

ICT Driven Social Dynamics

Materials for Science and Policy Forum on FET Flagship

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Abstract

There are two ways where ICT *drives* social dynamics: co-evolution of technologies and society

One has to understand and to predict role of ICT for society development

One should model social dynamics by application of newest ICT tools such as data basis and supercomputers simulation power

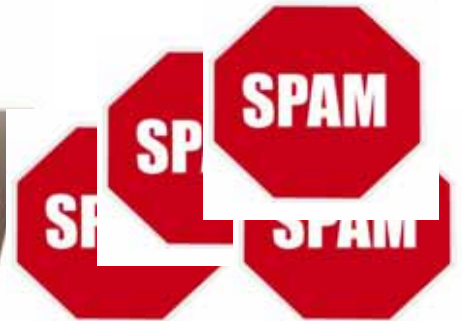
Methods / Disciplines / Communities

Data collection, data mining, socio-technological networks, artificial intelligence, complex systems modelling, computer scientists, social scientists, demographers, historians, philosophers, ethicists

Two examples of research streams

A) Preventing Information Pollution

Information in postindustrial societies is as much important as air, water or food.



We suffer from massive contamination of information sphere

- The target outcome is development of systems preventing information pollution and extracting **clean information** from noisy signals provided by ICT media.
- Understanding the role of information pollution in various ICT services
- Developing algorithms for information cleaning.
- Developing educational tools to prevent massive information pollution

Expected Outcome

- Development of a system extracting clean information from noisy signals provided by ICT media. End-users of the system could be ordinary citizens.

Expected Paradigm Shift

- One should start to treat pollution of information environment as a pollution of natural environment

Expected Impact

- The project will increase the social confidence and society trust in information quality provided by ICT media. The research will exert a substantial impact on:
 - single users that will be released from the overwhelming spam-like information,
 - market where a cleaner information on provided products and services will accelerate quality progress,
 - society that will be freed from being manipulated by misleading information.

Economic Impact / Leverage Effect

- It will decrease damages in massive information transfer and will limit time wasted for unnecessary communication

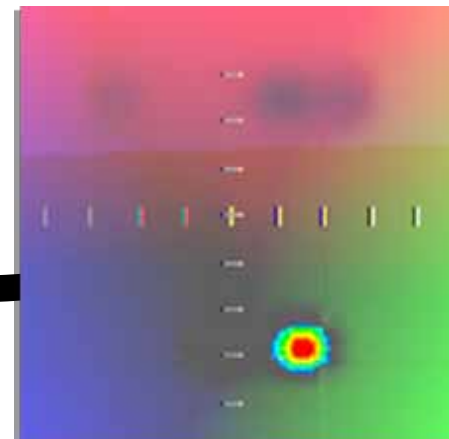
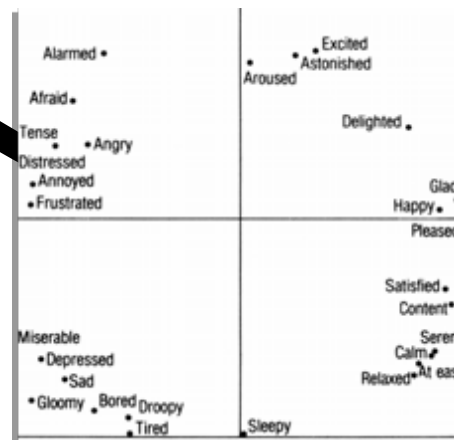
B) Affective Intelligent ICT-Systems

- Understanding role of affective interactions in ICT mediated communities
- Developing data-driven models of affects and emotions transfers in e-communities in Blogosphere, internet discussion forums, community portals and other social networking websites/services.
- Developing new tools for improving human contacts by taking into account human affects and emotions expressed in e-communication
- Developing new tools for improving human-computer interactions by taking into account human affects and emotions

Dialogue

A: "Bla bla"

B: "Blo blo"



Emotion (E_B)



Expected Outcome

- New programs for human-computer interactions and new services for e-communities that will take into account affective states of users.

Expected Paradigm Shift

- Inclusion of human affects and emotions as a new dimension in ICT tools/services

Expected Impact

- It will increase the quality of human-computer interactions and it will increase the quality of ICT services for e-communities by taking into account human affects and emotions.

Economic Impact / Leverage Effect

- It will accelerate development of new software and stabilize e-communities. Background for **emotionally-intelligent** ICT services, **cyber-tutors**, **cyber-advisors**.

