

Justification of Mass Surveillance: A Quantitative Study

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Abstract. Online mass surveillance by governmental organizations is omnipresent. Even though this results in a loss of privacy and further negative outcomes for individuals, a majority is justifying mass surveillance. Understanding, why this is the case is among others important for individuals, who want to decrease justification of mass surveillance. Therefore, this study aims to uncover the factors that drive this justification. Drawing on system justification theory we consider mass surveillance to be a political arrangement. Five factors were identified that potentially drive individuals' justification of mass surveillance which are among others, perceived privacy control or perceived security. A quantitative study was carried out and the results support most of our hypotheses. With our results, we contribute to the privacy-related area in the domain of IS, by indicating that individuals consider mass surveillance not necessarily to be bad and by giving advice on how to alter the level of justification.

Keywords: mass surveillance, system justification theory, privacy, nothing to hide, justification

1 Introduction

Governmental organizations have created a system of online mass surveillance. That means, these organizations analyze a vast size of information sent over the Internet without suspicion [1]. The result of this mass surveillance is that a majority of individuals thinks they are having almost no privacy anymore [2]. This reduced privacy results in disadvantages such as profiling, manipulation [3] or chilling effects [4]. For example, among others, individuals do not search online for certain issues such as 'terrorism' anymore because they are afraid becoming a target of governmental organizations [4]. To protect one's own privacy, one might thus assume that individuals reject mass surveillance e.g. by protesting against it.

However, although individuals rate their privacy as very important [2], surveys indicate that more individuals are justifying, i.e. defending and warranting, mass

surveillance rather than rejecting it [5, 6], e.g. by protesting against it [7]. What is good for governmental organizations, who have an interest to keep mass surveillance [8], is bad for individuals' privacy [9].

Therefore, both parties – individuals and governmental organizations – need to understand what factors drive individuals' justification of mass surveillance. Then both might have the chance to either change these factors to change the level of justification or to keep these factors to keep the level of justification. Either way, for both parties it is necessary to understand:

What factors drive individuals to justify mass surveillance?

To answer the research question we rely on the one hand on previous research on mass surveillance [6, 10–13]. There, perceived security has been suggested as one of the main factors determining justification of mass surveillance [10, 11, 13]. Yet, this factor has only been suggested and has not been supported scientifically. On the other hand, mass surveillance is a method that is used to monitor a population of individuals, approved and ordered by governmental organizations [14]. Although also companies from the private sector can use mass surveillance technologies, we focus on mass surveillance being a political arrangement as an ordinance by the government. To find out why individuals justify mass surveillance, typical theories from information system (IS) research in the privacy domain cannot be applied [15]. This is because these theories usually focus on an actual IS. In this study, it is more about mass surveillance as a political arrangement. That is why in this research study we refer to system justification theory (SJT) [16–18].

Thus, in the following, we will provide information on SJT as well as mass surveillance and discuss both research streams together to understand mass surveillance justification. A quantitative study is then carried out, using workers from Amazon Mechanical Turk (mTurk). Based on the results, we then contribute to theory by providing factors that are important in a mass surveillance context.

2 Theoretical Background

We next provide information on the system justification theory (SJT) [16, 17]. We continue with research on mass surveillance before carving out the research gap.

2.1 System Justification Theory

System justification: The justification of a system means that individuals defend, bolster or warrant a system [18]. A system is defined as existing social, economic, and political institutions and arrangements. It can range from small-scale systems, such as a nuclear family up to an entire nation [19]. System justification is therefore defined as defending, bolstering or warranting existing social, economic, and political institutions and arrangements.

SJT is a theory to explain why individuals justify a system [17]. Thereby, alternatives of the status quo are degraded. Individuals do so because they have social and psychological needs to consider a system as being legitimate and as being good, fair,

natural, desirable, and inevitable [16–18]. They also want to reduce anxiety, guilt, dissonance, discomfort and uncertainty [17].

Prior privacy-research in the domain of IS has not been using SJT in their research studies [15]. In other research domains, SJT has been used to explain justification of different systems including political systems [17], financial work systems [18] or economic systems such as meritocracies [20]. Three factors mainly influence system justification: the perceived powerlessness, the perceived need for order and stability and the perceived dangerousness of the world.

