PRESENTED BY :
PRANJAL SUTHAR
AJINKYA CHOUGHULE
VAIBHAVI VIVEK
SHWETA CHOWDHARY

From Clicks to Compassion: The Role of Digital Empathy in Young Adults' Online Prosocial Behavior and Emotional Intelligence

RESEARCH PROJECT

INTRODUCTION



BACKGROUND

- Digital technology has changed communication, interaction, and relationships.
- Social media platforms like Instagram, WhatsApp, and X are widely used, especially among youth.
- College students use these platforms for:

1. Communication
2. Self-expression
3. Building relationships
4. Personality development

- Emotional and social interactions are increasingly shifting to digital spaces.

INTRODUCTION



RATIONALE OF THE STUDY

- Empathy is essential for understanding and responding to others' emotions (Mayer & Salovey, 1997)
- Includes cognitive (understanding) and emotional (feeling) components
- Face-to-face communication uses non-verbal cues like facial expressions, tone, and gestures
- Digital communication lacks these cues, making emotional understanding more complex
- Most research focuses on offline or Western contexts → need to study digital empathy in the Indian context

INTRODUCTION



OBJECTIVES:

- To examine digital empathy in online interactions
- To study its relationship with prosocial behavior (Batson, 1991)
- To explore its association with emotional intelligence (Petrides, 2009)

SCOPE:

- Indian college students
- Digital/social media interactions
- Emotional and social processes in online environments

REVIEW OF **LITERATURE**



- The goal of the literature review was to clear the bases of the research
- Empathy, prosocial behaviour, emotional intelligence were reviewed thoroughly
- These were also reviewed to discuss and point out a clear relationship that exists among each other
- Digital perspective was added to the equation
- Social media and online environments changed the landscape and were studied differently
- In the end, all key concepts were merged and tied to this research.

HYPOTHESIS

- H1: DIGITAL EMPATHY ↔ ONLINE PROSOCIAL BEHAVIOR (POSITIVE CORRELATION)
- H2: DIGITAL EMPATHY ↔ EMOTIONAL INTELLIGENCE (POSITIVE CORRELATION)
- BASED ON:
  - COLLECTIVIST CULTURE (INDIA)
  - PRIOR RESEARCH LINKING EMPATHY WITH PROSOCIALITY & EI

METHODOLOGY



OPERATIONAL DEFINITION OF VARIABLES

METHODOLOGY



- DIGITAL EMPATHY (IV): ABILITY TO UNDERSTAND/RESPOND TO EMOTIONS ONLINE (DCES SCORE)
- OPB (DV1): HELPING BEHAVIORS IN DIGITAL SPACES (OPBS SCORE)
- EMOTIONAL INTELLIGENCE (DV2): PERCEPTION & REGULATION OF EMOTIONS (TEIQUE-SF SCORE)

METHODOLOGY



MATERIALS

- PRIUSS – SCREENING FOR HIGH INTERNET USE
- DCES (36 ITEMS) – DIGITAL EMPATHY
- OPBS (10 ITEMS) – ONLINE PROSOCIAL BEHAVIOR
- TEIQUE-SF (30 ITEMS) – EMOTIONAL INTELLIGENCE
- ALL ADMINISTERED VIA ONLINE SURVEY (TALLY FORMS)

METHODOLOGY

SAMPLE

- POPULATION: INDIAN COLLEGE STUDENTS (18–25 YEARS)
- SAMPLING: PURPOSIVE SAMPLING (HIGH INTERNET USERS)
- FINAL SAMPLE: 417 PARTICIPANTS
- INCLUSION: STUDENTS + PRIUSS ≥ CUTOFF
- EXCLUSION: INCOMPLETE / LOW-QUALITY / DUPLICATE RESPONSES



METHODOLOGY



DESIGN

- TYPE: QUANTITATIVE, CROSS-SECTIONAL, CORRELATIONAL
- PURPOSE: EXAMINE RELATIONSHIPS BETWEEN VARIABLES
- DATA: STANDARDIZED SELF-REPORT SCALES
- LIMITATION: NO CAUSAL INFERENCE

