

A Work Project presented for the Award of a Master's degree in Management
from the Nova School of Business and Economics

Exploring Online Users' Attitudes and Behaviors: The Privacy Paradox and Its Current Motivations

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ABSTRACT

Individuals' privacy has become an essential theme to be addressed in today's growing digital world

"Privacy Paradox" is the discrepancy between privacy concerns and actual behaviors

This research aims to explore whether:

- Users are still concerned about their online privacy
- The elements of Privacy Cynicism has an impact on users' online behavior



Key Discussion Points



- 1 INTRODUCTION
- 2 LITERATURE REVIEW
- 3 METHODOLOGY
- 4 RESULTS
- 5 DISCUSSION
- 6 CONCLUSION
- 7 REFERENCES
- 8 APPENDIX



1. INTRODUCTION

- Technology develops at an increasingly fast pace
- Users generate a significant amount of data
- Critical to address privacy issues in today's growing digital world
- Risks → online information disclosure



CONVENIENCE

We have never been more connected nor enjoyed the benefits of digital convenience as the current moment

Easiness, fast deliveries, plenty of choices, etc

The disclosure of personal data is required to access these platforms and enjoy the benefits associated with them



EVERYTHING ABOUT USERS IS DATA

FROM THEIR HEART RATE TO THEIR
PERSONALITY BEHAVIOR



Privacy has become the "issue of our times"

"DATA IS THE NEW OIL"

- Data used as currency to pay for online "free" services
- Data capitalism
- Greatly monetizable for digital platforms



PRIVACY PARADOX

Dichotomy of privacy **attitudes** and **behavior**

The disparity between explicit concerns and conflicting behavior regarding privacy

Despite the concerns, very little thought and protective behavior is done before sharing personal information online

Mobile apps, SNS, e-commerce, and general internet activities



RESEARCH QUESTIONS



RESEARCH QUESTIONS

R.Q. 1

Have internet users stopped being concerned about their online privacy, and for this reason, they have a negligent behavior with their data protection?



RESEARCH QUESTIONS

R.Q. 1

Have internet users stopped being concerned about their online privacy, and for this reason, they have a negligent behavior with their data protection?



R.Q. 2

What are the main motivations for individuals to disclose their information online even when they know there are risks involved in such behavior?

2. LITERATURE REVIEW

Privacy Perceptions:

- **Perceived Risk** - inhibits users from sharing their data online
- **Perceived Security** - a positive impact on users' intention to disclose data

They both **influence** users' attitudes and behaviors

Privacy concerns rarely lead to actual behavior
= **Privacy Paradox**

WHY?



PRIVACY PARADOX

RISK-BENEFIT
CALCULATION
THEORIES



PRIVACY PARADOX

RISK-BENEFIT CALCULATION THEORIES

RATIONAL CALCULATION

E.g. Privacy Calculus Theory



PRIVACY PARADOX

RISK-BENEFIT CALCULATION THEORIES

RATIONAL CALCULATION

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BIASED CALCULATION

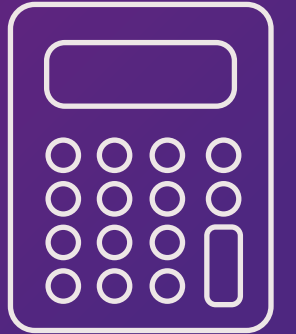
E.g. Cognitive Biases & Heuristics,
Incomplete Information and
Bounded Rationality



RATIONAL CALCULATION



Privacy Calculus:



Disclose information
if (and only if)

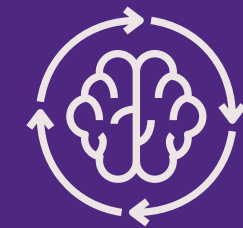
Benefits > Risks

It heavily depends on users' level of awareness and
acknowledgement of all the risks and benefits associated with any
online activity

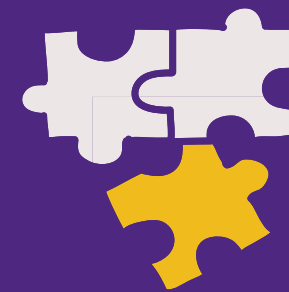
BIASED CALCULATION



Cognitive Biases
& Heuristics



Bounded
Rationality



Incomplete
Information

BIASED CALCULATION



Cognitive Biases
& Heuristics



Optimism
Bias



Affect
Heuristics



Immediate
Gratification

OTHER POSSIBLE MOTIVATIONS



OTHER POSSIBLE MOTIVATIONS



TRUST

Determining factor for
personal information
disclosure

OTHER POSSIBLE MOTIVATIONS



TRUST

Determining factor for
personal information
disclosure



HUMAN NEEDS

In case of SNS's:

- Need for Entertainment
- Need for Social Relationships
- Need for Self-Identity



OTHER POSSIBLE MOTIVATIONS



TRUST

Determining factor for
personal information
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HUMAN NEEDS

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PRIVACY CYNICISM

More recent approach;
Cognitive coping mechanism

PRIVACY CYNICISM

Definition:

“An attitude of uncertainty, powerlessness, and mistrust toward the handling of personal data by online services, rendering privacy protection behavior subjectively futile”
(Hoffmann, Lutz, and Ranzini 2016)

Elements:

- Mistrust
- Insecurity / Uncertainty
- Powerlessness / Loss of Control
- Resignation



HYPOTHESES



HYPOTHESES

H1.

