

**Measuring Social Privacy as a Value in a Multi-Country Sample from Germany,
Spain, and France**

Module 12: Bachelor Thesis

Conflict, Risk and Safety

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Abstract

This study investigated the concept of social privacy as a personal value by developing and validating new items within the PVQ-RR framework. While the PVQ-RR captures general human values, it does not account for privacy-related values. Drawing on Burgoon's (1982) theory and prior research by Russa (2024) and Markink (2024), this study focuses specifically on conceptualising and measuring social privacy, which is defined as the desire to manage one's interpersonal boundaries and social interactions. Six newly developed social value items and six behavioural items were tested using a multi-country sample from Germany (N = 61), France (N = 28), and Spain (N = 20). Exploratory factor analysis revealed that only three of the six value items showed acceptable loadings, and of those, just one loaded strongly on the social privacy factor. This suggests that the construct is not yet well-measured, a challenge also observed in earlier studies. Nevertheless, social privacy values significantly predicted several privacy-related behaviours across countries, supporting the scale's predictive validity. The findings suggest that while social privacy is a theoretically meaningful dimension, further refinement of its measurement is needed.

Keywords: social privacy, privacy values, PVQ-RR, interpersonal boundaries

Introduction

Privacy is a fundamental aspect of human life that encompasses how individuals regulate their personal spaces, manage social interactions, and control access to their information. Usually, privacy research focuses on Informational privacy, such as the protection of personal data on the internet. However, privacy extends beyond data protection to other important areas of life. One such area is social privacy, defined by Burgoon (1982) as the ability to regulate social interactions and maintain interpersonal boundaries. It enables individuals to distance themselves from others when desired, regulate unwanted discussions and preserve a sense of personal space (Burgoon, 1982). In contrast to informational privacy, which regulates which data is passed on, social privacy includes how and when people choose to engage with others.

In recent years, the concept of privacy has become more important due to the increase in digital communication platforms, where private and public spheres often overlap (Strauss & Nentwich, 2013). However, the need for social privacy is not new. Even in offline environments, people have always regulated when, how and with whom they interact – at home, at work or in public spaces. What has changed is the context in which these interactions take place and the increased complexity of managing these interactions in both online and offline environments.

Despite its importance, social privacy remains an underexplored area of privacy research, with much of the existing literature focusing predominantly on informational privacy (Burgoon, 1982; Parrot et al., 1989; Mai, 2016; Wu et al., 2019). This is surprising, given that regulating interpersonal boundaries plays a crucial role in psychological well-being, self-disclosure, and personal space management (Lombardi & Ciceri, 2016).

Importantly, the experience and expression of social privacy are not universal. The concept of social privacy is not uniform across cultures but is shaped by societal norms, legal frameworks, and interpersonal communication styles (Li, 2022). Privacy preferences vary

based on how societies define personal space, trust in institutions, and expectations around self-disclosure (Viberg et al., 2024). In collectivist cultures, for example, social connectedness can be promoted, while personal boundaries are negotiated differently than in individualist cultures. This raises the question of whether social privacy is a universally recognised or a culturally constructed value.

This study addresses the need to better understand and measure social privacy, not just as a behaviour but as a personal value, meaning a stable, guiding principle that influences how individuals regulate their social interactions and interpersonal boundaries across situations. Building on recent research, the current study investigates how social privacy as a value functions across different cultural contexts and whether it can predict privacy-related behaviours. The next section provides an in-depth theoretical background, introducing key definitions, frameworks, and previous findings that shape this inquiry.

Concepts of Privacy

Privacy is widely recognised as a complex and multifaceted concept that has been studied extensively across disciplines, yet a universally accepted definition remains elusive (Pedersen, 1979; Solove, 2006; Florczak, 2021). For this study, which aims to examine privacy as a personal value in different cultures, it is particularly important to understand how privacy is defined, experienced and managed in different contexts. A widely cited definition by Margulis (1977) conceptualises privacy as “selective control over transactions between self (or one’s group) and others, the ultimate aim of which is to enhance autonomy and/or to minimise vulnerability” (p. 10). This definition emphasises privacy as an active process of regulating interactions based on situational and personal needs. Burgoon (1982) further expanded this understanding by identifying six key distinctions that illustrate why privacy cannot be treated as a single, universal phenomenon: 1) Privacy can be conceptualised at both the individual and group levels, 2) There is a difference between desired privacy (what an individual wants) and actual privacy (what an individual experiences) (Altman, 1975;

Margulis, 2003, 2011), 3) Privacy can differ between how it is achieved and the intended goal, 4) Privacy can be seen as either controlling social interactions or withdrawing from them, 5) Some perspectives define privacy as a legal right, whereas others argue it requires active management by individuals, 6) Privacy consists of multiple sub-dimensions, including informational, observational, physical, psychological, and social privacy.

The last point is particularly relevant, as existing research has predominantly focused on informational privacy. Recent studies have called for greater attention to social privacy, i.e. the way in which people deal with interpersonal boundaries and relationships (Burgoon, 1982). This is especially important if privacy is seen not only as a behaviour but also as a value. Moreover, privacy is not experienced equally across contexts. Altman (1975) described privacy as a dynamic process of boundary regulation, influenced by personal, social, and cultural factors. From this perspective, privacy is deeply embedded in cultural systems of meaning. What is considered “private” in one culture may be considered normal or even expected in another. Examining social privacy as a value in different cultural contexts, therefore, allows us to investigate whether this form of boundary regulation is universally important, or is characterised by specific cultural expectations of closeness, disclosure, and autonomy.

Theories of Privacy Regulation

Various psychological theories have attempted to explain how people regulate their privacy. One of the most influential frameworks is Westin’s (1967) theory of privacy, which conceptualises privacy as a fundamental human need. According to Westin, individuals constantly balance openness and withdrawal depending on their circumstances. Westin identified four essential functions of privacy: 1) Personal autonomy – Privacy enables individuals to control their personal space and make independent choices about self-disclosure. 2) Emotional release – Privacy provides a space to relieve social pressure and manage stress. 3) Self-evaluation – Privacy allows individuals to reflect on their identities and decisions. 4) Limited and protected communication – Privacy helps individuals filter and regulate

interactions (Westin 1967). It is important to note that Westin's original conceptualisation highlights the fundamental role of privacy in protecting the autonomy of individuals in their social lives, which is essential for understanding social privacy as a value.

More directly connected to the present study is Altman's (1975) theory of privacy regulation, which views privacy as a dynamic process of boundary management. According to Altman, privacy is continuously adjusted based on situational needs, interpersonal relationships, and cultural expectations. Altman's theory highlights key principles of privacy:

- 1) Privacy as boundary regulation (Altman, 1975).
- 2) Desired vs. actual privacy – how much privacy an individual wants and how much they actually experience (Altman, 1975).
- 3) Fluctuation of privacy needs – Privacy preferences can change over time (Altman, 1975).
- 4) Input and output control – Individuals manage privacy by controlling incoming interactions (who can contact them) and outgoing information (what they choose to share) (Altman, 1975).
- 5) Privacy at individual and group levels (Altman, 1975).

Altman's focus on how people regulate their social interactions is closely linked to the concept of social privacy as explored in this study. His theory provides the psychological basis for understanding why people value the ability to control when, where and with whom they interact – elements that are central to social privacy. Consequently, Altman's model of boundary regulation serves as a theoretical basis for conceptualising social privacy as a measurable personal value and helps to explain how this value might influence specific privacy-related behaviours.

Privacy as a value

Values are defined as “transsituational goals, varying in importance, that serve as guiding principles in the life of a person” (p.21, Schwartz, 1994). Schwartz's model originally identified ten broad value types, including self-direction, stimulation, hedonism, achievement, power, security, conformity, tradition, benevolence, and universalism. The framework was later refined to nineteen values to enhance its applicability across different cultural contexts and its predictive power (Schwartz, 2012). Schwartz's value theory (1994), which classifies values into

broad motivational domains, does not explicitly include privacy as a distinct value. However, recent research proposed that privacy should be integrated into Schwartz's framework, arguing that it functions as an independent guiding principle. Studies such as those by Huijts and Haans (2023), Markink (2024) and Russa (2024) have shown that privacy can be distinguished from other values and measured reliably as a separate construct. Empirical research has demonstrated that privacy can be measured as a multi-dimensional value, encompassing informational, observational, and social privacy (Markink, 2024; Russa, 2024).

Social Privacy as a Value

Social privacy, the focus of this study, refers to an individual's ability to regulate social interactions and maintain personal boundaries (Burgoon, 1982). Burgoon (1982) initially conceptualised social privacy as the ability to regulate the "who, what, when and where" of social encounters. In later work, Burgoon and colleagues (1989) expanded this view, emphasising that social privacy is not only about avoiding unwanted contact, but also about actively negotiating relational closeness and distance in everyday interactions. For instance, Burgoon et al. (1989) highlighted that individuals use both verbal and nonverbal communication strategies such as selective self-disclosure, topic avoidance, or management of physical proximity to maintain or restore desired levels of social privacy across different types of relationships. This dynamic management of boundaries is essential in maintaining personal well-being, autonomy, and emotional comfort in social contexts. Furthermore, privacy management is not static, it is continuously adjusted depending on situational needs, relational closeness, and cultural expectations (Burgoon et al., Parrot et al., 1989). Based on these findings, social privacy can be understood as a dynamic, context-dependent form of boundary regulation that is crucial not only for the protection of personal information, but also for the organisation of everyday interpersonal relationships.

Measuring social privacy as a value, therefore, provides a meaningful way to assess the extent to which individuals prioritise the management of their interpersonal boundaries as part

of their broader value system. Recent research has confirmed that social privacy can be distinguished as a value dimension separate from informational and observational privacy (Markink, 2024; Russa, 2024). However, the question remains whether the value of social privacy holds robustly across cultures, i.e. whether it can be measured reliably and validly in different cultural contexts. This concern arises because cultural norms and expectations strongly shape how people manage social boundaries and interpersonal interactions. For instance, the idea of a personal moment or acceptable social distance can differ significantly between individualistic and collectivist cultures. Furthermore, previous studies by Markink (2024) and Russa (2024) attempted to measure social privacy as a value within the framework of Schwartz's theory but reported that this dimension showed weaker psychometric properties compared to informational and observational privacy. These findings suggest that the existing measurement of social privacy may not have fully captured the construct, particularly across diverse cultural settings. This study, therefore, seeks to improve the measurement of social privacy and assess its reliability and distinctiveness in culturally varied samples from Germany, Spain, and France.

Cultural Differences in Privacy

Prior research has demonstrated that privacy concerns and behaviours are influenced by cultural norms (Viberg et al., 2024; Pelet & Taieb, 2017). Germany, Spain, and France provide an ideal cultural comparison due to their differences in privacy perceptions, social norms, and legal regulations regarding personal boundaries. These countries vary not only in their institutional frameworks, but also in the way interpersonal boundaries are negotiated, making them particularly relevant for investigating social privacy as a value.

Germany is characterised by a high level of perceived control over privacy, with German individuals generally expressing higher trust in institutions and lower privacy concerns compared to individuals in other countries (Viberg et al., 2024). This may be attributed to Germany's strong regulatory frameworks that emphasise data protection and

personal autonomy. This sense of control may lead Germans to view privacy as something that is already well protected, which may result in privacy being taken less seriously as a personal value because it is not perceived to be under threat.

In contrast, Spain exhibits higher privacy concerns, particularly in relation to social interactions and institutional data handling (Viberg et al., 2024). Furthermore, Spanish culture is more collectivistic, emphasising social connectedness and interpersonal relationships. While Spaniards engage in more frequent and open social interactions, they also express greater concern about the privacy of their personal information. This paradox suggests that while social engagement is encouraged, individuals are also mindful of their social privacy, particularly regarding how personal information is shared and controlled.

France presents a unique case, combining strong legal privacy protections with cultural caution regarding social interactions. French individuals express higher scepticism towards institutions handling their data and are more cautious about sharing personal information online (Pelet & Taieb, 2017). However, despite strict privacy regulations, awareness of privacy policies remains relatively low, leading to uncertainty about how privacy is managed in practice. Understanding these cultural differences is crucial, as it is unclear how differences in national privacy norms, legal policies and cultural practices affect how people in different countries value different dimensions of privacy. In particular, this study examines whether social privacy is a universal value or is shaped by specific cultural influences.

The Current Study

Building upon previous research on social privacy as a value, this study aims to further refine and validate its measurement by examining cultural differences and behavioural implications. Earlier studies by Russa (2024) and Markink (2024) showed that privacy values, including social privacy, could be integrated into Schwartz's Portrait Value Questionnaire – Revised (PVQ-RR) framework by adding new items. However, these studies also indicated that the measurement of social privacy had limitations, particularly in terms of internal consistency

and cross-cultural robustness. This study, therefore, uses an extended version of the PVQ-RR, which includes additional items specifically designed to measure informational, observational, and social privacy as distinct values. In particular, new items were developed to better capture the regulation of social interactions, reflecting Burgoon's (1982) conceptualisation of social privacy as managing the "who, what, when, and where" of interpersonal encounters. Three original items were retained from previous studies due to their acceptable factor loadings, and new items were introduced to improve the scale's coverage and validity.

