CULTURAL DIFFERENCES IN SOCIAL MEDIA USAGE
PAKISTAN VS. FINLAND

Team Tiktok

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1. Getting started and warm-up

1.1 Warming up the teamwork

In the first week of the course, the team forming activity on the mural board helped us to form a team somehow with mutual goals. The process of team forming was easy as we didn't clearly know our team members and anonymously wrote about ourselves, our culture and our expectations from the course. This way helped us to express ourselves freely and, we were excited to know our team members.

After getting the team members' names, all of us contacted the person who mentioned her email on the mural board to get the canvas link and this is how we made a Telegram group of our team. Initially, we all were not familiar with each other but some of us are friends of each other. We decided to come to the robot studio for the first workshop to know each other. Unfortunately, some of us could not come in person but 3 of us met and introduced ourselves and our cultural backgrounds. Eventually, we conducted online meetings in the same week where all of us introduced ourselves and we had a little chat which was very interesting. It is always hard to find new people especially for an international student but this way of forming a group with random people was really a great idea and we all ended up having a great team.

Initially, we had some issues regarding what we have to do in the course and getting with each other's pace as we all were from different backgrounds and have different working styles. Two of us are from Finland, two from Pakistan and one from Vietnam. However, we spent a lot of time in weekly meetings and had discussions on every topic until we all are clear with our goal. Mural board is always a great help to keep a track on everything as we noted done everything we agreed on in our weekly meetings. In the 2 weeks, we researched, brainstormed and discussed our project idea and planned our process. It was hard to understand all the requirements from all the weekly workshops at start because every week's task is connected and must be built on previous one meanwhile, we also have to come up with related research articles at start. Understanding all this was a challenge at first but with effective communication and teamwork we managed to work well.

1.2 Introduction to the project

In this project, we aim to explore the "social media cultures of Finland and Pakistan" to uncover and compare the diverse ways these two distinct cultures engage with digital platforms. Our aim is to examine the influence of cultural norms on social media practices and understand how these differences shape user behaviors and content restrictions online and then design a solution.

1.2.3 Selected Cultures and Rationale

The cultures of Finland and Pakistan were chosen for this study. Two of our team members are Finnish and two are Pakistanis, thus while having a group discussion we decided to analyse these two cultures due to their interesting differences in social norms, technological adoption, and online behaviors. Finland, known for its Individualistic culture that prioritises individual needs and interests, presents a modernized approach to social media use. On the other hand, Pakistan, with its rich cultural heritage and varying degrees of technological penetration, offers a contrasting perspective marked by traditional values and Collectivistic culture that prioritises family, friends, and groups.

1.2.4 Project Goals and Methodology

Our primary goals in this project included:

- Analyzing social media behavior in Finland and Pakistan to identify cultural nuances in platform usage.
- Examining how cultural norms influence the types of content shared and consumed on social media.
- Investigating the impact of cultural differences on user-imposed content restrictions and privacy concerns.

To achieve these objectives, we conducted:

- User study on social media trends, including platform preferences, content themes, and engagement patterns.
- Cultural interviews and surveys to gather firsthand insights into user attitudes and behaviors towards social media.
- Analysis of user-generated content to identify cultural themes and variations in content restrictions across the two cultures.

1.2.5 Additional Information

Understanding the dynamics of social media culture across different societies is essential for businesses, marketers, and platform developers as well as people aiming to socialize and engage diverse audiences effectively. By exploring these cultural dimensions, we gain valuable insights into the intersection of technology and culture, ultimately informing strategies for cross-cultural communication and digital engagement.

2. Cultural exploration

2.1 Literature Reviews

The literature review by Melina Aalto-Halme, theme cultural differences in social media usage

Introduction

The article Cultural Differences in Social Networking Site Use: A Comparative Study of China and the United States concerns the differences in social media use in China and the United States, which represent collectivistic and individualistic cultures. The purpose of the research is to find out whether culture affects the time spent on social media, the motives for use and the meaning of social media for an individual, and whether personal characteristics have a different effect on the use of social media in collectivist and individualistic cultures. In addition, the study's goal is to investigate whether gender and family income have a role in social media use. The article is very relevant to our project, which deals with the differences in the use of social media in Pakistan and Finland, which also represent a collective and individualistic culture.

The goal of the second article, Culture and Social Media: the relationship between cultural values and hashtagging styles, is twofold. First, researchers aim to identify the characteristics of hashtags, and second, they study the relationship between cultural values and hashtags. The research provides

information on the use of hashtags and their connection to cultural values. This is essentially related to our project, as we chose Instagram as the platform, as it was commonly used by the participants.

1st Article: Cultural differences in social networking site use: A comparative study of China and the United States

Goal of the article

The study by Jackson and Wang (2013) aimed to explore how cultural differences, personal traits, and demographics affect social networking site (SNS) usage. They investigated cultural effects on SNS usage patterns, personal traits' influence in collectivistic versus individualistic cultures, and demographic variations in SNS use across cultural contexts.

Methods

In the study by Jackson and Wang (2013) in China, 401 students from two colleges participated, 73% of whom were women. In the USA, 491 students from one large college participated in a similar study, 69% of whom were women. Participants completed the "People and Technology" questionnaire, which was completed online by Americans and by paper and pencil by Chinese (Jackson & Wang, 2013). The method of selecting participants was not mentioned in the study.

The study by Jackson and Wang (2013) consisted of two parts. Participants provided information about themselves in the first part, including gender and family income. Additionally, they completed several questionnaires: the 20-item Big Five Personality Factors Questionnaire, the 20-item Revised UCLA Loneliness Scale, the 14-item Shyness Questionnaire, and the 5-item Life Satisfaction Scale. A 5-point scale was used to evaluate the Big Five personality factors and the shyness questionnaire, where 1 represented "strongly disagree" and 5 represented "strongly agree". The UCLA loneliness scale utilized a 4-point scale, ranging from "never" to "always". For assessing life satisfaction, a 7-point scale was employed, with 1 indicating "strongly disagree" and 7 indicating "strongly agree".

In the second part of the study, participants answered questions about their use of social media sites on a 5-point scale, where 1 indicated "strongly disagree" and 5 indicated "strongly agree". The survey included statements related to the personal importance of SNS, such as frequency of use, daily activities, pride in being on SNS, and feelings of connection to the SNS community. Additionally, participants reported the total number of SNS friends, and the time spent on SNS during the past week in hours and minutes. The time data were subsequently converted to minutes per day during the analysis. (Jackson & Wang, 2013.)

Participants were also asked to rate their frequency of using SNS for various activities on a 4-point scale, where 1 indicated "hardly ever" and 4 indicated "very often". The activities included keeping in touch with parents and family members, friends, people known but rarely seen, meeting new people, obtaining information, and other unspecified activities. (Jackson & Wang, 2013.)

Findings

A study by Jackson and Wang (2013) showed that Americans spend more time per day on social media networking sites (SNS) than Chinese people. Among Chinese participants, 19% reported that they hardly ever use SNS, while 4% of Americans said the same. The number of friends varied between 0 and 3000, but those participants whose number of friends exceeded 1000 (4%) were removed from the study data. A significant difference was found in the number of friends: the Chinese had an average of 43 friends, while the Americans had 487 friends (Jackson & Wang, 2013).

An analysis of the influence of personal characteristics on SNS use in collectivistic and individualistic cultures revealed notable differences. Chinese individuals were found to be less extroverted, neurotic, and lonely, but more conscientious and shyer compared to Americans. Also, in China men were more extroverted than women, while the opposite was true in America. Significant differences were observed regarding the effect of family income on life satisfaction. While no relationship between income and life satisfaction was found among Americans, the effect was significant for the Chinese. As income increased, so did life satisfaction. A difference was also observed in the motives for using SNS. Unlike the Chinese participants, Americans highly valued using SNS to keep in touch with parents and family, friends and acquaintances they rarely see, meet new people, acquire information, and for other reasons. (Jackson & Wang, 2013.)

In Chinese participants, none of the Big Five Personality factors predicted the number of friends, time spent on SNS, and use of SNS for family communication. Agreeableness was positively correlated with SNS usage, and it predicted the personal importance of SNS and keeping in touch with acquaintances rarely seen. In addition, extroversion was a positive predictor and conscientiousness was a negative predictor of the need to use SNS to meet new people. In contrast among American participants, neuroticism negatively and conscientiousness positively predicted the number of friends on SNS. Conscientiousness predicted the personal importance of SNS and the use of SNS to keep in touch with their parents and family. Extroversion predicted that SNS is used to communicate with acquaintances rarely seen, to acquire information, and for other motives. Neuroticism also predicted SNS use due to other motives. However, no factor predicted time spent on SNS or contact with friends. (Jackson & Wang, 2013.)

How loneliness, shyness, and satisfaction affect SNS use revealed differences between Chinese and Americans. In Chinese participants, life satisfaction predicts the number of friends on SNS, the personal importance of SNS, the use of SNS to keep in touch with parents, family, and friends, to connect with acquaintances rarely seen, to acquire information and other reasons. Also, loneliness predicted the number of friends on SNS. Shyness negatively predicted the reason to use SNS to meet new people. In Americans, loneliness predicted the personal importance of SNS and time spent on SNS. Unlike the Chinese, Americans didn't have personal characteristics that predicted the number of friends on SNS, to keep in touch with parents and family, to connect with acquaintances rarely seen, or to acquire information. In addition, shyness negatively predicted using SNS to communicate with friends and positively predicted other reasons to use SNS. (Jackson & Wang, 2013.)

Conclusion

The study by Jackson and Wang (2013) compared Chinese and American SNS use and the factors affecting it. The study consisted of two parts. Firstly, participants completed questionnaires assessing personality traits, loneliness, shyness, and life satisfaction. Secondly, participants responded to inquiries regarding their SNS usage, covering the personal significance of SNS, engagement in various SNS activities, and metrics such as the number of friends and the weekly time spent on SNS.

In general, the study by Jackson and Wang (2013) revealed significant variations in the use of SNS between Chinese participants and Americans. Americans spent more time on SNS than Chinese and they had significantly more friends compared to the Chinese. Additionally, the Chinese were less extroverted, neurotic, and lonely, but more conscientious and shyer than the Americans. Furthermore, life satisfaction increased with income in China, while there was no corresponding relationship in the United States. Americans emphasized the use of SNS for communicating with family and rarely-seen acquaintances, while Chinese people valued the use of SNS for other reasons. In addition, the effects

of loneliness, shyness, and satisfaction on SNS use differed between Chinese and Americans, each of whom exhibited their characteristics in SNS use.

