

RESEARCH-IN-BRIEF

The anti-social net: Presumed harmful influences of using the internet and support for restrictive parental mediation and internet governance

Im Netz der Gefahren: Negative Vorstellungen von den Wirkungen des Internets und ihre Handlungskonsequenzen

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Abstract: Whenever new (mass-)media technologies were introduced to western industrialized societies, their diffusion went along with both euphoria and substantial concerns expressed by different parts of the population. This may also hold true for the internet and its different application areas such as social interaction, online gaming, or data exchange. Based on research on the third-person-effect and the influence of presumed influence, our study investigates the prevalence of negative perceptions regarding the effects of using the internet for different purposes and the consequences of these perceptions on individual approval of restrictive internet regulation. Based on a quota sample (roughly representing the German population age 15 and above), we show that some negative perceptions of the effects of the internet are widespread in Germany. Additionally, we find that the more frequently people consume traditional mass media, the more they perceive negative effects of internet usage. In contrast, the frequency of internet use is related to a more optimistic evaluation of the internet's effects. Sociodemographic variables such as gender, age, and education only have a very limited effect on the strength of the perceived negative effects. Finally, we show that negative perceptions of specific application areas of the internet are differently related to an individual's willingness to demand restrictive internet governance and restrictive parental mediation of children's online activities.

Keywords: Internet skepticism, technology acceptance, media influence, influence of presumed influence, restrictive parental mediation, restrictive internet governance

Zusammenfassung: Die Bevölkerungen westlicher Industrienationen haben die Verbreitung neuer Medientechniken stets mit einer Mischung aus hoffnungsvoller Euphorie und Ängsten vor missbräuchlicher oder schädlicher Nutzung bedacht. Dies könnte auch für das Internet und seine verschiedenen Anwendungsgebiete – darunter soziale Interaktion, Online-Spiele oder Datenaustausch – gelten. Unter Rückgriff auf die Forschungsannahmen des Third-Person-Effekts und des Influence of Presumed Influence untersuchen wir die Verbreitung negativer Vorstellungen von individuellen und gesellschaftlichen Wirkungen ausgewählter Anwendungsgebiete des Internets. Ebenso prüfen wir, ob und wie solch negative Vorstellungen die Bereitschaft beeinflussen, pädagogische und politische Maßnahmen zu unterstützen, die auf eine Beschränkung des Internetzugangs oder auf eine stärkere Kontrolle von Online-Inhalten abzielen. Basierend auf einer Quotenstichprobe zeigen wir, dass

einige negative Vorstellungen von den Wirkungen des Internets weitverbreitet sind. Dies gilt vor allem mit Blick auf Menschen, die besonders häufig traditionelle Massenmedien nutzen. Wer selbst häufig online ist, hat dagegen auch eine deutlich optimistischere Haltung gegenüber dem Internet. Alter, Geschlecht und Schulbildung wirken sich kaum auf die Einstellungen der Befragten aus. Schließlich zeigt sich, dass negative Vorstellungen von den Wirkungen des Internets Konsequenzen für die Bereitschaft haben, Internetzugang und -angebot strenger zu regulieren. Jedoch unterscheiden sich diese Konsequenzen in Abhängigkeit davon, in welchen Bereichen die Befragten dem Internet negative Effekte zuschreiben.

Schlagwörter: Technikskepsis; Medienwirkung; Internet; Influence of Presumed Influence; Medienerziehung; Internetregulierung