The first objective of this study is to test whether the improved measurement of social privacy as a value performs better and whether it can be reliably distinguished from other privacy values (informational and observational privacy) across different cultural groups. Participants from Germany, Spain, and France were selected to provide cultural variation, as prior research has shown these countries differ significantly in privacy attitudes and behaviours (Viberg et al., 2024; Pelet & Taieb, 2017).

The second objective is to test the predictive validity of social privacy as a value by examining its relationship with specific privacy-related behaviours. To capture everyday expressions of social privacy, six behaviours were used. The first three behaviours were chosen for this study based on Burgoon's (1982) definition. These include: (1) carefully choosing with whom one shares important moments in one's life, (2) taking control over how much one shares during conversations, and (3) preferring to have conversations in smaller groups. The remaining three items: (4) choosing carefully with whom one spends time, (5) trying to limit interactions with others at social events, and (6) preferring to solve personal matters alone rather than asking people for help, were drawn from previous findings by Russa (2024). In her study, social privacy as a value significantly predicted the first two behaviours, supporting their conceptual alignment with Burgoon's (1982) definition of social privacy as the regulation of interpersonal boundaries. Although the third behaviour (preferring to solve matters alone (6)) was not significantly predicted in Russa's study (2024) by the value of social privacy, it was retained to

explore whether this relationship might emerge in a different cultural context, especially given its theoretical relevance to the regulation of interpersonal interactions. Based on these aims, the following hypotheses are formulated: (1) Social privacy as a value positively influences with whom people share important moments in life.; (2) Social privacy as a value positively influences the regulation of self-disclosure during conversations.; (3) Social privacy as a value positively influences the preference for having conversations in smaller groups.; (4) Social privacy as a value positively influences who people choose to spend time with (Russa, 2024).; (5) Social privacy as a value positively influences limiting interactions with others at social events (Russa, 2024).; (6) Social privacy as a value positively influences asking other people for help in solving personal matters (Russa, 2024).

Methods

Participants and Design

This study employed a quantitative approach to improve the measurement of social privacy as a value and explore its relationship with privacy-related behaviours across different cultural contexts. Participants were recruited through a combination of convenience sampling, volunteer sampling, and snowball sampling methods. Initially, students from the University of Twente were invited to participate via the SONA research participation system. Additionally, the survey link was shared among the researcher's friends, family, and professional contacts, who were encouraged to distribute it further within their networks.

The primary inclusion criteria required participants to be at least 18 years old. Although individuals of any nationality could take part, the study particularly targeted participants of German, Spanish, or French nationality to allow for meaningful cross-cultural comparisons. Participants could complete the questionnaire in their native language (German, Spanish, French) or, in English if their native language was unavailable, to ensure proper understanding.

In total, 197 individuals participated in the survey. Several exclusion criteria were applied. First, 41 participants were excluded for not completing the questionnaire. 20

participants were excluded for failing one or both attention checks. Additionally, 13 participants were excluded because they completed the survey in English despite having one of the target nationalities, potentially leading to an inconsistent interpretation of items. Lastly, 3 participants did not give full consent and were removed.

After exclusion, the final sample consisted of 120 participants: 80 identified as female (66.7%) and 40 as male (33.3%). Participants' ages ranged from 18 to 56, with a mean age of 26.8 and a standard deviation of 9.1. The Nationality distribution can be found in Table 1.

Table 1

Descriptive Statistics

Statistics	German	French	Spanish	Other
Total Number of Participants	61	28	20	11
Total Males	18	18	0	4
Total Females	43	10	20	7
Mean Age	26.1	23.0	32.4	23
Standard deviation for Age	4.9	5.2	14.3	3.7

Participants who took part via the University of Twente's SONA system received 0.25 credit for their participation. Before beginning the study, all participants gave informed consent via the online consent form. The research was approved by the University of Twente Ethics Committee before data collection began.

Materials

The study was conducted using an online survey built on the Qualtrics platform. The questionnaire included three sections: the PVQ-RR (Portrait Values Questionnaire – Revised), items measuring privacy as a value, and privacy-related behaviour items (see Appendix I).

The questionnaire was first developed in English. Present translations of the PVQ-RR in German, Spanish and French were obtained from validated online resources (Schwartz,

2021). The additional sections, i.e. the items on the value of privacy and the behavioural items, were translated separately. The German version of these sections was translated by the researcher. For the Spanish and French versions, translations were carried out by multiple native speakers from Spain and France who are personally known to the researcher. These native speakers also checked each other's translations to improve accuracy and fluency.

Measurements

PVQ-RR. The PVQ-RR, developed by Schwartz (2017, 2021), measures 19 basic values with 3 items each, totalling 57 items. Statements are phrased in the third person (e.g., *"It is important to her to be a dependable and trustworthy friend."*) and participants are asked to indicate how much they identify with each character using a 6-point Likert scale: 1 = not like me at all, to 6 = very much like me. A seventh option, "does not apply", was included to allow participants to opt out of evaluating items they couldn't relate to. Gender-matched versions of the PVQ-RR were used based on participants' gender, with a random assignment for those who did not select male or female.

Social Privacy as a Value. Social privacy as a value was measured using six items. Three of these items were drawn from previous research, while the other three were newly developed to better capture Burgoon's (1982) conceptualisation of social privacy as the control over interpersonal interactions and boundaries. Specifically, one item (*"It is important to him/her to control how he/she interacts with others to meet his/her own needs."*) was taken from Russa (2024), as it showed a good factor loading in her analysis. Two additional items were taken from Markink (2024): *"It is important to him/her to be able to control when he/she has interactions with close others."* and *"It is important to him/her to control who can be physically close to him/her."*, based on acceptable factor loadings (above .50). The last three items were newly created for this study to broaden the range of conceptual coverage of social privacy, which include: *"It is important to him/her to avoid unwanted social interactions."*, *"It is important to him/her to control who he/she spends his/her time with."* and *"It is important to*

him/her to regulate how often he/she engages in social activities. ”. This set of items was based on Burgoon’s (1982) definition of social privacy as control over the “who, what, when and where” of social encounters.

Informational and Observational Privacy as Values. Informational and observational privacy were also measured using three items each. These items were drawn from previous work of Russa (2024) and Markink (2024), and formulated following the structure and style of the PVQ-RR (e.g. *“It is important to him/her to be aware of which data are collected about him/her while using the internet.”* or *“It is important to him/her that others do not hear what he/she discusses with his/her best friend.”* (see Table 2).

In total, nine privacy value items (3 per dimension: informational, observational, and social privacy) were created and randomly mixed into the extended PVQ-RR scale.

Privacy-Related Behaviours. Privacy-related behaviours were measured with a separate set of items, covering behaviours linked to social privacy. The following social privacy behaviour items were included:

1. “I carefully choose with whom I share important moments in my life.”
2. “I generally take control over how much I share during conversations.”
3. “I generally prefer having conversations in smaller groups.”
4. “I generally choose carefully with whom I spend time.”
5. “I generally try to limit interactions with others at social events.”
6. “I prefer to solve personal matters alone rather than asking people for help.”

These items were rated on a 5-point Likert scale: 1 = never to 5 = always/very often. A sixth option, "does not apply," was included and treated as missing data.

Attention Checks. Two attention check items were included in the PVQ-RR section (e.g., “It is important that you pay attention to this study. To indicate that you have read this, please tick 'Not like me!'”). Participants who failed either one or both attention checks were excluded from the analysis.

Procedure

Participants first selected their preferred language on the welcome screen. They then proceeded to an informed consent page, which outlined the study purpose (without revealing the privacy focus to reduce bias), confidentiality and anonymity policies, GDPR compliance, and their right to withdraw at any time without consequence. Contact details were provided for further questions.

After consenting, participants completed a short demographics section followed by the PVQ-RR (with embedded privacy value items) and the privacy behaviour items. Upon completion, participants were thanked for taking part in the study.

Data analysis

At the end of the data collection, the Qualtrics responses were transferred to an Excel file. Before starting the analysis, participants were excluded based on predefined exclusion criteria. Participants who failed one or both attention checks, completed the questionnaire in English despite having a target nationality (German, Spanish, or French), or who did not provide consent, were excluded from the dataset. Participants who did not finish the questionnaire were also excluded.

All data analyses were conducted using R Studio (version 4.1.2). The R script used for the analyses is included in Appendix VI.

Descriptive statistics were computed for the final sample, including means, standard deviations, and frequency distributions for demographic variables (age, gender, nationality).

To answer the first research question, whether social privacy as a value can be reliably measured across different cultural contexts, an exploratory factor analysis (EFA) was performed. The EFA aimed to distinguish whether social privacy as a value differs from the other two dimensions of privacy (informational and observational privacy). Given the limited sample size ($N = 109$), the EFA was performed on the combined sample of German, Spanish and French participants to ensure statistical power. Separate EFAs by nationality were not

conducted due to insufficient subgroup sample sizes, with 61 German participants and 48 combined participants from Spain and France. Although the individual country samples were too small for separate analyses, a total sample size of at least 100 participants is regarded as satisfactory for an EFA (Gorsuch, 1983), and a minimum of $N = 50$ is considered an absolute lower limit (De Winter et al., 2009). The number of factors to retain was determined using a combination of the Kaiser criterion (eigenvalues > 1), inspection of the scree plot, and parallel analysis, which together provided evidence for the underlying factor structure. While statistical tools can suggest numerous factor solutions, the ultimate decision depends on interpretability and theoretical alignment. Therefore, a three-factor solution was chosen not only for its empirical support but also because it made conceptual sense in separating informational, observational, and social privacy in line with Burgoon's (1982) framework. Factor loadings were evaluated to assess item validity, and items with loadings below .40 were considered for exclusion.

After identifying the factor structure, mean scores for each privacy value (informational, observational, and social) were calculated by averaging the items that loaded clearly onto each factor. To examine country differences in the importance placed on privacy values, one-way ANOVAs were conducted with nationality (Germany, Spain, France) as an independent variable and each privacy value score as a dependent variable. Post-hoc tests were performed using Tukey's HSD to identify specific group differences.

To address the second research question, whether social privacy as a value predicts specific privacy-related behaviours, multiple linear regression analyses were performed. Social privacy was the independent variable (IV), and each of the six social privacy-related behaviours was analysed as a dependent variable (DV) separately and per country. These analyses were performed for the full sample and separately per country. While Green (1991) recommends a minimum sample size of 50 plus 8 times the number of predictors (i.e., $50 + 8m$), in this case, at least 58 participants would be needed for a model with one predictor. This threshold was met

for the German subsample ($N = 61$). However, the combined sample size for Spain and France ($N = 48$) fell below this threshold, requiring more cautious interpretation of the results for these groups.

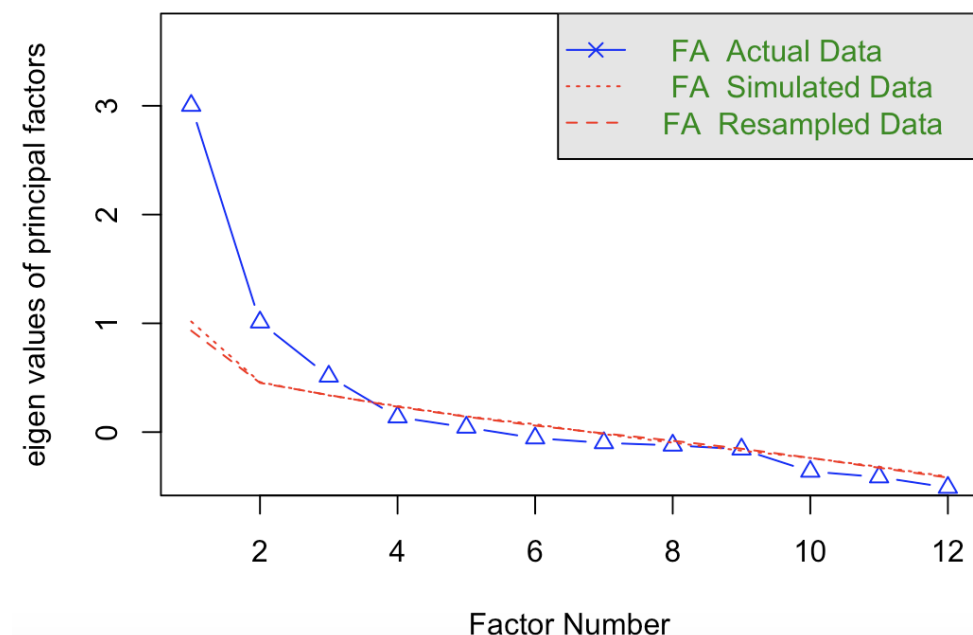
Results

To answer the first research question, an exploratory factor analysis (EFA) was conducted with oblimin rotation on twelve items measuring informational, observational, and social privacy. An oblique (oblimin) rotation was used in the EFA, as the three privacy value factors were expected to be conceptually related. Factor intercorrelations confirmed this assumption, justifying the choice of rotation. Prior to the analysis, the suitability of the data for factor analysis was assessed. The Kaiser-Meyer-Olkin (KMO) measure verified sampling adequacy for the analysis, yielding an overall MSA of 0.76. Individual MSA values for each item ranged from 0.66 to 0.83, indicating acceptable values for factor analysis. Bartlett's test of sphericity was significant, $\chi^2(66) = 349.31$, $p < .001$, confirming the appropriateness of the data.

