Let me quickly share it - Time Pressure when Sharing on Social Media

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Abstract

Photo sharing has become an integral part of social media; many new platforms even prompt their users to share photos under time pressure. Yet, sharing photos can also affect the privacy of individuals in a negative way. In this paper, we investigate the factor of time pressure when sharing on social media in relation to target audiences and photo content. For this, we conducted an online study (N=195) where we simulated time-pressured sharing scenarios with photos containing different sorts of content, including private information and unfamiliar bystanders. Among our results, we show that time pressure can impact sharing decisions even though this is not consciously considered by users. Additionally, we confirm the influence of non-privacy-related influence factors like trust towards the target audience, photo aesthetics, and connection with others. Based on our results, we discuss design implications for photo-sharing prompts to better protect private information and bystanders in social media photos.

CCS Concepts

• **Security and privacy → Social network security and privacy**;
• **Human-centered computing**;

Keywords

Social Media, Photo Sharing, Prompted Sharing, Time Pressure

MUM '24, December 01–04, 2024, Stockholm, Sweden

ACM ISBN 979-8-4007-1283-8/24/12
https://doi.org/10.1145/3701571.3701578

ACM Reference Format:
Rebecca Panskus, Tangila Islam Tanni, Alexander Ponticello, Echo Meissner, Yan Solihin, Katharina Krombholz, and Karola Marky. 2024. Let me quickly share it - Time Pressure when Sharing on Social Media. In *International Conference on Mobile and Ubiquitous Multimedia (MUM '24), December 01–04, 2024, Stockholm, Sweden.* ACM, New York, NY, USA, 20 pages. https://doi.org/10.1145/3701571.3701578

1 Introduction

In 2022, more than half of the world's population used social media, spending on average more than two hours per day on these platforms [61]. Sharing photos on social media has become a core functionality [32, 48, 67]. When sharing photos on these platforms, users can select different target audiences, such as only selected users, often referred to as *friends*, or sharing publicly [22, 39]. Furthermore, users can choose to interact passively with the platform by not sharing any content at all. While sharing photos on social media with friends can strengthen real-life friendships [29], sharing certain photos publicly can reveal sensitive information to strangers [11]. Consequently, studies have shown that photo sharing on social media can be associated with privacy issues [2, 8, 9, 30, 60]. For example, photos of individuals with differing privacy preferences being shared can lead to conflicts of interest [63], or incorrect privacy settings on a shared photo can result in job loss, potential embarrassment, reputation damage, or harassment [14, 54]. This is reflected in users feeling uncomfortable about their last publicly shared photo [27] or even fearing the future consequences of shared content [71]. As a reaction, users have developed coping strategies, such as withdrawing from social media platforms as a form of self-censorship [71].

To improve user engagement, many photo-sharing platforms, such as BeReal [58] and Instagram [45], include mechanisms that encourage spontaneous picture taking and sharing, e.g., through notifications [53]. To counter overthinking during the sharing process,

BeReal imposes time pressure on its users by creating a two-minute sharing window that appears randomly during the day. Within this time frame, all BeReal users are expected to take and share a photo. Without sharing a photo, users are excluded from accessing photos that others have shared.

In psychology, it has been shown that time pressure can cause individuals to change their decision strategies [51], leading to riskier decisions [56] of lower quality [36]. On one hand, individuals may act differently under time pressure [2], change their privacy settings after sharing a photo [2], or untag themselves from shared photos [21] as a consequence of regretting the photo being shared [69]. On the other hand, deleting a once-shared photo has become nearly impossible in times of re-sharing [28].

To address the nuanced aspects of online privacy under time constraints, our research investigates the dynamics of photo-sharing decisions when users are prompted by social media platforms to share photos within a limited time frame. Existing studies on non-prompted photo sharing reveal that users consider their target audience [27, 33, 62] and photo content [2, 42, 52, 74] when making sharing decisions. Building upon these foundations, we extend the examination to scenarios involving **unfamiliar** bystanders and sensitive information within the photo, elements less explored in prior research. Contrasting with existing studies that primarily focus on co-owned photo sharing and the resulting multiparty privacy conflicts [10, 17, 38, 63, 66], our study introduces the complexity of time pressure as an influential factor. This novel approach allows us to investigate not only traditional factors like Timing, Audience, and Content but also how these elements interact under the stress of immediate decision-making. Our research questions are framed as follows:

RQ1: How are different influencing factors for photo-sharing subject to time pressure interconnected?

RQ2: What are the decisive factors for users sharing photos subject to time pressure?

To answer our research questions, we conducted an online experiment with 195 participants where we simulated photo sharing in different contexts. We varied the photo content based on different levels of information sensitivity, following the taxonomy of Li et al. [42], and included the presence of unfamiliar bystanders. To investigate the impact of time pressure, we implemented one condition with a visible time restriction and one with no time pressure. Participants were asked to decide which target audience they wished to share the photo with, including an option not to share the photo at all.

In line with related work [2, 27, 33, 52, 62, 74], our results confirm that content and audience have the highest impact on the sharing decision. We further show that while privacy is important when it comes to picture content, aesthetics and the excitement of the shared moment are also important factors. Finally, we found that participants rarely commented on the timer, and their timed decisions did not differ much from those made without time pressure. Furthermore, we observed that many participants considered the privacy of bystanders and the sensitive information revealed in photos to be more crucial when sharing a photo publicly than when sharing with friends. This concern was often a primary reason for choosing not to share a photo at all. We conclude the paper with recommendations to support users in identifying picture content they might not want to share when under time pressure.

Research Contributions:

(1) **Investigation of time pressure in sharing decisions:** We surveyed 195 smartphone users, asking them to make both timed and untimed sharing decisions for photos varying in content and target audience. We statistically analyzed the interconnections between these factors and their influence on users' sharing decisions, revealing that content and audience have a greater impact than timing.
(2) **Investigation of user considerations for sharing decisions:** We provide an overview of the considerations users make during the sharing decision process, confirming our statistical results and extending prior research.
(3) **Recommendations to support informed photo sharing decisions:** We derive design implications for photo-sharing prompts to help users make informed sharing decisions and to minimize the risk of unwanted information disclosure.

2 Related Work

This section summarizes related work on photo sharing and influencing factors.

2.1 Photo Sharing on Social Media

Social media has emerged as a remarkably adaptable platform, capable of fulfilling a wide spectrum of user needs, ranging from fostering social connections to facilitating the dissemination of knowledge [57, 65]. The motivations driving users to share content on these platforms are diverse, influenced by a complex interplay of factors, including the unique characteristics of various social media platforms [3] and the rich array of content formats available [23, 50].

Photo sharing on social media has evolved from conventional photography into a potent means of communication, self-discovery, and self-presentation [32, 48, 67]. This transformation embraces images as dynamic tools for conveying personal narratives and shaping digital identities [32]. Social media users choose what to share, how to present themselves, and what aspects of their lives to emphasize. They curate a visual representation of themselves that may align with their real-life persona or represent an idealized version [5, 19, 48]. This curated identity can be a powerful tool for self-representation, influencing how users are perceived by their online audience. This strategic self-presentation is often driven by the desire for social validation and acceptance. Platforms like Instagram are frequently employed for self-presentation and impression management, with users seeking validation through likes and comments [22].

Users are often motivated by a desire to fit in, participate, and avoid the fear of missing out (FOMO) [7]. Therefore, they often observe what is popular or accepted within their online circles, leading to a sense of obligation or compulsion to share content that aligns with these prevailing standards [40]. This conformity helps individuals feel socially accepted and avoid standing out in ways that might lead to social exclusion. To alleviate the discomfort associated with FOMO, individuals are motivated to participate in similar experiences. They want to be part of the stories, events, and

adventures they see their peers engaging in [37]. Sharing is a way to fit into these online communities and align with the norms and behaviors of one's peer group [47, 55].

Summary: Overall, photo sharing on social media has become a dynamic tool for self-expression, memory preservation, and social validation, shaping the way users engage with both their digital identities and personal experiences, leading to a general motivation to belong and participate in peer groups by sharing content.

2.2 Influencing Factors of Photo Sharing

Previous work has identified several factors that impact photo-sharing behavior. Li et al. [42] developed a taxonomy that identifies which content users consider as sensitive. Furthermore, Habib et al. [27] found that their participants, in addition to content, also considered the audience, privacy, and security when deciding whether or not to share a photo.

2.2.1 Audience. The audience that receives the photo can influence sharing decisions. Strater and Richter [62] found that users underestimate the extent of their social networks and cannot accurately assess the audience of their shared content. Kairam et al. [33] found that especially younger users tend to share photos more often with the public. Furthermore, the authors found that the more educated their participants were, the more selective they were about their audience [33]. Even though Li et al. [42] found that from a user perspective, a photo's audience comprises several fine-grained recipient groups, ranging from significant others to distant colleagues, popular photo-sharing-based social media platforms only offer their users options to share content with friends, the public, or not at all[1]. Since the audience impacts photo-sharing decisions, we investigate different target audiences for photo-sharing decisions subject to time pressure.

2.2.2 Content. Previous research has found that the content of a photo, e.g., containing sensitive information or the presence of bystanders, can influence users' sharing decisions [42, 70]. Additionally, the presence of several people in a photo can lead to conflicts regarding sharing decisions [10, 63, 66].

Sensitive Information. While Li et al. [42] investigated which content users perceive as sensitive, e.g., photos containing nudity, they also argued that content sensitivity and privacy are subjective to users. Furthermore, they showed that personally identifiable information (PII) is not strongly perceived as sensitive [42]. However, sharing PII can have both privacy and security implications. The problem of sharing PII becomes more apparent when examining related work [2, 52, 74], which identified a relationship between the geographic location of photo capture and photo privacy settings. Even though 67% of participants stated that they would never or only under certain circumstances share the zip code where they took a photo, an examination of their privacy settings revealed that none of them concealed this information [2]. Thus, our study focuses on photo content revealing PII in the form of written information, such as memos of phone numbers or birth dates.

[1]Examples for such platforms are BeReal, Facebook, Instagram & Snapchat.

Bystander Presence. When multiple people are in a photo that is about to be shared, discussions and conflicts about privacy—so-called multiparty privacy conflicts—can emerge [10, 63, 66]. Such et al. [63] investigated the privacy conflicts arising from photos shared on social media platforms that contain familiar people with different privacy interests, e.g., the audience the photo is shared with. One approach to counteract such conflicts is to enforce the retrieval of consent from all persons in a photo before it can be shared. Additionally, Cherubini et al. [16] developed a mechanism that deters users from uploading photos without complete bystander consent, taking into account the presence of unfamiliar bystanders. Participants in several studies [20, 27] were more likely to share photos containing someone they know only with friends instead of publicly. At the same time, sharing photos capturing others or information about them was less common [42]. However, the humor style of users can also influence their likelihood to share privacy-sensitive photos of familiar persons or bystanders [28]. Bhardwaj and Ponticello et al. [9] found that users are well aware of the issues that come with sharing pictures of bystanders and this is perceived as a burden. Similar, Wu et al. [73] found that in the context of live streaming, streamers consider their bystanders' privacy and proactively protect bystanders from privacy violations based on their own understandings of bystanders' privacy needs. While most literature [10, 17, 38, 63, 66] focused on persons able to complain about a shared photo, i.e., familiar persons, our work, similar to that of Cherubini et al. [16], investigates the impact of the presence of unfamiliar bystanders in a photo.

