

*Social Network Sites as a Source of  
Social Capital*

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## 1.0. The aim of the paper

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The aim of the paper is to analyze the meaning of having many friends on the social network sites (such as Facebook, MySpace or LinkedIn). I will especially focus on incorporating into the analysis the concept of social capital introduced by James Coleman in his paper: Social Capital in The Creation of Human Capital (Coleman 1988b). As the concept suggests I will search for the evidence of “being successful” (having good education, having prestige full-time job, earning a lot of money) correlated with “having a lot of social capital”. I will use separately 3 survey data files from Pew Research Center, collected in April 2009, in May 2008 and in January 2008. I will do so because each data file contents different sets of measured characteristics which are useful for the analysis. The April 2009 data come from telephone interviews (Random digit dial of landline and cell phones) conducted by Princeton Survey Research International between March 26 to April 19, 2009, among a sample of 2,253 adults, 18 and older. (Pew Research center: <http://www.pewinternet.org/Reports/2009/11-The-Internet-and-the-Recession.aspx>). The May 2008 data are based on data from telephone interviews conducted by Princeton Survey Research Associates International between April 8 to May 11, 2008, among a sample of 2,251 adults, age 18 and older (Pew Research Center: <http://www.pewinternet.org/Reports/2008/The-Internet-and-the-2008-Election/07-Methodology.aspx?r=1>). The January 2008 data also come from telephone interviews conducted by Princeton Survey Research Associates International between December 13, 2007 to January 13, 2008, among a sample of 2,252 adults (Pew Research center: <http://www.pewinternet.org/Reports/2008/Networked-Families/09-Methodology.aspx?r=1>). The Pew Research Center claims all samples to be representative for the whole adult population of the U.S. I am aware that the users of social networks (and users of Internet in general) are not representative for the whole population and that any conclusions find on this population are not to be generalized for all adult people and their relationships and ties.

First I will represent the concept of social capital by James Coleman. I will show the parts most important for the paper and try to use the constructs from social capital for the analysis of social network sites. Then I will analyze the data, last I will draw conclusions based on the analysis and show the implications it brings for the social capital in social network sites. I won't run any complicated models. I will restrict my analysis to descriptive statistics, cross tabulations and correlations. These methods limit the causality and validity of the conclusions but there is not enough room in this paper to run any more complex models.

### 1.1. Booming communication on social network sites

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Social networking is booming at a very high speed. The social network sites mostly define themselves as pages that allow different people to communicate, share experiences and just stay in touch with their friends (Facebook About; MySpace Terms of Use). The tools for maintaining the relationships (ties) have changed over the last decade. You are not restricted to communicate with other people just through personal meeting, mail or phone. You can maintain these relationships through emails and nowadays also through social network sites. We can assume that these social network sites serve as a new source of communication and action or compensate older sources (Haythornthwaite, C.; Hagar, C.: 2005). Today more than 200 million people have account on Facebook and millions more on other social network sites. The relative percentage increases in the developed countries where the access to the Internet is widely spread. Moreover in the age group 14-25, 8 out of 10 people (in the US, April 2009) have and use a social network site account (see Table 1). Thus significant part of communication in this young age group is made through social network sites (see table 2). The percentage of people in the age group 18-29 with Internet connection in the US and in the Czech Republic is similar: 93% users in the US (2010), 83% users in the Czech Republic (older data from 2008, we can assume that this percentage increased by 2010) (FSV 2008: Czechs in Cyberspace; Internet, Pew Research Center 2010: broadband, and cell phone statistics). Thus if the findings are useful it would be worth repeating the analysis on some data from the Czech population. As far as I know there is no such data available at the moment. Let us now move to the very core idea of the social capital by James Coleman.

