

Social Transformations of the Internet

A Study of Social and Textual Dynamics

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The starting point for our project are new developments in the ongoing *digital interpenetration* of contemporary culture. The digitalization of social texts and mediated information implies a corresponding textualizing and socializing construction of digital media technology, particularly Internet. This intensifying dual tendency has now brought Internet as a social and cultural phenomenon into what may be termed the Third Phase.

Phase I was characterized by a complicated, command-based interface, alphanumeric information, and use confined to very small groups. Phase II dawned with the introduction of WWW in 1991 and that system's take-off in 1993, which generated widespread interest in Internet among commercial actors. The interface was improved and made significantly more user-friendly through the introduction of graphic conventions. New forms of communication such as IRC and Internet radio became available, but WWW was still one of several standards of Internet functionality. Use of Internet spread from Academia to innovators in the fields of education and commerce and industry.

Our aim is to identify, examine, and understand the basic features of what we perceive to be a *third phase* in Internet's development. Textual and social interpenetration has attained new levels: simple, integrated interfaces vis-à-vis a universe of media, applications and modes of communication, three-dimensionality and multilinearity, seamless links to storage media like CD-ROM, etc., an explosive penetration to new sectors of society and spheres of cultural praxis, including opinion-formation, artistic expression, household use and advertising. In this phase, it is quite apparent that Internet – hand in hand with new modes of textual presentation – has

become a dominant set of communication media used within and between all the central spheres of society. This fact politicizes and socializes Internet in ways which vary, depending on the sectors in question. Internet is perceived less as a technology and more as a phenomenon consisting of constantly metamorphosing patterns of communication and information.

Although we, too, find ourselves speaking of “Internet and society”, we do not find the distinction or suggested relationship very fruitful. In the following we distinguish rather between ways of handling the dimensions of time and space, both socially and textually. Socially, this is expressed in the diversity Internet-mediated communication displays in different sectors (politics, art, the family, mass media), each of which has its own temporal logic and spatial metaphors. The textual expression is narrative, with genuinely new forms of hypertextuality, multilinearity and three-dimensionality. Our project seeks to compare the impact of Internet on treatments of time and space in social and textual contexts.

Theory and Conceptual Development

The project is analytically founded in sociological and text theory. We consider it both possible and desirable to employ the two approaches in interdisciplinary studies of Internet, conceived of as a set of media. We base our judgement on the idea that Internet may be seen as communication and texts in ever-evolving forms. The technology, in a stricter sense of the word (IP-protocols, cables, keyboards, VDUs, etc.) may be considered interfaces between text and nature, or between communication and non-communication. The technology is the set of preconditions which give texts and communication their *form*, and therewith meaning. From our stand-

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point, the technology assumes importance via the forms it produces, as evidenced in the texts and communication on Internet in time and space. When we speak of Internet as a *medium* (or set of media) we are referring precisely to this patterns aspect, as observed in the boundary between technology and communication/text.

Consequently, our theoretical focus rests on text and communication. Text theory concerns theories of composition, genre and narration – most of which were elaborated in relation to literature and film. Of the sociological theory we bring to bear on the subject the most important are Giddens' notion of social structure is a means of, and result of praxis, and – even more central – Luhmann's notion of society as a set of codified communication systems.

First of all, let us very briefly outline Internet's position in the context of a systems theory approach, and then, the narratological approach.

Internet and Sociological Systems Theory

Modernity may, in a sociological view, be explained in terms of differentiation. When a mode of communication has established a definite boundary vis-à-vis its surroundings via a mediated binary code, it has become autopoietic or self-referencing. Systems create 'checkpoints' or entryways with the help of binary codes. Such codes can only differentiate between positive ('+') and negative ('-') values or valences (e.g., gains or losses on the stockmarket; truth or fallacy in science; position or opposition in politics). The code distinguishes the system from its surroundings and organizes its closure.

