

# ALL NEW?

## Organizational and Individual Challenges in the Digital Economy

*Heinrich W. Ahlemeyer*

Ludwig Georg Braun, President of the German Industrial Chambers of Commerce recently told a national newspaper that he was concerned about the latest developments in the so-called 'New economy', which are often nothing more than hot air. "There needs to be much more seriousness", he stated. Small enterprises in the information and communication industry, he said, were being brought to the market without having any real substance. Initial enthusiasm with the 'New economy' has given way to sobriety. Newsmagazines disclose that market reports and even balance sheets of many new market companies have been faked. Following representations of the 'New economy' in the media, one gets the impression that it is based widely on manipulated information and that the industry is teeming with braggers, cheaters and false prophets.

One economic magazine calls for a 'True economy' in its advertisements while the terms 'Old economy' and 'New economy' appear crossed out in the background. A globally operating Software corporation also stated in one of its advertisements: "It's high time for a *new* 'New economy', one that makes profits at last."

There is no doubt that the dream for the 'New economy' has 'cracked' since Internet stocks dramatically dropped in value and the painful process of self-purification has set in. But maybe it took these violent fluctuations of the stock exchange to help to clear the way for what is the particular challenge of recent technological and economic developments.

### **Dimensions of 'Newness'**

In order to communicate we need concepts and terms, both in everyday life and in scientific exchanges. In systems theory, concepts are regarded as information-leading

distinctions. What do we achieve if we only base our observations on the difference between old and new? How viable are the terms that make this distinction?

If we use the term 'new' we are referred to the object-related dimension. 'New' describes a quality, which has not existed before. The printing machine was 'new' to Western civilization when it was introduced by Johannes Gutenberg in the middle of the 15th century. Before that time it simply did not exist and was therefore in contrast to those objects which people were familiar with. The printing machine allowed for hitherto unknown forms in the distribution of information and ideas.

This example reveals at the same time that describing something as 'new' also points to the time dimension. Something is new at a certain time. The printing machine was new in 1450; a hundred years later, in 1550, it was well known and familiar. What was 'new' yesterday, the fax machine in the 1980s for instance, is not new any longer. It has aged and it has thereby lost its quality of newness. By describing something as 'new', we find ourselves inevitably referring to a particular point in time. This implies that the very observation of newness itself is bound to the time dimension and as such, it becomes a perishable good, just like freshly cut flowers.

But we also find references to the social dimension. What is new for one person is not necessarily new to another. Writing SMS messages with her cellular phone has been common practice and "normal" for my teenage daughter. For her grandmother, who does not own a mobile phone, it would be a technique of communicating that is entirely new. Because of its inevitable implications in both the time dimension and the social dimension, the notion of 'newness' cannot be expected to denote a quality that independent observers (at different times) are likely to agree upon. Before examining which unique qualities are characteristic to the current forms of the economy and what they mean for us, I would like to propose letting go of the notion of the 'New economy' and substitute it with the term 'Digital economy'. In doing so we gain a descriptive and analytical tool which is more precise and more capable of seizing the distinctive qualities that presently shape in our economic and social lives.

## **The digital technology**

Information and communication technologies (ICT) create and recreate our daily world in an unprecedented manner. Technology creates the rhythm for our present economic lives. The consequences of information and communication technology are omnipresent. Information is flowing around the world (almost) without any obstacles. Here are three examples, which shed some light on the hitherto unprecedented dimensions of technological change:

\* Today there is more information technology operating in an ordinary car than was in the Apollo Space-shuttle which took man to the moon at the end of the 1960s

\* There is more Computer power in a birthday card which plays 'happy birthday' electronically, than existed in the whole world in the late forties.

\* An ordinary CD-ROM may contain up to 360.000 pages of text, or the equivalent of some 12.000 books.

