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## **Institutions of higher learning – mindful or mindless of yeasterday changes and future challenges?**

### **Abstract**

*Most institutions of higher learning have overlooked, or have even neglected, the consequences of rapidly changing role of knowledge and of its capitalization in the form of intellectual and social capital. Besides new knowledge and skills acquisition, an individual student while in the school, changes his attitudes, motivations, and even perceptions. These are extremely important elements of his potential to acquire both explicit and tacit knowledge. Yet, very few universities have attempted to measure that human potential and to monitor its changes. Still fewer have even considered ways and measures to link ever changing human capital imbedded in individual students with their own structural capital. The reasons and ways to do it are suggested and explained in the paper. If followed, they might result in universities becoming the centers of what may be termed “Societyentreprenurship”. This would be to the benefit of all involved.*

*“... and the end of all our exploring  
will be to arrive where we started  
and know the place for the first time”*

(Thomas S. Eliot)

Apparently, despite unavoidable faults, failures and limitations, institutions of higher learning (IHL) are doing quite well in almost all corners of the world. The number of students is permanently growing in both developed and developing countries, and in economically deprived regions of the world completion of higher education is still perceived as the best way to social and economic advancement, worth scarifying whatever available resources. Money is certainly a problem – for various reasons both in the richest and in the poorest countries and

regions - but universities and other institutions of higher education have developed many ways to successfully cope with financial constraints and limitations. Also, a growing number of student population results in larger numbers of academic teachers and supplementary staff. Almost around the whole world, the sector of higher education is responsible for a growing share of employment. And these employees are growingly vocal and more effective in presenting and defending their rights and privileges resulting from increasing importance of their social roles of broadly understood educators.

Yet, individual IHL, and their whole systems, are quite vulnerable and exposed to imminent crisis caused by historically unparalleled myopia. As improbable as it might seem, most institutions of higher education have overlooked or have dared to neglect the consequences of rapidly changing role of knowledge and its capitalization in the form of social and intellectual capital. Each one of literally hundreds of books and reports addressing phenomenon of knowledge based economy has a chapter or section devoted to the role of higher education and individual IHL. Yet, these very institutions seem to be ignorant about how much is being done outside their walls, and how very little inside them. Thus, they seem to be unaware of how much of their traditional business might be soon taken away from them by different institutions still appearing much worse positioned to perform it equally well, yet ready and eager to perform it *hic et nunc*.

### ***IS IVORY TOWER GONE ...***

From knowledge creation and dissemination perspective the metaphor of ivory tower seems to be still quite enlightening. Three levels of activity can be distinguished within the academic ivory tower.

At the very top there is a new knowledge creation level – new facts, new discoveries, new laws, new solutions. The carriers of that new knowledge are patents, publications, occasional pronouncements. Those at the top of the tower can see well beyond its walls. It is also possible that they are seen themselves, at least by the few privileged (naturally not students exclusively). The only problem is that IHL have long ago lost monopoly for developing new knowledge. Big industrial and government research centers and even high technology firms (especially in such quickly growing and knowledge intensive fields as information and communication technologies) seem to be much better positioned and endowed to cope with the unknown, and to enrich the body of knowledge. However, the culture of the ivory tower might be still in place, and efforts to prove that some groups of

university brains are able to provide cutting-edge results of research might be continued not without success. Nonetheless, very few IHL can claim and prove continuous and institutionalized participation in new knowledge creation. There are obviously many more who are home to incidental break-through discoveries and findings. Serendipity also requires previous investments – material, financial, institutional, and human, however. Since they are costly, time consuming, and risky, it seems prudent to assume only few leading universities to engage in discussed here activity.

Somewhere below the top of the tower we find another kind of activity, specific for university and unquestionably still dominated by it. We shall call this activity ‘packaging and repackaging of knowledge’. Systematizing would certainly be more exact and more in tune with the language of science. We use another terminology, however, in order to emphasize a concrete end product character of this particular activity. It leads towards creation of textbooks, manuals, procedures and standards of assessment of individual students and of whole institutions.

