

SOCIAL CAPITAL CREATION AND THE CHALLENGES OF HIGHER EDUCATION

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SUMMARY

If "social capital" is a source of economic development, it is important to invent social devices that are able to foster social capital, particularly in developing countries. This article examines in its first two parts what is social capital, how it can foster economic development and whether it is possible to create social capital. In the third part, the role of social capital in higher education is considered in order to formulate recommendations for public policies in educational sector.

RESUMEN

Si capital social es una fuente de desarrollo economico, es importante crear mecanismos de inversion social que sean capaces de alimentar el capital social, particularmente en paises en vias de desarrollo economico. En la tercera parte se evalua el rol del capital social en la educacion superior en lo concerniente a la formulacion de politicas publicas en el sector educacion.

Nota: Se omitieron acentos en el resumen en el idioma espanol.

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Part 1: Conceptual framework

1.1: Social capital "refers to the norms and networks that enable collective action" (website of the World Bank) and "is generally referred to as the set of trust, institutions, social norms, social networks, and organizations that shape the interactions of actors within a society and are an asset for the individual and collective production of well-being" (Fabio Sabatini's definition at www.socialcapitalgateway.org). In the 80's, French sociologist Pierre Bourdieu has defined social capital as "the set of actual or potential resources that are associated with the possession of a durable network of relationships (...) or, in other terms, with the membership of a group" (Bourdieu, 1980, p. 2). Other definition is Schiff's who defines social capital as "the set of elements of the social structure that affect relations among people and are inputs or arguments of the utility and/or production function" (Schiff, 2002, p. 88).

1.2: Social capital influences economic development by various channels:

- i) It is possible to show that at the macroeconomic level, social capital influences the quality of education as much as the quality of health, and consequently the labour productivity. Effects on health are studied in Almedom (2005) which deals with mental health, and by Hawe and Shiell (2000) and Kritsotakis and Gamarnikow (2004) among others for general health. Effects on education are studied by Coleman (1988) among others. Putnam (2000) shows correlation between an indicator of social capital and indicators of health and education.
- ii) In absence of social capital, individuals are likely to assume important costs for example related on security services, legal services, insurances, and costs of information on the other individuals. Those resources are diverted from other uses possibly more productive.
- iii) In financial relations, social capital makes it possible to improve information on the risk of the person to whom one lends and to make sure that it will provide the effort necessary to honour its debts. It makes it possible to partly solve the problems arising from the asymmetry of information between lender and borrower and insure a good financing of the economy. The relations between financial development and trust are studied in Guiso L., P. Sapienza and L. Zingales (2004).
- iv) Fukuyama (1995) emphasizes that "High-Trust Societies" are more likely to permit the creation of large corporations, while "low trust societies" are not able to develop cooperation among individuals beyond the family circle. That also means that the functioning of the State will be less satisfactory in "Low Trust Society", with greater corruption and a lesser interest of the citizens in politics. The intuition of Fukuyama has been tested by La Porta et alii (1997). More generally, the idea that social capital has an economic payoff has been tested by Knack, S and P. Keefer (1997).

1.3: An effort has been made in order to measure social capital. This can be made in different ways:

- i) Social capital is the capacity of individuals to cooperate. So, it is possible to measure social capital by the activity of non-profit organizations: the number of such organizations, the intensity of their activity, the number of their members, are potential indexes of social capital. Putnam (2000) is using such measures in order to demonstrate the decline of social capital in the USA.
- ii) A high social capital means a high participation in political process. So, in the countries where vote is not compulsory, it is possible to measure social capital by the electoral participation.
- iii) Inversely, low social capital is likely to generate a high level of corruption, so, the Corruption Perception Index (CPI) can be used as a proxy variable for social capital.
- iv) It has been stressed that social capital is related with Trust. The kind of Trust which is studied here is not "thick trust", which is trust one can have in a person already known, but rather "thin trust", that is, trust in human kind in general, or, better said, trust one can have in a person without knowing her. To measure this "thin trust", one usually uses the percentage of persons who choose the first option when the following question is asked: "generally speaking, would you say that most people can be trusted, or that you can't be too careful in dealing with people ?" Sources for that figure are the "World Value Survey" for most of the countries, the "National Election Study" and the "General Social Survey" for the United States.

If the first kind of data is the one which measures most directly the level of social capital, it is the most difficult to get, especially in order to make international comparisons. The three others have the interest of being more broadly available. In annexes 1 and 2, we can see that these three measures are correlated. In annex 3, we see how each country can be classified in a group according to its level of "thin trust". As we see, Peru is placed in group F (less than 10%), which means a very low level of social capital. **So, the question of creation of social capital in Peru is particularly relevant.**

1.4: Is "social capital" a structural variable? Is it possible to implement devices that create social capital?