An EFA with three factors was conducted, based on the scree plot and parallel analysis, which both suggested a three-factor solution (see Figure 1).

Figure 1

Parallel analysis scree plot



The three-factor solution accounted for 43% of the total variance. Items IP1, IP2, and IP3 loaded primarily on Factor 1 (*Informational Privacy*), OP1, OP2, and OP3 on Factor 2 (*Observational Privacy*), and SP1 to SP6 on Factor 3 (*Social Privacy*) (see Table 2). The factor loadings for the informational and observational privacy items were acceptable to good (all $\geq .55$), supporting their construct validity. Factor correlations ranged from $r = .20$ to $r = .45$, indicating moderate inter-factor associations.

Table 2

Summary of the Factor Loadings and reliability analysis

Item	Factor 1	Factor 2	Factor 3	Commun alites	α and α if Item Droppe d
Factor 1: Informational privacy					.80
IP1: It is important to him/her to be aware of which data are collected about him/her while using the internet.	.71	-.05	.00	.48	.77
IP2: It is important to him/her to control which personal information is collected about him/her.	.89	.02	-.01	.79	.63
IP3: It is important to him/her to actively protect his/her online data.	.68	.03	.01	.48	.76
Factor 2: Observational Privacy					.68
OP1: It is important to him/her that others do not hear what he/she discusses with his/her best friend.	-.06	.66	-.01	.41	.57

OP2: It is important to him/her to communicate with others without being overheard.	-.12	.61	-.05	.31	.70
OP3: It is important to him/her to control who is able to see and hear him/her when he/she interacts with close others.	.12	.78	.02	.71	.50
Factor 3: Social Privacy					.68
SP1: It is important to him/her to be able to control when he/she has interactions with close others.	.11	.29	.38	.38	.61
SP2: It is important to him/her to avoid unwanted social interactions.	-.01	-.06	.78	.57	.60
SP3: It is important to him/her to control who he/she spends his/her time with.	.10	.15	.30	.19	.65
SP4: It is important to him/her to control how he/she interacts with others to meet his/her own needs.	-.13	.08	.39	.17	.68
SP5: It is important to him/her to control who can be physically close to him/her.	-.02	.60	.06	.38	.66
SP6: It is important to him/her to regulate how often he/she engages in social activities.	.01	.17	.46	.31	.62

Note. Factor loadings are based on an EFA with oblimin rotation. “ α and α if item dropped” refer to the Cronbach’s alpha of the respective privacy subscale (Informational, Observational, or Social Privacy).

The social privacy items loaded most strongly on Factor 3. Based on factor loadings, communalities, and item-total correlations, the three strongest items in the social privacy subscale were SP2 (*“It is important to him/her to avoid unwanted social interactions.”*), SP6 (*“It is important to him/her to regulate how often he/she engages in social activities.”*), and SP1 (*“It is important to him/her to be able to control when he/she has interactions with close others.”*). These three items showed the highest communalities ($\eta^2 = .57, .31$, and $.38$), and their corrected item-total correlations exceeded $.45$. In line with established recommendations for item retention (Hinkin, 1995; 1998), which suggest that primary factor loadings should exceed $.40$ and contribute meaningfully to the latent construct. To improve the internal consistency of the Social Privacy subscale, a reduced version including only SP1, SP2, and SP6 was tested. An exploratory factor analysis on the revised item set still supported a three-factor solution, accounting for 49% of the total variance. The social privacy items loaded most strongly on Factor 3, although only SP2 and SP6 exceeded the recommended factor loading threshold of $.45$. SP1, while conceptually relevant, had a weaker loading, indicating that the factor structure improved but was not optimal (see Table 3).

Table 3

Factor Loadings and Communalities for the Reduced Social Privacy Subscale

Item Code	Item Description	Factor Loading	Communality (η^2)
SP1	It is important to him/her to be able to control when he/she has interactions with close others.	0.38	0.38
SP2	It is important to him/her to avoid unwanted social interactions	0.78	0.58
SP6	It is important to him/her to regulate how often he/she engages in social activities.	0.45	0.31

Note. Factor loadings taken from Factor 3 (Social Privacy) using EFA with oblimin rotation.

Model fit indices indicated an excellent fit ($TLI = .98$, $RMSEA = .04$, $RMSR = .03$). However, Cronbach's alpha for the reduced subscale remained questionable at $\alpha = .64$. Item-total correlations suggested that all three retained items contributed meaningfully to the scale, with none of the items drastically lowering internal consistency when removed. Overall, this reduced scale showed a slightly better model fit but did not improve internal consistency.

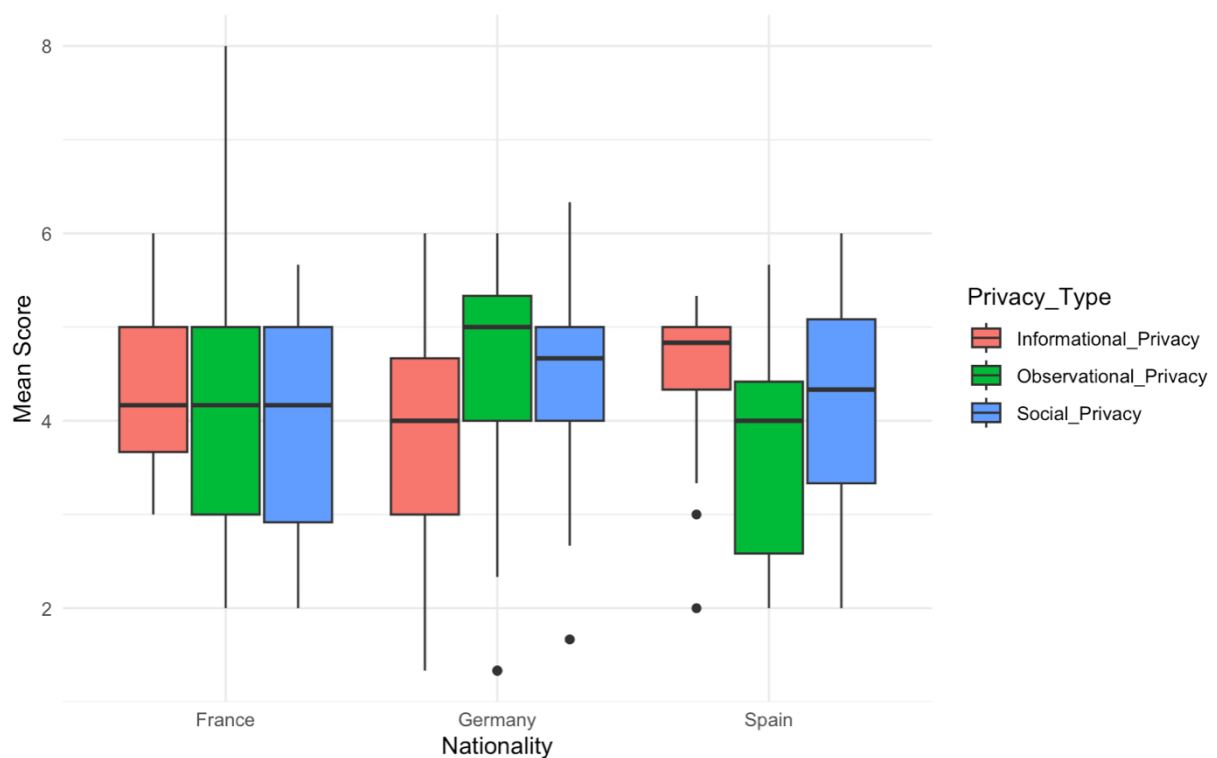
To construct the three privacy values, items were averaged per subscale: informational privacy (IP1-IP3), observational privacy (OP1-OP3), and social privacy (SP1, SP2, SP6). The reliability analysis revealed satisfactory internal consistency for the Informational Privacy subscale ($\alpha = .80$), and questionable internal consistency for the Observational Privacy subscale ($\alpha = .68$) and the Social Privacy subscale ($\alpha = .64$). Descriptive statistics show that participants reported moderately high levels of privacy values overall. Observational privacy and social privacy had the highest mean scores ($M = 4.31$, $SD = 1.21$; $M = 4.31$, $SD = 1.10$, respectively), while informational privacy was slightly lower ($M = 4.19$, $SD = 1.05$). This suggests that participants valued social and observational privacy equally and somewhat more than informational privacy, highlighting the relevance of studying these dimensions separately. A summary of the factor loadings and reliability analysis after removing items SP3, SP4, and SP5 is presented in Appendix IV.

To explore country differences in the endorsement of privacy values, three one-way ANOVAs were conducted with nationality (Germany, Spain and France) as the independent variable and each privacy subscale as the dependent variable. Before testing for group differences, mean scores were computed for each subscale by averaging the relevant items. Spanish participants reported the highest endorsement of Informational Privacy ($M = 4.53$, $SD = 0.88$), followed by French ($M = 4.38$, $SD = 0.78$), and German participants ($M = 3.98$, $SD = 1.17$). Despite this, the effect of nationality was not statistically significant, $F(2, 106) = 2.81$, $p = .065$, $\eta^2 = .05$. A significant effect of nationality was found for Observational Privacy, $F(2, 106) = 3.54$, $p = .033$, $\eta^2 = .06$. German participants reported the highest scores ($M = 4.55$, SD

= 1.13), followed by French ($M = 4.14$, $SD = 1.29$), and Spanish ($M = 3.78$, $SD = 1.20$). Tukey post hoc tests indicated that participants from Germany scored significantly higher than participants from Spain ($p = .035$). For Social Privacy, German participants again showed the highest endorsement ($M = 4.51$, $SD = 0.97$), followed by Spanish ($M = 4.23$, $SD = 1.28$), and French participants ($M = 3.93$, $SD = 1.15$) (see Figure 2). The main effect of nationality approached significance, $F(2, 106) = 2.83$, $p = .064$, $\eta^2 = .05$. Post hoc tests did not reveal any statistically significant pairwise differences; however, the difference between Germany and France was marginally significant ($p = .053$).

Figure 2

Privacy Value Scores by Nationality and Privacy Type



Note. Boxplot show the distribution of informational, Observational, and Social Privacy values across nationalities. The horizontal line represents the median; the box indicates the interquartile range (IQR).

To answer the second research question, whether social privacy as a value correlates with specific privacy-related behaviours, six linear regression analyses were conducted, each

testing one hypothesis. The social privacy value (the mean of SP1, SP2 and SP6) was entered as a predictor, and each social privacy behaviour was used as a dependent variable in a separate model. In line with Hypothesis one, the results showed that social privacy has a significant effect on having control over whom people share personal moments in life with ($\beta = .13$, $p = .046$). The second hypothesis, predicting a positive effect on how much people disclose to others, was not supported, as the regression model was not statistically significant ($\beta = .14$, $p = .116$). The third hypothesis, predicting that participants who valued social privacy were more likely to prefer having conversations in smaller groups, was supported with a moderate effect size ($\beta = .25$, $p < .001$). Hypothesis four, concerning who people choose to spend time with, was marginally supported ($\beta = .13$, $p = .052$), suggesting a weak effect that did not meet conventional levels of significance. The fifth hypothesis was supported, showing that social privacy positively predicted limiting interactions with others at social events ($\beta = .34$, $p < .001$), reflecting a strong effect. The last hypothesis was also supported, showing that social privacy predicted a tendency to solve personal matters alone ($\beta = .20$, $p = .026$), suggesting a small but significant effect.

To explore potential cross-cultural variation, the regressions were repeated separately for German, French, and Spanish participants. In the German sample ($N = 61$), results partially supported hypothesis three, showing that social privacy marginally predicted a preference for conversations in smaller groups ($\beta = .24$, $p = .058$). Additionally, hypothesis four (regulating social interactions) was marginally supported ($\beta = .20$, $p = .058$), as was hypothesis five (limiting event interactions); $\beta = .33$, $p = .055$). However, none of these effects reached conventional levels of significance. In the French sample ($N = 28$), results supported hypothesis five, indicating that social privacy significantly predicted limiting interactions at social events ($\beta = .29$, $p = .009$). All other behaviours were non-significant. In contrast, hypothesis three was supported in the Spanish sample ($N = 20$), showing a significant effect for preferring

conversations in smaller groups ($\beta = .47, p < .001$), with no other behaviours being significantly predicted by social privacy.

Discussion

This study aimed to improve the measurement and understanding of social privacy as a personal value by (1) testing whether social privacy can be reliably distinguished from informational and observational privacy across multiple countries, and (2) examining whether social privacy as a value predicts specific privacy-related behaviours. The results of the exploratory factor analysis supported a three-factor structure corresponding to the theoretical distinctions among informational, observational, and social privacy, confirming that social privacy can be empirically distinguished from the other two dimensions. However, challenges emerged in measuring social privacy, which initially demonstrated questionable internal consistency. After removing weaker items (SP3, SP4, SP5), a reduced three-item version of the social privacy scale was tested. While model fit improved, internal consistency remained modest.