1. Introduction

In most western industrialized societies, more than 70 percent of the population use the internet. Being online has become essential for dealing with professional and private tasks; it has become crucial to peoples' information management, recreational behavior, and interaction with their social environment (Fox & Rainie, 2014; Seybert & Reinecke, 2013; Weiser, 2001). It is hence not surprising that most people evaluate online technology in general as something that is good for them personally and good for the society at large (Fox & Rainie, 2014). However, the journalistic discourse on specific online applications has focused on their potentially harmful aspects: Online gaming is often framed as a potentially addictive and health-threatening activity, online information services are depicted as a cause of a 'digital dementia', and social network services are discussed as a threat to users' privacy and the strength and sincerity of human relationships (e.g., Donath, 2010; Krüger, 2006; McKernan, 2013; Schmundt, 2012; Spitzer, 2012). But although such potential harms are sometimes intensively covered in the journalistic discourse, little is known about whether

they resonate in the internet-related beliefs of the general population. While the internet as a whole seems to be mostly met with positive attitudes, negative beliefs regarding the effects of using the internet for specific *purposes* – such as online gaming or social interaction – may still be quite prevalent (Thatcher, Loughry, Lim, & McKnight, 2007; Zickuhr, 2013). Therefore, drawing on the example of Germany, it is the initial aim of our study to establish the prevalence of perceived negative effects of using the internet for five different purposes which we identified as widely discussed in German news media¹: *data exchange* (risk of commercial, criminal, and governmental misuse of data), *knowledge acquisition* (decline of cognitive capabilities due to using the internet as the primary source of information), *political participation* (undermining of political engagement and democratic values due to a depoliticization of media use), *social interaction* (decline in depth

1 To our knowledge, no recent systematic content analysis of the journalistic discourse regarding the internet as a technological platform exists. Therefore, we identified the five application areas based on prominent exemplary news items from high-circulation news media in Germany.

of interpersonal relationships due to the superficiality and self-centeredness of interacting through social network services), and *online gaming* (addictiveness and health-threatening effects of playing online games). Unless otherwise noted, we refer to these application areas when speaking of “the effects of the internet”.

RQ1: How prevalent are negative perceptions regarding the effects of using the internet for the following purposes: data exchange, knowledge acquisition, political participation, social interaction, and online gaming?

1.1 Antecedents of negative perceptions regarding the effects of the internet

Different approaches can be used to explain why individuals hold certain attitudes towards a media technology in general or towards a specific media product. The most basic explanation is that such attitudes reflect the social roles and social categories of an individual (e.g., gender, socioeconomic position, or ethnicity). Media technology and media products are basic cultural goods and therefore they allow for cultural differentiation within a society. Using or not using specific media technologies and media products can thus be part of broadly shared concepts of social roles. For example, affinity to technology is generally associated with a male gender role; affinity to books is perceived as ‘female’, intense use of television as typical ‘working class’ (Bourdieu, 1979; Kuipers, 2006; Richards, 1993). Such media-related attributes of social roles are acquired through the family and reinforced by

secondary agents of socialization. They are hence part of an individual’s habitus (Bourdieu, 1979). Accordingly, technologies and media products that are perceived as being part of one’s own social roles should be met with more favorable attitudes than technologies and media products that seemingly contradict one’s concept of masculinity or femininity, for example. It is however difficult to predict which social roles (e.g., tied to gender or social class) should be predictive for holding favorable or hostile attitudes towards specific application areas of the internet. We therefore ask:

RQ2: How do sociodemographic characteristics, representing the basic social categories of an individual (gender, age, parental status, and socioeconomic position), contribute to predicting the strength of negative perceptions regarding the effects of the internet?

Negative perceptions regarding the effects of the internet may furthermore be understood as an effect of the journalistic discourse about potential harms of using the internet. Independent from isolated and prominent news items or news waves stressing out specific risks of online communication (e.g., ‘digital dementia’), research on news selection has cumulated evidence that journalists generally prefer news with negative implications and that they prefer negative frames of ambiguous subjects over their positive alternatives (Gieber, 1955; Lengauer, Esser, & Berganza, 2012). This has also been shown with respect to the journalistic coverage of technical innovations (Krüger, 2006) and may hence likewise apply to media technology. We draw on the intensity of using tradi-

tional journalistic mass media as a proxy for the familiarity with the journalistic discourse about online technology. Therefore, we hypothesize that using traditional journalistic media outlets contributes to a cultivation of negative beliefs regarding the effects of the internet (Krüger, 2006):

H1a: The strength of negative perceptions regarding the effects of the internet can be predicted from the frequency of using traditional journalistic media.