PROCEDURE

METHODOLOGY



1. INFORMED CONSENT
2. PRIUSS SCREENING
3. DEMOGRAPHICS
4. MAIN SCALES (RANDOMIZED ORDER)
5. DEBRIEFING

- DURATION: 15–20 MINUTES
- PLATFORM: ONLINE SURVEY

ETHICAL CONSIDERATIONS

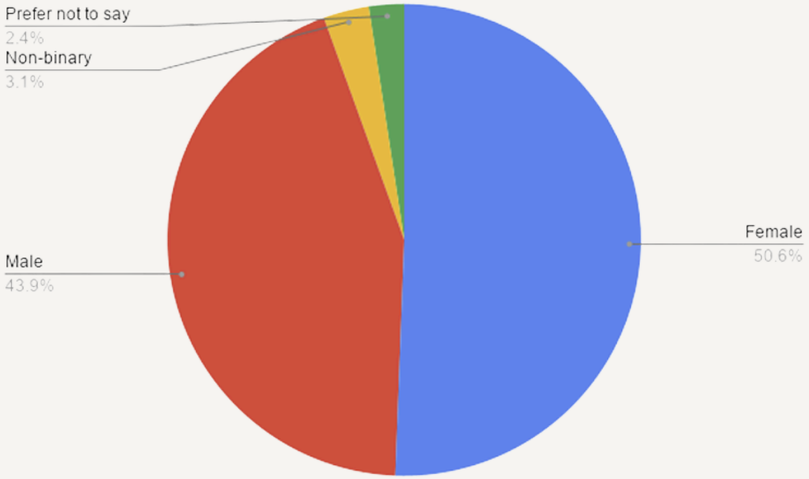
METHODOLOGY



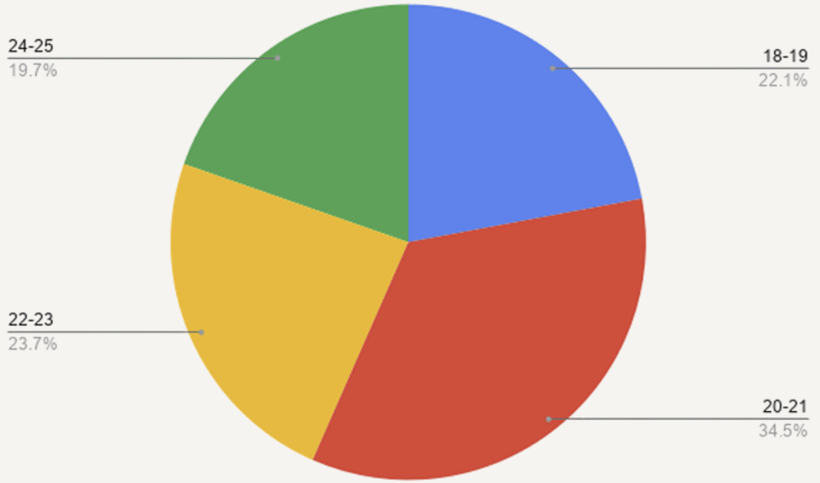
- INFORMED CONSENT OBTAINED
- VOLUNTARY PARTICIPATION
- CONFIDENTIAL & ANONYMOUS DATA
- RIGHT TO WITHDRAW ANYTIME
- MINIMAL PSYCHOLOGICAL RISK
- DATA REPORTED IN AGGREGATE