In terms of the second research question, the results provide partial support for the predictive value of social privacy. Four out of six hypothesised associations between the social privacy value and privacy-related behaviours were supported. In line with hypothesis one, social privacy significantly predicted choosing with whom to share important moments in life. Supporting hypothesis three, individuals who valued social privacy preferred conversations in smaller groups. In accordance with hypothesis five, social privacy was strongly associated with limiting social interactions at events – a behaviour indicative of withdrawal in group settings. Finally, hypothesis six was also supported; those valuing social privacy were more likely to solve personal matters alone. These findings align with Burgoon's (1982) conceptualisation of social privacy as the regulation of interpersonal boundaries and situational control. In contrast, hypothesis two (predicting self-regulation in conversations) and hypothesis four (predicting with whom people spend time) were not supported.

These findings suggest that social privacy, as a value, most strongly predicts behaviours that involve withdrawing from or limiting social exposure rather than proactively managing or tailoring social engagement. In particular, the support for hypotheses one, three, five and six indicates that individuals high in social privacy tend to exercise selective engagement – they control *when* and with *whom* they engage, and tend to prefer smaller, more controlled interpersonal settings. The link with limiting social interactions (e.g., at events or in handling personal matters independently) highlights a defensive or avoidant orientation, where individuals prioritise preserving autonomy and psychological space.

In contrast, the lack of support for hypotheses two and four suggests that not all social behaviours are equally shaped by social privacy values. Behaviours like regulating conversation content or choosing who to spend time with may be more context-dependent or influenced by competing motives, such as social bonding, politeness norms or relational obligations. This could imply that social privacy is less about managing ongoing interactions and more about gatekeeping access in the first place.

Cultural Interpretation

The results also suggest meaningful cultural patterns in how social privacy values manifest behaviourally. Spanish and French participants scored higher on behaviours related to small group preferences and limiting interactions at social events. This aligns with relationally oriented norms in these societies, where interpersonal closeness is highly valued, but selectively managed through implicit boundaries and trust-based interactions (Viberg et al., 2024; Pelet & Taieb, 2017). Both cultures show elements of collectivism in their social behaviour, which may increase the salience of social privacy as a means of navigating densely connected social environments.

In contrast, German participants showed weaker or more mixed effects, potentially reflecting an individualistic cultural orientation. German culture strongly emphasises personal autonomy, rule orientation, and formality in interpersonal settings (Arrindell, 2003; Viberg et

al., 2024). Since individual boundary control is already institutionalised and socially expected, social privacy may be viewed as a baseline right rather than an explicitly held value, thus reducing its behavioural differentiation in this context.

Grouping Spain and France together makes sense from a sample size perspective but also shares some justification in cultural terms. While both are generally more collectivist than Germany (Hamamura et al., 2018), there are nuanced differences. Spain is known for high-context communication, emotional expressiveness, and frequent social engagement (Sládková, 2023). Paradoxically, this intensity may increase the need for social privacy, as individuals seek to retreat or limit interactions to maintain autonomy in the face of social expectations. France, in contrast, combines formal privacy regulations with cultural scepticism around social disclosure, leading to a more cautious and reserved social style (Pelet & Taieb, 2017).

These findings suggest that while social privacy appears relevant across all three cultural contexts, its behavioural expression is shaped by culturally specific norms of engagement, interpersonal trust, and boundary management.

Theoretical Implications

The current findings contribute to a growing body of literature that emphasises the multidimensionality of privacy values. The empirical distinction between informational, observational, and social privacy supports Altman's (1975) boundary regulation theory, which views privacy as a dynamic, context-sensitive process shaped by both individual and cultural variables. The emergence of social privacy as a separate factor validates theoretical calls for expanding privacy research beyond informational concerns (Trepte et al., 2017; Frener et al., 2023), and confirms that managing interpersonal boundaries is not only a behavioural strategy but also a value-based orientation.

Crucially, the behavioural findings provide insight into the motivational core of social privacy. The items most strongly predicted by social privacy values – preferring small groups, avoiding interactions at events, and solving personal matters alone, suggest that the construct

may function more as a psychological boundary of withdrawal and emotional self-protection than one of proactive engagement. This raises new questions about how social privacy fits within Westin's (1967) theory of privacy as facilitating personal autonomy and emotional release. Whereas Westin primarily framed privacy as enabling control over information and space, these findings suggest that social privacy may operate more defensively, serving as a mechanism for managing overstimulation, avoiding social pressure, and preserving emotional comfort in interpersonal settings.

This defensive or selective engagement function also resonates with Altman's (1975) notion of privacy as a fluctuating process of regulating desired versus actual interaction levels. The observed behavioural outcomes highlight the value's role in boundary setting rather than ongoing interaction management, further suggesting that social privacy may be more about filtering access to the self than about navigating the content of interaction. This may explain why self-regulation in conversations (H2) and choosing who to spend time with (H4) were not predicted by social privacy values.

Furthermore, the findings support efforts to integrate privacy into Schwartz's framework, as this study builds on work by Huijts and Haans (2023), Markink (2024), and Russa (2024), who proposed social privacy as a novel value within the Schwartz framework. In this study, social privacy demonstrated core characteristics of such a value, as it predicted behaviour across multiple contexts and showed relative stability across cultures. These results reinforce its conceptualisation as a transsituational guiding principle, aligning with Schwartz's definition of values.

Practical Implications

Beyond theoretical contributions, the findings of this study have several practical implications for understanding and respecting social privacy in everyday contexts. First, in interpersonal and organisational communication, acknowledging that individuals differ in their desire for social privacy may improve relationship management, reduce social pressure, and

foster psychological well-being. Second, in multicultural or international settings, especially in workplaces or education, sensitivity to culturally shaped expressions of social privacy can help prevent misinterpretation of withdrawal or non-participation as rudeness or disengagement.

Limitations

While this study contributes to the theoretical and empirical understanding of social privacy as a value, several limitations must be acknowledged. First, although the three-factor structure of informational, observational, and social privacy was supported, the measurement of social privacy as a distinct value remains methodologically challenging. Three low-performing items (SP3, SP4, SP5) were excluded to improve scale performance, yet the retained items are still not ideal. In particular, SP1 showed substantial cross-loadings on the observational privacy factor, indicating that it lacks clear specificity for social privacy. Nonetheless, this item was retained to maintain at least three items for the social privacy dimension, consistent with Schwartz' (1994, 2012) value model, which typically includes three items per factor. Future studies should prioritise the development of refined items that more accurately capture the conceptual core of social privacy, particularly its emphasis on interpersonal boundary regulation and selective social engagement.

Second, the study cannot fully account for all individual-level variables that may influence how social privacy is perceived and endorsed. For example, participants' prior experiences with privacy or exposure to emerging technologies may shape their interpretation of privacy-related values and behaviours. These contextual factors were not measured but could have affected how individuals responded to the items, particularly across different national contexts.

Third, this study focused primarily on offline, everyday social behaviours and did not account for expressions of social privacy in online or digital contexts. Given the increasing importance of virtual spaces in shaping interpersonal interactions, omitting digital environments may have limited the scope of the findings. Social privacy behaviours likely

manifest differently on social media, messaging platforms, or virtual workspaces, where boundary regulation involves distinct cues and norms.

Finally, although this study was done in multiple countries, the quality of the translated materials varied. In particular, some French participants noted that the official French translation of the original Schwartz items (PVQ-RR) was at times confusing or unclear. In contrast, the newly developed items specifically designed to measure social privacy were carefully translated with the help of multiple French speakers to ensure better semantic accuracy. Nonetheless, translation differences may have impacted how participants interpreted the questions, and future studies should adopt rigorous back-translation procedures and test for measurement invariance.

Future Research Directions

Building on the limitations discussed, future research should aim to refine the measurement of social privacy by developing and validating new items with improved psychometric properties across cultural contexts. Given the modest internal consistency and cross-loading issues encountered in this study, subsequent research should explore alternative formulations of existing items and test broader item pools. Moreover, future work should ensure that scale development adheres to back-translation procedures and test for measurement invariance to confirm that privacy constructs are interpreted consistently across languages and cultures. In addition, future studies should also extend cross-cultural comparisons beyond Western European contexts by including more culturally divergent samples, such as Japan and the United States, to examine whether social privacy operates similarly in collectivist, high-context cultures versus individualist, low-context ones. Such comparisons could reveal deeper insights into how cultural norms shape the value and expression of social privacy.

Conclusion

This study demonstrated that social privacy can be distinguished from informational and observational privacy as a separate value, although further refinement of the scale is needed. It

also showed that social privacy as a value predicts specific behaviours related to interaction control, self-disclosure, and social avoidance. The findings suggest that the core of social privacy may be better understood as defending social boundaries rather than merely selecting social conditions. Importantly, the difficulty in measuring social privacy may reflect its complex, multidimensional nature. As individuals regulate not just *whether* but also *how*, *when* and *with whom* they engage socially, social privacy may encompass various overlapping motivations, such as avoidance, autonomy, and self-protection. This conceptual richness, while theoretically valuable, poses methodological challenges that future research must address. Overall, recognising and better measuring this construct can enrich psychological models of privacy.

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Appendix I - A

PVQ-RR – English Version

Here we briefly describe different people. Please read each description and think about how much that person is, or is not like you. Put a checkmark in one of the boxes to the right of each question to indicate how much the person described is like you. How much like you is this person?

	Not like me at all	Not like me	A little like me	Moderately like me	Like me	Very much like me	Does not apply
1. It is important to him/her to form his/her views independently.							
2. It is important to him/her to be aware of which data are collected about him/her while using the internet.							
3. It is important to him/her that his/her country is secure and stable.							
4. It is important to him/her to have a good time.							
5. It is important to him/her to avoid upsetting other people.							
6. It is important to him/her that people do what he/she says they should.							
7. It matters to him/her that people follow his/her instructions.							
8. It is important to him/her never to think he/she deserves more than other people.							

	Not like me at all	Not like me	A little like me	Moderately like me	Like me	Very much like me	Does not apply
9. It is important to him/her to care for nature.							
10. It is important that you pay attention to this study. To indicate that you have read this please tick "Not like me".							
11. It is important to him/her that no one should ever shame him/her.							
12. It is important to him/her to be able to control when he/she has interactions with close others.							
13. It is important to him/her always to look for different things to do.							
14. It is important to him/her to take care of people he/she is close to.							
15. It is important to him/her to have the power that money can bring.							
16. It is important to him/her that others do not hear what he/she discusses with his//her best friend.							
17. It is very important to him/her to avoid disease and protect his/her health.							
18. It is important to him/her to be tolerant towards all kinds of people and groups.							

	Not like me at all	Not like me	A little like me	Moderately like me	Like me	Very much like me	Does not apply
19. It is important to him/her never to violate rules or regulations.							
20. It is important to him/her to avoid unwanted social interactions.							
21. It is important to him/her to make his/her own decisions about his/her life.							
22. It is important to him/her to have ambitions in life.							
23. It is important to him/her to maintain traditional values and ways of thinking.							
24. It is important to him/her that people he/she knows have full confidence in him/her.							
25. It is important to him/her to control who he/she spends his/her time with.							
26. It is important to him/her to be wealthy.							
27. It is important to him/her to take part in activities to defend nature.							
28. It is important to him/her never to annoy anyone.							
29. It is important to him/her to develop his/her own opinions.							
30. It is important to him/her to control which personal information is collected about him/her.							

	Not like me at all	Not like me	A little like me	Moderately like me	Like me	Very much like me	Does not apply
31. It is important to him/her to protect his/her public image.							
32. It is very important to him/her to help the people dear to him/her.							
33. It is important to him/her to be personally safe and secure.							
34. It is important to him/her to control how he/she interacts with others to meet his/her own needs.							
35. It is important to him/her to be a dependable and trustworthy friend.							
36. It is important to him/her to take risks that make life exciting.							
37. It is important to him/her to have the power to make people do what he/she wants.							
38. It is important to him/her to plan his/her activities independently.							
39. It is important to him/her to follow rules even when no-one is watching.							
40. It is important to him/her to be very successful.							
41. It is important to him/her to follow his/her family's customs or the customs of a religion.							
42. It is important to him/her to communicate with others without being overheard.							

	Not like me at all	Not like me	A little like me	Moderately like me	Like me	Very much like me	Does not apply
43. It is important to him/her to listen to and understand people who are different from him/her.							
44. It is important to him/her to have a strong state that can defend its citizens.							
45. It is important to him/her to enjoy life's pleasures.							
46. It is important to him/her that every person in the world has equal opportunities in life.							
47. It is important to him/her to be humble.							
48. It is important to him/her to figure things out himself.							
49. It is important to him/her to honour the traditional practices of his/her culture.							
50. It is important to him/her to control who can be physically close to him/her.							
51. It is important to him/her to be the one who tells others what to do.							
52. It is important to him/her to obey all the laws.							
53. It is important to him/her to have all sorts of new experiences.							

	Not like me at all	Not like me	A little like me	Moderately like me	Like me	Very much like me	Does not apply
54. It is important to him/her to actively protect his/her online data.							
55. It is important to him/her to own expensive things that show his/her wealth.							
56. It is important that you pay attention to this study. To indicate that you have read this please tick "Like me".							
57. It is important to him/her to protect the natural environment from destruction or pollution.							
58. It is important to him/her to take advantage of every opportunity to have fun.							
59. It is important to him/her to regulate how often he/she engages in social activities.							
60. It is important to him/her to concern himself/herself with every need of his/her dear ones.							
61. It is important to him/her that people recognize what he/she achieves.							
62. It is important to him/her never to be humiliated.							
63. It is important to him/her that his/her country protect itself against all threats.							

