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titled

Values in the Network Communication of the Internet

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I. Introduction

Topic of the Dissertation

In the social sciences, five main research approaches can be distinguished regarding the social effects of Internet usage: the analysis of social (digital) inequalities, social relationships (communities), politics (political participation), organisations (organisational effectiveness, organisational control) and culture (cultural consumption, mediatisation) (Di Maggio et al. [2001], Dessewffy – Galácz [2004] pp. 34-40). The present dissertation, representing a new approach in this regard, examines the extent of convergence and divergence of different social groups and human values during network communication through the Internet, i.e. ‘foruming’.

The choice of topic defines a yet unexplored research area that equally falls within the adjoining competences of research on personal relationships and culture. According to my approach, communicational networks and the world of human values represent two sides of the same coin concerning social stability (more precisely, its boundary conditions that can be categorised among social interactions). Making a distinction between the relationships of ‘weak’ and ‘strong ties’ stems from Granovetter (Granovetter [1973]). Weak ties emerge among distantly related individuals – based on their positions in the social structure or their cultural distance – through ‘loose acquaintances’, as opposed to strong (family and kin) relationships of strong ties that usually emerge among closely related individuals, defined on the basis of the before-mentioned criteria. The research findings of Granovetter (Granovetter [1974]) confirmed that weak ties make it possible that individuals co-operate with social groups that they could not reach with their strong ties. The (social) force of weak ties lies in their ability to create links between separated segments in fragmented structures, thus strengthening social cohesion (Granovetter [1974], Rogers – Kincaid [1981] pp. 66-67). In this respect, the significance of social networks comes from their ability to make the development and expansion of so-called weak relationships – that overspan social distances – possible (Wellman – Gulia [2007]). Through the relationships they contain, networks create bridges among different strata and groups, thus they develop social connectedness and enhance the flexibility of social structure and social integration (Granovetter [1973], Blau [1977], Granovetter [1983]).

On the other hand, the continuity and stability of society is provided by strong interactions, based on shared value system and human values (Lin [1999]). It is a more or less acknowledged view among sociologist that the importance of values has not diminished, even though value systems have changed and one unified, all-encompassing value system – that ensures the persistence of society and the co-operation of its members – does not exist any more in modern societies (Hankiss et al. [1982], Parsons [1988], Fulton [1997]). Even if they differ markedly, it is reasonable to regard
weak interactions, prevailing in social networks, and strong interactions, represented by values, as a continuum of one group of phenomena, with no rigid boundaries between them, instead of treating them as dichotomized counterparts of social phenomena (Angelusz – Tardos [1998] pp. 240-241).

In my study, I deal with communication on the forums of Internet networks, which may be categorized under the phenomena of weak interactions as described above. According to my point of departure, special Internet applications that provide a framework for network discussions – i.e. thematic forums – can be regarded as communicational channels, which have the potential of creating bridges, representing and mediating values. Even though strong ties are beyond the scope of the research, the present analysis of network contacts between different strata and groups also involves the examination of value contents that are mediated during the interaction.

The starting questions of our dissertation were as follows: How sharply does the separation of different social groups stand out on network forums? May these forums facilitate the appearance and strengthening of relationships between different social groups? Are values mediated through the forums, and if yes, to what extent? What special characteristics does value mediation have?

Antecedents of the Research Questions

The approaches that can be regarded as the antecedents of the question about network value mediation concern the effects of CMC (computer mediated communication) on value systems (among others). After a synthesizing review of expectations, I differentiate between three lines of approaches.

According to the trend I call localisation approach, networks that emerge on the bases of new communicational technologies constitute new social morphology (Castells [1997]). As a consequence of contact opportunities of the world-wide web, cultural communities and social networks that are based on regional (local) and religious affiliation are also expected to (re)emerge and strengthen. These groups represent values and a value system that aims at transforming human relationships. These are special values that signify codes of opposition between self-definition and globalisation, open networks that dissolve the boundaries of belonging to somewhere (Castells [1996], p. 100).

According to the homogenisation approach, the earlier complex effect of media on society is becoming more and more homogenous, exercising a unifying effect on people as a mass. Info-communication tools intensify the process of commercialisation, which is induced by traditional mass media and points towards cultural homogenisation and the levelling of mediated values. The process abates the ability of a great majority of people to use media in accordance with their – real – interests and needs (Herman – Chomsky [1988]). From this point of view, the penetration of Internet connectedness and Internet usage result in the reinforcement of consumption-related hedonist
values, while traditional values – often regarded as a national attribute or are rooted in religion – slowly lose ground (see Bajomi-Lázár [2001] p. 70).

The third, alternative approach places the positive effect of connectedness on alternative globalisation in the centre, focusing on bottom-up cultural networks (Vályi [2004]). From this angle, networking, especially in the world of CMC, may provide a chance for individuals and groups to make an effort to create a social environment that is more multicultural, more egalitarian and more democratic than what we have now. Internet networks can be viewed as potential communicational channels of cultural heterogeneity, and their expansion facilitates the strengthening of creativity, represented by community cohesion and co-operation, as well as the values of liberty and being unprejudiced.

Even though I would like to reflect on the above (mostly not operationalised and to-be-checked) expectations with my research, my dissertation does not aim at studying the direct effect of Internet (as a communicational tool) on the change of values. Regarding the role of Internet forums in altering distances in society and value system, I treat Internet as a communication technological tool, which facilitates changes in social and value system distances not through its emergent, core characteristics but through its social application, more precisely, through the communicational behaviour of the participants of online discussions.