2.2.3 Time Pressure. Under time pressure, a speed-up of information processing is necessary [34]. Even without inducing time pressure on their participants, Ahern et al. [2] found that sharing photos demands time and attention from users, leading to users regretting their sharing decisions or mistakenly over- or under-disclosing information in their shared photos. This is consistent with the findings of Kocher and Sutter [36], who observed that time pressure reduces the quality of decision-making compared to situations with weak time constraints. Furthermore, Ordóñez and Benson III [56] found that half of their participants changed their decision strategy in response to time pressure. Similar findings were shown by Maule et al. [51], whose participants demonstrated a broad range of strategy changes under time pressure. These findings motivated us to investigate time pressure in our study.

Summary: While related work has focused on how the audience and content of photos influence users' sharing decisions and already provides extensive insights regarding these factors, our research takes another step toward identifying further influential factors. By including time pressure as another influential factor, we follow the evolution of social media platforms.

3 Method

To evaluate the influence of time pressure on sharing decisions, as well as users' perceptions of it, we conducted an online survey with 195 participants. In the survey, we simulated photo-sharing scenarios in various contexts and asked participants to make sharing decisions. The photos varied in terms of information sensitivity,

following the taxonomy of Li et al. [42] regarding content sensitivity and the presence of bystanders. To investigate the impact of time pressure, half of the decisions were made without any time constraints, while a timer was visible for the other half.

3.1 Captured Data

Motivated by related work, we considered the following independent variables:

AUDIENCE denotes the group of people with whom the photo can be shared. We opted for the most popular audiences available on current photo-sharing based social media platforms [31, 44, 46, 59]: FRIENDS, PUBLIC, and the option to not share the photo (NO SHARING), resulting in three levels.

CONTENT denotes the information available in the photo. We provided three levels of content: NEUTRAL photo content, photos with an unfamiliar BYSTANDER, and SENSITIVE information, which includes the revelation of personally identifiable information.

TIMING denotes whether a decision is made under time pressure. Here, we considered two levels: no time pressure (NOT TIMED) and a time pressure of 30 seconds (TIMED). Current social media apps prompt users to take and share a photo within a timeframe of two minutes. As the photos in our study were already taken, we conducted an experiment to determine the time required to make a sharing decision for a given photo. The timer was set to 30 seconds, which was one standard deviation below the mean time needed in our experiment, following suggestions from psychology to induce time pressure [6, 64]. While timers can be present in sharing apps, users might also be in a rush for other reasons, such as being on the move or engaged in another activity.

As the dependent variable, we assessed the likelihood of sharing a photo, denoted as SHARING DECISION, by using a 5-point Likert scale to ask participants how likely they would be to share the photo (1 = "very unlikely" to 5 = "very likely") with each audience group, resulting in three decisions per photo. Afterwards, we asked participants some open-ended questions about the sharing decisions they had made. We initially kept the questions open to capture the participants' intuitions. Then, we nudged them to express their opinions on photo CONTENT, TIMING, and AUDIENCE. For the full questionnaire, the reader is referred to the Appendix A.

3.2 Prepped Photos

We varied our independent variables in a repeated-measures design, resulting in $2 \times 3 \times 3 = 18$ conditions. For each combination of TIMING and CONTENT, we prepared photo pairs that we took ourselves. This ensured control over the photo's content. One photo of each pair was taken with the front-facing camera of a smartphone and one with the back-facing camera. In total, we prepared six different photos. As described above our prepped photos had three different types of CONTENT, which were not intermingled. Thus, the NEUTRAL photos contained a dummy person (representative of the participant) doing a regular day activity, the SENSITIVE photo contained a dummy person and personally identifiable information, and the BYSTANDER photo contained a dummy person and a stranger. Since in a real-life situation participants would know the subject matter of photos they take, we provided brief text descriptions for each photo pair to avoid misunderstandings and include perspective-taking as suggested by [4], which helps participants to imagine themselves in the photos. An exemplary photo description is: *"While you (person in the left/top picture) watch TV in your living room, you get a prompt to take a picture pair. This is the picture pair you took:"*. For exemplary photo pairs see Fig. 1. For all six photo pairs, the reader is referred to the Appendix B.

3.3 Recruitment

We used the online platform Prolific [49] to recruit our 195 participants.The participants received compensation at an hourly rate of 10 pounds. We recruited smartphone users who were at least 18 years old because our investigation focused on social media apps on smartphones.

3.4 Study Procedure

The survey consisted of the following parts (see also Figure 2):

1) Introduction & Consent: At the beginning of the survey, participants were informed about their rights, the data being collected, and that they could withdraw from the study at any time without negative consequences. This information was provided in the informed consent (for further details, please refer to the ethics section in 3.5). Since the survey was conducted online, participants were also provided with the contact information of the researchers in case they had further questions.

2) Capturing Sharing Decisions: After careful consideration, we decided to use a within-subject design in the first part of the survey, by first presenting all photo pairs for the NOT TIMED condition in randomized order to participants. For each photo pair, participants were asked to indicate their sharing decision. Next, participants were shown new photo pairs in randomized order, but this time they were required to make a TIMED decision. Before displaying the photos and the timer in this round, we explained to the participants that the decision would be timed. This approach was chosen because participants were not as familiar with our survey tool as they would be with a social media platform. Having the non-timed conditions first allowed participants to familiarize themselves with the tool at their own pace, ensuring they knew how to use it.

3) Follow-up Questions: In the second part of the survey, participants were asked open-ended questions. We displayed the photos they had shared, along with their previous sharing decisions, and asked them to justify their decisions in an open-ended text field. We followed the same procedure for the photos they did not share. Afterwards, participants were asked about their perceptions of the timer and what factors they generally consider when making photo-sharing decisions.

4) Demographics & Compensation: Finally participants were asked demographic questions, including questions about their social media usage. Then, we assessed our participants' general information privacy concern level by the IUIPC-8 scale [26]. To guarantee compensation via Prolific, participants were asked to provide their

Figure 1: Exemplary photo pairs with NEUTRAL and BYSTANDER content. The left photo of each pair is taken with the front camera, the right one with the back camera.

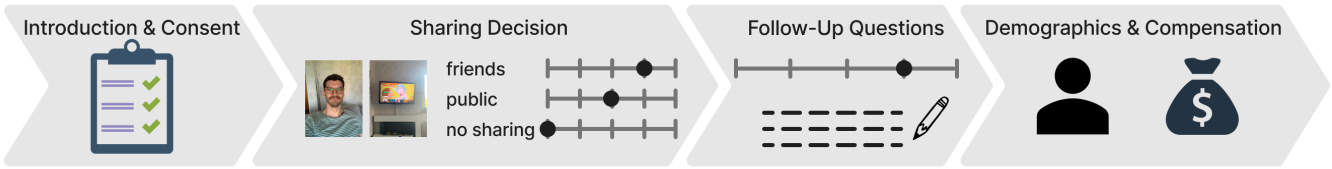


Figure 2: Schematic depiction of the study procedure.

Prolific ID as a final step.

The procedure was tested in two rounds of piloting. In the first round, we collected feedback from fellow researchers to improve the clarity of the instructions and the photo content. In the second round, we did a trial with ten participants on Prolific. The results from the trials are not part of our results. The core modification that resulted from the trial was adding textual descriptions of the photos to avoid misunderstandings of the photo content.

3.5 Ethical Considerations

Our university's Ethical Review Board (ERB) approved our study design. Throughout our study, we took precautions to treat our participants in an ethically correct manner and adhered to strict privacy laws. Participants received a consent form containing detailed information about the captured data, assurances that they could withdraw from participating at any point without negative consequences, and information about their rights in compliance with the GDPR and national data protection laws. To protect the privacy of our participants and their surroundings, we opted to use pre-existing photos instead of prompting them to take their own.

3.6 Limitations

Like all online surveys, our survey has several limitations that should be kept in mind when interpreting the results. First, our results rely on self-reported data, which might suffer from wrong self-assessments or biased answers. Second, to maintain the privacy of our participants, we used pre-made photos featuring other individuals. Participants might have reacted differently if they were judging photos taken by themselves. However, besides protecting participant privacy, we aimed to investigate specific photo content, which can also be ensured by using pre-made photos. Third, we differentiated between three types of audiences, namely FRIENDS, PUBLIC, and no audience, i.e. NO SHARING. It should be noted that some social media platforms also provide options to differentiate between various kinds of friends, e.g., close friends. Fourth, the chosen within-subject design might have resulted in sequential effects beyond simple familiarity with our tool. Nonetheless, we argue that our choice reflects a more realistic scenario since regular social media users can be assumed to be familiar with the platforms before new features are introduced. People might hesitate to use an unknown feature under time pressure, which could have biased our results. Finally, our participants were recruited from an online platform in the UK. Although our participants came from different countries, most were from Western cultures. People from more collectivist cultures might have expressed different beliefs, for example, regarding bystanders in photos. Consequently, our results should be validated through future in-depth studies using photos from participants and with a more heterogeneous sample.

4 Results

This section details our survey results. First, we provide an overview of the photo-sharing decisions made by our participants. Next, we present the influencing factors behind these decisions. We then discuss the evaluation of the follow-up questions. Finally, we detail the themes that emerged from our thematic analysis, including quotes from participants for each theme.

Two hundred two participants took part in our study. First, we conducted quality checks on the collected data records. We removed

incomplete data records ($N = 6$) and those from participants who failed both attention checks ($N = 1$). This resulted in 195 final data records. We further inverted the items on sharing with NO SHARING because the item was formulated contrary to the other two.

4.1 Demographics

Of our 195 participants, 50.3% identified as female, 48.2% as male, and 1.5% as non-binary. The average age of the participants was 29.1 years (*Min* = 18, *Max* = 64, *SD* = 8,7). 43.6% of the participants were full-time employed, 28.2% students. 59% had a university degree, and 24.1% had an upper secondary education as the highest educational qualification. Furthermore, we evaluated the average Internet Users' Information Privacy Concerns (IUIPC-8) [26] of our participants (*control*=5.8, *SD*=0.99; *awareness*=6.4, *SD*=0.86; *collection*=5.8, *SD*=1.08), with 7-point Likert items (1 ="strongly disagree" to 7 = "strongly agree"). Higher scores indicate higher levels of privacy concern. These results indicate our participants to be rather privacy-sensitive. However, similar results have also been observed for comparable participant groups [1].

Table 1: Detailed results from the ART ANOVA.

Coefficients	Df	F-value	η^2	p-value
TIMING	1, 196	20.4624	0.094531	<0.001
CONTENT	2, 392	120.2112	0.380161	<0.001
AUDIENCE	2, 392	201.1752	0.506515	<0.001
TIMING:CONTENT	2, 392	4.4742	0.022318	0.05
TIMING:AUDIENCE	2, 392	8.5362	0.041735	<0.001
CONTENT:AUDIENCE	4, 784	4.0971	0.020476	<0.01
TIMING:CONTENT:AUDIENCE	4, 784	6.2716	0.031006	<0.001

82.6% of our participants reported using social media platforms on a daily basis. The remaining participants use social media more than once a week (*N*=20), at least once a week (*N*=7), or less than once a week (*N*=6). On average our participants had social media accounts for 5.77 platforms (*Min*=1, *Max*=10, *SD*=2.08). They had shared photos on 2.82 of these platforms (*Min*=1, *Max*=8, *SD*=1.42), indicating that all our participants had real-life experience sharing photos on social media.

