

**Understanding Gen-Z College Student Needs
Regarding Social Media Apps through a Case Study on Bondit,
a Social Media App for College Students**

By

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Submitted to the Integrated Design and Management Program
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Abstract

Gen-Z college students are the first generation of college students that did not experience a world without the internet (Chillakuri, 2020). They have access to social media platforms to connect with peers, and they have access to multiple websites that their college provides in terms of campus resources. Despite the wealth of resources that they enjoy, the college retention rate of Gen-Z students is lower compared to previous generations due to poor mental health (Selingo, 2018). Existing research attributes this phenomenon to a lack of sense of belonging (Thomas et al., 2020) that is induced by existing popular social media platforms, such as Instagram (Knight-McCord et al., 2016), and the absence of features specifically designed to promote that feeling amongst college peers. College is not merely a place for accumulating knowledge, but to meet and socialize with peers, and to inspire creations that could resolve some of humanity's biggest challenges. How might we help Gen-Z college students better bond with college peers through social media so that they can have a more positive college experience?

This study aims to learn the needs of Gen-Z college students and identify social media app features that could promote college bonding through using Bondit, a new social media app for college student bonding, as a case study. This research also contributes with functional requirements and design recommendations for social media platforms that aim to create better college bonding experiences for Gen-Z college students.

Thesis supervisor: Sheila Pontis, PhD

Title: Lecturer, Integrated Design and Management Program

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I would also like to thank Ryan Pai, Lauren Choi, and University of California Berkeley's Idea Factory for enabling me to work on Bondit and helping me better understand Gen-Z college students and their needs.

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1. Introduction

There are approximately 19 million students that are enrolled in United States (US) colleges as of 2020 (Duffin, 2021). Social media platforms play an important role in promoting bonding amongst college students in this country (Bryk et al., 2013). The use of these platforms in mobile devices contributes to the feeling of belonging amongst college students as they use them to bond with their peers (Bryk et al., 2013). Bryk et al.'s research also reveals that an increase in the sense of belonging or affiliation to the college is essential to ensuring student success, in that, those who bond with their college peers are more likely to report a positive college experience while those who do not are more likely to drop out of college.

It is important to note that many college students that use social media platforms to bond are Gen-Z, which refers to individuals that are born after 1995 (Marron, 2015). This generation is known to be digital native, familiar with social media growing up, and to display unique behavior in comparison to the Millennial Generation, which is the previous generation (Marron, 2015).

Thomas et al. adds that social media platforms promote bonding amongst college students by revealing that strengthening existing relationships and facilitating offline relationships via social media has a positive correlation with college students' mental health (Thomas et al., 2020). This research also shows that social media platform features that

promote students bonding with others they know in college or those they can meet offline, should be highlighted in order for college students to benefit from a social media platform.

In summary, college students use social media platforms to bond with peers, and certain platform features can contribute to an increased sense of belonging and a decreased sense of loneliness that could result in a more positive college experience.

Although there are positive aspects of social media, there are also negative ones in terms of college bonding. Thomas et al. argues that college students who desire to “edit and reinvent” themselves on social media report a higher sense of loneliness, and that interacting with complete strangers on such platforms has a negative correlation with mental health (Thomas et al., 2020, p. 1). To “edit and reinvent” means to not be true to oneself and upload content that distorts one’s true identity online. Similarly, certain features that promote behavior to present a liminal or reinvented self, or to interact with strangers, could also lead to a negative college experience for students (Thomas et al., 2020, p. 1).

Having in mind that features that promote bonding with college peers could promote a positive college experience, particularly amongst freshmen where the majority of incoming students are Gen-Z, the goal of this thesis is to help Gen-Z college students better bond through the use of social media apps.

The primary research objectives are the following:

1. Understanding the pain points and needs of Gen-Z college students in regards to college bonding;
2. Identifying social media features that could help Gen-Z college students better bond with college peers by testing a prototype of a new social media platform called Bondit.

The research questions are the following:

1. How might we help Gen-Z college students better bond with their peers?
2. What features would motivate Gen-Z college students to reuse a social media app for college bonding?
3. How will Gen-Z college students respond to a social media app that caters to their needs?

To answer the research questions, I designed two qualitative studies with Gen-Z college students including interviews to identify their needs, and a task analysis to test features of an improved version of Bondit.

2. Background

2.1 Who are Gen-Z and what is important to them?

Generation-Z or Gen-Z refers to individuals born after 1995; they comprise about 30% of the world's population (Chillakuri, 2020) although definitions about this generation vary as related research is still in its early stage (Dwivedula et al., 2019). Existing literature asserts that it is a mistake to consider Gen-Zers merely as an extension of the Millennial Generation; this is because Gen-Zers are the first generation to have grown up in an era where smartphone devices and social media platforms are readily available to them (Chillakuri, 2020). The main difference between Gen-Zers and Millennials is that Gen-Zers view social media apps as a place to discover new friends and grow their social circle while Millennials view social media apps as a place to stay in contact with friends they have met in person (Marron, 2015). Gen-Zers are also accustomed to customization and “instant communication of texting and status updates” as many of the major social media platforms provide these features (Selingo, 2018, p. 9). In summary, Gen-Zers are digital natives, and having access to instant communication channels to information and entertainment is important to them.