Coded systems stand free of tradition and norms which cannot be comprehended/expressed using the code. They are primarily introverted, focusing on themselves and their own binary choices. The system can only learn through the consequences of operations using the code, which thus defines the line of demarcation between the system and its surroundings. The parliamentary system, for example, is constantly learning through the alternation of position and opposition. The Norwegian political system is currently learning more about how minority governments can govern. The parliamentary system cannot deal with events that cannot be comprehended by the code, position/opposition.

Every code has its own symbolic medium. Such media communicate the codes symbolically. These symbolic media (money, power, truth, love, etc.) use the code and thus maintain the distinctions between systems. The media help translate potential informa-

tion into the code of the system. Systems adapt to their surroundings by processing information about their surroundings in their media-steered codes.

Internet may be approached in both historical and systems theoretical perspectives. For some 150 years now, telecommunications have regulated trade routes, the political and military reinforcement of European nation-states and, subsequently, any number of other social systems such as education and the family. The advances in the fields of telecommunications and computers leading up to the Internet we know today represent a history of a development toward a kind of interactive media which better and better deals with the 'improbabilities' of communication, i.e., which makes greater use of features of the symbolic medium to reduce contingency, and the differentiation of new symbolic media. Interactive symbolic media help facilitate and effectivize systems communication in a qualitatively new manner. On the one hand, Internet and other new media are quite simply new channels of communication; they no more than establish new patterns of communication. On the other hand, they elevate the operational capability of symbolic media to new heights. In this context Internet actualizes numerous social and cultural problems and paradoxes, which have been unobserved, let alone subjected to social scientific analysis. The possibility of change alone (differentiation, specialization) increases the pressure on society to achieve and maintain the social order.

As a technical protocol Internet cannot *replace* any symbolic medium in any system – it is not a symbolic medium. It does not generalize, but merely distributes more widely. Internet cannot replace symbolic media like love, money, power or truth. Nonetheless, Internet intensifies and specializes such symbolic media. Internet is the result of a process of differentiation in the development of electronic media which supports symbolically generalized media in *their* selection and differentiation. In order to understand general social change, we must in a communication theoretical perspective consider mass media, interactive media like Internet, *and* the interaction of symbolic media which makes social communication possible. Particularly in a systems theoretical perspective, society is communication; consequently, the media (technical as well as symbolic) assume decisive importance. New Media and the new forms of communication they afford will change society because society consists of communicative ways to handle complexity.

Internet and Narrative Text Analysis

Central to text analytic praxis is narratology, the science of the general structure and functions of stories. Narratology emerged as an independent area of theory-generation during the heyday of French structuralism in the latter half of the 1960s and early 1970s. Today, opinions vary as to the value of narratology in the analysis of texts. According to one school of thought, narratology rendered itself superfluous after a few years' intensive development due to its rigid ambition to establish a general taxonomy and scientific stringency. Despite useful analytical tools and classification schemes, narratology today is a dead science – according to this point of view. A competing view declares that narratology finds itself in a state of crisis because it is unable to explain some very central features of various stories, e.g., gender aspects; furthermore, it cannot satisfactorily account for narrative innovation.

Despite these viewpoints narrative analysis is undertaken actively and creatively today, and theory continues to be generated taking its point of departure in classical narratology. The explanation for this seeming paradox is this: The classical narratological concepts and paradigms may continue to play a role, but within a praxis in which traditional categories and approaches are radically challenged and subjected to critical review. Within this narratological tradition, which today is known as “post-classical” (not to be confused with post-structuralism) we also find a focus on narrative aspects of technologically based information structures like artificial intelligence and hypertext (Herman 1998, in press).

Our project is part of this tradition. Taking our departure in general narratology as a source of theory and concepts, we seek to understand the narrative transformations and innovations which are now taking place within the kinds of communication and text which Internet accommodates. A premise for narrative innovation on Internet is the redefinition of temporal-spatial relations, the establishment of what we refer to as “the tempo-spatial split” (Liestøl 1998, in press).