Lastly, the strength of negative perceptions regarding the effects of the internet may also result from an individual's own everyday experience with being online (Fox & Rainie, 2014; Hoffner et al., 2001). Familiarity with the different usage modes of the internet may even out unrealistically pessimistic or optimistic conceptions regarding the effects of the internet on an individual and social level. We hence assume:

H1b: The strength of negative perceptions regarding the effects of the internet can be predicted from the frequency of using the internet.

1.2 Support for restrictive internet governance and restrictive mediation of children's online activities

Negative perceptions regarding the effects of the internet are likely to result in behavioral consequences. Someone who assumes that using the internet for social interaction reduces the strength and sincerity of real-life relationships or that online gaming is highly addictive may very well refrain from using the internet for both purposes. Yet, more importantly, such

negative perceptions may result in behavioral consequences that exceed individual behavioral patterns and ultimately concern the conditions of accessing the internet at a social level.

Research on the third-person effect and on the influence of presumed media influence provides a theoretical basis for these assumptions. Studies have shown that individuals who assume a media technology or a media product to have negative consequences tend to support restrictive policy measures aimed at limiting or prohibiting access to such technology or products (e.g., presumed harmful effects of pornography result in support for censorship of sexually explicit material) (Davison, 1983; Gunther & Storey, 2003; Perloff, 1999). Similarly, negative attitudes towards a media technology or a media product may increase the perceived necessity of restrictive parental mediation of children's and teenagers' media use (Hoffner & Buchanan, 2002). We therefore assume:

H2a: The stronger an individual's negative perceptions regarding the effects of the internet are, the higher is the willingness to demand restrictive governmental internet regulation.

H2b: The stronger an individual's negative perceptions regarding the effects of the internet are, the higher is the willingness to demand more restrictive parental supervision or restriction of children's internet use.

2. Method

2.1 Sample and procedure

During July 2013, we conducted personal interviews with 307 participants aged 15 years and older. The sample

was recruited in and around the city of Mainz, yet it was based on quotas matching the distribution of gender, age, and education in the German general population (Statistisches Bundesamt, 2012). Accordingly, the mean age of our participants was 48 years, and 51 percent of them were women. Five percent still attended school at the time of the survey, 64 percent had graduated from the lower secondary branch of the German educational system, and another 26 percent had received at least a university entry diploma (upper secondary education). Five percent had never graduated.

2.2 Measures

Negative perceptions regarding the effects of the internet: To our knowledge, there are no established scales to measure the perceived negative effects of using the internet for the five different purposes we analyze. Thus, we confronted our participants with a number of negative and positive statements that were identified as relevant in preceding focus group discussions². Participants were asked to indicate their agreement with each statement on a five-point-scale from 1 ‘*I do not agree at all*’ to 5 ‘*I fully agree*’. Positive items were recoded so that higher values indicate more negative perceptions regarding the effects of the internet for all items. The five internet usage modes were well represented by their respective statements: *knowledge acquisition*

(e.g., “Using the internet as a source of information leads to dementia and forgetfulness”, 6 items, $\alpha = .70$), *data exchange* (e.g., “Using credit cards online is dangerous”, 6 items, $\alpha = .71$), *political participation* (e.g., “using the internet distracts from engaging with political issues”, 4 items, $\alpha = .83$), *social interaction* (e.g., “using online social networks renders interpersonal relationships ever shallower”, 7 items, $\alpha = .74$), and *online gaming* (“online games are dangerously addictive”, 7 items, $\alpha = .79$). All scales and items used in the survey are documented in the appendix.

Willingness to demand more restrictive governmental internet regulation/ more restrictive parental mediation of children’s internet usage: The participants’ willingness to demand more restrictive governmental internet regulation was measured with two items (e.g., “the government should enact stricter laws to limit the use of the internet”, $\alpha = .80$). Their willingness to demand restrictive parental mediation of children’s internet usage was measured with four items (e.g., “children must not use the internet without supervision”, $\alpha = .77$). Again, participants indicated their agreement with each item on a five-point scale from 1 ‘*I do not agree at all*’ to 5 ‘*I fully agree*’.

