Futures Learning: from eLearning towards a Futures-oriented Way of Learning

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This paper critically explores some of the main ideas and beliefs behind the concept of eLearning. In order to understand both the changes of our current societies and their related impacts, it is essential for learning and education to adopt a thorough socio-cultural approach. eLearning, however, does not offer such an approach. It is argued that firstly, eLearning is not wide enough a concept to cover all the aspects necessary for this purpose. In addition to lifelong and life-wide learning (a broadened education), the development of a new action competence should be emphasised. Secondly, eLearning is not value-oriented, but oriented on IT and economic interests. When we regard the objectives of learning from a futures-oriented perspective, the focus should be based on individual needs, abilities, and hopes. Therefore F-Learning, or Futures Learning is then introduced as the new approach which better answers to those requirements.

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The changing world around us has always forced reactions from people in one way or another. However, the profound problem of our age is the rapidity with which change moves today. This has resulted in a tendency to lose sight of our essential human nature, due to the various processes of "mechanising consciousness" which are occurring in our present techno-oriented culture. Recent change has brought about such extensive phenomena as globalisation and its economic and socio-political impacts, changes in working life and new visions of human resource management. Those phenomena are often called megatrends in futures studies (Slaughter 1993).

Naturally education and learning have also been affected. eLearning has been widely introduced and ardently embraced as a general medicine which would ultimately cure the problems caused by the rapidly-changing information society and its technological gadgetry. eLearning has expeditiously become the subject within learning that reflects our reactions and responses to this on-going change. However, I argue that eLearning as such cannot be the answer to the problems brought about the information society.

Therefore the main objective of this article is to introduce another concept—or perhaps rather a viewpoint—Futures Learning (F-Learning). F-learning as such can be seen as a future-oriented approach to learning and education for humanity. It can be developed to offer pro-active methods and ways of motivating learners, their teachers and tutors, as well as those who decide on education for creating their own futures.

New Challenges to Learning

One of the main features of the present phase of Western life—and transitional phases in general—is confusion in making sense of what is going on around us. As our everyday life becomes more and more complex, chaotic and abstract, our means of comprehending it and building solid and logical connections between phenomena are reduced. This results from the mixture of contradictory aspects and phenomena, in the midst of which we live our everyday life, and from which we are supposed to build our understanding of reality and images of the future. (Rubin 1998; 2000) Often completely antagonistic incidents and processes take place simultaneously, and yet they do not eliminate each other (Davies 1988: 141). An increasingly excessive amount of real time news and information constantly invades our consciousness regarding events near and far, rel-

evant and irrelevant, fascinating and frightening. From this overwhelming amount, we have to filter out the information that is important and useful for our everyday life.

This socially perceived and experienced chaotic din of weak signals, trends, and megatrends produces evolving paradoxes. For instance, how can we place information and news that is sent simultaneously, distributed in real time and is horizontally-perceivable, into the frames of human cognition? Yet we are expected to be able to do that, even though our traditions and education emphasise the logical setting of cause and effect, as well as sequential, vertical constructions of the elements of reality. The intensity of action and the speed and amount of incoming information grows exponentially thus widening the borders of our social reality, although our human capacity to receive, treat, and preserve information has not changed but remains the same as in the antiquity (Nyman 1988).

The model of life that arose with the industrial society and modernity provided its members with steady, stable and comprehensible norms, values, and lifestyles. In the present phase of the unpredictable information society, the family, schools, churches, and other social institutions are, in part, losing ground in their position as the providers of role models and norms for life. This is because they tend to stick to outdated moral positions, structures and modes of action, which have now largely been by-passed by other, more heterogeneous, lifestyles (Rubin 2000). The result may be a proliferation of ethical codes and a plethora of morals, which are all equally valid and relevant. Such value relativism may end up in loosening social ties and weakening social cohesion. Morals become more and more often a private matter, while on the other hand, they are delegated to increasingly abstract social actors. In a culture of self-realisation and tension between global networks and individual actors, many people lose touch with "larger-than-life" moral questions and consequently set aside ethical ideals. (Taylor 1991: 37-46).