4.2 RQ1: Interconnection of Influence Factors

To answer RQ1, we conducted a statistical analysis of our results. We processed the collected data through two analysis rounds. For statistical testing, we performed an Aligned Rank Transform (ART) as proposed by Wobbrock et al. [72]. When the tests produced significant results, we report the generalized eta-squared η^2 as an estimate of the effect size. For post-hoc analysis, we used the ART-C procedure as proposed by Elkin et al. [24]. When the ART ANOVA resulted in significant results, we continued with post-hoc testing and used Bonferroni correction to account for the inflation of type I errors. Below, we detail the results from the statistical analysis also providing descriptive statistics.

4.2.1 Aligned Rank Transformation. For all independent variables, we found statistically significant main effects (see Table 1 for details). CONTENT and AUDIENCE both had a large effect ($\eta^2 = 0.38$, $\eta^2 = 0.50$, respectively), while TIMING had a medium effect ($\eta^2 = 0.09$).

Looking at the descriptive statistics, the sharing decisions were more similar. When examining TIMED and NOT TIMED decisions, we found a medium effect (see Fig. 3), for example participants decided to not share SENSITIVE photos PUBLIC (NOT TIMED: *M*=1.53, *SD*=1.001; TIMED: *M*=1.81, *SD*=1.252) (see Table 2). The other factors, CONTENT and AUDIENCE, seem to have more impact, which can also be seen when looking at the interaction effects (see Fig. 4).

Table 2: Detailed results from the descriptive analysis.

Sharing Decision	Median	Mean	Standard Deviation
NOT TIMED – SENSITIVE – FRIENDS	3	2.82	1.437
NOT TIMED – SENSITIVE – PUBLIC	1	1.53	1.001
NOT TIMED – SENSITIVE – NOT SHARING	4	3.44	1.542
NOT TIMED – BYSTANDER – FRIENDS	4	3.49	1.405
NOT TIMED – BYSTANDER – PUBLIC	2	2.27	1.408
NOT TIMED – BYSTANDER – NOT SHARING	3	3.08	1.356
NOT TIMED – NEUTRAL – FRIENDS	4	4.05	1.090
NOT TIMED – NEUTRAL – PUBLIC	2	2.61	1.344
NOT TIMED – NEUTRAL – NOT SHARING	3	2.73	1.321
TIMED – SENSITIVE – FRIENDS	4	3.11	1.483
TIMED – SENSITIVE – PUBLIC	1	1.81	1.252
TIMED – SENSITIVE – NOT SHARING	4	3.41	1.491
TIMED – BYSTANDER – FRIENDS	4	3.45	1.393
TIMED – BYSTANDER – PUBLIC	2	2.3	1.342
TIMED – BYSTANDER – NOT SHARING	3	3.08	1.381
TIMED – NEUTRAL – FRIENDS	5	4.26	1.008
TIMED – NEUTRAL – PUBLIC	4	3.25	1.317
TIMED – NEUTRAL – NOT SHARING	2	2.45	1.244

We further found statistically significant interaction effects for all combinations except for TIMING & CONTENT ($p = 0.05$). For all three factors, we found a small effect ($\eta^2 = 0.03$). Additionally, we found a small effect of TIMING & AUDIENCE ($\eta^2 = 0.04$), and CONTENT & AUDIENCE ($\eta^2 = 0.02$).

Summary: Our analysis indicates that CONTENT and AUDIENCE have a greater impact on the SHARING DECISION than the TIMING of the decision.

4.2.2 Post-Hoc Analysis. For the main effects, considering TIMING, CONTENT, and AUDIENCE, all post-hoc tests were significant ($p \leq 0.001$, each). To analyze the interaction effects, we first looked at the interaction plots indicating interaction effects of all possible combinations. For the p-values of the interaction effects, we refer to Table 3 in Appendix C for the detailed results of the statistical analysis.

SHARING DECISION: TIMING - CONTENT - AUDIENCE. The interaction plot in Fig. 4a shows that for sharing with FRIENDS (left plot), the relationship between SHARING DECISION and TIMING changes as the CONTENT changes. When sharing REGULAR or SENSITIVE CONTENT, the changes behave similarly, with participants under TIMED

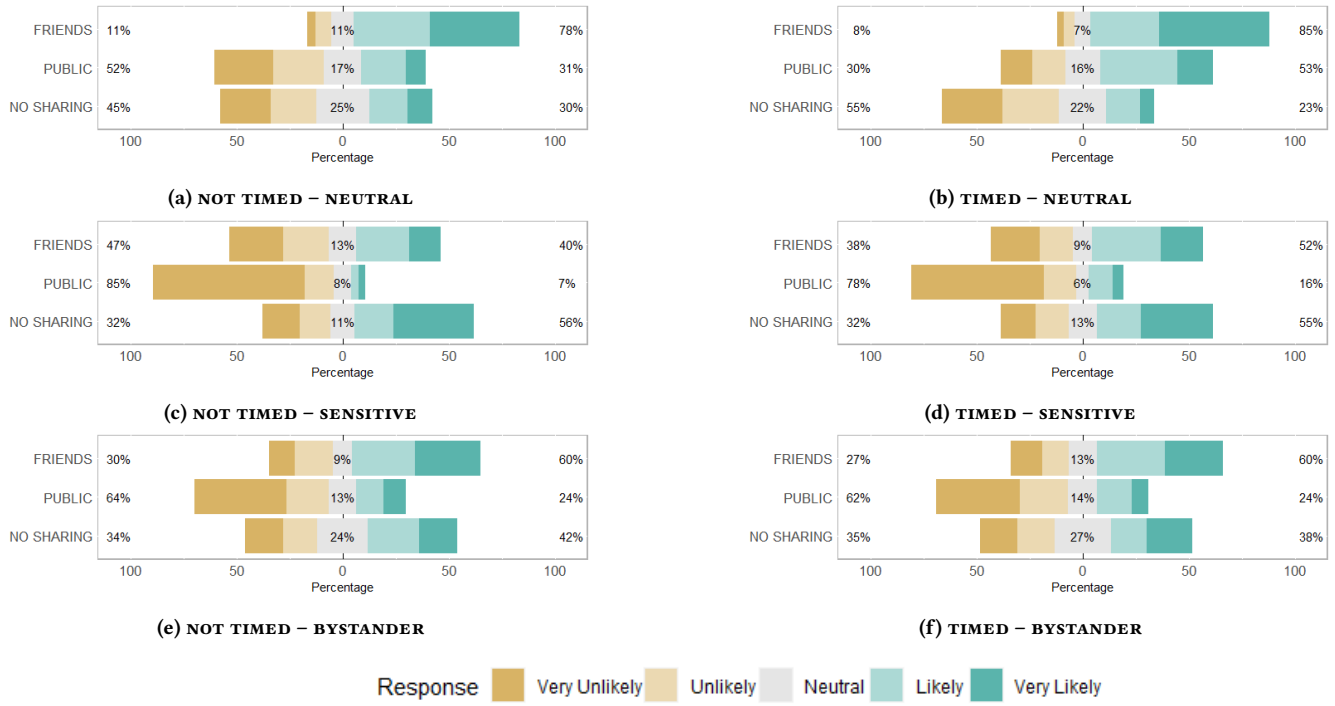


Figure 3: Participants sharing decisions under different conditions.

conditions being more likely to share this content with FRIENDS than in NOT TIMED conditions. However, for BYSTANDER CONTENT the changes behave oppositely, meaning it is less likely for users to share photos containing strangers with their FRIENDS.

The relationship between SHARING DECISION and TIMING when NOT SHARING (Fig. 4a, middle plot) changes, especially for NEUTRAL photos. Participants' SHARING DECISION to NOT SHARING CONTENT is therefore more strongly impacted for NEUTRAL photos.

Finally, when sharing with the PUBLIC (Fig. 4a, right plot), the impact of the TIMED condition has the strongest effect on NEUTRAL photos. The SHARING DECISION for SENSITIVE photos is also impacted by TIMING.

SHARING DECISION: TIMING - CONTENT. Furthermore, the second interaction plot Fig. 4b shows that the relationship between TIMING and SHARING DECISION changes as the CONTENT changes. Specially, for NEUTRAL CONTENT, the TIMING has a large effect on the SHARING DECISION. However, for BYSTANDER and SENSITIVE CONTENT, the TIMING has a slight impact on the SHARING DECISION.

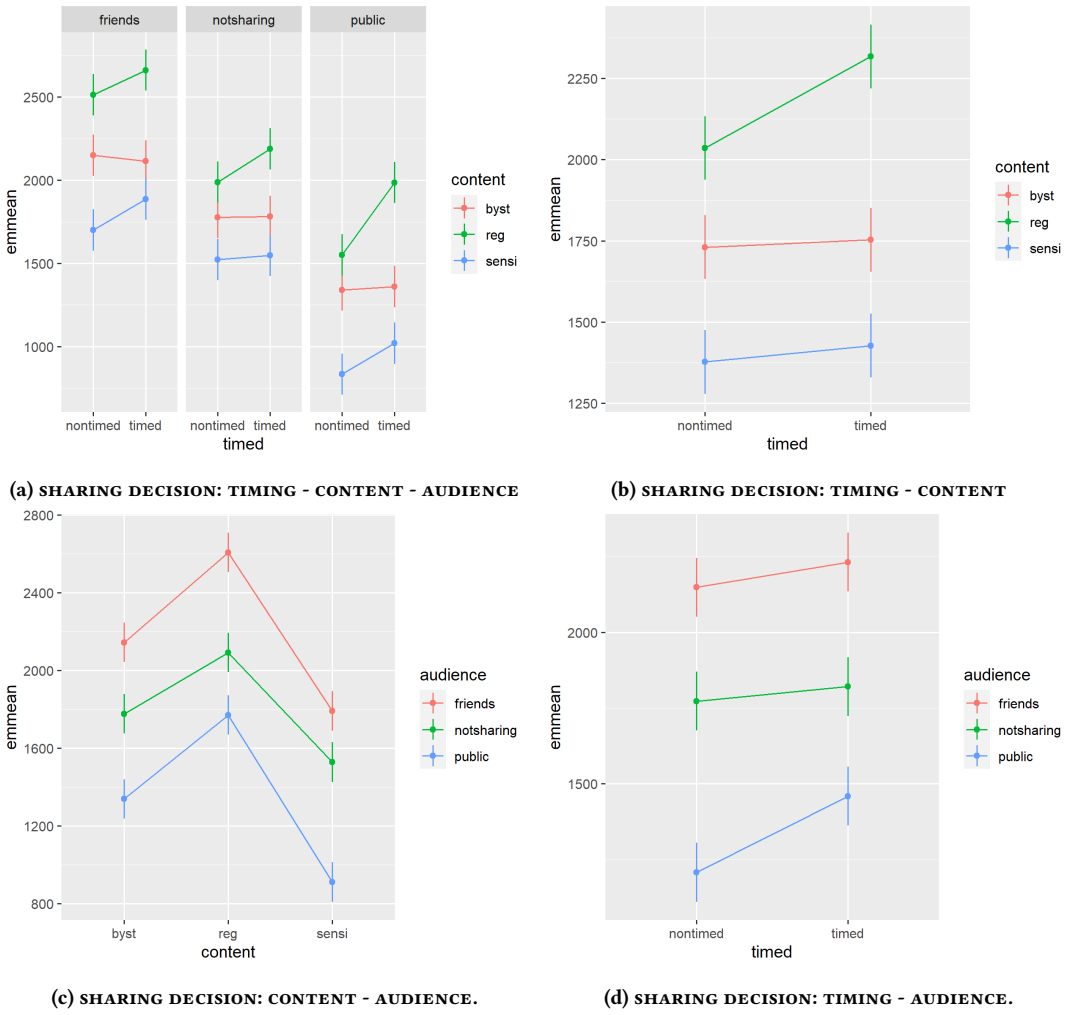
SHARING DECISION: CONTENT - AUDIENCE. The third interaction plot in Fig. 4c shows that the relationship between CONTENT and SHARING DECISION changes as the AUDIENCE changes. When the CONTENT changes from BYSTANDER to NEUTRAL, the SHARING DECISION increases for all AUDIENCES. The same can be observed for changes from SENSITIVE to NEUTRAL CONTENT. Furthermore, we observe that for BYSTANDER CONTENT, the AUDIENCE has less effect on the SHARING DECISION than for SENSITIVE CONTENT.