2.2 College bonding promotes a sense of belonging

Gopalan and Brady's research shows that a sense of belonging positively contributes to success in college as students who have reported a higher sense of belonging have also

reported better mental health, engagement, and persistence in college (Gopalan & Brady, 2020). In college, a sense of belonging can contribute to students engaging more in their studies and achieving better learning outcomes. For example, a study conducted by the Carnegie Foundation for the Advancement of Teaching revealed that students' uncertainty in regards to their sense of belonging was identified as the single and best indicator of persistence in a college course (Bryk et al., 2013).

In short, having more tools for college students that encourage bonding with peers could contribute to increasing Gen-Z's sense of belonging during their college experience.

2.3 Gen-Z social media behavior

The amount of time that Gen-Z college students spend on social media varies, but approximately 20%, or 1 out of 5 students spend about 1.5 to 2 hours a day on social media, while 15% of them spend 3 hours or more (Saha & Guha, 2019). Around 45% of Gen-Z college students reported that they use unlimited WiFi to connect to their social media, and approximately 87% of Gen-Z college students have reported that they utilize their smartphone devices to access social media platforms (Saha & Guha, 2019). Amongst these students, 64% reported that they mainly use their smartphone devices to access social media platforms (Saha & Guha, 2019). The main motivating factor for Gen-Z to use social media is to “find out about their friends, share information, to cure boredom, to relax and for entertainment purposes” (Dorasamy, 2018, p. 3).

Gen-Zers use numerous social media platforms to socialize in different ways rather than only using one. For example, Gen-Zers use Instagram and Snapchat to see what other people are doing, Facebook to stay connected with family members and hometown friends, and Twitter to freely express and consume ideas (Dorasamy, 2018). Gen-Zers use Snapchat because it is more private than Instagram (Dorasamy, 2018). Through these findings, it is possible to infer that Gen-Zers use each social media platform for a specific purpose, and that they have the contradicting urge to check what other users are doing while being conscious of the privacy of their content.

As social media becomes a significant part of students' daily life, research indicates that it can also take a toll on their mental well-being and their behavior can cause distress in real-life communities, academic performance, and work. An interesting aspect to note about their online behavior is that approximately 30% of Gen-Zers reported that they feel that social media is a waste of their time (Saha & Guha, 2019). This data seems to indicate how social media platforms may negatively affect the mental health of Gen-Z college students as interaction within social media feels superficial. Young adults reported heightened levels of stress, sleep disturbances, and symptoms of depression due to emerging social norms that expect them to be reachable via mobile phone all day (Thomas et al., 2020). In addition, increased behavioral engagement with social media has been linked to the fear of missing out (FOMO), which is characterized by desire to stay continually connected with what others are doing and by having

constant opportunities for comparison of one's status (Przybylski et al., 2013). FOMO and internet addiction have been linked to lack of social conformity, sensitivity, social isolation (Tsai et al., 2013), low self-esteem, anxiety, and deficits in psychological need satisfactions (Przybylski et al., 2013). These factors indicate the negative effects of social media on Gen-Z college students.

2.4 Popular social media apps and the gap in regards to college bonding

Similar to Gen-Zers, college students from other generations also use a variety of apps. Existing research shows that Instagram is the most used social media platform amongst them (Knight-McCord et al., 2016). Snapchat, Youtube, and Tiktok are also widely used (Knight-McCord et al., 2016). The main goal of these social media platforms is to encourage users to upload content and actively engage with other users by pressing a button to endorse their content, by posting comments on generated content, or by sending direct messages to other platform users. Research has revealed that college students are more likely to use social media platforms that enable users to freely post images and short videos whereas they are less likely to use platforms that encourage users to engage in professional networking such as LinkedIn or to place the content that they upload in organized categories such as Pinterest (Knight-McCord et al., 2016). **Figure 1** shows the percentage of use for popular social media platforms amongst college students based on the findings of Knight-McCord et al.