Are users still concerned about their online privacy or have they already given up?

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H2.

Do individuals have risk-awareness before engaging in an online activity?

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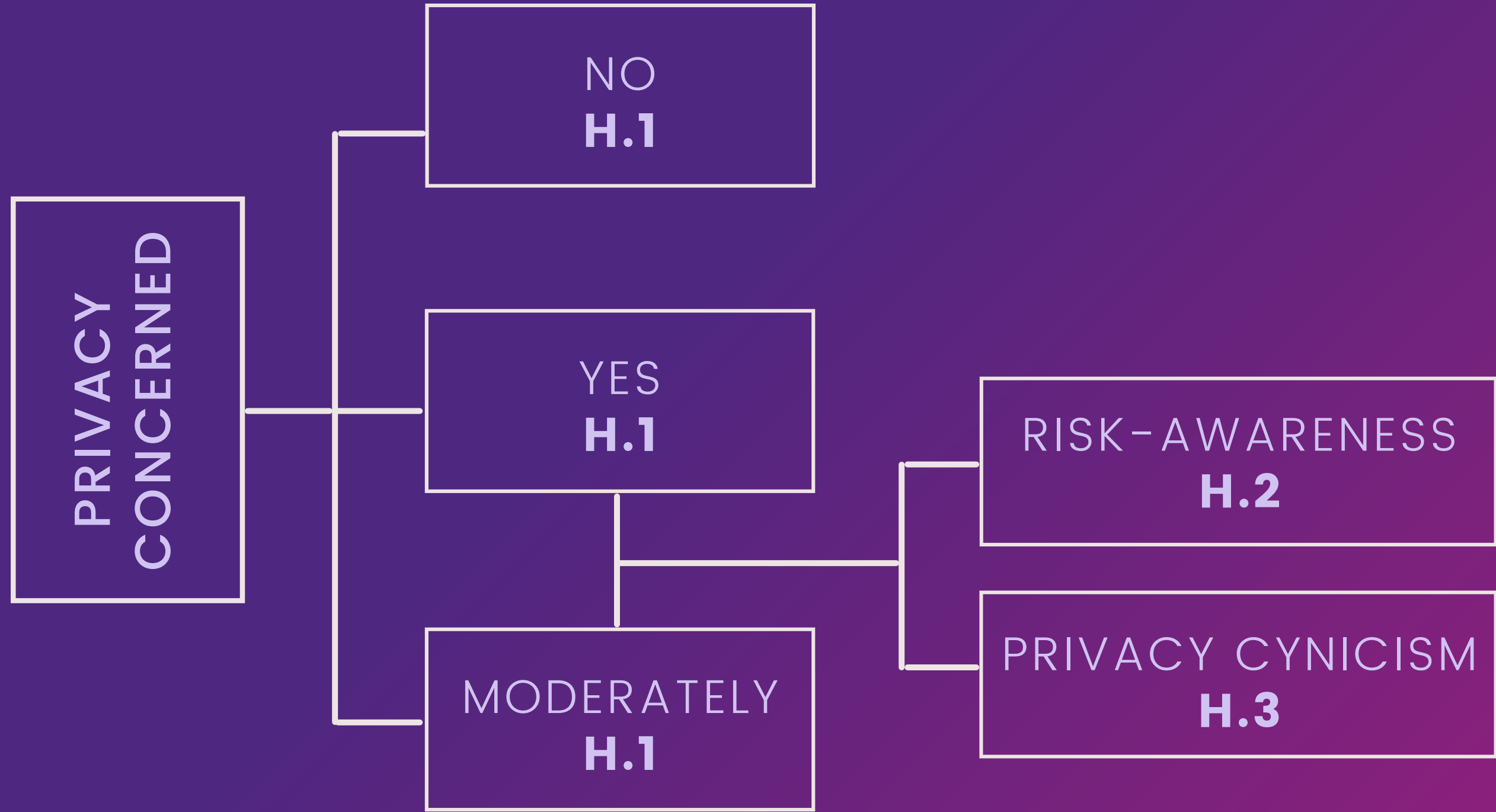
H2.

Do individuals have risk-awareness before engaging in an online activity?

H3.

Are the elements of Privacy Cynicism pertinent reasons to explain users' online behavior?

