

Knowledge management, international cooperation and the use of the Internet.

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The stories about game hunting shall remain as glorious epopees
until the day when animals shall have their own historians.
(Proverb from Zimbabwe).

My first job in cooperation was in Estelí, Nicaragua, in the early 80's, at a centre for appropriated technologies, where we researched on organic agriculture, soil conservation, simple construction materials and wood-saving stoves. The idea was that a model farm with a variety of new and simple technologies would fill the farmers of the region with enthusiasm. We were the object of sarcasm on the part of some Cuban advisers, who referred to our work as the transfer of capitalist junk technologies, i.e. non-industrial technologies that no one in the developed world wanted, while they would implement modern irrigation systems and highly mechanized models in large cooperative farms. They had a significant impact on agricultural production for some years, and our model centre was a total failure.

Twenty years later, some of the appropriated technologies have a real impact on agricultural production as a result, among others, of the program From Farmer to Farmer launched by Roland Bunch at the time (no experimental centres, let the farmers talk to one another). And the rusty junk from machines is the only remnant from the dream of an industrial farming industry, vanished by the lack of capital, oil and knowledge.

What is doing this story in a publication on

ICT²? The first moral I drew from that experience is that a technique, an information or a knowledge declared valid by science or by a cooperation agency is not enough for it to be good for the people: techniques and knowledge are economic and social beings that exist, develop or die within a given context; they are used by concrete persons, men and women who are in an environment, in a given ecosystem. The second moral is that no technology is neutral, but that technologies serve a purpose, an intention of survival or development, and that their invention, design, selection and use reveal a vision of the world.

To disseminate information or to share knowledge?

When we speak of ICT, we refer to two different processes under the same name, which leads to ambiguity or confusion. ICT are tools that on the one hand allow for distribution of information and knowledge, and on the other hand, facilitate communication and exchange of knowledge. We speak of transmission together with interaction. There is no doubt they are two very different things for each one of us. And when we refer to the knowledge management, we delve into one of the oldest of human sciences, pedagogy, in fact quite absent from discussions about the ICT.

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² Information and Communication Technologies.

What can pedagogy teach us about the ICT? The predominant school of teaching-learning considers knowledge as capital, which can be accumulated even in a bank –a world one for example- and which is distributed in a magisterial way by those who possess knowledge to those who are thirsty thereof. This trend is investigating, for example, how to transform human knowledge into digital modules which can be aggregated (learning objects as standard pieces of a puzzle) that permit at the same time a uniform mass production and an individualized consumption. Communication options are considered simply as the possibility of knowing that the message has been correctly received by the addressees and of correcting noises in the transmission. In this scheme, knowledge is unique, and, due to natural causes, its principal head office is in the North. Also, knowledge has logically an owner, and the protection of these private properties is a central issue. The privileged ICT are television –soon *à la carte*-, video-conferences, Websites and the digital platforms for distance learning.

Other pedagogies rely on the learning person

There are other schools of pedagogy that are based on the idea that knowledge is not to be distributed but to be constructed. For these schools, learning is an individual and/or social process of confrontation between what one already knows with the environment and with new knowledge. Learning is essentially a communication process in which the teacher is a facilitator rather than a warehouse of knowledge. Learning and knowing is also a universal right based on the ethical demand of the right to dignity. Some of these trends assume a socio-political mission, such as the pedagogy of Paulo Freire. All of them privilege the diversity of knowledge without denying the existence of a universal knowledge. Thus, knowledge cannot be considered as an ordinary merchandise, for its nature and its economics respond to a different logic. All of us are familiar with the Chinese proverb that says: “if we exchange two eggs, each of us has one egg; if we exchange two ideas, each of us has two ideas”. The ICT favoured by these trends are community radio, electronic mail and discussion lists, chat, telephone, and, more recently, blogs and wikis.

Everything that has been said above is, of course, horribly schematic, and reality has indeed many more hues. But when we speak to a

pedagogue of the knowledge management as the latest in fashion approach, I cannot but think that we are sometimes reinventing the wheel and forgetting old but very current debates.

With this briefly sketched frame of reference, I would like to outline four theses, concentrating on the use of Internet tools in the context of international cooperation, a set of institutions, at present denominated by the North, which aim at promoting, among others, transparency, participation, common learning, innovations, partnerships and empowerment.