Those engaged in this kind of highly regarded activity do not necessarily conduct research. Neither are they expected to teach regular courses. But they have to have understanding of both the body of science, and of the nature of teaching processes and methodologies. To the general audience of students (and of their teachers) they are what critics and theater directors are in literature for the general public. They interpret the meaning of a particular theory or discovery, present that theory within the context of existing body of science, and show implications for further research and for practice. Furthermore, it is up to them to decide which particular piece of theory deserves more or less attention and coverage within the teaching process.

The bigger and more diversified the system of higher education is, the more widespread is this prestigious kind of activity. There are simply many packers. We might then expect competition between individual scholars and between whole institutions with regard to their products. But even centralization and homogenization of national systems of higher education does not eliminate rivalry between different products (especially textbooks and manuals) since same content might be presented in different language, manner and context.

Needless to elaborate, the competition we are now discussing is rather asymmetrical. Assuming equal talent and understanding of the subtleties of teaching processes, it is probably proximity to cutting edge research and new knowledge creation which decides the quality of a given product of particular knowledge packer.

Consequently, as might be expected, those few IHL which prove continuous and institutionalized participation in new knowledge creation are also home to new knowledge packaging. There are obviously many more IHL where such packaging is attempted. Since this activity is relatively not expensive and institutionally not risky, it is rather much more widespread than new knowledge creation performed at the top of the ivory tower.

Finally, at the very bottom of the ivory tower, probably least impressive but definitely the most important activity is performed. We shall call this activity ‘dissemination of knowledge’. The main forms of dissemination of knowledge are various courses and programs, lectures (both regular, taking place within a given course, and also occasional ones), special thematic presentations (both oral and written), and media appearances.

The activity we are addressing now constitutes the very essence and **raison d’être** of any IHL. Unlike with respect to two previously discussed activities – new knowledge creation and knowledge packaging – dissemination of knowledge cannot be absent in any IHL. But paradoxically, in absence of the other two activities, dissemination of knowledge cannot be described by the ivory tower metaphor, which assumes integrity and co-habitation of all three main activities of IHL.

### ***...FROM IVORY TOWERS FOR A FEW TO PLATO’S CAVES FOR MANY...***

Fully inhabited at all three levels and animated with all three kinds of mentioned above activities, ivory tower seems a wonderful way to both understand and design university of the ... past. Although clearly separated from its environment, such institution could still listen to and observe environmental changes. From the heights of the tower one could see and reach far. And separation did not mean closure. Quite to the contrary, universities were to serve societal needs of change and modernization. This seemed to be the cornerstone of Wilhelm von Humboldt early XIX century undertaken university reform which started with foundation of University of Berlin. Still, university was designed to have numerically limited student audience and a limited number of competitors, and to offer prevailingly private products (with high marginal cost of any additional student or any new course). Such an elite university could function well through processes of reconciliation of dialectical controversies between simultaneous separation from its immediate environment and openness to new ideas and concepts, stemming from omnipresent research, emanating new ideas and concepts.

Such a closed/open institution when deprived of internal springs of ideas derived from new knowledge creation, and at the mercy of outside suppliers of knowledge packages,

immediately loses development related ivory tower characteristics. Devoid of its upper levels, ivory tower becomes a flat barrack behind a high wall. What might be perceived from the outside as still monumental structure, for those behind the walls resembles a cave. Alike inhabitants of Plato's Cave, both students and their teachers see the world not as it is but as its shadows look. And what they cannot see, they learn about from the books coming from the outside world and read to them by the properly called *readers*.

If the view of the world the students learn about is distorted, it is neither individual student perceptions nor limited abilities of reader/ professors, which should be blamed, but rather the very construction of the institution. Ivory tower disappears. What comes is a custody camp separated from environment by a solid wall. Needless to elaborate, so conceived institution can accommodate many more students than disappearing ivory tower. But it is definitely not the only possible alternative to the ivory tower metaphor (or even design model).