Consequently, the more complex and manifold life becomes, the more tempting it is to make a bee-line for factitiously simple reality, i.e., we try to explain its multiform phenomena as separate and independent occasions and out of context (Rubin 1995). In the end, the media, electronic communication and networks are treated as our private therapists. The reality, however, claims from us a much deeper understanding of the nature of human agency, beyond mere behaviour or performance.

The basic character of change is that while it offers a great variety of opportunities, it also brings about new risks and crises. In our "risk soci-

eties" (Beck 1992) people need new competencies on the individual, organisational, social, and cultural levels. New concepts, such as the learning society, the learning organisation, or life-long learning, illustrate the centrality of placing learning at the heart of current economic development, goal-setting and everyday life (Castells 1996, 1997, 1998; Guile 2001).

Therefore, in order to understand both these changes and their related impacts, it is essential for learning and education to adopt a more thorough socio-cultural approach. This approach would be of help in elucidating the relationships between human functioning, its cultural, institutional, and historical settings, and their development processes. Thus in addition to lifelong and life-wide learning (a broadened education), we should emphasise the development of a new action competence[1]. Through the idea of action competence, the members of society (individuals, families, organisations, groups, networks) are seen as proactive agents, whose learning therefore is dependent on the possibilities offered by their society as well as their active and transformative interactions with society.

Value-Based Orientation towards Change in Learning

The pace of change and technological development has created a new culture of learning which expands itself both horizontally and vertically throughout life. Learning has become an important strategic instrument in social life. We are requested to develop not only lifelong learning, but also life-wide learning as a dynamic system of socialisation and individual empowerment with psychological, social, physical and ethical dimensions. Life-wide learning refers to both learning experiences beyond a person's conventional settings and to socialisation. Learning can take place in a variety of different environments, all equally important and interconnected. Learning also is a form of participation: it must address the whole person in order to guarantee him/her the possibility to develop their own individual personality and skills in his/her preparation for life (Drake 1999). In addition to individuals, this view is important on the wider social level. The survival and success of organisations to an increasingly significant extent depends on not only their ability to continue to learn, but also on their willingness to go out and share with others what they have learned (Bryans 2001).

The processes of change in education and learning can be approached from three different angles: (1) technological development (that has IT

and bio-/nanotechnology as its motors); (2) socio-economic development (economy as its main motor), and (3) values and value change (Hirsjarvi & Remes 1987: 11-26). Thus a worldview depends on which one of the three angles is the determining factor behind decision-making and choices on education and learning in society. The problem is that much too often the starting point is either placed at (1) or (2), when it should be at (3). A good example of this is the current emphasis placed on eLearning.

If we look at change and the challenges it brings about from the first angle of technological development, we end up with ideas and solutions which are technologically deterministic in nature. Society's functioning is understood as dependent on technology and its solutions (Inglehart 1997). Thus while technology is seen to develop on its own terms, the only alternative for society and its institutions is to try to adapt to the consequences. Therefore the development and future of education and learning are based on technological advancement, innovations, and ideas.

If we consider the problems from a socio-economic viewpoint, then technological aspects and the development of their applications are both chosen and explained through mainly social factors and determinants. The result may be that education and/or learning will be placed under tight state/authority control. Alternatively, they can be seen from the point of view of economic interests. This again leads to a path of development that has a strong emphasis on profit responsibility in educational decision-making, which is apt to increase social and economic inequality. In both cases, the human impact on social development in general and education in particular is underestimated and the autonomy of education is placed under political or economic control.

The traditional materialistic theories claim that there is a direct causation in the development of values and ideas in society: firstly, society's technological level is seen to shape the economic system of that society. This process then produces values and causes value change (Inglehart 1997). This viewpoint, however, leaves very little space for human free will and does not consider such postmodern phenomena as the rise of individualism. Therefore it leads to a unilinear, deterministic, and monocausal theory of change, very strange to futures studies. History shows that the successful economic development of a society depends on a culture which values in education such qualities as achievement, competition, innovation, and perseverance (Haller 2002). Those qualities cannot be directly drawn from society's economic system or technological level. Rather, they are traits which have guided the history of that

society and they can be traced behind the decisions and choices made in its course.