According to Jackson and Wang (2013), future research should investigate situations where cultural values override personal characteristics in determining different behaviours in the virtual world. Furthermore, future research should examine the effects of acculturation on virtual behaviour. Jackson and Wang (2013) suggest that examining first-generation Chinese Americans would provide insight into the significance of cultural values regarding the use and importance of SNS. Culturally integrated Chinese Americans are expected to behave like US participants, whereas isolated Chinese Americans are expected to behave like Chinese participants.

2nd Article: Culture and social media: The Relationship Between Cultural values and hashtagging styles

Goal of the article

The research by Sheldon et al. (2019) has two goals: first, the aim is to identify the characteristics of hashtags. Second, the research aims to find out the relationship between cultural values and hashtags. Researchers Sheldon et al. have defined three research questions: RQ1: On which platforms do people use hashtags the most? RQ2: Which dimensions can be used to describe the hashtag behaviour of social media users? RQ3: How do users' cultural values influence their use of hashtags?

Methods

Sheldon et al. (2019) implemented an online survey for social media users. The participants were recruited using a hybrid method and the respondents came from the American Midwestern University's student service and Amazon's MTurk U.S.A (Sheldon et al., 2019). The researchers suggest that the United States is a culturally heterogeneous country, and it offers an excellent opportunity to assess how individuals' cultural values vary in different behavioural patterns. Sheldon et al. (2019) included 222 people in the study, of which five participants were removed from the data because they didn't pass the attention check questions. In addition, 58 participants didn't use hashtags at all, so they were removed from the data afterwards. The final study included 149 participants, of whom there were 59 men and 90 women. The average age of the participants was 32. It's not clear from the article what happened to the 10 participants, as the total number of participants should be 159 based on the information.

The study began with the question of which of the three platforms, Twitter (now X), Facebook or Instagram, the participants use hashtags the most. Follow-up questions were tailored to the chosen platform and asked about participants' intensity of hashtag use, characteristics of their hashtags, cultural values, and demographics. These were all self-reported metrics. (Sheldon et al., 2019.)

Findings

The study by Sheldon et al. (2019) showed that participants use hashtags the most on Instagram, second on Twitter and third on Facebook. Participants used hashtags significantly more on Instagram than on Twitter and Facebook, between which there wasn't a significant difference in the number of hashtags.

Researchers Sheldon et al. (2019) divided hashtags into four categories:

- Inspirational: This category included mystical, inspirational, and provocative hashtags.

- Structured: This category included descriptive hashtags and summaries of user posts.
- Entertaining: This group included entertaining, funny, and informal hashtags.
- Artistic: This category included creative and artistic hashtags.

The research results showed that "structural" hashtags were the most common, with entertaining hashtags only slightly behind them. Artistic and inspirational hashtags were the least used. Although subtle differences were observed between platforms, they weren't significant. (Sheldon et al., 2019.)

The results of the study show that the power distance dimension has a significant impact on the intensity of the use of hashtags. However, the structural nature of hashtags doesn't vary between cultures. Collectivism, uncertainty avoidance, and masculinity seem to be associated with the most inspiring hashtags. In addition, Entertainment hashtags are most common when uncertainty avoidance is high. Collectivist and masculine cultural values also seem to be most likely to be associated with artistic hashtags. One interesting research finding is related to authoritarianism. Researchers found that participants used hashtags more often if they believed in an authoritarian society rather than a democratic one. (Sheldon et al., 2019.)

Conclusion

The study by Sheldon et al. (2019) examined the use of hashtags in social media. 222 people participated in the study, of which 149 participants were selected for the final sample. Most participants were women (90 people). The study asked which of the three platforms (Instagram, Twitter, or Facebook) the participants used the hashtag the most. In addition, the intensity of hashtag use, the characteristics of hashtags, and demographic information and cultural values were collected. All reported metrics were based on users' reports.

The research results suggest that power distance affects hashtag usage intensity. Although cultural values may influence how hashtags are used, the structure of hashtags appears to be common and constant across cultures. These results suggest that cultural values influence the style of using hashtags. Specifically, collectivistic, uncertainty-avoidant and masculine cultural values seem to correlate with the use of inspirational hashtags. Additionally, in cultures where uncertainty avoidance is high entertaining hashtags are favoured. In addition, collectivist and masculine values are associated with artistic hashtags. (Sheldon et al., 2019.)

Sheldon et al. (2019) consider that future research could concern how hashtags affect user perception, such as whether artistic hashtags give a creative impression of a person. Second, do hashtags change the image that is conveyed about the person and their posts? Third, do hashtags affect user reactions, such as the number of likes? Finally, researchers Sheldon et al. (2019) consider that companies may be interested in understanding hashtags and their effectiveness in different countries.

Overall conclusion

From the research articles, I learned that the cultural values of the physical world are also reflected in the use of social media. In collectivist countries, such as Pakistan, family and community are primary and they come before the interest of the individual, while in individualistic countries, such as Finland, individual freedom and independence are emphasized. This affects how people use social media in different cultures. In collectivist countries, social media is used more as part of a certain group, and activities on social media strengthen this connection. In individualistic countries, on the other hand, people focus more on highlighting and emphasizing their status. Personal characteristics also affect collectivistic and individualistic cultures in different ways.

Understanding these cultural differences is important in our project, where we deal with cultural differences in the use of social media in Pakistan and Finland. For example, we developed the "Content restrictions" feature, which uses artificial intelligence to identify culturally sensitive elements in images and prevent a person from being mentioned or tagged in comments or content if they have banned the content in question. With this, we aim to consider the values of cultures. In addition, we want to increase users' awareness of different cultures by providing them with information and content related to different cultures. The increase in knowledge not only helps when working on social media but also in studies and working life, because it increases our understanding of different cultures and the interaction between them.

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Onni Valaja Literature review

In this literature review I will examine two articles and discuss more in detail how they relate to web design and behavior especially in social media. Both article talks about user experiences and expectations relating to social media and their usage

1st article

Cross-Cultural Comparison of Nonverbal Cues in Emoticons on Twitter: Evidence from Big Data Analysis

In this first article researchers' goal was to test hypotheses on how different cultures value emoticon usage (Park et al, 2014). Researches had already in mind that collectivist cultures in east asia would favor vertical and eye-focused emoticons (e.g. ^_^) while individualistic western cultures would favor horizontal and mouth-focused emoticons (e.g. :)). Thinking was that in collectivist cultures restraining your feelings is valued which is why eyes would play a larger role in communication. In individualistic cultures emotional expressions are more open which why mouth is more explicit contour of expression.

To research this emoticon usage, researchers gathered data from twitter (54,981,152 users and their twitter data). These users are grouped by their home country. Researchers grouped them also based by hofstadter metrics and world bank data. Using emoticons found in wikipedia, researchers compared them to user's emoticon usage in twitter.

By comparing these writers were able to confirm some hypothesis they had while research had some notable limitations. Firstly they confirmed that collecitivist cultures e.g. south korea favor vertical emoticons while western individualistic cultures favored horizontal emoticons. Also study found level of collectivist - individualistic usage in metrics can lend to level of horizontal-vertical emoticon usage in twitter. Another important hypothesis which was confirmed was that collectivist cultures favor eye

oriented emoticons while individualistic favor mouth oriented emoticons. They answered these by using how many emoticons appear in different countries and turn that into statistics.

But researches brought some notable issues regarding set up: while twitter has some usage in higher gdp countries, it can limit some data from other countries which might fit in collectivist cultures. So higher gdp means higher twitter usage, but it limits other countries. Also the reach of twitter was problematic (china has banned twitter which can give limiting results)

Despite the limitations this is an important finding because it shows that cultural background can affect communication behavior in social media. This can used as a design rule when designing communication platforms in different countries.

To put it succinctly, researchers studied emoticon usage in different country users in twitter by basing it on hofstadter metrics and found correlation emoticon usage by different user backgrounds.

2nd article

Cross-Cultural Differences in the Use of Online Mental Health Support Forums

In this article Pendse et al (2019), researches looked on how people in non-western countries (India, Philippines and Malaysia) express themselves in mental health forums (Talklife and 7cups) compared to western users. This includes what kind of language they use, how they interact with other users and how much medical language they use in these forums. This research was done due to lack of actual research on non-western users in mental health forums and especially for design ideas to help different users. In medical anthropology relating to mental health, people in different cultures might express their distress in different way to stigma (for example in india depression can wide variety of mental health problems).

For data and methods, researchers used geo-tagged data from both talklife and 7cups (it was tagged country and not for specific location). Information was anonymized. So for talklife they had data from 10,523 from indian users, 3370 from filipino users, 3370 from malay users and 14,571 from majority users (majority users are users from not sample countries) in talklife. Due to having less filipino and malay users, 7cups focused on 6055 indian users and 18581 american users. When they had collected the users (with consent and help of these services) they compared the language to medical dictionaries e.g. ICD and had singular word combination, two word combination and three word combination to compare between the users.

When analysis was done some interesting things were found. For instance Filipino and Malay users provoked religion in their post which authors noted is one way in these cultures to evoke distress. In all of these post, they evoked community more than western users. Indians talked about us and friends, while malays and filipinos evoked solitude in their speech. When it comes to medical language these posters from minority sample (india, philippines and malaysia) used less medical language than western users. Still when minority sample user used medical language it was as varied as western user. There were some platform differences (7cups separate users to subgroups by diagnosis type, which leads to more medical language usage despite indians still using it less). Also it was found out that minority sample countries had affinity to their own nationalities, especially indians, leading to indians communicating more with each other on threads. Also minority sample countries evoked their home country more than western users. So research answered the questions in mental health forums (minority sample use less medical language, express themselves differently and support own groups).

So put it perspective, researchers looked into non-western users in mental health forums, analyzed anonymized geolocated data, compared it to medical dictionaries and found users having their own specific ways to express themselves. So this information is important as in discussion section gives ideas how to improve this services for these users (own country section and predictive language). Study had some issue (ethnic groups could not be infered for example).

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Literature review by Talia Qureshi, theme: Social Media Usage in Different Cultures

Introduction

This literature review is structured with the aim to explore the relationship with cultural dimensions and social media use. Understanding how cultural factors influence individuals' attitudes and behaviors towards social media is important for our project, and the findings will provide us with strong evidence to direct it. Our project is to identify "Cultural Impacts on Social Media Usage in Pakistan and Finland"; thus, the chosen articles are related to understand Cultural Influences on Social Media Usage in different nationalities.

1st article:

Title: Social Media Adoption and National Culture: The Dominant and Nuanced Effect of Individualism-Collectivism

Goal of the article

This study by Stump & Gong (2020) analyzes how individualism-collectivism affects the adoption of social media at the country level. The researchers are combining ideas from three different theories to understand this: Hofstede's theory about cultural differences between countries, Roger's theory about how new ideas spread, and Granovetter's theory about the strength of relationships between people.