In a paper called "creating and harnessing social capital", A. Krishna (2000) reconsiders one of the most problematic aspects of the theory of social capital which is the pessimistic and deterministic conception of a structural and invariable level of social capital in a given society. In this conception, "social capital (would be) a legacy of long periods of historical development. Present generations (could not) add productively to their inherited stock of social capital, definitely not in the short run. Thus, societies (would be) condemned to live with the fruits of their inheritance. If

rich in social capital, they (would) develop fast; if their forebears have left behind a depleted stock, then these societies (would) develop only extremely slowly” (Krishna, 2000, p. 72). Obviously, this view is extremely pessimistic: “seen in this way, the concept of social capital may be academically interesting, but practically sterile. Faced with a low social capital setting, the development practitioner might as well pack his or her bags and go home” (ibidem, p. 72) For Krishna this view can be challenged on the basis of empirical studies which show that it is possible to develop, in the short run, the level of social capital in a given society. In this section, we will see the argument of the deterministic view and the recommendations one can address in order to develop social capital.

The vision of a structural and invariable level of social capital appears implicitly in the work of Putnam, Leonardi and Nanetti (1993). In this work, the authors consider that “social patterns plainly traceable from early medieval Italy...turn out to be decisive in explaining why ...some (contemporary Italian) communities are better able to manage collective life and sustain effective institutions” (Putnam et alii, 1993, p. 121). Formerly, Banfield (1958) had studied how the cultural values of southern Italy could be an explanation of its lack of development. More explicitly, Fukuyama (1995) divides the countries in two groups: the “high-trust societies”, which include Germany, Japan and the United States, and the “low-trust societies” such as Taiwan, Hong-Kong, France and Italy. Besides, other works suggest that the level of social capital is not only structural and invariable, but also that it is “portable” in a migratory process. In this context, the “portability of social capital” means that if we study in a given country, for example the United States, the level of social capital of the descendants of various European countries, we will have the Swedish Americans sharing the civic value of the contemporary inhabitants of Sweden, and the Italian Americans having the same level of social capital as the contemporary Italians. That has been the result found by Rice and Feldman (1997), who study the level of trust and other civic values of the descendants of various European countries given by the “General Social Survey” and then establish a correlation between these data and the same variables for contemporary inhabitants of Europe, with the help of the “World Value Survey”. Other works suggest the same result: for example, Putnam (2000) mentions that a good predictor of the social capital level of a given state of the USA is the percentage of Scandinavian descendants in this state (Putnam, 2000, p. 294). These results mean that social capital is so structural that it remains the same in a given community, “even across generations and oceans” (Rice and Feldman, 1997, p. 1144), so that there is no hope to generate social capital at least on the short run. Social capital would only be the product of long term history and “societies are (thus) condemned to live with the fruits of their inheritance” (Krishna, 2000, p. 72).

On the opposite of this pessimistic theory, Krishna (2000) proposes a strategy to foster social capital in developing countries. In his view, social capital has two dimensions. The first one is “institutional social capital”, which is composed by clear rules and procedures devised to deal with one issue area. This has much to do with the notion of “networks” which is often used when defining social capital. But social capital has also another component, “relational capital”, which has to do with people sharing feelings of trust and mutual goodwill, and with the notion of social norms

universally accepted. According to Krishna, all societies show some instances of coordinated or cooperative behavior. So, the case of a society without any kind of social capital seems unrealistic. But it is important to identify the form of social capital which is most developed and the kind which is deficient, in order to compensate the insufficiency of initial dotation. As a matter of fact, institutional social capital works best, as Krishna put it, "when it goes side by side along with relational capital. And vice versa" (Krishna, 2000, p. 77). That must be taken into account when defining a development program. In rural development programs, traditional societies, in which practitioners are working, are richly endowed with relational social capital. The traditional norms must be respected in order to build institutional capital on the basis of existing relational capital. For example, Krishna mentions the case of a self help rural water supply program in Malawi in the late 60's. He emphasizes that the traditional village authorities were asked to head the advisory committee for the program, while the committees in charge of day-to-day planning operated under a new leadership elected by the people (Krishna, 2000, p. 80). In this example, it is shown that it is necessary to use the norms already existing but also that it is necessary to foster new forms of organization in order to ensure that benefits and labor tasks are distributed fairly among the individuals.

Part 2: How to create social Capital?