Perceived powerlessness: Power refers to having asymmetric control over particular resources [21]. Individuals, who are in a status of power, are able to process information and to make decision, with the goal to maintain the current position in the system. The more powerful an individual is the more she has access to resources to control her own position [21]. Previous research on SJT has especially researched on individuals who are in a status of perceived powerlessness, i.e. on those individuals who do not have control over particular resources because of living in a particular system [18]. SJT thereby indicates that powerless individuals still justify the system and sometimes even more justify it than powerful individuals, although it is the system, that reduces their power. For example, individuals, who are financially deprived by the current system nevertheless believe in meritocracies [20].

Perceived need for order and stability: Individuals, who have a perceived need for order and stability, have the perception that the environment they live in should be orderly, well-structured and unambiguous. If decisions are made they have a desire to stick with these decisions [17].

Perceived dangerousness of the world: Individuals, who think that they live in a dangerous world, have the perception that life is fiercely competitive and ultimately believe that others are constantly threatening to harm them [22]. These individuals have a heightened sensitivity to potential dangers in the social environment, including threats of violence, and terrorism, and have permanent concerns about being in danger [17].

To theorize the relation between system justification theory and mass surveillance, we provide detailed information on mass surveillance in the following section.

2.2 Related Work on Mass Surveillance and Research Gaps

Mass surveillance is generally defined as any method, that collects information of a population, without any attempts to limit the surveillance to a particular individual, but rather to monitor an entire group of individuals [14]. Mass surveillance in an online context has become a major topic in society¹, through revelations proving evidence on how the National Security Agency (NSA) of the USA conduct mass surveillance. Yet, also governmental organizations of other countries conduct mass surveillance on individuals worldwide. It is known that governmental organizations worldwide,

¹ Several EU projects have been conducted to better understand the issue of mass surveillance (please see <http://www.projectpact.eu/>; <http://surprise-project.eu/> and https://cordis.europa.eu/project/rcn/102282_de.html).

essentially store and examine a vast amount of information, which is sent over the Internet, without suspicion [1].

Mass surveillance thereby violates individuals' privacy, whereas privacy is a multi-facet concept [23]. However, in IS research, privacy is usually defined as the amount of control an individual has over her personal information [24], expressed by privacy control [25]. Since mass surveillance takes place by examining information, individuals have often lost control over their information, and thus also over their privacy.

Through mass surveillance, individuals suffer from several disadvantages. For example, individuals search less for delicate issues such as 'terrorists' on the Internet because they are afraid of becoming a target of governmental organizations [4]. Also, discrimination, profiling or manipulation can occur through mass surveillance [3]. Still, it is indicated that more individuals justify mass surveillance rather than oppose it [5], e.g. by protesting against it.

To find out, in how far previous literature has been researching on the topic of mass surveillance justification, we conducted a literature review², and identified several articles [6, 10–13, 26–29]. The studies cover topics such as coping with mass surveillance or factors leading to the disapproval of mass surveillance. Still, although covering different issues, all articles commonly suggest two factors that need to be considered when researching on mass surveillance:

Perceived security: Several studies have indicated that increased security in everyday life through mass surveillance might be an important factor why individuals justify mass surveillance. Thereby, it is about the perception of individuals that security is enhanced through mass surveillance [10, 11, 13, 28, 29]. This is in line with governmental organizations which state that through mass surveillance, objective security, such as less terrorist activities, is increased [8].

Nothing to hide: Several studies introduce the concept of 'I have nothing to hide'. This refers to individuals, who state that they have no problem with governmental organizations examining their information, because they think have no information to conceal [10, 11, 27]. Rather they think that only criminals would have something to hide, which would then justify it to spy on it [10].

Research gap: In sum, scholars have already researched on individuals' attitude towards mass surveillance and have therefore strengthened our understanding on this topic. They have particularly indicated that perceived security and the concept of 'nothing to hide' could be important factors in the context of mass surveillance [10, 11, 13, 28, 29]. However, there is scarcity on how these or other factors of the SJT lead to the justification of mass surveillance. We therefore theorize on justification of mass surveillance based on the SJT and the mentioned research on mass surveillance.