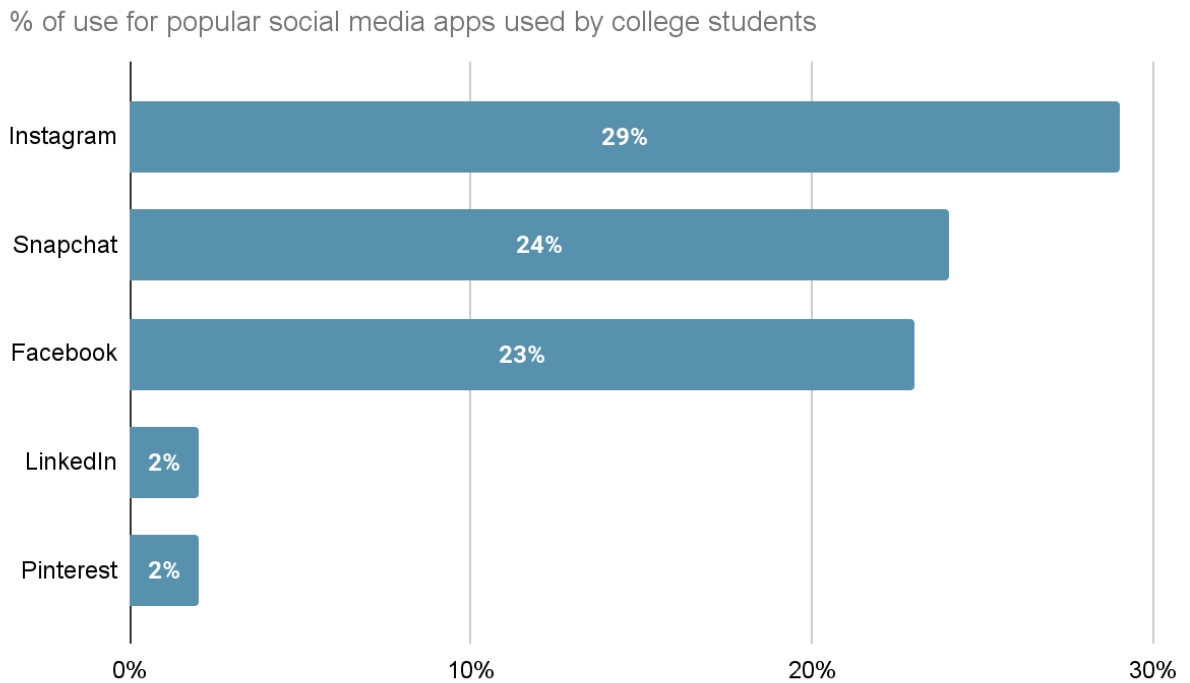


Figure 1. Percentage of use for popular social media apps used by college students

There is existing literature on the inter-generational differences between Gen-Zers and previous generations, their values in regards to attaining goals, their preferred educational learning style, their expectations in terms of career and the workplace, and their onboarding expectations in regards to their workplace (Chillakuri, 2020). However, there is notable absence of empirical studies in relation to Gen-Z college student needs in regards to bonding with their college peers. Both, college students and Gen-Zers, are active populations on social media with

the similar purpose of communicating with others, but each has a unique set of needs. This makes it imperative to explore the intersection of these two populations in regards to their social media platforms interactions to understand their needs and behaviors. This thesis investigates the overlapping population which involves individuals who are both college students and Gen-Zers, referred to as Gen-Z college students.

To sum up, social media platforms can have both positive contributions and negative impacts on the college experience. To shed light on this situation, this thesis aims to understand the needs of Gen-Z college students in terms of social media apps and identify features that would help them develop a positive college bonding experience by addressing existing gaps in popular social media platforms. **Figure 2** synthesizes social media research, showing which existing popular platforms have college bonding related features.

Feature	Instagram	Snapchat	Tiktok	Youtube
College-specific filtering				
College-specific networking feature (Events)				
Private messaging with college peers				
Group chat with college peers				
Campus geo-location chat				

Figure 2. College bonding features present in existing social media platforms. Color green indicates “yes” and color red indicates “no.”

2.5 What is Bondit?

Bondit is a social media app specifically created for college students to bond with college peers, shown in **Figure 3**. The app was first launched in 2020 by Ryan Pai, a New York University graduate. Bondit version 1 had a “Bondit Bluebox” feature where users were able to be randomly matched with other students from their same college. Users could also filter college students based on major, dormitory, gender, class year, nationality, activities of interest, and work experience such as internships.

However, the user acquisition and retention rates of Bondit were low. According to Ryan, the CEO of Bondit, this initial version only had approximately 800 users during the one-year period it was active. This is significantly lower in comparison to Instagram as it has approximately 1.21 billion users as of 2021 (Dixon, 2022). Data statistics provided by Ryan indicated that although users would click on the “Bondit Bluebox” out of curiosity, many of them did not engage in conversations with those they were matched with.

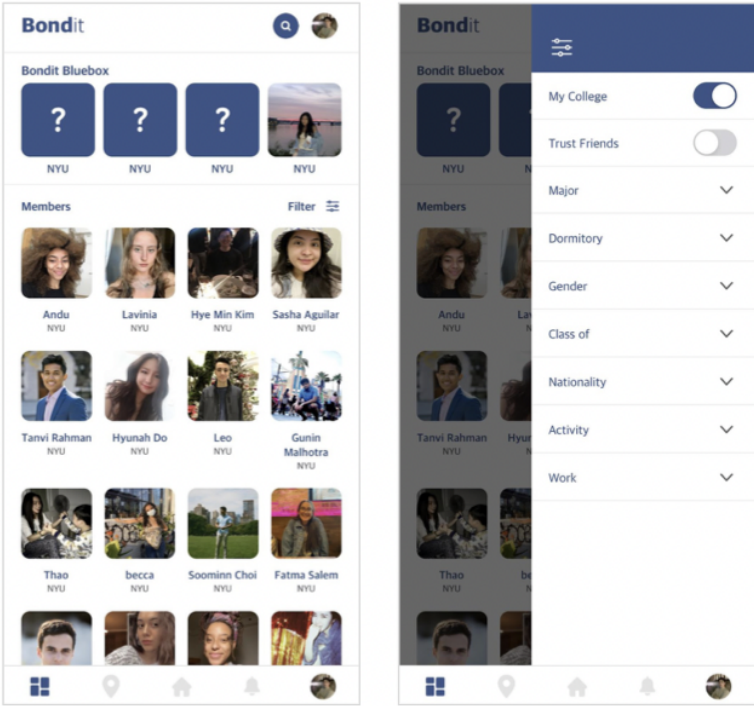


Figure 3. Bondit version 1

Fostering and nurturing bonding amongst college students is essential for their well-being; this is why I was intrigued by Bondit's mission to enable more college students to have a positive college experience. Working together with Ryan Pai, Lauren Choi, and University of California Berkeley's Idea Factory, I led the redesign of Bondit, specifically for Gen-Z college students. We conducted user research studies to better understand the needs for bonding of Gen-Z college students in the United States and created version 2 of the app.