**Previous Studies on the Value System Background of Internet Usage**

In view of the fact that the target group of the study consist of frequent users of the Internet, analyses that emphasise the value system background of Internet usage are of interest from the point of view of the examination of both social distances and value mediation. Most of them can be traced back to the diffusion models of recent decades (particularly Rogers [1995], Norris [1999]). Diffusion networks are usually characterised by homophily: innovations diffuse through relationships among people with similar social positions, knowledge and value systems. The adopters of innovations can be categorised into five groups, based on their time of joining: innovators, early adopters, early majority, late majority and laggards. The early users (innovators, early adopters, early majority) differ from later adopters (and who do not join the application of a new technology even later) not only in their higher educational attainment, higher social status and higher social mobility, but also in their value system. They adhere to traditional values to a lesser extent, their attitude towards change is more favourable, they cope with insecurity and risks more easily, they hold more

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1 Diffusion models seek to explain the social diffusion of innovations. Their point of departure is that the spread, acquisition and application of innovations do not derive from isolated individual decisions but are socially embedded processes.
favourable views of science, they are less dogmatic, more ambitious, and they possess greater abstraction ability.

The problem of value system background of Internet usage has already surfaced in some Hungarian studies as well. Outlining their research in the communication status of Hungarian youth, Gábor and his colleagues (Gábor – Kabai – Matiscsák [2003]) point out that the value system of Internet users differ from that of non-users (of the technology): users can be more readily characterised by the preference for post-materialistic values and a special value orientation (that reflects individualisation and prefers diversity, creativity and an interesting life) than non-users. Nagy (Nagy [1995]) analysed the results of ‘Views on Perspectives Research’ from 2002 and found that post-materialistic, individualised values are significantly more characteristic of young people who use the Internet, while non-users put more weight on the material values of wealth and material goods. Hedonistic values characterise the users of new technologies more, and environmental protection (that can be regarded as a post-materialistic value) is also more important for them.

II. Conceptual Starting Points

Albeit that the research could rely on a rich theoretical background, it lacked mature theoretical and empirical precursors owing to the novelty of the studied phenomena and especially that of the choice of problems. As a result, the first step of the research was to identify the conceptual base. In my dissertation, I build my conceptual starting points on the theoretical and empirical precursors of three subject matters: public sphere, Internet usage and human values.

Based on a review of the different conceptions of the public sphere (Habermas [1971], Heller – Németh – Rémy [1990], Becskemészti – Kucz [1992], Keane [1999], Meyrowitz [1986], Meyrowitz [2003]), I presented in my dissertation that the earlier power of the public sphere in explaining phenomena of social communication had weakened and needed revision after the appearance of CMC. The analyses of the democratic functions of the media usually concentrate on the potentials of opinion exchange regarding the issues of public life (which exercise control over the state and induce democratic changes). Even in the era of traditional mass media, it had emerged that this approach “provides a too narrow definition of the objective in question” (Curran [2007] p. 911). In my dissertation, I join the approach according to which entertainment and cultural content – which do not fit the narrow definition of public life – should also be taken into consideration when we define contents that represent the democratic functions of media. The primary reason for this is that values and norms are reinforced, adapted and reconsidered through them (Newcomb – Hirsch [1984]).

My approach takes into account Keane’s pluralistic approach about public spheres that have varying scope (Keane [1995]). The author breaks away with the theorem of one single public sphere
and states that it consists of public spheres with varying scope and overlapping levels\(^2\). Following Keane’s footsteps, I regard the world-wide web and the totality of its communicational forms with different social usage as a communicational universe of different levels of private and semi-public spheres, which have varying levels of overlap and separation. The present study aims at breaking away with earlier conceptions of the public sphere from the aspect that it approaches the public spheres of the Internet with no restrictions on political and public life content, from the viewpoint of opining and access to opinions. It examines such fields of the public spheres on the Internet in which the themes of politics and decision-making do not dominate, or to go further, in which no such topics are articulated (at least at the time of the research). They represent micro-level public spheres and have developed the potential of a macro-level public sphere (applying the above-cited definition of Keane).

A review of the empirical results on growing Internet penetration and Internet usage habits (Norris [1999], Strover – Straubhaar [2000], NTIA [2002], Molnár [2002], Pintér [2007]) concluded that the positive effect of the world-wide web on democratic public life is no more than a (distant) chance today. Several researchers question the (politically speaking) democratic function of the Internet. McChesney sees no chance that the Internet – on the basis of the present political culture – would be able to raise the participation of citizens in political discourses and decision-making (McChesney [1996] p. 119). However, several authors raise the issue of the – apolitically speaking – cultural democratism of the Internet (Wellman – Gulia [2007], Rheingold [1994]). These days, a growing number of users use such applications (visiting network forums or community portals) that make the expression of opinion and the self possible, the content being either about public life of some independent, apolitical issues.

The definition by Feather (Feather [1982] offers the starting point for the present research, according to which values – which carry some cognitive evaluation and appoint things to desire, strive for and follow – have became interconnected with the evaluative dimensions of good and bad (Feather [1982] p. 86). Owing to their normative nature, they function as standards for the control of thought and action, also concerning the means for goal-attainment and means suitable for the prevailing situation. Under- and overvalued qualities and things incorporate the worlds of natural phenomena and social life, and they control individual and community actions through a set of rules that they generate. As a special form of meaning-generation (Kluckhohn [1951] p. 395), values represent the appreciation of the significance of certain things (from the aspects of action, social affiliation and self-definition). At the same time, values are also objectified in different forms: in abstract concepts, principles, practical actions, norms of coexistence, and as individual-level

\(^2\) Micro-public spheres are forums for the discussion of local matters, where a few dozen, a few hundred or a few thousand people discuss their views. On the level of meso-public spheres, millions of people interact in order to discuss nation-state level matters of politics and public life. Macro-public spheres provide field for the discussion of global questions above the level of nations, where (even) billions of people may interact.
decisions and choices among the alternatives. The formation of relations to objectified and objectively existing values is an inevitable process for both individuals and social groups, and the position on value categories is part of the formation of the consciousness that creates self- and group identity (Markus – Kitayama [1991]).