3 Theorizing on Justification of Mass Surveillance

In this research study, we use SJT to find out what determines an individual to justify mass surveillance. However, when using a rather general theory in a more particular

² The literature review covered the AIS basket of eight, ICIS, HICSS, ECIS and WI proceedings, alongside with a general search on Google Scholar.

context, it is usually inevitable to adapt the theory to the particular context [30]. Therefore, when using SJT to explain mass surveillance, we will on the one hand adapt the existing concepts when necessary. On the other hand, we will add two concepts that are suggested by previous literature on mass surveillance [6, 10–13, 26–29] to better explain the dependent variable.

Thereby, we consider mass surveillance to be a system in the sense of the SJT. That means we consider mass surveillance as an existing political arrangement. Individuals, using the Internet, live in the system of mass surveillance, because through mass surveillance as a political arrangement, they are monitored while using the Internet. Therefore, in light of SJT, justification of a system refers to **justification of mass surveillance**. Based on previous research on SJT and mass surveillance, we define it as the motivation of individuals to defend, bolster or warrant existing political arrangements, allowing mass surveillance, conducted by governmental organizations such as intelligence agencies [16, 29].

Furthermore, we include powerlessness of individuals, which needs to be adapted to the particular context [30]. For example, an individual who is smart but has no physical strength, is powerful on the resource ‘information’ but powerless on the resource ‘strength’. In this study, we research in the context of mass surveillance and privacy of individuals. Privacy of individuals is defined as having control over ones’ own personal information, expressed by privacy control [24, 25]. Mass surveillance – the system in this study – is reducing privacy and thus the amount of control over privacy. In SJT, powerlessness refers to the power individuals have but that is reduced by the system. Therefore, in this study, since mass surveillance reduces the power over one’s own privacy, we conceptualize powerlessness as the **perceived loss of privacy control**.

We also include both perceptions **perceived need for order and stability** as well as the **perceived dangerousness of the world**. Both perceptions do not need to be adapted to a particular context as they are independent of the situation [17].

Besides the components of the SJT, previous research on mass surveillance suggests two factors, that need to be considered when conducting research on mass surveillance: On the one hand, many individuals think that mass surveillance increases security [28, 29]. This could have an influence on individuals’ justification of mass surveillance [13]. We therefore include the component **perceived security** and define it as the perception of an individual that through the conduction of mass surveillance there will be increased security, e.g. less crime or terrorist activities [28, 29]. On the other hand, the argument of many people that they have **nothing to hide** is also suggested to be an important concept in the context of mass surveillance [10, 11]. We therefore include the concept of nothing to hide, and define it as the perception of an individual that she has no information to conceal in front of governmental organizations [10, 11].

Based on these concepts, we build our research model. The research model also includes **prior disclosure** as a control variable. This concept is defined as the amount of information, individuals have disclosed in the past on the Internet [31]. With this variable, we aim to control for, in how the participants have disclosed information on the Internet at all, to account for in how far mass surveillance is even an issue for them. In case they have not disclosed information on the Internet before, it might influence their justification of mass surveillance. Furthermore, as has also been done by previous

privacy research [e.g., 31] we also controlled for gender and age. This is because previous research has shown that gender [32] as well as age [24] are variables which often influence attitudes of individuals in a privacy context. Therefore, it is recommended to generally control for them. Hypotheses for the research model are explicated in the following.

Individuals, who are high on perceived loss of privacy control have the perception that they are not able to govern their own personal information. Mass surveillance is a factor, which decreases privacy control [26, 29], because a vast amount of information is captured, stored and examined by governmental organizations, without the control of the individual [1, 29]. Previous research has shown that individuals, who do not have access to needed resources and who are therefore powerless, paradoxically more justify the system, which causes their powerlessness [18]. Individuals, who are high on perceived loss of privacy control, i.e. who are in a less powerful state, will therefore also more justify mass surveillance, which causes their powerlessness. They do so to better maintain a positive image about their situation even if it is not positive at all [18]. We hypothesize:

H1: Perceived loss of privacy control increases justification of mass surveillance.

Having a high need for order and stability means that these individuals want to maintain their status quo [17]. Mass surveillance is considered to be the system, which represents the current status quo. Individuals do not want mass surveillance to stop, because then the status quo is changed, they might need to adapt, and uncertainty arises [33]. This is because one does not know what would happen after mass surveillance has stopped. For example, less security or publishing the results of mass surveillance, would all change the current status quo. Continuing mass surveillance as it is, would at least maintain the status quo even at the expense of decreased privacy. Hence, individuals who have a high need for order and stability, more justify mass surveillance. This is also aligned with the SJT [17] and previous research, suggesting that the need for social order can result in the justification of mass surveillance [28, 29]. We hypothesize:

H2: Perceived need for order and stability increases justification of mass surveillance.