SHARING DECISION: TIMING - AUDIENCE. Regarding changes in the relationship between TIMING and AUDIENCE, sharing with the PUBLIC has the biggest impact (see Fig. 4d). In contrast, the relationship is only slightly impacted when sharing with FRIENDS or NOT SHARING.

Summary: Overall, we found interaction effects in all combinations of factors except for TIMING and CONTENT. The biggest interactions are between CONTENT and AUDIENCE. Compared to all AUDIENCES, the TIMING has the strongest impact for sharing NEUTRAL photos with the PUBLIC, and the lightest impact on sharing photos containing BYSTANDER with any AUDIENCE. When making a SHARING DECISION for SENSITIVE photos or photos containing BYSTANDER, TIMING only has a light impact on the user's decision. However, when the content is NEUTRAL users are more strongly influenced in their decision by TIMING. Users are more likely to share NEUTRAL content with any AUDIENCE compared to sharing SENSITIVE or BYSTANDER content.

4.3 Evaluation of the Follow-Up Questions

After making their sharing decisions and answering open-ended questions (the results are presented in the next section), we asked our participants follow-up questions, where they assessed different statements on a 5-point Likert scale (1="strongly disagree" to 5="strongly agree").



(a) SHARING DECISION: TIMING - CONTENT - AUDIENCE

(b) SHARING DECISION: TIMING - CONTENT

(c) SHARING DECISION: CONTENT - AUDIENCE.

(d) SHARING DECISION: TIMING - AUDIENCE.

Figure 4: Interaction plots from the post-hoc analysis.

4.3.1 General Sharing Behavior. When asked about their general sharing behavior, participants disagreed with not overthink before sharing photos "*I don't overthink before I share a picture [with friends / public].*" (FRIENDS: *median*=2, *mean*=2.77, *SD*=1.23; PUBLIC: *median*=2, *mean*=1.8, *SD*=0.99). Participants also generally agreed to make a sharing decision dependent on the shown CONTENT "*I decide depending on the situation shown in the picture whether to share it [with friends / public or not].*" (FRIENDS: *median*=4, *mean*=4.14, *SD*=0.82; PUBLIC: *median*=4, *mean*=4.34, *SD*=0.78).

4.3.2 Perceptions of Timed Decisions. Specific questions about TIMED decisions show that the majority of our participants perceived the 30s timer as long enough to make a SHARING DECISION, agreeing with the statement "*It was enough time to make a sharing decision*" (*median*=4, *mean*=3.82, *SD*=1.16), and disagreeing with "*The timer was too short, to make a thoughtful decision*" (*median*=2, *mean*=2.25, *SD*=1.19). However, the presence of the timer stressed participants more than its duration ("*The presence of the timer stressed me.*": *median*= 3, *mean*=2.74, *SD*=1.32; "*The timespan of the timer stressed me.*": *median*=2, *mean*=2.66, *SD*=1.33). Finally, participants also did not feel that the timer tempted them to share a photo they otherwise would not have shared ("*The timer nudged me to share a picture.*", *median*=2, *mean*=2.33, *SD*=1.08).

4.3.3 Privacy Considerations when Sharing. Participants were further asked questions about specific privacy considerations. The results show that they take location information more seriously when sharing photos with the PUBLIC than when sharing with their FRIENDS ("*If I decide to share a picture [with friends / public], I make sure that no information about my location is in the picture.*"; with FRIENDS: *median*=3, *mean*=2.9, *SD*=1.1; PUBLIC: *median*=4, *mean*=4.19, *SD*=1.01). The same holds true for BYSTANDERS in photos ("*If I decide to share a picture [with friends / public], I do not care if strangers (I did not ask for consent) are in the picture, and share it anyway.*"; FRIENDS: *median*=3, *mean*=2.67, *SD*=1.24; PUBLIC: *median*=2, *mean*=2.05, *SD*=1.06). Participants also agreed on not sharing photos containing passwords or login credentials with anyone: "*If I decide to share a picture [with friends / public], I make*

sure that no sensitive information (passwords, login credentials) is in the picture." (FRIENDS: *median*=5, *mean*=4.32, *SD*= 0.83; PUBLIC: *median*=5, *mean*=4.75, *SD*=0.62). They also gave this as a reason for not sharing a photo: "*If I decide not to share a picture, it is because sensitive information (passwords, login credentials) is in the picture.*" (*median*=5, *mean*=4.67, *SD*=0.71).

Summary: The results from the follow-up questions align with the statistical analysis, underscoring that TIMED decisions only have limited impact. Furthermore, they highlight the importance of BYSTANDERS and SENSITIVE CONTENT, as well as the situation shown in the photo, which we also observed in our thematic analysis.

4.4 RQ2: User Considerations

To answer RQ2, we conducted a thematic analysis following the method by Braun and Clarke [12, 13]. First, one researcher familiarized themselves with the open-ended answers by reading them repeatedly. Then, the same researcher proposed a codebook, which was discussed with a second researcher who was also familiar with the data set. This codebook comprised 26 codes (see Appendix D).

The first researcher applied the codebook to all statements, which was then verified by the second researcher. Disagreements were resolved in a review meeting. We followed advice from the creators of thematic analysis, who specifically state *not* to do multiple independent codings and calculate ICR to prove reliability [13, p.278], acknowledging the influence of the researcher on the process. After this, both researchers grouped the codes into four main themes.

We identified different reasons why our participants decided to share or not share the prepped photos. Participants considered privacy aspects, such as leaking personal information or the missing consent of bystanders, as well as aspects not related to privacy, such as picture aesthetics and how extraordinary a situation is.

4.4.1 Theme 1: Photo CONTENT is important but privacy is not the only influence factor. The statements given by participants in the open-ended questions, greatly reflect our statistical results, indicating that there is no discrepancy between actual behavior and intentions. Participants argued in both directions (for and against sharing a photo) naming privacy as an influencing factor. Some considered the CONTENT of the photo too private to share, while others argued to share a photo because it does not reveal anything too private, which confirms results from related work [27]. For instance, P61 wrote "*There is sensitive information showing that people can use maliciously*" as an explanation for NOT SHARING a photo. On the other hand, P57 argued "*They are just pictures about what you are doing. There is no personal information in them*" regarding a NEUTRAL photo.

However, we also extend previous results by showing that photo CONTENT was not only important in the sense of SENSITIVE information but also in terms of aesthetics and the depiction of extraordinary situations. For example, P108 mentioned: "*It's a beautiful picture, great quality and friendly.*". Related to photo aesthetics, participants also considered if the CONTENT shown in the pictures is socially accepted and whether it might improve their reputation. For instance, P2 decided to share a photo because of what their AUDIENCE might think of them "*[it] looks nice, and the show is really good. People might think I'm a cool guy*" (P2).

4.4.2 Theme 2: BYSTANDERS have rights that need protection. Many participants considered BYSTANDERS in the photo when making their SHARING DECISION. Some participants decided not to share photos due to the missing BYSTANDER consent: "*Just didn't want to share them don't feel right about sharing photos with other people in them if they don't know you are sharing them*" (P68). This extends investigations of related work where the position of BYSTANDERS was considered [18, 20, 27]. Other participants explicitly argued that the privacy of BYSTANDERS is respected, and photos can therefore be shared: "*I am the only person involved in this pictures, so I respect the others rights not showing them.*" (P118). The presence of BYSTANDERS was also considered when sharing photos with FRIENDS. Some participants wanted to protect BYSTANDERS even from their FRIENDS: "*I wouldn't want to really share any pictures with strangers in them, because it's also a bit invasive to the person that I am sharing the photo of*" (P137).

However, we observed that a handful of participants argued the opposite way, e.g.: "*I think it's funny to chill out while someone is working*" (P82) or "*I posted the ones with the handy man and the delivery man for security purposes*" (P167).

4.4.3 Theme 3: I (don't) trust my FRIENDS. When it comes to the AUDIENCE participants are sharing with, trust towards FRIENDS was an important factor. Participants argued that their social media FRIENDS are known and trusted, therefore, private data is shared with them since they are expected to know this information anyway, e.g.: "*They picture something I am okay with my friends knowing about me. I assume my friends know my address, so I am okay with showing them that.*" (P101) regarding a SENSITIVE photo. While most participants mentioned these aspects, a few participants pointed out that they would not share SENSITIVE photos, even with their FRIENDS. For instance, P137 argued, "*I wouldn't also really feel comfortable with sharing my home address with most people, even if they are my "friends"*". And P3 was also concerned about sharing SENSITIVE photos with FRIENDS: "*The first two pairs have personal/sensitive information and can be dangerous to share it, even with friends.*".

4.4.4 Theme 4: Sharing to the PUBLIC can be dangerous but I also want to meet new people. While we observed trust towards FRIENDS in Theme 3, we also found that most of our participants disliked sharing photos with the PUBLIC. On the one hand, our participants saw possible threats in sharing SENSITIVE photos with the PUBLIC, e.g.: "*my address is on the box and i would be scared people would harass and stalk me or show up at my place*" (P45) or "*personal information is showing that will make me susceptible to hacking*" (P163). On the other hand, many mentioned that they simply do not enjoy sharing with the PUBLIC. For instance, P73 explained their SHARING DECISION as follows: "*I don't post on social media, only very rarely, so my views on this will always tend to not post anything*".

In contrast to these participants, others mentioned liking to share everyday moments, funny moments, and preferences, e.g., a TV show they like to watch, with FRIENDS but also with a greater AUDIENCE, namely the PUBLIC. The reason for this was getting in touch with persons that have the same taste or hobbies, as P83 said: "*No personal information [are shown, and the picture presents] a way to*

connect with people watching the same series to discuss it".

Summary: Participants considered the photo CONTENT when making a decision, which included not only thinking about potential SENSITIVE information but also aesthetics and general photo content. BYSTANDERS were greatly considered, yet participants also expressed situations where they wanted to share pictures even with BYSTANDERS. Finally, participants distinguished different kinds of FRIENDS.

5 Discussion

This section discusses our study results and presents takeaways for designing systems that support informed photo-sharing decisions. Our study specifically investigated prompted photo sharing under time pressure, considering already known influencing factors, such as photo content and sharing audience. In doing so, we confirm and extend results from related work that investigated photo sharing on social media.