My research is related to one mainstream of Hungarian value research: the research experience of the Centre for Value Sociology at the Hungarian Academy of Sciences (Hankiss [1980], Füstös – Szakolczai [1994], Füstös – Szakolczai [2004]). Their approach considers human values to be directly observable (similarly to Weber). My observation method is also related to this school, at least in the sense that I use Schwartz’s value inventory3 and variables operationalised by him for the measurement of values. Even if I accept the starting point of direct observability, my approach to observation is new in the sense that self-reflection is not regarded as the only applicable method. If we accept the manifest effect of values on behaviour, communicative behaviour can also be viewed as value-controlled and value-regulated, even in the case that its aim is not the self-reflective formulation of values. In my opinion, the observation of communicative behaviour can be an appropriate tool for observing values that affect thought and behaviour and that are also manifested in them. This method is no less effective than direct questions about personal values (used by the survey method, asking respondents how much do they think that some statements representing certain human values are characteristic of them) in such cases when one of the principal elements of interactions is self-presentation and the expression of opinion (about a wide variety of subject, both ordinary and elevated). Thus comments in the world of public Internet forums are also suitable for observing personal values. Especially as what else could be a more relevant subject of our observation when we examine value mediation during network communication?

III. Theoretical Foundations

The first empirical chapter of my research serves as a foundation for the formation of the conceptual inventory and the theoretical conceptions of the investigated phenomena, as well as the further refinement of research questions that arised during the identification of the initial questions and conceptual signposts.

As I have indicated in the introductory chapter, the present examination of the role of Internet forums in the alteration of social and value distances centres on the communicational behaviour of the participants in on-line conversations. This standpoint of the researcher is mirrored in the fact that observation units of the theory-building study are forum users and network comments. The field of analysis for both the theory-building and the later theory-testing studies are the ‘public’ thematic

3 The value inventory is included in the table in Chapter VI.3.2 of the dissertation.
forums of an Internet service and its predecessor (in title), WIW⁴, which is widely known and visited by now. Due to its information technological characteristics, these forums belong to one type of discussion groups: newsgroups. The main feature of newsgroups is that the comments (web messages) of the participants are stored on a separate server and they can be access by connecting the server. So thematic forums are special types of newsgroups, a 'limited' segment of the Web: they can be visited only after formally joining a certain Internet network. In our case, participation in the thematic forums implies joining the WiW network, more precisely, becoming a WiW member. Regarding the participation in the thematic forums of WiW, another delimitation within the WiW network is also possible. Such cases include when only the members who started the forums can invite people to join them, so they are ‘private’. However, all other forums can be visited freely by all members of the network, i.e. they are ‘public’. These thematic forums constitute the field for the preliminary theory-building study and the later theory-testing studies.

In my dissertation, I review the development of WiW from a sociological point of view and I accurately describe which period of the development of WiW is involved in the analysis. I depict the functioning of WiW and the composition of its membership (based on the available data), comparing them to the group of Internet users in Hungary.

In the most extensive, theory-building chapter of the dissertation, I explore the world of WiW forums and their socio-communicational characteristics, using the experiences of the qualitative fieldwork conducted in the spring of 2004 with the method of ‘non-participant’ observation.

According to the results of the theory-building study (described in detail in my dissertation), the ‘open’ forums of WiW represent specific communicational phenomena that need to be differentiated within the sociology of communication and that I call network ‘base communication’ channels in my dissertation.

IV. Theoretical Framework

IV.1. Network ‘Base Communication’

The concept of network ‘base communication’ refers to ‘base communication’ in the traditional model of mass communication (Angelusz [2000]), which is a mediating field between personal and widely accessible public communication. Those everyday (direct interpersonal) conversations belong to the category of traditional ‘base communication’ where people who know each other more or less

⁴ The Internet portal WiW, which is called iWiW since 2005.
discuss questions of public life or politics that concern the frames of private life and carry news value. Comments are not addressed to a wide anonym community but only to those present. The concept of ‘base communication’ reflects the approach that links public sphere to the theme of public affairs and, during the evaluation of the social significance of the given form of communication, it takes into account the characteristics of social communicational channels that functioned at the time of developing the concept. In the traditional system of mass communication, social structure exercises its effect on values by regulating intra-strata communication\(^5\) (Katz – Lazarsfeld [1995], Lazarsfeld – Berelson – Gauder [1968]). This effect mechanism is related to the thesis of the conception that the sociological significance of ‘base communication’ is derived from its role in the processes of public opinion changes: they (may) influence the development of theme structure in the field of public communication and – indirectly – they may facilitate information flow among social strata and the orientation of individuals and groups in social structure.

In network ‘base communication’, interactivity and the (theoretical) unrestrictedness of the number of people who can join the discussions are present at the same time. This feature eliminates the ‘paradox of openness’ of the traditional systems of mass communication, according to which the degree of interactivity and the number of recipients are in inverse ratio to each other. While traditional ‘base communication’ favours homogeneous relationships, its network variant makes the development and cultivation of both homogeneous and heterogeneous social relationships possible.

One part of the distinctive features of network ‘base communication’ (for example, the unrestricted number of recipients or the independence from physical distance) is made possible directly by the medium (more precisely, its technology) and it is not related to the aspirations us users (meaning any intervention or user behaviour to alter the technology). The other group of features (for example, the regulation of communicative behaviour or the object of communicative control) is formed by user activity; however, it is not independent from the technological nature of the medium but based on its specific use.