Individuals, who think that they are living in a dangerous world, do see the world as threatening. They think that through certain events, they are under severe danger causing harm. For example, crime activities or terrorist attacks are those events, which increase the perception of severe danger to those individuals [34]. Individuals, who think that they live in a dangerous world, do have that perception across different situations. However, they welcome practices which would reduce their perception, and which fights against that dangerous world. Mass surveillance is said to fight against the dangerous world [26]. This will make them more likely to justify it, which is also aligned with basic premises of the SJT [17]. We hypothesize:

H3: Perceived dangerousness of the world increases justification of mass surveillance.

If individuals think, that there will be more security through mass surveillance, they will also be more likely to justify mass surveillance. This is because increased security is seen as one of the main benefits out of mass surveillance [13]. For example, it is said that through mass surveillance, crime or terrorist activities are reduced, by identifying subjects and forestalling potential crime or terrorist activities [8]. To gain that benefit, individuals will be more likely to justify mass surveillance, which is also suggested by previous research [10, 11, 13, 28, 29]. We hypothesize:

H4: Perceived security increases justification of mass surveillance.

Individuals, who have something to hide, do not want their information to be read by others, e.g., governmental organizations [10, 11]. Therefore, they value their privacy in terms of that they want to control their information. Mass surveillance is against individuals, who have something to hide, because mass surveillance allows governmental organizations to jeopardize individuals' privacy, and to read their private information [10, 11, 27]. Hence, individuals, who have something to hide, will be less likely to justify mass surveillance. The other way around, individuals, who state they have nothing to hide, will therefore be more likely to justify mass surveillance. They see less disadvantages from mass surveillance, and rather think that as long as they do not do something wrong, governmental organizations should be allowed to examine information sent over the Internet [10]. We hypothesize:

H5: Nothing to hide increases justification of mass surveillance.

To evaluate our research model (see Figure 2) we conducted a quantitative study. The methodology therefor is explained in the following section.

4 Methodology

We aim to research on why individuals justify mass surveillance. To do so we conducted a quantitative survey. The used items are depicted in Table 1. To conduct the survey, we used Amazon Mechanical Turk (MTurk) because it is considered to be equivalent to similar data collection methods [35] and it has also been successfully used in a privacy context [36]. We followed the guidelines of previous research to conduct the survey, e.g., by only letting participants take part which have a very high number of already completed tasks. We told workers of MTurk that the maximum time for completing the task will be 12 minutes. Payment was \$0.25 for each worker. 141 participants took part in our survey, whereas only these participants who provided answers to at least 90 percent of the questions were kept. All others were removed. After cleaning the data, we ended up with 135 participants in total. Participants were

30.88 years old on average, with a standard deviation of 9.64 years. 38 female participants and 97 male participants took part in our survey.

Table 1. Items and Loadings

Construct	Item	Loadings
Justification of mass surveillance [13]	Intelligence agencies needs to have access to individual bank accounts.	0.840
	Intelligence agencies need wiretapping authority.	0.923
	Intelligence agencies needs to have authority to use high tech surveillance tools for Internet eavesdropping.	0.909
Perceived loss of privacy control [25]	I do not have control over who can get access to my personal information I provided on the Internet.	0.727
	I do not have control over how personal information is used by other parties on the Internet.	0.991
	I do not have control over my personal information provided on the Internet.	0.816
Need for order and stability [37]	I enjoy having a clear and structured mode of life.	0.868
	I like to have a place for everything and everything in its place.	0.871
	I find that a consistent routine enables me to enjoy life more.	0.789
Perceived dangerousness of the world [34]	Every day as society becomes more lawless and bestial, a person's chances of being robbed, assaulted, and even murdered go up and up.	0.907
	It seems that every year there are fewer and fewer truly respectable people, and more and more persons with no morals at all who threaten everyone else.	0.900
	My knowledge and experience tell me that the social world we live in is basically a dangerous and unpredictable place, in which good, decent, and moral people's values and way of life are threatened and disrupted by bad people.	0.844
Perceived security [38, 39]	Mass surveillance by intelligence agencies is good for protecting our country.	0.918
	When conducting mass surveillance, our country is more likely to be protected.	0.951
	Continuous mass surveillance by intelligence agencies lessens the chances of terrorist attacks.	0.902
Nothing to hide [40]	People who obey the law have nothing to fear from mass surveillance.	0.945
	Only criminals have any reason to be afraid of mass surveillance.	0.920
Last item was self-developed	I do not have anything to hide when it comes to mass surveillance by intelligence agencies.	0.678 (dropped)

