

# UX Research Portfolio



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# Bio



Hi, My name is Noman and I am a budding UX researcher specialized in studying **social media user experience research**. I have experience doing **mixed-method research** and analyzing interview, survey, and user-generated content. Since I am a Computer Science graduate, I substantiate the qualitative findings with **data analysis** (NLP, text mining, etc.)

I have **3+ years experience** working in usable privacy group where we studied negative user sentiment. I have worked in multiple UX projects as part of the HCI coursework and MS thesis. I have **published a paper** on user behavior study in the **most prominent HCI venue (CHI)** on 2019.

# • Skills and Strengths •

## **Qualitative Research Methods**

Contextual Inquiry, Content Analysis,  
Ethnographic Field Studies, Focus Groups,  
Interviews, Usability Testing

## **Quantitative Research Methods**

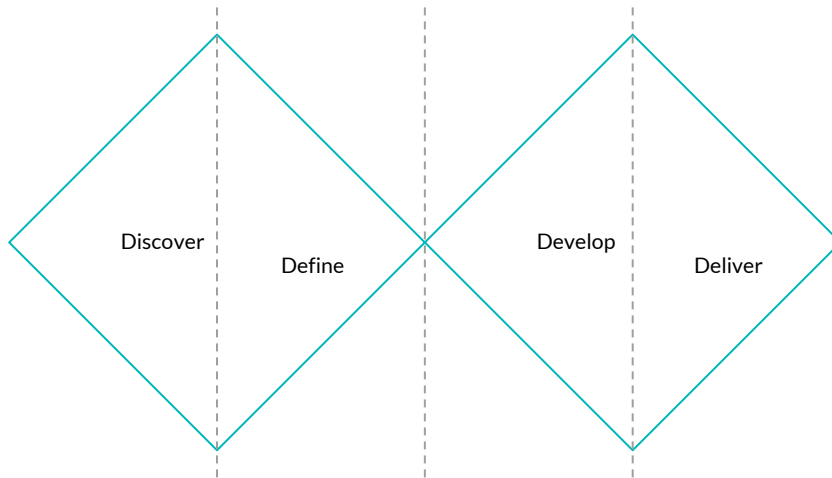
A/B Testing, Card Sorting, Surveys, Task  
Analysis, Web Analytics, Machine Learning,  
Data Mining, Statistical Analysis

## **Web Development**

Front-End: HTML, CSS, JavaScript  
Databases: MySQL, MongoDB  
Programming: Python, Java, C

## **UX / UI Design**

Graphics: Illustrator, Photoshop  
Prototyping: MockFlow, Visio  
Visualization: R, Tableau, Power BI



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# Research Philosophy

**DISCOVER** *opportunities that translate to impact.*

**DEFINE** *goals alongside partners.*

**DEVELOP** *rigorous, efficient, multi-method research.*

**DELIVER** *strategic insights that influence product direction.*

# Case Studies

[Academic Case #1]

Facebook UX: Techies  
against FB

[Academic Case #2]

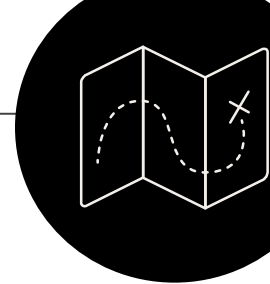
TravelHappy:  
Designing for better  
travel experience

[Academic Case #3]

Technology non-use:  
Designing for inclusive  
online communities

# Case Study #1:

## Facebook UX: Techies against Facebook



### Problem Statement

Researchers have recognized the need to pay attention to negative aspects and non-use of social media services to uncover usage barriers and surface shortcomings of these systems. We contribute to these efforts by analyzing comments on posts related to Facebook on two blogs with a technically savvy readership: Slashdot and Schneier on Security.

### Research Question

What factors lead technically savvy individuals to hold negative views toward social media services?

# Context

## Audience

Master's thesis committee of 2 world experts in human-computer interaction.

## Constraints

Tight turnaround of 12 weeks from research brief to data collection to analysis and final presentation. Difficulty in identifying non-users in naturalistic setting. Limited design operations support.