**Table 1 - Percentage of users of SNS within age groups in the US, April 2009**

		age				Total
		0-25	26-35	36-50	51+	
sns	user	<b>82,6%</b>	<b>61,9%</b>	41,6%	18,5%	38,9%
	non-user	17,4%	38,1%	58,4%	81,5%	61,1%
Total		100,0%	100,0%	100,0%	100,0%	100,0%

Source: Pew Research Center, April 2009

## 2.0. The concept of social capital

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There are several types of capital used in social science theory. The very basic capital is the economical capital (or physical capital). It is simply the amount of material resources an individual owns. It can be money as well as other types of wealth (such as houses, cars, shares etc.). This type of capital is pretty simply measurable by questions on the income and other amount of wealth owned. The second type of capital is the “human capital”. It represents the intellectual potential an individual dispose. It is mostly understood and measured as the highest achieved education or experiences in work. It was first mentioned by Adam Smith and then developed by other economists (Sullivan, Arthur; Steven M. Sheffrin 2003: 5). Both types of capital are acknowledged by the economical theories and implemented into several concepts describing human actions (Rational Theory, Theory of Social Exchange).

Unlike the first two types of capital the social capital has been overlooked in the research for a significant period of time. The study began in late 60’s in the U.S. (Lee 1969: *The Search for an Abortionist*). The research continued by Mark Granovetter (1974: *Getting a job*) and it has opened a range of studies since then. He claimed that having a lot of ties paid off in the process of looking for a job. Especially having a lot of weak ties turned out to be the key variable for finding a job. These weak ties contain information which is helpful in this process. He found out that our closest friends and family experience similar sort of information we do. The information from people we don’t meet often overlaps with ours less likely and thus provide us with more new information (Scott 2000: 35).

Thus the social capital exists in the ties individuals have with each other. It is hidden in the social networks and is available for the members of these networks. It can facilitate a certain action as well as bring new opportunities. The function of social capital lies in its practicability to actors as resources for achieving their goals (Coleman 1988b: 101). Further more in different situations different forms of social capital are valuable. Coleman shows the example of the diamond market in New York (Coleman 1988b: 98). Its merchants need to check the bag of diamond before negotiating the price. They simply take the bag home without any paycheck or formal insurance and exanimate the value of the bag there. The whole diamond market is actually a close social network made from families that know and trust each other. Thus they can skip any costs of insurance etc. The second example comes from South Korea. The opposition (by the time Coleman wrote his paper) was formed by

college students. It turned out that these students knew each other from high school. This “closeness” helped them to organize a sort of coherent opposition against the government (Coleman 1988b: 99). The two examples above show the importance of social capital but also show that different type of social capital is useful in different situations (knowing each other from high school wouldn't help to keep down the costs of insurance in the diamond market example).

Coleman recognizes three different sorts of social capital. The first is called “obligation, expectation and trustworthiness” (Coleman 1988b: 102). It pretty much describes the situation in diamond market. We can also use this form in the network with different “goods”. In general if A trust B and does something for B then B has an obligation to reciprocate. Thus A holds expectation or sort of credit and B is in debt to A. If A holds a lot of such credits in a network where there is a lot of trust this means A owns a lot of social capital. Not only credits (expectations) are worthy. Also having obligations means being part of the network and thus having the opportunity to trade with the expectations and obligations and potentially gain extra power over those who don't have these opportunities (Coleman 1988b: 104).

Other type of social capital is called “information channel” and describes the situation researched by Granovetter (1974). Friends provide an individual with information he/she would probably not get or would get more costly. Some early marketing researches show that we trust the information from our friends more and pay more attention to them than to any other source of information such as TV, Internet, Commercials (Business Week: Learning, and Profiting, from Online Friendships). Knowing more information can serve as another source of capital that an individual can use in his/her actions.

The last type of social capital lies in the norms that exit in social networks. Having a close social network (such as a religious community or family) helps to internalize the norms of the community among its members (Coleman 1988b: 105). The norms can help to “improve” (make more effective) the actions of the members of the particular community. Such as having a norm “community interest over mine” can serve for the good of the community. In the case when norms don't imply any good they can actually harm people or communities. Even if the norms imply useful causes they prevent the actors from doing other

potentially useful thinks. Thus this type of social capital is a kind of “double edged sword”. It can be useful as well as harmful.