For the analysis of the survey, we used SmartPLS 3.2.6. The reason is that we also asked for negative perceptions such as loss of privacy control which can skew results [41]. Details and results are given in the following section.

5 Results

To test our research model, we first accounted for common method bias (CMB) followed by the evaluation of the measurement model and the structural model.

Common method bias: We first conducted the Harman's Single-Factor Test, which indicates that 30.46 percent is explained by one factor which shows no indication of CMB [42]. We also accounted for the Unmeasured Latent Marker Construct techniques. The average R^2 with the CMB factor is 0.0027 higher than without the CMB factor. As the R^2 excluding the CMB factor is 0.79135, the ratio is 1:293. Therefore, CMB seems to be no issue [43].

Measurement model: To account for a valid measurement model, we checked on the following criteria: 1) *Indicator reliability*. The threshold of each indicator should be 0.707 to account for at least 50 percent of the variance of the latent variable [44]. As shown in Table 1, this was the case except for one item of 'Nothing to hide' which was dropped in the further evaluation. 2) *Composite reliability (CR)* and *average variance extracted (AVE)*. CR should be above 0.7 and AVE should be above 0.5 [45] which is both the case as one can see in Table 2. 3) *Discriminant validity*. To make sure that all constructs differ from each other, the square root of AVE needs to be greater than the

correlation between the constructs [45, 46]. This is also the case as depicted in Table 2. We also computed the heterotrait-monotrait ratio [HTMT, 47]. When using the most conservative approach $HTMT_{0.85}$, we see no signs of discriminant validity since the highest value is between perceived security and ‘Nothing to hide’ with 0.742. As all requirements are fulfilled, we conclude that our measurement model is valid.

Table 2. AVE, CR and bivariate correlations

	Mean	Std.	AVE	CR	1	2	3	4	5	6	7	8	9
1 Justification of mass surveillance	3.48	1.89	0.794	0.920	0.891								
2 Perceived loss of privacy control	4.98	1.63	0.725	0.886	-0.138	0.852							
3 Need for order and stability	5.07	1.33	0.712	0.881	0.250	-0.004	0.844						
4 Perceived dangerousness of the world	4.19	1.53	0.782	0.915	0.478	-0.060	0.289	0.884					
5 Perceived security	4.37	1.73	0.854	0.946	0.728	-0.125	0.099	0.475	0.924				
6 Nothing to hide	4.22	2.03	0.908	0.952	0.601	-0.089	0.125	0.450	0.742	0.953			
7 Prior disclosure	3.96	1.74	0.790	0.919	0.187	0.096	-0.031	0.248	0.290	0.161	0.889		
8 Age	30.88	9.64	n/a	n/a	-0.010	0.122	0.007	0.098	0.119	0.163	-0.099	n/a	
9 Gender (1=male, 2 = female)	1.28	0.45	n/a	n/a	0.090	-0.025	0.122	-0.003	0.079	0.026	0.109	0.048	n/a

*The diagonal bold values represent the square root of the AVE of the corresponding constructs.
n/a cannot be computed because these are single-item constructs*

Structural model: To evaluate the structural model, we checked on the variance extracted (R^2) of the dependent variable as well as the significance level of each path coefficient. Please see Figure 1 for an overview.