	Not like me at all	Not like me	A little like me	Moderately like me	Like me	Very much like me	Does not apply
64. It is important to him/her never to make other people angry.							
65. It is important to him/her that everyone be treated justly, even people he/she doesn't know.							
66. It is important to him/her to avoid anything dangerous.							
67. It is important to him/her to be satisfied with what he/she has and not ask for more.							
68. It is important to him/her that all his/her friends and family can rely on him/her completely.							
69. It is important to him/her to be free to choose what he/she does by himself/herself.							
70. It is important to him/her to accept people even when he/she disagrees with them.							
71. It is important to him/her to control who is able to see and hear him/her when he/she interacts with close others.							

Appendix I - B
PVQ-RR – German Version

Im Folgenden beschreiben wir Ihnen kurz verschiedene Personen. Bitte lesen Sie jede Beschreibung durch und denken Sie darüber nach, inwieweit Ihnen die Person ähnlich oder nicht ähnlich ist. Bitte kreuzen Sie rechts an, wie ähnlich Ihnen die beschriebene Person ist.

Wie ähnlich ist Ihnen die Person?

	Ist überhaupt nicht ähnlich	mir ist nicht ähnlich	mir ist nur ein wenig ähnlich	mir ist einigermaßen ähnlich	mir ist ähnlich	mir ist sehr ähnlich	mir ist sehr ähnlich	trifft nicht zu
1. Es ist ihm/ihr wichtig, seine/ihre eigene Sichtweise unabhängig von den Meinungen anderer zu entwickeln.								
2. Es ist für ihn/sie wichtig zu wissen, welche Daten über ihn/sie bei der Nutzung des Internets gesammelt werden.								
3. Es ist ihm/ihr wichtig, dass in seinem/ihrem Land Sicherheit und Stabilität herrschen.								
4. Es ist ihm wichtig, Spaß zu haben.								

	Ist überhaupt nicht ähnlich	mir ist nicht ähnlich	ist mir nur ein wenig ähnlich	ist mir einigermaßen ähnlich	ist mir ähnlich	ist mir sehr ähnlich	ist mir trifft nicht zu
10. Es ist wichtig das du dieser Studie Aufmerksamkeit schenkst. Um zu zeigen das du diese Frage gelesen hast bitte wähle die Antwort "ist mir nicht ähnlich".							
11. Es ist ihm/ihr wichtig, niemals von irgendeiner Person beschämt zu werden.							
12. Es ist wichtig für ihn/sie, dass er/sie kontrollieren kann, wann er/sie mit nahestehenden Personen interagiert.							
13. Es ist ihm/ihr wichtig, stets nach unterschiedlichen Dingen Ausschau zu halten, die er/sie tun kann.							

	Ist überhaupt nicht ähnlich	mir ist nicht ähnlich	ist mir nur ein wenig ähnlich	ist mir einigermaßen ähnlich	ist mir ähnlich	ist mir sehr ähnlich	ist mir trifft nicht zu
25. Es ist für ihn/sie wichtig, zu kontrollieren, mit wem er/sie seine/ihre Zeit verbringt.							
26. Es ist ihm/ihr wichtig, reich zu sein.							
27. Es ist ihm/ihr wichtig, an Aktivitäten zum Schutz der Natur teilzunehmen.							
28. Es ist ihm/ihr wichtig, anderen nie lästig zu werden.							
29. Es ist ihm/ihr wichtig, seine/ihre eigene Meinung zu bilden.							
30. Es ist ihm/ihr wichtig zu kontrollieren, welche persönlichen Informationen über ihn/sie gesammelt werden.							

	Ist mir überhaupt nicht ähnlich	ist mir nicht ähnlich	ist mir nur ein wenig ähnlich	ist einigermaßen ähnlich	ist mir ähnlich	ist mir sehr ähnlich	ist mir trifft nicht zu
36. Es ist ihm/ihr wichtig, Risiken einzugehen, die das Leben aufregend machen.							
37. Es ist ihm/ihr wichtig, dass er/sie Macht und Einfluss auf das Handeln anderer Menschen hat.							
38. Es ist ihm/ihr wichtig, seine/ihre Aktivitäten eigenständig zu planen.							
39. Es ist ihm/ihr wichtig, sich an Regeln zu halten, auch wenn ihn/sie niemand beobachtet.							
40. Es ist ihm/ihr wichtig, sehr erfolgreich zu sein.							
41. Es ist ihm/ihr wichtig, sich an Familientraditionen oder religiösem Brauchtum zu halten.							
42. Es ist wichtig für ihn/ihr, mit anderen zu kommunizieren, ohne belauscht zu werden.							

	Ist überhaupt nicht ähnlich	mir ist nicht ähnlich	ist mir nur ein wenig ähnlich	ist mir einigermaßen ähnlich	ist mir ähnlich	ist mir sehr ähnlich	ist mir trifft nicht zu
59. Es ist für ihn/ihr wichtig, zu regulieren, wie oft er/sie sich an sozialen Aktivitäten beteiligt.							
60. Es ist ihm/ihr wichtig, sich um jedes Bedürfnis der Menschen zu kümmern, die ihm/ihr am Herzen liegen.							
61. Es ist ihm/ihr wichtig, dass die Menschen seine Leistung anerkennen.							
62. Es ist ihm/ihr wichtig, nie gedemütigt zu werden.							
63. Es ist ihm/ihr wichtig, dass sich das Land, in dem er/sie lebt, vor allen Bedrohungen schützt.							

Appendix I - C

PVQ-RR – Spanish Version

A continuación, describimos brevemente a distintas personas. Por favor, lee cada descripción y piensa en qué medida esa persona se parece a ti o no. Marca con una X la casilla de la derecha que refleje en qué medida la persona descrita se parece a ti.

¿CUÁNTO SE PARECE ESA PERSONA A MÍ?

	No parece en absoluto a mí	se parece a mí	No se parece un poco a mi.	Se moderadamente a mi	parece a mi	Se parece mucho a mi	Se parece mucho a mi	No aplica
1. Es importante para él desarrollar por sí mismo su forma de ver las cosas.								
2. Es importante para él ser consciente de qué datos están siendo recolectados sobre él cuando usa internet.								
3. Es importante para él que su país sea estable y seguro.								
4. Es importante para él pasarlo bien.								
5. Es importante para él evitar disgustar a otras personas.								
6. Es importante para él que las personas débiles y vulnerables en la sociedad sean protegidas.								

	No parece en absoluto a mí	se parece a mí	No se parece un poco a mi.	Se moderadamente a mi	parece	Se parece a mi	Se parece mucho a mi	No aplica
7. Es importante para él que la gente haga lo que él dice que se debería hacer.								
8. Es importante para él que la gente haga lo que él dice que se debería hacer.								
9. Es importante para él cuidar la naturaleza.								
10. Es importante que prestes atención a este estudio. Para indicar que has leído esto marca una cruz en “No se parece a mi”.								
11. Es importante para él que nadie le avergüence.								
12. Es importante para él ser capaz de controlar cuándo interacciona con otras personas.								
13. Es importante para él buscar siempre diferentes cosas que hacer.								

	No parece en absoluto a mí	se parece a mí	No se parece un poco a mi.	Se moderadamente a mi	parece	Se parece a mi	Se parece mucho a mi	No aplica
14. Es importante para él cuidar de las personas que son cercanas a él.								
15. Es importante para él tener el poder que el dinero puede dar.								
16. Es importante para él que otras personas no escuchen las conversaciones con su mejor amigo.								
17. Es muy importante para él evitar enfermar y proteger su salud.								
18. Es importante para él ser tolerante con todo tipo de personas y grupos.								
19. Es importante para él no transgredir las normas o regulaciones.								
20. Es importante para él evitar interacciones sociales no deseadas.								

	No parece en absoluto a mí	se parece a mí	No se parece un poco a mi.	Se moderadamente a mi	parece	Se parece a mi	Se parece mucho a mi	No aplica
28. Es importante para él no molestar nunca a nadie.								
29. Es importante para él desarrollar sus propias opiniones.								
30. Es importante para él controlar qué información personal se recopila sobre él.								
31. Es importante para él proteger su imagen pública.								
32. Es muy importante para él ayudar a la gente que aprecia.								
33. Es importante para él estar personalmente seguro y protegido.								
34. Es importante para él controlar cómo interacciona con otros para satisfacer sus propias necesidades.								

	No parece en absoluto a mí	se parece a mí	No parece un poco a mi.	se parece moderadamente a mi	parece parece a mi	Se parece mucho a mi	No aplica
35. Es importante para él ser un amigo fiable y en el que se puede confiar.							
36. Es importante para él asumir riesgos que hacen la vida emocionante.							
37. Es importante para él tener el poder para hacer que la gente haga lo que él quiera.							
38. Es importante para él planificar sus actividades de forma independiente.							
39. Es importante para él cumplir las normas incluso cuando nadie le esté mirando.							
40. Es importante para él tener mucho éxito.							
41. Es importante para él seguir las costumbres de su familia o las de su religión.							

	No parece en absoluto a mí	se parece a mí	No se parece un poco a mi.	Se moderadamente a mi	parece	Se parece a mi	Se parece mucho a mi	No aplica
42. Es importante para él comunicarse con los demás sin ser escuchado.								
43. Es importante para él escuchar y comprender a las personas que son diferentes a él.								
44. Es importante para él tener un gobierno fuerte que pueda defender a sus ciudadanos.								
45. Es importante para él disfrutar de los placeres de la vida.								
46. Es importante para él que todas las personas del mundo tengan igualdad de oportunidades en la vida.								
47. Es importante para él ser humilde.								
48. Es importante para él llegar a comprender las cosas por sí mismo.								

	No parece en absoluto a mí	se parece a mí	No se parece un poco a mi.	Se moderadamente a mi	parece	Se parece a mi	Se parece mucho a mi	No aplica
56. Es importante que prestes atención a este estudio. Para indicar que has leído esto marca una cruz en “No se parece a mi”.								
57. Es importante para él proteger el entorno natural de la destrucción o la contaminación.								
58. Es importante para él aprovechar toda oportunidad para divertirse.								
59. Es importante para él regular la frecuencia con la que participa en actividades sociales.								
60. Es importante para él ocuparse de todas las necesidades de sus seres queridos.								
61. Es importante para él que la gente reconozca lo que logra.								

Appendix I - D

PVQ-RR – French Version

Les phrases qui suivent décrivent des traits de personnalité. Cochez une case selon le degré de ressemblance avec votre personnalité.

	Pas du tout comme moi	Pas comme moi	Un peu comme moi	Moyennement comme moi	Comme moi	Tout à fait comme moi	Ne s'applique pas
1. C'est important pour lui de penser librement.							
2. C'est important pour lui d'être conscient(e) des données collectées sur lui lorsqu' il utilise Internet.							
3. C'est important pour lui d'être dans un pays stable et sécurisé.							
4. C'est important pour lui de passer du bon temps.							
5. C'est important pour lui d'éviter de contrarier les autres							

	Pas du tout comme moi	Pas comme moi	Un peu comme moi	Moyennement comme moi	Comme moi	Tout à fait comme moi	Ne s'applique pas
6. C'est important pour lui que, dans la société, les plus faibles et les plus vulnérables soient protégés.							
7. C'est important pour lui que les gens soient obéissants.							
8. C'est important pour lui de ne pas avoir un sentiment de supériorité vis-à-vis des autres.							
9. C'est important pour lui de prendre soin de la nature.							
10. Il est important que vous prêtiez attention à cette étude. Pour indiquer que vous avez lu ceci, veuillez cocher « Pas comme moi ».							

	Pas du tout comme moi	Pas comme moi	Un peu comme moi	Moyennement comme moi	Comme moi	Tout à fait comme moi	Ne s'applique pas
11. C'est important pour lui que personne ne lui fasse honte.							
12. C'est important pour lui d'être capable de contrôler quand lui a une interaction avec des proches.							
13. C'est important pour lui de faire des choses variés.							
14. C'est important pour lui de m'occuper des gens qui me sont proches.							
15. C'est important pour lui d'avoir le pouvoir que l'argent peut apporter.							

	Pas du tout comme moi	Pas comme moi	Un peu comme moi	Moyennement comme moi	Comme moi	Tout à fait comme moi	Ne s'applique pas
16. C'est important pour lui que les autres n'entendent pas ce qu'il discute avec son meilleur ami.							
17. C'est important qu'il prenne soin de lui.							
18. C'est important pour lui d'être tolérant envers les autres.							
19. C'est important pour lui de ne jamais violer des règles ou des règlements.							
20. C'est important pour lui d'éviter les interactions sociales non désirées.							

	Pas du tout comme moi	Pas comme moi	Un peu comme moi	Moyennement comme moi	Comme moi	Tout à fait comme moi	Ne s'applique pas
21. C'est important pour lui de prendre ses propres décisions concernant sa vie.							
22. C'est important pour lui d'avoir des ambitions dans la vie.							
23. C'est important pour lui de maintenir les valeurs et les façons de penser traditionnelles.							
24. C'est important pour lui que mes amis me fassent confiance.							
25. C'est important pour lui de contrôler avec qui lui passe son temps.							
26. C'est important pour lui d'être riche.							

