XXV IASP World Conference on Science & Technology Parks
The role of science parks in accelerating knowledge economy growth – contrasts between emerging and more developed economies

IASP
International Association
of Science Parks

14 - 17 September 2008, Sandton Convention Centre, Gauteng, South Africa

XXV IASP World Conference 2008

Global Blog, Weblogs and Blogosphere, innovation processes and web environment – Global economy in relation to success of STPs

Plenary Session 3:
Innovation and business country culture in relation to the development and success of STPs

Author:
Prof. Matti Luostarinen (matti.luostarinenm@mtt.fi)

MTT, Agrifood Research Finland, Agropolis Science Park
31600 Jokioinen, Finland

Web Environment and innovation processes

ABSTRACT (Full paper in pages 4 to the end)

GLOBAL BLOG, WEBLOGS AND BLOGOSPHERE, INNOVATION PROCESSES AND WEB ENVIRONMENT – GLOBAL ECONOMY IN RELATION TO SUCCESS OF STPS.

Abstract

The word blog is a loan from English where it was originally an abbreviation of the word weblog. Blog is a general term for a large quantity of pages in the web environment, for which the original Finnish concept was web diary, net diary, sometimes even weblog or log. This global and general concept has no genre of its own, it is culture bound and in the early stages of its innovation process. Often it is characterised as new media and used in communication, companies and many institutions as a part of their interest group relations.

The bloggers of the web community form a blogosphere or a blogostan. Today, there are about 50-70 million active information producers in the global blogosphere and the number is growing by about 10 000 every day. In the economy, the blogosphere is close to the network or cluster economy as an interactive, multidimensional and multicultural process that is constantly changing and expanding. It can be considered the largest global factor related to innovations and their diffusion for the web environment, the individual person, the community, society and the economy, as well as the largest social and cultural phenomenon since the birth and spread of the internet.

Blog and blogosphere research in the web environment can be divided into the following tasks:

1) The research tries to identify a set of tools with which the scientific community can operate in the new web environment in a creative and innovative way. The aim is to create new global sense of community at the same time and to look for means for enriching the multicultural capital unlike the more traditional media environment that distributes information in one way in a hierarchical manner.
2) The second task is related to communication that can cross cultural borders and is not hindered by hermeneutical thresholds or the cultural practices of producing or receiving information. Answers are sought to the question of how the new web environment shapes sociologically and spatially in the new information economy.
3) The third set of tasks studies the structures of blogs and the cultural differences between them as well as the global variance in producing and receiving the information of the web environment. At the same time, the differences of the web environment compared to other organisation of society, networks and the producer-consumer structure are deductively studied.

The research material is from 2000-2006. The newest material is wholly related to media and blogs and the differences between these. The material acquired earlier mainly interprets the network and cluster structures and innovation processes related to consumers and entrepreneurs, as well as the analyses, reporting and modelling of these. The methods include multivariate methods designed for processing of large masses of data,

factor and cluster analyses and structural or delphoi-type intuitive step-by-step processes. Multicultural and large materials have called for a deductive approach alongside and partly instead of the more traditional inductive view. In the future, "hard" methodology of sociometrics must be increased as well as a grid-type use of networks that draws from it. This applies also to other research on the methods of planning in understanding the web environment and in cross-scientific study, but especially to expertise and modelling of regional and quantitative geography.

In rural studies the web environment is an especially wide research topic and in innovation research alone it covers targeted innovations, process innovations, organisational innovations and market or marketing innovations. Web environment research naturally covers all diffuse processes of rural areas concerning diffusion models, communication models, interaction models and network and cluster models. The web environment is the most important rural development target in all key sectors of innovation policy: technology-based, science-based, cost-based, customer-oriented or generic innovations as well as innovations based on regulation. Innovation in the rural areas is mainly pragmatic and mechanical whereas in the web environment it should be mainly processing and constructive. Rural areas should be directed into the permissive direction of the divergent process and in the direction of reflective radicalism where the web environment provides the final release from the boundaries of regionalism.

Blogs do not appear as a complete and organised system in the network consisting of known networks or operators. For many active blog producers it must be already important to realise that the web exists. For companies, the blog is a means to link one's already established networks to a loose and interactive environment free of hierarchical responsibilities. From society's point of view, this is a task to be urgently managed at the phase where we move from web 2 to the next phase that bypasses broadbands and introduces various, as yet little known social, economic and psychological effects of the new web environment, but also policy factors.

The blogosphere resembles the cluster in many ways. It is often problematic to observe this if one only acts as a producer of content for a blog. Official and unofficial links as well as mainly immaterial network links are involved. The blogosphere was born largely on the basis of non-economic relations of the traditional network economy, consequently, the significance of informal contacts and the measuring of these was paid special attention also there. The neglected parts of the "hard" method expertise of societal research have diverted us from the topics where the mere language of technology is strange for use in the near sciences and the cross-scientific aspect is not realised.

The blogosphere is a network of networks, in the same way as a grid has been visualised as the data network of future data networks. Together, these form a kind of a global meganetwork. In the blogosphere, persons participate in the activity as individuals and with their whole personality, not as reflections of a certain role or institution, culture or organisation. The sense of community manifests itself there as in society in general, gaining constantly in diversity and richness. The full spectrum of life is realised already in many processes of the blogosphere. The web environment and networks (web 2) are only a product of computer technology, not yet their social and psychological process that changes the spatial world and cultures. This process is not know and this is an attempt to shed some light on it.

Whereas the traditional network or electronic media is a hierarchical process, the interactive blogosphere with at the most bidirectional messaging describes the relations

between persons. This functional network describes how the persons interact with one another and receive different roles of the global world there. This is impossible to observe if one was not born into the new technology and does not master its language, symbolism and the way to process in the field of new media by living in it and by recognising its own symbolism

When the blog is compared to traditional media the largest difference is in interactivity and in the degree of real time operation. Traditional media even in its electronic form relays "news" whereas the blogosphere creates them. Blogging and writing a piece of news, a column or a scientific article are different things and should not be confused. The blogosphere does not differentiate between the blogs of a researcher, an editor or anyone else by other rules than those of the evolutionary (cluster economy) process. Here, the blogosphere is "rational", multicultural and appreciative of its own, e.g. "creative class" for the innovation process. This appreciation emerges in a different way than e.g. in a culture that is purely pragmatic.

The innovation process proceeds differently in the web environment than in an environment characterised by one culture or process or reception of information. It is not guided by external factors and the factors enhancing diffusion are found elsewhere than in the original source of innovation. Diffusion does not happen in surges nor does it recognise spatial borders or cultural differences in the same sense as a traditional society, organisation or community does. In practice, the web environment changes all our traditional ideas concerning organisational research, but also our localisation theories.

Four large homogeneous main groups and two relaying groups can be created along the main axes by factor interpretation and by clustering of the factor points. The first of these is the diverging telecity innovator group representing the creative class, the second one a processing and sub-innovative but converging group of postmodern ramblers or flaneurs, the third one a pragmatic and harder group of intrepreneurs and the fourth one the group of gamblers that has the weakest morale. In addition, two large relaying groups emerge, where the values of eastern and western main cultures (postmodern theosophes and tourists) integrate into a kind of theosophic materialism. In Finland, the groups of the Helsinki area and large cities do not differ much from the rest of the blogosphere. Our own blogosphere is more homogeneous and is weighted almost entirely on the first factor. Also, it has more of the "ecological cluster" than e.g. in the entire global model.