The semi-public channels of network ‘base communication’, according to their features observed in the preliminary study, provide a new chance for interaction between groups with different socio-cultural characteristics. In other words, they can be conceived of as communicational ‘passageways’ that represent the possibility of building bridges between homogeneous social groups, easing the communicational separation and altering the boundaries between fragmented levels of social communication. Due to their special communication sociological features and the Internet network origin of their membership, the ‘public’ forums of WiW, as a channel of ‘base communication’, provide a good opportunity for the building of weak ties and bridging social distances in a ‘simpler’ and ‘more

\(^5\) Katz and Lazarsfeld were the first ones to direct attention to the fundamental importance of information exchange in interpersonal relationships during the process of opinion flow and changing public opinion (Katz – Lazarsfeld [1955]).
obvious’ way than online relationships and in an environment that cushion the effects of structural limitations⁶.

IV.2. Value Mediation

The role of network connectedness in mediating human values is hard to grasp in the traditional approach to communication; I apply the communicational model of Rogers and Kincaid (Rogers – Kincaid [1981]) to introduce it in my dissertation. Their convergence model regards communication as an iterative process, during which participants take turns at assuming the roles of transmitter and recipient. The main functions of the process are understanding and negotiation among the participants. These aims are reached at through an interactive process during which the information domain of common interpretations is gradually increasing, due to the activity of the participants.

The thesis of convergence fits the characteristics of the communicational process of network forums that were identified during the theory-building study. Interactivity is ensured during network ‘base communication’, even though within the limits set by the form of written communication (where the use of non-verbal signs is restricted). Since written interactions are more suitable for sharing information and opinions on a wide variety of things, they are also suitable for mediating values, one cognitive and objectified segment of common interpretations (domains of interpretations). By value mediation, I mean that the evaluations of participants about what human values they consider important, worth of pursuing and following and what not appear in the messages of written interaction when people express information and values about a wide variety of things. In my paper, I make a reference to the theses of Berger and Luckman (Berger – Luckman [1966]), to the role of interactions in building up the social world together and reproducing it constantly. The semi-public spheres of network ‘base communication’ – as a result of their observed characteristics – are adequate communicational fields for the building and rebuilding of social reality through interactions. While written conversation is taking place on a wide variety of questions and issues, I suppose that comments are not free from value contents. The messages that are linked to forum interactions may also carry a general cognitive evaluation of their actual topic, reflecting the dimensions that are ‘worth following’ or that are ‘rejectable’.

V. Methods of the Theory-Testing Study

The analysis of social distances and value mediation necessitated the development of a database that included variables on the social and demographic characteristics (sex, age, education

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⁶ The dissertation describes ‘the cushioning effect’ of network ‘base communication’ channels on structural effects in detail.
level and type of settlement) of the participant of the ‘public’ forums of WiW, as well as on the value content of the comments. So the theory-testing empirical study was built on the analysis of several databases, some of which were already available and some were created from data collections within the framework of the dissertation. I used the data of the following data collections in my dissertation:

   It contains the data and comments of users who posted on the ‘public’ forums of WiW during the data collection period between 1 September 2004 and 15 December 2004. (N=757)

   The database contains the field-specific features (on which forum and when they were posted) of all messages on the ‘public’ forums of WiW (within the period of data collection) and the variables of the value study that are derived from the content analysis of the messages (N=16,581).

I created the WiW-Users and WiW-Messages databases in the framework of the present research, with the help of a grant from the Corvinus University of Budapest and in co-operation with the owners and employees of WiW.

3. Values Block of EUTE (ESS) , 20067, Hungarian data
   The survey was conducted in December 2006 on a geographically representative sample of the Hungarian population by the TEAMM, in co-operation with the Hungarian Gallup Institute. Data are weighted by sex, age, educational level and type of settlement. The Values Block of the questionnaire included the value test of Schwartz. (N=1518)

4. A self-administered questionnaire among Internet users (at least once a weak) as a supplement to the EUTE (ESS) survey in Hungary, 2006 (N=398).
   The self-administered questionnaire was developed for the present dissertation. The questions measured modes of Internet usage, community site participation and different types of activity on WiW.

**The WiW-Users Survey**

The WiW-Users survey was conducted as follows. As the first step, I laid down the process of the server query for the IT specialist of WiW and I gave a detailed specification of the required information. The IT specialists selected the required data in several steps (in access format), using the method of double-key encryption8. (1) The profile of each WiW member was given a new ‘user ID’. (2) Demographic data from the profiles were assigned to the user IDs – according to my

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7 European Social Survey (ESS) – its Hungarian name is Európai Társadalomtudományi Elemzések (EUTE) [European Social Science Analyses] – is an international project that started in 2001 and has been founded by the European Social Foundation (ESF) and the European Commission’s Framework Programmes. It aims at monitoring European societies from the point of view of sociology and political studies. In Hungary, three surveys took place in 2002, 2004 and 2006. The Hungarian research partner of the project is the Social Studies Analysis Methodology Workgroup (SAM/TEAMM) at the Institute of Sociology, the Hungarian Academy of Sciences. The Head of the Research Group is László Füstös.