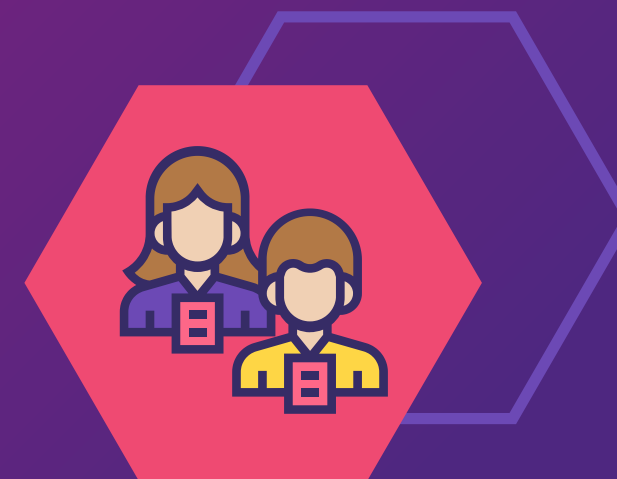
HYPOTHESES DIAGRAM



3. METHODOLOGY



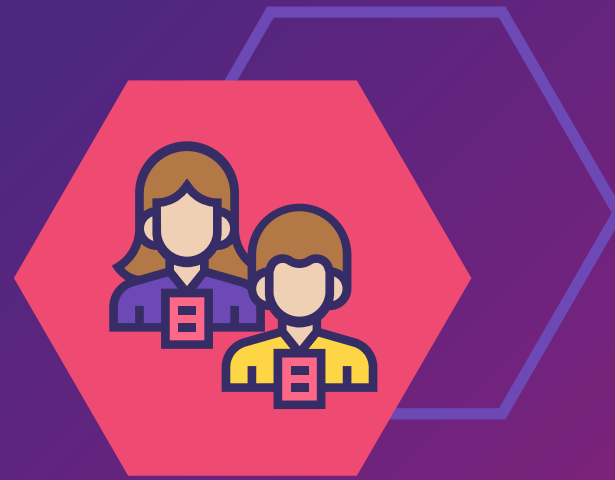
Qualitative Survey



Participants



Measures



Participants

-
-
-
-
-

Number: Total of 170 participants

Gender: 62% Female and 38% Male

Age groups: 18 - 29 (33%) and 50 - 59 (32%)

99% own a smartphone (168 respondents)