Therefore the best starting point would be values and value change. Values form an integral part of the construction of images of the future of what is ideal and worth struggling for. At the same time, value change is a very slow process in society—much slower than the pace of other concurrent change processes (Räikkä 1994: 15-19; Rubin 1995). This means that in order to get a good idea of what is going on in the development of learning and education, we must place our focus on values and discover which values form the basis for solutions, choices and decisions dealing with education on a social level?[2] We must ask are the values which direct us today more socially or more economically orientated, and how could we create a fruitful balance? Plus, which values should guide the development of IT for educational purposes?

Side by side with that global tumult, the concept of learning itself is undergoing some drastic changes. There are requirements to completely rethink the concept of learning and move it from the mere acquisition of pre-existing knowledge towards the idea that learning is also a process of participation and sharing (Guile 2001). Many future skills require a long education, whereas there are other skills that are connected to ways of action in which the focal point does not require such a lengthy learning process. Instead they develop through social relations and attitudes. For instance, take interpersonal and creative skills to be examples of this (Rubin & Linturi 2001), or tacit knowledge which cannot be separated from experience or distinctively taught (Nonaka & Takeuchi 1995). The more risky, complex, and unforeseeable the global community grows, the more there is a need for new competencies, because making meaning and the role of problem-solving in these emerging new environments has become crucial. The most important new competence in this respect is action competence.

The Three Paradigms of Learning

The success of humans among species is based on their ability to communicate and to learn. Each era has attached a new social innovation to learning—as well as to other institutions. There are three major and interrelated paradigms in the current discussion about learning. Even though they are not commensurable—the third paradigm can be seen as resulting from the first two—all of them create challenges for both futures-oriented and interdisciplinary research.

The first paradigm represents a shift in the understanding of knowledge that is still occurring. It understands knowledge as a continually changing and evolving quality, which has emergent properties. By defining knowledge this way, emphasis is placed on the temporal, the social, and cultural contexts of the production of knowledge. The ability to carry out activities is dependent on how individuals experience reality—the wider world outside themselves or their initial peer and reference groups. The nature of a chosen activity or decision is dependent on the elements of the actor's personal store of knowledge and experience and how they are interpreted in a specific situation. The paradigm has raised new issues in learning and education, such as:

● the use and development of human and social capital and knowledge management (Nonaka & Takeuchi 1995; Nonaka & Nishiguchi 2001; Stahle 1999; Viherä 1999);

● the need to find new means to weave tradition and history into visioning and futures-oriented thinking in order to widen the spectrum of choice;

● the impact of images of the future as motivators in decision-making, choices, and understanding the past (Rubin 1998, 2000);

● growing emphasis on the impact of tacit and explicit knowledge in knowledge-creating processes (Nonaka & Takeuchi 1995, Nonaka & Nishiguchi 2001); and

● the need to increase social transparency and democracy in decision-making, as well as in science and knowledge formation (Becker 1995; Keskinen 1995, 1997, 2001a, b, c).

While the first paradigm concentrated on knowledge and its social and educational dimensions, the second paradigm emphasises the individual learner by conceptualising learners as proactive and self-confident social actors. Here we can speak about the concept of constructivism, which is also interconnected with lifelong and life-wide learning. Constructivism can be defined by two basic principles:

● knowledge is not passively received either through the senses or by way of communication, but is actively built up by the cognising subject (Nonaka & Takeuchi 1995; Nonaka & Nishiguchi 2001; Ranson 1994, 1998);

● the function of cognition is adaptive and serves the subject's organisation of the experiential world, not the discovery of an objective ontological reality (von Glasersfeld 1997).

Compared to the more traditional approaches constructive theory

defines knowledge in a rather different way. Constructivism is a philosophy that encompasses knowledge, learning, and thinking (von Glaserfeld 1997). From a constructivist angle, knowledge is seen as a three-dimensional whole which is temporary and developmental by nature and which relies on social and cultural factors. The determinants of knowledge as such, as well as its utilisation, are always dependent on how the actors comprehend and perceive their social environment and its temporal constraints.