In order to gain an understanding of the significance of these technological developments, I would like to remind ourselves of the instrumental character of ICT. After all, computers, mobile phones and software programs are nothing but manifestations of a particular technology. As such, they have an instrumental character; they are tools which are meant to serve and support us. Laptops and mobile phones are a means and not an ends in themselves. Ever since man stood up and walked upright, we have been familiar with the ambivalence of means. With a knife, you can peel an apple and feed a child. The very same tool may also serve to kill a neighbor. It is not the knife as such which is good or bad, but the end to which we use it.

The Internet exists. One may use it for selling infantile pornography or for obtaining scientific information. The Internet in itself is neither good nor bad. It becomes what we make of it. The future cannot be predicted because it needs to be created. We either watch it as spectators or we become its driving force ourselves. Whether we evaluate these trends as good or bad is not essential, because they are going to happen anyway. "Evolution exists. It is not right or wrong", the Swedish management researchers Ridderstrale/ Nordström contend. (2000:34) What is crucial, though, is which goals we are going to use these means for.

When we look at the Digital economy, we look at ourselves. The Digital economy is not taking place 'out there'. All of us have become part of it and have lived in the midst of it, even the newborn babies and the very old. As users, customers, travellers, patients, tax-payers, every one of us has long since been taking part in it. Observing the digital economy is thus a form of self-observation, even if we sometimes feel that the dynamics which evolve from it have gone independent of us.

## Features of the Digital economy

In order to understand the scope and significance of the Digital economy, I depict it as being at the intersection of three long term trends which continue to gather momentum: the rise of networks, the growth of knowledge work, and the globalization of trade.

(a) *The rise of networks*: Modern information and communication technologies allow us to conduct business on the basis of a 'network approach'. The transition to a network-based economy is made possible by the proliferation of global electronic networks. The Internet, the most important of them, is a network of networks. Jeremy Rifkin quotes author James Gleick who says: "The hardest fact to grasp is this: The Internet isn't a thing, it isn't simply an entity; it isn't an organization. No one owns it; no one runs it. It's simply Everyone's Computer, Connected." (Rifkin 2000:18)

Today more than 250 million people have access to the Internet and forecasts predict that by the year 2003 there will be one billion. The essential feature of these global networks is connectedness. Electronic networks transcend traditional conceptions of geographic space. They link buyers and sellers, servers and clients, suppliers and producers; they bring enterprises together in deep webs of mutually interdependent relationships. The main purpose of the digital economy is to connect, "connect everything to everything", as Kevin Kelly, editor of the magazine *Wired*, put it. (Rifkin 2000:19) The explosion in connectivity allows the unbundling of information from its physical carrier and processing it on global scale.

Networks involve complex channels of communications, diverse perspectives and parallel processing of information and continuous feedback to the user. They reward thinking outside the box and are therefore more likely to generate new solutions. (Rifkin 2000:24)

(b) *The growth of knowledge work*: In the digital economy, value creation becomes increasingly a function of information and ideas. The new role of knowledge manifests itself across a wide spectrum of businesses including those firmly rooted in the world of tangible products. Knowledge turns products into services; it makes physical products smaller and at the same time more valuable. With miniaturization, the substitution of information for physical tangibles, and the expanding role of services, the economy becomes increasingly "weightless" and intelligent. The basis of value production is no longer physical, but has become immaterial.

Knowledge is at the core of the digital economy, with the 'knowledge worker' as its central figure. He or she is the subject, the user and the producer of knowledge. After land, labor and capital, we have come to see the rise of the exploitation and commercialization of a resource that had always been there, but never before quite as prominent. (Harvard Business Review 1998; Stewart 1997)

More than ever, knowledge has become the crucial factor in economic competition. Knowledge is the new battlefield on which nations, companies and individuals compete. In the past, innovative companies, like Xerox, had twenty years to live comfortably off their competitive edge but this has changed dramatically. The fundamental shift in how value is created poses a new management challenge: in organizing 'knowledge work' under fiercely competitive conditions, in winning and retaining the best human resources and in making learning and innovation a continuous process in the company. (Willke 1998; Ahlemeyer 2000)

(c) *The globalization of trade*: The Internet has expanded the marketplace throughout the entire world. The unobstructed flow of information around the world in combination with comprehensive legislation for deregulation of whole industries, such as airlines, banking, utilities, telecommunications, transport etc., have jointly contributed to a strong increase in international trade. Goods, services and information easily transcend national boundaries. The distinction between local and global assumes a new significance. Observers from both politics and academia have proposed first analyses of this comprehensive process (Beck 1998; Schmidt 1999; Weizäcker 1999; Brecher/Costello 1998; Hirst/Thompson 1999), but the whole impact of globalization is only just beginning to be felt and understood.