Coleman also shows that social capital is prior to human and physical capital (Coleman 1988b: 109). He uses the example of gaining education. There is known evidence that there is higher chance to achieve higher level of education if the individual comes from wealthy family (has a lot of physical capital) and her/his parents also achieved high level of education (having potential human capital from the parents). He runs a regression model where he shows that coming from wealthy family with educated parents doesn't automatically yield better education. It does so only in the case that the individual actually communicates or shares some significant time with his/her parents. Thus having this type of social capital enables the individuals to use the human capital from his/her parents (Coleman 1988b: 112).

Moreover he shows the importance of the embeddedness of social networks in his other article (Free Riders and Zealots: The Role of Social Networks, 1988a). He claims that the more embedded the network is the more advantages it brings to its members. He shows the example in which the network is formed of three members. At least one member has to contribute 9\$ to get a profit of 12\$ for all, that means 4\$ for each. If there are no ties between the members no rational actor would contribute because he/she would lose 9\$ (investment) - 4\$ (profit) = 5\$. Since they cannot communicate with each other they cannot force any joint action. In the case where all three members know each other two member can contribute to the first actor form their potential profits (4\$ each) to balance his/her loses. Each can contribute a little more than 2 ½\$ so that the first member doesn't lose any money (4\$ gain + 2 ½\$ from one member + 2 ½\$ from other member - 9\$ investment = little more than 0\$). They will both be left with 4\$ - 2 ½\$ = 1 ½\$. This way everyone wins (Coleman 1988a: 55). Thus the embeddedness (the density) of the network helps to use the potential sources in the network.

To sum up being a member of a lot of social networks can bring an individual more information and thus more potential for better decisions over those who aren't members of that many networks and don't have access to this information. One could assume that such opportunities create higher chance of having better paid job and of being better educated.

## 2.1. Analysis of data on social networking

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The concept of social capital works with the premise that having more ties yields potential advantages over those who don't have them. First we need to ask why do people use the social network sites to determine whether they actually use the social networking to communicate with people in online world or just play games or do other irrelevant activities.

If we look closer at table 2 we can see that on average the users do more than three of activities listed below. Almost half of all activities are made by the answers "Stay in touch with friends" and "Make plans with your friends" which suggests that the users of social network sites use them mostly to keep up with people they already know. If we look even closer we can see that only about 7% of respondents don't use them to stay in touch with their friends. On the contrary about 22% of activities contain meeting new people (answers "Make new friends" and "Flirt with someone"). We can conclude that **people who have account on social network sites use them mostly to keep up with their current friends or people they already know.**

**Table 2 - activities on social network sites**

	% of yes responses	Percent of all activities	Percent of one activity
activities on sns	Make new friends?	15,8%	51,6%
	Stay in touch with friends?	28,4%	93,2%
	Flirt with someone?	6,4%	21,1%
	Make plans with your friends?	18,0%	59,1%
	Make new business or professional contacts?	8,8%	28,9%
	Promote yourself or your work?	9,1%	29,7%
	Organize with other people for an event, issue or cause?	13,4%	44,0%
Total		100,0%	327,6%

Source: Pew Research Center, May 2008.

This finding validates the premise that people use the social network sites to communicate with other people, mostly their friends. The Facebook data team has estimated that Facebook user has on average more than 250 friends on his/her list (Business Week:

Learning, and Profiting, from Online Friendships). Great majority of these friends are people the user has meet once or only couple times. Actually only about 25% of friends on the list are people the user maintain any time of reciprocal (exchanging emails or messages on Facebook, commenting on each other’s statuses) relationship with. The rest is people who aren’t close friends of the user. This suggests that users on social network sites (we assume to find that similar trend on other social network sites such as MySpace, LinkedIn) have wide circle of weak ties. According to findings from the Granovetter study (1974) these weak ties serve as a good source of new information.

We can exanimate this relationship further more by looking closer at the amount of communication in the real life situations the users and non-users have. We conceptualize the amount of communication as a frequency of real life social interactions with his/her friends and family. We can see in table 3 that the users of social network sites have more social interactions with their friends then the non-users (this relationship is statistically significant at  $\alpha=0,01$ ).