### ***... OR TO CONDUCTED CITY BUS TOUR...***

For various reasons and not without exceptions, both briefly sketched above concepts of IHL are fading away. Elite university with a relatively closed student audience and prevalingly private products gives way to mass oriented mega-university with relatively open audience and prevalingly public product. Marginal costs of additional courses or additional students are negligible here, so there are very few if any numerical limitations of the size of student population. There is a quickly growing number of competitors at each of the three discussed above levels of academic activity – new knowledge creation, knowledge packaging and knowledge dissemination. From perspective of whole national or regional systems of education, this results in more flexibility and innovation. From the point of view of individual student (or his parents), it brings confusion and lack of orientation. Different compatibility and quality assurance mechanisms of both internal (within individual IHL), and external (government, professional associations, industry or media) origin are designed and introduced to reduce confusion regarding mutual positions of various IHL. With regard to internal structure and delivery system of individual IHL they might be probably best described by conducted city bus tour metaphor.

Passengers can board the bus at any of designated stops. They buy tickets in advance or when boarding the bus for the first time. Together with the ticket they get the map of the city with clearly marked stops. They can leave or enter at their will at any designated stops. They can also complete the whole tour without getting off. Since ticket is valid for the whole day, they

can “redo” the tour, either in parts or whole tour again without interruption. There are no alterations of the itinerary. Also no preferred seat is guaranteed. Neither is money back guaranteed in case of heavy rain, snow, passenger sickness or another disaster.

Once on board, a passenger is guided by a recorded voice in the language of his choice (contingent on availability). The quality of the voice is rather low. But the outside noise makes following the voice extremely difficult anyway. There are no repetitions, although they might be of use since some passengers have problems with understanding and keep nagging their neighbors in hope of help. Needless to say, there is nobody other than your neighbor to address a question to. The driver has one universal answer to all kinds of questions – *take the next bus please*. This answer he mastered in all possible languages.

What features of contemporary mega-university is this metaphor highlighting? To handle the mass audience of students university cares more about what it provides for all than about what is provided for the individual one. The courses (what a nice parallel with a tour route!) are run regardless of problems experienced by individual students. It takes probably a long time for eventual changes in course content or delivery mode. Ignoring eventual complains and problems experienced by the few, the university has ‘*to press on regardless*’, leaving eventually lost or dissatisfied students on their own. In order to survive, they have to find their own way through a dense web of various programs, departments, advisory services, lines of their often unknown colleagues waiting to see professor coming for his office hour fifteen minutes late, and leaving fifteen minutes ahead of time. Those who learn the system, who gain the knowledge how to get the best out of it, survive and flourish. With time, some of them might be even co-opted by the university where they will probably exhibit behavior mode so well known from their own previous client perspective. Some will fail and end as dropouts. Some, hopefully the fewest, will learn how to work around the system, how to cheat on exams, miss classes, ride on somebody’s back, and ... still continue. Finally, the last and probably the biggest group is composed of those who learn not to care, not to expect too much, just to conform and be satisfied with what is provided. They are not necessarily passive individuals. But they are neither rebels nor do they find academic world (as they see it!) attractive enough to devote time to thoroughly study on their own. So instead of investing their time in the library studies and in attending extracurricular courses, they enjoy sports, arts, politics, internet, beer and love. Needless to say, some of them work.

Sometimes, after few years with university, the members of just described biggest group of its students will be graduating (probably along the members of the other groups). Will they remember the names of their reader/professors? Will they be able to associate the

authors of the books on the shelves of a bookstore with the names of their teachers? Will they have the habit of buying and reading professional literature? Will they ever again visit their old university for just an occasional lecture or two? And will they visit any other IHL for the same purpose?

Suppose there is no positive answer to any of the above questions. So what? Another crowd of freshly arrived tourists gathers at the bus stop. Why to worry about what was and is gone? New commencement is just about to start. It is again time to pour old wine into new glasses!