3. Methodology

3.1 Overview

Two studies were designed to better understand users, identify social media behaviors, and test the prototype. Study 1 involved semi-structured user interviews to explore the needs of Gen-Z college students in regards to bonding in college. Open coding and affinity diagramming was used to analyze the user interview data and identify students' needs.

Based on the themes identified from Study 1, a functioning digital prototype, Bondit version 2, was designed including features aimed at addressing the needs of Gen-Z college students. Study 2 was conducted in the form of a task analysis to attain insights on the features and usability of the digital prototype. Open coding and affinity diagramming was also conducted to make sense of this data and identify design recommendations for the creation of social media apps targeting Gen-Z college students for the purpose of college bonding.

3.2 Study 1: User Interviews

Semi-structured user interviews were conducted with Gen-Z college students via Zoom for a duration of approximately 30 minutes per session. Participants were given a brief introduction of the study and asked whether the interview could be recorded. They were also encouraged to freely express their opinions as much as possible. The objectives of the interview were to:

1. Understand Gen-Z college students' needs about college bonding
2. Identify social media apps that they use for college bonding and the reasons why they use them
3. Identify their needs in regards to social media app features used specifically for college bonding

There were nine main questions in the interview guide, which can be seen in **Table 1**. However, it should be noted that during the interviews there were variations of the main questions, as well as additional follow-up questions asked to further understand the user's responses.

Main user interview questions for Study 1	
1	Why do you want to bond with your college peers?
2	What information matters to you when it comes to college bonding?
3	How do you bond with college peers?
4	When do you bond the most with college peers?
5	What are some of the pain points when it comes to bonding with peers?
6	What social media app do you use to bond with college peers?
7	What social media app features do you use the most to bond with college peers?
8	Have you ever downloaded a social media app then deleted right away? Why?
9	Have you recommended a social media app to your friends in regards to college bonding? When and why?

Table 1. Main interview questions for Study 1

3.3 Study 2: Task analysis

Task analysis was conducted with Gen-Z college students via Zoom for a duration of approximately 30 minutes per session. The objectives of this study were understanding user behavior and needs in regards to Bondit; particularly:

1. The login feature
2. Identifying college peers to bond with within the app
3. Interacting with college peers to bond with within the app

A total of four tasks and four questions were outlined in a task analysis guide, which can be seen in **Table 2**. However, it should be noted that there were also variations of the main tasks and questions, as well as additional follow-up questions to further understand the user's actions and responses to each task and questions.

Each participant was given a link to a functioning prototype via the Zoom chat after the task analysis introduction, and each participant was given one task at a time to complete. They were told to share their screen so that I could see the location of their mouse, and how they were interacting with the screen. The Zoom sessions were recorded after gaining the consent of the participant. Screenshots were taken of the recorded Zoom sessions to capture their behaviors and task flows. Participants were encouraged to think out loud while they were completing the tasks in order to further understand their behavior.

Main tasks and questions for Study 2	
Task 1	Please login and create a profile.
Task 1 question	Please tell me your impression of the login process.
Task 2	Create your class schedule and identify a college peer you would like to bond with.
Task 2 question	Why did you choose to bond with that peer?
Task 3	Go to the map feature and identify a college peer you would like to bond with.
Task 3 question	Why did you choose to bond with that peer?
Task 4	Go to the events board feature and identify a college peer you would like to bond with.
Task 4 question	Why did you choose to bond with that peer?

Table 2. Main tasks and questions for Study 2

3.4 Data Collection

All user interviews were recorded via the Zoom recording function, and the user recordings were later transcribed by listening to the recording again and referring to the auto-generated Zoom audio transcript. **Figure 4** presents an example of a user interview recording and the auto-generated transcript. Participant's face and name were blurred to protect the participant's identity.