Countries: the U.S., Brazil, Portugal, and Spain



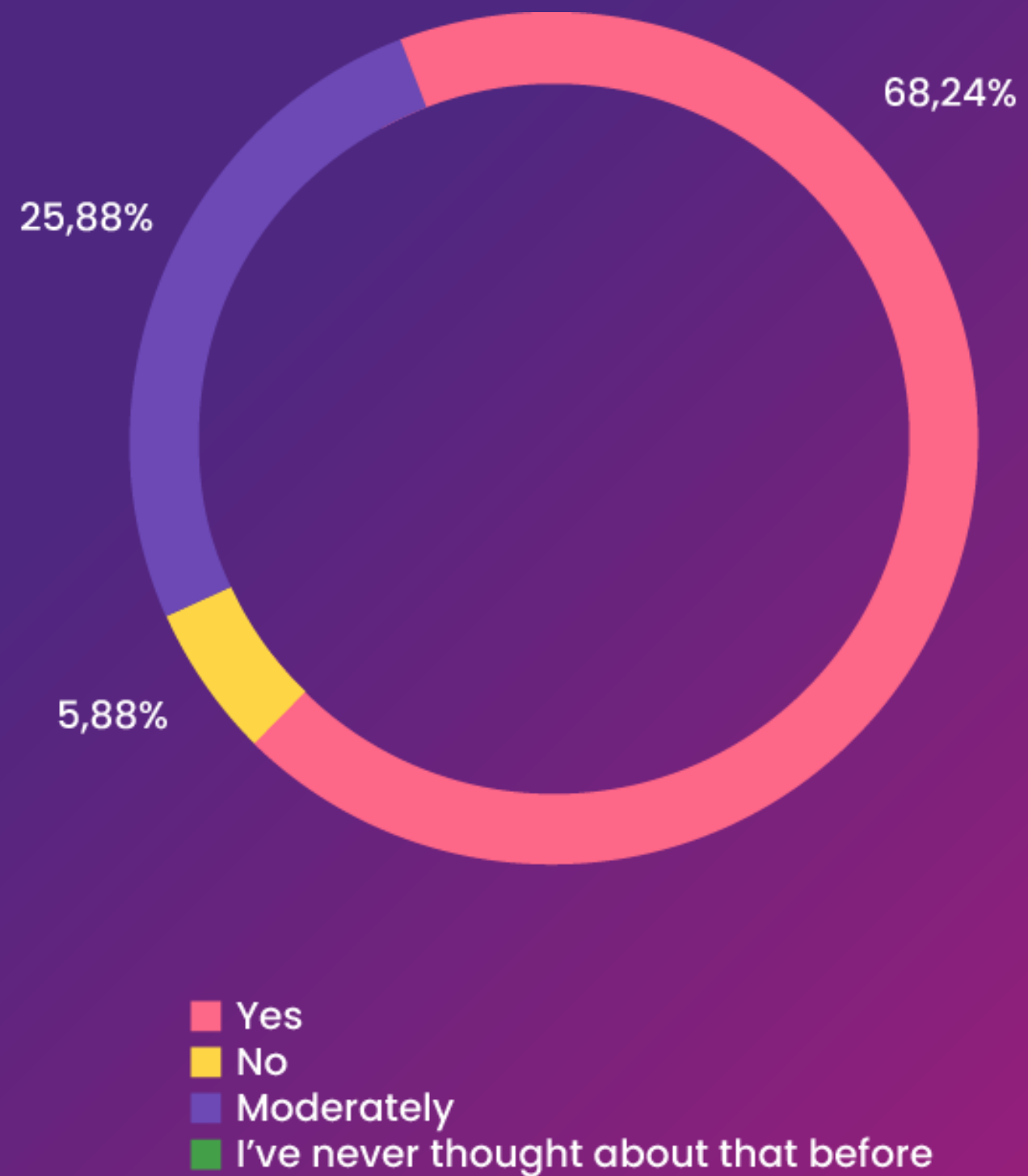
Measures

- At least 18 years old to participate
- Informed consent (including anonymity, purpose, and duration)
- Multiple-choice question (Privacy Concern)
- Likert scale (Risk-Awareness & Privacy Cynicism)

4. RESULTS

H1. PRIVACY CONCERN

Are you concerned about your privacy (for instance, your personal information such as full name, email, address, telephone number, and date of birth) when online?

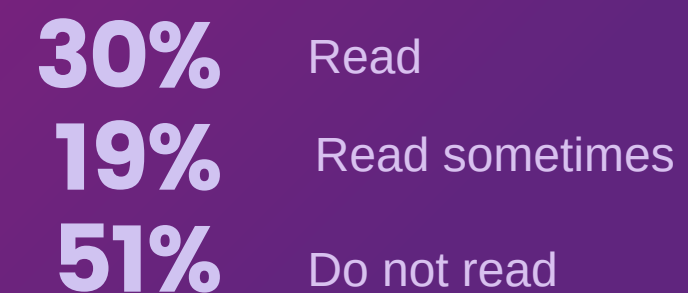


H2. RISK-AWARENESS

Are individuals concerned about the potential risks before disclosing personal information requested by an app / digital platform?



Individuals who read the Terms & Conditions of the apps before they select the “I agree” checkbox



H3. ELEMENTS OF PRIVACY CYNICISM



01. MISTRUST

- 84% concerned that apps might use their personal information for other purposes
(5% disagreed)
- 78% do not feel safe to disclose their personal data to apps or digital platforms since they do not trust them
(8% disagreed)

H3. ELEMENTS OF PRIVACY CYNICISM



01. MISTRUST

- 84% concerned that apps might use their personal information for other purposes (5% disagreed)
- 78% do not feel safe to disclose their personal data to apps or digital platforms since they do not trust them (8% disagreed)



02. INSECURITY

- 72% think they must be careful before disclosing any information online, but they are 'only one' among many internet users and the risk is unavoidable (10% disagreed)

H3. ELEMENTS OF PRIVACY CYNICISM



03. POWERLESSNESS

- 66% think it is an illusion to believe people can protect their data online since no one has control over their personal information on the internet (8% disagreed)
- 69% feel that protecting their personal information on apps or digital platforms is beyond their control (9% disagreed)

H3. ELEMENTS OF PRIVACY CYNICISM



03. POWERLESSNESS

- 66% think it is an illusion to believe people can protect their data online since no one has control over their personal information on the internet (8% disagreed)
- 69% feel that protecting their personal information on apps or digital platforms is beyond their control (9% disagreed)



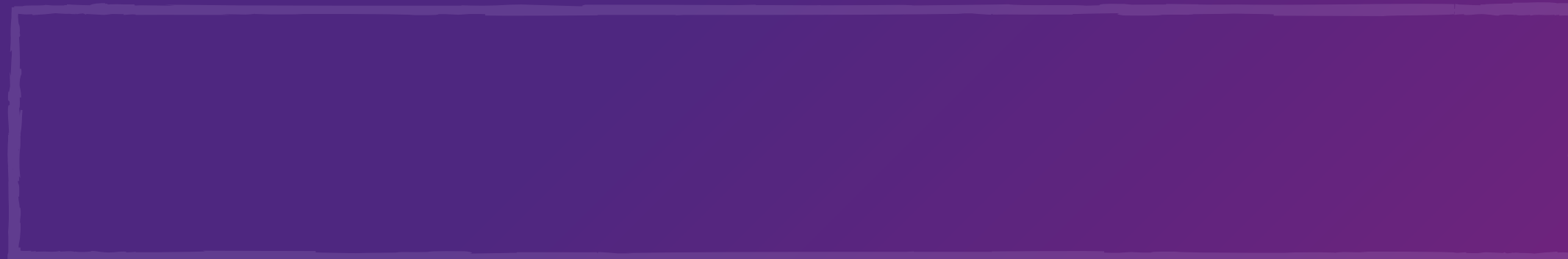
04. RESIGNATION

- Only 20% reported not spending time protecting their data online because it is not possible to effectively do it
- While 54% disagreed
- Although they think their power is limited, they do not think it is not worth the effort