The ideal of constructive learning and knowledge is achieved by enhancing a learners' ability to work in cooperative groups of human activity, practice and discourse. This challenge creates the need to increase proactivity and action competence, belief in human potential, and personal and social commitment in creating a future which best fulfils people's expectations. In this context, the constructivist paradigm evolves into a social theory of learning whose main components are meaning, practice, community, and identity (Wenger 1998).

The third paradigm is distance education, which flamboyantly is represented in the form of eLearning[3] today. While the first paradigm deals with knowledge and its dimensions and the second paradigm with the abilities of individual learners, the third paradigm is based on the forms and means through which education and learning are currently implemented.

The Fallacy of the eLearning Scheme

The concept of eLearning refers to a specific format of distance education and on-line learning in which students, teaching personnel, researchers, administrative personnel and even technical staff mainly communicate through technical links. New network technologies are used to create, foster, deliver, and facilitate learning, without the limits of time and place. Various definitions of eLearning introduce a wide set of applications and processes, such as web-based and computer-based learning, virtual classrooms, and digital cooperation. The idea of eLearning is aimed at increasing accountability, accessibility, and opportunity allowing people and organisations to keep up with the rapid changes that define the present. The practical objectives, common to all definitions and descriptions, are to involve learners in real-time, IT-based learning processes, produce and deliver individualised, comprehensive, dynamic learning materials and content. In this way it is hoped that eLearning enforces socio-educational

development by linking learners and practitioners with experts.

The economic aim is to keep people and organisations ahead of the rapidly changing global economy due to the competitive edge they gain. From the pedagogical point of view, eLearning is seen as a means of concentrating on learners' individual differences in their forming of cognitive skills, and hence increase their autonomy and freedom. Collaborative learning, made possible by both the availability of new information technology and new theories of learning and education, is seen as leading towards a shared experience.

However, eLearning is not value-oriented, but it is rather oriented on IT and economic interests. It takes the present course of socio-economic change as given, never bothering to question, or even consider, the grounds, validity, acceptability, or justification of its direction. This leads to a situation where learners are encouraged to direct their attention, needs, and learning activity towards user skills and more and more advanced software. Instead, learners should be encouraged to consider the course of change behind technological gadgetry and the impacts of IT to society and people throughout the world in order to be able to proactively commit themselves and thus increase their own social empowerment.

For instance, learners in different learning environments have different and unevenly distributed economic, cultural, and social resources which can prevent them from becoming full members of the new eLearning society. There are big differences in actors' abilities and possibilities for participating in the on-going IT development process. Those differences can originate from individual or from socio-economic grounds. Therefore both their potential and needs as active and creative social actors with regard to eLearning vary remarkably.

In addition, various relationships between what is possible with current learning practices, what various education stakeholders need and expect, what society needs, and what is educationally effective are far from being clear, and the answer cannot be eLearning *per se*. That way we would end up in circular reasoning: the means are used to explain the objectives, and the objectives, for their part, are used to justify the means. Naturally this is in the interest of those who are involved in the production and marketing of new IT technology, content and programmes for learning purposes. But does this really benefit the learner?

Therefore, what is needed now is a new approach to learning in general and eLearning in particular which would both allow people to cope with the expansion and fragmentation of information, empower them by preparing them for increasingly demanding everyday life and, most

importantly, do all this on their own terms. However, if we consider the first two paradigms (above), the new understanding of knowledge as a changing and evolving concept, and constructivism, in the light of eLearning, is it possible to say that eLearning, in the forms it has been realised today, really enables, or even considers the first two?

Let us take a closer look at the eLearning Action Plan of the European Commission (2001): The plan states that eLearning is based on four policy implications. First, it is planned that education institutions all around Europe will have the chance to acquire computers, networks and other equipment necessary for multimedia education. Second, teachers will be trained in digital technology. Third, educational resources especially designed for this purpose, and the software it requires, will be developed. Fourth, networks of teachers and education institutions will be developed.