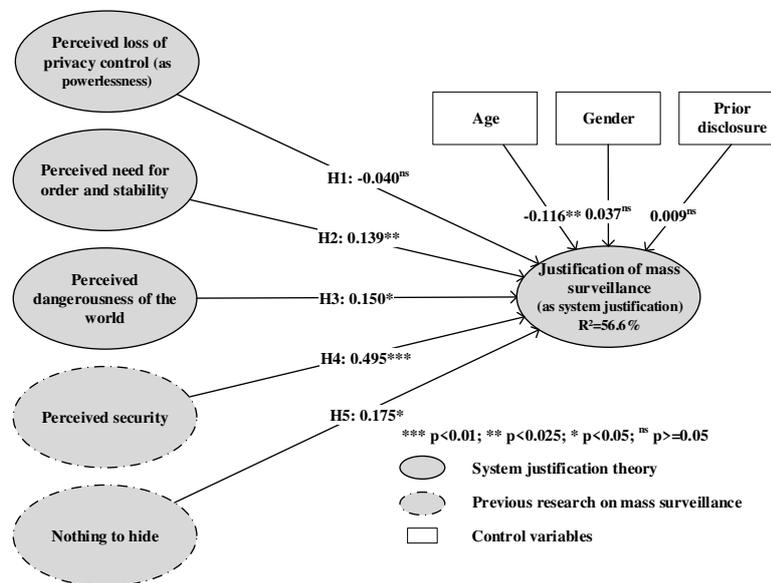


Figure 1. Structural model

The results reveal that 56.6 percent of the variance of justification of mass surveillance is explained. H1 is not supported as the path coefficient is not significant.

Besides, the results support all other remaining hypotheses, i.e. H2, H3, H4 as well as H5. Moreover, the results indicate that gender and prior disclosure as control variables, do not significantly influence justification of mass surveillance. However, age as a control variable has a significant, negative impact. This means that the older the individual, the less likely the justification of mass surveillance.

These results have implications for both, theory and practice, which will be discussed in the following section.

6 Discussion

A majority of individuals is justifying mass surveillance by governmental organizations [5, 6] despite a reduce in one's own privacy [2]. This can lead to further challenges to the individual such as profiling, manipulation [3] or chilling effects [4]. Finding out, why individuals justify mass surveillance, is important for the individuals themselves, in case they want to change their attitude on mass surveillance. Also, for governmental institutions who have an interest in keeping mass surveillance, the results can be important. Scholars have thus already put some research on mass surveillance [10–13]. Yet, research on justification of mass surveillance is rather scarce [15].

In this research study, we therefore concentrated on factors driving justification of mass surveillance. We consider mass surveillance to be a political arrangement, and therefore to be a system in the sense of the system justification theory (SJT) [16]. To use SJT in our research study, we follow previous recommendations to adapt a general theory to a particular context [30], by adapting existing concepts and by adding new concepts from literature on mass surveillance [10, 11, 13, 28, 29]. After having evaluated our research model, we are able to answer our research question which is *what factors drive individuals to justify mass surveillance?*

Our results indicate that perceived security is the major concept increasing justification of mass surveillance. Hence, if individuals have the perception that through mass surveillance, security is about to increase, then they are more likely to justify it. Also, individuals who have nothing to hide have a higher probability to justify mass surveillance. In addition to these two concepts from research on mass surveillance, two factors from SJT are also drivers of justification of mass surveillance: Individuals, who have a higher need for order and stability as well as individuals who perceive the world to be dangerous, are more likely to justify mass surveillance. Besides, perceived loss of privacy control has no influence on justification of mass surveillance. That means, even if individuals have the perception that through mass surveillance, they have lost control over their privacy, it does not have an effect on their justification of mass surveillance. These results have implications for theory in the area of IS, and specifically in the privacy-related domain, as well as for practice.

6.1 Implications for Theory

Mass surveillance is a system in the sense of the SJT: SJT has been used in a variety of settings outside of the IS domain, predominantly in the area of political

science [17, 18, 20]. With this research study, we bring SJT to the area of IS research, by conceptualizing mass surveillance to be a political arrangement, and thus a system in the sense of SJT. Scholars, researching on justification of mass surveillance, can therefore also rely on SJT in their future research studies. With this, they are able to rely on additional factors [19] that could be used with SJT, to gain a further understanding of justification of mass surveillance.

Individuals who have a need for order and stability consider mass surveillance to be the current status quo: Individuals who are having a higher need for order and stability want to maintain their current status quo [17]. Since these individuals are more likely to justify mass surveillance, we conclude that they consider mass surveillance to be the current status quo, which they want to maintain. Based on this implication, scholars could use other theories, such as status quo bias theory which has already been applied in IS research [48] or related factors such as right-wing authoritarianism or conservatism [34], to further understand justification of mass surveillance.