5.1 Main Study Takeaways

1) Content is the most important factor. Our study revealed that the photo CONTENT was the most important for most participants, followed by the AUDIENCE with whom the photo is shared. TIMING a decision was not an influencing factor, as also seen in the results of the thematic analysis. Since CONTENT was the most important, we took a deeper look at the reasons why photos with specific CONTENT were shared. Participants not only considered privacy aspect when making a sharing decision but also whether a photo was funny or boring to them. This aligns with prior findings on humor influencing users' sharing decisions [28], and users' desire to share content to fit into peer groups [7, 40, 47, 55]. Consequently, privacy was only one of many CONTENT-related considerations. We suggest supporting users in locating potential privacy-sensitive information through technical solutions. There are two main ways to achieve this: 1) analyzing the photo, or 2) supporting users while they take the photo. Promising solutions for the first option have been proposed by related work [41, 68] that automatically detects sensitive information in photos and offers methods to obfuscate it. Another approach could be to support users during the process of taking a photo. Sensitive information in the camera feed could be highlighted, allowing users to change their position to avoid capturing the information without having to retake the photo.

2) Bystanders are viewed in two directions. Our participants highly considered unfamiliar BYSTANDERS when making a sharing decision. As stated above, automatic tools could support users, especially when unfamiliar BYSTANDERS are present. Solutions to obtain known bystanders' consent before sharing a photo have already been emphasized in previous literature [16, 63]. However, our study revealed reasons why participants might want to share a photo where an unfamiliar BYSTANDER is present to accurately reflect the situations someone might be in. Consequently, not sharing a photo because an unfamiliar BYSTANDER is in it, is not always a valid option. People need options to share photos while protecting the privacy of unfamiliar BYSTANDERS at the same time. A possible solution might be obfuscating unfamiliar BYSTANDERS [35, 43]. Depending on the obfuscation technique, too much information might be removed from the photo, e.g., the BYSTANDER's facial expression by masking it with a black square. Khamis et al. [35] suggest using synthetically generated faces—so-called DeepFakes—for aesthetically pleasing obfuscation. While this solution is promising, future work should investigate the effects of using such obfuscation in more depth.

3) Time pressure does not change decisions. Even though literature has shown that time pressure influences decision making [36, 51, 56], the impact of time pressure was relatively low in our study. Only a few participants commented on being stressed by the timer. Furthermore, when asked specifically about the timer, participants mostly stated they did not feel rushed by it. We chose a time frame that should allow time for making a decision and deliberately refrained from excessively shortening the decision time to something unrealistic like 10 seconds. However, one reason participants may not have felt rushed by the timer could be that they were habituated to sharing on social media. Previous work has shown that decision strategies requiring low cognitive effort, i.e. habits, are less likely to deviate [56], even under changing conditions like induced time pressure. Consequently for unambiguously privacy-sensitive CONTENT, the participants' SHARING DECISION seemed reasonably straightforward. In contrast, for NEUTRAL content, participants must engage cognitively to identify a lack of privacy concerns, which might require more time. Moreover, for more subtle privacy risks within a photo, the impact of time pressure may be far more important. Future research is needed to confirm this hypothesis. Since CONTENT and AUDIENCE were more important to our participants, we further conclude that time pressure could serve as a gamification aspect for sharing photos with a specific AUDIENCE, like social media FRIENDS, rather than sharing photos with the PUBLIC. As stated in the Method Section 3, time pressure might not only result from a timer in an app but also from the surroundings or context of a user. Future work should, therefore, investigate time pressure based on the user's context.

4) What are social media friends? When asking participants to justify their sharing decisions, we found that some expressed a high level of trust towards their FRIENDS, when sharing SENSITIVE CONTENT. However, a few participants also mentioned that they would not share SENSITIVE data with their social media FRIENDS. This might be rooted in the fact that individuals approach networking and friendship on social media differently compared to real-world [15]. While some individuals have personal ties in the real world with their social media FRIENDS, others have purely digital ones [39].

5.2 Guidance for Future Work

This section motivates future work based on our investigation and findings:

In-depth investigations of the source of time pressure: We found that for neutral photos, users are more strongly influenced by a timer than for sensitive or bystander content, regardless of the audience

the photo is shared with. This suggests that users, when under time pressure, can distinguish between different kinds of photo content and the possible harm resulting from sharing. While our study induced time pressure in the form of a timer, time pressure can also stem from 1) the users' environment or context, e.g., an appointment, 2) the timing of the content itself, e.g., attending a live concert, or 3) the combination of time and peer pressure, e.g., content being perceived as trendy. A first step would be to identify real-life scenarios where users share photos under time pressure and then investigate the specific impacts.

Design of the sharing prompt: Our study focused on the general implications of prompting a user to share a prepared photo. Future research could also investigate how the interplay of the design of a sharing prompt and the type of time pressure influences users' sharing decisions. Related work on cookie banners (cf.[25]), for instance, revealed countless dark patterns that trick users into accepting cookies. Similar designs in sharing prompts might have comparable effects, which need to be confirmed by future work.

In-the-wild investigations & own photos: In our study, we utilized a questionnaire with prepared photos. Future research could modify our study design to 1) conduct an in-the-wild study, and 2) allow participants to make sharing decisions for their own photos. This approach can yield results based on users' daily lives and practices, allowing for the investigation of differences that emerge from users sharing their own photos.

In-depth investigations of different types of friends: Finally, while we used the term "friends", future work should extend existing results about the term "friend" [15, 39] to more depth, determining the differences and relationships between real-world friends and social media friends, or other parties like followers. A more fine-grained differentiation may necessitate additional consideration time when making a prompted sharing decision.

6 Conclusion

This paper investigated the factors influencing users when sharing photos after being prompted to do so. We conducted an online experiment with 195 participants, presenting them with different photos that varied in terms of CONTENT, AUDIENCE, and whether the decision was made under TIME pressure. Overall, CONTENT was the most prominent influencing factor, followed by AUDIENCE. TIME pressure did not have much impact. Participants considered the presence of BYSTANDERS in their pictures and made distinctions between different kinds of FRIENDS – those on social media and those in real life. Based on our analysis, we conclude with four takeaways that inform the design of future photo-sharing platforms. Future work should investigate the impact of content detection support on users, ideally during the photo-taking process. Additionally, further time frames and types of time pressure for making timed decisions should be explored. Finally, future work should examine the sharing behavior of photos taken in everyday situations by users of real social networks.

Acknowledgments

This work was co-funded by the Deutsche Forschungsgemeinschaft (DFG, German Research Foundation) under Germany's Excellence Strategy - EXC 2092 CASA - 390781972, the joint project: digital fitness for citizens - realistic risk perception, secure routines - "DigiFit" - grant number 16KIS1646K, and the program "Digitalisierungsprofessuren für Niedersachsen".

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A Questionnaire

Supplemental Material: Survey Questionnaire

This section contains the survey questions and the presented pictures.

- Please confirm to indicate that you have read and understood the information about the study provided earlier and that any questions you might have about the study have been answered. Please tick the box to indicate your agreement.
  - ☐ I confirm that I have read and understood the Participant Information Sheet, and understand my Data Protection Rights under GPDR for the above study, and have had the opportunity to ask questions.
  - ☐ I understand that all data collected from me will be treated confidentially and anonymized, will be seen in its raw form only by the experimenters, and if published will not be identifiable as coming from me.
  - ☐ I understand that participation in this study is voluntary and I may withdraw consent at any time and for any reason. If requested, the data will be deleted.
  - ☐ I am not obligated to answer every question. I agree to immediately raise any concerns or areas of discomfort during the study.
  - ☐ The researchers are allowed to archive all data captured from the questionnaire in online repositories.
  - ☐ I am aware of the fact that I can get in touch with the researchers at any time to demand the deletion or retrieval of my responses.
  - ☐ I also confirm that I am 18+ years old.
  - ☐ I also confirm that I am a smartphone user.
- Imagine that you use a social media app that prompts all users to take and share photos at random times throughout the day. Every time you get a prompt and want to share a photo, you can decide who you want to share it with. If you miss a prompt, you won't be able to share photos in the app or see what other users have shared. The same applies if you choose not to share a photo. On the next pages we show you three picture pairs. Imagine you took these pictures with your smartphone because you received a prompt from the app. Each picture pair consists of an image taken with your smartphone's front camera and an image taken with your smartphone's back camera. Both were captured in the same situation.
  For each picture pair, we also provide you with a brief description of the shown situation. This description is for your understanding only and would not be part of what you share in the app.
  Please decide for each picture pair whether you would share it with **friends**, **public** or **not at all**.
- Did you read the scenario?

  ◯ Yes. ◯ No.

Participants received a block of 3 picture pairs. Every picture pair was introduced by a brief scenario and is followed by a decision prompt, where participants stated on a 5-point Likert scale, how likely they are to share this picture with their friends, the public, or not at all. The following item shows an example.

- While you (person in the white shirt, left/top photo) receive a package at your front door, you get a prompt to take a photo pair. Your address is visible on the package and can be zoomed in. This is the photo pair you took:

How likely would you share this picture pair…
– …with friends?
– …public?
– …not at all?

Answer options for each audience were single-choice: *Very Unlikely*, *Unlikely*, *Neutral*, *Likely*, *Very Likely*

- Please imagine yourself to be in the same scenario as before (see below). However, **now you have limited time** to decide whether to share the pictures with friends, public or not at all. **Your remaining time will be indicated by a timer.** As soon as you are presented with a picture pair, the timer will start to count down. **Once the timer runs out, there is no more time to make a decision. This means that the picture will not be shared in the app. The next picture pair will automatically be presented to you.** To make it easier for you to see the timer, you will see the same timer once before and once after the picture pair.
Scenario:
Imagine that you use a social media app that prompts all users to take and share photos at random times throughout the day. Every time you get a prompt and want to share a photo, you can decide who you want to share it with. If you miss a prompt, you won't be able to share photos in the app or see what other users have shared. The same applies if you choose not to share a photo. On the next pages we show you three picture pairs. Imagine you took these pictures with your smartphone because you received a prompt from the app. Each picture pair consists of an image taken with your smartphone's front camera and an image taken with your smartphone's back camera. Both were captured in the same situation. For each picture pair, we also provide you with a brief description of the shown situation. This description is for your understanding only and would not be part of what you share in the app. Please decide for each picture pair whether you would share it with **friends**, **public** or **not at all**.

Another block of three different picture pairs is presented to the participants. This time accompanied by a 30 second countdown timer (as depicted to the right), during which the participants have to make their decision.

This is followed by a section where participants can describe their reasoning for sharing certain pictures with each group. The structure is repeated for each option (friends, public, and not shared):

- You decided to share this picture(s) with **friends**:

– …
What made you decide to share this picture(s) with friends?

free text input

In case the participant did not share any pictures with this group, they instead receive this question:

- You chose to not share any of the pictures with friends. What is necessary such that you would decide to share a picture with friends?

free text input

The remainder of the questionnaire is about the participant's experience with the 30 second timer, their general sharing behavior, demographics, and the items of the IUIPC-8 scale.

- How did you feel about the 30 seconds timer, while making a sharing decision?
  – It was enough time to make a sharing decision.
  – The timer nudged me to share a picture.
  – The timer was too short, to make a thoughtful decision.
  – The presence of the timer stressed me.
  – The timespan of the timer stressed me.

The statements were provided in randomized order, and answered by single-choice. Answer options for each statement were: *Strongly Disagree*, *Disagree*, *Neither Agree nor Disagree*, *Agree*, *Strongly Agree*

- For the next questions please refer to your general behavior and not the previous scenario.
How much do you agree to the following statements?
  – I decide depending on the situation shown in the picture whether to share it public or not.

  - I decide depending on the situation shown in the picture whether to share it with friends or not.
  - I don't overthink before I share a picture public.
  - Please choose "Strongly Disagree" for this statement.
  - I don't overthink before I share a picture with friends.