Media Use: We measured the frequency of using television, radio, newspapers/magazines, and the internet on five-point scales from 1 ‘*never*’ to 5 ‘*very often*’.

Sociodemographics: Respondents were asked to indicate whether they had any children as well as their gender, age, and their level of education.

2 Items were developed in five focus group discussions (ten participants each) with participants of undergraduate courses in communication studies at the University of Mainz. The resulting items were then pretested with family members and friends of the participants and modified if necessary.

3. Results

3.1 Prevalence of negative perceptions regarding the effects of the internet

Only 18 percent of the 307 respondents did not use the internet at all. Virtually two-thirds (65 %) reported being online at least almost every day. Those who did use the internet spent 138 minutes online on an average day. Nonetheless, negative perceptions regarding the effects of using the internet for the five different purposes analyzed were widespread (RQ1). Among the 30 statements, which were used to measure negative perceptions regarding the effects of the internet, 20 were of negative valence in their original phrasing. Ten items were inversely phrased and thus had a positive valence (e.g., “Most online gamers can easily stop playing at any time”). A full documentation of the participants’ agreement with the statements can be found in the appendix. On average, 56 percent of the participants agreed (fully or mostly; scale points four and five) with the negatively phrased statements while the positive statements only received an average approval of 35 percent. Some negative statements hence appear to reflect deprecatory viewpoints of a vast majority of respondents – most obviously, this was the case with respect to *online games* and *data exchange*. Seventy-two percent of the participants agreed that online games are highly addictive. Only 17 percent thought that online gamers can easily quit playing at any time. Sixty-seven percent of the respondents feared that online-shopping leads to a loss of control over one’s private data. Barely 14 percent expected private data to be well pro-

tected in online shopping environments. Perceptions regarding the effects of using the internet for *social interaction* and *knowledge acquisition* appeared as less one-sided. Still, however, participants predominantly agreed with the negative statements representing these application areas. Sixty-nine percent of the respondents assumed interpersonal relationships to become more superficial due to the use of Social Network Services. Fewer participants (48 percent) said that these services keep their users better informed about their friends and acquaintances. Similarly, although 76 percent of the respondents perceived the internet as the best tool for acquiring new information, 55 percent feared that the internet makes users less knowledgeable. Neither negative nor positive perceptions were associated with using the internet for *political participation*. The participants predominantly rejected both the respective positive and negative statements.

3.2 Antecedents of negative perceptions regarding the effects of the internet

To answer RQ2 and test hypotheses H1a and b, we calculated five hierarchical linear regression models with the respondents’ negative perceptions of the five application areas as dependents. In each model, the respondents’ gender, age, level of education, and parental status were entered as predictors. In a second step, the frequency of using traditional mass media was added. Finally, in a third step, the frequency of using the internet was included. Results are shown in Table 1.

Table 1: Negative perceptions regarding the effects of different application areas of the internet predicted through sociodemographics, traditional mass-media consumption, and internet use

	a) Online gaming	b) Social interaction	c) Data exchange	d) Knowledge acquisition	e) Political participation
$R^2_{corr} (total)$.12***	.22***	.12***	.13***	.02
N	280	281	279	282	275
Block 1: Sociodemographics (β 's)					
Gender (0 = female)	-.15*	-	-	-	-
Age	-	-	-	-.20*	-
Own children? (0 = no)	-	-	-	-	-
Education (0 = max. secondary school)	.11†	-	-	-	-
ΔR^2	.09***	.14***	.08***	-	-
Block 2: Traditional mass-media consumption (β 's)					
Radio	-	.10†	-	-	-
TV	.12*	-	.11†	-	-
Newspapers/magazines	.14*	.22***	.19**	-	-
ΔR^2	.04**	.05**	.05**	-	-
Block 3: Internet use (β 's)					
Internet	-.17*	-.26**	-.20*	-.50***	-
ΔR^2	.02*	.04**	.02*	.13***	-