1. It is misleading to dream of a near future where all shall have access to Internet: the priorities are others.

During a forum at Porto Alegre in 2003, I was astonished to hear a delegate speak of the need for generalizing the broadband to all the world, so as to enable the illiterate to receive drawings and videos and thus overcome the digital gap. The cost of such a project is simply astronomical, and there is no doubt that with a small fraction of such an investment, the world population can be supplied with compulsory schooling and drinking water, and this just cannot wait. Reading and writing shall for long remain the principal formal vehicle of human knowledge. Whether it is on paper or on a digital support is an irrelevant question. We are very far from the universal Internet, and its direct use shall remain as a powerful tool in the hands of elites and of intermediaries, be it at the service of political and economic powers, of social movements or of the citizens.

2. The new Internet technologies shall not per se promote change in our way of teaching and learning if we ourselves are not determined to do it otherwise, independently from the technologies we shall use.

During the UNESCO forum at the World Summit on the Information Society in Geneva, some were full with enthusiasm over the “revolution in education” that ICT would announce. If one looks at what is happening in the new industry of online education in North America, the announced revolution has not shown up yet; the banking model of monopolized knowledge disseminated through magisterial courses dominates the online landscape. While it is true that students have more flexibility as to time and location, much has been invested in finding how to protect the property over the contents, in preventing piracy –which somehow amounts to overcoming what is the very es-

sence of teaching: the transfer or sharing of knowledge. The MIT understood this deadlock and in 2001 shook this industry by taking the decision of putting online all the contents of their courses, freely available to all those with an Internet access, thus taking the stand that their main know-how and their major source of incomes were from the teaching process and not from the control over the contents. The new Internet tools are novel not because they eliminate distances - others such as the television or the radio had already done so - but because they allow for a two-way communication process, where each one can become a sender and a receiver.

3. The present use of Internet strengthens the established powers with yet another channel for the diffusion of their messages and knowledge, but other uses and novel tools can contribute to developing new spaces.

The Internet is currently dominated by the presence of large commercial contents providers, and by the infinite promotion of goods and services. From a military and scientific network without a head, from exchange among equals, it has become a network with powerful entry points, such as search engines and portals - not all of them with commercial purposes. This new Internet which is emerging as a tailored network for customized content dissemination to users - a fabulous tool for publicists and institutions of all types - coexists with another Internet, less well-known and more diffuse, which is that of discussion groups, learning communities, electronic mail, chats, blogs and wikis, where each one has a voice and where what is essential is the communication process and reception of information. Some think this other Internet shall disrupt the actual logic of advertising and the mass dissemination of information, for it allows introducing into the global market the whispering and conversations of the traditional local markets, where communication and negotiation are essential. It is not without a reason that the major online sales companies have created spaces for free comments by their customers, which in general draw more attention than canned advertising. In the sphere of social and citizens' movements, the Internet has become a key tool for the networking of multiple dispersed and initially isolated initiatives that get to know one another and set common goals.

4. The deliberate promotion of the Open Source and free license software is a necessary step for preserving the diversity of the digital ecosystem, generating employment outside the North and decentralizing the future of the Internet.

If the Open Source movement can be characterized as a new economic and social way of creating value, a gift economy where a non-profit open community produces tools available to all, the real functioning of these groups is not in keeping, in general, with this ideal image. Dominated by men from Northern countries, conflicts are not always settled and decisions are not always made with transparency. Moreover, an increasing number of private companies are today devoted to developing open-source programs. These products, freely available or for sale, are sometimes incomplete or difficult to handle by users little prone to programming, who are the vast majority. Is it then here again a question of promoting junk technology from the North? Perhaps in this emerging and unknown universe of the digital technologies we could find inspiration in some rules of another old science, agriculture, and in the wisdom accumulated by farmers over centuries: diversity of crops allows for the diversification of risks. Brazil, India and China have so understood, each in its own way: they have taken public measures to favour the use of the Open Source as a mean for generating qualified jobs in their territories and insuring security, as a measure to reduce technological dependence, as tools that can be moulded to their specific needs, and finally as a measure aiming at costs reduction.

All these reasons should sound familiar in the world of cooperation, but very little interest in these topics has been manifested until now. Cooperation institutions continue, in their vast majority, to use in their work proprietary tools of considerable costs, scarcely flexible and communicative, thus reinforcing the idea that the only possible modality is a patented digital monoculture. They consequently leave only two options to their partners: to try to follow them along this line through piracy or to remain out of a change so far limited to the space of the rich. If we wish to be consistent, sooner than later we shall have to use ICT, which our partners will be able to take over.