  The statements were provided in randomized order, and answered by single-choice. Answer options for each statement were: *Strongly Disagree*, *Disagree*, *Neither Agree nor Disagree*, *Agree*, *Strongly Agree*

- If I decide to share a picture **public**, …
  - …I pay attention to the surrounding shown in the picture.
  - …I do not care if strangers (I did not ask for consent) are in the picture, and share it anyway.
  - …I make sure that no sensitive information (passwords, login credentials) is in the picture.
  - …I make sure that no information about my location is in the picture.

  The statements were provided in randomized order, and answered by single-choice. Answer options for each statement were: *Strongly Disagree*, *Disagree*, *Neither Agree nor Disagree*, *Agree*, *Strongly Agree*

- If I decide to share a picture with **friends**, …
  - …I pay attention to the surrounding shown in the picture.
  - …I do not care if strangers (I did not ask for consent) are in the picture, and share it anyway.
  - …I make sure that no sensitive information (passwords, login credentials) is in the picture.
  - …I make sure that no information about my location is in the picture.

  The statements were provided in randomized order, and answered by single-choice. Answer options for each statement were: *Strongly Disagree*, *Disagree*, *Neither Agree nor Disagree*, *Agree*, *Strongly Agree*

- If I decide **not to share** a picture, …
  - Please choose "Strongly Agree" for this statement.
  - …it is because strangers (I did not ask for consent) are in the picture.
  - …it is because of the surrounding shown in the picture.
  - …it is because information about my location is in the picture.
  - …it is because sensitive information (passwords, login credentials) is in the picture.

  The statements were provided in randomized order, and answered by single-choice. Answer options for each statement were: *Strongly Disagree*, *Disagree*, *Neither Agree nor Disagree*, *Agree*, *Strongly Agree*

- Did the process of taking a picture and making a decision during the scenario remind you of a specific app?

  ◯ No.
  ◯ Yes, it reminded me of: *free text input*

- What kind of device(s) do you own?

  ☐ Smartphone ☐ Smartwatch ☐ Smarttv
  ☐ Smartspeaker ☐ Tablet ☐ Desktop PC
  ☐ Laptop

- Do you use social media platforms?

  ◯ No.
  ◯ Not sure.
  ◯ Yes, less than once a week.
  ◯ Yes, at least once a week.
  ◯ Yes, more than once a week
  ◯ Yes, daily.

- For which social media platforms do you have an account?

  ☐ Facebook ☐ YouTube ☐ Instagram ☐ TikTok
  ☐ Bereal ☐ Snapchat ☐ Pinterest ☐ Twitter
  ☐ Reddit ☐ Twitch ☐ Other: *free text input*

- Which of these platforms do you actively use?

  - None. - Facebook - YouTube
  - Instagram - TikTok - BeReal
  - Snapchat - Pinterest - Twitter
  - Reddit - Twitch - Other *free text input*

  The statements were provided in randomized order, and answered by single-choice. Answer options for each statement were: *Less than once a week.*, *At least once a week.*, *More than once a week.*, *Daily*

- On which of these platforms have you shared pictures before?

  ☐ Facebook ☐ YouTube ☐ Instagram ☐ TikTok
  ☐ Bereal ☐ Snapchat ☐ Pinterest ☐ Twitter
  ☐ Reddit ☐ Twitch ☐ Other: *free text input*

- How old are you? Please enter your age in years.

- Please select your gender from the options.

  ◯ Male ◯ Female ◯ Non-Binary
  ◯ Prefer to self-describe: *free text input*

- What is your country of residence?

- What is your citizenship?

- What is your highest educational qualification?

  ◯ No formal education ◯ Primary education
  ◯ Lower secondary education ◯ Upper secondary education
  ◯ Tertiary education ◯ Bachelor's
  ◯ Master's ◯ Doctorate
  ◯ Other (please specify): *free text input*

- What is your current profession?

  ◯ Student ◯ Unemployed
  ◯ Employed part-time ◯ Employed full-time
  ◯ Self-employed ◯ Retired
  ◯ Other (please specify): *free text input*

- Assessment of the IUIPC-8 scale [26].

- Do you have any additional feedback or comments? Please let us know here:
  free text input

B Prepped Photos

Neutral Photo Pairs

Figure 5: While you (person in the left/top photo) watch TV in your living room, you get a prompt to take a photo pair. This is the photo pair you took:

Figure 6: While you (person in the left/top photo) cook in your kitchen, you get a prompt to take a photo pair. This is the photo pair you took:

Sensitive Photo Pairs

Figure 7: While you (person in the left/top photo) are getting a drink form the fridge in your kitchen, you get a prompt to take a photo pair. On the fridge are post-its with phone numbers and birthdates which can be zoomed in. This is the photo pair you took:

Figure 8: While you (person in the white shirt, left/top photo) receive a package at your front door, you get a prompt to take a photo pair. Your address is visible on the package and can be zoomed in. This is the photo pair you took:

Bystander Photo Pairs

Figure 9: While you (person in the white shirt, left/top photo) receive a package at your front door, you get a prompt to take a photo pair. The mailman (person in the black shirt, right/bottom photo) is also in the photo. This is the photo pair you took:

Figure 10: While you (person in the white shirt, left/top photo) are reading in your living room and a handyman (person in the black shirt, right/bottom photo) is there, you get a prompt to take a photo pair. This is the photo pair you took:

C Statistical Results

Table 3: p-values of the interaction effects (part 1).

	z.ratio	p.value
TIMED		
NOT TIMED - TIMING	-4,842	<.0001
CONTENT		
BYSTANDER - NEUTRAL	-11,738	<.0001
BYSTANDER - SENSITIVE	11,634	<.0001
NEUTRAL - SENSITIVE	23,372	<.0001
AUDIENCE		
FRIENDS - NO SHARING	13,032	<.0001
FRIENDS - PUBLIC	27,554	<.0001
NO SHARING - PUBLIC	14,522	<.0001
TIMING:CONTENT		
NOT TIMED,BYSTANDER - NOT TIMED,NEUTRAL	-6,393	<.0001
NOT TIMED,BYSTANDER - NOT TIMED,SENSITIVE	7,383	<.0001
NOT TIMED,BYSTANDER - TIMED,BYSTANDER	-0.483	1
NOT TIMED,BYSTANDER - TIMED,NEUTRAL	-12,290	<.0001
NOT TIMED,BYSTANDER - TIMED,SENSITIVE	6,339	<.0001
NOT TIMED,NEUTRAL - NOT TIMED,SENSITIVE	13,776	<.0001
NOT TIMED,NEUTRAL - TIMED,BYSTANDER	5,911	<.0001
NOT TIMED,NEUTRAL - TIMED,NEUTRAL	-5,897	<.0001
NOT TIMED,NEUTRAL - TIMED,SENSITIVE	12,732	<.0001
NOT TIMED,SENSITIVE - TIMED,BYSTANDER	-7,865	<.0001
NOT TIMED,SENSITIVE - TIMED,NEUTRAL	-19,673	<.0001
NOT TIMED,SENSITIVE - TIMED,SENSITIVE	-1,044	1
TIMED,BYSTANDER - TIMED,NEUTRAL	-11,807	<.0001
TIMED,BYSTANDER - TIMED,SENSITIVE	6,821	<.0001
TIMED,NEUTRAL - TIMED,SENSITIVE	18,629	<.0001
TIMING:AUDIENCE		
NOT TIMED,FRIENDS - NOT TIMED,NO SHARING	7,952	<.0001
NOT TIMED,FRIENDS - NOT TIMED,PUBLIC	19,916	<.0001
NOT TIMED,FRIENDS - TIMED,FRIENDS	-1,768	1
NOT TIMED,FRIENDS - TIMED,NO SHARING	6,931	<.0001
NOT TIMED,FRIENDS - TIMED,PUBLIC	14,590	<.0001
NOT TIMED,NO SHARING - NOT TIMED,PUBLIC	11,964	<.0001
NOT TIMED,NO SHARING - TIMED,FRIENDS	-9,720	<.0001
NOT TIMED,NO SHARING - TIMED,NO SHARING	-1,021	1
NOT TIMED,NO SHARING - TIMED,PUBLIC	6,638	<.0001
NOT TIMED,PUBLIC - TIMED,FRIENDS	-21,684	<.0001
NOT TIMED,PUBLIC - TIMED,NO SHARING	-12,984	<.0001
NOT TIMED,PUBLIC - TIMED,PUBLIC	-5,325	<.0001
TIMED,FRIENDS - TIMED,NO SHARING	8,699	<.0001
TIMED,FRIENDS - TIMED,PUBLIC	16,358	<.0001
TIMED,NO SHARING - TIMED,PUBLIC	7,659	<.0001

continued on next page

Table 4: p-values of the interaction effects (part2).

continued from previous page		
	z.ratio	**p.value**
CONTENT:AUDIENCE		
BYSTANDER,FRIENDS - BYSTANDER,NO SHARING	6,738	<.0001
BYSTANDER,FRIENDS - BYSTANDER,PUBLIC	14,787	<.0001
BYSTANDER,FRIENDS - NEUTRAL,FRIENDS	-8,494	<.0001
BYSTANDER,FRIENDS - NEUTRAL,NO SHARING	0.952	10,000
BYSTANDER,FRIENDS - NEUTRAL,PUBLIC	6,860	<.0001
BYSTANDER,FRIENDS - SENSITIVE,FRIENDS	6,466	<.0001
BYSTANDER,FRIENDS - SENSITIVE,NO SHARING	11,291	<.0001
BYSTANDER,FRIENDS - SENSITIVE,PUBLIC	22,617	<.0001
BYSTANDER,NO SHARING - BYSTANDER,PUBLIC	8,049	<.0001
BYSTANDER,NO SHARING - NEUTRAL,FRIENDS	-15,232	<.0001
BYSTANDER,NO SHARING - NEUTRAL,NO SHARING	-5,786	<.0001
BYSTANDER,NO SHARING - NEUTRAL,PUBLIC	0.122	10,000
BYSTANDER,NO SHARING - SENSITIVE,FRIENDS	-0.272	10,000
BYSTANDER,NO SHARING - SENSITIVE,NO SHARING	4,553	0.0002
BYSTANDER,NO SHARING - SENSITIVE,PUBLIC	15,879	<.0001
BYSTANDER,PUBLIC - NEUTRAL,FRIENDS	-23,281	<.0001
BYSTANDER,PUBLIC - NEUTRAL,NO SHARING	-13,835	<.0001
BYSTANDER,PUBLIC - NEUTRAL,PUBLIC	-7,927	<.0001
BYSTANDER,PUBLIC - SENSITIVE,FRIENDS	-8,321	<.0001
BYSTANDER,PUBLIC - SENSITIVE,NO SHARING	-3,497	0.0170
BYSTANDER,PUBLIC - SENSITIVE,PUBLIC	7,829	<.0001
NEUTRAL,FRIENDS - NEUTRAL,NO SHARING	9,446	<.0001
NEUTRAL,FRIENDS - NEUTRAL,PUBLIC	15,354	<.0001
NEUTRAL,FRIENDS - SENSITIVE,FRIENDS	14,960	<.0001
NEUTRAL,FRIENDS - SENSITIVE,NO SHARING	19,785	<.0001
NEUTRAL,FRIENDS - SENSITIVE,PUBLIC	31,111	<.0001
NEUTRAL,NO SHARING - NEUTRAL,PUBLIC	5,909	<.0001
NEUTRAL,NO SHARING - SENSITIVE,FRIENDS	5,514	<.0001
NEUTRAL,NO SHARING - SENSITIVE,NO SHARING	10,339	<.0001
NEUTRAL,NO SHARING - SENSITIVE,PUBLIC	21,665	<.0001
NEUTRAL,PUBLIC - SENSITIVE,FRIENDS	-0.394	10,000
NEUTRAL,PUBLIC - SENSITIVE,NO SHARING	4,430	0.0003
NEUTRAL,PUBLIC - SENSITIVE,PUBLIC	15,756	<.0001
SENSITIVE,FRIENDS - SENSITIVE,NO SHARING	4,825	0.0001
SENSITIVE,FRIENDS - SENSITIVE,PUBLIC	16,151	<.0001
SENSITIVE,NO SHARING - SENSITIVE,PUBLIC	11,326	<.0001
TIMING:CONTENT:AUDIENCE		
NOT TIMED,BYSTANDER,FRIENDS - NOT TIMED,BYSTANDER,NO SHARING	4,960	0.0001
NOT TIMED,BYSTANDER,FRIENDS - NOT TIMED,BYSTANDER,PUBLIC	10,729	<.0001
NOT TIMED,BYSTANDER,FRIENDS - NOT TIMED,NEUTRAL,FRIENDS	-4,805	0.0002
NOT TIMED,BYSTANDER,FRIENDS - NOT TIMED,NEUTRAL,NO SHARING	2,148	1
NOT TIMED,BYSTANDER,FRIENDS - NOT TIMED,NEUTRAL,PUBLIC	7,936	<.0001
NOT TIMED,BYSTANDER,FRIENDS - NOT TIMED,SENSITIVE,FRIENDS	5,968	<.0001
NOT TIMED,BYSTANDER,FRIENDS - NOT TIMED,SENSITIVE,NO SHARING	8,321	<.0001
NOT TIMED,BYSTANDER,FRIENDS - NOT TIMED,SENSITIVE,PUBLIC	17,442	<.0001
NOT TIMED,BYSTANDER,FRIENDS - TIMED,BYSTANDER,FRIENDS	0.474	1
continued on next page		