DEMOGRAPHIC DETAILS

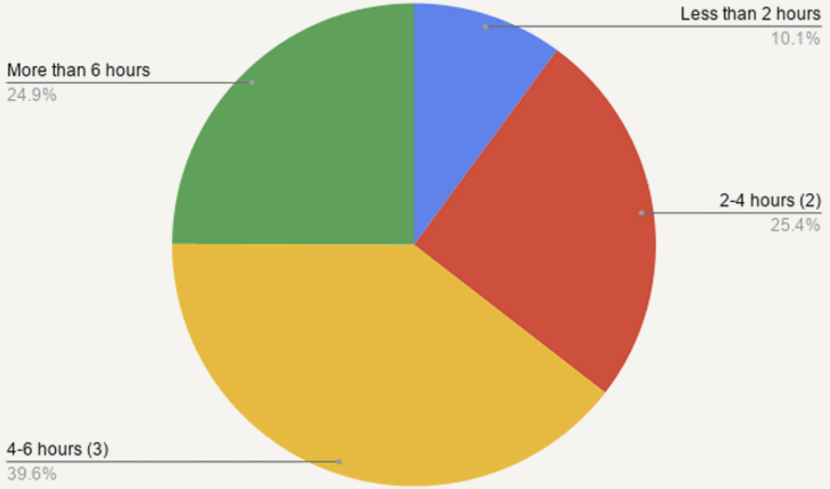
GENDER



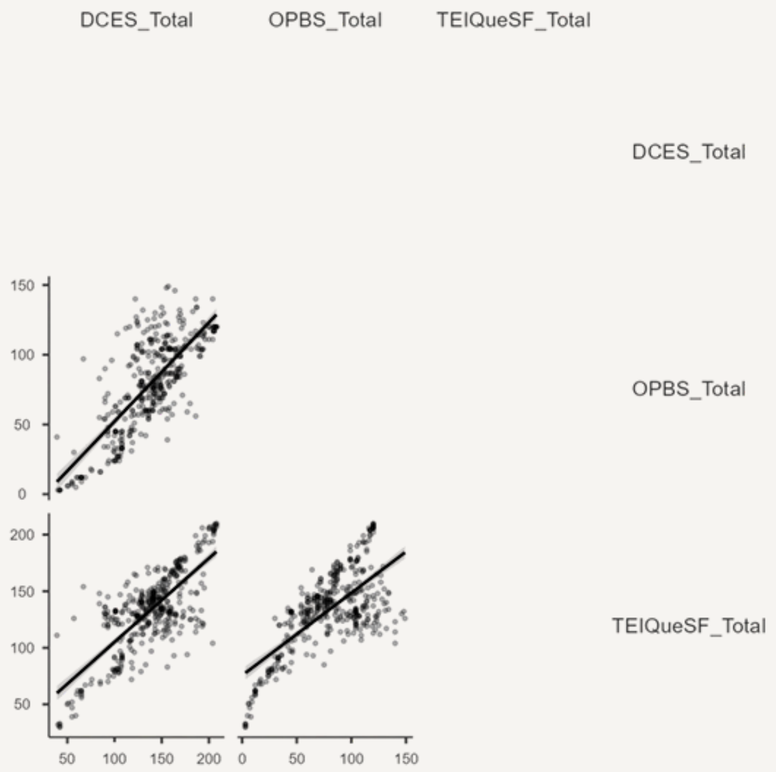
AGE



DAILY INTERNET HOURS



RESULTS



MAIN RESULTS

Sample: 465 collected → 417 final (after PRIUSS screening)
Age: M = 21.3, SD = 2.13 | 50.6% female, 43.9% male
Normality: Shapiro-Wilk p<.001 but skewness/kurtosis within ±1 & ±2 → approximate normality confirmed

H1 SUPPORTED: Digital Empathy × Online Prosocial Behavior

- **r** = .760, p < .001 | **Spearman ρ** = .702
- **Performing subscale:** r = .752
- **Receiving subscale:** r = .736