Rotating the factors or engineering the variables causes less variance than the exclusion of major blog areas. The structure changes the most by excluding the European blogs from the model. Spatially, global variance is greater on the north-south axis than the east-west axis. In the processing and reception of information Asia is closer to Africa but in the production of innovation the United States and a few metropolis dominate, often with the width of the key cluster (creative class).

The processing and separation of information, its areas, interests and acquisition happen as a task breaking the invariance and are analogous to the protein synthesis. The process is extremely rapid, self correcting and easiest to understand with a social philosophy where the given laws are critically mystified, also in natural sciences. Behind the processes, there are conflicts of interest that direct behaviour, but also persons who are in principle free to act and behave differently and also to present latent historical possibilities.

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see also

www.mattiluostarinen.fi or www.clusterart.org

Global and local spatial diffusion processes and new blogosphere

General

The word blog is a loan from English where it was originally an abbreviation of the word weblog. Blog is a fairly established term for the multitude of pages in the web environment, for which the original Finnish concept was web diary, net diary, sometimes even weblog or log.

Blog is a general term for electronic communication, used by the large web community at its early stages of innovation. A commonly accepted genre for electronic communication is not even possible between cultures. The electronic publishing activity that began as a general diary has now expanded and gained new dimensions as have many other culture-bound innovation processes or innovation itself.

In Finland the blog is often seen as a new media or a new culture with intercommunication and networking as key words. The community formed by blogs and their authors is called the blogostan or blogosphere. It could as well be called the innovation or media environment and its diffusion in the web or internet environment.

There are more than 50 million active writers in the blogosphere and the number is growing by about 10 000 writers every day. From the researcher's angle the process can be characterised as a polyscientific, societal, economic, social, psychological and multicultural global network or cluster. Both technical network and sociocultural networking theories, economic evolutionarism and several processes typical of cluster structures in fields of innovation are involved.

In the economy, protoeconomy lies close to the process as does network and cluster economy. In this sense, protoeconomy means neoindustrial activity where most of the work is performed for development only, not much for reproduction which is represented by mass production as a routine activity also within the web environment.

In Finland, blogs have caught mostly media companies, such as newspapers and TV channels. For these, blogs relay an abundance of easy-to-read information about the behaviour of various consumer groups, also for use by the market. This also approaches the principles of protoeconomy and the bloggers follow the social and cultural behaviour patterns of a creative culture.

Blogs do not require the use of any specific tool or service. The blogs are largely maintained through a blog service or self-installed software. A blog can be written as a corporate or institutional tool for customers or interest groups, by companies to their personnel, by researchers or teachers to their students or to the entire cluster of their network. This seems to be the practice of the CEO:s of Finnair and Nokia, of nearly all our cabinet ministers or of F-Secure, who is a pioneer or public company blogging.

Research task and methods

The traditional channels and forums of science are often own publication channels of expert organisations and distant from the web environment, even when electronic. Often the complex and hierachical information does not reach the key groups of the innovation process. As a diffuse process, innovation is slow, random and far from the ideals of proto or cluster economy with its value chain theories. In addition, the web environment produces routines that do not increase the social capital of the work community and its interest groups, but more likely erodes it. This creates social "discharge" that has a negative impact on evolutionarism and the cluster. The web environment and its possibilities have been poorly researched and are known mainly through the development of its nets.

The technology of the information society and its sociopsychological effects have been widely criticised as have the processes that break up the social capital and social nature of networks. Companies and organisations have shortsightedly drifted away from the individual and his/her sociopsychological needs. Social capital has started to diminish and there is no tax payable on the damage here as there is on polluting the environment. This is erosion of social capital. It is not possible to create a new species of man along the technological development as a psychological, social and anthropological miracle. The web environment is not known and one acts as in a traditional organisation, media, network, society without the new fourth dimension of the web universe.

The study has sought means for finding tool sets for the scientific community to operate in a cross-scientific way in the web environment while producing a new global sense of community. The aim has been to find solutions that could enrich the multicultural social capital unlike the electronic communication tools in the media environment that distribute information in one way only.

The other task relates to communication that can cross cultural borders and is not hindered by hermeneutical thresholds or the ways of cultures to produce and receive information. Answers have been sought to the question of how the web environment shapes in the new information economy.

The third entity of tasks studies the differences between the media and blog services and the global variance in producing and receiving the information in the web environment. At the same time, the differences between the web environment and the other sociocultural producer-consumer structures have been deductively researched. Through this, methodical solutions have been sought, especially for innovation models on the web environments of cluster research.

The research material dates in part back to the early years of the Millennium and has been published e.g. as a doctorate thesis (Luostarinen 2005). The material has been increased by blog questionnaires and by processing large data quantities with multivariance methods, factor analyses and clustering of factor points. Delphi type step by step analytics has been employed for processing of the multicultural material with intuitive methods. Grid-type modelling and calculation capacity have helped in the processing of large data quantities. In innovation structures, the models are based on role structures and models for innovation systems originally recommended by IMA (Innovation Management Association) and SRI (Stanford Research Institution).

The use and diffusion of blogs has been followed for a year against paper versions of corresponding blogs of the Finnish media. The media practice has been compared to the international process and the feedback thereof. Altogether about 70 blogs have been produced out of which about 50 articles have been published in the Finnish media. The articles are divided into three different groups based on their current interest, regional extent and on the sectoral publishing employed by the media houses. In addition, expert articles and own blog responses to the blogs maintained by the media houses have been included.

The legibility of my own blog has been increased by including a home page, ample imaging and self-produced art. These have been linked to the new concept of cluster art while following the reception and diffusion of such concepts already from 2004 (www.clusterart.org).

Rural angle to the innovation process of the web environment

From the rural angle, web research or innovation research has been used only in rare cases. More common than innovation research is its diffuse research where rural areas are areas in

between towns or cities or areas within the influence of the centres. The same hierarchical thinking has continued in the web environment, where blogs represent the data distributed by the media in one direction. It seems that the real-time dialogue that is typical of the web environment and gathers together the networks and increases social capital is missing entirely in its global sense. In the world of relative time and place mass is considered the most important, not the intercommunicative speed of blogs (mc2). However, speed is the energetic and dynamic force here, unlike the critical mass as imagined earlier. The road from gravitation to relativity and the base of equivalence is still untravelled.

From the angle of innovation activity, the adopter types are separated as suggested by consumer research. In consumer-oriented thinking rural areas are experienced as natural resource environments close to entrepreneurship and left unclassified or the classification is targeted on regions and communities, the smallest of which are villages. In the web environment and blogosphere, however, regions and villages are not shown as separate units and rural areas remain outside the economic, social and cultural structures of the web environments, notwithstanding the typical concept of teleworking. Again, teleworking may mean any activity independent of place and related to a thirst for electronic information in the web environment. In this, a rural location has no advantages or disadvantages. In the blogosphere it is impossible to contrast urban and rural areas.

In the field of rural research, the angle of the web environment is especially wide, in innovation research alone covering targeted product innovations, process innovations, organisational innovations and market or marketing innovations. In addition to the traditional diffusion models, diffuse processes include communication models, intercommunication models, network and cluster models. In the web environment the angle is essentially different from the Hägestrandian outlook that relies mainly only on hierarchical models, cascade, and epidemic models, neighbourhood models and adoption models. Of these, the models for regional memory and social capital are close to the latter.