Mass surveillance does not have to be a bad thing for individuals: Previous research, including this study, has assumed that mass surveillance is perceived to be negative by individuals, due to privacy issues [e.g. 10]. However, our results indicate that individuals do not necessarily consider mass surveillance to be a bad thing. Individuals think that through mass surveillance, the world might become less dangerous, and perceived security might increase, which is why they justify it. Especially the latter is a factor, that has often been suggested by previous research [13, 26, 28, 29]. However, to the best of our knowledge, we are the first ones to explicitly demonstrate that impact on justification of mass surveillance. Hence, if scholars in the domain of IS, aim to take mass surveillance as something individuals perceive to be negative, or aim to use it to fear individuals [38], they should put caution on it. Researchers should rather check in how far individuals really consider mass surveillance to be a bad thing or if they do not more consider it to be positive.

Loss of privacy control has no impact on justification of mass surveillance: One explanation for that could be, that loss of privacy control does not adequately reflect powerlessness. Powerlessness might also refer to other concepts, e.g., when it comes to the question of who is able to examine information. The majority of individuals is producing information, yet, only a minority of individuals is powerful enough to examine that information. Also, other conceptualizations, such as political power, might better serve as the conceptualization of powerlessness. Another explanation for the non-supported hypothesis would assume, that loss of privacy control does correctly reflect powerlessness. However, powerlessness has no impact on justification in a system of mass surveillance. Previous research on SJT has shown that powerlessness does not always have to lead to more justification of the system [19]. Different reasons have been provided, e.g. when individuals are more ego-centered [18]. Scholars could go deeper into that issue, by applying SJT, and use explanations for the non-significant effects of powerlessness. Independent of that, the results imply for scholars in the domain of IS, that when researching on mass surveillance outside of SJT, a loss of privacy control could be left out in a research model.

Besides theoretical implications, this study also provides practical implications.

6.2 Implications for Practice

Two practical implications arise from this study:

1) Perceived security needs to be aligned with objective security. In case individuals want to change their positive attitude on justification of mass surveillance, they might want to ask themselves, in how far mass surveillance actually increases security. For example, so far, evidence on increased objective security through mass surveillance is rather scarce [49]. Therefore, we recommend individuals to check on, in how far their level of perceived security is aligned with the actual level of objective security through mass surveillance.

2) Individuals who have the need for order and stability consider mass surveillance to be current status quo. Changing the status quo will bring additional problems. Therefore, in case governmental organizations are focusing on individuals, who have a high need for order and stability, they could try to just let things going without changing anything. This is because individuals often try to keep the current status quo [48].

After having discussed the implications of this study, we will now focus on limitations and future research possibilities.

6.3 Limitations and Future Research

This research study uses prior disclosure as a variable to control for, in how far the amount of information disclosed, has an impact on justification of mass surveillance. The results indicate no impact, yet, future research could still concentrate on other demographic variables of the participants, such as the country they are living in, to find out in how far there are differences in the justification of mass surveillance. Furthermore, age as a control variable indicates that the older the individual the less likely she will be to justify mass surveillance. We did not hypothesize on that relationship, yet, future research might more elaborate on these thoughts. One reason could be that older individuals know more how life is without the Internet, and without online mass surveillance, and therefore value that more.

Besides, this research study has concentrated on factors, driving the justification of mass surveillance. If one wants to actually change the level of justification, one could focus on these factors. Future research could thus try to find out, what determines the level of these factors, to then present actual recommendations on how to influence the level of justification of mass surveillance. Furthermore, future research could also expand the definition of mass surveillance, to not only focus on governmental organizations but also include private companies which might also use mass surveillance technologies [e.g., 50]. This could also be done, by focusing on designated journals, which are outside the domain of IS, but which particularly focus on mass surveillance. Future research could on the other hand also focus on the term governmental organizations, by better specifying that term and digging deeper into what particular governmental organizations conduct mass surveillance. In addition, this study has focused on studies in the domain of IS. Future research could also elaborate on other sources outside this domain. Plus, this research study has analyzed the results

using a PLS approach. However, other approaches such as the ordinary least squares approach (OLS), might also be suitable. Therefore, future research might also consider using other methodologies than PLS, such as OLS.

In sum, this study has researched on factors, driving justification of mass surveillance. Based on SJT and previous research on mass surveillance, several drivers of mass surveillance justification have been provided, alongside with implications for theory and practice.

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