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How the Internet has improved our quality of life

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Abstract

The ongoing development of information technology creates new andimmenselycomplexenvironments.Ourlifeworldisdrasticallyinfluencedbythese developments.The way information technology is intertwined in ourdaily life raises new issues concerning the possibility of understanding thesenew configurations.This paper is about the ways in which IS research cancontributetoadeeperunderstandingoftechnologyandtheongoingtransfor-mations of our lifeworld.As such, the paper is a conceptual explorationdriven by a sincere and authentic desire to make a real difference in the wayresearch on how technology influences our society is carried out.The articleisbasedontheassumptionthattherearesomefoundationaldecisionsformingresearch: the question of methodology, the question of object of study, and,mostimportantly,thequestionofbeinginservice.Inthepaperweexploreandpropose a research position by taking a critical stance against unreflectiveacceptanceofinformationtechnologyandinsteadacknowledgepeople's life-worldasacorefocusofinquiry.Thepositionisalsoframedaroundanempi-rical and theoretical understanding of the evolving technology that we labelthedigitaltransformationinwhichanappreciationofaestheticexperienceisregardedtobea focalmethodologicalconcept.

Introduction;Theultimateconcernformostpeopleistohavetheopportunity andcapacitytolivea"goodlife."Whatmightconstituteagoodlifeis,ofcourse,asdifficulttodefineasitistocharacterizeabasichuma

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nneedsanddesires.Nevertheless,inthis paperwearguethatinformationsystems researchshould,asatleastoneofitsintent ions,createand

formulate knowledge that can help people understand and reflect on their place andsituation in the midst of an ongoing technological revolution.We argue that onepurposeofISresearchshouldbetoe xplore,experiment,test,analyze,exam ine,explain,and reflect on how information technology can be in service of the good life.Such apurpose,evenifvague,wouldstrongly influencethewayresearchiscarriedout .

An information systems researcher is always *in service* to someone or something.Ideally,asaresearcher,you shouldbeinservicetothetruth, andyoushoulddothisbyproducing true knowledge. Our contemporary research environment is, however, morecomplicated due to a long and intricate questioning of truth as the only objective andfinalgoal.So,tohavetruthastheclie nthas,overtime,beencomplementedw ithotherpotentialclients,leadingtoobj ectivessuchasorganizationaland/orpe rsonalefficiencyand improvement, or detailed technological solutions to more specific and narrow, realorimaginedproblems.

Wearguethataneglectofthe"big" issuesleadstoasituationwherepeoplec annotget enough help in their everyday struggle to understand and make meaning of theirrapidly changing *lifeworld.*Also, it seems as though people assume informationtechnology to be the solution for prosperity and continuous development, while at thesame time they hold technological artifacts to be a bearer

of something that contradictswhat they see as the core of a good life.So, while there is a strong general acceptance of information technology, there is also a fear that it will force us into a way of livingthatwecannothandleordonotrea llywant.

This is a real challenge for IS research.It is a challenge that demands a creativedesign of the very foundation for information systems research.Such a design can beunderstood as a *research position.*In this paper we propose such a research positionbasedonacriticalstanceagains tunreflectiveacceptanceofinformatio ntechnology.Wealso propose, based on that position, the notion of the *digital transformation* as a way offramingasuitableobjectofstudy,and theideaof*aestheticexperience*asabase foramethodologicalapproach.

ESTABLISHINGARESEA RCHPOSITION

Recentlytherehasbeenanintensif ieddebateonthestatusandfutureofinfo rmationsystems as an academic research discipline (Benbasat and Weber 1996; Benbasat andZmud2003;HolmströmandTruex 2003;OrlikowskiandIacono2001;Wa lsham1993; Weber2003).

Inthisdebate,twoofthemostdiscu ssedissuesare*thequestionofmethodol ogy*andthequestionofwhatconstitutes *theobjectofstudy.*Inthispaperwealsoa ddressathirdassumption— *thequestionofservice*— asmentionedintheintroduction.