We witness, for instance, the emergence of new markets and new rules. Until recently, information deficits and logistical difficulties prevented supply and demand balancing each other to a satisfying degree. Today, a Swedish steelmaker may resell its equipment second-hand for a good price to a South-American purchaser who needs exactly his kind of production line. Market makers are presently scanning the world to track down new supplies and new needs. Liquid markets are created for relatively low transaction costs. Purchasers and providers alike may gain from this development, as both encounter new chances in the electronic market place with hitherto unknown partners.

The digital economy has enormous consequences for national economies. Wholesale and intermediate trade has to find a new role between producer and consumer. Competition and price building need to obey new rules. In information commodity markets, scarcity loses its function as a critical factor. With information abundantly available, scarcity itself is getting scarce.

Standards have become the decisive leverage for dominating markets strategically. In the information commodity markets only those enterprises able to establish standards will gain. The digital economy allows for network effects, to a hitherto unknown extent, through the use of standards. Every new member of a community or network, which uses a standard, increases the value of individual participation. Communication networks, such as the telephone, e-mail, websites, but also the network of all users of Microsoft Windows, become more valuable for the single user, the higher the total number of users. An

enterprise, which succeeds in establishing a standard, is able to make high profits. The winner takes all and the loser is out of the market. There is a strong tendency for natural monopolies. Competition no longer takes place in markets, but for markets (Schmidt 2001).

As political and logistical barriers to global trade and competition drop, every organization needs to re-examine its own economic landscape. Who are the relevant customers, suppliers, and competitors in a reconfigured world? What shifts in organization and strategy are required to manage effectively across geographic and cultural boundaries?

Every industry will feel the impact of these three forces in its own way. But the direction is always the same: towards a more dynamic, faster-paced economy with stronger competition and more rapid change. In some industries, new competitors have already emerged. In others, major restructuring is on the way. Most industries have felt, and will continue to feel a growing pressure to increase the pace of innovation. Uncertainty - always a constant in business decision making - is on the rise.

### **'New' and 'Old' in the Digital Economy**

Much of the writing about the Digital economy emphasizes the accelerated speed and the heightened sense of uncertainty. With its numbing incantation about relentless forces and continual re-invention, such writing may easily make us accept uncritically that everything has changed. (Magretta 1999) Sets of punchy aphorisms are being served as new recipes for success. Take for instance McKinsey's seven principles of management in the Digital economy: passion, personnel, persistence, and paranoia with quality in marketing, proactivity, partnership and perfection for a maximum adaptability. (Hoch et al. 2000)

Such writing is misleading. It cannot be confirmed that everything has changed. Neither the basic principles of business economics nor the realities of psychic and social systems have been abolished by the Digital economy. If anything, they are more relevant today than ever before, because anyone struggling through the maze of changes wrought by the Digital economy needs to know where the ground is solid.

Furthermore, everyone who has to make real organizational decisions and then live with the consequences knows that there is no list of five or seven rules that will guarantee success, however clever the slogans. They also know that there are few absolutes in management and that frameworks are only helpful if one knows how and when to apply them.