Note: * $p < .05$, ** $p < .01$, *** $p < .001$, † $p < .1$

Sociodemographic characteristics were not consistently related to the respondents' negative perceptions regarding the effects of the internet (RQ2). In the final model, only negative perceptions regarding the effects of *online gaming* were predicted by the respondents' gender (with women perceiving more risks of *online gaming* than men; $\beta = -.15, p < .05$) and – by trend – through education (respondents with higher educational qualifications perceived comparatively more risks; $\beta = .11, p < .10$). Moreover, an initially non-significant relationship emerged between age and the perceived negative effects of using the internet for *knowledge acquisition*. When controlling for internet use, younger participants perceived more

significant harms to one's cognitive capabilities than older participants ($\beta = -.20, p < .05$).

The respondents' consumption of traditional mass media and their internet use proved to be more consistently related to negative perceptions regarding the effects of the internet. Taken together, they increased the initial models' variance explained by four (*online gaming*) and five percent (*social interaction*, *data exchange*). The frequency of being online was the strongest single predictor in each of the regression models and was consistently related to less negative perceptions regarding *online gaming* ($\beta = -.17, p < .05$), *social interaction* ($\beta = -.26, p < .001$), *data exchange* ($\beta = -.20, p < .01$) and *knowledge acquisition* ($\beta = -.50, p < .001$). In

contrast, reading newspapers and magazines was related to stronger negative perceptions regarding *online gaming* ($\beta = .14, p < .05$), *social interaction* ($\beta = .22, p < .001$), and *data exchange* ($\beta = .19, p < .01$). The frequency of using TV was significantly related to the perceived negative effects of using the internet for *online gaming*, with an increasing TV consumption leading to significant more concerns about the negative effects of *online gaming*. Moreover, by trend, the frequency of TV consumption correlated positively with the perceived negative effects of using the internet for *data exchange* ($\beta = .11, p < .10$). Finally, by trend, the frequency of radio consumption was related to a more negative evaluation of using the internet for *social interaction* ($\beta = .10, p < .10$). Perceived negative effects of the internet on *political participation* remained unrelated to all predictors. Although these findings support H1b and H1c only partially, it becomes obvious that the consumption of traditional mass media and – even more so – personal internet use consistently emerged as the most important factors in predicting the perceived negative effects of using the internet for different purposes.

3.3 Negative perceptions regarding the effects of the internet and support for restrictive parental mediation and internet governance

Hypotheses H2a and H2b predicted that negative perceptions regarding the effects of the internet should correlate with the willingness of the respondents to support restrictive governmental regulation of the internet and to demand more restrictive parental media-

tion of children's online activities. We calculated two hierarchical linear regression models with participants' willingness to demand more restrictive governmental regulation and parental mediation of children's online activities as dependents. The respondents' socio-demographic characteristics, their consumption of traditional mass media, and their online use were entered as controls. Then, negative perceptions regarding the effects of the internet with respect to the five usage modes were entered as predictors. Results are shown in Table 2.

Participants' willingness to demand restrictive governmental regulation of the internet was almost entirely unrelated to sociodemographic characteristics. However, the more frequently the respondents used the internet, the lower was their support for restrictive regulation ($\beta = -.24, p < .01$). In contrast, the more distinct the participants perceived the negative effects of using the internet for *online gaming* ($\beta = .16, p < .05$) and *knowledge acquisition* ($\beta = .31, p < .001$), the more they were willing to demand governmental regulation of the internet.