Table 5: p-values of the interaction effects (part3).

continued from previous page		
	z.ratio	**p.value**
NOT TIMED,BYSTANDER,FRIENDS - TIMED,BYSTANDER,NO SHARING	4,878	0.0002
NOT TIMED,BYSTANDER,FRIENDS - TIMED,BYSTANDER,PUBLIC	10,465	<.0001
NOT TIMED,BYSTANDER,FRIENDS - TIMED,NEUTRAL,FRIENDS	-6,763	<.0001
NOT TIMED,BYSTANDER,FRIENDS - TIMED,NEUTRAL,NO SHARING	-0.491	1
NOT TIMED,BYSTANDER,FRIENDS - TIMED,NEUTRAL,PUBLIC	2,184	1
NOT TIMED,BYSTANDER,FRIENDS - TIMED,SENSITIVE,FRIENDS	3,520	0.0661
NOT TIMED,BYSTANDER,FRIENDS - TIMED,SENSITIVE,NO SHARING	7,994	<.0001
NOT TIMED,BYSTANDER,FRIENDS - TIMED,SENSITIVE,PUBLIC	14,975	<.0001
NOT TIMED,BYSTANDER,NO SHARING - NOT TIMED,BYSTANDER,PUBLIC	5,769	<.0001
NOT TIMED,BYSTANDER,NO SHARING - NOT TIMED,NEUTRAL,FRIENDS	-9,765	<.0001
NOT TIMED,BYSTANDER,NO SHARING - NOT TIMED,NEUTRAL,NO SHARING	-2,812	0.7530
NOT TIMED,BYSTANDER,NO SHARING - NOT TIMED,NEUTRAL,PUBLIC	2,976	0.4463
NOT TIMED,BYSTANDER,NO SHARING - NOT TIMED,SENSITIVE,FRIENDS	1,008	1
NOT TIMED,BYSTANDER,NO SHARING - NOT TIMED,SENSITIVE,NO SHARING	3,361	0.1187
NOT TIMED,BYSTANDER,NO SHARING - NOT TIMED,SENSITIVE,PUBLIC	12,483	<.0001
NOT TIMED,BYSTANDER,NO SHARING - TIMED,BYSTANDER,FRIENDS	-4,486	0.0011
NOT TIMED,BYSTANDER,NO SHARING - TIMED,BYSTANDER,NO SHARING	-0.082	10,000
NOT TIMED,BYSTANDER,NO SHARING - TIMED,BYSTANDER,PUBLIC	5,506	<.0001
NOT TIMED,BYSTANDER,NO SHARING - TIMED,NEUTRAL,FRIENDS	-11,723	<.0001
NOT TIMED,BYSTANDER,NO SHARING - TIMED,NEUTRAL,NO SHARING	-5,451	<.0001
NOT TIMED,BYSTANDER,NO SHARING - TIMED,NEUTRAL,PUBLIC	-2,776	0.8425
NOT TIMED,BYSTANDER,NO SHARING - TIMED,SENSITIVE,FRIENDS	-1,440	1
NOT TIMED,BYSTANDER,NO SHARING - TIMED,SENSITIVE,NO SHARING	3,034	0.3690
NOT TIMED,BYSTANDER,NO SHARING - TIMED,SENSITIVE,PUBLIC	10,015	<.0001
NOT TIMED,BYSTANDER,PUBLIC - NOT TIMED,NEUTRAL,FRIENDS	-15,534	<.0001
NOT TIMED,BYSTANDER,PUBLIC - NOT TIMED,NEUTRAL,NO SHARING	-8,581	<.0001
NOT TIMED,BYSTANDER,PUBLIC - NOT TIMED,NEUTRAL,PUBLIC	-2,792	0.8004
NOT TIMED,BYSTANDER,PUBLIC - NOT TIMED,SENSITIVE,FRIENDS	-4,761	0.0003
NOT TIMED,BYSTANDER,PUBLIC - NOT TIMED,SENSITIVE,NO SHARING	-2,408	1
NOT TIMED,BYSTANDER,PUBLIC - NOT TIMED,SENSITIVE,PUBLIC	6,714	<.0001
NOT TIMED,BYSTANDER,PUBLIC - TIMED,BYSTANDER,FRIENDS	-10,255	<.0001
NOT TIMED,BYSTANDER,PUBLIC - TIMED,BYSTANDER,NO SHARING	-5,851	<.0001
NOT TIMED,BYSTANDER,PUBLIC - TIMED,BYSTANDER,PUBLIC	-0.263	1
NOT TIMED,BYSTANDER,PUBLIC - TIMED,NEUTRAL,FRIENDS	-17,492	<.0001
NOT TIMED,BYSTANDER,PUBLIC - TIMED,NEUTRAL,NO SHARING	-11,219	<.0001
NOT TIMED,BYSTANDER,PUBLIC - TIMED,NEUTRAL,PUBLIC	-8,545	<.0001
NOT TIMED,BYSTANDER,PUBLIC - TIMED,SENSITIVE,FRIENDS	-7,209	<.0001
NOT TIMED,BYSTANDER,PUBLIC - TIMED,SENSITIVE,NO SHARING	-2,735	0.9557
NOT TIMED,BYSTANDER,PUBLIC - TIMED,SENSITIVE,PUBLIC	4,246	0.0033
NOT TIMED,NEUTRAL,FRIENDS - NOT TIMED,NEUTRAL,NO SHARING	6,953	<.0001
NOT TIMED,NEUTRAL,FRIENDS - NOT TIMED,NEUTRAL,PUBLIC	12,741	<.0001
NOT TIMED,NEUTRAL,FRIENDS - NOT TIMED,SENSITIVE,FRIENDS	10,773	<.0001
NOT TIMED,NEUTRAL,FRIENDS - NOT TIMED,SENSITIVE,NO SHARING	13,126	<.0001
NOT TIMED,NEUTRAL,FRIENDS - NOT TIMED,SENSITIVE,PUBLIC	22,248	<.0001
NOT TIMED,NEUTRAL,FRIENDS - TIMED,BYSTANDER,FRIENDS	5,279	<.0001
NOT TIMED,NEUTRAL,FRIENDS - TIMED,BYSTANDER,NO SHARING	9,683	<.0001
NOT TIMED,NEUTRAL,FRIENDS - TIMED,BYSTANDER,PUBLIC	15,271	<.0001
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Table 6: p-values of the interaction effects (part4).