## Action

As the Principal Investigator, I designed the entire multi-phase research project from beginning to end and defended results.

## Team

Faculty Advisor (approved study ethics)

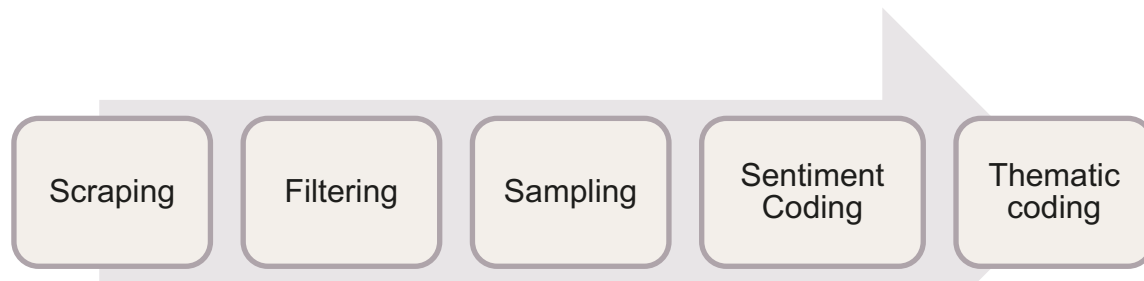
1 Research Assistant (coding)



# Methods

## Data Collection

- Slashdot
- Schneier on Security



$\geq 100$  Character

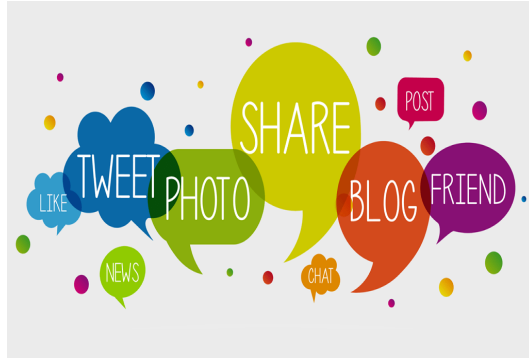
Contains 'Facebook' / 'FB'

Score  $\geq +2$

2000 from **Slashdot**  
(2010-2018)

1000 from **Schneier**  
(2006-2017)

# Stand Out Feature



Naturalistic data



Tech savvy population

# Findings

Themes	#Comments (Slashdot)	#Comments (Schneier)
Privacy & Security	432 (42.27%)	212 (66.25%)
User Experience	341 (33.36%)	41 (12.81%)
Personal Disposition	147 (14.38%)	94 (29.37%)
Advertisements	104 (10.17%)	14 (4.37%)
Uninteresting Content	39 (3.81%)	28 (8.75%)
Miscellaneous	35 (3.42%)	34 (10.62%)
Alternate Options	18 (1.76%)	18 (5.62%)
Politics	30 (2.93%)	1 (0.31%)
Fake Accounts & Bots	5 (0.49%)	22 (6.87%)
Psychosocial Well-being	9 (0.88%)	7 (2.18%)

# Qualitative Analysis

## Insight: Privacy & security and Negative UX are the major concerns

*"Facebook is actively developing new, innovative ways to invade your privacy, and this particular bit of data mining technology has become reliable enough that they felt it would be good PR [Public Relations] to create a feel-good, help-the-disabled feature out of it."*