H2 SUPPORTED: Digital Empathy × Emotional Intelligence

- **r** = .754, p < .001 | **Spearman ρ** = .626

Additional: OPB × EI also strongly correlated

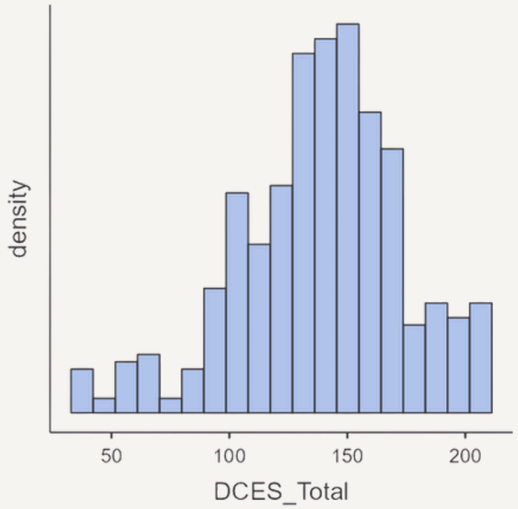
- **r** = .694, p < .001

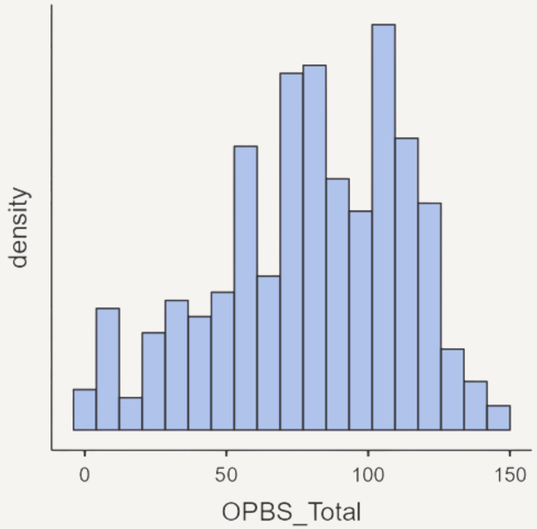
DESCRIPTIVE STATISTICS OF THE VARIABLES

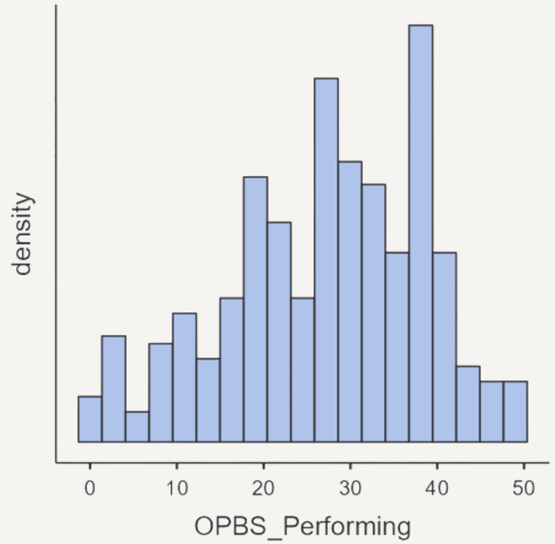
	Age	Internet_ Hours	DCES_To tal	OPBS_Tot al	OPBS_Pe rforming	OPBS_Re ceiving	TEIQue SF_Tot al
N	417	417	417	417	417	417	417
Missing	0	0	0	0	0	0	0
Mean	21.3	2.79	138	79.4	27.1	25.3	134
Standard deviation	2.13	0.931	35.1	32.8	11.4	10.5	34.4
Minimum	18	1	39	3	1	1	30
Maximum	25	4	208	149	50	50	210
Skewness	0.200	-0.334	-0.423	-0.410	-0.376	-0.257	-0.413
Std. error skewness	0.120	0.120	0.120	0.120	0.120	0.120	0.120
Kurtosis	-0.991	-0.754	0.228	-0.504	-0.545	-0.456	0.756
Std. error kurtosis	0.238	0.238	0.238	0.238	0.238	0.238	0.238
Shapiro-Wilk W	0.938	0.868	0.979	0.973	0.974	0.984	0.965
Shapiro-Wilk p	<.001	<.001	<.001	<.001	<.001	<.001	<.001

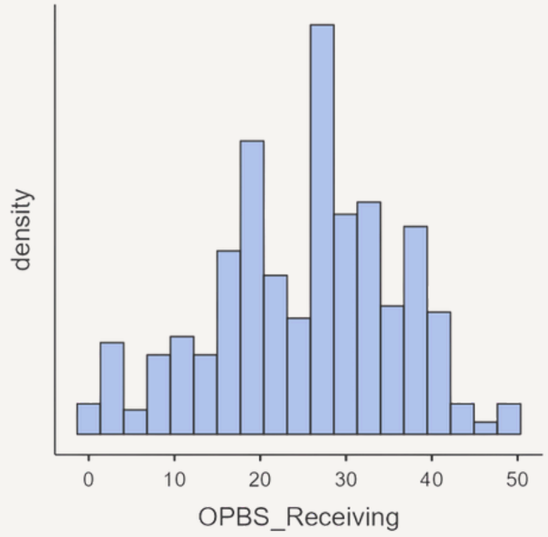
⚠️ S-W significant due to large N — but all skewness within ±1 and kurtosis within ±2, so approximate normality is assumed.

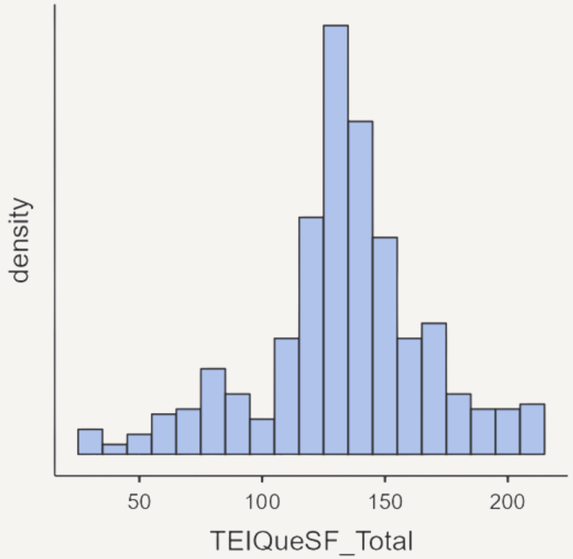
GRAPHICAL REPRESENTATION - HISTOGRAM











PEARSON CORRELATION MATRIX

	DCES	OPBS Total	OPBS Performing	OPBS Receiving	TEIQue-SF
DCES	—	r=.760* [.716,.798] ρ=.702**	r=.752*** [.707,.791]	r=.736*** [.689,.777]	r=.754* [.710,.793] ρ=.626**
OPBS Total	.760***	—	.992***	.962***	r=.694* [.641,.741]**
TEIQue-SF	.754***	.694***	.664***	.721***	—