5. DISCUSSION



The majority of the participants are concerned about their online privacy and have risk-awareness before engaging in online activities



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Mistrust, Insecurity, and Powerlessness - significant impact on users' online behavior
Resignation - least dominant factor



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Policymakers and regulators should require companies to be more transparent with users in a way that non-experts would be able to understand the privacy terms



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Mistrust, Insecurity, and Powerlessness - significant impact on users' online behavior
Resignation - least dominant factor



Policymakers and regulators should require companies to be more transparent with users in a way that non-experts would be able to understand the privacy terms

By understanding and controlling their own data, users will improve their feelings of cynicism -> behavior more in line with their concerns -> reduction of the Privacy Paradox



LIMITATIONS OF THE RESEARCH



PRIVACY IS
CONTEXTUAL
AND SITUATIONAL



LIMITATIONS OF THE RESEARCH



PRIVACY IS
CONTEXTUAL
AND SITUATIONAL



SAMPLE NUMBER
NOT WIDELY
REPRESENTATIVE

LIMITATIONS OF THE RESEARCH



PRIVACY IS
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SAMPLE NUMBER
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NOT A CONSIDERABLE
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QUESTIONS



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WHAT PARTICIPANTS
STATED, NOT THEIR
ACTUAL BEHAVIOR

SUGGESTIONS FOR FUTURE RESEARCH



Larger number of participants and questions

SUGGESTIONS FOR FUTURE RESEARCH



Larger number of participants and questions



Quantitative analysis of individuals' actual behavior



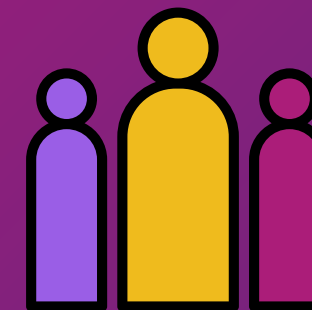
SUGGESTIONS FOR FUTURE RESEARCH



Larger number of participants and questions



Quantitative analysis of individuals' actual behavior



How the elements of Privacy Cynicism differ across cultures and age groups



6. CONCLUSION

- Users' online behavior is not an actual indicator of how much they value their privacy
 - Individuals' Biases and Heuristics
 - Privacy Cynicism
 - Distortion / Manipulation of service providers
- Most of the participants have not completely resigned protecting their data, or at least do not think that such an effort is completely in vain
- The tendency is for companies to be more open and transparent with the users
 - More power and control over their data
 - Users will act more according to the concerns about their privacy; thus, reducing the Privacy Paradox



THANK
YOU



TIME FOR QUESTIONS

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8. APPENDIX

Evaluating Privacy Concern (general):

- Are you concerned about your privacy (for instance, your personal information such as full name, email, address, telephone number, and date of birth) when online?

Evaluating risk-awareness and the elements of privacy cynicism:

- Please rate the following statements in terms of how much you agree.
 - I have always been reluctant to provide my data when online. [Privacy Concern]
 - I fully read the Terms & Conditions of the apps before I select the “I agree” checkbox. [Privacy Protection]
 - I usually don’t think about the potential risks before disclosing my personal information requested by an app. [Risk-Awareness]
 - I am concerned that apps might use my personal information for other purposes (other than to collect data for the app itself). [Mistrust]
 - I only download an app if (and only if) I perceive the benefits of using it to outweigh the risks. [Risk-Benefit Calculation]
 - I feel safe to disclose my personal data because I trust in all the apps I use, and I don’t believe they will misuse it. [Trust]
 - I think it is an illusion to believe people can protect their data online since no one has control over their data on the internet. [Powerlessness]
 - I know I must be careful before disclosing any information, but I am only one among many internet users, and the risk is unavoidable. [Insecurity]
 - I feel that protecting my personal information on apps or digital platforms is beyond my control. [Powerlessness]
 - I don’t spend time protecting my personal data online because it is not possible to effectively do it so. [Resignation]