**Table 3 - Frequency of social interactions with family of friends**

		Frequency of social interactions				Total
		Almost every day	A few times a week	Less often	Never	
Sns user	Yes	37,7%	24,6%	17,3%	29,3%	20,7%
	No	62,3%	75,4%	82,7%	70,7%	79,3%
Total		100,0%	100,0%	100,0%	100,0%	100,0%

Source: Pew Research Center, January 2008.

The users of social network sites and the users of Internet in general tend to be younger (average age for social network site user in the sample is 38, average age for non-user is 55) while younger people tend to have more social interactions than older people. After controlling for age the relationship between being user of a social network site and having more social interactions diminishes and is no longer statistically significant. **Thus having an account on social network site doesn’t affect the amount of social interactions an individual experience in his/her real life.**

The concept of social capital suggests that having strong social capital helps to use more effectively the human capital around the individual and thus helps to achieve higher education (Coleman 1988b: 112). If we crosstab the highest level of education achieved and

the fact whether he/she is the user of social network sites we don't find any relationship between the variables. But given the fact that users are on average younger and they may still be studying brings us again to the idea of controlling this relationship within the age groups.

**Table 4 - Highest level of education achieved within age groups**

age			Highest level of education <sup>1</sup>			
			LT HS	HS grad	Some coll	Coll+
0-25	sns	user	0	0	+	0
		non-user	0	0	-	0
26-35	sns	user	0	-	0	+
		non-user	0	+	0	-
36-50	sns	user	0	-	0	+++
		non-user	0	+	0	---
51+	sns	user	0	0	0	0
		non-user	0	0	0	0

Source: Pew Research Center, April 2009.

The results are statistically significant (at level  $\alpha=0,05$ ) within the age groups 26-35 and 36-50. The plus or minus signs suggest that there is significant change from what we would expect of there were no relationship so that within the same age group (26-35 and 36 to 50) the users are more likely to get the graduate or postgraduate education and on the contrary the non-users are more likely to get the high school education. We must take into account the chain of time causality in here. The concept of social capital suggests that having a lot of ties helps to gain the potential human capital. Thus the former precedes the later. This is not the case in the example of social networking. Since the social network sites haven't been wildly spread since last couple years the 26 to 50 age users couldn't use the social network sites to gain extra human capital. Thus the education precedes the fact that someone has an account on social network sites and we can only conclude that within the age 26 to 50 the highest level of education (extra college degree) leads to be more likely user of the social network site. Thus the results suggest that **being user of social network doesn't affect the highest level of education achieved.**

Another implication from the concept of social capital suggests that having greater social capital may help an individual to find a better job (Scott 2000: 35) and thus potentially

<sup>1</sup>“LT HS” means less than high school, “HS grad” means high school graduation, “Some coll” means some college degree and “Colle+” means extra college degree (graduate or postgraduate education).

earn more money. There is no relationship between being user and the amount of money earned (Total family income per year). Again using the same logic (the users are on average younger and thus less likely to earn more money than older people) brings us to use the variable age as a controlling variable.

**Table 5 - Family income within age groups**

age			Year family income		
			10000-29999	30000-74999	75000+
0-25	sns	user	0	0	+
		non-user	0	0	-
26-35	sns	user	0	0	0
		non-user	0	0	0
36-50	sns	user	-	0	0
		non-user	+	0	0
51+	sns	user	0	0	0
		non-user	0	0	0

Source: Pew Research Center, April 2009.

Overall there is statistically significant relationship only within the age group under 25. The relationship in Table 5 suggests that the users of social network sites within this age group (under 25) are more likely to be in the highest income category (more than 75000\$). The measure of income is restricted to the year family income and thus this relationship may be misleading. A lot of people from that age group (under 25) still live with their parents and the amount of money they report is not actually earned by them. Again the time chain of causality is important. The users are not likely to be richer because the extra advantage from social capital (social network sites) but they may be users because their families are richer and they have the favorable environment at home (access to internet, his/her own computer, enough time to surf the web etc.). I assume that the children in wealthier families gain such favorable environment. Such families usually own more high tech electronic devices than poorer families. Furthermore we can control the relationship between being the user and the family income for the variable having the computer at home (Table 6).