Methods

The researchers utilized secondary data from reputable sources, including Hofstede's cultural dimension scores, We Are Social's 'Digital in 2017 Yearbook', CIA World Factbook, World Bank Group, and World Population Review. Data from 101 countries were analyzed using ordinary least squares (OLS) regression to examine the relationships between cultural dimensions and social media adoption.

Findings

The article written by Stump & Gong (2020), shows how different cultural values affect people's behavior. Specifically, looking at individualism (valuing independence and self-expression) versus collectivism (valuing group harmony and cooperation,) as well as long-term orientation (planning for the future instead of just focusing on the present). This study offers valuable insights into the relationship between cultural dimensions and social media adoption, highlighting several theoretical implications and managerial considerations.

Rogers' diffusion of innovations theory explains how adoption occurs within a social system. Hofstede's national cultural framework is used to measure cultural dimensions like individualism-collectivism, masculinity-femininity, power distance, uncertainty avoidance, long-term orientation, and indulgence-restraint. Tie strength theory by Granovetter is applied to understand interpersonal relationships and innovation diffusion.

The findings suggest that considering cultural aspects is crucial when developing social media applications for global audiences. By integrating Hofstede's cultural dimensions and Granovetter's tie strength theory, the study provides a comprehensive understanding of the motivations and processes underlying cultural influences, particularly individualism-collectivism. One notable finding is that the relationship between individualism-collectivism and behavior is not straightforward, it follows a curved pattern, indicating that different cultural traits may shape adoption patterns.

From a managerial perspective, the study emphasizes the importance of culturally sensitive themes in social media marketing. Marketers can tailor their strategies to align with cultural preferences, leveraging themes that resonate with specific cultural values. Furthermore, cultural positioning evidence can be used to design and promote apps, enhancing user engagement and satisfaction. This is not directly related to our project but this finding of culturally sensitive themes in social media can help us to improve our idea for spreading cultural awareness in the people. As one of the problems found in our research and we also define that in our video is that one person was unaware with the other person's culture which resulted in posting a picture that was a trouble for another person. Thus, providing them with an option to explore culturally sensitive themes-based content will be a valuable finding for our project.

Conclusion

In conclusion, the literature reviewed underscores the significance of cultural dimensions in shaping social media adoption patterns. Studies at both individual and collective levels highlight the role of adopted cultural values in influencing attitudes and behaviors towards technological innovations. Additionally, tie strength theory provides insights into the diffusion of innovations within cultural contexts, emphasizing the importance of interpersonal relationships in adoption processes.

2nd article:

While exploring cultural affects for using social media in Pakistan and Finland, it is important to understand the cultural values of both nations in the context of social media. Thus, the chosen article reflects on the factors influencing the use of social media in Pakistan.

Title: The effect of social influence, trust, and entertainment value on social media use: Evidence

from Pakistan

Goal of the article

The main goal of the article Abbas (2020) is to investigate the factors influencing the sustainable adoption of Social Media sites in Pakistan. Specifically, the researchers aimed to explore the roles of social influence, trust, and entertainment value in determining users' intentions to continue using social media.

Methods

The research was conducted in Lahore, Pakistan, targeting active Instagram users to explore factors influencing sustainable social media use. Data collection involved a convenient sample technique at malls, with 353 usable questionnaires obtained. A 5-point Likert scale measured variables like internalization, compliance, identification, entertainment value, sustainable intention to use SNS, sustainable pervasive adoption, attitude, and trust. Validity and reliability of scales were ensured through pilot testing and adaptation from established studies. The partial least squares (PLS) technique was employed for analysis. Overall, the study aimed to understand the dynamics of social media use and provide insights for sustainable Social Media development.

Findings

The study employs the Use and Gratification Theory (UGT) to examine the role of social influence processes, including compliance, internalization, and identification, in sustaining SNS usage. Internalization and identification positively influence sustainable intention to use SNS, consistent with previous findings. Thus, Abbas (2020) stated that users tend to prefer platforms aligned with their values, fostering positive brand loyalty and sustained engagement.

Contrary to internalization and identification, compliance exhibits a negative influence on sustainable intention to use SNS. Users may experience dissatisfaction and stress when unable to conform to societal norms, leading to reduced usage intentions. Compliance also depends on peer influence, with peer groups acting as role models and promoters of site regulations.

However, Abbas (2020) highlighted that entertainment emerges as a significant factor promoting sustainable SNS use, aligning with users' desires for fun and pleasurable experiences. Trust plays a crucial role, positively influencing attitude and user behavior towards SNS. Positive attitudes, in turn, correlate with sustained usage intentions and user recommendations. Moreover, another finding is that attitude not only directly influences intention to use SNS but also partially mediates the relationship between trust and intention. Users' positive attitudes towards platforms like Instagram significantly impact their sustainable usage intentions for various purposes.

Seven out of eight hypotheses proposed in the study were supported by the data, indicating meaningful insights. Internalization and identification of social influence processes were found to positively influence users' sustainable intention to use social media. Compliance, however, exhibited a negative impact on sustainable usage intentions. Additionally, the study highlighted the significant role of entertainment value and trust in promoting sustainable SNS use. Positive attitudes towards SNS were identified as crucial for sustaining usage intentions, partially mediating the relationship between trust and intention to use SNS.

Conclusion: The study provides valuable insights into the factors influencing the sustainable adoption of SNS in Pakistan. By employing PLS-SEM and analyzing survey data, the researchers shed light on the roles of social influence, trust, and entertainment value in driving users' intentions to continue using SNS. The findings underscore the importance of considering these factors in designing and

managing SNS platforms for sustainable user engagement. Future research could further explore these factors in diverse cultural contexts and investigate additional variables influencing SNS adoption.

Overall Conclusion

As our objective is to come up with design ideas for more cultural friendly social media app, the literature review of both articles helped to identify the importance of cultural dimensions in shaping social media usage patterns and behaviors. I have learned the complex relationship between individualism-collectivism and social media adoption, revealing that cultural values play a crucial role in influencing users' behaviors and preferences on digital platforms. I also found the importance of incorporating cultural insights into social media marketing and app design strategies to effectively engage diverse audiences and enhance user satisfaction.

Similarly, the second article delves into specific factors—social influence, trust, and entertainment value that drive sustainable social media use in Pakistan. Understanding these factors is essential for designing user-centric social media experiences and fostering positive attitudes towards digital platforms. Incorporating cultural sensitivity into digital strategies will be beneficial in promoting inclusive, meaningful, and sustainable social media interactions worldwide.

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Literature review by Kainat Khizer theme: Cultural Awareness by means of social media

Introduction:

These articles were chosen to understand if social media is the suitable form of cultural awareness. and how we can make the best use of social media to aware the people about different culture to avoid hurting the sentiments of people on social media.

1st article:

Title: YOUTHS' AWARENESS TOWARDS SARAWAK'S MALAY CULTURAL HERITAGE: SOCIAL MEDIA

Goal of the article

Through empirical research and analysis, this article seeks to provide insights into how social media platforms, such as Facebook, YouTube, and Twitter, contribute to the formation of cultural awareness among young individuals, with implications for education, policy, and societal discourse.

Methods

The research methodology involves formulating hypotheses to explore the relationship between social media usage and cultural awareness, with data collected through surveys to assess demographic factors, social media habits, and perceptions of cultural knowledge.

Findings

The study found that Facebook is very popular and has a big impact among social media platforms. It also discovered that people mainly use social media for education and entertainment. Additionally, the research showed that social media helps people become more aware of different cultures through the content they share. Social media also brings up important topics that interest young people, encouraging them to stay informed. Finally, the study found that young people heavily depend on social media for information about their generation.

Conclusion

The researcher suggests teaching young people how to use social media wisely for their benefit. It's also important for authorities to monitor the content shared on social media platforms. Young individuals should choose media content that promotes cultural understanding and avoid anything negative and more importantly social media can be a valuable mean to spread cultural awareness among youth.

2nd Article

Title: THE PRIORITIES OF SOCIAL MEDIA SITES AS A SOURCE IN SHAPING CULTURAL AWARENESS AMONG THE YOUTH SEGMENT A FIELD STUDY FOR THE STUDENTS OF WASIT UNIVERSITY

Goal of the Article:
The goal of this study is to explore the awareness of Sarawak's Malay youths regarding their cultural heritage, particularly focusing on Traditional Malay Clothing, Music, and Dances. Additionally, it aims to assess the role of social media in promoting and preserving Sarawak's Malay Cultural Heritage among the youth population.

Methods:

The study utilized a quantitative research method involving an online survey to collect data from participants. A total of 112 undergraduate students from a local university in Sarawak were recruited to complete the survey. The survey consisted of multiple sections addressing various aspects of Sarawak's Malay Cultural Heritage, including demographics, awareness levels, sources of information, importance of heritage sustainability, and the role of social media. The survey was distributed using Google Forms and disseminated via email and messaging services to ensure reach and participation. Participants were required to respond to questions within each section, providing

their opinions, perceptions, and experiences related to Sarawak's Malay Cultural Heritage. Data collected from the survey responses were then analyzed using statistical software (SPSS) to derive meaningful insights and conclusions.

Findings:

The findings of the research shed light on several key aspects of Sarawak's Malay Cultural Heritage and the awareness levels among youths. The survey revealed that while there was a considerable level of awareness among the respondents regarding certain elements of Sarawak's Malay Cultural Heritage, such as traditional clothing and certain cultural practices like Bertandak and Zapin dances, there were gaps in awareness regarding other aspects, particularly traditional music and fabric like Sarawak Songket.

Moreover, the study highlighted the pivotal role of family and educational institutions in shaping awareness and understanding of cultural heritage among youths. Family members were identified as the primary source of information for many respondents, underscoring the importance of intergenerational transmission of cultural knowledge.

Furthermore, the findings underscored the willingness of the participants to sustain and preserve Sarawak's Malay Cultural Heritage, with a majority expressing pride in their heritage and a desire to contribute to its preservation through various means. Notably, social media platforms were recognized as effective tools for promoting and sustaining cultural heritage, with YouTube emerging as the most preferred platform among the respondents.

Conclusion:

In conclusion, the study underscores the importance of preserving Sarawak's Malay Cultural Heritage, as it plays a crucial role in shaping the identity of the youth. Efforts to sustain this heritage should leverage social media platforms to make cultural information more accessible and engaging to younger generations. Continued awareness-building initiatives are essential to ensuring the long-term preservation of Sarawak's rich cultural legacy.