The tempo-spatial split occurs in the relation between reader and text, subject and object. Whereas all traditional stories – with which classical narratology has been preoccupied – are embedded in fixed sequences, kept in place by stable, material structures, in digital technology – and perhaps especially Internet-based and -related technologies – a network has become established in which the links between different elements of information are much

looser and more flexible than in traditional media. The identity between the spatial and temporal sequence one finds in traditional, analogue media is dissolved in genuinely new forms of story-telling which are being elaborated in Internet-based contexts like hypertexts, simulations and games. This implies radically changed conditions for narrative, dramaturgical and rhetorical structures and effects. One of the main objectives of our project is to understand the consequences of the spatio-temporal split, for both narrative and narratological innovation.

Despite the split, linearity is finding new forms for its dominance over multilinearity and user-steering. And it is precisely for that reason that it becomes crucially important to understand the dynamic relation between traditional linearity (sequentiality) and new forms of linearity in network-based and hypertextual surroundings. The focus on this dynamic also brings up adaptation as a related perspective. Finally, increased multimediality and emerging three-dimensionality also imply new prospects for narrative articulation.

Theoretical and Methodological Development

A main ambition of the project is not only to generate empirical insights, but to contribute to the theoretical and conceptual development of social sciences and the Humanities in relation to Internet. It is up to us, through workshops and other activities, to stimulate the development of theories to guide the study of new media.

So far, our projects have been based on analytical methods that are fairly common in media studies (qualitative interviews, statistics, text analysis, discourse analysis, etc.). Numerous methodological questions have arisen. Scholars in both the Humanities and social sciences have much to learn about how to obtain valid data on structural changes in Internet and, not least, how Internet itself can be utilized to collect data and conduct experiments. One of the main challenges in our project is therefore methods development and consciousness – raising regarding new methods.

As indicated, this has two main aspects: a) exploring the extent to which social scientific and text-analytic methods (with possible modifications) can be used to study Internet, and b) studying the use of Internet as a medium for systematic data collection, source criticism, experimentation – that is, Internet not only as an object of research but as a method or research tool in its own right, as well.

Research questions

Textual and societal interpenetration takes the form of four processes, each of which will be investigated in a comparative perspective, i.e., in different societal contexts:

1. Shifts in Patterns of Communication

Internet is becoming the bearer of many different kinds of communication. Sociological systems theory thematizes such kinds of symbolically generalized communications, identifying power in politics, love and trust within the family circle, money in the economy, truth in the sciences, legality in jurisprudence, and so forth. Codified communication of this sort represent social systems which constantly produce and reproduce their boundaries vis-à-vis their surroundings by means of their symbolically mediated communication. This communication has its own temporal and spatial logic, its own moral codex, its own perception of reality.

Internet is presently in the process of becoming the bearer of many different kinds of symbolically mediated communication. Several features of Internet's technical and textual structure (speed, multimedia, interactivity, etc.) promise to have a crucial impact on communication, i.e., on politics, the economy, science, the family etc. Our aim here is to study *the interplay between Internet and selected forms of codified communication*.

We propose that Internet solves a number of empirically observable problems of coordination, but also inadvertently warps or distorts existing communication processes. This latter impact may have much more far-reaching consequences than the concrete message which is carried/discussed. It may lead to changes in society, which in turn lead to changes in the development of the network: political initiatives, new legal frameworks, etc.

More specifically, some of the questions we will be addressing are: How does communication between politicians and voters via the media differ from communication via Internet in an election campaign? How does WWW have impact on journalistic norms in Web-newspapers? How can an interactive medium like Internet be exploited as a channel of advertising? How is the social function of art affected by the use of Internet as a vehicle of communication and as a medium of artistic expression? How do mass media contribute to creating and changing public impressions of/myths about Internet? What effects will using Internet in teaching have? On a more general level, we are interested

in how society perceives Internet, and the unintended effects of this perception.