8 The aim of the method is that only the person who has the ‘keys’ is able to connect different but otherwise related data (e.g. the name of a poster and the text of his/her comments).
specifications. The following data were retrieved from the server: (a) sex (female – male), (b) type of education (primary school, secondary school, university/college), and (c) content of the entry about the place of (temporary) residence (as a string variable). (3) Afterwards, all comments on the ‘public’ forums of WiW were selected – from the sampling period –, and they were given a ‘post ID’ (POST). After this step, (4) comments (POST) were assigned to the corresponding users (ID) on the basis of the user IDs of WiW members. And finally, (5) two further variables were assigned to user IDs: (a) whether the WiW member posted a comment on the ‘public’ forums of WiW during the research period, and (b) the date of the registration. Based on the access files from the IT experts, I produced a ‘WiW-users’ SPSS database and the variables that I needed for further analyses (a quite detailed chapter of the dissertation is devoted to variable creation and operational considerations).

The WiW-Messages Survey

At first, I laid down the process of server query of the required information (similarly to the procedure described in the case of WiW-Users database) and I gave a detailed specification of the necessary information. Afterwards, IT specialists selected all the messages posed during the sampling period for every forum separately, and they assigned the already mentioned message ID, the source of the comment (name of the forum) and the exact date of posting (month, day, hour and minute) to them. The final WiW-Messages SPSS database was created from these data, and the variables that were necessary for the value research were created as follows.

Identification of Value Variables during the Development of the WiW-Messages Database

As I have already explained in the section on the connection to the tradition of value research, I used the PVR (Portrait Values Questionnaire) scale of Schwartz for the measurement of the value content of forum posts, which contains 21 variables in order to identify individual values. The aim of observing forum posts was to determine the value of the Schwartz test for each post with the help of qualitative data collection. I regarded interpretive reading as the starting point during the coding process. During the processing of interpretative reading, the coders become involved in the construction of data; they themselves determine what the texts represent (Mason [2005]). The interpretative method takes into account the latent, hidden message of texts as well (Antal Z. [1976]). Variable values are determined through condensation – since the analysis aims at finding already given value categories –, in other words, messages are ‘condensed’ and shortened under the codes of a certain personal value (Burton [2000]). During this condensation, the original six-grade scale of Schwartz cannot be applied (it measures how much the respondent thinks different statements are characteristic of him/her, ranging from ‘very much like me’ to ‘not like me at all’). Thus my value

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9 Consequently, each post was coded as a set of the 21 value categories.
variables have two values (on the basis of the similarity of dissimilarity between forum posters and people described in the variables, determined with the help of the message content).

**Testing the Reliability of the Qualitative Data Collection**

The major weakness of the qualitative method is that the inevitable subjectivity of the coders decreases reliability. For this reason, I tested reliability in detail. The analysis of discrepancies in the coding of value categories indicated that the three coders used the same codes in 96.2% of the cases. The extent of difference between the results of each coder and the (identical) results of the two other coders were similar (1-1.6% of the condensation they performed). Previously, I explored how much interest the coders take in the (topics of) forums, and then I checked the number of messages per forum in which the coders used a different code for any of the 21 items than the others. The result proved to be very interesting, suggesting that the codes differed at the extreme cases of coder involvement and interest towards the topic.

**VI. Main Results of the Research**

Before conduction the theory-testing study, the experiences of the preliminary theory-building study were incorporated into the research questions in order to make them more specific. Owing to its exploratory nature, the theory-testing study arrived at several 'unexpected' results (problems that require new methodological solutions and unforeseeable empirical relationships), which I describe in detail in my presentation. Hereinafter, I summarise the main results of the theory-testing study.

**Basic Data**

757 forum users made all of their main socio-demographic data available on the 41 ‘public’ thematic forums that were active during the time period of data collection. Users participated in written conversations in 29,170 cases. During the phase of preparing the WiW-Users database, I performed a separate analysis on the question of whether users who provide all their personal data and users who do not differ systematically (concerning their socio-demographic background). My data indicated that men, older users and users from Budapest are more ‘anxious’ for their personal data, and if they provide all their data during the registration, they are more likely to stand clear of participating on ‘public’ forums than women, younger users and people from outside Budapest. The consequence of these circumstances for my research is that the actual composition of the target group contains less men, less individuals from Budapest and less older persons that the data base of WiW-users (the extent of this difference is small but still of importance).

\[10\] However, I took into account only a narrower subgroup of posts in some steps of the analysis, based on certain criteria that I defined and justified in the dissertation in detail.
The educational level, age and type of settlement of the target group (users of ‘public’ forums who provided their personal data) show such an uneven (skewed) distribution that I had to put aside my plans of using finer variables. The variable categories were created according to the summary characteristics of the study population. The social and demographical composition of the target group is as follows: (1) Sex: women 47.3%; men 52.7% (2) Education level: primary and secondary 10.6%; tertiary 89.9% (3) Age: less than 25 years 26.4%; 25-29 years 39.9%; 30 years or more 33.7% (4) Type of settlement: Budapest 84.0%; the provinces 16%.

*The composition of the target group reflects the socio-demographic background of the ‘early adopters’ of technological innovation (using the above-cited terminology of Rogers).*

**VI.1. Social Distance and the Chances of Bridging**

**VI.1.1. Social Distances**

I examined the social distances among forum users by applying dummy variables, determining the extent of socio-demographical heterogeneity for each forum\(^{11}\). Results demonstrated that no sex selection leading to homogeneity is observed in the forums. Regarding age, the majority of forums can be regarded as heterogeneous rather than homogeneous, except for four cases. Concerning settlement type, I found six cases where the composition was more homogeneous than heterogeneous, and two forums were closed in this sense. Several forums show signs of relative closedness with regard to the level of education. The analysis of heterogeneity indicated that smaller differences are most likely to ‘smooth’ than larger ones on the forums. *Considering all the forums together, the composition of the majority of them can be regarded as heterogeneous according to all the examined characteristics.*

Based on the results of the preliminary study and the above-cited empirical analyses of Internet usage, I suppose that *heterogeneity values of the forums are lower in regard to education level and age than according to sex and settlement type.*

The results did not justify my expectations, since forums were undoubtedly less open concerning level of education and age group than in the case of sex heterogeneity; however, the heterogeneity values of age groups are higher than the values according to settlement type.