With respect to the participants' willingness to demand restrictive parental mediation of children's internet usage, the pattern of results was entirely inverted. Neither the consumption of traditional mass media nor internet usage had predictive power. However, socio-demographic characteristics emerged as crucial predictors: women ($\beta = -.15, p < .01$), participants with children ($\beta = .18, p < .05$), and participants with higher levels of education ($\beta = .15, p < .05$) were comparatively more willing to demand restrictive parental mediation of children's online activities. Moreover, the perceived negative effects of using

Table 2: Participants' willingness to demand a) restrictive governmental internet regulation and b) restrictive parental control of children's internet use predicted through sociodemographics, media consumption, and negative perceptions regarding the effects of the internet

	a) Governmental regulation	b) Parental control
R^2_{corr}	.28***	.28***
n	255	255
Block 1: Sociodemographics (β's)		
Sex (0 = female)	-	-.15**
Age	-	-
Own children? (0 = no)	-.15*	.18*
Education (0 = max. secondary school)	-	.15*
ΔR^2	.09***	.17**
Block 2: Media consumption (β's)		
Radio	-	-
TV	-	-
Newspapers/magazines	-	-
Internet	-.24**	-
ΔR^2	.11***	-
Block 3: Negative perceptions of the effects of the internet (β's)		
Online gaming	.16*	-
Social interaction	-	.15*
Data exchange	-	.19**
Knowledge acquisition	.31***	-
Political participation	-	.14*
ΔR^2	.13***	.13***

Note: * $p < .05$, ** $p < .01$, *** $p < .001$, † $p < .1$

the internet for *social interaction* ($\beta = .15, p < .05$), *political participation* ($\beta = .14, p < .05$), and *data exchange* ($\beta = .19, p < .01$) significantly predicted the willingness of the participants to demand restrictive mediation of children's internet use. Hence H2a and 2b are supported. Interestingly, the negative perceptions fall into two distinct sets, with each application area being predictive for either support of governmental regulation or for support of parental restrictions, but never for both.

4. Discussion

Some negative perceptions regarding the effects of the internet appear to be shared by a vast majority of the German population. This is surprising given the far advanced diffusion of internet accesses and a frequency and intensity of internet use that outranks newspaper reading and, in some age groups, even television watching. Social network services deteriorate interpersonal relationships, online games lead into addiction, and disclosing data online is a highly risky activity – these

are statements that many, if not most people agree with. More importantly, they agree with these statements almost regardless of their education, gender, and age. Negative perceptions regarding the effects of the internet hence appear as a mainstream phenomenon transcending social categories and strata. Rather, these negative perceptions seem to be interwoven into overarching patterns of media usage. Using traditional mass media, especially newspapers and magazines, consistently correlates with negative perceptions regarding the effects of the internet – even when controlling for “typical” sociodemographic covariates of traditional mass media consumption (e.g., age). However, those who use the internet a lot are less worried about its impact on users. These results may be understood as a media effect, meaning that the journalistic discourse about the risks of online communication may cultivate negative perceptions regarding the effects of using the internet. First-hand experiences with the different application areas of the internet may even out this cultivation effect. Yet, another explanation may be that the frequencies of using traditional mass media and the internet reflect preferences towards specific types of mediated communication (e.g., preference for highly structured and persistent information, as offered by newspapers) which in turn are rooted in basic personality traits or ideologies (e.g., need for structure, conservatism). Such personality traits and ideologies may be more strongly related to both media use patterns and negative perceptions regarding the effects of the internet than are sociodemographic characteristics. This may also explain why media use and negative percep-

tions are strongly related while socio-demographic characteristics barely have predictive power.

Negative perceptions regarding the effects of the internet did quite strongly predict the willingness to support restrictive governmental regulation of the internet as well as restrictions for children’s online activities. This finding seems particularly relevant because even people who do not hold negative attitudes toward the internet themselves may still experience public pressure towards restricting their own or their children’s online access when such negative attitudes are highly prevalent and visible in their social environment. However, support for governmental regulation was related to the perceived negative effects of using the internet for *online gaming* and *knowledge acquisition* while support for parental restrictions of children’s internet use was related to the perceived negative effects of using the internet for *social interaction*, *data exchange*, and *political participation*. An explanation for this distinct pattern may be found in the specific character of negative effects associated with these different application areas. The risks associated with *online gaming* and *knowledge acquisition* concern issues of actual physical and psychological health, as the keywords ‘addiction’ (*online gaming*) and ‘digital dementia’ (*knowledge acquisition*) clearly indicate. Protecting the health of its citizens is perceived as a core duty of the social state in Germany and hence falls into the jurisdiction of the government. Negative perceptions regarding *social interaction*, *political participation* and *data exchange* rather concern aspects of community, social life, and (social) identity – aspects that are subject to socializa-

tion and thus rather associated with the domain of parental influences.