	Pas du tout comme moi	Pas comme moi	Un peu comme moi	Moyennement comme moi	Comme moi	Tout à fait comme moi	Ne s'applique pas
27. C'est important pour lui de participer à la protection de la nature.							
28. C'est important pour lui de ne pas agacer les gens.							
29. C'est important pour lui de me forger mes propres opinions.							
30. C'est important pour lui de contrôler quelles informations personnelles sont collectées sur lui.							
31. C'est important pour lui de protéger mon image et ma réputation.							
32. C'est important pour lui d'aider les gens qui me sont chers.							

	Pas du tout comme moi	Pas comme moi	Un peu comme moi	Moyennement comme moi	Comme moi	Tout à fait comme moi	Ne s'applique pas
33. C'est important pour lui de me sentir personnellement protégé et en sécurité.							
34. Il est important pour lui de contrôler la manière dont il interagit avec les autres afin de répondre à ses propres besoins.							
35. C'est important pour lui d'être un ami fiable et digne de confiance.							
36. C'est important pour lui de prendre des risques pour pimenter la vie.							
37. C'est important pour lui d'avoir le pouvoir de faire faire aux gens ce qu'il veut.							

	Pas du tout comme moi	Pas comme moi	Un peu comme moi	Moyennement comme moi	Comme moi	Tout à fait comme moi	Ne s'applique pas
38. C'est important pour lui de planifier mes activités de façon indépendante.							
39. C'est important pour lui de suivre les règles, même si personne ne me surveille.							
40. C'est important pour lui d'avoir beaucoup de succès.							
41. C'est important pour lui de suivre les coutumes de ma famille ou les coutumes d'une religion.							
42. C'est important pour lui de communiquer avec les autres sans être entendu.							

	Pas du tout comme moi	Pas comme moi	Un peu comme moi	Moyennement comme moi	Comme moi	Tout à fait comme moi	Ne s'applique pas
43. C'est important pour lui d'écouter et de comprendre les gens qui sont très différents de lui.							
44. C'est important pour lui d'avoir un Etat fort qui est capable de protéger ses citoyens.							
45. C'est important pour lui de jouir des plaisirs de la vie..							
46. C'est important pour lui que chaque personne dans le monde ait les mêmes chances dans la vie.							
47. C'est important pour lui d'être humble.							

	Pas du tout comme moi	Pas comme moi	Un peu comme moi	Moyennement comme moi	Comme moi	Tout à fait comme moi	Ne s'applique pas
48. C'est important comprendre les choses par lui- même.							
49. C'est important pour lui d'honorer les pratiques traditionnelles de sa culture.							
50. C'est important pour lui de contrôler qui peut être physiquement proche de lui.							
51. C'est important pour lui d'être celui qui dit aux autres ce qu'ils doivent faire.							
52. C'est important pour lui de respecter toutes les lois.							
53. C'est important pour lui de tester des nouvelles expériences.							

	Pas du tout comme moi	Pas comme moi	Un peu comme moi	Moyennement comme moi	Comme moi	Tout à fait comme moi	Ne s'applique pas
54. C'est important pour lui de protéger activement ses données en ligne.							
55. C'est important pour lui de posséder des objets coûteux qui témoignent de sa richesse.							
56. C'est important que vous prêtiez attention à cette étude. Pour indiquer que vous avez lu ceci, veuillez cocher « Comme moi ».							
57. C'est important pour lui de protéger l'environnement naturel de la destruction ou de la pollution.							

	Pas du tout comme moi	Pas comme moi	Un peu comme moi	Moyennement comme moi	Comme moi	Tout à fait comme moi	Ne s'applique pas
58. C'est important pour lui de profiter de toutes les occasions pour s'amuser.							
59. C'est important pour lui de réguler la fréquence à laquelle elle participe à des activités sociales.							
60. C'est important pour lui de se préoccuper de tous les besoins de ses proches.							
61. C'est important pour lui que les gens reconnaissent ce qu'il accomplit.							
62. C'est important pour lui de ne jamais être humilié.							

	Pas du tout comme moi	Pas comme moi	Un peu comme moi	Moyennement comme moi	Comme moi	Tout à fait comme moi	Ne s'applique pas
63. C'est important pour lui que son pays se protège contre toutes les menaces.							
64. C'est important pour lui de ne jamais mettre les autres en colère.							
65. C'est important pour lui que tout le monde soit traité avec justice, même les personnes qu'il ne connaît pas.							
66. C'est important pour lui d'éviter tout ce qui est dangereux.							
67. C'est important pour lui de se contenter de ce qu'il a et de ne pas demander plus.							

	Pas du tout comme moi	Pas comme moi	Un peu comme moi	Moyennement comme moi	Comme moi	Tout à fait comme moi	Ne s'applique pas
68. C'est important pour lui que tous ses amis et sa famille puissent compter sur lui.							
69. C'est important pour lui d'être libre de choisir ce qu'il fait par lui-même.							
70. C'est important pour lui d'accepter les gens même s'il n'est pas d'accord avec eux.							
71. C'est important pour lui de contrôler qui peut le voir et l'entendre lorsqu'il interagit avec ses proches.							

Appendix II

Privacy Items – English Version

1. I carefully choose with whom I share important moments in my life
2. I generally take control over how much I share during conversations.
3. I generally prefer having conversations in smaller groups.
4. I generally choose carefully with whom I spend time.
5. I generally try to limit interactions with others at social events.
6. I prefer to solve personal matters alone rather than asking people for help.

Privacy Items – German Version

1. Ich wähle sorgfältig aus, mit wem ich wichtige Momente in meinem Leben teile.
2. In der Regel kontrolliere ich in Gesprächen wieviel ich von mir preisgebe.
3. Ich ziehe es im Allgemeinen vor, Gespräche in kleineren Gruppen zu führen.
4. Ich wähle im Allgemeinen sorgfältig aus, mit wem ich Zeit verbringe.
5. Ich versuche im Allgemeinen, Im Allgemeinen versuche ich, den Umgang mit Fremden bei gesellschaftlichen Veranstaltungen zu begrenzen.
6. Ich löse persönliche Angelegenheiten lieber allein, anstatt andere um Hilfe zu bitten.

Privacy Items – Spanish Version

- 1) Elijo cuidadosamente con quién comparto los momentos importantes de mi vida.
- 2) Generalmente, controlo cuánto comparto durante las conversaciones.
- 3) Generalmente, prefiero tener conversaciones en grupos pequeños.
- 4) Generalmente, elijo con cuidado con quién paso mi tiempo.
- 5) Generalmente, trato de limitar las interacciones con los demás en eventos sociales.
- 6) Prefiero resolver asuntos personales solo/a en lugar de pedir ayuda a otras personas.

Privacy Items – French Version

- 1) Je choisis soigneusement avec qui je partage les moments importants de ma vie.
- 2) Je contrôle généralement la quantité d'informations que je partage lors des conversations.
- 3) Je préfère généralement avoir des conversations en petits groupes.
- 4) Je choisis généralement avec soin les personnes avec qui je passe du temps.
- 5) J'essaie généralement de limiter les interactions avec les autres lors d'événements sociaux.
- 6) Je préfère résoudre mes problèmes personnels seul(e) plutôt que de demander de l'aide aux autres.

Appendix III

Informed Consent and Demographics – English Version

Information form for Participant

Prior to taking part in this study, please read the following information carefully. This form describes the study procedure, the use of your data and your rights as a participant. At the end of the consent form, you will be asked to give your consent for using the collected data for research purposes.

Aim of the study

The aim of the study is to measure how privacy is perceived and how it correlates to different privacy-related behaviours. Furthermore, the study investigates whether cultural differences influence the perception of privacy. This study is conducted by Sahila Ketheeswaranathan, a student under the supervision of Nicole Huijts at the University of Twente.

Procedure

Your participation in this study is voluntary. If you feel any discomfort during participation, you can withdraw from the study at any time without giving reasons. Your data will only be recorded after the survey has been completed.

Risk

This study is not associated with any known risks. (The research has been reviewed and approved by the BMS Ethics Committee.)

Duration

This survey will take about 15 minutes to complete.

Personal Information & Data Collection

This study will collect demographic data (e.g., gender, nationality & age) and experimental data (your responses to the survey) which will be anonymised and handled with confidentiality.

Usage of Data During and After Research

All data will be treated confidentially and anonymously. The data will be stored on the computer of the researcher under General Data Protection Regulation (GDPR) guidelines. The data collected may be used for future research projects, but only in aggregated, anonymised form. Data will be stored for 10 years following university research guidelines.

Contact Information

If you have any questions about the study or your rights as a participant, you may contact

Researcher: Sahila Ketheeswaranathan – s.ketheeswaranathan@student.utwente.nl

Supervisor: Nicole Huijts - n.m.a.huijts@utwente.nl

Ethics Committee Contact: ethicscommittee-bms@utwente.nl

Consent Statement

By selecting "I agree", you confirm that:

- You have read and understood the information provided above.
- You voluntarily agree to participate in this study.
- You understand that your participation is anonymous and that your data will only be used for research purposes.

- You understand that you can withdraw at any time without consequences.

- Yes
- No

What is your gender?

- Male
- Female
- Non-binary / third gender
- Prefer not to say

What is your nationality?

- German
- Spanish
- French

What is your age in years?

Informed Consent and Demographics – German Version

Einverständniserklärung:

Bevor Sie an dieser Studie teilnehmen, lesen Sie bitte die folgenden Informationen sorgfältig durch. Dieses Formular beschreibt den Ablauf der Studie, die Verwendung Ihrer Daten und Ihre Rechte als Teilnehmer. Am Ende der Einwilligungserklärung werden Sie gebeten, Ihre Zustimmung zur Verwendung der gesammelten Daten zu Forschungszwecken zu geben.

Zweck der Studie:

Zweck der Studie ist es, zu messen, wie die Privatsphäre wahrgenommen wird und was für Verhaltensweisen im Zusammenhang mit der Privatsphäre eine Rolle spielen. Außerdem soll untersucht werden, ob kulturelle Unterschiede die Wahrnehmung der Privatsphäre beeinflussen. Diese Studie wird von Sahila Ketheeswaranathan durchgeführt, einer Studentin unter der Leitung von Nicole Huijts an der Universität Twente.

Prozedur:

Ihre Teilnahme an dieser Studie ist freiwillig. Sollten Sie sich während der Teilnahme unwohl fühlen, können Sie jederzeit ohne Angabe von Gründen von der Studie zurücktreten. Ihre Daten werden erst nach Beendigung der Umfrage erfasst.

Risiken:

Diese Studie ist mit keinen bekannten Risiken verbunden. Die Studie wurde von der BMS-Ethikkommission geprüft und genehmigt.

Dauer:

Das Ausfüllen dieser Umfrage dauert etwa 15 Minuten.

Persönliche Informationen und Datensammlung

Im Rahmen dieser Studie werden demografische Daten (z. B. Geschlecht, Nationalität und Alter) und experimentelle Daten (Ihre Antworten auf die Umfrage) gesammelt, die anonymisiert und vertraulich behandelt werden.

Verwendung der Daten während und nach der Forschung

Alle Daten werden vertraulich und anonym behandelt. Die Daten werden auf dem Computer des Forschers gemäß den Richtlinien der Allgemeinen Datenschutzverordnung (GDPR) gespeichert. Die gesammelten Daten können für zukünftige Forschungsprojekte verwendet werden, jedoch nur in aggregierter, anonymisierter Form. Die Daten werden gemäß den Forschungsrichtlinien der Universität für 10 Jahre gespeichert.

Kontaktinformationen

Wenn Sie Fragen zur Studie oder zu Ihren Rechten als Teilnehmer haben, können Sie sich an folgende Ansprechpartner wenden.

Forscherin: Sahila Ketheeswaranathan – s.ketheeswaranathan@student.utwente.nl Betreuerin:
Nicole Huijts - n.m.a.huijts@utwente.nl

Kontakt zur Ethikkommission: ethicscommittee-bms@utwente.nl

Einverständniserklärung

Indem Sie „Ich stimme zu“ wählen, bestätigen Sie, dass:

- Sie haben die oben genannten Informationen gelesen und verstanden.
- Sie erklären sich freiwillig bereit, an dieser Studie teilzunehmen.
- Sie wissen, dass Ihre Teilnahme anonym ist und dass Ihre Daten nur für

Forschungszwecke verwendet werden.

- Sie wissen, dass Sie jederzeit ohne Konsequenzen von der Teilnahme zurücktreten können.

- ☐ Ja
- ☐ Nein

Was ist dein Geschlecht?

- ☐ Männlich
- ☐ Weiblich
- ☐ Non Binär / Drittes Geschlecht
- ☐ Ich bevorzuge nicht zu antworten

Was ist deine Nationalität?

- ☐ Deutsch
- ☐ Spanisch
- ☐ Französisch

Wie alt bist du in Jahren?

Informed Consent and Demographics – Spanish Version

Antes de formar parte del estudio, por favor lee la siguiente información detenidamente. Este formulario describe el procedimiento del estudio, el uso de tus datos y tus derechos como participante. Al final del formulario de consentimiento, se te pedirá que des tu consentimiento para usar la información recopilada con fines de investigación.