\(^{11}\) Measure of heterogeneity: the actual deviation divided by the maximal theoretical deviation. Thus, the value heterogeneity measure is between 0 and 1, where 0 indicates total homogeneity and 1 means total heterogeneity. The value of 0.5 indicates the borderline between ‘rather homogeneous’ and ‘rather heterogeneous’.
Based on preliminary fieldwork, I suppose that the highest level of participation heterogeneity may be found in forums of general topics: in the case of topics towards which the level of attention is not specifically determined by age, sex, education and place of residence, it is more likely that the composition of participants – regarding the set of previously described characteristics – and the characteristics of all users converge. However, data demonstrated that the general topic of forums is not associated to increasing heterogeneity.

In my dissertation, I developed several suppositions for interpreting the results different from my initial expectations, I tested the hypothesis empirically (according to which the forums of general topics are ‘exclusive’ meeting places of ‘core’ members, other users perceiving it and refrain from participating) and it proved to be false.

VI.1.2. ‘Communicational Passageway’

For each forum, I analysed the distances among users who may have been in real communication with each other (namely, the social-demographic distance between users who responded to each other’s comments). I regard this step as especially relevant, since, theoretically, the participation heterogeneity of particular forums may also be the result of interactions among similar parties (according to their socio-demographic characteristics). Therefore, knowing the characteristics of research area, it is erroneous to think that different users of forums of more heterogeneity are more likely to come into contact with each other (heterogeneity of participants is only a necessary, however, not sufficient condition of communicational passageways and the creation of relationship bridges). At this point, I included a further characteristic in the examination of communicational passageways, namely the status of WiW membership (values: 1 - joined in 2002; 2 - joined later to the network of WiW). For the purposes of analysis, a covariance matrix was prepared that contained the users in chronological order and their examined characteristics by forums. Based on the data, no relationship was found between forum topics and the extent of passageway among social groups, nevertheless, results imply that the degree of passageway among groups in micro-public forums may be influenced by the fact that to what extent forum provide opportunity for sharing personal and common experiences. Further research is needed to test this possible explanation.

In my study, I came to the conclusion that topics with more visitors are more favourable for ‘real’ communicational ‘passageway’ among groups, whereas forums that are less favourable to ‘passageway’ have fewer participants than the average. The finding that the number of participants in

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12 To avoid the discrepancy of different scale distances, I examined the demographic distance of commenters only after standardising the variables. Since demographic background variables correlate with each other, I applied Mahalanobis distance instead of the Euclidean one during the creation of distance metrics. Mahalanobis distance measure the distance of observations from centres of variable groups. This metrics takes
a forum and the extent of ‘passageway’ is positive related may sound obvious. However, it is noteworthy. *The present analysis of users who are in contact with each other during conversations demonstrated that the growing number of participant in conversations of semi-public network ‘base communication’ was not accompanied by a separation related to social groups, i.e. by communicative fragmentation.*

**VI.1.3. The Headway of Latecomers on the Forums**

Based on the conception of network ‘base communication’, I expected that the number of messages of core members would decrease during the period of data collection (when the membership of WiW reached 70,000), that is to say, the forums are not ‘exclusive’ any more. My results confirmed this assumption, as *latecomers were responsible for ‘generating’ greater and greater part of message traffic in ‘open’ forums in the autumn of 2004. Therefore, during data collection, the relative voice of core members was gradually fading in the noise of all messages. This result provided a further justification for the concept of network ‘base communication’.*

**VI.2. Value Mediation**

**VI.2.1. Mediating Values on the Levels of Users and Messages**

One of the main questions of my study was whether it is justifiable that value mediating is taking place on network ‘base communication’ channels. In accordance with the concept of value mediation, I focus on the phenomenon from two aspects during the analysis. Value representation was studied at the level of the average users, whereas the value content of comments was examined at the level of the observation units of messages.

My data may be summed up as follows: for approximately 60% of users, at least 10% of messages mediated values, however, the majority of messages mediated values only for 2.5% of users. An average of 17% of messages is value mediating (i.e. they contain at least one value\(^{13}\)). At the same time, 20% of messages included none of the human values (out of 21). *Although value representation is undoubtedly present in the communication practice of users, namely, value mediation is taking place during written interaction, the examined fields of network base communication cannot be characterised by the value representation of users.*

\(^{13}\)At least one of the 20 value variables equals 1.
VI.2.2. Particular Values in Forums

Principally, I applied a descriptive method during analysing the mediated values of network base communication channels. The rank order of values mediated by user comments was illuminating and unexpected, if compared to earlier results of value research.

In the first places of the rank order of values, we find ‘helpfulness’, ‘respectfulness’, ‘tolerance’, ‘cheerfulness’, ‘social appreciation’ and ‘courtesy’. The outstanding position of ‘cheerfulness’ is probably due to the age characteristics of target group and relationship of the examined field with entertainment (which is described in details in the section about the results of fieldwork). All but one of the other high-ranking values may be linked to the basic values of Schwartz (Schwarz [2003]) including universality and benevolence, more precisely to the higher values of ‘self-transcendence’. These values coincide with the features (mutual support) that Wellman and Gulia (Wellman – Gulia [2007] p 153) highlighted. However, ‘social appreciation is an ‘outlier’ in the above group as it is related to the basic value of power and categorised under the higher value of ‘self-enhancement’ by Schwartz. ‘Creativity, ‘freedom from prejudice’ and ‘freedom’ were close to each other in the middle of the ranking, what clearly demonstrated that ‘open’ forums of WiW did not mediate values linked to core members in the first place (Dányi [2002] Hain [2006]) .