Overall Conclusion:

Both studies emphasize the importance of utilizing social media platforms to promote cultural awareness and heritage preservation among the youth. By harnessing the power of digital platforms, educators, policymakers, and cultural advocates can engage younger generations in meaningful dialogue and ensure the continued vitality of diverse cultural traditions. On the other hand spreading cultural awareness can help people to understand the perspective of other cultures leading to respect towards the difference in values. The offensive content for some can be avoided if the awareness is done in an assertive manner.

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Bibi, Z. H., Johari, A., & Bujang, A. (2019). YOUTHS'AWARENESS TOWARDS SARAWAK'S MALAY CULTURAL HERITAGE: SOCIAL MEDIA. Technology Management, 4(14), 18-25.

Literature review by Tram Nguyen, theme: How cultural differences affect Social Media Usage.

Introduction

In the world of cross-cultural design, cultures and technology are strongly connected and its relation is important to consider. Our group's project aims to explore how cultural differences influence social media and how people from various cultural backgrounds use social media differently as well as the ethical issues they are facing regarding privacy, thus I selected these relevant articles: "Cross-cultural differences in the adoption of social media" and "Does Cultural Difference Matter on Social Media? An Examination of the Ethical Culture and Information Privacy Concerns,". By exploring these articles, this document will focus on how significant it is to consider cultural differences in designing social media platforms.

1st Article: Cross-cultural differences in the adoption of social media" and "Does Cultural Difference Matter on Social Media? An Examination of the Ethical Culture and Information Privacy Concerns.

Goal of the Article

According to the article, social media plays an important role in influencing decision-making for product purchasing, political participation, and online communities, thus cultural differences strongly matter on the usage of social media. This article aims to explore the impact of perceived ethical culture and information privacy concerns on social media behaviors between two different cultures - The U.S. and Korea. By examining those two factors through different hypotheses and the survey questionnaire method, the article research on how cultural differences influence attitudes and behaviors of users regarding information sharing on social media channels. The research methods and its valuable findings helped to contribute to the understanding of cross-cultural nature in online platforms and emphasize the significance of considering cultural factors in shaping and promoting social media behaviors.

Methods

The research applied a survey questionnaire method to gather data from social media users of the U.S. and Korea markets, following established procedures from prior literature. This methodology allows gathering systematically the insights into participants' perceptions of ethical cultures, information privacy concerns, and information-sharing behaviors on social media platforms. A pilot study was conducted as in-depth interviews with heavy social media users and IT professionals and feedback from the respondents were helpful to refine the questionnaire. The survey approached participants by an online link sending to university communities, collecting 389 usable responses. Partial least square techniques and bootstrapping procedures were utilized for the data analysis, ensuring reliability and construct validity. There is a balanced gender distribution and mainly university students participating in the research.

Findings

The research findings supported given hypotheses on the associations between ethical culture, information privacy concerns, and information-sharing behaviors. It indicates a positive association between perceived ethical culture and users' information-sharing behaviors on social media environments. On another hand, information privacy concerns are negatively associated with the information-sharing behaviors of social media users. Furthermore, the research shows differences in the impact of these factors between social media users in the U.S and Korea, highlighting the importance of cultural context in promoting responsible behaviors on the online environments. Although the research provided valuable insights, it also highlights a research gap regarding the need for additional investigation into the complex interactions between cultural factors and social media behaviors in a wider range of cultural contexts than just the United States and Korea.

Conclusion

The research highlights the importance of considering cultural factors in behavioral models regarding social media environments and suggests implications for the development of technology and digital systems, especially Artificial Intelligence (AI) equipped computer systems, that explain diverse human behaviors influenced by cultural differences. It suggests that providing a strong belief of online privacy protection on information-sharing activities has a very positive effect on users. Moreover, the study indicates the opportunities for future exploration in understanding the complex relationship between cultural factors and social media behaviors across diverse cultural contexts.

This literature review provides a comprehensive and critical analysis of the article's goal, methodologies, findings, and implications within the context of cross-cultural design in my personal perception and cultural learning purpose. Through its exploration of cultural influences on social media behaviors, the research contributes to a broader and more scientific understanding of the complexities in online interactions across diverse cultural backgrounds. The article topic has a strong connection with my group's target cultural exploration topic - how cultural differences affect using social media and what cross-cultural design could help to address the issues. This was one of the valuable sources to refer to my group project.

2ⁿᵈ Article: Cross-cultural differences in the adoption of social media.

Goal of the Article

The study "Cross-cultural differences in the adoption of social media" by Alsaleh, Dhoha, Elliott, Michael, Fu, Frank, and Thakur, Ramendra, published in the Journal of Research in Interactive Marketing, has taken on a mission to explore further into the factors that influence consumers' attitudes and intentions towards using Instagram. It also examines specifically the role of Individualism - with USA as an example for individualistic culture, versus Collectivism - with Kuwait as collectivist culture, in shaping social media adoptions. As a consequence, the researchers aim to contribute to the existing body of knowledge in the context of consumer behavior in cross-cultural settings, especially in relation to social media platforms. Moreover, a rough "modified TAM model" application was used to predict Instagram's customers' mood and usage as an expanding social media platform.

Methods

The researchers collected data from undergraduate business and MBA students in both Kuwait - from a medium-sized private university and the USA - from a Midwest medium-sized public institution. Despite focusing on college students as the main demographic, the study still holds valuable theoretical and statistical insights applicable to broader cultural contexts. By examining the attitudes and intentions of individuals from two very different cultural backgrounds, it provides a thorough understanding of how cultural values, personal experience, and contextual conditions could make significant influences on social media adoptions.

Collecting 813 questionnaires overall, a quantitative approach was utilized by the researchers using Exploratory Factor Analysis (EFA) and Confirmatory Factor Analysis (CFA) to assess and validate the measurement models. Structural Equation Modeling (SEM) was employed to test different hypotheses and calculate their affection regarding Instagram's user's attention and usage, as well as the factors that influence those ever-changing reactions.

Via statistical analysis, different hypotheses on factors and their relationships were tested, with some of them present strong supported numbers: Perceived ease of use, Perceived usefulness, Perceived critical mass, Trustworthiness, Perceived enjoyment, Social influence, and Attitude. It is also important to notice that results from the Kuwait and USA's students provided slight differences. The results serve not only as precise calculations from statistical and data managing tools, but also indicate a significant relationship between the factors and consumers' attitudes and intentions towards Instagram.

Findings

Through theoretical hypotheses and in-field examination, the study uncovered significant insights into the crucial of social media adoptions, with some of the most important factors including Trustworthiness and Perceived enjoyment. Trustworthiness emerged as a key factor shaping consumers' attitudes towards social media platforms, aligning with prior theory backgrounds emphasizing its role in information exposure and user participation. Additionally, the study highlighted the positive impacts of Perceived enjoyment on attitudes and adoption intentions towards social media - in this case Instagram, indicating the evolving role of the platforms, and those similar

to it, as diverse entertainment channels. However, the findings also presented some unexpected results, such as the less-significant impacts of Perceived critical mass and Social influence on Perceived usefulness and Attitudes towards social media, respectively. Moreover, the study revealed notable cross-cultural differences in Attitudes and Trustworthiness towards online platforms between Kuwait and US students, suggesting the influence of socio-political factors on individuals' perceptions and usage patterns.

While the modified Technology Acceptance Model (TAM) generally aligned with expectations, the study identified two counterintuitive findings. Firstly, the presence of a large user base, as indicated by Perceived critical mass, did not significantly enhance Perceived usefulness of social media platforms. Additionally, the influence of Social influence on Attitude towards social media did not present significant results, implying a reduced capability among the sampled individualistic-minded students from the US. Furthermore, the study unveiled crucial cross-cultural disparities in Attitudes and Trustworthiness towards social media between Kuwait and US students, emphasizing the impact of both political and social factors on individuals' perceptions and usage patterns of those social medias.

Conclusion

In conclusion, while the research sheds light on the cross-cultural differences in social media adoption, certain limitations are still there and future research efforts could certainly apply those. Firstly, relying on college students from both the USA and Kuwait during the research methods poses both convenience and restriction to the external validity of our findings. Further validation of cultural arrangements based on nationality is necessary, taking into account that students may not fully embody the cultural traits associated with their countries. Secondly, the focus on Instagram - a dynamically continuous innovation by then, requires extra caution and consideration in generalizing findings to other social media platforms, especially those serving diverse purposes or demographics. Moving forward, future research could explore more specific adoption patterns across various social media platforms, including professional networking sites like LinkedIn. Comparative analyses of social media usage in different contexts could illuminate the interplay between cultural disparities and adoption behaviors. As a conclusion, recognizing the role of cultural and geographically characteristics in various countries for specific social media strategies is a crucial step for approaching and designing cross-cultural contents. By doing so, more concrete evidence could be found and hence provide a more sympathetic understanding towards factors influencing social media adoption across diverse cultural environments.

References

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2.2 State-of-the-art

In our project exploring social media culture in Finland and Pakistan, we analyzed several state-of-the-art sources to deepen our understanding of cultural influences on online behavior and user engagement. Here's how each source contributed to our research and insights:

1. Documentary: "The Social Dilemma" (Netflix)

"The Social Dilemma" sheds light on the impact of social media on society, including its influence on cultural behaviors and norms. The documentary explores how platforms like Facebook and Instagram shape user experiences and behaviors, touching on themes such as addiction, polarization, and misinformation. We drew inspiration from this documentary to critically analyze the broader implications of social media use and its intersection with cultural dynamics in our study.

2. Book: "The Culture Map: Breaking Through the Invisible Boundaries of Global Business"

"The Culture Map" by Erin Meyer provides a framework for understanding cultural differences and their implications in global contexts (Meyer, 2014). By applying insights from this book, we identified key cultural values and attributes that shape social media usage patterns in Finland and Pakistan. This helped us contextualize our findings within broader cultural frameworks and recognize how cultural nuances influence digital interactions.

3. Stanford University Research on Cultural Values and Online Behavior

The research conducted by Stanford University researchers, particularly comparing U.S. and Japanese online users, offered valuable insights into cultural preferences and tendencies in social media content consumption. Understanding that users from different cultures respond differently to online stimuli, including emotional content, helped us interpret our observations in Finland and Pakistan. We incorporated this research to validate and contextualize our findings regarding cultural influences on user-generated content and engagement strategies (Ramachandran, 2021).

By integrating these state-of-the-art sources into our project, we improve our analysis for our project work. These sources provided theoretical frameworks, empirical evidence, and real-world examples that deepened our understanding of how cultural values, norms, and behaviors shape digital interactions and user experiences on social media platforms.