As the narrow scientific-technological innovation concept was adopted in Finland in the late 1970s, the estrangement between work, technology and social capital in the rural areas also began. As a sequence to this our web environment also started to deviate from the Pan-European and global structure. The blogosphere became a technical network with mainly hierarchical and even sectorally structured (economy, sports, culture, politics etc.) media houses as operators through either a regional (regional newspaper) or a social (fictional and manufactured news) process. The blog became the news media for the publishing house instead of being a multidimensional way of networking and being the news maker and event creator in real time while increasing and expanding social capital as a global process.

Our own national research programme on innovation policy divides innovations into six main categories: technology-oriented, science-oriented, cost-oriented, customer-oriented or generic innovations and innovations based on regulation. From the rural point of view, it is important to develop innovations in the web environment that save costs in the traditional fields and have an impact on the changes of regulation. It is relevant that the innovation types are linked to the development span of thefields of business but also to the opportunities provided by the global environment and science as well as to the input from the customers. In order to realise this, the cluster structure of the web environment must be set up in the right way. The task of the web environment is to pull together the structures that have separated from the community because of the diffuse innovation that was carried out in the wrong way before and amplified further by the present electronic media. This is the first thing to be realised concerning the ecological cluster and domestic production of energy.

Innovation in the rural areas is mainly pragmatic and mechanical whereas it should be processing and constructive. This is the way to access the innovations in the web environment and obtain the ability to receive them. In the web environment, gathering and adoption of information or the logic of the operational environment as a communication environment are not hierarchical, pragmatic or even mechanical events. Only the blogmaster can be linked to e.g. the traditional hierarchy of a media house and distribute information by using its operational logic, but not the individual users of the blog. A one-way blog will only increase the dichotomy that has been analysed already several times in our centre-periphery models and mother land - colony analogies.

In the web environment the innovators position themselves along the direction of allowance in the diverging process and along reflective radicalism. The networks are not bound to regional classifications or a rural location. However, it is possible to address the web environment networks as communities and they often also operate as such. Social capital grows unlike in the case of the hierarchical media house and in the blog of the publishing house, where the blog is the editor's own newsletter and the rest is letters from anonymous readers to the editor.

In the practical operation and pragmatic thinking, a converging way of thinking contrasting to a diverging way of operating can be separated in the blogosphere.
In this way, individual differences between persons are clearly more visible in the blogostan than in a "normal" organisation. There, the psychological and social is replaced by individualism. This would seem to favour certain cultures and at the same time regions as producers of their web environment.

Near-scientific past

Blogs and the blogosphere of the web environment are closely linked to networks, clusters and nets. The links between these and the blogosphere are addressed in more detail in a separate chapter below. In innovation processes, classification of innovations and innovators and in their role plays and diffusion the near-scientific past relates to the measuring of man's mental abilities and personality.

As the main rule, man classifies himself in dichotomically bipolar (extroverted introverted convergent divergent, conservative progressive) categories. Especially the typing of intelligence, creativity and talent and the problem solving models created thereof have been in the focus of interest. These models have been drawn up since the 19th century.

The longest stride was taken in the 1950s as a result of Joy P. Guilford's goal-oriented conduct and the pen tests for intelligence appeared in psychotesting. Most tests have been very good and they depict man's success better than e.g. many socioeconomic indicators, such as family background, education, work experience or personality. They are also reasonably reliable in the monitoring of the birth of the blogosphere and its results. They are even better for following the variance in the blogs that is produced by multivariate methods that combine the western image of man and the legacy of humanism (enlightenment philosophy and liberalism) with one of the main streams or clusters (factor) of a postmodern blog, mainly described as "spiritual materialism".

Interpretation of the birth of blogs and of their authors produces self-evaluation tests familiar mainly from personality inventories. In the best case, these also resemble intelligence tests and explain some of the variance of the clusters of the blogs, often caused by a new kind of "postmodern spiritualism" or fundamentalism. Fundamentalism is the result of compiling a multidimensional "theosophical" core from the various, especially religious, material in the blogosphere. Two extremities are created for the factor, one is near altruistic blogs whereas the other one seeks fragments pleasing to one's ego and narcissistic tendencies and supporting these from the palette of different cultures. In the Finnish material, the latter was named gamblers.

The social response style is emphasised in analysis of the blogs and in the delphoi. This social rationality reminds of the popular book on mental intelligence by Daniel Goleman, where, instead of intelligence, positively encouraging, easy-to-understand and politically correct social adaptation is measured; media sexy "social intelligence" that Thorndike measured already in the 1930s.

The American Leta S. Hollingworth paid attention to extremely intelligent children already in the 1920s. According to her observations these children developed more social problems, deviating behaviour and resentment of authority than their age group in an environment they considered dishonest or unfair. In many cases, this was a convergent way of directing and submitting as well as rewarding for performance that was far from diverging and creative intelligence. When school did not reward them or there was little challenge, this led to laziness and an atmosphere of opposition. Leta Hollingworth was the first to describe an innovative personality and its emergence. Today, the "tin drummer" of Günter Grass can operate directly in a web environment, the breathtaking flight shows of Jonathan Seagull always find their audience and a creative class may be born in the slums as well as on a university campus. Different creativity is called for in a slum or on a desert island from the creativity required in putting together a thesis. All of these skills find their use in the blogostan.

Innovation and innovative personality mean different things in different cultures and also in blogs. Computerised testing has greatly increased our knowledge and the testing methods of today are more precise. They provide a good basis for examining the birth of the blogosphere and operate considerably better in prognostive methods than many analogue models from biology or physics. Thus, sociology and social psychology make a valid processor together with the technical and natural sciences that interpret the networks.

Relation of the blogosphere to traditional networking

Blogs do not appear as a complete and organised system in the network consisting of known operators. For many active blog writers it must be already important to realise that the web exists.

For companies, the blog is a means to link one's already established networks to a spacious and interactive environment free of hierarchical responsibilities. Initially, only the market and the related competition are relevant between the companies themselves. In the field of media, there is a new phenomenon, often related to advertising, where Finland is only taking the first steps. The large search robots of internet publishers and information providers evolve in parallel with this.

The blogosphere resembles the cluster in many ways. It is often problematic to observe this if one only acts as a producer of content for a blog. Official and unofficial contacts as well as mainly immaterial network links are involved.

The start of the blogosphere was near the emergence of network economy (network management) at which time invisible factors relating to competitiveness and non-economic relations such as power and trust were already involved, but also the ability to produce information and to receive it in a way that favoured the innovation processes. The blogosphere was born largely on the basis of non-economic relations of the traditional network economy, which is why the significance of informal contacts and the measuring of these was paid special attention also there.

In the study, special attention has been paid on the continuity of contacts, and the regulated or spontaneous as well as unplanned processes, not so much on the formal contacts and contacts between the key persons of traditional networks, or the purpose of use or the resources.

From the point of view of the innovation process the number and variety of the blogs is interesting as well as the network relations and the quality of blogs, local and periodical fluctuation and the dynamic nature of the change. The relation of the blogosphere to the traditional network is different, especially with regard to its huge dynamic force, nature of clusters and multicultural know-how as well as with regard to the difference between the weak and strong ties created in communication. The degree of asymptotic freedom is entirely different from the traditional network and entrepreneurship.

In the blogosphere variation is not created by the forms of communication but by the ability to produce new information. The blogs are only rarely a narrow channel for commercially dense, organised and confidential communication, as in traditional networks.

The blogosphere cannot be studied as narrowly as networks where the research is often linked to the market or products offered by companies. In the blogosphere, especially the dynamic between the operators, the birth and duration of relationships, sociometrics and multidimensional matrices are studied. The relations in the blogosphere are not unidirectional (asymmetric, unilateral) or bidirectional (reciprocal, symmetric, bilateral). The relations in the blogosphere are at the same time horizontal (commensalistic) and vertical and refer to products and processes as well as to the exchange and distribution of information and of the product.