The small sample size, the quota sampling, and the cross-sectional design limit the generalizability of the results as well as causal interpretations. Also, we only measured participants' internet use in general, but not with respect to the five purposes for which we established negative perceptions. This, however, would have been a more precise approximation of the experience that participants have gained in these specific areas. Nonetheless, the results show that negative perceptions regarding the impact of online technology on the individual and social level deserve attention in research. Not only do they appear to reflect deeply rooted and widely shared attitudes towards (at least) some aspects of online communication. They can also contribute to predicting the success of specific policy measures, even online censorship, and help to understand the circumstances of parental mediation under which children build up their online environments today.

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Appendix: Survey items

	% _{ag} *	M	SD
Online gaming ($\alpha = .79$)		3.66	.72
Most online gamers can easily quit playing at any time	17	2.34	1.17
Playing online games makes people aggressive	46	3.41	1.11
Most online players neglect their friends/relatives in real life	55	3.51	1.10
Playing online games helps to reduce feelings of aggression	20	2.54	1.14
Playing online games supports fantasizing about violence	54	3.54	1.15
Most online gamers have a compulsive desire to play	73	4.04	.90
Online games are dangerously addictive	72	3.98	.99
Social interaction ($\alpha = .74$)		3.22	.70
The contacts in online social networks are not true friends	56	3.58	1.25
Online social networks keep users informed about their friends/relatives	48	3.29	1.21
Users of online social networks are isolated in real life	40	3.14	1.22
Users of online social networks neglect their friends/relatives in real life	37	3.12	1.18
Users of online social networks are less inhibited to bully and wear down others	83	4.22	.91
Using online social networks renders interpersonal relationships ever shallower	69	3.83	1.05
Online social networks simplify organizing activities with friends/relatives	75	4.08	.97
Data exchange ($\alpha = .71$)		3.66	.73
The government knows too much about its citizens due to the internet	66	3.78	1.10
Data disclosed during online shopping are well protected against criminal access	14	2.15	1.10
Internet providers merchandise personal data without users' consent	69	3.85	1.07
Online banking is harmless	37	2.94	1.30
Using credit cards online is dangerous	58	3.65	1.13
Online shopping results in a loss of control over one's private data	67	3.79	1.17
Knowledge acquisition ($\alpha = .70$)		2.88	.73
The flood of online information swamps internet users instead of helping them	36	3.09	1.13
Using the internet as a source of information leads to dementia and forgetfulness	21	2.40	1.23
Internet users forget how to tell good information from bad information	39	3.09	1.21
Internet users make no effort to retain any information if they are permanently online	55	3.47	1.24
Acquiring information is much easier using the internet than using other media	76	4.10	1.06
People are misled by wrong and unserious online information	43	3.40	1.04
Political participation ($\alpha = .83$)		3.36	.91
Using the internet distracts from engaging with political issues	27	3.38	1.13
Political online platforms lead to an overall increase in political participation	23	2.89	1.02
The internet mobilizes particularly young people's political engagement	22	2.60	1.20
The internet motivates more citizens to get involved into political issues	20	2.53	1.10

	% _{ag} *	<i>M</i>	<i>SD</i>
Governmental internet regulation ($\alpha = .80$)		2.12	1.18
The government should enact stricter laws to limit the use of the internet	21	2.34	1.35
Internet use should be legally regulated	13	1.90	1.22
Parental mediation of children's internet usage ($\alpha = .77$)			
Children must not use the internet without supervision	63	3.80	1.20
Children must not be allowed to surf the internet for too long	78	4.15	1.01
Children should not use the internet alone	56	3.56	1.24
Children should be provided maximum freedom when they use the internet	20	2.45	1.16

Note: *percent of participants who agreed with the respective statements (fully or mostly; scale points four and five)