**Table 6 - Year family income for the control variable „Having a desktop computer“**

Do you have - A desktop computer?			Year family income		
			10000-29999	30000-74999	75000+
Yes	sns	user	0	0	0
		non-user	0	0	0
No	sns	user	0	0	0
		non-user	0	0	0

Source: Pew Research Center, April 2009.

As we can observe there is no relationship among all categories if we control it for the variable "Having a desktop computer" (we find the same result for the controlling variables "Having a laptop computer" or "Having a cell phone or a Blackberry or iPhone"). Thus being a user of social network sites doesn't affect the amount of money the individual earn.

We can examine further the relationship between the job an individual has and the fact if he/she is the user of social network sites. As mentioned above the concept of social capital suggests that individuals with access to this form of capital have higher chance of getting a better job. We discovered that there is no evidence to claim that social network sites provide extra source of capital for finding a better paid job. We can ask if social networks help to find high prestigious jobs. In general the jobs considered to be the highest in prestige are doctors, lawyer, teachers, managers and business owners. These jobs are labeled as "High prestige". The service works (police, fireman, and waitresses) and the clerical works (office work, secretary) are labeled "Semi prestige". The last category is called "Low prestige" and contains electricians, assembly line workers and bus or truck drivers. The jobs are categorized according to how much prestige they earn from the US adult population (Ganzeboom, de Graaf, Treiman: 1992). There is a statistically significant (at level  $\alpha=0,02$ ) negative relationship between the prestige of the job and being user of social network sites (see Table 7). That means that the users have on average low prestigious jobs than the non-users. Again the users are on average younger and younger people are less likely to have high prestigious job. This relationship diminishes at all after controlling for age. Thus we have confirmed **that using social network sites doesn't affect neither the amount of money an individual earns nor the prestige of the job he/she does.**

**Table 7 - Prestige of the job within age groups**

		Prestige of the job		
		High prestige	Semi prestige	Low prestige
Sns user	Yes	--	++	0
	No	++	--	0

Source: Pew Research Center, January 2008.

Another implication from the concept of social capital suggests that the density of social networks positively affects the availability of social capital in these networks (Coleman 1988a: 56). Since the data available don't allow us to measure the density of social network sites we cannot test if this is the case for social networking. Unfortunately we were able to

categorize the people only as users and non-users. We couldn't examine the relationship between the number of friends on user's "friend list" and the characteristics tested above. This type of examination would allow us to determine closer the consequences of having a lot of ties. Similar restriction didn't allow us to test for the affect of norms for the users of social network sites. There is neither any measure of individual's norms nor their affiliation to any type of community.

### 3. 0. Conclusions

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The concept of social capital suggests that having a great deal of social capital helps the individual to use the potential human capital around him/her and thus help to achieve higher education. It also helps to gain extra information from other sources and thus helps to get a better job.

People actually use social network sites to communicate with other people. Mostly they choose to communicate with people they already know rather than with people they want to get to know. The majority of people on user's "friend list" are people the users usually don't communicate with much, thus the majority of relationships are weak ties. The fact that an individual has an account on social network site and thus has more opportunities to communicate with his/her friends doesn't affect the amount of real life communication an individual experience. Thus not being user doesn't yield any kind of social exclusion from the real life situations. Social networking also doesn't add any additional advantage for gaining the potential human capital around us. Users who could use social network for gaining this capital don't differ from non-users in their highest level of education achieved. We found out that the most educated people in age group 26-50 are more likely to be users of social network sites. Of course they had achieved their education before they started to use social network sites. At last the users are as likely as the non-users to have same prestigious job and earn similar amount of money.

After examination of variety of relationships focused on the implications the concept of social capital brings we cannot conclude either of them to be true for the case of social network sites. Thus given that the premises of the concept of social capital are correct, we

didn't find any evidence for the claim that social network sites yield additional advantages for their users. They most likely don't hide any sort of extra social capital. Unfortunately due to the data we weren't able to examine the differences the number of ties may yield and we had to restrict our analysis only on users and non-user of social network sites without any further specification.

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