The blogosphere is a network of networks in the same way as a grid is the data network of data networks. It consists of various networks from exchange to communication and social networks (exchange network, communication network, social network). As they develop further the blogosphere and the grid form a certain kind of a global meganetwork. Information, network relations and nature, network operators, accessibility, passing of

information, the way to gather information, receive it and interpret it are variables that should be monitored.

Contact, interaction and link as well as social capital and its reserve are key concepts in the blogostan. The blogosphere has no common core but as in networks, connection, contact, interaction and communication, various degree of commitment, cooperation and companionship can be identified. A seemingly strong position in the blogosphere does not yet translate into strong "power".

The most natural way of interpreting the blogosphere is the process outlook that emphasises continuous change and evolution. With regard to a single blog this can mean a sudden surge of change. A single blog can also cause unexpected evolution or diffusion.

In the communication network, the same information does not result in the same change in every cluster of the blogosphere. In this respect, the traditional networks differ from the blogosphere completely.

The strategic aim of network thinking does not fit inside the blogosphere. For strategic networks, typical compatibility, commitment and trust of the network and the organisations are needed. Of course, value chains for directing external relations and operations can also be seen in the blogosphere.

Attitudes, emotions and knowledge belong to traditional networks. Such processes are often emotional and do not fit into the interpretation of the blogosphere. The blogosphere does reward participants that strengthen each other, not the ones that wish to live off somebody else. In this sense, the most innovative part is also permissive and reflective by nature, divergent and intuitively visionary as well as an altruistic "creative" class.

In the blogosphere persons participate in the activity as individuals and with their entire personality, not as owners of a certain role. In this sense, the participants bring their own structures of knowledge and emotion and their motives for sharing with the other members into play. Some travel as a tourist in the market or a flaneur in the street, a wanderer at the airport terminal looking for his web connection or as a gambler devoid of moral and ethical directions.

The blogosphere is often linked to concepts such as Timothy O'Reilly's Web 2. Compared to the blogosphere, Web 2 contains only the transition phase of business within the internet and its language is bound only to the structure of the network language. It does not represent multinational cultures and their symbol structures or the different ways of sending and interpreting the various languages and symbols of communication.

Compared to the blogosphere, Web 2 is mainly updates for old applications and does not depict the evolutionarism typical of a cluster in any way. It does not take into account the internal logic of the network of networks, polyscientific processing, the way of innovations to evolve as a technical, economic and sociocultural process.

The blogosphere produces new information continuously and is a different process from the mainstream in which 90 % of the users in the web community only consume the content of the communal service, borrows and vacuums, buys and receives often unknowingly or does not know what has been missed. In this opening, the innovation process is more demanding in the web environment than in traditional networks.

The sense of community as such manifests itself in the web environment exactly like in society in general, becoming constantly more diverse. It is not only based on being together, production and distribution of content, but also on increasingly more versatile filters, recommendations, friend lists or network services where nearly 100 million people are already looking for like-minded company or seeking for advice on their troubles. The full spectrum of life is realised already in many network services. Here, the blogosphere does not recognise social and cultural boundaries of the blogs, the birth place of innovation, ethnic differences, or age or gender limitations.

According to Paul Molenaar, the largest web publisher in Holland, "The stupidest thing the newspapers can do is to put the same editors to work on the printed paper and the web paper. The minds of the editors have been imprisoned by the paper version" (HS, Jan 21, 2007). The same applies to the internet generation that is stuck on wondering about the development of www applications and network dynamics.
Networks are seen as a product of computer technology instead of seeing their social and psychological process that has changed the spatial world and cultures.

A hierarchical network describes an organisation that constructs from top to bottom and sectors itself. This also applies to the media and its communication. A newspaper on paper is a product of its time and a hierarchical structure.

In a hierarchy the network relations are dichotomic and operate either down or up, in a hierarchical media in practice only in one direction. Thus, it is the most primitive form of communication and merely a network of contacts where information is filtered in one direction. It is not an interactive process even in the vertical direction and not realised in real time.

From the point of view of the blogosphere entrepreneur an interactive network is the structure on which the entrepreneur initially establishes his business. The network acts as its invisible support structure. If this support structure develops in a social field free of the web environment it is difficult to move the result into it later. The opposite of this is a business the birth process of which has originally been the web environment, a technology centre of a science community or a campus area at a university as a science park. Today, such "science parks" can be found anywhere without a physical link to their spatial environment.

Great variance has been observed in the internet use of various youth age groups. Whereas the 25 year olds work there the 19 year olds do already everything there whereas the 13 year olds live inside the internet. Only the children of the 1990s have fully adopted the interactive media where they can receive the content they want, reply to it, modify it and send it on. Blogs videos, My Space pages, home pages, photo galleries and electronic visiting cards are all popular media created by the consumers. The competition is now between perceptive digital images, blogs rich in content and new ideas. All this requires literacy in technology and in web entrepreneurship the ability to make web pages, work projects, code programs, write travel reports, photograph and lay out brochures, to do with one's own hands and transform art into cluster art.

The traditional network and one-directional media do not include the making of information and a product, the necessary part of the process concerning interaction. The web community and its young consider elections unnecessary because "ancient communities of real life", its politics and the way to influence are experienced as needless. There is no point in voting since it has no effect anyway or, in more accurate terms, voting does not feel like an interactive process, like network democracy. In the web environment the 13 year olds learn a process where they are heard and the process initiated by them are executed in real time. Why should they then draw the "red line"? They represents themselves in the real world of the web environment and in the global process. What kind of a political system or "party" would represent 13 year olds in the creative innovation process of the web environment and in the logic of its operating environment?

In addition to the interactive real-time operation, the driving opportunity and desire of the young to do, to be seen and heard lie behind the web environment. This burning desire to do creates global communities where fashions and styles are fragmented but still remain the same all over the world. Individuality and uniqueness are the common global value sought after by the top class pioneers of the creative web community. In practice, these little signs are also used for indicating how the groups belong together and are a part of the same telecity innovators' own creative class. In this way, one meets young at Somero and Sodankylä that are fans of cartoon characters that are published in Tokyo, or

correspondingly, one can find admirers of the tailored products of Finnish flea markets or of the national ski-jumping team over there in Japan. In some cases, an explosive change takes place here (mc2).

A youngster, business or organisation that was born in the blogosphere occupies an entirely different position and operates in a totally different sphere of interaction than the entrepreneurs of the traditional network or the young that were born before the 1990s. While technology has changed our operating environment it has also changed the social and psychological foundation of our operating culture. This is impossible to observe if one was not born inside the new technology and can master its language, symbolism and the way of processing in the field of new media while living in it.

Whereas interactive networks depict the relations between persons, functional networks depict how persons interact in relation to one another. In the blogosphere, the web entrepreneurs correspond to the various roles in a functional network.

Intercommunication improves contacts and common learning strengthens the ties between companies in the web environment. There, clustered business groups continually process something new for the consumer segments, the fragmented interaction system by copying the activities of the telecity youngsters.

The activity of the telecity youngsters continually changes the blogosphere in the web environment in an amoeba-like fashion and groups are not permanent structures. The innovators visit only once in some blog networks whereas others become permanent networks of the participating links and have significance for the operators.