So what remains 'old' and unchanged in the Digital economy? I would like to offer three observations:

a) What has been called the ‘New market’, reflects in my view a partly euphoric over-estimation of the impact of the new technologies. Cellular phones and the Internet are new and they open up entirely unprecedented ways of communicating and networking. Networks are important, as are standards and portals. And yet, if looked at from a wider perspective, the changes are not as radical and revolutionary as many have made us believe, not quite as fast, not quite as sustainable, and not quite as successful. The real Digital economy is presently taking place in the markets for tangible goods, where the trade between business (b2b) is radically being transferred to the electronic market place.

b) It has become very clear in the last two years that without exception companies in the Digital economy remain subject to the very same laws of survival and profitability as the companies of the Old economy.

c) Many of the characteristics of Digital economy companies such as flat hierarchies, permeable borders between work and leisure, an informal tone of communication between management and employees and a general scepticism of ‘organization’, are not exclusive to this industry. These can be equally found in family enterprises or in pioneering enterprises in the Old economy and typically in an early phase of the corporate life cycle.

Rather than constructing a bipolar difference between the Old and the New economy, we should see digitalization as a continuous process taking place in society and the economy. This is a process which is determined by a whole number of hard and soft factors. Companies and organizations are positioned at different places on this continuum moving at their own individual speed and in different directions. There is no one magic formula for success which is valid for all industries and companies Each company has to find its own way, but will also have to change in order to remain the same.

## **The Demand for Increased Selectivity**

With the development of information and communication technology and its spread into society, a new basic distinction has emerged and assumed relevance: the distinction between the manifest and the virtual. Digital communication networks have created “a second earthly sphere above the terra mater, suspended in the ether of cyberspace.” (Rifkin 2000:14)

We have begun to live in two worlds, in the space of extensive objects, but also in the cybernetic space of information. Are we witnessing the final triumph of the imaginary world over the real world? No one can any longer say what the ‘real world’ is, as the virtual world has become part of it. We find ourselves either in physical space or in cyberspace; we are engaged in either virtual or manifest communication; we are either on-line or off-line. The digital age has increased the problems of selectivity and society reacts to this in two ways: by the principle of organization on the one hand and by individualizing

the selection on the other. (Luhmann 1997:303)

What does the virtual and its emergence imply? The virtual is something that could be manifested in the physical world - but only by way of a decision. The space of possibilities in virtuality is enormous, not only for potential partners and contents of communication, but also for my own identity as a user. I no longer have to stick to the identity I was born with but may assume a different nationality, age, name, and even a different sex. Reality seems to multiply. Thousands of millions of websites of potentially new communication partners are within easy reach. This enforces choices in the non-virtual world. I have to use my time, my energy and my attention in order to transform the virtual into the manifest.

Here we may be faced with a paradoxical insight. It is the limitation of life in the time dimension, which constitutes a necessary condition for life to attain fulfillment. Collectively we do have experience with this kind of limitation and yet individually, we lack it. Death as the individually unacceptable but biologically inevitable limitation to our life requires us to live with consciousness. The boarder of life is at the same time a condition for its full emergence. Why should we live now, if we had the possibility of postponing it to the future? Why should we act at all, if we could still do it tomorrow? Were there no death, one would have to invent it in order not to lead an immortally dull life of endlessly postponing everything. Thus the affirmation of limitation. In order not to let life simply pass away, but live it forcefully, consciously and individually and as long as it lasts for every one of us, we need limitations. It is the unacceptable limitation of death that we owe the joy of life. The promise of the unlimited in time and space is something we cannot live with. We need limitation, and when there is none imposed upon us from outside, we need to create it for ourselves. (Schmid 1998: 88ff)

Information and communication technologies help us to fulfill everyday jobs and responsibilities faster. With their help, we transport information over large distances; the data from libraries and encyclopedias have become more easily accessible. The Internet links our private cybernetic space to a public net, where the production, distribution and exchange of information take place on a global scale. We witness a continuously expanding space of communication, which in its decentralized organization offers new possibilities and limitations.

The increasing dominance of long-distance relations, however, does in no way imply a disappearance of close relations. On the contrary, in the context of the digital age, personal matters assume a new significance. The need for personal communication continues to be on the increase, often with the help of information and communication technology.