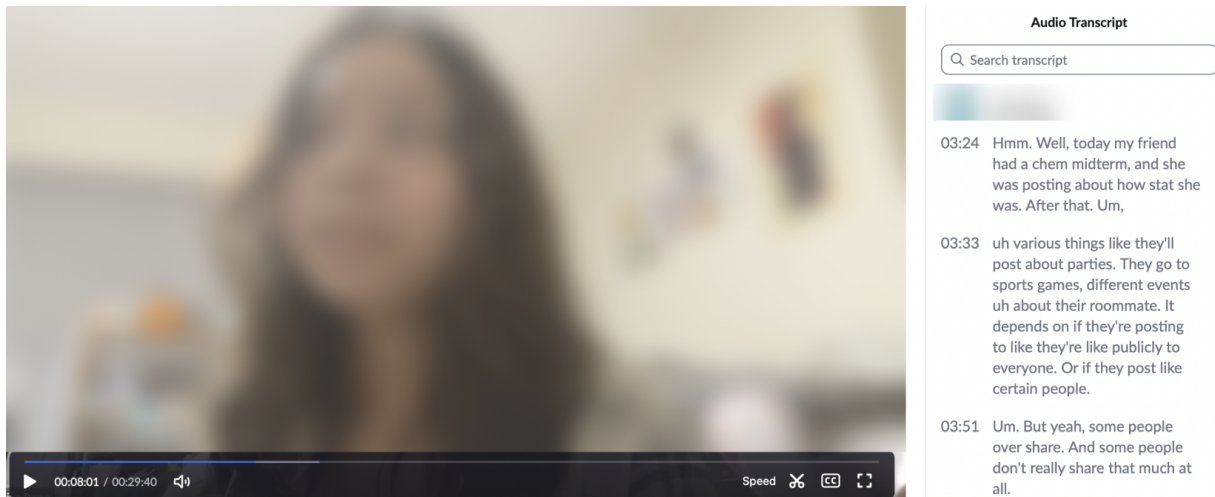


Figure 4. Screenshot of user interview recording and transcript

3.5 Participants

A total of 30 Gen-Z college students were recruited for both studies with the help of the undergraduate marketing club at the University of California Berkeley as they had ready access to Gen-Z college students from various universities in the US.

For study 1, 15 participants ranging from 18 to 24 years old were interviewed. Six of the participants identified as male and nine of the participants identified as female. **Table 3** provides a breakdown of the user demographic information and college affiliation.

Number	College	Major	Age	Gender
A1	University of California, Berkeley	Computer Science	23	Male
A2	University of California, Berkeley	Landscape Architecture	21	Female
A3	Chapman University	Data Science	20	Female
A4	University of California, Berkeley	Integrative Biology	21	Female
A5	University of California, Davis	Media Studies	21	Male
A6	University of California, Berkeley	Sustainable Environmental Design	19	Female
A7	University of California, Berkeley	(Intended) Computer Science	18	Male
A8	University of California, Berkeley	(Intended) Molecular Biology	19	Female
A9	University of California, Berkeley	(Intended) Nutritional Science	19	Male
A10	New York University	Interactive Media Arts	18	Female
A11	University of California, Berkeley	Legal Studies	24	Female
A12	University of California, Berkeley	Global Studies	19	Female
A13	University of California, Davis	Media Studies	21	Male
A14	University of California, Berkeley	Cognitive Science	20	Female
A15	University of California, Berkeley	Computer Science	19	Male

Table 3. Users' demographic information for Study 1

There were 15 task analysis participants ranging from 17 to 23 years old. Ten of the participants identified as male and five of the participants identified as female. **Table 4** shows a breakdown of the user demographic information and college affiliation.

Number	College	Major	Age	Gender
B1	University of California, Berkeley	Statistics	23	Male
B2	Diablo Valley College	Computer Science	17	Male
B3	University of California, Berkeley	Landscape Architecture	21	Female
B4	University of California, Berkeley	Political Economics	22	Female
B5	University of California, San Diego	Human Developmental Sciences	18	Male
B6	University of California, Berkeley	Economics	20	Male
B7	University of California, Davis	Media Studies	21	Male
B8	University of California, Santa Cruz	Biology	22	Male
B9	University of California, Berkeley	(Intended) Computer Science	18	Male
B10	University of California, Berkeley	Sustainable Environmental Design	19	Female
B11	New York University	Computer Science	18	Male
B12	Texas A&M University	Aerospace Engineering	19	Male
B13	University of California, Santa Cruz	Psychology	21	Female
B14	New York University	Economics	22	Male
B15	Vanderbilt University	Human Organizational Development	22	Female

Table 4. Users' demographic information for Study 2

3.6 Data Analysis

Interview recordings for **Study 1** were approximately 8.5 hours in total while the **Study 2** task analysis recordings were approximately 9.05 hours in total. The reason why **Study 2** task analysis recordings were longer is because more time was needed to share the instructions and answer participant questions before the study started.

Manual open coding was conducted to help identify behaviors, pain points, and needs that are similar across participants, and participants' quotes were used to validate insights in Google docs. I first color-coded pain points, needs, and motivations that were identified within **Study 1** and **Study 2** transcripts in red, orange, and yellow, respectively to better differentiate the three categories.

Insightful quotes were extracted and migrated onto virtual sticky notes on Miro, an online platform for visual collaboration, and then grouped into common themes in an affinity diagram. Working together with Lauren Choi and University of California Berkeley's Idea Factory, we created a table on the left of the affinity diagram that listed the participants anonymously as A1 to A15 for **Study 1**, B1 to B15 for **Study 2**, and assigned each participant a unique color. Then, we placed representative quotes that were highlighted during open coding next to the respective participant using their unique color. We placed the main interview questions as columns and the quotes responding to each question under the respective column. After organizing and color-coding insightful quotes for **Study 1**, I worked individually to cluster quotes

that were pointing towards a similar direction under three themes that are discussed in section 4.

For **Study 2**, task analysis recordings went through a similar process of open coding and affinity diagramming to identify the parts of the prototype that worked well and those that needed improvement. Participants' experiences and accounts were analyzed in a similar way too. I grouped quotes based on the tasks to identify similarities and differences amongst participants' interactions; findings are discussed in section 6.

4. Study 1 results

Based on the 15 user interviews conducted with Gen-Z college students, three themes emerged amongst the participants, which are summarized in **Table 5**.