2.1: Guilds as an historical device in order to create social capital

One historical institution which is often referred to by social scientists to illustrate the possibility of creating social capital is the institution of guilds. Guilds were widespread in Europe from the medieval period to the nineteenth century, in some cases. According to the "Encyclopaedia Britannica", a guild was "an association of craftsmen or merchants formed for mutual aid and protection and for the furtherance of their professional interests". Insofar as guilds were associations of people acting for a common goal, they were obviously creating social capital. The controversy is whether this action was "inward looking", that is, for the exclusive benefit of the members of the guild, or "outward looking" which means for the benefit of the whole society. Dasgupta (2000) mentions commercial guilds as an example of components of social organization "that make social capital a productive asset" (p. 328). Joseph Stiglitz, in a speech to the World Bank, also listed "guilds" among institutions that could "support entrepreneurial efforts" in transition economies (quoted by Ogilvie, 2004, p. 7). The thesis developed by Ogilvie (2004) is that the guilds "abused" the trust they created by acting collusively to benefit its members at the expense of the society, and that they must be considered as a manifestation of the "dark side" of social capital². Nevertheless, we will examine here the arguments usually made by the "enthusiasts for guilds" as Ogilvie call them, i.e., the authors who consider the

² About the "dark side" of social capital, see Durlauf (1999) and Portes and Landolt (1996).

guilds were actually working for the benefit of the whole society. These arguments are summarized as follow by Ogilvie (2004):

a) guilds were supposed to benefit the economy by creating trust about product quality. In the medieval period, information asymmetries about the quality of the products were very high, and that harmed the economy by diminishing the volume of exchange. Guilds were acting in the sense of creating trust by regulating production processes and quality of output. So it could be an example of the use of a network in the benefit of the whole society. Ogilvie (2004) shows that it was not always the case because the control exerted by guilds was not so severe as it is often asserted, and that the question of product quality was rather an "indisputable rhetorical basis for justifying restrictions- such as entry barriers, output quotas, and price controls – that served more narrow group interests and would otherwise have aroused social and political opposition" (Ogilvie, 2004, p. 12).

b) guilds were supposed to foster shared norms about the relation between the trainers and the trainees, and, doing so, they are supposed to have resolved information asymmetries in training markets. The four norms the guilds have established are:

- The imposition of admission requirements. These requirements were pre-requisites on anyone wishing to be an apprentice and were for example to be a male, to be the son of a guild master, to be a member of a certain religion. These requisites were supposed to act as a signal that the apprentice could be trusted.
- Regulations penalizing opportunistic behavior by masters and apprentices.
- Issuance of apprenticeship certificates with the purpose of enabling the identification of good journeymen
- Mastership admissions requirement in order to enable apprentices to recognize skilled trainers.

c) guilds were supposed to foster technological innovations and to insure their diffusion. As a matter of fact, the main problem with technological innovation is that information is a public good, and in particular that it is a "non-excludable" good, which means that it is hard to impede that an individual uses an idea without paying any fee to its inventor. It is often argued that guilds have operated in the manner of a patent system, by assuring a local monopoly for the innovators. In the medieval context, the only way to foster innovation could have been to create a local monopoly for potential innovators, and guilds were actually assuring the masters that the right to practice would remain limited to a narrow circle. So the masters could have seen the existence of guilds as an incentive to incur the costs of innovation. Besides fostering innovation, guilds are also supposed to have helped the diffusion of techniques. First, this diffusion could have been insured by the requirement made to journeymen to travel for a minimum number of years before becoming masters. This requirement could have been justified by the necessity to learn new techniques during journeymanship. Secondly, the diffusion could have been insured by the regulation made by the guilds about the transmission of technical expertise between generations. The establishment of a minimum number of years of apprenticeship assured the masters that the technical secrets they were transferring would not immediately be used by competitors. Third, the diffusion could have been fostered

by the practice of spatial clustering, insofar as in medieval cities the members of a same craft guild clustered in particular streets. Ogilvie (2004) criticizes these points of view on various grounds (see Ogilvie, 2004, for more details).

The case of the influence of guilds in Medieval Europe is interesting for the practitioners because it illustrates that social capital can be created by an adequate social device. So, the question can and must be asked of which device can be used to create social capital nowadays. The answer to this question will be the subject of the remaining of this article.

2.2: Technological innovations and creation of social capital

Among all recent technological innovations, the internet is likely to be the most able to create social capital. As a matter of fact, much of what has been said about internet has to do with "people connecting with each others", "communities", "networks", and so on... At least rhetorically, enthusiasts for internet are using the same vocabulary as enthusiasts for social capital. An example of this tendency is quoted by Putnam (2000): "Internet theorist Michael Strangelove wrote: the internet is not about technology, it is about communication –people talking to each other, people exchanging e-mail (...). Communication is the basis, the foundation, the radical ground and root upon which all community stands, grows, and thrives. The Internet is a community of chronic communicators." (p. 171).