- Schneir on Security

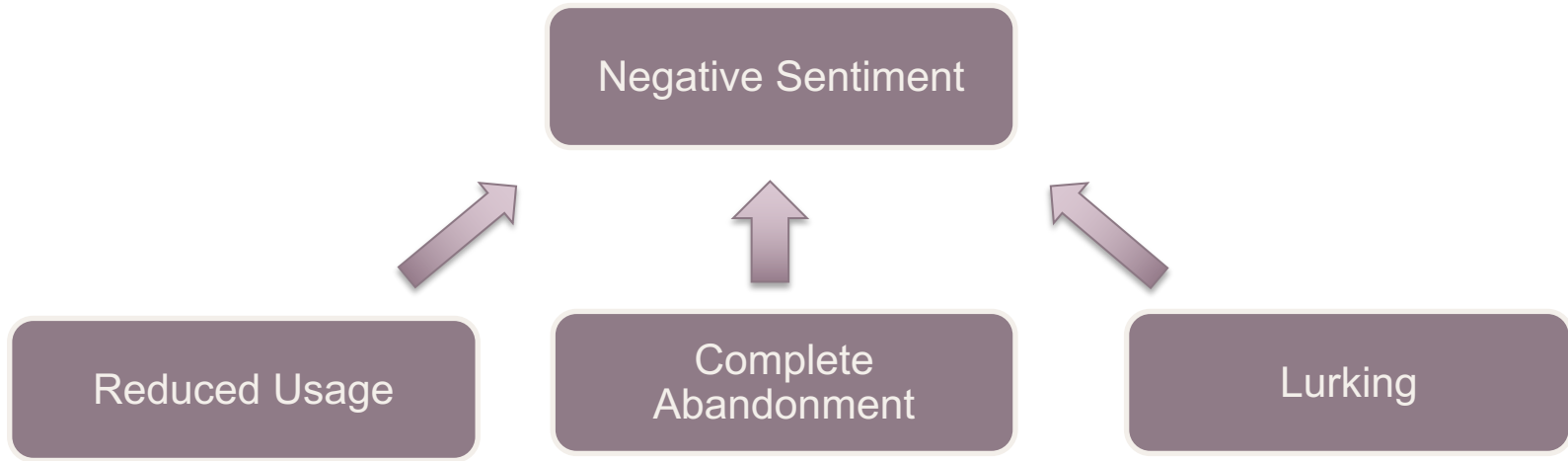
*"If Facebook continues to make its site user-unfriendly, I'll simply stop using Facebook. I've already dropped back on my usage because I cannot view my timeline the way I want to view it..."*

- Slashdot



# Insights

- Negative sentiment (NS) can be a higher level aspect connected to non-use.
- Intention and sentiment can be strong indicator of behavior and thus NS may strongly imply non-use even not explicitly mentioned.



# Recommendations



*Unsolicited naturalistic user generated content can be useful for uncovering user sentiment and practices*



*Tech-savvy users can help designers uncover problematic operation details*

# Impact

## Design Implication

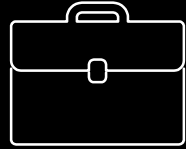
- Study provided implications for design improvement to facilitate non-use
- Work was published at CHI'19 and gained attraction from FB UX designers

## Final Deliverable & Future Work

- Written report for the thesis committee
- Encouraged future work which extended for general population
- Supervised 6+ undergrad students who eventually worked with related study

# Case Study #2:

## TravelHappy: Designing for better travel experience



### Problem Statement

With the rapid growth of technology including websites, mobile apps, online travel agencies etc., modern travelers use technology more than ever before. Although latest travel search engines like Travelocity, Expedia and TripAdvisor make it easy to plan trips beforehand; we wanted to see how much influence it really has on deciding where to go and what type of experiences to get.

### Project Goal

- Understanding the influence of existing technology on travelers planning.
- Understanding the demand of travelers and find the correlation of this with their plans.
- Providing a prototype fulfilling their demands.
- Trying to overcome the drawbacks of existing technology (e.g. lack of family friendly travel planning media).



# Context

## **Audience**

2 renowned HCI Faculty; Class of 30+ HCI graduate students

## **Constraints**

No budget for compensating interview participants or outsourcing audio transcriptions.

## **Action**

Recruited participants, conducted sessions with users, and presented findings in the class.

## **Team**

1 project partner (created prototypes)

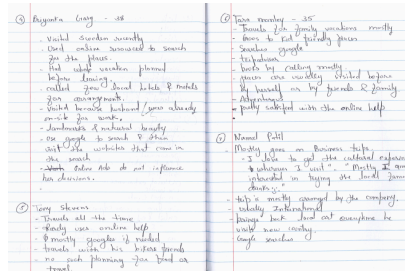
# Methods

## Recruitment

Our target population was adults over the age of 18 who travel and are familiar with the online technologies available. Interviewees were mostly friends and colleagues who travel for business as well as for family vacations.