2.3 Reflection on Cultural Models

When we look at the cultural subjects when it comes to internet culture and how it twines with traditional culture, there are many ways to show this. This can be reflected in cultural models, especially Hofstede model. When it comes to web design, some cultures put emphasis more on certain things. In one study Hofstede's model and Hall's model were compared how government websites were designed. Chinese gov websites put a lot of emphasis on information on websites (much more text and much more photos) compared to US websites which have less text and fewer photos. This could be thought of as China having high context reliance when it comes to situational information, so some elements need some context around it and more text while us government website information is clearer and needs less text. In Hofstede's model, this comes to fruition also: the Chinese gov website has a less oriented web structure (navigation through links is not cut and clear, all the needed links are on the main page). This can be thought of as China having less explicit uncertainty

avoidance than the US gov website which has a more spread out and clear structure (Goyal, N. et al. 2012).

Cultural models can also be thought of in social media apps which is our focus. In one of my research, there were done studies on mental health forums in South Asia. These communities' communication was more focused on familial issues than Western forums. This can be thought of as Hofstede's model in a collectivist sense, so South Asian communities have much more family and community focus. (Pendse et al, 2019).

So, in a general sense, social media content is influenced by cultural model theses. We may think in low-context cultures there is less need for implicit explanations for things in posting while in much more high-context cultures there might be a need to say things more implicitly. In Hofstede's model, many factors influence social media structures and so on.

2.4 Study with the Cultural Probes

In this project, we conducted cultural research using a photomontage and interview. Our goal was to understand what type of content the participants considered happy and annoying, what kind of content they would like to post in the future and to find out if there are cultural differences in views.

2.4.1 Methods

This project focuses on exploring if there are cultural differences in social media usage. We decided to choose a method of photomontage and interview. Participants were sent a consent form in which we explained what the purpose of the study is, personal data is collected during the study, and it will be treated as confidential and used only for this course and will be destroyed after the course ends. Finally, we ask permission to collect personal data.

After receiving the consent form, we sent tasks to the participants by email and asked them to collect social media content that they consider happy and annoying and what would their future posts be like and then send the content they collected with explanations to us.

The email sent to the participants:

Hello,

We're conducting a study on content preferences on social media platforms, and we would love your participation! Below are a few tasks we'd like you to complete:

1. Happy Content: Please take some time to browse your favorite social media platforms and capture screenshots, images, or short videos of content that makes you feel happy. This could include heartwarming stories, funny memes, inspiring quotes, beautiful landscapes, or anything else that brings a smile to your face. Feel free to provide a brief description or explanation for each piece of content you capture.

2. Annoyed Content: Similarly, we'd like you to browse social media and capture screenshots, images, or short videos of content that annoys or irritates you. This could include clickbait articles, spammy advertisements, negative news stories, offensive comments, or anything else that detracts from your social media experience. Again, feel free to provide a brief explanation for each piece of content you capture.

3. Future Post: Lastly, think about a post you might create and share on social media in the near future. It could be anything from a personal update to a photo of your latest meal, a funny anecdote, or an opinion on a current event. Describe what your post might be about and why you'd like to share it with your social media followers.

Once you've completed these tasks, please send us your findings in an email with the captured images, screenshots, or videos attached. We'll review your submissions and follow up with an interview to discuss your experiences and insights further. We hope you enjoy participating in this task, and we look forward to hearing from you soon!

Best regards,
Team TikTok

The photomontage was followed by an interview. Here are the interview questions:

1. What is your nationality?
2. What is your age group?
    under 25
    25–34
    35–44
    45–54
    55–64
    over 65
3. What social media platforms do you use?
4. How often do you use social media?
5. Describe what pictures you collected.
6. Explain why you chose these pictures.

In the concept design phase, we sent the participants additional questions to learn more about cultural differences.

1. Could you please share according to your culture, what contents are sensitive or annoying that you don't want to see and interact on Instagram?
2. According to your culture, what do you think Instagram is missing and you expect to have? (it can be a feature or content you look forward to see).

In the analysis of the results, we used the Affinity diagram, which helped to organize the answers given by the participants on the given topics. The findings are discussed in the Results section.

2.4.2 Participants

Five participants took part in our cultural research. All participants were aged between 25 and 34. Two of them were Finnish, while one participant was Vietnamese, one Brazilian and one Pakistani. Participants used social media platforms such as Facebook, Instagram, Locket, LinkedIn, TikTok, BeReal, X, YouTube, and Snapchat. All the participants use social media daily. Participants use social media for an average of about two hours per day, as reported by their responses. More detailed participant information is provided in Table 1, where each participant's details are outlined in separate columns.

Table 1. Background information of the participants

	Participant 1	Participant 2	Participant 3	Participant 4	Participant 5
Nationality	Vietnamese	Finnish	Finnish	Brazilian	Pakistan
Age group	25–34	25–34	25–34	25–34	25–34
Social media platforms	Facebook Instagram Locket	Instagram Facebook LinkedIn	Facebook Instagram TikTok BeReal X LinkedIn YouTube	Instagram Facebook TikTok	Instagram Snapchat Facebook account but uses it rarely
Social media frequency	About 2 hours a day	Very quickly daily. Sometimes may spend more time.	Daily	About an hour or two each day	maybe 2-3 hours every day

2.4.3 Results

The photomontage of Happy content revealed five themes: animal pictures and videos, received comments, humorously worded news, positive posts, and family and kids. Three of five participants considered animal pictures and videos as happy content, while one participant considered humorously worded news as such, and one mentioned pictures and videos related to family and kids as contributing to their happiness. In addition, one participant expressed happiness when seeing heartwarming comments or messages. Also, positive news, opportunities, uplifting events, and insights for personal growth were mentioned. The following quotes provide insights into participants' experiences with happy content:

"Seeing cute animals and positive news brings me joy and uplifts my mood."

"These images evoke feelings of happiness and warmth, providing a welcome break from the stresses of daily life."

"I usually look at pictures and videos of animals that are funny and put me in a good mood."

"It's like in my culture, families are very close to each other"

"I love kids. And then like I said, we are like at least in our culture and in especially in my family, we are close knitted."

"that made me really happy because it shows the guy in two roles. Like he is a father, and he is a husband as well and how well he is balancing both of the roles."

"I appreciate informative posts that provide valuable insights or opportunities for personal growth."

The results were combined into an affinity diagram, which is presented in Table 2.

Table 2. Affinity diagram of Happy content

Happy content on social media				
Animal pictures and videos	**Received comments**	**Funnily worded news**	**Positive posts**	**Family and kids**
"they are mostly pet pictures"	"When I see heartwarming comments or messages, I feel happy and empathy"	"Mount Everest shit problem made me laugh. It was funnily worded"	"posts highlighting positive news, opportunities, and uplifting events"	"video where a daughter and a dad are bonding over a song, and they are dancing"
"The picture where the little girl is sitting on a horse with a happy face makes me laugh and feel good"			"I appreciate informative posts that provide valuable insights or opportunities for personal growth"	"I could see the happiness in the girl's eyes and that made me really happy"
"adorable images of animals, particularly cats"				"the 3rd video that made me happy is of my nephew and niece"
"I feel really happy and stress-released when I see pets' pictures"				"a wife and a daughter are standing close to the camera and then the father standing like in the back of the camera"

The photomontage of Annoying content on social media contains seven distinct themes: meaningless memes, unclear or frustrating content, news about the personal lives of celebrities, negative news, stupid content, inappropriate or harmful content, and misinformation content. Participants expressed annoyance towards content that didn't interest them or that they found confusing or distressing, such as news about injustice and negative events happening in the world. Additionally, participants noted frustration towards content that was offensive, racist, or degrading, as well as information that lacked objectivity or scientific evidence. One participant also considered meaningless memes as a waste of time. Specific quotes from participants include:

"I avoid content that is confusing or distressing, such as news about injustice and negative events happening in the world."

"This shouldn't happen. This makes me angry and sad."

The outcomes of the analysis were collated and summarized in an affinity diagram, which is showcased in Table 3.

Table 3. Affinity diagram of Annoying content

			Annoying content on social media			
Meaningless memes	**Unclear or frustrating content**	**News about the personal lives of celebrities**	**Negative news**	**Stupid content**	**Inappropriate or harmful content**	**Misinformation content**
"meaningless memes make me feel time-wasting"	"those where I don't understand the context or the content isn't clearly explained"	"news about the personal life of celebrities makes me feel annoyed because it doesn't have anything to do with me and I don't think people should care that much about other people's life"	"seeing news about injustice and negative events can be upsetting and overwhelming"	"Jake Paul decides who wins the diss battle"	"People are degrading each other for no obvious reason"	"when some people are trying to give advice, information or guidance on something but it's either objective or not scientific-proven"
			"The news about how a mother with a suicidal child had been sent home from the hospital made me so angry"		"How are you using someone else's work and putting it under your name?"	
					"sensitive political topics or mock Vietnamese traditions or culture that can be offensive to locals"	
					"being racist towards someone who has not so fair complexion"	

From Future posts emerged eight subthemes: trips, food, pets, artwork, funny content, related to work, friends and game collection. Two out of five participants mentioned posting about their trips to capture memories and photos and remind themselves to prioritise making trips with friends more often. One participant posts work-related content on LinkedIn, shares pictures of friends on Instagram, dog pictures on X, and humorous posts about his game collection on TikTok. Two participants do not post frequently, but when they do, one shares pictures of food, friends' pets, and her artwork, while the other posts funny comics or anecdotes about humorous incidents that have happened to her. The following quotes provide insights into participants' future posts:

"some pictures of my last trip with friends or family. I would like to post this because I could keep the pictures and memories in easy access."

"I wanted to post it on Instagram. Just for the sake of memories and maybe also a reminder that I should make, I should do those trips more often with my friends."

"I may post funny cartoons or something funny that has happened to me."

The collected results were integrated into an affinity diagram and are displayed in Table 4.

Table 4. Affinity diagram of Future posts

Future posts on social media							
Trips	**Food**	**Pets**	**Artwork**	**Funny content**	**Related to work**	**Friends**	**Game collection**
"some pictures of my last trip with friends or family"	"either from home or eat-out"	"dog pictures"	"most of the time they're my own work"	"funny cartoons or something funny that has happened to me"	"work-related, perhaps about myself"	"if I get a good descriptive picture of my friends"	"semi-humorous posts from my own game collection"
		"Friends' pets"					

In the category of Culturally sensitive content, we identified five main themes: varying cultural perspectives, politics, violence, "Ads, spam, and scam", and cultural sensitivity. Two participants mentioned politics as content they prefer not to see on social media. Additionally, there were mentions of content that mock Vietnamese traditions or culture, which can offend locals, violence, excessive advertisements, spam messages, and scams. One participant noted that while slaughter may be common in some cultures, it is not something Finnish people are accustomed to seeing.

The results are displayed in the affinity diagram in Table 5.