RESULTS



SUPPLEMENTARY OBSERVATIONS

Gender Differences (Welch's ANOVA)

Females scored significantly higher than males on:

- Digital Empathy (Mdiff = 16.20, $p < .001$)
- OPBS Total (Mdiff = 13.20, $p < .001$)
- OPBS Performing ($p < .001$) & Receiving ($p = .003$)

No significant gender difference in EI ($p = .218$) → Emotional capacity is equal; expression differs by socialization

Internet Hours (all $p < .001$, negative correlations)

- vs. Digital Empathy: $r = -.545$
- vs. OPB: $r = -.368$
- vs. EI: $r = -.702$ (strongest effect)

More time online = lower empathy, prosocial behavior & EI

Levene's test: homogeneity of variances confirmed across all groups (all $p > .45$)

RESULTS



LEVENE'S TEST: HOMOGENEITY OF VARIANCES

Homogeneity of Variances Test (Levene's)

	F	df1	df2	p
DCES_Total	0.6890	3	413	0.559
OPBS_Total	0.0543	3	413	0.983
OPBS_Performing	0.1271	3	413	0.944
OPBS_Receiving	0.1457	3	413	0.932
TEIQueSF_Total	0.8753	3	413	0.454

GENDER DIFFERENCES (WELCH'S ANOVA)

One-Way ANOVA (Welch's) Results for Gender Differences

	F	df1	df2	p
DCES_Total	7.80	3	26.3	<.001
OPBS_Total	6.22	3	26.6	0.002
OPBS_Performing	6.79	3	26.7	0.002
OPBS_Receiving	4.66	3	26.5	0.010
TEIQueSF_Total	1.58	3	26.2	0.218

INTERNET HOURS & STUDY VARIABLES

Variable	Pearson's r	95% CI	Spearman's p	p	Strength
DCES (Digital Empathy)	**−.545**		−.511	<.001	Strong negative
OPBS Total	−.368		−.312	<.001	Moderate negative
OPBS Performing	−.343		−.290	<.001	Moderate negative
OPBS Receiving	−.404		−.361	<.001	Moderate negative
TEIQue-SF (EI)	**−.702**		−.641	<.001	Moderate negative

DISCUSSION



H1 — Empathy-Altruism Hypothesis confirmed digitally

- High digital empathy → more giving AND receiving of support online
- Strong r (~.76) likely due to sample being pre-selected heavy internet users (well-practiced at reading digital cues)

H2 — Digital empathy extends EI, but is not identical

- TEIQue-SF emotionality & sociability subscales drive the link
- Digital empathy can be trained independently — even low-EI students can develop it

Gender — Social Role Theory (Eagly, 2009)

- Females socialized toward emotional labor and caregiving
- No EI gap — interventions for males = normalize expression, not build capacity

Internet Hours

- Displacement theory: heavy online time replaces face-to-face skill-building
- Cognitive desensitization from overstimulating content reduces prosocial response
- Quality of engagement > quantity

LIMITATIONS & FUTURE CONSIDERATIONS



Limitations

- Self-report bias: social desirability may inflate scores
- Common method variance: all 3 scales completed at same time
- Cross-sectional design: correlations ≠ causation
- Purposive sampling: findings limited to high internet-use students
- Western-developed scales (DCES, OPBS): may not fully fit Indian collectivist context

Future Directions

- Add semi-structured interviews for qualitative depth
- Longitudinal design (track changes pre & post term)
- Random/stratified sampling across different internet-use levels
- Cross-cultural validation of DCES & OPBS for Indian samples
- Include open-ended items to flag culturally unfamiliar scale content
- Experimental designs to establish causal direction

APPLICATIONS & PRACTICAL IMPLICATIONS



Education:

- Helps develop emotional and social skills in digital environments

Mental Health:

- Helps manage online conflicts and emotional misunderstandings

Students:

- Improves communication and online interaction skills

Social Media Platforms:

- Can promote respectful and constructive interactions

SIGNIFICANCE & FUTURE USE



- Promotes awareness of positive online behavior
- Highlights importance of empathy in digital communication
- Useful for:
  - Psychologists
  - Educators
  - Policymakers
- Guides future research:
  - Different populations
  - Longitudinal and experimental studies

CONCLUSION



- Strong positive correlation between：

1. Digital empathy and prosocial behavior
2. Digital empathy and emotional intelligence

- Supports empathy–altruism hypothesis (Batson, 1991)
- Emotional skills are essential in digital interactions
- Excessive internet use may negatively affect emotional abilities (Kuss & Griffiths, 2017)
- Objectives of the study were achieved
- Digital empathy is important for healthy online communication

THANK YOU!