Blogosphere networks (routes) should not be compared. They can be developed and directed by concentrating on the characteristics, symmetry and intensity of the roles. As innovators, the participants bring their own know-how and emotional skills into the network to be shared with others. In the blogostan it is impossible to leave anybody outside or to block the flow of information or new routes. Innovations are born and others disappear with equal speed. Some remain alive and a new route opens up or is introduced later.

The blogosphere is not a static network or an emotional way to receive or reject. Its moral and ethical structures do not correspond to the concepts of trust or sense of responsibility of the traditional network. In this sense, Web 2 and the blogosphere differ maybe most from the societal entity we are used to living is as a historical continuum and a part of regionalism, and used to seeking political compromises or to reading the daily papers while somebody discovers or finds a piece of news in an always hierarchical world that is late for discovering an innovation.

Editor's blog and pseudonetwork

The blogosphere is often talked about as if it were new media. The most important catalyst of the media in digitime is still freshness, real time operation and production of number one news in the flow of innovation news. News are a creative process and near the birth of the innovation process itself. A polemic innovation process typical of the science community and a constantly reshaping angle of view are also inherent to this.

Research and science need the media in popularisation and sale of its agenda. The competition in attention economy is as important for a researcher and his blog as it is for an editor. Which blog the blogosphere networks will trust is an evolutionary process. The same applies e.g. to a minister's blog in relation to the blogs of a political researcher or a political editor.

Blogs are not traditional hierarchical media but neither is the traditional way of science to report its achievements. Science with its institutions, conventions and dogmatic systems is even further from the web environment than the ever changing media. Especially in diffuse processes the media is essentially ahead of science and its publication forums. Instead, science and researchers produce the entire technological field and also the polyscientific innovation process that the young telecity innovators of the web community find themselves in the midst of.

The blogosphere and the electronic web environment cannot differentiate science and its "community" into a separate world with its own rules. If a scientist cannot publish in the electronic media now or in the future this is hardly likely to succeed in any of the more outdated media.

The blogs of the editor and the researcher increase the social capital of the blogosphere like the products of any of the millions of bloggers. Like traditional networks the intranet-type closed networks of the blog can gain added value and credibility from the researcher's data as a part of their interest group work. Likewise the blog with its promotional images may originate from a politician or a top athlete. Nevertheless, the traditional competition strategy is not suitable for the operation model of a company in the web environment.

The traditional and hierarchical editors' world is not suited for the blogosphere. Interactive entrepreneurship is based on the market but not on a contract. In the blogosphere the market forces decide the relations between buyers and sellers. Instead, cooperation based on contracts is not fully suited for an open and informal environment. In the blogostan, all usefulness that is experienced as important does not only relate to the basic business

operation but cooperation may be a means for achieving an aim that is even more important than this. For a researcher, personal appreciation, acceptance, friendships, a means to influence the core competence of the project ,or operation as a promoter, a visionary innovator or sometimes even a broker of his own network may be such aims. A researcher always embodies qualities that are linked to contacts between persons, ties and intercommunication relations but also to the potential top expertise in his/her field.

The blogosphere differs from network theories especially in that it will not disintegrate even if some of its actors cease to exist. The blogostan does not operate on anybody's terms, does not use the same values, has no common previously agreed aims or some other common "knowledge" that could explain its operation, cohesion, order and core know-how of the network. A researcher does not need to contemplate on the "format" of the blog or whether he is producing his blog article for the editor of a sector of a paper or magazine. If a sector editor feels like one in his/her electronic paper the web environment has been misunderstood in the interactive process of the youngster of the 1990s and it is difficult to read such a "paper" even for the ones born in the 1980s.

When comparing the traditional media and the blogosphere in the web environment, at least the following items should be emphasised:

1) Based on analysis of empirical material, articles with topical content or expert articles in line with the role of the researcher are suitable for hierarchical media and the blog almost without revision. Neither require interaction and also hierarchical information is sufficient for a medium.

2) Column-type articles that are topical but deviate further from the "everyday person" of the researcher are not suitable for the blogosphere as "newspaper items". The interactive process in the blogosphere creates an opportunity for processes that also produce results in cross-scientific creative work. This means that the content of a blog article must be much more carefully considered than that of a newspaper or magazine article.

3) Writings directed to the web environment innovators create a normal diffusion that spreads in a flash. To describe this in a newspaper or magazine article requires an entirely different approach and is presentation of the issue to persons who are strangers to the process itself and not even interested in it as such.

4) General articles that have no topical interest are most difficult to adapt to the two "worlds". The blog gains in depth and in new readers through these but at the same time loses in the dynamics of the process. The young innovators are not general philosophers. In a paper paper or magazine the article appears in a spot it is assigned in the summer when there are no other news. However, environment and science articles are read more than e.g. politics or sports.

5) Local themes are ill-suited for the blogosphere. Instead, they are naturally suitable as news and for the blog of the regional paper and the writer gets feedback. However, the columnist of the regional paper is not necessarily the blogosphere blogger competent in process work. The blogosphere is not the environment of a columnist.

6) It is impossible to fix or erase the processes and news of the web environment later. One can burn the daily paper and forget about the news, whereas the electronic web environment will remember and store the messages. It is worth putting some effort in the making of a blog or a homepage.

Innovation process in the blogosphere

The traditional media is not an innovation environment from the point of view of the researcher. The same applies to a scientific publication series even when it is electronic. Diffusion of innovation is not the same as its processing.

The blog is a method of many levels for working in the web environment. It contains all processing elements for innovation, but also an explosive channel for diffusion. At least the following observations are related to blogosphere research for 2006:

1) The method of symbol-innovations for spreading and seeking new forms is linked to cultural diversity. The process spreads from several "points" and it is difficult to pinpoint the original source.

2) Heuristic or hermeneutical interpretations of symbols open or shut multicultural material. The blogosphere changes and reshapes the original sources and the interpretation takes on sociocultural forms. Moreover, individual interpretations may arise from elsewhere in the original blog, e.g. from the content of the home page than from the message itself and its meaning.

3) Unlike in one-directional media, the interactive blogosphere does not recognise place and diffusion does not happen in waves. The elements that strengthen the diffusion are found outside the original blog or the area or culture where it originates from.

4) The blogosphere is always multinational and the process includes several levels of receiving and processing information. A blog may find its place in a very surprising section of the "puzzle" or from the way of the protein synthesis to seek for base particles. As a main rule, the process "disappears" after the task is completed. The relevant thing is that speed (mc2), equivalence base and Riemann's early non-

euclidic geometry are the crucial factors instead of mass (see key concepts, Riemann, Einstein)

5) From the point of view of the innovation process the web environment represents an environment that is foreign to public and hierarchical power, which means that innovation must be reassembled when returning it from the web environment to the late adopters. A blog that is later moved from the blogosphere to paper media is somewhat similar.

6) In the new innovation environment the public administration or organisation striving to "control" the development tries to explain the changes in its operational environment by external factors. The blogosphere of the web environment can be depicted as a market term of globalisation arising from the economic change, and this can be used to avoid the pressure for change in the organisations caused by internal factors. There are symptoms relating to the influence in drafting programmes when attempting to set guidelines for private and public effort.

7) A functionalistic view on the basic task of society is typical of false judgement in organisations. This is based on the inherited sectoral and hierarchical operation roles that aim at providing the operators in the web environment with a certain role from the "outside" for realising a public interest. Ultimately, this is not the role in which the organisation is placing itself in the web environment.

8) Cross-couplings between administration and business life were the western answer to web technology. The old tradition of regional "memory" is followed in the logic of change. As regionalism disappeared the innovation environments of individual organisations (operators) began to change first. The change in the operational environment on the macro level began to affect the regional operational environment of European societies especially. They started to identify counterparts to their "regional memory" all over the global placelessness, firstly through the blogs and the blogosphere.

