tap into new resources. For the majority of students, virtual social capital does not seem to offer much conceptual advice.

Question 'How many colleagues would support your new project?' shows that 72% of students can talk with less than 4 people about ideas for their new project and 12% communicated with more than 8 persons to resolve work assignment or project associated with their studies. On such basis, it seems that virtual social capital amongst students at the Polytechnic of Zagreb is much more useful regarding practical projects than regarding abstract planning.

Finally, 65% of interviewed students say that most of their friends know each other and 29% stated that some of their friends are mutual. So we can conclude that 29% of students have access to weak ties that bring new opportunities and resources in their network.

5 Discussion

This research shows that levels of trust relationships within the virtual communitiesof Facebook and LinkedIn are fairly high. Therefore, it is to be expected that those relationships might contribute to further

business opportunities arising from virtual networking for students at the Polytechnic of Zagreb. Despite conceptual differences between Facebook and LinkedIn, there is no significant difference in trust between those networks. This result contradicts our theoretical assumptions. In the field of trust, the nature of relationships (real-real or real-virtual) is more important than the purpose of a virtual social network. However, this result is significantly influenced by the fact that most students know each other from real lives so the nature of their relationships is simultaneously real and virtual. In order to generalize those conclusions, an additional research should be conducted with the population without any face to face connections.

Based on marketed differences in scope and influence between Facebook and LinkedIn, types of business ties created and maintainedin virtual environments have been inquired only at the case of LinkedIn. Judging from our previous conclusion this decision was obviously wrong, and it still remains to inquire whether the case of Facebook would provide similar results. Furthermore, this research might be expanded into the more general inquiry of people's general perceptions of the relationships between the real and the virtual.

Regarding types of ties created and maintained in LinkedIn, an additional problem lies in unexpectedly small sample: despite the fact that 64% of analyzed students are employed, either in high tech jobs or in jobs which include regular usage of information and communication technologies, only 23% of them use LinkedIn. While the achieved sample size is still relevant for the context of the Polytechnic of Zagreb, in order to generalize found conclusions further this research should be repeated in other populations.

Finally, this study is oriented bottom-up and predicts business opportunities based on relevant elements of social capital such as trust relationships within the community and types of ties created and maintained. Certainly, other research designs may also be feasible. For instance, it would be useful to employ top-down approach, and ask employed professionals how many jobs they actually acquired through social networking. However, rapid development of information and communication technologies implies that five or seven years ago social networks have probably been used in different ways than today, so the proposed top-down research would not say much about future consequences of today's virtual activities. Despite such conceptual differences, we do believe that conducting top-down research of the relationships between virtual social capital and real-world business opportunities and overlapping its

results with the conducted bottom-up research might offer an additional insight into the matter.

6 Conclusion

This study has compared relationships between virtual social capital acquired on two mainstream social networks – Facebook and LinkedIn – and real-world business opportunities. It has focused to two important aspects of social capital: trust relationships within the community and types of ties created and maintained within LinkedIn. It showed that levels of trust relationships within the virtual communitiesof Facebook and LinkedIn are fairly high, while LinkedIn is predominantly used tocreate and maintain weak ties. Such results lie in accordance with previous research [1][2], thus confirming validity of the used research methodology.

29% of student LinkedIn users at the Polytechnic of Zagreb significantly benefit fromGranovetter'sstrength of weak ties [5]. For the rest of students, virtual business opportunities are not significantly different from those found in real life. Taking into account that only 23% students at the Polytechnic of Zagreb use LinkedIn, simple mathematics shows that only 6.67% of overall student population significantly benefit from social networking in their careers. On such basis, we can conclude that business opportunities arising from social networking at the Polytechnic of Zagreb are at their very infancy, and that they offer large potential which should be seized for the benefit of the students.

This study is subject to several important methodological restrictions. Most students know each other from real lives so the nature of their relationships is simultaneously real and virtual; types of ties created and maintained in virtual environments have been inquired only at the case of LinkedIn; and the nature of bottom-up research design. In the new research field such as virtual social capital, however, recognition of those restrictions does not serve only in interpretation of research results. More importantly, the identified restrictions should be used as important indicators for future research directions.

In order to explore the relationships between virtual social capital and real-world business opportunities, further research should be done on populations which do not have any face to face connections. Instead of looking into specific differences between various online tools, perhaps it would be better to follow the steps of Marshall McLuhanand Paul Levinson [11]– and conduct a more general inquiry of human perceptions of the relationships between the real and the virtual. Last but not least, issues pertaining to the relationships between virtual social capital and real-world business opportunities should be explored using various research designs.

As it is often the case with new research fields, this study asks more questions than it provides answers. However, it does reveal a tiny insight into the relationships between virtual social capital and real-world business opportunities and providesome directions for further development of our understanding of the complex interplay between reality and virtuality.

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