## Interview

We interviewed 20 travelers for our research purposes. Nature of each interview was open-ended.



## Survey

Based on the interview results and feedback we received from the travelers we created a survey using [www.surveymonkey.com](http://www.surveymonkey.com)

### Happy Tourism

1. Do you travel?  
Start only one oval.  
☐ Yes  
☐ No

2. Have you ever been influenced by websites or advertisements on web to visit the place?  
Start only one oval.  
☐ Yes  
☐ No

3. If yes, what website?

4. What is the purpose of your travel?  
Check all that apply.  
☐ Business  
☐ Family Vacation  
☐ Adventure  
☐ Spiritual/Religious  
☐ Other \_\_\_\_\_

5. How did you come up with the vacation location?  
Check all that apply.  
☐ I always wanted to visit the place  
☐ Friends gave a good review  
☐ Searched online  
☐ online User reviews  
☐ Other \_\_\_\_\_

6. Where was your last vacation?

# Qualitative Analysis

During the open-coding step, the codes that we ended up with were:

- ☐ Google search
- ☐ No influence of online ads
- ☐ Landmark
- ☐ Cultural experience
- ☐ Adventure
- ☐ Family vacation
- ☐ Tripadvisor
- ☐ Business trip
- ☐ Kayak, Orbit etc.
- ☐ Cheap deals
- ☐ Recommended by friends
- ☐ Mobile apps

Later in the axial coding step, we categorized them into further groups:

## Subcategory 1: Technology

- ☐ Code: Google search
- ☐ Code: No influence of online ads
- ☐ Code: Tripadvisor
- ☐ Code: Kayak, Orbit etc.
- ☐ Code: Cheap deals
- ☐ Code: Mobile apps

## Subcategory 2: Experience

- ☐ Code: Landmark
- ☐ Code: Cultural experience
- ☐ Code: Adventure
- ☐ Code: Family vacation
- ☐ Code: Both
- ☐ Code: Business trip

# Qualitative Analysis

“I personally like to get more cultural experience but for my kids and others visiting famous landmarks and taking pictures is important so they can remember and reference back to the trip when they grow up”



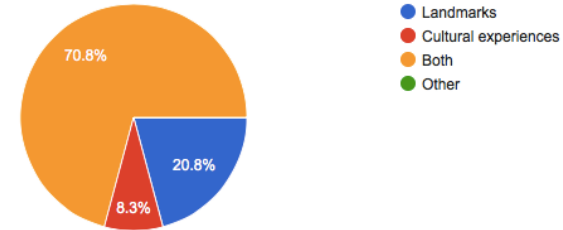
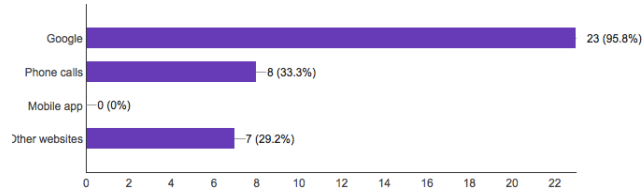
**Camilla**  
Art Gallery Curator  
(35, F)

“I don’t mind spending time on some extra google search browsing. But it would be nice to see a new interface combining them”



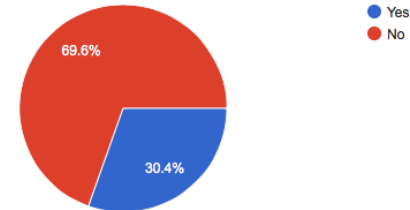
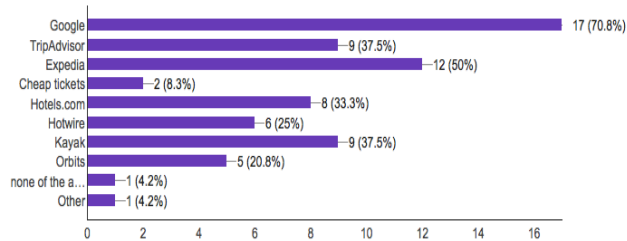
**Raphael**  
Business Analyst  
(41, M)

# Survey Findings



When planning a vacation/travel how do you gather information about the place?