Gen-Z college student themes	
1	To socialize in a less awkward way
2	To build offline connections
3	To bond with students of similar interests

Table 5. Gen-Z college student themes

4.1 Socialize in a less awkward way

All participants voiced that the most commonly used social media platform to socialize with college peers is Instagram [A1-15], although some only use it to chat with college peers that they already know [A3, A7, A11]. This finding validates existing research as Knight-McCord et al. also identified that Instagram is the most used social media app amongst college students. Some participants seemed to feel uncomfortable reaching out to a college peer they do not know on Instagram [A2, A5, A10, A13]. For example, A10 said that it is “awkward” to “slide into DMs” of someone that they go to the same school with but they do not know personally because this action often has the connotation that one is sexually interested in the other party.

Amongst this population, “sliding into DMs” means directly private messaging another user, often someone who is a stranger, on Instagram. The connotation tied to direct messaging another Instagram user makes it hard for Gen-Z college students to expand their social circle by reaching out to college peers they are not close to in an offline setting.

Participants shared that their campus friend group is limited. It is “awkward” for them to talk to people on campus because “everyone looks busy” and because they “don’t know what to talk about” [A5, A14, A15]. Many of their peers also socialize within their close friend group, which usually consists of those they were grouped with during pre-orientation or orientation week [A2, A9, A14, A15]. The University of California school system offers a week-long orientation, and students are grouped with peers during this week [A2, A9, A14, A15]. Besides this week, approaching college peers during the school year seems harder because there are “not a lot of settings that push you to socialize with (college peers) like orientation week” [A2, A4, A8].

When asked what was the biggest pain point about socializing on campus, some participants mentioned scheduling to meet with friends as “everyone is busy” and since classes are “scattered around” campus “unlike high school” where they would take the same classes in the same building [A3, A5]. Hence, they tend to prefer socializing with those they take the same class with since it is easier to meet with them at a designated time and place [A7, A15]. Moreover, they often find it “awkward” to talk to college peers in class because undergraduate

classes tend to take place in large lecture halls that do not leave space for networking, unlike orientation week, and because students are continuously rushing from one classroom to another [A1, A5]. In this context, having a digital environment where connecting with peers with similar interests may be easier, especially with classmates, could be a more direct way to socialize.

4.2 Build offline connections

Contrary to my assumption that Gen-Z college students would prefer making online connections and mainly socialize online, participants voiced that they usually use social media to strengthen and to make new offline connections such as coordinating to meet up and introducing each other to a new friend to add to the social group they formed during orientation week [A1, A5, A7]. Participants reported that they wanted to expand their social group, and that they wanted to know the events that are happening around campus to meet more friends in a setting that promotes networking and socializing [A3, A4, A8, A9]. Participant A12 said that most of the events that they participate in are usually small dorm events where they get together and drink or talk about midterms, homework, or final exams, which can get “really boring soon.”

Gen-Z college students who were part of the study voiced their interest in being part of events or trends that are happening around campus. Participant A5 explicitly stated, “I want to participate in various school events that I don't really know.” Several reasons to socialize with

peers with similar interests were mentioned, such as finding common clubs or meeting more individuals to form a social circle [A5]. Participant A3 shared that the reason why there is a high interest in social events amongst the freshmen group is because they want to “feel like I belong at my school.”

When participants were asked which feature on Instagram they use most often, many mentioned the story feature, which allows users to view a short video or image of what their friends or connections post [A1, A5, A9, A12, A14]. Participants explicitly said that they use Instagram to check what their connections are up to rather than checking out people they do not know [A1, A5, A9, A12, A14]. This validates the finding that social media is often used to facilitate rather than replace offline socializing (Ellison et al., 2011).

When asked about a social media feature they would like to have, they mentioned that having an “events” page would be good as they said that they had “major FOMO [fear of missing out]” of “missing out on a party” that could be potentially “life changing” [A1, A2, A5, A6, A9]. Participant A2 said that she was waiting “all her life” to participate in “wild college parties” and that she was disappointed after her first semester because she did not know where to find such information as her college would only have formal or “boring” events that were “far from fun.”

It can be inferred that Gen-Z college students want to learn more about events happening on campus that are posted in a casual manner and that could foster more offline interactions and socializing with college peers outside of their close friend group.

4.3 Bond with students of similar interests

Socializing with students in the same college emerged as a key factor for most participants. Many participants said that they usually “talk about classes” and that they wanted to bond with college peers of the “same class year” as it is more likely that they would “take the same classes” in the near future as many freshmen are required to take the same foundational courses in their first or second years of college [A3, A4, A5, A8, A11, A12, A13, A15]. Other information reported by participants that they would be interested in sharing and knowing about are “major,” “religion,” and “clubs” [A14, A15].

Basic information about a stranger, such as their background or interests, facilitates bonding as it can serve as a conversation starter. Participants voiced that it is easier for them to connect with individuals who have never met before when they know some basic information about them [A1, A7, A8, A10, A14]. Participant A10 said, it is “just really awkward sometimes when you first meet... it’s hard to initiate conversation because you don’t know the other person that well.” This indicates that knowing a minimum about the other person may alleviate the pressure that Gen-Z college students feel when first reaching out to strangers. The majority of the participants expressed that their main driver for socializing is to find peers who share

similar interests and spend time doing activities together. Meaning that common interests are important for them when seeking cohorts to associate with.