8. APPENDIX

PRIVACY CONCERN

PRIVACY PROTECTION

RISK-AWARENESS

MISTRUST

RISK-BENEFIT CALCULATION

TRUST

POWERLESSNESS

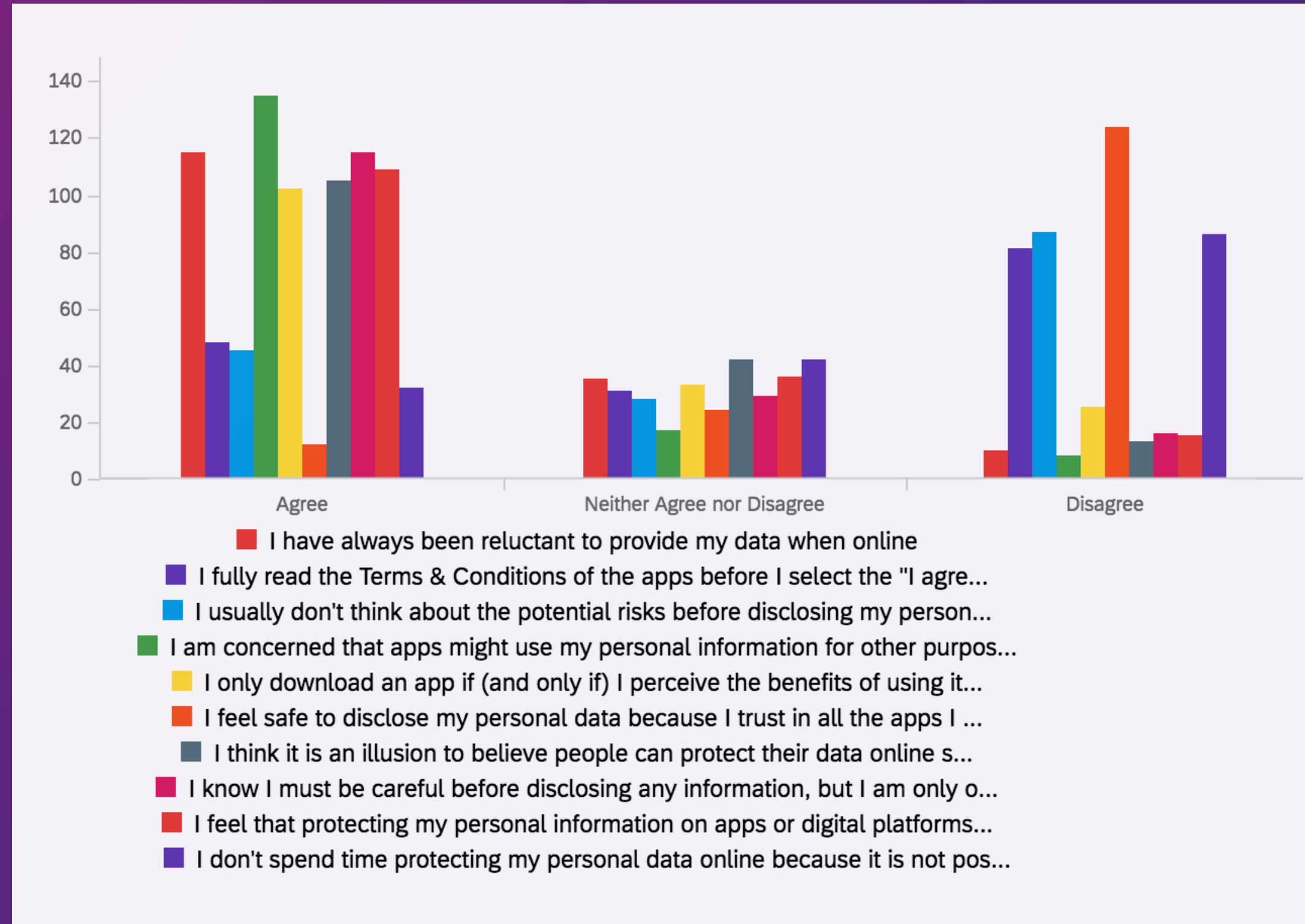
INSECURITY

POWERLESSNESS

RESIGNATION

#	Question	Agree		Neither Agree nor Disagree		Disagree		Total
1	I have always been reluctant to provide my data when online	71.9%	115	21.9%	35	6.3%	10	160
2	I fully read the Terms & Conditions of the apps before I select the "I agree" checkbox	30.0%	48	19.4%	31	50.6%	81	160
3	I usually don't think about the potential risks before disclosing my personal information requested by an app	28.1%	45	17.5%	28	54.4%	87	160
4	I am concerned that apps might use my personal information for other purposes (other than to collect data for the app itself)	84.4%	135	10.6%	17	5.0%	8	160
5	I only download an app if (and only if) I perceive the benefits of using it to outweigh the risks	63.7%	102	20.6%	33	15.6%	25	160
6	I feel safe to disclose my personal data because I trust in all the apps I use, and I don't believe they will misuse it	7.5%	12	15.0%	24	77.5%	124	160
7	I think it is an illusion to believe people can protect their data online since no one have control over their data on the internet	65.6%	105	26.3%	42	8.1%	13	160
8	I know I must be careful before disclosing any information, but I am only one among many internet users, and the risk is unavoidable	71.9%	115	18.1%	29	10.0%	16	160
9	I feel that protecting my personal information on apps or digital platforms is beyond my control	68.1%	109	22.5%	36	9.4%	15	160
10	I don't spend time protecting my personal data online because it is not possible to effectively do it so	20.0%	32	26.3%	42	53.8%	86	160