When traveling do you visit landmarks or looking for cultural experiences?



When making travel arrangements which of the following do you use?

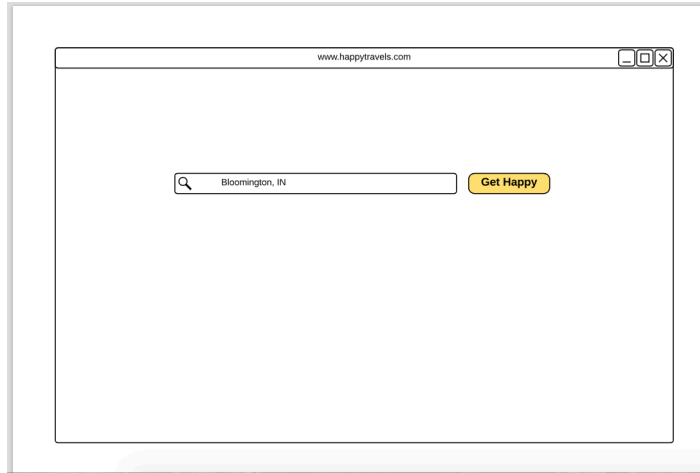
Have you ever been influenced by websites or advertisements on web to visit the place?

# Insights

- Travelers mostly travel with friends and family
- Trips are mostly three to four days' long
- Travelers use google search to begin planning for the trip and to get more information about the destination.
- Visit the places suggested by friends and family.
- Majority of the travelers are not influenced by web advertisements, blogs or forums.
- Travelers would like to see easily available information for family friendly locations, road conditions etc.

# Recommendations

Proposed a basic wireframe prototype of family friendly travel search engine



Home page of the website



Search result for the submitted travel destination

# Impact

## Usability Test & Feedback

Upon presenting our prototype before a class of Human-Computer Interaction students we received many interesting and encouraging feedbacks:

*"Very thoughtful prototype. I'm sure many families would enjoy a service like this. You might include an area for tips like on Yelp. Family friendly (casual, cheap) restaurants would also be good to include!"*

*"This is an interesting. I think it would be nice to take interaction design into consideration in the future improvement. Then we can get some real feedback from parents and kids, since different family may have different needs."*

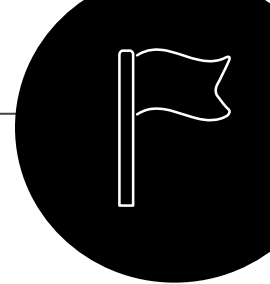
## Final Deliverable

Written report and final class presentation



# Case Study #3:

## Technology Non-use: Designing for inclusive online communities



### Problem Definition

Via interviews with individuals who indicated reduced use of Facebook, we describe the variety of ways in which use limiting may be practiced. Our findings lead to a framework for understanding, and designing for, selective engagement.

### Research Question

How can the characterization of non-use and non-adoption of Facebook be refined and extended?

# Context

## Audience

Research committee of 2 world experts in human-computer interaction & Usable privacy research group members.

## Constraints

The qualitative nature of the study and personal interviews made the demographics skew mostly towards students.

## Action

As the supporting Investigator, I helped design the research instruments and coding process.

## Team

Faculty Advisor (approved study ethics)

1 Research Assistant (coding & interview)

# Methods

## Recruitment

We recruited participants between December 2016 to May 2017 using a short screening questionnaire distributed via mailing lists, online forums, etc.