Table 5. Affinity diagram of Culturally sensitive content

Culturally sensitive content				
Varying cultural perspectives	**Politics**	**Violence**	**Ads, spam and scam**	**Cultural sensitivity**
"Finnish people are not accustomed to seeing slaughter, even though it is commonplace for some"	"In Brazil, some things we don't like to see on Instagram are too much talk about politics or violence"	"In Brazil, some things we don't like to see on Instagram are too much talk about politics or violence"	"We also don't like when people post too many ads or spam"	"mock Vietnamese traditions or culture that can be offensive to locals"
	"contents that discuss sensitive political topics"		"mostly about jobs or business opportunities, the scam gives tricky information and tries to take your money"	

After analysing the missing features on Instagram, we identified four subthemes: improved shopping, reels in themes, content filters and promoting cultural diversity. Three out of five participants expressed a desire for filtering options to easily view content they're interested in and avoid content they're not interested in. One participant also mentioned wanting Instagram to enhance its shopping feature so users can check out items without leaving the app to visit a store's website. Additionally, there was a suggestion to have a feature that promotes cultures by helping small businesses and creators from different backgrounds get noticed.

Detailed information is available in the affinity diagram presented in Table 6

Table 6. Affinity diagram of Missing features on Instagram

Missing features on Instagram			
Improved shopping	**Reels in themes**	**Content filters**	**Promoting cultural diversity**
"when a person wants to quickly check out something from a shop, they can do so on Instagram without actually having to go to the shop's website."	"it would be useful if the user could choose what kind of clips they want to watch"	"the option to define the content they don't want to see"	"Other than that to promote cultures there could be a feature that helps small businesses and creators from different cultures to get noticed"
		"some effective content filters, and it should be clear what one wants to convey"	
		"It would be nice to have a filtration option for watching"	

2.5 Cultural Exploration Check video

Here's the link to our Cultural Exploration Check video:
https://drive.google.com/file/d/1-0Kbq42IF-UywsmsVmq9MxnU3GKQVfZv/view?usp=sharing

3. Design space and concept design

3.1 Cultural personas

Joey Tribbiani

AGE   27
EDUCATION   Masters in Business
STATUS   Single
OCCUPATION   Sales Manager
LOCATION   Finland
TECH LITERATE High

❝ Wants to travel more and explore different cultures

Interests

Exploring new things   Food

Technology

Bio

Joe has a casual interest in social media, occasionally visiting apps like Instagram to explore and learn something new. He is not particularly passionate about posting and seeing random posts, but wants to learn his friends culture to socialize in multi-culture environment.

Expectations

1. Expect the design concept to enhance the understanding and appreciation of different cultures through engaging and informative content.
2. Expect the design concept to foster a sense of belonging and connection among individuals with shared cultural interests, facilitating meaningful interactions and exchanges.

Frustrations

1. Experience frustration when social media platforms show content that I don't like.
2. Encounter frustration when the design concept is inaccessible or exclusionary, hindering their ability to fully engage with cultural content due to technical barriers.
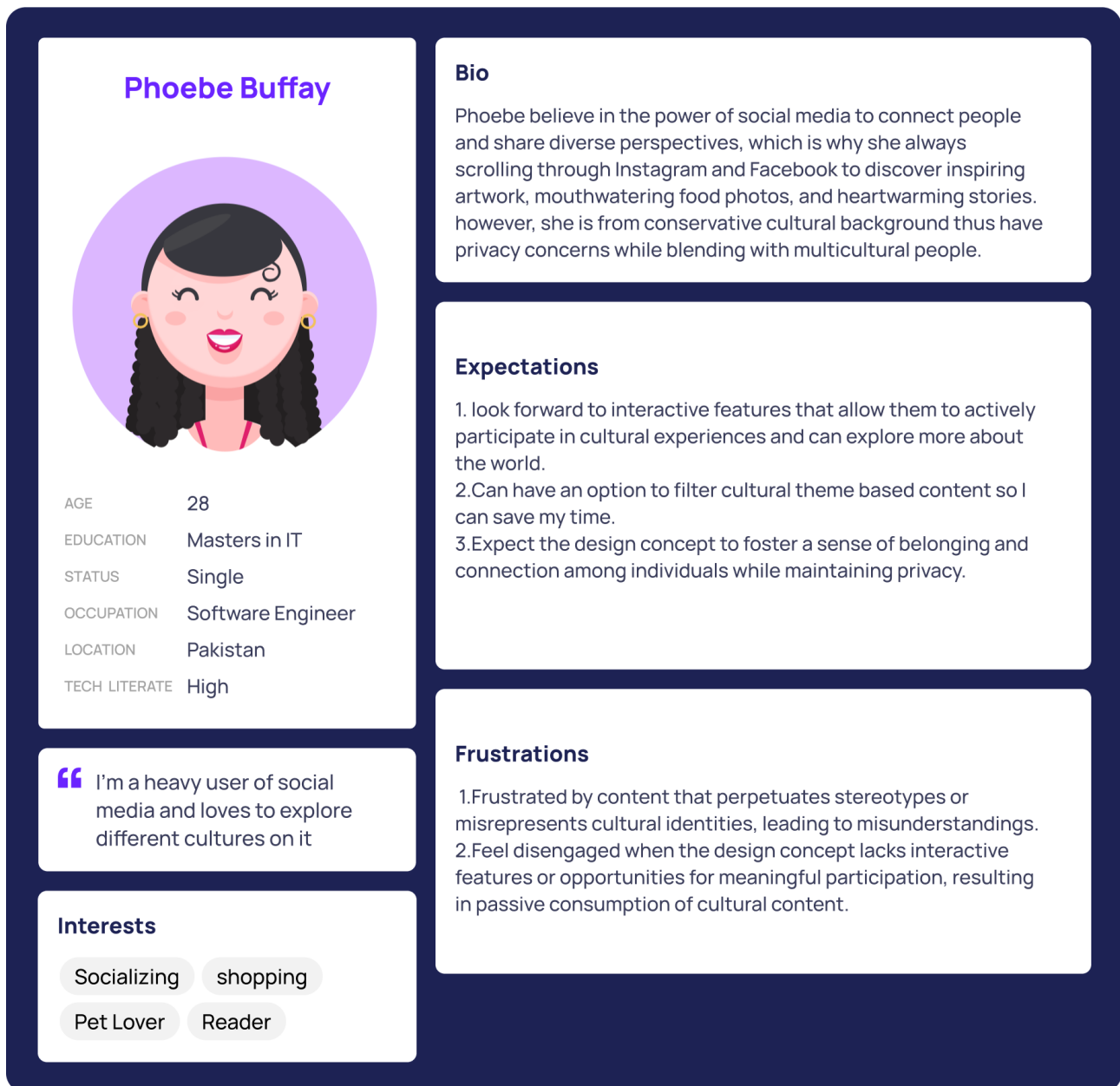
Figure 1 Culture Persona 1

29

Phoebe Buffay

AGE   28
EDUCATION   Masters in IT
STATUS   Single
OCCUPATION   Software Engineer
LOCATION   Pakistan
TECH LITERATE High

❝ I'm a heavy user of social media and loves to explore different cultures on it

Interests

Socializing   shopping
Pet Lover   Reader

Bio

Phoebe believe in the power of social media to connect people and share diverse perspectives, which is why she always scrolling through Instagram and Facebook to discover inspiring artwork, mouthwatering food photos, and heartwarming stories. however, she is from conservative cultural background thus have privacy concerns while blending with multicultural people.

Expectations

1. look forward to interactive features that allow them to actively participate in cultural experiences and can explore more about the world.
2. Can have an option to filter cultural theme based content so I can save my time.
3. Expect the design concept to foster a sense of belonging and connection among individuals while maintaining privacy.

Frustrations

1. Frustrated by content that perpetuates stereotypes or misrepresents cultural identities, leading to misunderstandings.
2. Feel disengaged when the design concept lacks interactive features or opportunities for meaningful participation, resulting in passive consumption of cultural content.

Figure 2 Cultural Persona 2

3.2 Process of generating cultural personas

Generating cultural personas like Joey Tribbiani and Phoebe Buffay involves a structured process that combines demographic data, behavioral patterns, and user expectations related to cultural exploration and social media engagement based on our user research and literature review findings. Here's a breakdown of the process:

Demographic Analysis

Age: Most of our participants were in 20s thus the age of the personas (Joey at 27, Phoebe at 28) helps define their generational characteristics, technological literacy, and likely interests.

Education: Knowing their educational backgrounds (both with Masters degrees, though in different fields) informs their intellectual capacities and potential interests in cultural exploration.

Status: Being single suggests a certain level of independence and possibly more time for personal interests like social media engagement.

Occupation: Their professions (Sales Manager for Joey, Software Engineer for Phoebe) influence their level of tech literacy and exposure to different cultures through work-related activities.

Cultural Background

Location: Knowing that Joey is based in Finland and Phoebe in Pakistan provides insights into their primary cultural contexts and the diversity they encounter or seek through social media. As two of the our studied cultures are Pakistan and Finland.

Interests and Frustrations: Identifying their interests (like food, technology, socializing, and reading) and frustrations (e.g., encountering stereotypes or wanting more interactive features) helps shape the design objectives to meet their needs.

Behavioral Patterns

Social Media Usage: After analyzing our findings, both personas are described as tech-literate with high engagement in social media. Understanding their patterns of use (casual browsing for Joey, heavy usage for Phoebe).

Engagement Preferences: Analyzing happy and annoying content from participants helps us to identify the engagement patterns. Thus, Joey desires engaging and informative content to facilitate learning about different cultures and hates annoying adds, while Phoebe seeks more for social engagement.

Expectations and Needs

Design Expectations: Both personas have clear expectations from the platform, such as fostering connection, avoiding stereotypes, and providing interactive experiences.

Needs Assessment: Identifying what frustrates them (e.g., irrelevant content, lack of interactivity) highlights areas where the platform's design and content strategy must excel.

Cultural Sensitivity

Privacy Concerns: Phoebe's conservative cultural background and Joey's frustrations with exclusionary design indicate a need for culture exploration filter and culturally sensitive features that respect diverse viewpoints.

Scenario Mapping

Design Scenarios: Creating hypothetical scenarios as per our video concept where these personas interact with the platform helps envision how they might use and benefit from its features.