It has lately been advocated that *being in service* constitutes a distinct kind ofrelationship (Nelson and Stolterman 2003). If such a relationship is taken seriously, anydecisionofwhoisthemajorclientest

ablishes a clear *position* for IS research, a position that makes it possible to see what the purpose of the research is as well as governs what should be studied, why it should be studied, and, perhaps most important, brings a value system from which the research outcome is measured and judged as valid or not.

When a researcher decides on how to relate to the three foundations—methodology, object of study, and service—a unique *research position* is created. Even though there are several kinds of positions in IS research today, we claim that the possibilities of positions are far from being fully explored.

The basic idea in our proposal is that the most crucial challenge for IS research today is the study of the overall effects of the ongoing digital transformation of society. The digital transformation can be understood as the changes that the digital technology causes or influences in all aspects of human life. This research challenge has to be accepted on behalf of humans, not in their role as users, customers, leaders, or any other role, but as *humans living a life.* In this respect we argue that IS research must accept the challenge to overcome the predominating "one-dimensionality" in the understanding of information technology (Marcuse 1964). The position we argue for is based on the assumption that the digital transformation is the core object of study for IS research. As such, IS researchers should, instead of examining information technologies as separable and as defined along one single dimension, consider them as being a part of a greater whole. This is also expressed in some recent theories framing technological develop-ment as information ecologies, collective intelligence, and actor networks, which are more sensitive to the various ways in which information technology is entering our lives (Feenberg 1999; Latour 1993; Levy 1997; Nardi and O'Day 1999).

The suggested position is also based on the assumption that the way to study the digital transformation demands a methodology capable of reflecting the relatedness of information technology to such a larger whole. We propose an approach influenced by *critical theory* with the notions of the *device paradigm* and *aesthetic experience* as focal concepts.

THE DIGITAL TRANSFORMATION AND ITS CRITICAL BASE

A central aspect of information systems research is the underlying technology providing the basis and ground for any information system. We all experience in our everyday lives that information technology becomes more common and present in almost every part of our doings. We find ourselves using IT artifacts at work, in our homes, and when we exercise our hobbies. The technology is not only manifesting itself through individual IT artifacts (such as computers, software applications, PDAs, mobile phones, etc.); it also blends itself into most other artifacts. As such, information technologies are increasingly becoming embedded in all other objects.

This leads to a world that is increasingly *experienced with, through, and by information technology.* What we are witnessing is an ongoing radical digital transformation.

One of the most important changes that come with the digital transformation is that our reality by and through information technologies slowly becomes more blended and tied together. Designed objects will be parts of systems and networks where they will, or at least can, be in constant communication with all other parts and objects. These new realities, new systems, are of course designed but, at another level, they can be seen as evolving entities, where local designs contribute to systemic changes in a larger network. The notion that every design adds a new part to our reality will have a new and truer meaning.

New artifacts are not just adding to what already exists; *they are also becoming indistinguishable from the whole.* An increasing problem is knowing where one context and/or design begins and another ends. The digital transformation leads in that sense to a world where everything is connected, almost in a way that is common in many spiritual understandings of our reality.

Yet another important aspect of the transformation appears as digital objects become the basic materials in our physical reality. When this is the case the physical reality will to some degree become intelligent. Designed objects will have the power to inform themselves and the network they belong to about changes and the status of their environment and actions taken upon them by humans and other objects. This adds a new dimension to the notion of the reflexivity of information technologies. The way humans experience their lifeworld, largely influenced by digital technology, is not as separate entities that might be user-friendly or not, but as a lifeworld, as a whole. To understand this aspect of information technologies and information systems will become ever more difficult. To do it by analyzing them individually and/or by using reductionistic methods will be impossible.

At the same time, the *device paradigm,* portrayed by Borgmann (1984, 1999), pushes us to an understanding of technology as providers of commodities, designed to grant our wishes without demanding any patience, skill, or effort. Rather, the world is taken up in an instrumental and effective fashion by technological artifacts and systems that are not designed to be experienced in an active and signifying way. The device paradigm leaves us focused on the outcomes that technology provides rather than makes us concerned with the way we experience reality as a whole. Information technology and the digital transformation seem to be the perfect tools for the device paradigm to be manifested.