So, a central question is whether the internet is actually a device to create social capital. As Putnam wrote, one must be very cautious about the prediction of internet creating social capital: "For those of us who wish to anticipate the impact of the Internet on social relations, the astounding series of poor predictions about the social consequences of the telephone is a deeply cautionary tale" (Putnam, 2000, p. 166). For example, Putnam reminds us that Graham Bell expected the telephone to serve the function of providing "music on tap".

Nevertheless, Internet can undoubtedly be used to implement devices that are able to create social capital. One example is the "E-bay" website, one of the most successful of the internet services. As it is widely known, this website is connecting sellers and buyers of second-hand goods. The difficulties in selling second-hand goods are the importance of asymmetries of information and the difficulty to find the person who sells the item one is looking for, or, vice-versa, the buyer who wants the good that one is offering. E-bay resolves all these problems. The wide diffusion of the internet allows everyone to find a trading partner for its good. The auction system assures both the buyer and the seller that they are contracting at a right price. The "e-bay member profile" is providing extensive information about the seller or the buyer. Thanks to the member profile it is possible to know how many transactions have been made by the potential trading partner, the percentage of positive ratings, the "feedback score" which is the difference between the number of members who left a positive rating and the number of members who left a negative rating (knowing that if a member has left multiple ratings, they count only once in this number). The

potential trader can also read all the feedback commentaries of all the anterior trading partners of the member, so that he is able to evaluate the partner's reputation and to decide if he is sufficiently trustable to make a deal with him³. So, the use of the internet in this example is allowing the creation of trust between traders, although it is a "thick trust" based on the information provided and not the kind of "thin trust" referred to in the theory of social capital. In addition, the E-bay system fosters the connection with other people sharing the same interests and it permits to trade with them, and so it illustrates the relation between "social capital" and economic development.

Another example of the potential influence of the internet on the creation of social capital is the numerous "social network services" on the worldwide web. These are internet services focused on building or re-building social networks. A famous social networking website is "classmates.com" created in 1995 and which connect and keep in touch acquaintances from school, college and US military. It has more than 40 million members. "Friendster.com" is another service of social networking which claims 30 millions members. A very similar website is "MySpace.com" which pretends to have more than 100 millions accounts. A last example is "BlackPlanet.com", which is focused on the African-Americans and more generally on the African Diaspora. It has 15 millions members.

A very interesting case of social networking is the case of highly skilled expatriates' networks. As a matter of fact, one solution to the adverse effects of the expatriation of highly skilled workers has been found in the mobilization of scientific diasporas in order to help the development of the sending country. Meyer and Brown (1999) have reported the existence of 41 Diasporas Knowledge Networks (DKNs). The purpose of these networks is to connect the highly skilled expatriates among themselves and with their country of origin, essentially in order to help the economic and scientific development of their home country. Some famous networks are the Colombian network of researchers and engineers abroad (Red Caldas)⁴, the South African Network of Skills Abroad (SANSA)⁵, the Tunisian Scientific Consortium (TSC), the network of Arabs Scientists and Technologists Abroad (ASTA), among others. The new technologies of Information and Communication are particularly useful in the context of these international networks, as it is observed by Séguin et al. (2006): "The ability of individuals and groups to connect globally with each other using the internet has increased interest and opportunities for expatriate scientists from "the South" to develop professional linkages with their country of origin (...). DKNs are now a key tool needed to engage diaspora members located throughout the globe and an e-presence is probably integral to the success of a diaspora network in much the same way as it would be integral to the success of any organisation that is trying to reach out to a globally dispersed market." (Séguin et al, 2006, p. 82). In the case of these expatriate scientists' networks, it is possible to establish a clear relation between the new technologies (mostly internet technology), the creation of social capital (the functioning of the networks) and the economic development of the countries of origin of these highly skilled workers.

³ for more details, see the link: <http://pages.ebay.com/help/feedback/evaluating-feedback.html>

⁴ cf. http://www.logos-net.net/ilo/195_base/es/init/col_16.htm

⁵ cf. <http://sansa.nrf.ac.za/Default.aspx?Instruction=AboutSANSA>

Part 3: Social Capital creation and the University challenges

Social Capital is very frequently associated with educational issues. There are three kinds of relationships between social capital and education:

- social capital may be an input for education
- social capital is necessary to deal with transition periods, which take place at the beginning and at the end of the schooling period of life
- social capital can and must be created at the university