2. Social Integration/Ethical Challenges

Classical sociology, perhaps especially systems theory, emphasizes that different social systems have an inherent morality and specific perceptions of reality embedded in the systems' communication. Given its elasticity, Internet may be expected to help reinforce sectoral mores, perhaps at the expense of overarching social morality. In sociological terms, this relates to the basic questions of what holds society together and, furthermore, whether 'dead' technology can facilitate and promote social integration. The notion of Internet as a prime moral motor force is in fact quite current and concrete. It is a question of how social values in the marketplace, in politics, within the family, and so forth are challenged via new forms of information and communication, how Internet may possibly complement the media as bearers of a public sphere.

Internet raises the following question: Why not put a price on public (digital) information? Why not adjust the law forbidding pornography to a more 'realistic' level? And: Is a 'public service mandate' for Internet plausible? Is a so-called web-newspaper a newspaper from the point of view of press ethics? Does Internet create a *mental distance* to the figures we meet via the net, and does that cognitive distance weaken our propensity to relate to the images emotionally? Do we trust the information we gather via Internet?

These questions will be borne in mind in conjunction with our various studies; some will be the subject of separate reports. Note that we do not necessarily set out to answer them, but rather to answer the question of how society thematizes the Internet/morality relationship.

3. Adaptation

Adaptation has become an ubiquitous phenomenon in our times due to the chronic hunger of cultural industries and modern media for new material. For example, literary narratives form the basis for more than half of all the feature films produced in the USA today. By adaptation we mean the transfer of a literary work – a story or some other meaningful content – from one medium to another, e.g., from a novel to a film to a computer game (*Blade Runner*), from a novel to a computer game/multimedia data base (*Sofie's World*), or from film to game (James Bond: *Goldeneye* and *Tomorrow Never Dies*). Some

adaptations move in the opposite direction: the Nintendo game, "SuperMario" was turned into a feature film, *Mario Brothers*, and the popular game, "MYST", was turned into a novel.

In other areas we see, for example, how paper-based media like newspapers have developed the multi-publishing concept and deliver sophisticated, continually updated Internet versions of their daily papers. In these cases the adaptation process is central to an understanding of how established media companies and established media forms both influence and undergo change in the migration to a new technological base and environment.

Adaptation studies are important in that they throw light on the media's characteristics as well as the qualities of the narrative technique and the content adapted. The problems of adaptation assume new relevance with digitalization and the conversion from traditional analogue media to new media, particularly Internet. Adaptation processes may be studied on different levels, and on the basis of different theoretical perspectives. How do narrative structures fare in the transfer from linear to multi-linear narratives: are they broken, bent or conserved – perhaps all three? How are characters and actors in the fictional universe re-constituted and presented in digital surroundings? How are gender identity and depictions of violence re-presented in graphically elaborate Internet-based games?

4. The Generation of Genres

In literary analysis the term, genre (from the Latin genus, meaning birth, race or kind), refers to categories of literary fiction. The classification is based on criteria and characteristics of various kinds. Classical literary analysis operates with three main genres: the epic, the lyric, and drama. Today, the term is used in relation to all possible media and is applied on different levels. A typical genre in the case of film is the Western, where tradition and innovation take place within a readily recognizable framework and relatively stable development. Within the digital culture to date, it is mainly in relation to computer games that it has been meaningful to speak of genres.

With the coming of what we call Internet's third phase the genre concept assumes greater relevance. The volume of publishing on Internet is now so great and in many cases stable, that we may speak of nascent genres. This is the case among news-oriented publications like net newspapers and magazines, but also among net-based games, which numerous users play simultaneously. A hybrid of

games and advertising has also emerged which, to some extent, admits classification in terms of genres. Genre analysis is therefore a vital tool for understanding the processes of textual change which are presently under way as Internet evolves.