Organisational relations to the web environment and the blogosphere

From the organisational point of view the web environment is often the generating factor for either material or information flows. Blogs and the blogosphere add the entire field of communication to this and often also social relations, new media and the most international part of the operational environment. This process seems to have at least the following direct results:

1) The old aims are used for influencing the activities that also generate the external links of the innovation activity or the key activities of the organisation (company).

Ultimately, the aims, purpose, operation philosophy, direction of activities, field of operation and organisational structure of the entire organisation belong to these.

2) The organisation (company) strives to predict and adapt to the web environment. It also tries to have an interactive effect there with the aim of changing social development to fulfil its aims. Before the web environment adaptation and influencing especially generated the external links of an organisation.

3) Before the web environment the aims of an organisation were fulfilled by owning, maintaining or controlling resources. Especially capital, knowledge, know-how, labour, innovation capacity and networks were to be controlled.

4) If the resources were very large the need to interact in the environment was very small. If there is great mass, less speed is needed (see mc2). The asymptotic freedom of companies began to grow in the network finally dissolving all friction in the web environment. Relative to speed, no mass was needed.

5) Before the web environment the companies managed their network relations in the negotiation economy. The need to control the limited resources grew in the immature early phase of the networks. In the web environment, the negotiation economy disappeared, however. The blogosphere has no reaction to the organisation's own decisions.

6) The organisation (company) could no longer predict in any way the effect of its own decisions on the operation of the web environment. Its private parts (blogs) had an effect on the process independent of the imagined result of the negotiation economy of the organisations.

7) In the second classic interest model the organisation's "own" interests and the aims of these generate different networks to society. In Finland such networks included owners, workers, customers, suppliers, the State and municipalities. The same model is often found inside the global web environment. It is the most common model.

8) In the web environment these interest group no longer represent the traditional organisational interest model in the network but information flows and communication, interactive relations. It is no longer possible to control these global flows and they cannot be generated from the interest of the classic intercommunication principle.

9) From the third point of view, the intercommunication of an organisation (company) and society was resource-oriented. In this phase of the innovation society, economy was directed by capital, know-how, technology, administration, office space, labour, raw materials, markets and acquisition areas. Resources still mattered in the web environment but only in its own economy.

10) Society no longer negotiated in a negotiation economy but began to steer resources by evolutionarist means by the internal market economy rules of the innovation process.

11) Evolutionarism (cluster economy) did not represent the interest of using power and governing by one's own decisions. It was only seen as a way to adapt to the constantly dynamic innovation environment.

12) In the fourth phase the organisation (company) strove to achieve a status related to external networks where it could fulfil its aims in the best way possible. The status in the network achieved by the organisation (company) was also a resource the continuous maintenance of which was expected to create dynamics that would generate new flows.

13) In the web environment even the localisation advantage disappeared and finding the optimum location became a stress in the form of a vicious circle in the innovation environment imagined to be diffuse. Natural resources and the ecological cluster suffered the most from this, localisation according to sustainable development.

14) The web environment is not a negotiation or interest environment nor is it a location model depending on resources and looking for local operation models.

15) The web environment and the blogosphere are not included in any of the organisation cultural fields of operation we recognise nor should it be defined as such.

16) The researcher and science find science-based networks and production complexes in the web environment and the blogosphere. The need and use of these are facilitated in the field of innovation through the science community, not through the organisations, networks or clusters of the traditional interest or negotiation economy.

Factor interpretations and clusters of the web environment of the blogosphere

It is possible to divide blogs by factor analyses into three or four factors that make sense from the point of view of interpretation and into several homogeneous groups by cluster analyses of the factor points. The chosen number of variables affects the number of factors and groups, whereas e.g. the exclusion of large areas from the analyses does not have so much significance.

Delphi methodology and the a prior model typical of deductive research have been used in the interpretation of the emergence of the clusters. Naturally, the results are cross-sections of an extremely dynamic process the birth and spreading of which were at an early stage of innovation at the time of study.

In the future, the vast extent of the blog environment and the quantity of observations require that the analyses be linked more closely to grid processes and that the individual groups and intercommunication relations be charted in detail. The models and hypothetical structures currently available do not correspond to the social, economic and cultural birth phases of the process or the dynamics of its development. Application of the quantitative methodology of sociology has been too rare in order to get sociometrically updated and reliable real-time data of the vast materials. This should be urgently remedied.

The experts of the early end of innovation with good knowledge of the web environment are charged on the first factor of the blogosphere. These bloggers are well-educated and close to the metropolis. Even the world's leading innovation concentrations are visible in the cluster solutions. However, the first factor is not the same as the concentrations of content production for the internet and its twenty or so US or European nodes. These are visible in the grouping of the factor points and undoubtedly play a role in guiding the entire factor solution. The global "World in Flat" described by Thomas Friedmann (2005) will be realised and will shrink equally the information work. Nevertheless, the production of information as a process with content and as logistic solutions or new great realisations, is concentrated.

The first factor could be named as the web environment or blog factor of the western information producer or of the consumer. It explains nearly half of the structure of the entire analysis and is probably largely due to the concentration in the US and in a few European metropolis. When rotating the factors or changing their quantity the charges naturally change but the most central dimensions and clusters still remain relatively stable.

The first factor also includes ecologically sustainable thinking and the norms and softer values of social capital (see Luostarinen 2005, pp.167-170). In the innovation process the blog clusters close to the first factor are found nearer the diverging and radical dimension. The deductive a priori model of the research is thus realised as expected.

From the point of new media, the process comes close to the Finnish media culture where factual data is valued. The relevant issue in the emergence of the first factor is the interpretation of the process at the early end of the innovation wave of blog maintenance and production. Even after a few years, this result could be completely different.

In the clusters (homogeneous groups of factor points) the "telecity groups" (for concept, see key concepts) are the most important of the groups of the first factor. The largest consumer types of post-modern society (tourists and flaneurs) have moved onto the next factor. This leads to an interpretation of the groups whereby active information producers (content producers) and consumers that are mostly surfing are already beginning to drift

apart. Since this development is likely to become stronger we should invest as a nation into studying the content production for the web environment in our key clusters. At the same time the operation of these organisations in the web environment should be conducted as clusters with more   focus on business and organisation innovations and the ability of the creative class to make the web environment more "open" also as aesthetic processes.

The second factor is the other face typical of the method or the mirror image of the first one. More aged and wealthy consumers and information producers are involved. Entrepreneurship and participation by society are weighted more than in the previous factor and the web environment as well as the blogosphere are also often seen as an entirely new form of economy. The differences to the previous factor are mainly evident in the values which are harder than in the first factor. The clusters of the second factor do not have the group commitment of the first factor and hardly any norms for social capital can be seen. A suitable name for the second factor would be the group concept of the more mature and wealthy gatekeepers of the new economy. Altruistic values and values of the young begin to be replaced by "greedier" and egotistic ones.

In the cluster analysis the "telecity bloggers start to shift towards the fundamentalist gamblers or intrapreneur groups. The large metropolitan areas can be spotted also here. The cultural diversity is visible in the shift of the clusters towards a certain kind of "theosophical materialism", where the same operation mode leads to a seemingly unexpected end result. Representatives of the same factor from various parts of the world do not necessarily belong to the same cluster. "The wanderer" and "gambler" act almost in opposite ways although they are included in the dimensions of the same factor but belong to its opposite poles (for description of the groups, see key concepts)

When studying the clusters of the web environment the first truth should not be trusted and taken for granted. The ecological dimension that is more familiar to us Finns separates from the first factor already in the third factor. In this dimension, even the concept of "telework" is understood in a somewhat similar way than in our own system of concepts. The web environment is an essential part of life for this "green" value chain and it is associated to be near the new media. Content production is a part of social processing involving also entrepreneurs acting as promoters. Innovative visionaries are closer to the fist factor and its telecity group.