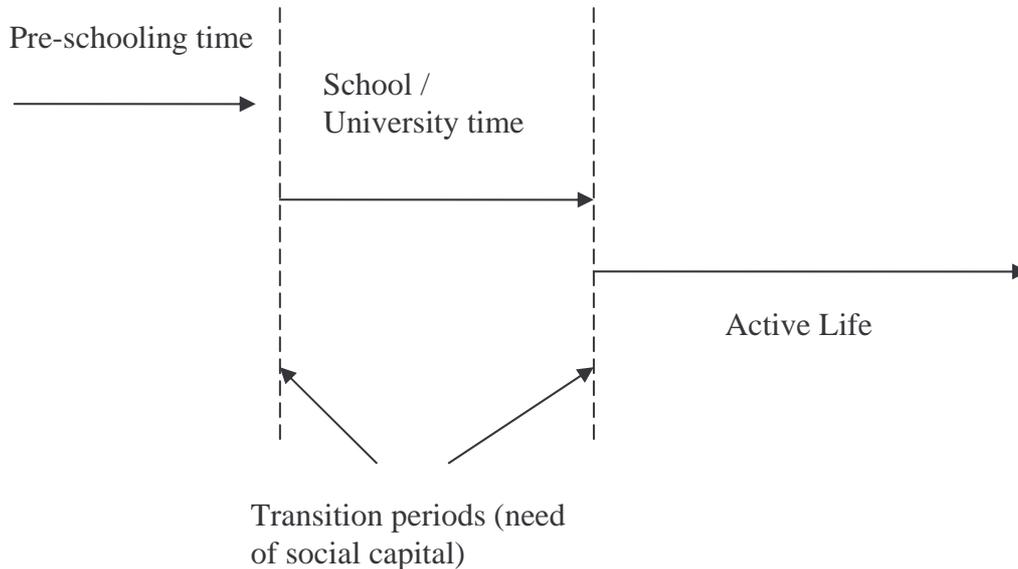
3-1: Social Capital and the creation of human Capital.

In the seminal contribution of Coleman (1988), it has been stressed that social capital is a factor of creation of human capital. Coleman analyzes the influence of two kinds of social capital: social capital inside the family and social capital outside the family. To demonstrate the importance of “inside family” social capital, Coleman studies the difference in dropout rates in high school in function of the structure of the family (single parent versus two parents, one sibling versus four siblings). The importance of “outside family” social capital is stressed by the comparison of dropout rates in Catholic schools versus Public schools. The basic idea is that the amount of social capital in the community surrounding the school is higher in religious schools than in non-religious one. So dropout rates should be minor in religious schools. As a matter of fact, the results obtained by Coleman are consistent with the “social capital hypothesis”: dropout rate in catholic schools are approximately one fourth of the dropout rate in public school. The dropout rate in non-catholic religious school is similar to the one in catholic school, while the rate for non religious private school is approximately the same as the one in public school. So the only explanation is that the significant fact is not the public or private nature of the school but the religious or not religious sort, and this can be explained by the amount of social capital in the community surrounding each kind of school. A consequence of this finding is that **social capital is an important input for education and for creation of human capital.**

3-2: Necessity of social capital to deal with transition periods

When children are entering into the schooling period of life, around the age of three, they must learn at first how to behave in society and what kind of rules they must follow in the classroom, which are very different from the rules prevailing in their family. The same kind of transition period takes place at the end of the schooling

time, when the students leave the high school or the university to enter the active life. This can be represented by the following diagram:



As it appears in this figure, social capital is more necessary at the beginning of schooling life, i.e. for children of 3 to 6 years old, and for senior students at the end of their studies. In the case of higher education training, this means that **a special attention must be given to the relationship between academic world and the active life, above all at the end of studies (by the means of end-of-studies internships for example).**