After all, is there any other way to cope with constantly growing cohorts of new students?

### ***...GIGANTIC SWITCHBOARD OR A THOUSANDS VOLUME ANNOTATED BIOGRAPHY...***

Nonaka and Takeuchi were first to suggest that for an industrial enterprise knowledge creation is the key to gain and sustain competitive advantage. According to them, the essence of knowledge creation process is transformation of individually possessed tacit knowledge into collectively shared (and modified) explicit knowledge, which is then transformed again into tacit one<sup>1</sup>. In the similar vein, Edvinsson and Malone postulated that corporations start managing their intellectual capital<sup>2</sup>. Leif Edvinsson became the first ever appointed corporate director for intellectual capital at Skandia Corporation. Few years after publication of his seminal book, already rich in practical experience, he observed that the crucial problem in managing intellectual capital is how to handle a creeping conflict between human capital (used by organizations but possessed by individual employees), and structural capital possessed and used by organizations. The main source of structural capital (procedures, recipes, techniques, structures, information, data bases) is employee possessed knowledge and information. Successful initiation of the continuous process of transformation of human into structural capital requires mutual trust, which is the basic element of social capital<sup>3</sup>.

So much on the corporate world, and on its involvement in managing processes of creation of new knowledge, and of new intellectual capital. How is all of that related to the IHL, however? Let us repeat what we already observed in the very beginning of this text - most institutions of higher education have overlooked or have dared to neglect the

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<sup>1</sup> /Nonaka Ikujiro, Takeuchi Hirotaka, 1995, *The Knowledge-Creating Company*, Oxford University Press

<sup>2</sup> / Edvinsson Leif, Malone Michael, 1977, *Intellectual Capital*, Harper Business

<sup>3</sup> / Edvinsson Leif, 2001, oral communication

consequences of rapidly changing role of knowledge and of its capitalization in the form of social and intellectual capital.

What should be clear from our previous analysis, and what is probably obvious, the only activity specific for all IHL is knowledge dissemination. This activity is aimed at creation and enhancement of human potential at each individual (personal) level. Thus an IHL can be perceived as a social mechanism for transfer and transformation of knowledge. That knowledge is of prevalingly explicit, verbalized character. Only transmission of this kind of knowledge can be programmed, planed, formally structured, and even controlled. Some of this knowledge has mainly theoretical character. Some leads towards development (and enhancement) of concrete or more general skills. Example of concrete skill might be dexterity in concrete computer program use and applications. Example of more general skills is social flexibility.

Besides new knowledge and skills acquisition (or rather as a result of it) an individual changes his attitudes, motivations and even perceptions. These changes greatly affect his potential to acquire both explicit and tacit knowledge. Needless to say, they are extremely important elements of his human potential. Have universities attempted to measure that human potential and to monitor its changes? Maybe they have, maybe they are very serious about it, maybe they developed quite sophisticated concepts and measurements, maybe they even learned to work with individual students on enhancement of their individual potential. But these significant achievements can be probably observed in ... athletic departments only.

Human potential, say probably most academic leaders, is synonymous with human capital. "What university provides is mere opportunity to learn. Those who know how to use this opportunity, will tremendously enhance their human capital. But human capital is individually possessed, and individually managed. It cannot be managed by university".

Such seemingly correct statement is obviously shortsighted, conservative, and dramatically false. Unlike in the corporate life, within IHL there is no imminent conflict between human and structural capital. Human potential, constituting the essence of human capital, is obviously possessed and managed by individual students and alumni. But information about its current, previous, and possible future level, about all past, and possible future modifications, might constitute elements of structural capital of a given IHL. And provided there is a mutual trust, and transparent, mutually acceptable rules concerning gathering and use of all information about individual students and alumni (not an easy assumption, obviously), not even conflict between those two kinds of intellectual capital

(human and structural) is not imminent, but their co-existence reinforcing each other should be expected.

