Poster: Understanding Privacy Concerns of WhatsApp Users in India

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ABSTRACT

WhatsApp, a leading platform for mobile messaging, with the largest user base being in India, incorporates features like *Last Seen*, *Live Location*, and sharing defaults which pose privacy challenges. Our study evaluates the risk perception of WhatsApp users in India, by analyzing their perceptions on several features. We implemented a survey, querying both privacy attitudes and privacy behaviors, with 213 Indian participants. We found the majority of participants reported that they actively use the privacy controls to restrict access to their information. We close by evaluating the fit of privacy settings and suggesting additional recommendations to address the privacy concerns of Indian participants.

CCS CONCEPTS

• **Security and privacy** → **Privacy protections**; **Usability in security and privacy**; • **Human-centered computing** → **Accessibility design and evaluation methods**;

KEYWORDS

Privacy, Social Media, Usable Privacy & Security, Mobile Messaging, Accessibility.

1 INTRODUCTION

India leads in adoption of WhatsApp, with over 200 million monthly active users [3]. Our study evaluates the risk perception of WhatsApp users in India by analyzing a survey recruiting 213 Indian participants through direct solicitation over email lists and snowball sampling. We compare and revisit the recommendations made for the Saudi population [2], evaluating the fit of privacy recommendations from the latter work. We close by suggesting additional recommendations that do not conflict with the privacy preferences of any of these groups.

2 METHODOLOGY

We implemented 83 questions in a survey which grounded on the study directed towards Saudi Arabian participants by Yasmeen et al. [2], with structural reliance on the survey instrument to ensure consistency. The previous work was built upon Bellman et al.'s study of cultural influences on privacy behavior of Internet Users [1]. We also included additional questions to better fit the current version of WhatsApp. We received valid responses from 213 participants (71 Female, 135 Male) who identified themselves as Indian.

3 RESULTS

Our findings indicated that most respondents (50.47%) who report that their data is being collected, demonstrate certain amount of knowledge that their data is *being analyzed* for different purposes like 'targeted advertisements' and 'understanding customer behavior' among others. Among various WhatsApp features, the most widely used was the **Blocking Feature** (73.24%) while **Live Location** (27.91%) was the least used. Only 35.21% participants expressed concern over being contacted by strangers, hinting that users were more open to interaction, contradictory to the preferences of more privacy conservative users in Yasmeen et al's work. Additionally, 198 participants (90.57%) did not use the **Read Receipt** feature while 132 participants (63.46%) did not hide their **Profile Picture**, indicating feature-specific privacy concerns. Participants were also more likely to be sharing data with people in their *Contacts* than *Everyone*. However, participants indicated more sensitivity for privacy when in 'groups' and disapproval of being added *'without consent'* which WhatsApp inherently does.

4 RECOMMENDATIONS

The usability and acceptability of MIM applications such as WhatsApp is a major concern for their developers. Recommendations adapted by such studies help not only in increasing the user base but also protecting the data security through informed research of user privacy practices. We make the following recommendations: *Implement 'Privacy by Default' in WhatsApp, so that app permissions and audience preference is privacy-preserving by default and on opt-out basis, Add customized features such as 'Last Seen', 'Read Receipts', etc. for individual and group interactions, Enable access control before adding users to a group involuntarily Provide periodic privacy recommendations detailing the impact of privacy settings, including 'privacy nudges' to make users more aware about current privacy settings.*

5 ACKNOWLEDGEMENT

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