3 – 3: Creating social capital at the University

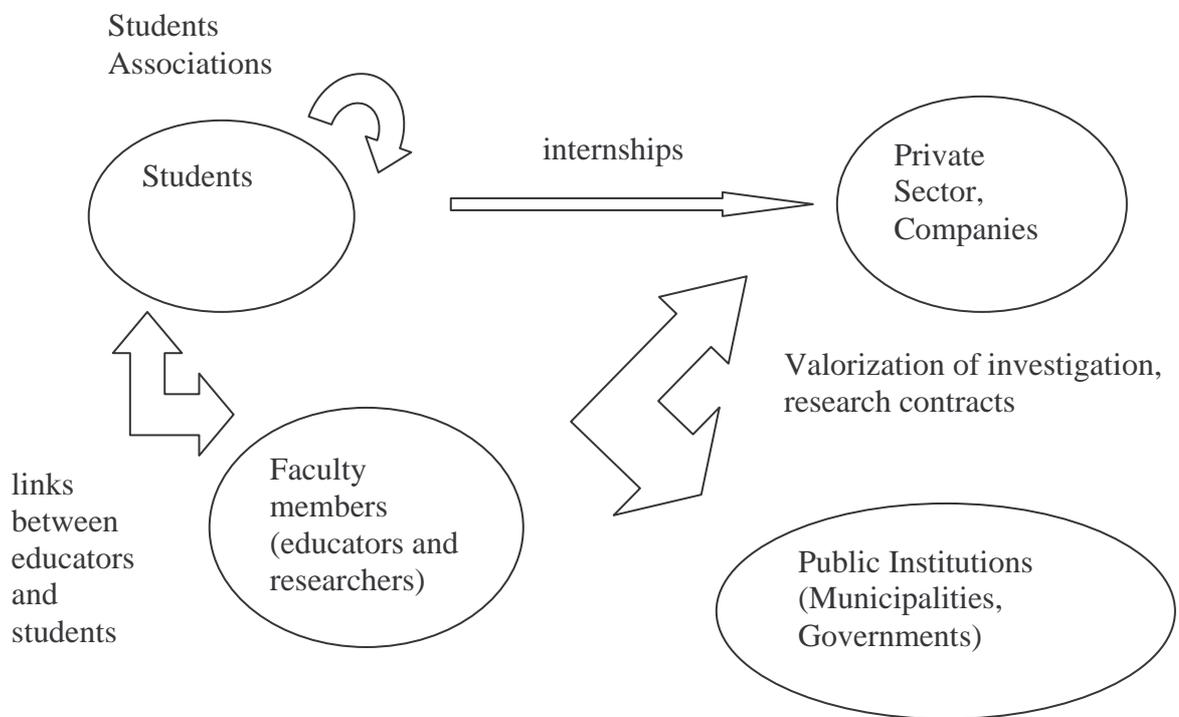
If social capital is defined as the set of “social norms, social networks, and organizations that shape the interactions of actors within a society and are an asset for the individual and collective production of well-being” (Fabio Sabatini), we must first define who are the actors in the higher education context. These actors are obviously the students, but also the faculty members, and the firms which are likely to hire students after they graduate, to offer them internship opportunities, and to sign research contracts with academic laboratories. Another important actor could be the public sector, which can have the same role as the private companies. The creation of social capital in the university must therefore take the form of the development of relationships between each one of the above mentioned actors:

- the students with the other students (students’ association)
- the students with the firms and the public sector (internships, jobmarket)

- the students with the professors
- the researchers with the industry and the public institutions (valorization of research)

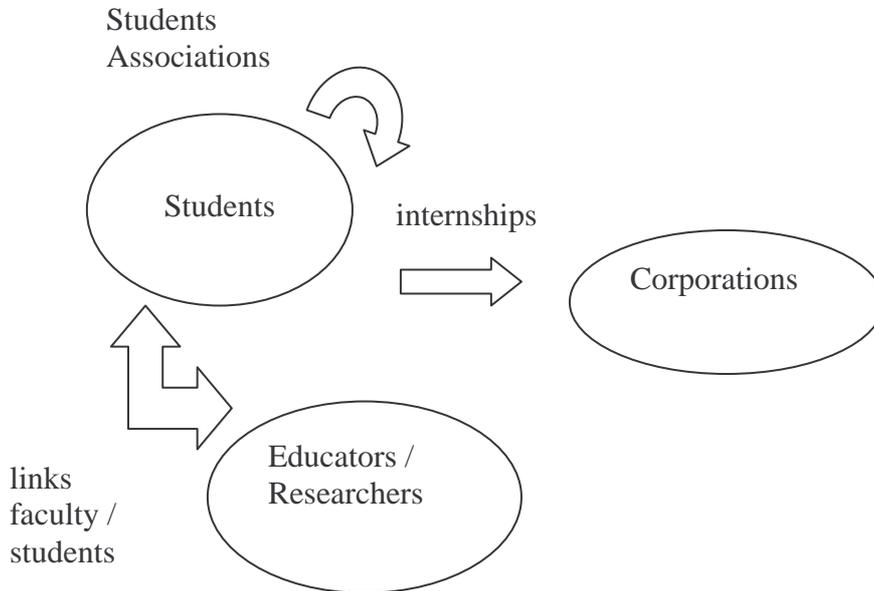
The model of creation of social capital should consequently follow the model of this figure:

General model of social capital creation

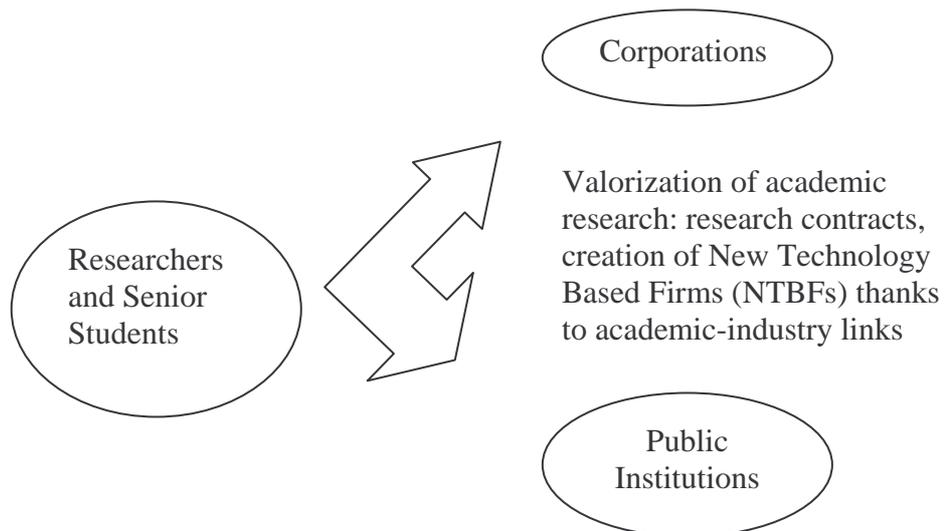


This model can be divided in two separate models, the model of “**students’ life enrichment**” and the model of “**science parks development**”, but the two models are two parts of a same project which is the creation of social capital in the university (and in society from the university):

Model 1 : Students'life enrichment



Model 2 : Science parks development



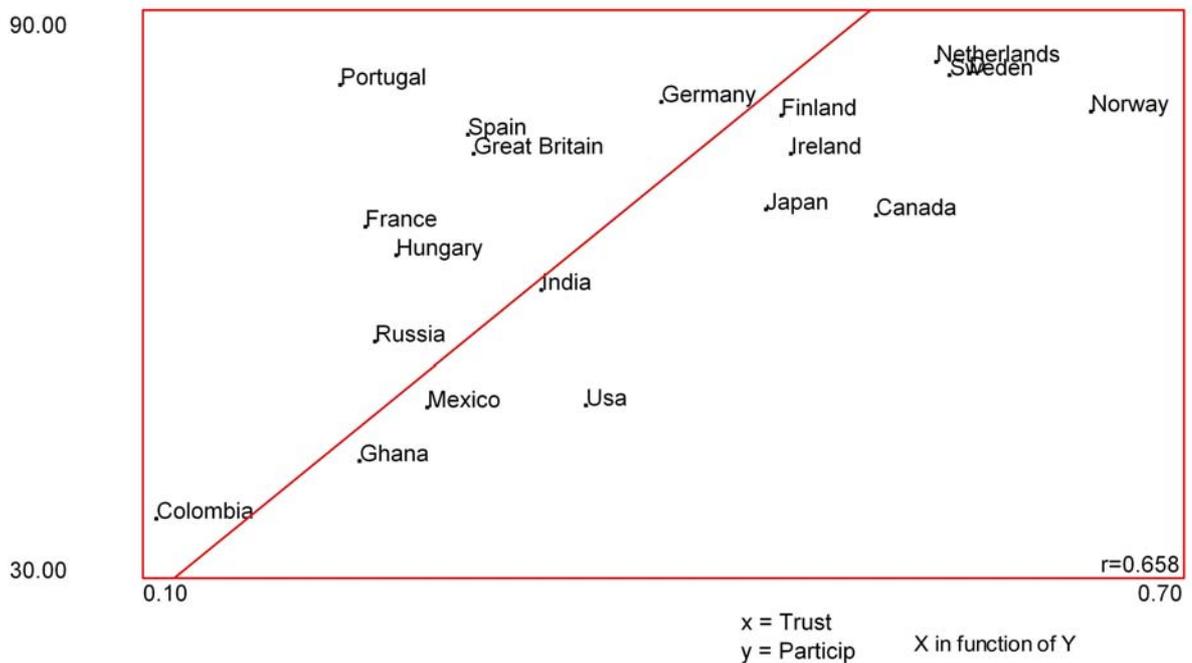
In order to create social capital, the University should implement adequate policies to develop these two models of social capital creation.

Conclusion

Educators generally consider that their work is to produce human capital, and it is indeed a very important task in our knowledge-driven economy. But they should also consider production of social capital as a fundamental aspect of their work. Social capital plays an important role particularly at the beginning and at the end of schooling time: at the moment where children go to school for the first time and when senior students are about to leave the university to enter the active life. Creation of social capital in the university must take the form of the implementation of two kinds of policies, one in order to develop social capital inside the university (students' associations, links students-Faculty) and one to develop academic-industry links (valorization of academic research, "science parks"). If Knowledge is generally considered as a third factor of production, Social Capital should be seen as a fourth one, and University has a major role in its creation.