In order not to drown in the flood of data, the individual user has to make decisions, continuously and permanently. He may use search engines, but then finds himself once again confronted with the necessity to make choices. Generally, it becomes less important

to 'have' knowledge than to know where you can find it. What is required at the same time, is the courage to make selections and the ability to formulate priorities of importance. Few things are really important; one of them is living life in such a way that it leads to self-fulfillment.

If information and communication exceed beyond any measure, it becomes imperative for the individual to reduce them and thus regain his or her space for autonomy and reflection. This reduction not only allows for simplicity of multiplicity, but it also becomes a pre-condition for living a self-determined life in the midst of complexity. The basis is a highly selective use of information and communication, even up to the point of complete denial. Living in the digital age demands detachment, an ability to keep a distance, an inner reserve, to escape the medium's claim of totality. (Schmidt 1998:136f.) In this way, detachment offers a necessary counter-position to 'access', the need to be connected at all times and all places.

## **Profit is not enough**

The Digital economy is a capitalist economy, with profit as one of its driving forces and indispensable elements. And yet, profit, money and material values are no longer sufficient to constitute as the main personal goals for more and more people. Knowledge production and networks turn out to be highly sensitive to values. Besides a technological revolution, we are witnessing a revolution from within, an aesthetic-emotional renaissance, which demands a higher degree of awareness and experience. Profit alone is no longer sufficient nor is the knowledge needed to attract and retain highly qualified knowledge workers in Digital economy companies. What is wanted and needed is meaning.

This leads to some very basic questions which need to be answered. For individuals these questions are: What is your true identity? As a unique person with a particular combination of gifts and strengths, what are you here for? What is your mission? What do you want to have achieved by the end of your life? For companies and organizations these questions are: What is your true work? What do you exist for? Which principle is meant to come into the world by your organization? Individuals and organizations ready to confront elementary issues like these are not likely to get lost in the stormy changes of the Digital economy, but have a very good chance to benefit from, even thrive upon them.

## *Bibliography*

- Ahlemeyer, Heinrich W. 2000. "Managing Organized Knowledge: A Systemic Proposal." *Journal of Sociocybernetics* Vol.1, No. 2, 1-11.
- Beck, Ulrich. 1998. *Was ist Globalisierung?* Frankfurt: Suhrkamp.
- Brecher, Jeremy/ Costello, Tim. 1998. *Globalization from Below*. San Francisco: South End.

- Harvard Business Review. *Harvard Business Review on Knowledge Management*. 1998. Harvard: Business School Publishing.
- Hirst, Paul/ Thompson Graham. 1999. *Globalization in Question*. New York: Polity Press.
- Hoch, Detlef J/ Roeding, Cyriac et al. 2000. *Erfolgreiche Software-Unternehmen. Die Spielregeln der neuen Economy*. München: Hanser.
- Luhmann, Niklas. 1997. *Die Gesellschaft der Gesellschaft*. Frankfurt: Suhrkamp.
- Magretta, Joan (Ed.) 1999. *Managing in the New Economy*. Harvard: Business School Publishing.
- Ridderstrale, Jonas/ Nordström, Kjell A. 2000. *Funky Business Wie kluge Köpfe das Kapital zum Tanzen bringt*. London: Financial Times Prentice Hall.
- Rifkin, Jeremy. 2000. *The Age of Access. How the Shift from Ownership to Access is Transforming Modern Life*. London: Penguin.
- Schmid, Wilhelm. 1998. *Philosophie der Lebenskunst*. Frankfurt: Suhrkamp.
- Schmidt, Helmut. 1999. *Globalisierung*. München: Goldmann.
- Schmidt, Holger. 2001. *Die Potentiale der Internet-Ökonomie*. Frankfurt: Frankfurter Allgemeine.
- Stewart, Thomas S. 1997. *Intellectual Capital. The New Wealth of Nations*. London: Brealey.
- Weizäcker, Carl Christian von. 2000. *Logik der Globalisierung*. Göttingen: Vandenhoeck.
- Willke, Helmut. 1998. *Systemisches Wissensmanagement*. Stuttgart: Lucius & Lucius.