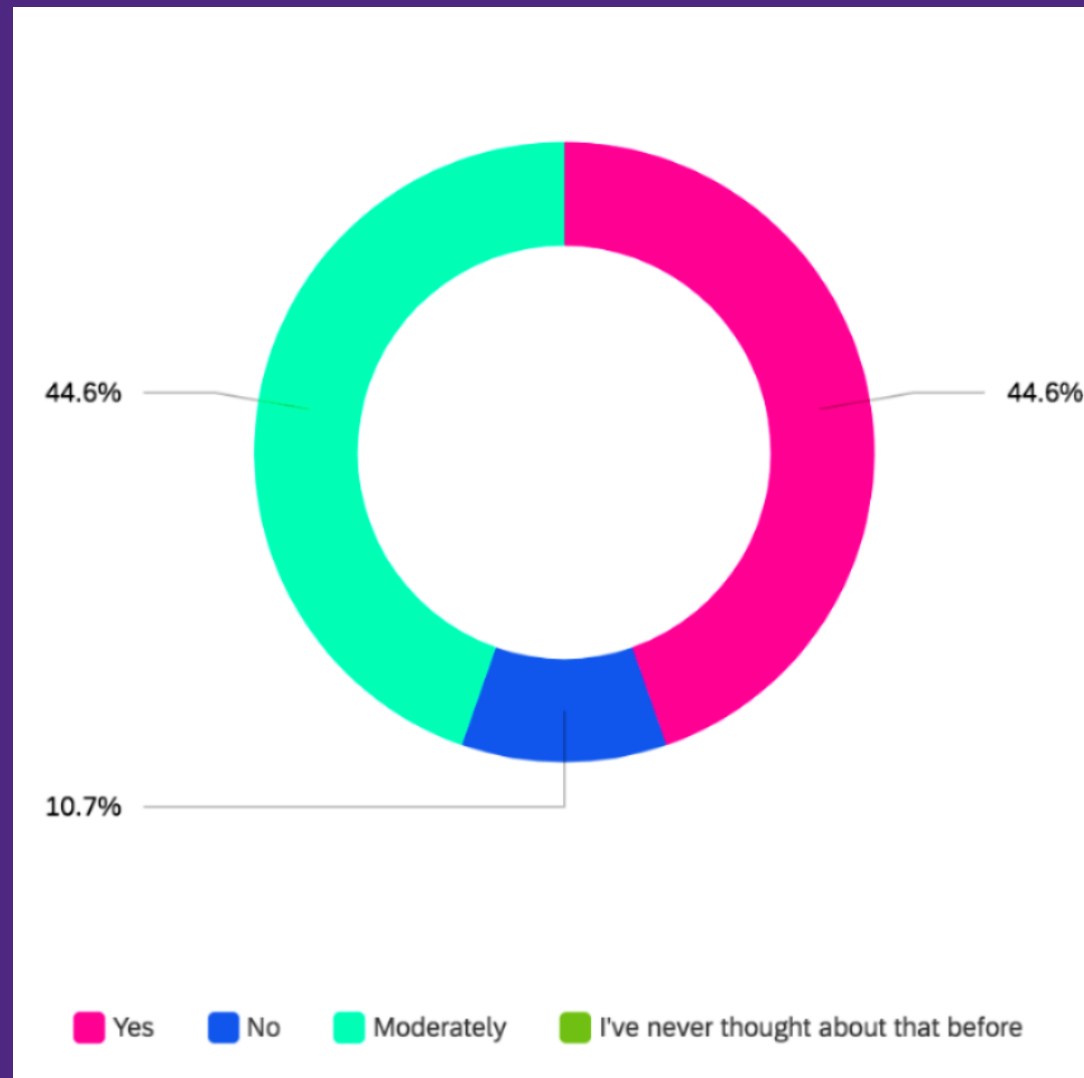
8. APPENDIX



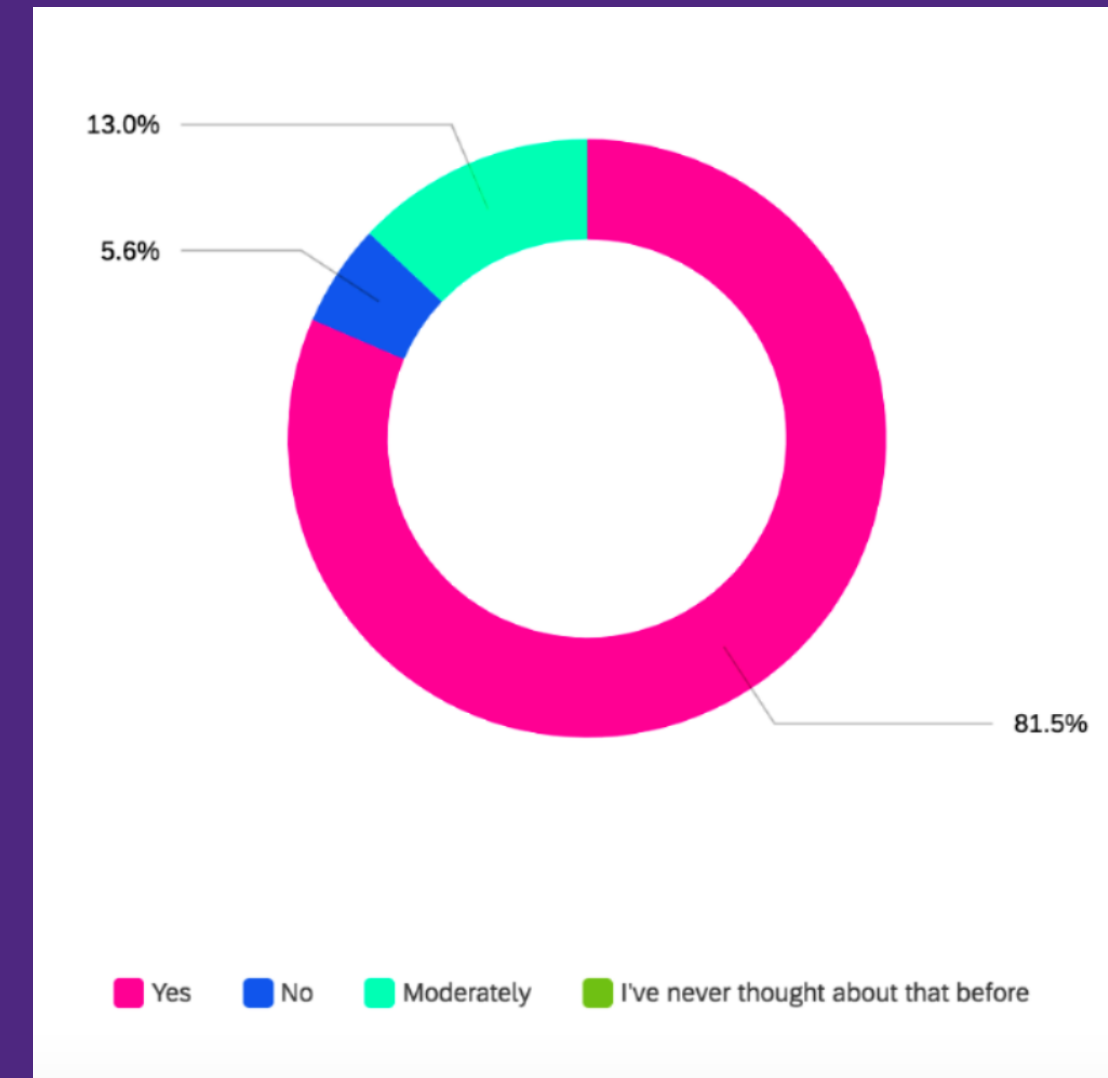
9. ADDITIONAL INFORMATION

ARE YOU CONCERNED ABOUT YOUR ONLINE PRIVACY?

18 - 29



50 - 59



9. ADDITIONAL INFORMATION

18 - 29

50 - 59

#	Field	Back to Top
1	I have always been reluctant to provide my data when online	
2	I fully read the Terms & Conditions of the apps before I select the "I agree" checkbox	
3	I usually don't think about the potential risks before disclosing my personal information requested by an app	
4	I am concerned that apps might use my personal information for other purposes (other than to collect data for the app itself)	
5	I only download an app if (and only if) I perceive the benefits of using it to outweigh the risks	
6	I feel safe to disclose my personal data because I trust in all the apps I use, and I don't believe they will misuse it	
7	I think it is an illusion to believe people can protect their data online since no one have control over their data on the internet	