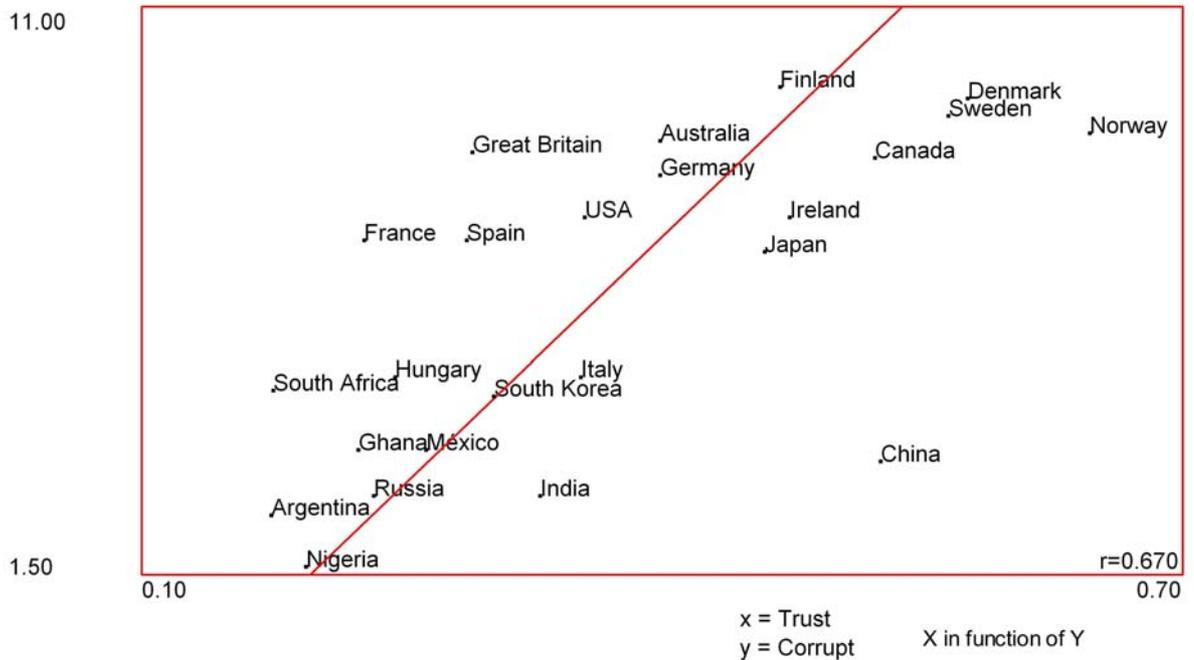
ANNEXES

Annex 1: correlation between electoral participation (variable "Particip") and Trust (countries in which vote is not compulsory)



The index of Trust is provided by the World Value Survey and the index of electoral participation is provided by International IDEA (www.idea.int). The following countries are not included because they have some kind of compulsory vote: Argentina, Australia, Belgium, Brazil, Chile, Egypt, Greece, Italy, Peru, Singapore, Switzerland, Turkey, and Uruguay.

Annex 2: correlation between Corruption Perception Index (variable "Corrupt") and Social Capital:



Corruption Perception Index or CPI is calculated by Transparency International. The score reflects the perception of the degree of corruption in each country seen by business people. It goes from 0 (highly corrupt country) to 10 (corruption-free country). This chart establishes the correlation between the CPI for 2004 and the index of Trust provided in the "World Value Survey".

Annex 3: Groups of countries according to their degree of Trust

Group A (more than 50%)	B (40-50%)	C (30-40%)
Canada (1990)	Australia (1981)	South Africa (1981)
China	Canada (1981)	West Germany (1990, 1995)
Denmark	Finland (1995)	Australia (1995)
Finland (1981, 1990)	GB (1981, 1990)	Austria
Netherlands (1990)	Netherlands (1981)	Belgium
Norway	Ireland	Bulgaria (1990)
Sweden	Iceland	South Korea
	Japan	Spain (1981, 1990)
	Switzerland (1990)	Hungary (1981)
	USA (1981, 1990)	India
		Italy (1990)
		Mexico (1990)
		Poland(1990)
		Czech Republic
		Russia (1990)
		Switzerland (1995)
		USA (1995)

Group D (20-30%)	E (10-20%)	F (less than 10%)
South Africa (1990)	South Africa (1995)	Brazil
East Germany	Argentina (1995)	Peru
West Germany (1981)	Colombia	Philippines
Argentina (1981, 1990)	Mexico (1981)	Turkey
Bangladesh	Nigeria (1995)	
Bulgaria (1995)	Poland (1995)	
Chile	Romania	
Spain (1995)	Slovenia	
France	Venezuela	
GB (1995)		
Ghana		
Hungary (1990)		
Italy (1981)		
Mexico (1995)		
Nigeria (1990)		
Russia (1995)		
Uruguay		

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