With these theses, what I would like - you have already understood so - is to trigger off a discussion. Georges Clemenceau said: "War is

too serious to be left to the military". I would paraphrase it this way: "Knowledge management, cooperation and the Internet are too serious to be left to pedagogues and aid workers and IT support managers"!

Brief definitions

Broadband

It is various technologies (mainly cables) that permit the transmission of data at great speed, much higher than that of the traditional telephone line commonly used in the Latin America. These installations require considerable investments, at present made by large Northern corporations, which logically seek to concentrate in the most profitable areas, thus conveying service only to those who can pay for it. The relatively most expensive part of the connection is the *last mile*, that is, from the node, where the thick cables reach, to each home and each office. However wireless high speed and through electric wires connections will ease in the next years the expansion of connectivity

Blog

A Weblog is a Website of very easy installation and use, where messages on a particular topic from one or various authors are collected in an inverse chronological order. Visitors can in turn publish messages from their favourite browser. Blogs are then connected to one another according to interests and topics.

FLOSS

Free Open Source Software. Most widely used are Linux and Apache, for servers and the new Firefox browser.

Knowledge management

Knowledge management was developed in the 1990s by the Northern corporate sector as a organisational management tool: in the context of global markets and merging of huge corporations, the rotation and departure of many employees attracted attention on the valuable and undocumented knowledge and experience companies were losing or misusing. Different methodologies were developed to try to retain within in organisation the employee's knowledge.

Software licenses

In the world of software, there are three basic forms of licenses, which define the conditions under which the products may be used:

- Public domain software: the author totally

waivers copyright.

- Free-license software: software may be used, copied, studied, modified, redistributed or sold, provided that they remain under the same license system. In this case, sale can be made for an installation service or software.

- Proprietary software: software that can be used only under commercial license, i.e., against payment. Their codes are not accessible; one cannot know how they work and cannot modify them. Also, they usually have protection against copy.

Millennium Development Goals (MDG) and the ICT

In the wording of the eight objectives and eighteen Millennium Development Goals, the only reference made to the private sector as such is in the last goal, number 18, which is the one that refers to the ICT: "In cooperation with the private sector, make available the benefits of new technologies - especially information and communications technologies". Beyond what little this wording commits, I dare to imagine that at the end of the negotiations on this document, the delegates envisioned in the private sector not only the large international corporations but also the Open Source communities which, as producers of goods and services, even not-for-profit ones, also qualify for belonging in this sector. The World Summit on the Information Society held in Geneva in 2003 has stressed the importance of ICT to achieve the MDG, combining them with new forms of partnerships and focusing on people.

Open Source

The code is the core of the software: it can be accessible, open or closed, proprietary. Most open code software is distributed under free license. Most closed-code software is distributed under proprietary license. However, it is useful to distinguish the access to the code from distribution license. The handling of the code of a software enables qualified professionals to check how it works and to adapt a software by introducing new functions. Open Source has increasing success in Asia because it allows for the translation of software into languages with a scant market for large transnational companies.

Open Development and Open Content

Bellanet, a program supported by various cooperation agencies - among them SDC -, has developed the concept of Open Development, in which there is an attempt at implementing an

environment of exchange of information and knowledge inspired in the Open Source and free license model from the software's world. The concept was extended to Open Standards, Open Source and Open Content.

Open Source and cooperation institutions

Loe Scout, from Hivos, points out three reasons why so few cooperation institutions are interested in the FLOSS: 1. Although they share some ideals, the two communities speak very distant languages and do not communicate with each other. 2. The world of free software is highly dominated by men. 3. The great advantage of the FLOSS, which is their adaptability, can also be their major drawback: scarcely user oriented, as opposed to commercial products, free software remains a matter for specialists. The FLOSS projects are multiple, parallel, sometimes with very similar functions, and it is difficult to find its way to the better solution.

Wiki

A wiki is a Website (or another collection of documents in hypertext) that enables all users, from their browser, to add, modify or delete content. At present, the largest wiki is the Wikipedia, an encyclopedia written by the users themselves, which contains nearly a million articles and projects in 200 languages.

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The definitions have been adapted from the Wikipedia, under free license that is also applied to the whole article. If you wish to consult my sources or learn further about these topics, please send a message to: berthoud at cosude.org. The opinions herein do not commit SDC. Yours are welcome. If you so feel, we can set up a wiki to discuss these issues!

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