8	I know I must be careful before disclosing any information, but I am only one among many internet users, and the risk is unavoidable	
9	I feel that protecting my personal information on apps or digital platforms is beyond my control	
10	I don't spend time protecting my personal data online because it is not possible to effectively do it so	

Agree	nor Disagree	Disagree
48.2% 27	33.9% 19	17.9% 10
8.9% 5	10.7% 6	80.4% 45
44.6% 25	23.2% 13	32.1% 18
67.9% 38	23.2% 13	8.9% 5
44.6% 25	26.8% 15	28.6% 16
10.7% 6	25.0% 14	64.3% 36
69.6% 39	19.6% 11	10.7% 6
73.2% 41	21.4% 12	5.4% 3
66.1% 37	26.8% 15	7.1% 4
33.9% 19	41.1% 23	25.0% 14

Agree	nor Disagree	Disagree
81.5% 44	16.7% 9	1.9% 1
42.6% 23	24.1% 13	33.3% 18
27.8% 15	13.0% 7	59.3% 32
92.6% 50	5.6% 3	1.9% 1
72.2% 39	18.5% 10	9.3% 5
9.3% 5	11.1% 6	79.6% 43
68.5% 37	24.1% 13	7.4% 4
72.2% 39	14.8% 8	13.0% 7
68.5% 37	22.2% 12	9.3% 5
14.8% 8	24.1% 13	61.1% 33