3.3 Moodboard
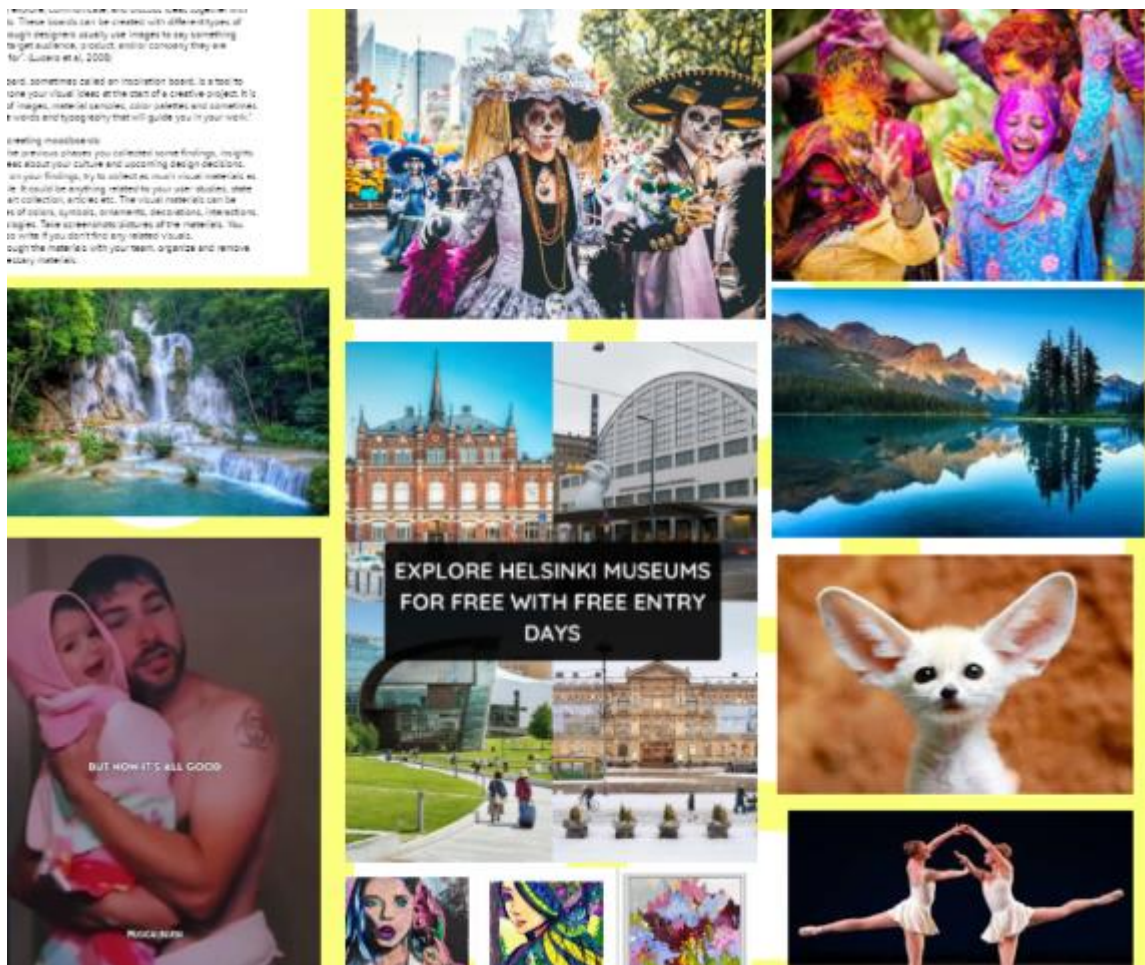
Process of generating the Moodboard

The process of generating the moodboard involved an approach aimed at capturing the essence of happiness as perceived by the target audience. The primary sources of inspiration for the moodboard was the Instagram explore section and the results obtained from interviews conducted with the target audience.

The Instagram explore section served as a rich repository of diverse content, offering a variety of visual stimuli spanning various themes and aesthetics. By exploring the Instagram exploration feed, we were able to explore a wide range of imagery, graphics, and videos that resonated with the desired mood. The platform's algorithm, based on individual interests and engagement, facilitated the discovery of content aligned with the theme of happiness.

Furthermore, insights gained from interviews helped in shaping the content and composition of the moodboard. Through these interviews, it became evident that nature and family emerged as recurring themes associated with happiness. Respondents frequently expressed joy and contentment when reflecting on experiences involving nature's beauty or cherished moments shared with family members.

With these insights, we curated the moodboard to reflect the sentiments expressed during the interviews. Images showcasing lush landscapes, vibrant flora and fauna, and scenes of familial warmth and togetherness were prominently featured. Each visual element was carefully selected to

evoke feelings of positivity, connection, and contentment from different cultures, aligning with the theme of happiness and avoided the content which our target audience found annoying based on their culture.

3.4 Design Guidelines

In our target exploration to understand and address the impact of cultural differences on Instagram usage, we have researched, considered and formulated a comprehensive set of design guidelines aimed at enhancing user experience across diverse cultural contexts and suitable with our design concept. These guidelines serve as a roadmap and references for the development and implementation of our concept design that aimed to address current barriers of cultural differences on social media usage, especially Instagram in our research case.

Firstly, through studies on familial relations we found that users from some cultures that belong to the collectivism group (according to Hofstede's dimensions) do not want relatives to see their pictures and contents on social media. Some pictures and contents can be considered as sensitive topics in those cultures such as pictures of consuming alcohol, dating relationships, and so on. Therefore, different designs that fit different audiences' needs and preferences should be considered in social media platforms. Moreover, designs to avoid cultural and information sensitivities also need to be taken into account.

Different terms or certain keywords can have different meanings across cultures and countries. Our design guidelines should emphasize the importance of paying attention to languages and translations. This involves ensuring that all textual elements within the features are accurately translated into various languages, taking into account social context and cultural sensitivities. Besides that, we recognize the significance of focusing on colors, symbols, and visual aspects to fit diverse cultural preferences. While trying to adjust colors and symbols based on the destination target audience, designers should also balance it with their brand guidelines and strategies. It is essential to conduct thorough research on color symbolism and visual aesthetics across different cultures to avoid unintentionally conveying unintended meanings or associations.

However, the design should go beyond mere translation and colors. This could be the best way to impress your potential significant users or clients. Proper research in different cultures are valuable and essential to align with cultural norms, behaviors, and preferences, integrating culturally specific functionalities or content to enhance relevance and inclusivity. Collaboration with cultural research and local communities ensures the effectiveness in addressing cultural nuances. Furthermore, considering the value of local knowledge and context of use are important, incorporating insights into feature development to enhance usability and relevance. This is why sometimes design teams are spread across nations. Local designers or researchers can value their personal and social experience and knowledge to further improve the products. By considering cultural practices, traditions, and socio-economic factors, we could ensure that our features are suitable with users' daily lives and experiences.

Additionally, as always when designing products, designers should always keep track of their users' feedback and considerations. This action should be taken not only at the beginning of the design process, but also continuously throughout the whole development and releases of the products. User-centric approach can be applied by treating users as co-designers. Involving users from various cultural backgrounds in the design process enables us to get valuable feedback, ideas, and suggestions, co-creating features that meet users' needs and preferences. User research and usability

testing in diverse cultural settings should be included to gather feedback and iterate designs accordingly. Finally, we acknowledge that accessibility can vary across locations, requiring flexibility and scalability in design. In terms of infrastructure quality and network stability, a design decision can work for one location and not the others. Therefore, intensive research, in-field interviews and on-going testing are essential packages to have in order to achieve maximization in design accessibility. By recognizing diverse accessibility needs and providing customizable options, we could ensure that our features response to users' specific requirements and environmental constraints.

3.5 Concept design and low-fidelity prototype

Our chosen technological platform is Instagram, as it is widely used among all participants. Given that Instagram is primarily accessed via mobile phones, we focused on enhancing the mobile app experience. Our cultural research highlighted the users' desire for better control over the content they see and easier discovery of content relevant to their interests or moods. In response to this feedback, we implemented two key features.

Firstly, we organized the Instagram reels into themed categories. The first category includes all reels for users who prefer to browse randomly. This is followed by various themes such as animals, fashion, Finnish culture, Pakistan culture, and more. The categorization of reels into themes is illustrated in Figure 3.

In addition, we added a filter feature "Content restrictions" to the settings. This filter utilizes artificial intelligence (AI) for image recognition, allowing it to identify specific elements or objects within images that users have defined. Users can add denied keywords. If an image, reel, or story contains any of these specified elements, such as objects or words defined by the user, other users cannot mention or tag that user in comments or content. This feature is depicted in Figure 4.

Furthermore, our prototype aims to raise awareness of different cultures, their traditions, and topics that may be sensitive or taboo. This increases users' cultural awareness and helps them understand why certain actions, such as tagging someone from another culture in a picture featuring alcohol, may be inappropriate. When users select a cultural theme, such as Pakistan culture, culturally relevant reels are displayed. Most importantly, right at the top of the page, users will find an information box titled "Learn more about Pakistani culture" (see Figure 5), which, when clicked, provides users with detailed information about the chosen culture (see Figure 6). For example, within specific themes like weddings, if the hashtag of a reel contains terms like "Pakistan wedding," the reel will appear under both the weddings and Pakistan culture categories.
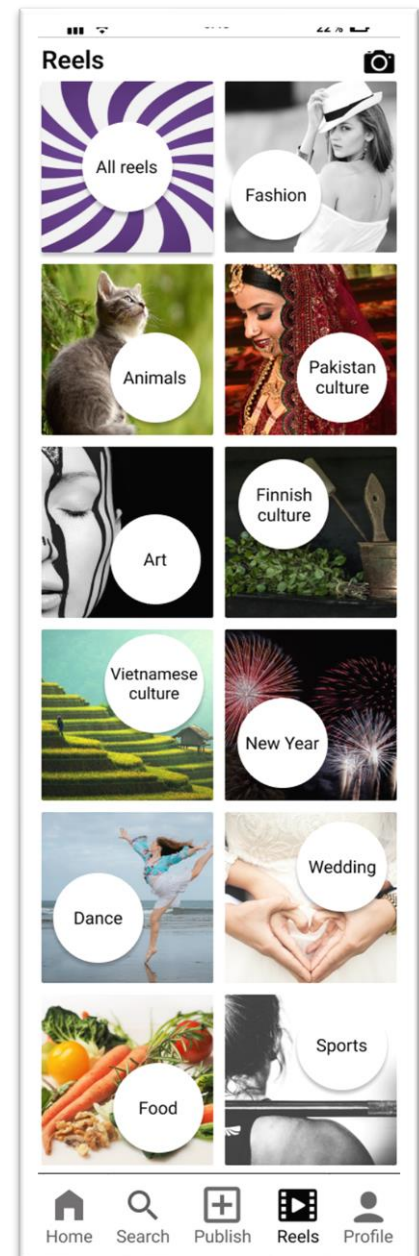