Propósito del estudio

El objetivo del estudio es medir cómo se percibe la privacidad y cómo se relaciona los diferentes comportamientos con esta. Además, el estudio investiga la influencia de las diferencias culturales en la percepción de la privacidad. Este estudio es llevado a cabo por Sahila Ketheeswaranathan, bajo la supervisión de Nicole Huits en la Universidad de Twente.

Procedimiento

Tu participación en el estudio es voluntaria. Si te sientes incómodo durante tu participación, puedes retirarte del estudio en cualquier momento sin necesidad de dar explicaciones. Tus datos solo se guardarán una vez hayas completado la encuesta.

Riesgos

Este estudio no presenta riesgos conocidos (la investigación ha sido revisada y aprobada por el Comité de Ética BMS).

Duración

La encuesta te llevará 15 minutos.

Información personal y recopilación de datos

Ese estudio recopilará información demográfica (ej: género, nacionalidad, edad) y experimental (tus respuestas de la encuesta), la cual será anónima y manejada con confidencialidad.

Uso de los datos durante y después de la investigación.

Todos los datos serán tratados de forma anónima y confidencial. Los datos se guardarán en el ordenador del investigador siguiendo las directrices del Reglamento General de Protección de

Datos (GDPR). La información recopilada podrá ser usada para futuros proyectos, pero únicamente de forma agregada y anónima. Los datos serán almacenados 10 años siguiendo las pautas de investigación de la universidad.

Información de contacto

Si tienes alguna pregunta sobre el estudio o sobre tus derechos como participante, puedes contactar con:

Investigadora: Sahila Ketheeswaranathan – s.ketheeswaranathan@student.utwente.nl

Supervisora: Nicole Huijts - n.m.a.huijts@utwente.nl

Contacto del comité de ética: ethicscommittee-bms@utwente.nl

Declaración de consentimiento

Marcando “Aceptar” confirmas que:

- Has leído y entendido la información proporcionada.
- Aceptas participar voluntariamente en este estudio.
- Entiendes que tu participación es anónima y que tus datos solo serán utilizados con fines de investigación.
- Entiendes que puedes retirarte en cualquier momento sin consecuencias.

SI /NO

¿Cuál es tu género?

Hombre /mujer/no-binario/prefiero no decirlo

Cuál es tu nacionalidad?

alemana/española/francesa/ por favor especifique en el cuadro de texto

Cuántos años tienes?

Informed Consent and Demographics – French Version

Formulaire d'information pour le participant

Avant de participer à cette étude, veuillez lire attentivement les informations suivantes. Ce formulaire décrit la procédure de l'étude, l'utilisation de vos données et vos droits en tant que participant. À la fin du formulaire de consentement, il vous sera demandé de donner votre accord pour l'utilisation des données collectées à des fins de recherche.

Objectif de l'étude

L'objectif de cette étude est de mesurer la perception de la vie privée et son lien avec différents comportements liés à la confidentialité. De plus, l'étude examine si les différences culturelles influencent la perception de la vie privée. Cette étude est menée par Sahila Ketheeswaranathan, une étudiante sous la supervision de Nicole Huijts à l'Université de Twente.

Procédure

Votre participation à cette étude est volontaire. Si vous ressentez un quelconque inconfort pendant votre participation, vous pouvez vous retirer de l'étude à tout moment sans avoir à en fournir la raison. Vos données ne seront enregistrées qu'après avoir complété le questionnaire.

Risques

Cette étude n'est associée à aucun risque connu. (La recherche a été examinée et approuvée par le Comité d'éthique BMS.)

Durée

Le questionnaire prendra environ 15 minutes à compléter.

Informations personnelles et collecte de données

Cette étude collectera des données démographiques (ex. : genre, nationalité et âge) ainsi que des données expérimentales (vos réponses au questionnaire), qui seront anonymisées et traitées de manière confidentielle.

Utilisation des données pendant et après la recherche

Toutes les données seront traitées de manière confidentielle et anonyme. Elles seront stockées sur l'ordinateur du chercheur conformément aux directives du Règlement Général sur la Protection des Données (RGPD). Les données collectées pourront être utilisées pour de futurs projets de recherche, mais uniquement sous forme agrégée et anonymisée. Les données seront conservées pendant 10 ans, conformément aux directives de recherche de l'université.

Informations de contact

Si vous avez des questions concernant l'étude ou vos droits en tant que participant, vous pouvez contacter :

- Chercheuse : Sahila Ketheeswaranathan – s.ketheeswaranathan@student.utwente.nl
- Superviseure : Nicole Huijts – n.m.a.huijts@utwente.nl
- Contact du Comité d'éthique : ethicscommittee-bms@utwente.nl

Déclaration de consentement

En sélectionnant « J'accepte », vous confirmez que :

- Vous avez lu et compris les informations fournies ci-dessus.
- Vous acceptez volontairement de participer à cette étude.
- Vous comprenez que votre participation est anonyme et que vos données seront utilisées uniquement à des fins de recherche.
- Vous comprenez que vous pouvez vous retirer à tout moment sans conséquences.

- ☐ Oui
- ☐ Non

Quel est votre genre ?

- ☐ Homme
- ☐ Femme
- ☐ Non-binaire / troisième genre
- ☐ Préfère ne pas dire

Quelle est votre nationalité ?

- ☐ Allemand
- ☐ Espagnol
- ☐ Français

Quel est votre âge ?

Appendix IV

Summary of the Factor Loadings and reliability analysis after removing the weakest SP Items

Item	Factor 1	Factor 2	Factor 3	Commun alites	α and α if Item Droppe d
Factor 1: Informational privacy					.80
IP1: It is important to him/her to be aware of which data are collected about him/her while using the internet.	.69	-.05	.02	.46	.77
IP2: It is important to him/her to control which personal information is collected about him/her.	.91	.01	-.02	.82	.63
IP3: It is important to him/her to actively protect his/her online data.	.68	.03	.01	.48	.76
Factor 2: Observational Privacy					.68
OP1: It is important to him/her that others do not hear what he/she discusses with his/her best friend.	-.07	.71	-.04	.46	.57
OP2: It is important to him/her to communicate with others without being overheard.	-.10	.55	-.02	.26	.70
OP3: It is important to him/her to control who is able to see and hear him/her when he/she interacts with close others.	.12	.76	.04	.69	.50

Factor 3: Social Privacy					.63
SP1: It is important to him/her to be able to control when he/she has interactions with close others.	.08	.32	.38	.38	.57
SP2: It is important to him/her to avoid unwanted social interactions.	-.01	-.05	.78	.58	.49
SP6: It is important to him/her to regulate how often he/she engages in social activities.	.00	.20	.45	.31	.54

Appendix V

Privacy Items

<i>Informational Privacy</i>	<i>Observational Privacy</i>	<i>Social Privacy</i>
It is important to him/her to be aware of which data are collected about him/her while using the internet.	It is important to him/her that others do not hear what he/she discusses with his/her best friend.	It is important to him/her to be able to control when he/she has interactions with close others.
It is important to him/her to control which personal information is collected about him/her.	It is important to him/her to communicate with others without being overheard.	It is important to her to avoid unwanted social interactions.
It is important to him/her to actively protect his/her online data.	It is important to him/her to control who is able to see and hear him/her when he/she interacts with close others.	It is important to her to control who she spends her time with.
		It is important to him/her to control how he/she interacts with others to meet his/her own needs.
		It is important to him/her to control who can be physically close to him/her.
		It is important to her to regulate how often she engages in social activities.

Appendix VI

```
library(readxl)
```

```
library(ggplot2)
```

```
#Running the packages
```

```
library(tidyverse)
```

```
library(dplyr)
```

```
library(readr)
```

```
data <- read_csv("social_privacy.csv", skip = 2)
```

```
data_OG <- social_privacy %>% select(-c(1:16))
```

```
names(data)[1:159]
```

```
#Rename Columns
```

```
data_OG <- data_OG %>%
```

```
  rename(
```

```
    Consent_1 = `A1_1`,
```

```
    Consent_2 = `A1_2`,
```

```
    Consent_3 = `A1_3`,
```

```
    Consent_4 = `A1_4`,
```

```
    Att_CM2_4 = `CM2_4`,
```

```
    Att_CF2_4 = CF2_4,
```

```
    Att_CM9_6 = CM9_6,
```

```
    Att_CF9_6 = CF9_6
```

)

```
#remove no consent
```

```
data_OG <- data_OG %>%
```

```
  filter(!if_any(2:5, ~ . == 2))
```

```
#Remove NA block D
```

```
data_Dclean <- data_OG %>%
```

```
  filter(if_all(153:158, ~ !is.na(.)))
```

```
#separate male
```

```
data_male <- data_Dclean %>%
```

```
  filter(!is.na(CM1_1)) %>%
```

```
  filter(complete.cases(select(., starts_with("CM")))))
```

```
#separate female
```

```
data_female <- data_Dclean %>%
```

```
  filter(!is.na(CF1_1)) %>%
```

```
  filter(complete.cases(select(., starts_with("CF")))))
```

```
#2toomuch
```

```
# Count how many rows in data_female also appear in data_male
```

```
n_overlap <- sum(duplicated(rbind(data_male, data_female)))
```

```
cat("Number of duplicate participants (likely in both CM and CF):", n_overlap, "\n")
```

```

# Combine male and female cleaned data

combined_data <- bind_rows(data_male, data_female)

# Find duplicated rows (appearing more than once)

duplicates <- combined_data[duplicated(combined_data) | duplicated(combined_data,
  fromLast = TRUE), ]

# Print them

print(duplicates)

#remove duplicates

combined_unique <- combined_data %>%
  distinct()

# Total participants

total_n <- nrow(combined_unique)

cat("Total participants:", total_n, "\n")

# Gender breakdown

n_male <- sum(!is.na(combined_unique$CM1_1))

n_female <- sum(!is.na(combined_unique$CF1_1))

# Gender percentages

pct_male <- round(n_male / total_n * 100, 1)

pct_female <- round(n_female / total_n * 100, 1)

```

```
# Step 1: Assign group label
```

```
combined_unique <- combined_unique %>%
```

```
  mutate(
```

```
    gender_group = case_when(
```

```
      !is.na(CM1_1) ~ "male",
```

```
      !is.na(CF1_1) ~ "female",
```

```
      TRUE ~ "unknown"
```

```
    )
```

```
  )
```

```
# Step 2: Keep only one block per person
```

```
# Optionally remove CF columns from males and CM columns from females
```

```
combined_unique <- combined_unique %>%
```

```
  mutate(across(starts_with("CF"), ~ if_else(gender_group == "male", NA, .))) %>%
```

```
  mutate(across(starts_with("CM"), ~ if_else(gender_group == "female", NA, .)))
```

```
#Descriptive stats
```

```
n_male <- sum(combined_unique$gender_group == "male")
```

```
n_female <- sum(combined_unique$gender_group == "female")
```

```
total_n <- n_male + n_female
```

```
pct_male <- round(n_male / total_n * 100, 1)
```

```
pct_female <- round(n_female / total_n * 100, 1)
```

```
cat("Total participants:", total_n, "\n")
```

```

cat("Males:", n_male, "(", pct_male, "% )\n")

cat("Females:", n_female, "(", pct_female, "% )\n")


# Age (B2 is your age column)

combined_unique$Age <- as.numeric(combined_unique$B2)

mean_age <- round(mean(combined_unique$Age, na.rm = TRUE), 2)

sd_age <- round(sd(combined_unique$Age, na.rm = TRUE), 2)


cat("Mean Age:", mean_age, "\n")

cat("Standard Deviation of Age:", sd_age, "\n")


#delete 2 rows

combined_unique <- combined_unique[-c(1, 2), ]


#Agerange

# Minimum and maximum age

range(combined_unique$Age, na.rm = TRUE)


# Create a new logical column for attention check status

combined_unique <- combined_unique %>%

mutate(

  Passed_AttChecks = case_when(

    !is.na(Att_CM2_4) & !is.na(Att_CM9_6) ~ (Att_CM2_4 == 2 & Att_CM9_6 == 5), #

    male

    !is.na(Att_CF2_4) & !is.na(Att_CF9_6) ~ (Att_CF2_4 == 2 & Att_CF9_6 == 5), #

    female
  )
)

```

```

    TRUE ~ NA # unknown or missing

)

)

#Remove attention

final_clean <- combined_unique %>%

  filter(Passed_AttChecks == TRUE)


#Nationality

names(final_clean)[8] # or wherever demographics start

table(final_clean$B3)

round(prop.table(table(final_clean$B3)) * 100, 1)


# Create a grouped summary by nationality

nationality_summary <- final_clean %>%

  group_by(B3) %>%

  summarise(

    Total = n(),

    Males = sum(!is.na(CM1_1)),

    Females = sum(!is.na(CF1_1)),

    Pct_Male = round(Males / Total * 100, 1),

    Pct_Female = round(Females / Total * 100, 1),

    Mean_Age = round(mean(Age, na.rm = TRUE), 2),

    SD_Age = round(sd(Age, na.rm = TRUE), 2),

    Min_Age = min(Age, na.rm = TRUE),

    Max_Age = max(Age, na.rm = TRUE)