Fields of Praxis

The four processes – changes in communication, social integration/ethics, adaptation, genre generation – will be analyzed in the context of selected sectors and fields of praxis. We will primarily concentrate on the following:

Politics: Here the emphasis rests on a study of the relationship between political communication, public service broadcasting and Internet, with a particular focus on the public service broadcaster, NRK's "Election Web" (ValgWeb) during the campaign and parliamentary elections of 1997. A number of interviews and textual analyses have been carried out, and several reports will be initiated in 1998. We are anxious to see how political parties and other (environmental) NGOs make use of Internet for their internal and external communication. An overriding question concerns how the norm of democratic participation is perceived in relation to Internet and its interactive capability.

Artistic expression: We will consider Internet as a vehicle or channel for the visual arts, but also as a palette/brush/canvas, i.e., as tool and medium (in artist's usage). What are the implications of being able to eliminate the gallery as outlet or showcase, and what is 'interactive art'? What genres and virtual settings are established, and how are these thematized as Art? One or both of these themes will be the subject of reports/theses, with the empirical studies to be getting under way in 1998.

Mass media: All established mass media organizations make use of Internet in their contacts with the public. In addition, web newspapers, web magazines, etc. are also being established. We are following developments in this field with regard to design, media policy and the practice of journalism.

The family: Internet may become a new kind of telephone in Norwegian households, and may be expected to have a strong impact on families' social life, division of labour and mobility.

To sum up, our project may be described as a matrix, with four groups of research questions and perspectives (adaptation, genre generation, changes in communication patterns, and social integration/ethics) are overlaid four fields of praxis (politics, art, media and family/leisure). The comparative structure may be counted on to reveal parallels and

contrasting directions of development in the meeting between Internet and society, with interesting effects on texts and social praxis.

Component Studies

We hope to engage young researchers in our project and to create an interdisciplinary research group which primarily consists of communications majors and recent graduates. Using short-term scholarships we hope, in collaboration with Ph.D. candidates and others, to stimulate solid graduate theses, research reports and internationally oriented conference papers which, in extension, may form the basis for doctoral work and other major research projects. For some time now, our department (Department of Media and Communication, University of Oslo) has worked with related topics. The following sub-projects will be carried out in the near future:

a) Net games: Computer games are the genre and context of production which shows the greatest wealth of innovation today. New uses of the capabilities of digital technology represent the added value and selling points of the games. Studies of the games' structures today offer insight into the character of computer programmes in general tomorrow. We shall seek to identify narrative and social structures in multi user games on the market today, with special attention to how social interaction, social conventions, etc. assume new forms in virtual, fiction-like settings. How does the computer game appear as a structure, i.e., as a medium of, and result of praxis? To what other uses may computer game-paradigms be expected to spread? The study will subject selected games to thorough study.

b) Net advertising: This study focuses on the political economy of Internet. Advertising, marketing and trade, coupled to other attention-getting genres (like games) have to an increasing extent become the motor force behind Internet with respect to both its growth/spread and innovation. It is important to monitor this development with respect to techniques/genres and the character of non-commercial and money-less areas of Internet (discussion lists, and so forth).

c) Net journalism: The number of web newspapers is growing rapidly, both net editions of paper newspapers and genuinely new journalistic products. The study shall continue analyzing the methods and routines, principles of presentation, genres and ethics of net journalism. Finally, the financing of net newspapers will be analyzed (among other things, in the light of findings under b) above). In collaboration with other projects in this area we will examine this aspect through interviews and analyses of media texts.

d) Net art: With the emergence of what may be called net art, modernist and post-modernist artistic praxis moved into a little-studied area relating to Internet as material and Internet as mode of distribution. On what is the artist's and the public's understanding of this art founded? What themes are represented in this art form? How are the interactive capabilities of the medium taken advantage of? To what extent do we find traces of traditional genres and conventions? Using interviews and text analysis, the study will examine net art as a multimedia and social phenomenon.

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Relevant works by the project leaders

Terje Rasmussen

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