When reducing the variables that correlate with one another in the first factor the result is a fourth factor. This is born mainly from the first one and describes a marginal group where the education of the respondents is lower and the web environment less known, even a little frightening. It dissolves the "conflict" of the first factor of experiencing the social environment in the net as strange on the one hand and as essential on the other. The

phenomenon is described in sociology and modern anthropology, sometimes perhaps mistakenly, as a main group of the postmodern society where it, as the largest cluster (tourists) experiences on the one hand the need to commit but on the other hand also the need to escape from one's surroundings, the home that is seen as a safe haven and a prison. In reality, the group (cluster) is split when clustering the factor points or when removing correlating variables and it is not even the largest or dominating group in the new web environment.

The share of the fourth and possibly of the third factor in the degree of explanation for the model will most likely grow as the process develops and involves the late adopters of the innovation process. Such groups are especially postmodern tourists and flaneurs but also the theosophical materialists diverging from these.

The changes are smaller when the variance in the variables is adjusted than when large areas of the blogs are excluded. When the Europeans are wholly excluded the "place" of the factors is in a way changed and business economy rises to the top, the significance of the work community as a part of the web environment and at the same time the media environment shift onto the second factor. The ecological environment is still important but its significance is somewhat different than in our own system of concepts. In the delphi it is distinguished as a data gathering and processing system that is not so very pragmatic or converging in the creation of synergy as our own system of concepts. In this way, a seemingly similar symbolism may easily lead to misinterpretations in the culturally diverse web environment if intuitive or structural interpretation methods are not used along empirical processing of the material.

The change in the interpretation of the web environment communicates mostly about the differences of the European (eurocentric) in comparison to the Asian and American (including South-America) innovation environment. In the European innovation environment, the focus is visibly on ecological values and significance of social capital (norms), whereas harder values are stressed in the American and Asian innovation environments. When analysing this it must be remembered that the cultural understands our own symbols differently from where we ourselves have placed our interpretation of "the only truth".

When studying the blogosphere a single blog resembles the media or a movie, where we combine pictures, music and image captions to our own images and advertising slogans as well as to the often manipulative world of the entire web environment. The researcher's blog does not differ in any way from other information flows and from the multidimensional world of web environments in this comprehensive process.

The Finnish model is not essentially different from the basic model of three factors. The Finns are familiar with the web environment and consider themselves as pioneers also in the creation of blogs. The first factor is urban but not much linked to wealth or gender. The model is homogeneous and as such almost dominated by one factor. It also tells us about the nature of the innovators of the starting phase of the process. Creativity, education and the strong influence of the media environment are visible in the bloggers. The web environment and its possibilities are a part of a great "expectation" or "possibility", but also of an ecologically sustainable economy.

Outside the EU the first factor shows clearly more polarisation, more differences in wealth, expectations of a new form of economy and entrepreneurship. Social capital and ecological issues move mainly to the second factor dimension. The web environment and its blogosphere are a part of the global necessity, privacy and private economy, entrepreneurship.

The clusters of the blogs are more homogeneous in the east-west direction than when moving from north to south. In Europe it is possible to see differences that emphasise the borders between Old and New Europe. The groups emerge as "packages" previously considered more the products of small cultures or subcultures. Actually these are large cultures previously regarded as minority cultures. Now, these cultures represent a kind of spiritual package or capital of diversity in the blogosphere. Thus, one main direction emphasises individuality the history of which is in enlightenment and a self-generating image of humanity. It defends the legacy of humanism and opposes authoritative systems and guru threat scenarios. The values include pragmatic materialism and acquisition of information is formal and empirical. Innovation is mainly mechanical.

Groups that are characterised by the search for compromise are created as the opposite pole to this conventional materialist or intrapreneur. These "fundamentalist gamblers" seek the one "right way". In this process all roads ultimately lead to the same "right" goal, if only we try hard enough. In practice this "travel package" is in the midst of the gambler's own morally loose game theory of the possibilities of the web environment, in a multicultural chaos. With the help of innovators (telecity groups) these find the solution easily and exploit it for their own aims. The process does not solve the gamblers' own, often immoral aims or the strategy of the game, nor can the results be blamed on the creative classes, independent entrepreneurs, innovators or promoters of the web environment.

The postmodern "wanderers" form a group of their own. The theosophical materialists differ only slightly from these. Both accept all traditional and old culture as long as no commitment is required of them. Whereas the fundamentalist gambler demands his own

rules for everybody and all roads ultimately lead to one end, the theosophical materialists and the wanderers do not commit themselves to any of the multicultural doctrines. As the former commits easily by the "rules of the game" and without moral or ethical strains, and trades the rules of the game for a new hopeless game if needed, the latter has stricter moral principles and does not commit himself to anything that might look incriminating. These "wanderers" are interested in one great truth but do not commit themselves to any in the world of many values.

The theosophical materialist differs from the wanderer mainly in the direction of the first factor. The group has many subcultures the birth of which is described by the ancient (1970s) hippie movement. These are now transferred into a large culture and seek cultural diversity by combining fragments of the main cultures. This creates a theosophical impression with the products of the hindu culture and western materialism as the most visible features. The aim of the process in the delphi is to achieve something that always comes as an external change or solution and often as a material product, achievement or aim. In this way, life becomes ultimately more harmonious and safe through achievement or imagined development.

In the delphi the flaneuring surfer is seeking interaction in his web environment where postmodern means and doctrines are an aim for changing the tradition, history, global moral rules and norms to an entirely new form or shape important to the present day. In the fictive state of the web environment, tradition, space, community, family and body are redefined. Thus, all that is traditional can be reprocessed in any which way in the multicultural. The phenomenon comes close to "telecity" deductions, but without any tie to one's own new culture and its emblems. The result is an extremely open economy and constructive individualism, the ability to innovate organically.

Telecity bloggers are the most innovative creative groups of the multicultural blogosphere. The groups are at their purest in artificial surroundings in the hearts of great metropolitan areas and e.g. in the United States most visibly in Washington, Chigago, Los Angeles, San Francisco and Manhattan, New York. The intuitive visions and networks of the web environment of this creative class are easily recognisable and they recognise each other easily. The language of technology alone distinguishes them from other groups as diverging radicalism touches "moralism" from time to time. However, moralism is more a part of a fantasy than a piece of game equipment for the fundamentalist theosopher. An exceptional ability to diverge lies always in the background but also ecological values and a certain radicalism or at least permissive and reflective work methods. Openness of the process and its ability to see the television or computer screen as a fictitious challenge and a neutral fantasy media, a source of immeasurable imagination, separates the groups into their own units in all cultures and leaves no room for error.

Interpretation system for the blogosphere and the web environment

A blog receives and sends information through three media. These can be called methods or systems for either *1) area of information 2) interest of information or 3) acquisition of information*.

In the web environment information expands our ability to *shape and control the environment* in the blogostan. In our own culture this is associated to be close to empirical-analytical sciences and the technical interest for information. This reflects the historical development but also our own choice to focus our innovation system on the scientific-technical already in the 1970s. Our own culture and reference system creates the rules for observation but also for the formation and verification of generalising theories.