```

```
)
```

```
print(nationality_summary)
```

```
#include swiss with france
```

```
FINAL_clean <- final_clean %>%
```

```
  mutate(B3 = case_when(
    B4 %in% c("Swiss", "Suisse") ~ "France",
    TRUE ~ B3
  ))
```

```
nationality_summary <- FINAL_clean %>%
```

```
  group_by(B3) %>%
  summarise(
    Total = n(),
    Males = sum(!is.na(CM1_1)),
    Females = sum(!is.na(CF1_1)),
    Pct_Male = round(Males / Total * 100, 1),
    Pct_Female = round(Females / Total * 100, 1),
    Mean_Age = round(mean(Age, na.rm = TRUE), 2),
    SD_Age = round(sd(Age, na.rm = TRUE), 2),
    Min_Age = min(Age, na.rm = TRUE),
    Max_Age = max(Age, na.rm = TRUE)
  )
```

```
FINAL_clean <- FINAL_clean %>%
```

```
mutate(Nationality = case_when(
  B3 %in% c("3", "France") ~ "France",
  B3 == "1" ~ "Germany",
  B3 == "2" ~ "Spain",
  B3 == "4" ~ "Other",
  TRUE ~ "Unknown"
))
```

```
nationality_summary <- FINAL_clean %>%
  group_by(Nationality) %>%
  summarise(
    Total = n(),
    Males = sum(!is.na(CM1_1)),
    Females = sum(!is.na(CF1_1)),
    Pct_Male = round(Males / Total * 100, 1),
    Pct_Female = round(Females / Total * 100, 1),
    Mean_Age = round(mean(Age, na.rm = TRUE), 2),
    SD_Age = round(sd(Age, na.rm = TRUE), 2),
    Min_Age = min(Age, na.rm = TRUE),
    Max_Age = max(Age, na.rm = TRUE)
  )
```

```
#combine Spain and France
```

```
FINAL_clean <- FINAL_clean %>%
  mutate(B3 = case_when(
    B3 == "1" ~ "Germany",
```



```

B3 == "2" ~ "Spain",

B3 == "3" ~ "France",

TRUE ~ B3 # keep existing text (like "Swiss", "Suisse", etc.)

))

FINAL_clean <- FINAL_clean %>%

mutate(Nationality_Grouped = case_when(

  B3 %in% c("Spain", "France") ~ "Spain/France",

  B3 == "Germany" ~ "Germany",

  TRUE ~ "Other"

))

table(FINAL_clean$Nationality_Grouped)

round(prop.table(table(FINAL_clean$Nationality_Grouped)) * 100, 1)

#Remove other

FINAL_clean <- FINAL_clean %>%

  filter(Nationality_Grouped != "Other")

table(FINAL_clean$Nationality_Grouped)

#seperate spain and france

# First, convert codes in B3 to proper country names if needed

FINAL_clean <- FINAL_clean %>%

mutate(B3 = case_when(

  B3 == "1" ~ "Germany",

```

```

B3 == "2" ~ "Spain",
B3 == "3" ~ "France",
TRUE ~ B3
))

```

```

FINAL_clean <- FINAL_clean %>%
  mutate(Nationality = case_when(
    B3 == "Spain" ~ "Spain",
    B3 == "France" ~ "France",
    B3 == "Germany" ~ "Germany",
    TRUE ~ "Other"
  ))

```

```

FINAL_clean <- FINAL_clean %>%
  filter(Nationality != "Other")

```

```

table(FINAL_clean$Nationality)

```

```

#Rename Privacy

```

```

FINAL_clean <- FINAL_clean %>%
  mutate(
    # Informational
    IP1 = coalesce(CM1_2, CF1_2),
    IP2 = coalesce(CM5_4, CF5_4),
    IP3 = coalesce(CM9_4, CF9_4),

```

```
# Observational
```

```
OP1 = coalesce(CM3_3, CF3_3),
```

```
OP2 = coalesce(CM7_4, CF7_4),
```

```
OP3 = coalesce(CM11_7, CF11_7),
```

```
# Social
```

```
SP1 = coalesce(CM2_6, CF2_6),
```

```
SP2 = coalesce(CM3_7, CF3_7),
```

```
SP3 = coalesce(CM4_5, CF4_5),
```

```
SP4 = coalesce(CM6_2, CF6_2),
```

```
SP5 = coalesce(CM8_6, CF8_6),
```

```
SP6 = coalesce(CM10_2, CF10_2)
```

```
)
```

```
names(FINAL_clean)[1:164] # or more if needed
```

```
SP1 = coalesce(`CM2_6`, CF2_6)
```

```
FINAL_clean <- FINAL_clean %>%
```

```
mutate(
```

```
# Informational
```

```
IP1 = coalesce(CM1_2, CF1_2),
```

```
IP2 = coalesce(CM5_4, CF5_4),
```

```
IP3 = coalesce(CM9_4, CF9_4),
```

```
# Observational
```

```

OP1 = coalesce(CM3_3, CF3_3),
OP2 = coalesce(CM7_4, CF7_4),
OP3 = coalesce(CM11_7, CF11_7),

```

```

# Social

```

```

SP1 = coalesce(CM2_6, CF2_6),
SP2 = coalesce(CM3_7, CF3_7),
SP3 = coalesce(CM4_5, CF4_5),
SP4 = coalesce(CM6_2, CF6_2),
SP5 = coalesce(CM8_6, CF8_6),
SP6 = coalesce(CM10_2, CF10_2)
)

```

```

SP1 = coalesce(`CM2_6`, CF2_6)

```

```

names(FINAL_clean)[str_detect(names(FINAL_clean), "CM2|CM6")]

```

```

names(FINAL_clean) <- str_replace_all(names(FINAL_clean), " ", "")

```

```

#EFA

```

```

efa_items <- FINAL_clean %>%
  select(IP1, IP2, IP3,
         OP1, OP2, OP3,
         SP1, SP2, SP3, SP4, SP5, SP6) %>%
  drop_na()

```

```

#

library(psych)


efa_items <- efa_items %>%

  mutate(across(everything(), as.numeric))

KMO(efa_items)


# KMO & Bartlett's test

KMO(efa_items)

cortest.bartlett(cor(efa_items), n = nrow(efa_items))


# Scree plot & parallel analysis

scree(efa_items, pc = FALSE)

fa.parallel(efa_items, fa = "fa", fm = "ml")


# Run EFA (adjust nfactors based on the plot!)

efa_result <- fa(efa_items, nfactors = 3, rotate = "oblimin", fm = "ml")

print(efa_result)

fa.diagram(efa_result)


# Cronbach's alpha for each subscale

alpha(efa_items[, c("IP1", "IP2", "IP3")])

alpha(efa_items[, c("OP1", "OP2", "OP3")])

alpha(efa_items[, c("SP1", "SP2", "SP3", "SP4", "SP5", "SP6")])

```

Informational Privacy

```
summary(aov(IP1 ~ Nationality, data = FINAL_clean))
```

```
summary(aov(IP2 ~ Nationality, data = FINAL_clean))
```

```
summary(aov(IP3 ~ Nationality, data = FINAL_clean))
```

```
TukeyHSD(aov(IP1 ~ Nationality, data = FINAL_clean))
```

Observational Privacy

```
summary(aov(OP1 ~ Nationality, data = FINAL_clean))
```

```
summary(aov(OP2 ~ Nationality, data = FINAL_clean))
```

```
summary(aov(OP3 ~ Nationality, data = FINAL_clean))
```

```
TukeyHSD(aov(OP2 ~ Nationality, data = FINAL_clean))
```

Social Privacy

```
summary(aov(SP1 ~ Nationality, data = FINAL_clean))
```

```
summary(aov(SP2 ~ Nationality, data = FINAL_clean))
```

```
summary(aov(SP3 ~ Nationality, data = FINAL_clean))
```

```
summary(aov(SP4 ~ Nationality, data = FINAL_clean))
```

```
summary(aov(SP5 ~ Nationality, data = FINAL_clean))
```

```
summary(aov(SP6 ~ Nationality, data = FINAL_clean))
```

```
TukeyHSD(aov(SP1 ~ Nationality, data = FINAL_clean))
```

```
TukeyHSD(aov(SP4 ~ Nationality, data = FINAL_clean))
```

```

# Remove SP3, SP4, and SP5

efa_items_reduced <- efa_items %>%

  select(-SP3, -SP4, -SP5)

# Run EFA again on reduced items (assumes 3 factors based on earlier results)

efa_result_reduced <- fa(efa_items_reduced, nfactors = 3, rotate = "oblimin", fm = "ml")

print(efa_result_reduced)

# Check reliability for revised Social Privacy subscale (SP1, SP2, SP6)

alpha(efa_items_reduced[, c("SP1", "SP2", "SP6")])

# Reliability for Informational Privacy (IP1, IP2, IP3)

alpha(efa_items_reduced[, c("IP1", "IP2", "IP3")])

# Reliability for Observational Privacy (OP1, OP2, OP3)

alpha(efa_items_reduced[, c("OP1", "OP2", "OP3")])

# Convert relevant privacy items to numeric

FINAL_clean <- FINAL_clean %>%

  mutate(across(c(IP1, IP2, IP3, OP1, OP2, OP3, SP1, SP2, SP6), as.numeric))

# Compute subscale means

FINAL_clean <- FINAL_clean %>%

  mutate(

    Informational_Privacy = rowMeans(select(., IP1, IP2, IP3), na.rm = TRUE),

    Observational_Privacy = rowMeans(select(., OP1, OP2, OP3), na.rm = TRUE),

```

```

    Social_Privacy = rowMeans(select(., SP1, SP2, SP6), na.rm = TRUE) # Adjusted for
    removed items
  )

# Load psych if not already loaded
library(psych)

# Cronbach's alpha
alpha(FINAL_clean[, c("IP1", "IP2", "IP3")]) # Informational
alpha(FINAL_clean[, c("OP1", "OP2", "OP3")]) # Observational
alpha(FINAL_clean[, c("SP1", "SP2", "SP6")]) # Social

# Informational Privacy
anova_ip <- aov(Informational_Privacy ~ Nationality, data = FINAL_clean)
summary(anova_ip)

# Observational Privacy
anova_op <- aov(Observational_Privacy ~ Nationality, data = FINAL_clean)
summary(anova_op)

# Social Privacy
anova_sp <- aov(Social_Privacy ~ Nationality, data = FINAL_clean)
summary(anova_sp)

# Post-hoc tests
TukeyHSD(anova_ip)

```



```
TukeyHSD(anova_op)
```

```
TukeyHSD(anova_sp)
```

```
library(ggplot2)
```

```
# Melt data for plotting
```

```
library(reshape2)
```

```
long_values <- melt(FINAL_clean,
                    id.vars = "Nationality",
                    measure.vars = c("Informational_Privacy", "Observational_Privacy",
                                     "Social_Privacy"),
                    variable.name = "Privacy_Type",
                    value.name = "Score")
```

```
# Plot
```

```
ggplot(long_values, aes(x = Nationality, y = Score, fill = Privacy_Type)) +
  geom_boxplot(position = position_dodge(width = 0.8)) +
  labs(title = "Privacy Value Differences by Nationality",
       x = "Nationality", y = "Mean Score") +
  theme_minimal()
```

```
#second research question
```

```

# Ensure privacy value items are numeric

FINAL_clean <- FINAL_clean %>%

  mutate(across(c(SP1, SP2, SP6), as.numeric))

# Compute mean value score

FINAL_clean <- FINAL_clean %>%

  mutate(Social_Privacy_Value = rowMeans(select(., SP1, SP2, SP6), na.rm = TRUE))

# Make sure behavior items are numeric

FINAL_clean <- FINAL_clean %>%

  mutate(across(starts_with("D1_"), as.numeric))

# Create list to store regression summaries

library(broom)

regression_results <- list()

# Loop through each behavioral item

for (i in 1:6) {

  behavior <- paste0("D1_", i)

  formula <- as.formula(paste(behavior, "~ Social_Privacy_Value"))

  model <- lm(formula, data = FINAL_clean)

  cat("\n---", behavior, "---\n")

  print(summary(model)) # Detailed output

# Store tidy summary

```

```

regression_results[[behavior]] <- tidy(model)
}

# Loop through nationalities
for (nation in unique(FINAL_clean$Nationality)) {

  cat("\n==== Nationality:", nation, "====\n")

  sub_data <- FINAL_clean %>% filter(Nationality == nation)

  for (i in 1:6) {

    behavior <- paste0("D1_", i)

    formula <- as.formula(paste(behavior, "~ Social_Privacy_Value"))

    model <- lm(formula, data = sub_data)

    cat("\n---", behavior, "---\n")

    print(summary(model))

  }

}

FINAL_clean %>%

group_by(Nationality) %>%

summarise(across(ends_with("Privacy"), list(mean = ~mean(.x, na.rm = TRUE), sd = ~sd(.x,
  na.rm = TRUE))))

privacy_stats <- FINAL_clean %>%

```

```
group_by(Nationality) %>%  
  summarise(  
    Mean_Informational = mean(Informational_Privacy, na.rm = TRUE),  
    SD_Informational = sd(Informational_Privacy, na.rm = TRUE),  
    Mean_Observational = mean(Observational_Privacy, na.rm = TRUE),  
    SD_Observational = sd(Observational_Privacy, na.rm = TRUE),  
    Mean_Social = mean(Social_Privacy, na.rm = TRUE),  
    SD_Social = sd(Social_Privacy, na.rm = TRUE)  
  )  
  
print(privacy_stats, width = Inf)
```