Imagine the most up-to-date polyclinic with the best physicians and most qualified nurses. Imagine you visit it for the first time. Imagine how long it takes for the interview with the nurse and the doctor. Imagine how hesitant is your physician to prescribe a given medicine. How many questions, requests to show results of previous examinations, which you anyway lost somewhere. Imagine your level of dissatisfaction. Imagine how do you feel thinking you might have to go for a surgery there.

Imagine you become a steady patient, you regularly visit different physicians, you have your own record, your own history, you are known by heart (though you do not have to be a cardiac), and by name. Imagine you get seriously sick. How much time will it take now for your doctors to decide what to do? And suppose you get sick far away from your clinic. Suppose you call your doctor. Will he be able and willing to suggest what you should do? Or perhaps you feel so well you forget your regular check-up? Will you feel puzzled receiving a call from your doctor? Or receiving a call from your nurse, suggesting checking-up with the doctor about some newly developed treatment?

It is exactly twenty years since General Electric opened a phone Answer Center at Louisville, Kentucky. It was opened to handle client claims, and its only goal was to reduce client dissatisfaction. By the end of the 90-ties, the Center was opened whole day, all year round. 200 GE representatives were receiving and responding to 15. 000 claims per day from dissatisfied clients. Computer data bank contained descriptions for 2 million problems and their solutions. It was taking only two seconds to match concrete problem with available possible solution. For no-ready solution 12 on-site experts with minimum 5 years experience in handling client complains were constantly available. Four on-site computer programmers kept up-dating the data bank with new problems and new solutions. Initially the Center was used exclusively to handle client complaints. Today it is also used for employee training and orientation, and in new product development<sup>4</sup>.

Technically it is quite easy to imagine that each student entering university (at whatever program, whatever level, and for whatever time period) receives one record where all information about his activities and achievements is stored. By the same token his human potential (knowledge, skills, attitudes, perceptions, motivations) is continuously measured and assessed with results fed into the data bank, but also – and first of all – with counseling and

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<sup>4</sup> / Hauseman R.C., Goodman J.P., 1999, Leading with Knowledge

guidance following. It is up to each individual who leaves university as a graduate, dropout, or as a transferee to another IHL to continue information exchange with his original data bank. This continuance enables not only updating information about each person who whenever studied at a given IHL but also permanently enlarges and enriches potential network which can be used by concrete university for upgrading its programs and courses, and also for matching potential needs of employers, alumni, and current students. Thus university might become a *sui generis* ‘switchboard’ connecting and matching possible partners in educational, political, social or business activities.

Everything suggested above is probably much easier to implement technologically than socially. Absolutely indispensable is trust, transparency and assurance that no information contained in the “*Thousands Volume Annotated Biography*” will be made available to anybody without agreement of involved person. With constantly growing number of persons involved, that trust, which is very difficult to achieve, might easily disappear. So it would probably take rather long time for such a system to be operational. But probably it could be developed gradually, with special attention to necessary feedbacks and quick reactions to finding educational activities of university dissatisfactory for students, parents, employers or other clients. Quick reactions and feedbacks would have to constitute the very basis of the system since its role would not be that of a historical registry, but rather a monitoring one, absolutely indispensable in knowledge creation and dissemination.

This graduate build-up of the system would make its client friendly and cooperative. With time, while completely operational, the system would not only create additional employment, but would first of all greatly enhance both efficiency and effectiveness of human capital formation, and by the same token would place IHL at the very center of new phenomenon which Leif Edvinsson prophetically *calls Societyentrepreneurship*<sup>5</sup>.

Based on networks filled with trust and understanding, and clustered around the university all members of the cluster have some experience with, such a society would probably provide for much less risk and much more opportunity to enterprise. We would deal then with entrepreneuring *through* higher education. Perhaps intellectual entrepreneurship as well!

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<sup>5</sup> / Oral communication