Messages posted on the base communication channels that support bridging primarily represented values propagating solidarity, cheerfulness, tolerance and mutual respect. To what extent can this mediated value system be viewed as special and distinguishing, compared to the value preferences of the entire population, the Internet users and WiW members?

I supposed that the value preferences that are reflected in ‘open’ forums equally differ from the value system of the entire population, the Internet users and WiW members. According to my hypotheses that I described in my dissertation in detail, the set of values that are the least or the most preferred shows a high degree of similarities among the entire population, the group of Internet users and WiW members, whereas the comments of forum users present a different value system. At this stage of the survey, the source of data concerning the entire population, Internet users (at least once a week) and WiW members was the Hungarian ESS and the self-administered questionnaire14.

Regarding the conclusion that may be drawn from this comparison, two conditions cautions us: (1) available data concerning the target group and the other three survey populations were collected with different methods (values measured by questionnaire were based on self-reflection while values represented in forums were generated by content analysis), what greatly undermines reliability. (2) I did not consider mediated values as the equivalents of self-reflexive personal values. The comparison of the rank orders of value preferences and value representation was not aimed at

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14 ESS total sample: N=1518; sub-sample of Internet users: N=398; WiW members: N=127
justifying or confuting the effect of values preferences on the participation in network base communication. In my dissertation, however, I provide guidelines for the further investigation of this effect.

The rank order of values in the entire population, among Internet users and WiW members showed a quite similar picture in the case of the least and the most preferred values. In all groups, we may find ‘environmental protection’, ‘trustworthiness’ (4th and 5th place) and ‘freedom’ in the first places, while and an additional value, ‘family security’ provided another similarity between the population and Internet users (it was the first and the second). At the end of the rank order, the results for the population, Internet users and WiW members were identical in four cases: ‘exciting life’, ‘social appreciation’, ‘obedience’ and ‘wealth’.

Based on the first five values, the rank of the mediated values of average users is definitely distinct. Values in the first (five) places occupied different places and were ‘scattered’ (8th -19th places) in the other three ranks. No such univocal dissimilarity was observed at the end of the ranks, where ‘exciting life’ and ‘wealth’ occurred in all four groups. However, it was apparent that there are multiple ‘overlaps’ between least preferred values of the population, Internet users and WiW members. All in all, comments placed in ‘open’ forums reflected different value preferences from the value system of the entire population, Internet users and WiW members.

The comparison proved to be instructive from many perspectives, even though it provided no firm base for definite conclusions (due to the above-mentioned methodological problems). Regarding the preferences of the population, the result is especially surprising, since ‘wealth’ and ‘cheerfulness’ were not among the first values, which had always been in the first places of the ranks in Hungarian value researches (Hankiss [1983], Füstös [2004]). My large-sample data also revealed that the place of ‘wealth’ among the preferences had significantly changed and had become one of the least preferred values among Hungarians, Internet users and WiW members. This may refer to the fact that the earlier upward trend of the significance of material welfare (Füstös-Szakolczai [2004]) had not only halted but also a noteworthy drop took place in the last few years.

The mediated value preferences of the average WiW users are characterised by an emphasis on benevolence and altruism, and, moreover, they can be distinguished from the other groups involved in the comparison by the preference for ‘social appreciation’, which is categorised under the higher value of ‘self-enhancement’. In my opinion, this special value preference may allude to the value background of the active participation in network base communication channels (the outstanding importance assigned to openness, initiation, helpfulness, appreciation and prestige).
VI.2.3. The Effect of the Topic on the Values Represented In Particular Forums

In my study, I investigated the effect of forum topics on value mediation. I supposed that the content (which values are represent and which not) and the intensity of value mediation (the frequency of particular values) depend on the subject of the forum. In my dissertation, my expectation was that specific values were more likely to be represented in forums whose topic may be linked to a specific value (according to everyday thinking). The results, however, confuted this hypothesis.

Data regarding all forums indicated that the intensity of mediating the value of ‘helpfulness’ was highest in the majority of forums (28 cases), whereas ‘social appreciation’ took the second place (in 6 cases).

Therefore, regardless of the topic of the forum, the rank order of the represented values coincided with the above-mentioned order of value mediation. The effect of forum topic on the content of value mediation proved to be false.

VI.2.4. Background Factors of Individual Value Mediation ‘Propensity’

Preceding the analysis of the content of individual value mediation (which background factors were related with which represented values), I examined whether there is a connection between the social-demographic characteristics and membership status of the user and the frequency of his/her value mediating behaviour, namely, value representation ‘propensity. In accordance with my hypotheses described in my dissertation in detail, value mediation is more frequent among average users who are young, highly educated, living in the capital and belong to the core members than among member who are not from Budapest, lower educated and joined WiW later.

The results, except for one, showed no significant relationship between the examined characteristics and the represented values: the frequency of individual value mediation is not affected by age, education level and membership status. However, value mediation differs according to settlement type, as the frequency of value mediation among users outside the capital city is higher than among those living in Budapest. The evaluation of communication behaviour according to settlement type was impeded by the fact that (due to the skewness of the distribution of the target group according to the place of residence) country included county seats, big cities of the country, towns and villages. Therefore, I cannot explain the results with the supposed ‘big city’ effect.