Furthermore, when participants know they have mutual friends, it seems to be easier for them to initiate a conversation as indicated by participant A15, who mentioned that “[knowing] their major and age would be helpful, but ... I don’t know if I’d add people who I don’t know or not have a mutual friend with.” Based on these comments, a social media app would benefit from having a function or feature that recommends users to other users who share similar interests and also have mutual friends. This would be different from the matching feature called “Bondit Bluebox” in Bondit version 1 as the matching feature randomly matched college peers with each other without taking mutual friends into account.

4.4 Gen-Z college student needs for bonding

There are three needs identified through the themes. Gen-Z college students need a common ground to talk about with peers to socialize in a less awkward way, as common ground can serve as a conversation starter and facilitate bonding. They also need information about in-person gatherings happening around campus to build more offline connections in college, and information about students with similar interests. **Table 6** shows the Gen-Z college student needs and the corresponding themes they relate to.

Gen-Z college student themes		Gen-Z college student needs
1	Desire to socialize in a less awkward way	To find common ground to talk about with peers
2	Desire for offline connections	To obtain information on in-person gatherings
3	Desire to bond with students of similar interests	To have access to information about peers' hobbies, likes and dislikes

Table 6. Themes and corresponding needs

5. Designing Bondit version 2

To address the Gen-Z college student needs identified in Study 1, new features were designed and incorporated into Bondit version 2 to test with task analysis. **Table 7** indicates which feature corresponds to Gen-Z college student needs.

	Gen-Z college student needs	Corresponding features
1	To find common ground to talk about with peers	Scheduling and socializing feature
2	To obtain information on in-person gatherings	College-specific events board
3	To have access to information about peers' hobbies, likes and dislikes	College-specific filtering and suggesting system

Table 7. Needs and corresponding features

5.1 Scheduling and socializing feature

A shareable scheduling feature that allows users to upload information about their classes was incorporated into Bondit version 2. On the schedule page, users are able to see other classmates who are taking the same class. They have the option to join automatically and create group chats with classmates, having a common topic for them to talk about. This feature was designed to address the user needs to have something in common to talk about when approaching another college peer. For example, participant A7 highlighted this obstacle: “[it is]

hard to break through ... initial barrier of strangers, because you have to talk to them more to be comfortable with them." A natural setting to initiate conversation with a common topic would alleviate Gen-Z college users' pressure when reaching out to strangers.

Moreover, making close friends in class is deemed crucial for Gen-Z college students to the point they begin socializing even before attending the school through social media. Participant A10 shared that "even before [the beginning of the semester], I [saw school's] class of 2025 Instagram page where people were bonding and finding others in their majors/programs." This shows how Gen-Z college students actively utilize social media platforms to be acquainted with possible classmates; the shareable schedule and group chat feature could fulfill those needs.

Figure 5 shows the digital prototype of Bondit's scheduling and socializing feature. Users can search for existing courses or create a course if they do not see it within the app. Users can also see who is taking the same course, and choose to join the course group chat to socialize with those students or privately message classmates that they see in their same course. Users can see the profile photo, school, class year, and the status message of other users and utilize the course as common ground to initiate a conversation with them. With a college course as a common denominator, users can become closer to other college peers by forming study groups and talking about homework or exams. This could help Gen-Z college students build a sense of belonging with their college as they can have ready access to classmates in a more casual

manner and choose to form study groups or get closer to classmates they saw offline by private messaging them. This feature could be critical to ensure the success of a student in college as a sense of belonging is a strong indicator of a student’s persistence in college courses (Bryk et al., 2013). Building on prior research (Gopalan & Brady, 2020), this feature could also contribute to improving mental health and increase engagement with college courses. **Figure 6** shows a high level user flow of Bondit’s scheduling and socializing feature which informed the design of the Bondit app version 2.