In such a paradigm, according to Borgmann, there are important concerns and values that are being threatened, concerns that are necessary in order for people to live a good life. Experiences of what it means to live a good life are, of course, both infinite and complex. They are also experiences that are analog to their character in that the world is experienced as one and in a continuum. In such experiences, information technologies are not separated from anything else but seamlessly interwoven in a complex and complete web of meaning. To researchers with the ambition to understand the ways in which people create meaning of their realities and how information technologies transforms this process, this creates several challenges and oppo

rtunities.

One challenge inherent in the digital transformation is that information systemsresearchers today need to develop approaches, methods, and techniques to the study ofinformation technology that are not based on an analytic and reductionistic stance.Another challenge, as a consequence of the device paradigm, is to take an *active stance*against a development leading to an everyday reality dominated by commodities, i.e.,technologicalartifactsasdescribed inthedeviceparadigm.

Intheattempttotakeupthischallen geweadvocatethenotionof*aestheticex peri-ences*as one possible conceptual candidate to further advance.While traditional ap-proaches are suffering from the fact that the more complex reality becomes, the moretime is needed for analysis, an approach based on the notion of the aesthetics experiencemakes it possible to take the whole and the immediate into account and to deal withcomplexity and meaning-making at another level.Sinceinformation technologyis partof people's experienced life, their lifeworld, the aesthetic experience becomes a way tomeasuretheirunderstandingoftheirlif einrelationtothegoodlife.The critical stance expressed in the use of the notion of aesthetic experience is acreativeandradicalapproach,aiming fortheinherent*potentiality*ofinformat iontech-nology(Marcuse1964).Webelievetha tafocusontheaestheticexperienceison ewayto find and explore creative abstractions that reveal reality in new ways.As Marcusewrites,

Suchabstractionwhichrefus estoacceptthegivenuniverse offactsasthefinalcontext of

validation, such " transcending" analysis of the facts in the light oftheir arrested and denied possibilities, pertains to the very structure of social theory.

If we accept the challenge that we as information systems researchers have to grasp theway information technology changes people's lifeworld, we need conceptual tools thathave the necessary scope and strength.We believe that the concept of aesthetic exper-ience,asdevelopedwithinthephilosop hicaltraditionsofcriticaltheoryandpra gmatism among others, is a suitable candidate.Of course, it has to be further developed as atheoretical tool, but this may be more as a fundamental methodological approach. Thisworkisnotdoneandwillbeamajort askinthedevelopmentoftheresearchp ositionwearesuggesting.

TOWARDA RESEARCHPOSITION

One of the assumptions underlying our argumentation has been that there is a needfor a critical stance, a research approach that advances the idea that technology can becriticallyexaminedinthesearchfort hegoodlife.Wehavedefinedsucha researchpositionasbeingmanifestedb ytheintentionalchoiceanddefinitiono f*methodology,objectofstudy,*and*serv ice.*Withoutneglectingothercommonl yheldpositions,wehave proposed one research position as especially needed today when digital and devicetransformationsarechangingth eprecondition forourpossibilitiestolivea goodlife.We believe that

information systems research is better suited than most other academic disciplines to take on this position.However, as long as research in our not taking this as a serious challenge, the outcomes continue to be an efficient supportoftheongoingdevicetransformationleadingustoaplacewerewemight notwantto
go.

Our work has been guided by a desire to take on the big issue by taking seriouslythequestionof*beinginservice*ofpeopletryingtoliveagoodlife.Itis, ofcourse,toogrand a project for a single researcher or research group.At the same time, asresearchers, we cannot yield to the important issues because we believe they are notresearchable. The overall issue on how information technology, on a fundamental level,influences our lives is maybe the most crucial issue today. This paper is an attempt toestablisharesearch positionsuitableasastartingpointfor suchstudies.

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