Although sex was not highlighted in the research questions, the above-mentioned results urged me to examine the effect of sex (on the frequency of value mediation). My analysis proved that the value mediation of men and women differs: females represent more values than males. This result shall be considered in the further investigation of individual value representation. It implies that comments of men are less likely to reflect content related to real personal values and value
preferences. This additional partial result cannot be linked to the theoretical background. In sociolinguistics, many guidelines may be found in regard to sex differences of language usage, however, sex dissimilarities of usage of written language is not an empirically explored field. The majority of researchers agree with the theory on sex-related conversational characteristics (separable feminine and masculine speaking styles). The most investigated subject of speaking styles is self-disclosure. Concerning sex dissimilarities of self-disclosure, “the empirical fact that males are less liable to self-disclosure than females” is widely accepted (Forgács [1989] pp 270). Although I do not consider it as applicable to network communication without reservations, it is very likely that the greater willingness to self-disclosure of women plays a role in the sex differences in the frequency of value mediation

VI.2.5. The Effect of Socio-Demographic Features on the Representation of Particular Values

Is there a connection between the content of value representation and socio-demographic background? Do values represented by core members and those joined later differ?

Besides the average low level of value mediation, I had no chance to examine the background of differences of value representation by applying multivariate procedures. When investigating the effect of socio-demographic background factors on the representation of particular values, I had to disregard the level of education, since the number of individuals of with college or university degrees was ‘overflooding’ in the target group (90%).

Analysis on background factors of value representation (ANOVA) demonstrated that no significant difference may be observed in the representation of personal values by the age of commenters. However, the set of human values include elements whose representation is justifiably influenced by the place of residence, membership status and sex.

The effect of settlement type on value representation can be observed in the case six human values: for those who live outside Budapest, the representation of the values of ‘joy of done work’ (twenty times), ‘happiness’ (seven times), ‘financial prosperity’ (four times), ‘freedom from prejudice’ (four times), ‘cheerfulness’ and ‘courtesy’ (twice) is higher than that for those living in the capital. Membership status has effect on the representation of four values. Among those joined later (not the core members), the representation of the values of ‘joy of done work’ (five times), ‘ambition’ (two and half times), ‘cheerfulness’ and ‘family security’ (twice) is higher. According to the sex of forum users, significant difference can be observed regarding one single value: the comments of women mediated ‘respectfulness, tolerance’ twice as more than men.
Based on previous studies of WiW, it is rather thought-provoking that no human value that can be linked to WiW core membership was detectable in the value representation of individuals two years after launching WiW.

Summary

My results demonstrated that base communication channels facilitate the establishment of bridges among different social groups. Concerning network membership, the examined thematic forums were of heterogeneous composition. Analysing the time process of commenting in forums revealed that, in most forums, participants with different socio-demographic background establish contact with each other. In the world of thematic forums, the topic affects neither the extent of participation heterogeneity nor the spread of communicational bridges spanning social distances. It is noteworthy that no separation related to social groups may be observed when following the sequence of commenting in forums with relatively high number of users.

These results have reinforced the conception of network base communication. The examined thematic forums are not ‘only’ the meeting place of a community with from a definite geographical locality, life style or subculture, but also communicational channels that provide a chance for interaction among different social groups.

The examined channels of network base communication may not be characterised by value mediation. Referring back to the theories about the effects of the World Wide Web on human values, the value mediating function of network base communication cannot be excluded, however, in base communication channels, it is not so strong that any conclusion regarding the strengthening or weakening effect of conversations could be established.

Comments base communication channels support bridging mediate primarily those values that propagate solidarity, cheerfulness, tolerance and mutual respect for each other. These values are represented in forms of network base communication behaviour, and many authors who have already made references to them (Rheingold [1994], Kollock [1999]) mentioned these features jointly. This special value system, this helpfulness and social appreciation are represented in forums regardless of their topics. In the rank of represented values, no localisational or homogenisational value systems are reflected, nor the value system assumed by alternative expectations, values that previous studies linked to WiW are present.

Apolitical channels of network base communication facilitate the establishment and strengthening of contacts among different social groups, however, they we have no reason to expect that they would represent various human values and bring them closer to each other.
The answers to my initial questions are the result of about five years of research. Several changes have taken place regarding the Internet penetration and Internet usage habits during the last years in Hungary; my research area, just like the world-wide web itself, can be viewed as a “moving target” from the point of view of empirical research. Obviously, my result on social distances and value mediation on network base communication channels would be different – and certainly more reliable – today. However, I hope that it do not reduce the value of my work. From the beginning, the major motivation of my pilot study was to be able to ask relevant questions and to arrive at results that would serve as the basis for further research, rather than to make highly reliable statements. My work contributes to the future studies of the thematic forums of network news groups in the following ways.

**Summary of Contributions to Further Research**

*By reviewing the literature:* The presentation of the possible connections between theories of the public sphere, theories about Internet usage, the acquisition of technological innovations and the change of values, as well as conversations on network news groups; the discussion of the relevance of network news groups that represent apolitical themes.

*By the theory-building studies:* The definition of the communicational sociological features of network news groups, the development the conceptual framework of the research area on the basis of previous literature.

*By the development of theoretical considerations:* The theoretical definition of the examined phenomena, the identification of empirically testable relationships.

*By the theory-testing studies:* The development of data collection methods that are adequate for the empirical investigation of the phenomena; the application of the previously unused method of observation in value research; the identification of the weak points and strengths of the innovations.
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VIII. List of publications and presentations by the author on the theme of dissertation

Publications


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Conference presentations


7th May, 2007. Crises of values or norms? Value preference changes of the hungarian population during the last decades. Corvinus University of Budapest, Faculty of Futurology and „With responsibility for the future”Alternative conference, Kétbodony, Hungary


20th November, 2004. Reflected values and norms concerning the relations on Internet and the process of the information change. Conference of the Hungarian Sociological Association, Budapest, Hungary