## Interview

We conducted semi-structured interviews with 22 participants over the age of 18 who indicated having lived in the US for at least 5 years

Participant	Age	Gender	Education/ Occupation	Fb(Y/N)
P1	25	M	University Staff	Y
P2	25	F	Faculty	Y
P3	23	F	University Staff	Y
P4	24	F	Graduate	Y
P5	20	F	Undergraduate	Y
P6	44	Do Not Wish to Specify	Graduate	Y
P7	23	M	Undergraduate	Y
P8	20	F	Undergraduate	Y
P9	22	M	Undergraduate	N
P10	23	F	Undergraduate	N*
P11	21	M	Undergraduate	Y
P12	32	M	Service	N
P13	23	F	Undergraduate	Y
P14	22	F	Undergraduate	Y
P15	19	M	Undergraduate	Y
P16	22	M	Undergraduate	Y
P17	37	F	Graduate	Y
P18	22	M	Undergraduate	Y
P19	21	F	Undergraduate	Y
P20	29	M	Graduate	N
P21	34	M	University Staff	N
P22	28	M	Service	N

# Qualitative Analysis

*“They (Facebook) want to probably make a lot of money, they use my data to probably track where, what sites I visit or what types of posts I subscribe to, they want to maybe know my spending habits, the types of movies I watch, they probably analyze the entire thing, for their benefit, they just want to keep me as their customer, as a consumer, so that they can keep their billions.”*

- P20

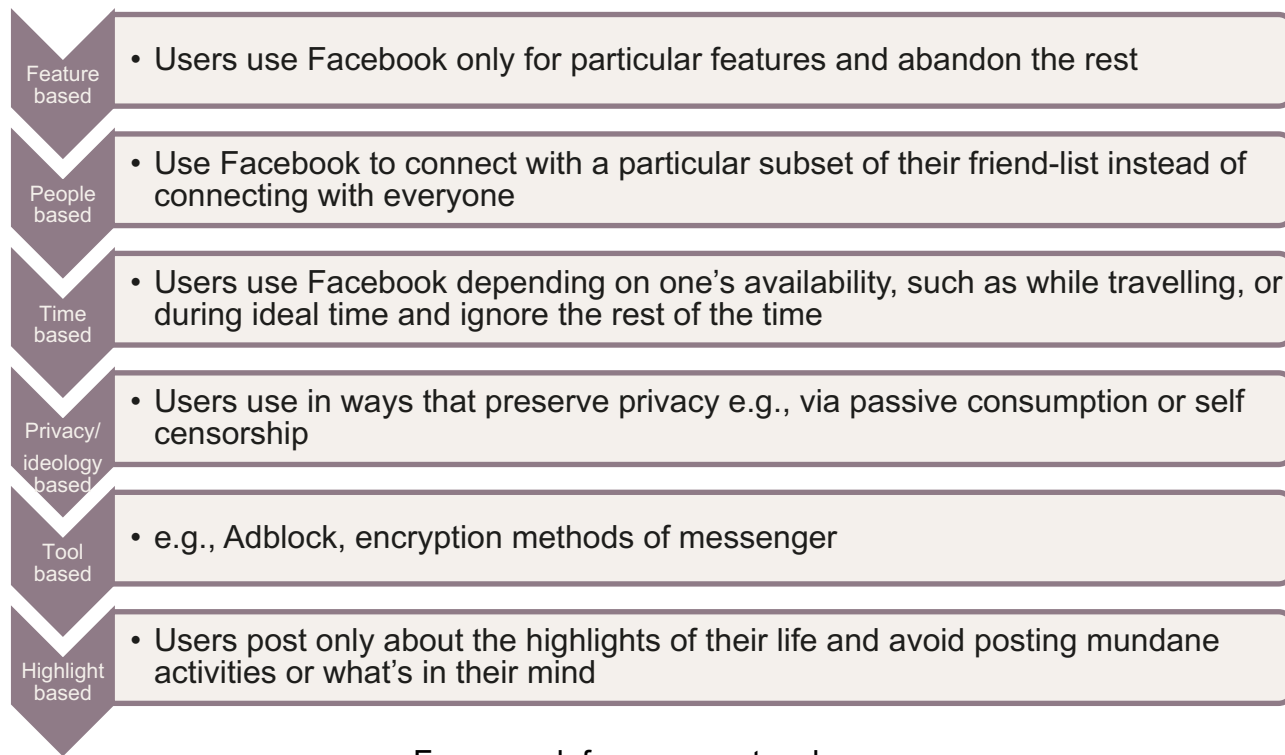
*“I think it was gradual. I enjoy producing content now as a writer producing plays in my free time. I think Facebook is not the type of audience I wanted for what I do. I’m not a high artist or anything like that.”*