Another area of information in the blogosphere and the web environment has to do with *interpretation of information*. It gives the meaning and sense for a multicultural phenomenon and enables direction of social activity along the lines of the assumed general understanding. This sense of the universe is perhaps the most common among us and corresponds to the historical hermeneutical research tradition. It is a kind of an understanding interest of information where it is assumed that activity is created in the blogosphere and in the web environment instead of observation that was claimed earlier. We do not rely on observation as a means of understanding but on the meaning. Meaning is more important than observation and more reliable in this understanding interest of information that deals with multicultural material.

The above leads to three results for interpretation of information:

1) When clustering factors and their points the latter process is essentially more important than the former at developing economies. The former, again, has to do with pragmatism (see key concepts) and is closely linked to our own culture, whereby it is not very feasible in the interpretation of the web environment of the blogosphere.

2) In practice, the understanding interest of information is related to the interpretation of language in our culture (science). Thus, the rules of hermeneutics define to us the meaning of human scientific arguments and their content and reception also in the web environment.

3) In the web environment, empirical-analytical cultures (sciences) strive to open the blogosphere and their networks from the angle of rational causal relations of human activity. Correspondingly, historical-hermeneutical cultures (sciences) open

the blogosphere as a process starting from the conceptions and intentions of information and activity blogs. The latter innovation processes do not open much as real-time and interactive processes in our culture.

The above relates to the way of the blogosphere and the web environment to predict (see key concepts), to search for scenarios and in the diffusion of the innovation process to verify information and its control. In practice this happens by increasing mutual understanding between the blogs. In the web environment, blogs are the ONLY media in the global economy where explanation is replaced by understanding. In the blogosphere the understanding interest of information and its clusters (groups of factor points) become much more common when moving from west to east. The same happens when moving from north to south. Basically operation by China in e.g. Africa is much easier than e.g. by the United States or France. This is not only a question of the imperialistic tradition or the wrong medicine to the right symptoms. The difference between the starting points of the West and China is visible already in the way in which the African states present themselves on the internet pages. The Western view is of people in distress whereas China is a business partner and its effect reaches even the traditional countryside. For Africa, China is not only an example of a rising state that decides where and how it adopts ideas from the outside and innovations also at the level of organisations, which is why the web environment favours the Chinese in Africa even at the practical work in the countryside. As a new process and culture the web environment is organisationally "easier" for rising and developing economies than for the strongly organised western cultures. The web environment means a new deal of power and it slows down the processing of innovation to the West as other than a technological network.

The third area of the web environment is related to the **differentiation of knowledge** between the blogs. Based on this third factor, the blogosphere evaluates the ruling "social" setting of aims. Thereby, the pragmatic information producer is involved in an interactive process in the web environment. In this process, the blogosphere evaluates and differentiates laws of the existing culture or society and the dependency on e.g. power as well as on the concepts considered as obvious truths and on the unspoken aims behind them (norms, values etc.).

Differentiation of information takes place step by step in the blogosphere:

1) In the web environment the initial aim is for a **role that breaks invariances**. At first, this happens at the most innovative end of the clusters and as the result of an intuitive process (see key concepts) resembling the previously described "Oracle of Delphi". In this sense, the blogosphere represents a highly developed product of global evolutionarism and the ability to undertake corrective manoeuvres "in a democratic way". The phenomenon comes close to the critical mission of science described already by Galtung (1974): Science as invariance-seeking and invariance-breaking activity. In a more romantic sense it resembles the ideal of the philosophers' world described by Platon, where the production and diffusion of innovation in evolutionarism lie in the background of the process.

2) In blog-type processing, the global interpretation of the web environment is self observation of humans. Every interactive participant has to differentiate his answer with the tools of argumentation (delphi), which makes it possible to disintegrate any false laws. A clumsy analogy can be found in psychoanalysis. The "latent" forces of the blogosphere generate negative behaviour patterns that are undesirable or experienced as such in people. In these cases, the task of the blog is to introduce the hidden powers behind the behaviour into consciousness, which results in the blogostan gaining control of its behaviour by rechannelling the forces that affect its behaviour. Also the epigenetic (see key concepts) gene is suited for an analogy. It is restored into activity through an already operative network (blog) by bypassing the inoperative or traumatised blog.

The above process is executed in a flash and resembles the protein synthesis and organisation of the base pairs as an analogy. The immediate result of this is:

1) The critical network (cluster) of the web environment understands and interprets arguments and differentiation of cultural dependencies that are not immovable laws of our social activity but constantly changing or changeable interdependencies. The innovation process is again quick and also applies to organisational changes.

2) The technical interest of information immediately follows both the critical and the understanding interest of information and their clusters (networks). Organisation where the clusters "donate" their key innovations for realisation of the process takes place. Technically the process happens in a flash and requires no outside guidance or control. There is always a vast amount of extra capacity and resources in the clusters for any task of the web environment.

3) The nature of the web environment blogosphere requires that internal communication involving common cross-scientific support systems be taken care of at the top end of the innovation system. Thus the original meaning of the

information appears not to change even when relaying the information in real time in a multicultural web environment.

In the delphi of the web environment the sometimes very different interpretation systems of various sciences were experienced as problematic, because it is possible that the mutual understanding between sciences is not realised and the blogosphere with its lay members receives false information or is forced to open the information through the wrong interpretation system. Again, the analogy is drawn from biosciences. A corresponding problem was encountered with the ecological cluster, where an explanation for the social phenomenon was sought from the content of technical information (Luostarinen 2005). For this, it is assumed that consumer behaviour can be explained causally as a result of external reasons. This same misconception was often seen in the delphi of the blogosphere and resembled Markovic's (1971) old view on arguing for research interests.

The way of the blogosphere to resolve the process follows again the multicultural structure of the clusters:

1) In the first phase the critical part of the web environment assumes that technical knowledge and the interest for information based on it lead to behaviour that resembles objects of nature in some respect. Much of the logic of the web environment is borrowed from man's biological environment. The solutions have developed furthest in cases of evolutionarism of the DNA structure and the answers come from the United States.

2) Quoting Markovic the justification for these assumptions comes from the conditioning of the dominating ideas and norms of the blogs. The blogosphere starts to operate initially guided by nature and social environment, cultural tradition, old habits etc. Markovic supposes correctly. The norms that dominate initially come from the United States.

3) In practice, the delphi forecasts begin to be inferior even when they seem technically exact. The reason for this is the extremely rapid change in people's consciousness in the other clusters of the blogostan.

4) This leads to real-time changes that radically affect the permanence of the blogs or leads to continuous emergence of new factors that change the logic of the blogosphere, during which the law still applied. As an analogy the virus continues viable and the medicine has not helped. A quick new protein synthesis is looked for.

5) The most problematic phase can be passed by using the operation logic of the peak of the innovation environment. The nature of the problem as well as the level of know-how required by it are crucial aspects here. Conventional groups and "flaneurs" are confused again and again by the changes in human behaviour as well as by the performance capacity that happen "under the surface" of the processes.

6) It is often forgotten in the web environment that the laws that govern there reflect conscious relations between people, not technological or economic issues. The learning processes, tiring of old models, mass movements etc. that are created through blogs are typical of human behaviour. There is nothing eternal in the "laws" that are thus created. The blogosphere and the web environment are easiest to understand with a social philosophy where the given laws are critically mystified, also in natural sciences and sociology. There are short conflicts of interest behind the processes that direct behaviour, but also persons who are in principle free to act and behave differently and also to present latent historical possibilities.

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