The first background assumption impinging upon the Plan is that information technology is regarded in it as a given, while discounting the human being - the individual learner, teacher and their opinions, hopes, expectations and possibilities. The advancement of IT does not consider the human being as an active, changeable, developing, and proactive individual actor whose identity, opinions, expectations and hopes should be taken seriously in the development and marketing of new technological innovations.

The second problem with the Plan is related to the first: if we take IT as the prerequisite or determinant for decisions in the development of learning and education, we end up in a situation where the core grounds for developing education will unavoidably become more and more commercialised. In the Plan, there is no space for individual learners to have influence on the course in which IT—and along with that, society - is developing. The emphasis is rather on individual learners as IT users, and on increasing their skills and abilities in that role. It can be feared that in the end, both innovations and public and administrative decisions dealing with educational purposes will have to be made on a commercial basis.

Therefore the Plan in particular and eLearning in general, in the way it has been understood and applied thus far, are closely linked to eBusiness. eBusiness for its part sees the actor as a consumer rather than a learner, a receiver rather than a creator of new knowledge and wisdom, and, in the worst case, as belonging to a mass that searches for constant entertainment. This mass is not composed of critical and proactive individuals searching for personal growth or equal civic society. It might be that in the very near future, a growing number of the projects and programmes launched in the name of eLearning will be more commercial than educational in

nature; i.e. they start from technological requirements and end with commercial IT solutions. If that occurs, then we will assuredly witness the triumphal march of the so-called "edutainment" paradigm into education. The true needs, expectations, hopes, and fears of learners, their teachers, and the social environment in which they live remain largely ignored.

F-Learning as a Solution to the Pitfalls of eLearning

In order to answer this challenge, we must design approaches that support individual work and study by researching and considering other possibilities—specifically, the human factors—dealing with education and learning outside IT. Only after that can we set the requirements for education technology. Such an approach forces IT—hardware, programmes and networks—to be designed from the perspective of genuine personal and individual educational needs (and not from the imperatives created by new technological innovations). This approach also allows us to better control the course of its development. Here we can foster both the needs of the present and the emerging needs of the future.

Therefore, when we regard the objectives of learning from a futures-oriented perspective, the focus is based on individual needs and hopes. This viewpoint can be called as F-Learning, or Futures Learning. F-learning adds a new element to the objectives of eLearning from the futures point of view and from the needs of those actors who create it.

The basic idea of developing the concept of F-Learning is to challenge current formulations of eLearning and to understand developments in learning and education from a more proactive point of view, genuinely based on future needs and objectives, human and social capital, action competence and empowerment. The starting point for the concept of F-learning is based on visionary thinking. The concept will be further developed from the point of view of supporting learners' abilities and possibilities to act as developers, visionaries and initiators of change in their own organisations, communities, and society. Therefore F-learning rests on the idea that in order to reach the best possible result for any given actor, the possibilities and alternatives of the future have to be studied as systematically and thoroughly as possible.

The best preconditions for successful activity are created by a careful analysis that considers what the real objectives of action are, connected with a deep understanding of what human and other, e.g. technological, resources are needed in the future and are already available in order to

reach those objectives. Hence an individual actor and a learning organisation will become familiar with the use of their own abilities and skills, when the best possible solution is actively sought in any given choice situation. This requires that actors share a vision which is commonly defined and consciously determined and to which all want to commit themselves. Futures Learning could well become the core of that vision.

The next step would then be to start studying the possibility of facilitating futures learning in both formal and non-formal educational contexts.

Notes

1. This idea connects various concepts like "empowerment," "life" politics (Giddens 1991), and "life-world becoming" (Barnett 1994).
2. We should also pay attention to the fact that, unlike Inglehart (1997) and many other contemporary researchers of value change, the values of traditional agrarian societies should not be compared with industrial and postindustrial societies. Moreover, the values of today's agrarian societies cannot be equated with those of past agrarian societies.
3. It can be argued that the three paradigms are not exactly commensurable, but the point here is to show how there are at least three different ways of approaching the wide area of learning and how those approaches are interrelated.

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