- P7

# Insights

Themes	Underline Categories	Example Quotes from the Interview
Activity	Do not Comment, Edited, Personalize, Tag, Track Others	P11: <i>It has to be big events, went to things that are like a milestone of my life, freely worth to inform other people about. Other than that, if I am going to have breakfast with someone I am not going to post about it. I know a lot of people use Facebook to talk their mind but I don't think that's the platform for me. But I like to read other people's mind to read their craziness.</i>
Audience Influence	Friends Only, Older People, Close-Knit, Friends Of Friends, Impression Management	P7: <i>I think it was gradual. I enjoy producing content now as a writer producing plays in my free time. I think Facebook is not the type of audience I wanted for what I do. I'm not a high artist or anything like that.</i>
Influence of External Factors	School, Job, Everyone Has, Social Influence, Forced to talk	P10: <i>I didn't have one for 6 months in the Fall, because I was part of an organization where we couldn't have any social media, but it ended in January, but it was like before that I had one and now I have one.</i>
Facebook Functionality	Advertisement, Facebook Modifications, Ease of Use, Facebook Games, Messenger	P7: <i>I think that a lot of it is advertising of course, I do not like. You get the little banner ads on the side.</i>
Modified Behavior	Hide Posts, Passive, Reduced Usage, More Responsible, Infrequent Use	P13: <i>I would say I post less often, just cause I don't get to know if people get to see a bunch of your posts.</i>
Negative Perceptions of Facebook	Alcohol, Creepy, Blocked, Anger, Abandon	P19: <i>Obviously using curse words, um, content that insinuates drinking or illegal activities, that type of stuff, um, things that a lot of people have conflicts over, so for something like politics, everybody has their view on politics and a lot of people don't agree, so I wouldn't post something on Facebook.</i>
No Facebook	No Facebook, No Online Communication, Never Created	P22: <i>If I want to communicate to people I have email, um, if I want to talk to someone online if I have their email I'll shoot them an email, but if it's on a specific site like a uh, forum, then I can post a thing on a forum but I don't do that very much. I don't do much online communicating I guess.</i>
Non-Facebook Media Use	Other Social Media, Migrating, Other Media, Telephone	P14: <i>I feel like Facebook is one of the more soc- like one of the social media sites that young people and older people use, because if you go on Instagram and Snapchat and Twitter, they're more for like, the younger generations, so that's why I use it.</i>
Personal Influence	Do Not Invest Time, Do Not Read Policies, Boredom, Age, Procrastinate	P2: <i>Teenage years tend to be a little bit more interesting. People tend to overshare a little bit more. So when I was younger, yes, I did post a lot more with status updates, thinking that people cared about what you post. And at this point in time I don't really care to share as much.</i>
Positive feature of Facebook	Use Actively, Producer, Trust Facebook, Branding, Appreciation	P8: <i>I never regretted a post. If I had my old profile still open I know that I have a lot of friends that did this where their old posts from 2012 they laugh at it. If they were still available I would regret my posts from when I was really young because it was probably just song lyrics or something really cringe worthy.</i>
Privacy and Security	Privacy Concern, Public, Sell Information, Uses Data, Turn Off Chat	P20: <i>They(Facebook) want to probably make a lot of money, they use my data to probably track where, what sites I visit or what types of posts I subscribe to, they want to maybe know my spending habits, the types of movies I watch, they probably analyze the entire thing, for their benefit, um, and they just want to keep me as their customer, as a consumer, so that they can keep their billions.</i>

# Recommendations



Framework for non-use typology

**Let's connect!**

# Contact Information

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