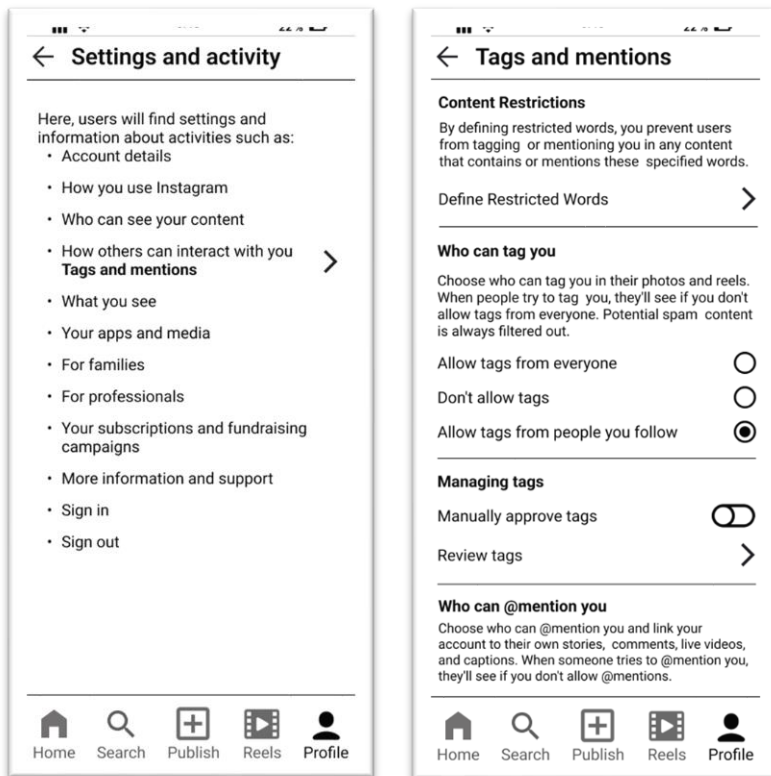*Figure 3 The categorization of reels into themes*

Figure 4 Filter feature utilizes AI for image recognition to identify user-defined elements or keywords, preventing others from tagging or mentioning users in comments or content.
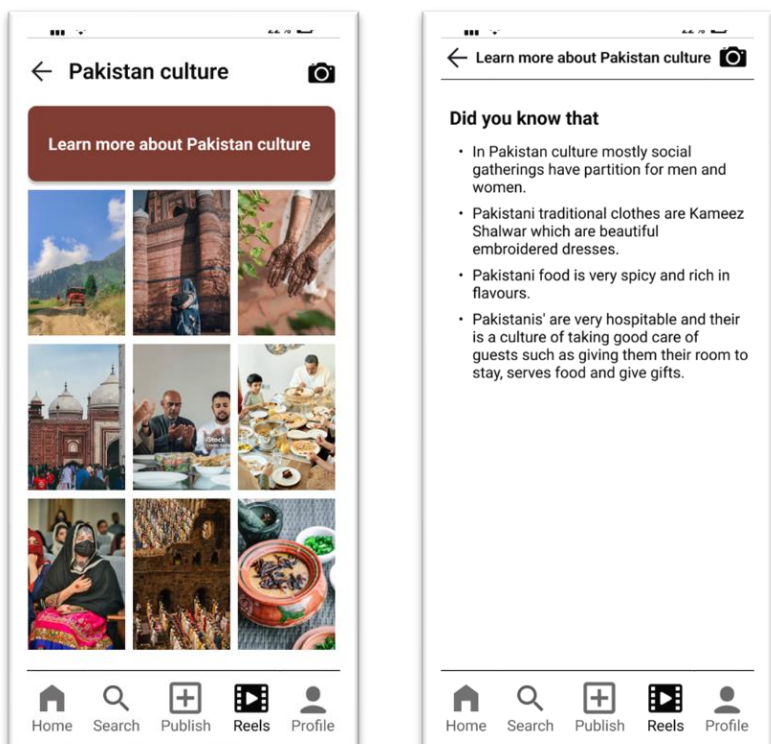

Figure 4 Learn more about Pakistani culture: Clicking on the information box provides detailed insights into the culture.

Figure 6 Detailed information about Pakistan culture.

Here's the link to our prototype:
https://www.figma.com/proto/bGDpnwBNT0bJ3PH3HvwLvW/CCD_instagram?type=design&node-id=1-2&t=T7fxTV9RiuXEMDVc-0&scaling=scale-down&page-id=0%3A1&starting-point-node-id=1%3A2

Here's the link to our Cultural Party Video:
https://drive.google.com/file/d/1UftQpt8Vj3dOlmidT4QeYrMJVLz0kdaZ/view?usp=share_link

4. Peer evaluation

In our peer evaluation study, we aimed to assess respondents' perceptions and opinions regarding Finnish and Pakistani cultures, as well as the novelty of a proposed solution for social media culture. The study comprised five questions, with the first three using a rating scale from 1 to 10, and the last two being open-ended.

The questions were as follows:

1. What knowledge do you have about Finnish Culture?
2. What knowledge do you have about Pakistani Culture?
3. What do you think about the novelty of the solution?
4. What do you think about the proposed solution for social media culture?
5. Could you write development ideas for the proposed concept if you have any?

We collected responses from approximately 35 participants. In terms of familiarity with Finnish culture, the majority of respondents rated themselves as very familiar, with a common value of 10. Conversely, when it came to Pakistani culture, more respondents indicated being unfamiliar. The distribution of responses reflected this trend.

Regarding the perceived novelty of the proposed solution, most respondents felt that the idea was novel but not groundbreaking, as indicated by the values presented in a graph.

In the open-ended questions, participants expressed positive sentiments about the proposed solution, particularly appreciating its potential for algorithm customization and the ability to block unwanted content. Suggestions for improvement included refining AI capabilities for image recognition, expanding the scope of blocked content on social media channels, and incorporating broader cultural education elements into the solution. Overall, respondents found the concept intriguing and offered constructive ideas for its enhancement.

5. Discussion and Conclusions

5.1 Discussion

In the context of related work including state-of-the art and our chosen literatures in the field of cross-cultural design, our project's outcome offers valuable insights that help to illustrate and extend current knowledge. While numerous research from our chosen state-of-the art and literatures have acknowledged the impact of cultural differences on user behaviours in diverse digital contexts, our project contributes a practical and clear understanding specific to social media channels like Instagram and between 2 specific representative culture. We found that cultural differences

significantly influence user interactions and experiences, content consumption, and overall engagement on various aspects of digital platforms usage.

One novel aspect of our project lies in our approach in addressing the identified issues through the design of new features for Instagram. Not only exploring the cultural differences in social media use, but we also proactively coming up with potential and tangible solutions. By considering cultural factors in the design process, we aimed to create a more inclusive and user-centered platform experience for social media users from diverse cultural backgrounds all around the world. Our project emphasised the potential and significance of design interventions in promoting cross-cultural understanding through the online environment.

However, our project has some limitations. Although we focused on conducting extensive research and analysis, our scope of project were limited. It mainly comes from time and resource constraints as well as the complexity and broad scale of this cultural learning topic. Therefore, the specific cultural factors and user behaviors covered in our study may not been fully and deeply represented across different cultural contexts. Additionally, the rapid changing nature of social media platforms also contantly changing and affecting user behaviors and cultural trends, raising different challenges for our design solutions.

Our project presents the essential value of cross-cultural design in today's globalised world where people have more demands in social media environments. Besides that, there is a necessity in protecting and promoting cultural values. By recognizing and boosting cultural diversity in design processes, we can create products and services that are suitable for global users and enhance the inclusivity. The value of cross-cultural design extends beyond mere functionality; it promotes empathy, understanding, ethical considerations and appreciation for diverse perspectives, as well as enhances the digital experiences of users worldwide.

5.2 Reflection on multi-cultural teamwork

We found a lot of interesting and educational things about Pakistani, Vietnamese and Finnish cultures while working in a multicultural team. Exploring cultures became particularly concrete when we worked on the cultural exploration video. This project showed us how significant the differences are in our cultures.

For example, there is a very free atmosphere in Finland, where there aren't many restrictions on social media content. It's different in Pakistan, where, for example, consuming alcohol in pictures is not advisable. In addition, the presence of a woman in the company of a strange man can cause problems, which is rooted in the traditions of the culture, where parents often choose a partner for their daughter. Cousin marriages are also common in Pakistan, while in Finland they are allowed by law, but are rare and even strange to many.

Another significant cultural difference is related to the age of marriage. In Pakistan, a woman is expected to get married at about 22 years old and in Vietnam at about 25 years old, while in Finland the average age of women who enter into their first marriage is currently about 32.2 years old and about 34.2 years old for men. Even in Finland in 1970, the average age of women who got married for the first time was 23 and for men 25, but nowadays marriages made at such a young age are rare.

We also noticed differences in the use of social media. In Pakistan and Vietnam, parents are often present on social media, while the Finns in our team hadn't added their parents as Facebook friends,

for example. We thought about this and concluded that Finns might have a kind of "two sides" phenomenon, where parents only have a partial view of their children's lives.

Our teamwork has been excellent. We have been in regular contact first on Telegram and later on WhatsApp. When a team member moved to Pakistan, she noticed that Telegram doesn't work normally there, but requires a VPN connection. We switched to WhatsApp, which worked for everyone. In addition, we have organised Teams meetings when necessary.

Division of work:

Kainat: 2.1 Literature review, 2.2 State-of-the-art, 3.2 Moodboard, 4. Peer evaluation

Talia: 1 Getting started and warm-up, 2.1 Literature review, 2.2 State-of-the-art, 3.1 Cultural personas, 3.2 Process of generating cultural personas, prototypes

Tram: 2.2 Literature review, 3.3 Design Guidelines, 5. Discussion, 5.2 Conclusions

Onni: 2.2 Literature review, 2.3 Reflection on cultural models, 4. Peer evaluation

Melina: 2.2 Literature review, 2.4 Study with the cultural probes, 3.4 Concept design and low-fidelity prototype, prototypes, 5.1 Reflection on multi-cultural teamwork

5.3 Conclusions

In conclusion, our collaborative exploration of cross-cultural design has been a journey of discovery and innovation. As a cross-cultural team with individuals from diverse backgrounds, we aimed to explore the complexities and affect regarding cultural differences in social media usage. Through different stages of research, study and thoughtful analysis, we gained valuable insights into the ways in which cultural differences shape user perspectives and influence user experiences on social media platforms like Instagram.

From the initial stages of problem understanding, user study conduction, data collection and persona development to the conceptualization and prototyping of new features, we collaborated nicely to explore opportunities and challenges of cultural differences in term of cross-cultural design. Our outcome is a design prototype that not only addresses the identified problems but also represents a step towards a more inclusive and culturally responsible digital environment. We are confident that our work will inspire positive changes, promoting greater understanding and empathy among users from diverse cultural backgrounds on social media platforms.

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