continued from previous page

	z.ratio	p.value
NOT TIMED,NEUTRAL,FRIENDS - TIMED,NEUTRAL,FRIENDS	-1,958	1
NOT TIMED,NEUTRAL,FRIENDS - TIMED,NEUTRAL,NO SHARING	4,314	0.0024
NOT TIMED,NEUTRAL,FRIENDS - TIMED,NEUTRAL,PUBLIC	6,989	<.0001
NOT TIMED,NEUTRAL,FRIENDS - TIMED,SENSITIVE,FRIENDS	8,325	<.0001
NOT TIMED,NEUTRAL,FRIENDS - TIMED,SENSITIVE,NO SHARING	12,799	<.0001
NOT TIMED,NEUTRAL,FRIENDS - TIMED,SENSITIVE,PUBLIC	19,780	<.0001
NOT TIMED,NEUTRAL,NO SHARING - NOT TIMED,NEUTRAL,PUBLIC	5,789	<.0001
NOT TIMED,NEUTRAL,NO SHARING - NOT TIMED,SENSITIVE,FRIENDS	3,820	0.0204
NOT TIMED,NEUTRAL,NO SHARING - NOT TIMED,SENSITIVE,NO SHARING	6,173	<.0001
NOT TIMED,NEUTRAL,NO SHARING - NOT TIMED,SENSITIVE,PUBLIC	15,295	<.0001
NOT TIMED,NEUTRAL,NO SHARING - TIMED,BYSTANDER,FRIENDS	-1,674	1
NOT TIMED,NEUTRAL,NO SHARING - TIMED,BYSTANDER,NO SHARING	2,730	0.9683
NOT TIMED,NEUTRAL,NO SHARING - TIMED,BYSTANDER,PUBLIC	8,318	<.0001
NOT TIMED,NEUTRAL,NO SHARING - TIMED,NEUTRAL,FRIENDS	-8,911	<.0001
NOT TIMED,NEUTRAL,NO SHARING - TIMED,NEUTRAL,NO SHARING	-2,639	1
NOT TIMED,NEUTRAL,NO SHARING - TIMED,NEUTRAL,PUBLIC	0.036	1
NOT TIMED,NEUTRAL,NO SHARING - TIMED,SENSITIVE,FRIENDS	1,372	1
NOT TIMED,NEUTRAL,NO SHARING - TIMED,SENSITIVE,NO SHARING	5,846	<.0001
NOT TIMED,NEUTRAL,NO SHARING - TIMED,SENSITIVE,PUBLIC	12,827	<.0001
NOT TIMED,NEUTRAL,PUBLIC - NOT TIMED,SENSITIVE,FRIENDS	-1,968	1
NOT TIMED,NEUTRAL,PUBLIC - NOT TIMED,SENSITIVE,NO SHARING	0.385	1
NOT TIMED,NEUTRAL,PUBLIC - NOT TIMED,SENSITIVE,PUBLIC	9,506	<.0001
NOT TIMED,NEUTRAL,PUBLIC - TIMED,BYSTANDER,FRIENDS	-7,462	<.0001
NOT TIMED,NEUTRAL,PUBLIC - TIMED,BYSTANDER,NO SHARING	-3,058	0.3406
NOT TIMED,NEUTRAL,PUBLIC - TIMED,BYSTANDER,PUBLIC	2,529	1
NOT TIMED,NEUTRAL,PUBLIC - TIMED,NEUTRAL,FRIENDS	-14,699	<.0001
NOT TIMED,NEUTRAL,PUBLIC - TIMED,NEUTRAL,NO SHARING	-8,427	<.0001
NOT TIMED,NEUTRAL,PUBLIC - TIMED,NEUTRAL,PUBLIC	-5,752	<.0001
NOT TIMED,NEUTRAL,PUBLIC - TIMED,SENSITIVE,FRIENDS	-4,417	0.0015
NOT TIMED,NEUTRAL,PUBLIC - TIMED,SENSITIVE,NO SHARING	0.058	1
NOT TIMED,NEUTRAL,PUBLIC - TIMED,SENSITIVE,PUBLIC	7,039	<.0001
NOT TIMED,SENSITIVE,FRIENDS - NOT TIMED,SENSITIVE,NO SHARING	2,353	1
NOT TIMED,SENSITIVE,FRIENDS - NOT TIMED,SENSITIVE,PUBLIC	11,475	<.0001
NOT TIMED,SENSITIVE,FRIENDS - TIMED,BYSTANDER,FRIENDS	-5,494	<.0001
NOT TIMED,SENSITIVE,FRIENDS - TIMED,BYSTANDER,NO SHARING	-1,090	1
NOT TIMED,SENSITIVE,FRIENDS - TIMED,BYSTANDER,PUBLIC	4,498	0.0011
NOT TIMED,SENSITIVE,FRIENDS - TIMED,NEUTRAL,FRIENDS	-12,731	<.0001
NOT TIMED,SENSITIVE,FRIENDS - TIMED,NEUTRAL,NO SHARING	-6,459	<.0001
NOT TIMED,SENSITIVE,FRIENDS - TIMED,NEUTRAL,PUBLIC	-3,784	0.0236
NOT TIMED,SENSITIVE,FRIENDS - TIMED,SENSITIVE,FRIENDS	-2,448	1
NOT TIMED,SENSITIVE,FRIENDS - TIMED,SENSITIVE,NO SHARING	2,026	1
NOT TIMED,SENSITIVE,FRIENDS - TIMED,SENSITIVE,PUBLIC	9,007	<.0001
NOT TIMED,SENSITIVE,NO SHARING - NOT TIMED,SENSITIVE,PUBLIC	9,121	<.0001
NOT TIMED,SENSITIVE,NO SHARING - TIMED,BYSTANDER,FRIENDS	-7,847	<.0001
NOT TIMED,SENSITIVE,NO SHARING - TIMED,BYSTANDER,NO SHARING	-3,443	0.0880
NOT TIMED,SENSITIVE,NO SHARING - TIMED,BYSTANDER,PUBLIC	2,144	1
NOT TIMED,SENSITIVE,NO SHARING - TIMED,NEUTRAL,FRIENDS	-15,084	<.0001

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Table 7: p-values of the interaction effects (part5).

continued from previous page

	z.ratio	p.value
NOT TIMED,SENSITIVE,NO SHARING - TIMED,NEUTRAL,NO SHARING	-8,812	<.0001
NOT TIMED,SENSITIVE,NO SHARING - TIMED,NEUTRAL,PUBLIC	-6,137	<.0001
NOT TIMED,SENSITIVE,NO SHARING - TIMED,SENSITIVE,FRIENDS	-4,802	0.0002
NOT TIMED,SENSITIVE,NO SHARING - TIMED,SENSITIVE,NO SHARING	-0.327	1
NOT TIMED,SENSITIVE,NO SHARING - TIMED,SENSITIVE,PUBLIC	6,654	<.0001
NOT TIMED,SENSITIVE,PUBLIC - TIMED,BYSTANDER,FRIENDS	-16,969	<.0001
NOT TIMED,SENSITIVE,PUBLIC - TIMED,BYSTANDER,NO SHARING	-12,565	<.0001
NOT TIMED,SENSITIVE,PUBLIC - TIMED,BYSTANDER,PUBLIC	-6,977	<.0001
NOT TIMED,SENSITIVE,PUBLIC - TIMED,NEUTRAL,FRIENDS	-24,205	<.0001
NOT TIMED,SENSITIVE,PUBLIC - TIMED,NEUTRAL,NO SHARING	-17,933	<.0001
NOT TIMED,SENSITIVE,PUBLIC - TIMED,NEUTRAL,PUBLIC	-15,258	<.0001
NOT TIMED,SENSITIVE,PUBLIC - TIMED,SENSITIVE,FRIENDS	-13,923	<.0001
NOT TIMED,SENSITIVE,PUBLIC - TIMED,SENSITIVE,NO SHARING	-9,448	<.0001
NOT TIMED,SENSITIVE,PUBLIC - TIMED,SENSITIVE,PUBLIC	-2,468	1
TIMED,BYSTANDER,FRIENDS - TIMED,BYSTANDER,NO SHARING	4,404	0.0016
TIMED,BYSTANDER,FRIENDS - TIMED,BYSTANDER,PUBLIC	9,992	<.0001
TIMED,BYSTANDER,FRIENDS - TIMED,NEUTRAL,FRIENDS	-7,237	<.0001
TIMED,BYSTANDER,FRIENDS - TIMED,NEUTRAL,NO SHARING	-0.965	1
TIMED,BYSTANDER,FRIENDS - TIMED,NEUTRAL,PUBLIC	1,710	1
TIMED,BYSTANDER,FRIENDS - TIMED,SENSITIVE,FRIENDS	3,046	0.3550
TIMED,BYSTANDER,FRIENDS - TIMED,SENSITIVE,NO SHARING	7,520	<.0001
TIMED,BYSTANDER,FRIENDS - TIMED,SENSITIVE,PUBLIC	14,501	<.0001
TIMED,BYSTANDER,NO SHARING - TIMED,BYSTANDER,PUBLIC	5,588	<.0001
TIMED,BYSTANDER,NO SHARING - TIMED,NEUTRAL,FRIENDS	-11,641	<.0001
TIMED,BYSTANDER,NO SHARING - TIMED,NEUTRAL,NO SHARING	-5,369	<.0001
TIMED,BYSTANDER,NO SHARING - TIMED,NEUTRAL,PUBLIC	-2,694	1
TIMED,BYSTANDER,NO SHARING - TIMED,SENSITIVE,FRIENDS	-1,358	1
TIMED,BYSTANDER,NO SHARING - TIMED,SENSITIVE,NO SHARING	3,116	0.2803
TIMED,BYSTANDER,NO SHARING - TIMED,SENSITIVE,PUBLIC	10,097	<.0001
TIMED,BYSTANDER,PUBLIC - TIMED,NEUTRAL,FRIENDS	-17,229	<.0001
TIMED,BYSTANDER,PUBLIC - TIMED,NEUTRAL,NO SHARING	-10,956	<.0001
TIMED,BYSTANDER,PUBLIC - TIMED,NEUTRAL,PUBLIC	-8,281	<.0001
TIMED,BYSTANDER,PUBLIC - TIMED,SENSITIVE,FRIENDS	-6,946	<.0001
TIMED,BYSTANDER,PUBLIC - TIMED,SENSITIVE,NO SHARING	-2,471	1
TIMED,BYSTANDER,PUBLIC - TIMED,SENSITIVE,PUBLIC	4,509	0.0010
TIMED,NEUTRAL,FRIENDS - TIMED,NEUTRAL,NO SHARING	6,272	<.0001
TIMED,NEUTRAL,FRIENDS - TIMED,NEUTRAL,PUBLIC	8,947	<.0001
TIMED,NEUTRAL,FRIENDS - TIMED,SENSITIVE,FRIENDS	10,283	<.0001
TIMED,NEUTRAL,FRIENDS - TIMED,SENSITIVE,NO SHARING	14,757	<.0001
TIMED,NEUTRAL,FRIENDS - TIMED,SENSITIVE,PUBLIC	21,738	<.0001
TIMED,NEUTRAL,NO SHARING - TIMED,NEUTRAL,PUBLIC	2,675	1
TIMED,NEUTRAL,NO SHARING - TIMED,SENSITIVE,FRIENDS	4,010	0.0093
TIMED,NEUTRAL,NO SHARING - TIMED,SENSITIVE,NO SHARING	8,485	<.0001
TIMED,NEUTRAL,NO SHARING - TIMED,SENSITIVE,PUBLIC	15,466	<.0001
TIMED,NEUTRAL,PUBLIC - TIMED,SENSITIVE,FRIENDS	1,336	1
TIMED,NEUTRAL,PUBLIC - TIMED,SENSITIVE,NO SHARING	5,810	<.0001
TIMED,NEUTRAL,PUBLIC - TIMED,SENSITIVE,PUBLIC	12,791	<.0001
TIMED,SENSITIVE,FRIENDS - TIMED,SENSITIVE,NO SHARING	4,475	0.0012
TIMED,SENSITIVE,FRIENDS - TIMED,SENSITIVE,PUBLIC	11,455	<.0001
TIMED,SENSITIVE,NO SHARING - TIMED,SENSITIVE,PUBLIC	6,981	<.0001

D Codebook

Table 8: Codebook used in the thematic analysis.

Code	Description	#
private_ns	Revelation of private or sensitive information in general is named as a reason for not sharing.	123
privacy_given_s	The pictures do not reveal private information in general and can therefor be shared.	104
everyday_s	Pictures are categorized as everyday actions and therefor shared.	69
bystander_ns	Bystander or strangers are named as a reson for not sharing the picture.	57
aesthetics_ns	The pictures were not worth sharing.	51
trust_s	Trusting friends is given as a reason for sharing private and sensitive information with friends.	47
not_dangerous_s	The pictures are perceived as basic or not dangerous to share.	39
keeping_intouch_s	Staying in touch with friends and keeping them updated is named as a reason for sharing.	37
goodlooking_s	The pictures or persons in the pictures are perceived as good looking and therefor worth sharing.	36
not_enjoy_ns	Participants don't enjoy sharing pictures public.	34
friends_known_s	The audience of the picture is known.	29
reputation_ns	The pictures is not perceived as improving or beneficial for the reputation of the participant, or might offend their followers.	26
cool_situation_s	The situation or event shown in the picture needs to be exciting and worth sharing.	21
privacy_of_bystanders_given_s	Bystanders are not shown in the picture, therefor it can be shared.	19
personal_taste_s	Sharing of personal tast, preferences, opinions.	18
attack_ns	Afraid of attacks because of sharing personal data.	15
not_goodlooking_ns	The pictures are perceived as not worth sharing, since they aren't perceived as goodlooking.	14
location_ns	Participants specifically mention that address or location are visible in the picture, and it would therefor not be shared.	14
pleasing_follower_s	Participants share because they have a lot of followers and for advertisement.	10
reputation_s	The situations/activities in the pictures are socialy accepted or can improve the participants reputation.	9
bystander_s	Bystander are named as a reason for sharing a picture.	6
app_purpose_s	The purpose of the app is to share pictures therefor participants would do so.	6
similar_s	Participants shared similar pictures befor.	6
privacy_location_given_s	The location where the participant lives isn't revealed therefor they would share the picture.	6
everything_s	Participants share everything with their friends.	3
public_s	Participants would share something that is already public.	2