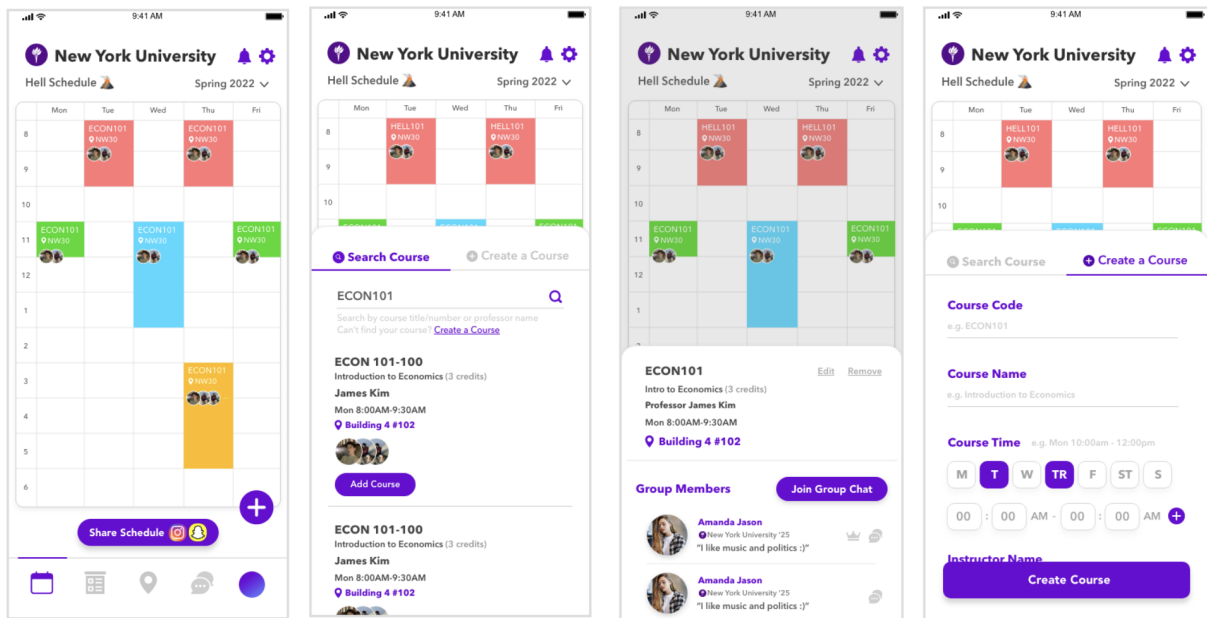


Figure 5. Digital prototype of Bondit’s scheduling and socializing feature

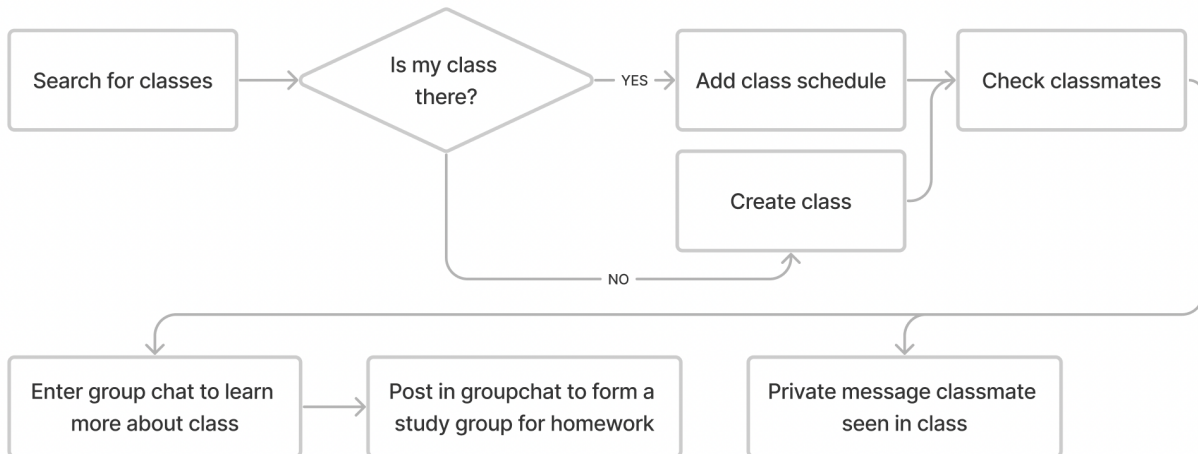


Figure 6. User flow of Bondit’s scheduling and socializing feature

5.2 College-specific events board

A college-specific events board where users can post information about events that are happening on campus was designed to be incorporated into Bondit version 2. The events board resembles an explore and feed feature where users can create posts on any event with an option to be anonymous, an option that was unavailable in Bondit version 1. An explore and feed feature allows users to scroll through a list of content that other users post. This kind of feature is common in popular social media apps that college students use. As indicated by user research, I decided to create the events board similar to an explore and feed feature because Gen-Z college students most frequently use it in Instagram to learn about ongoing events. Participant A8 pointed out that “my favorite feature on the app is definitely the explore page. I

think it is amazing how people worldwide can come together to share content... it keeps me entertained." Numerous other interviewees voiced similar opinions by stating they enjoy seeing what "other people are up to" [A4, A8, A11, A12]. Being able to have access to formal and informal event information happening around campus could address the user's need to create more offline connections and alleviate FOMO. This function could also help students have a better mental health as a heightened FOMO is linked to low self-esteem, anxiety (Przybylski et al., 2013), and a lack of social conformity (Tsai et al., 2013).

The optional feature to post anonymously could help reduce anxiety of being judged in a digital space. Participants that self-identify as introverts said that they would like to make more connections outside of their friend group in college, but that they were anxious about being more public on Instagram or Snapchat because of the fear of being judged for what they post by people they do not know [A4, A5]. In social media platforms, judgment is expressed through the number of likes and comments a post receives. Larger numbers indicate greater users' interest. In order to alleviate the concern of being judged by how much interest their post on an event is garnering, the addition of the events board would give users the option to engage anonymously without the risk of being publicly judged. Although the personal identity of the user that posts an event may be anonymous, the college of the user that uploaded the event would be publicly available within the app. This requirement would preserve the uploader's identity while

disclosing only details that could create bonding opportunities, since participants voiced that they were open to bonding with those from the same college [A1, A7].

Bondit version 2 allows users to create more offline connections by accessing information about how to participate in “small dorm parties” or gatherings that are not posted on a bulletin board on campus or advertised via college mailing lists [A4]. **Figure 7** shows Bondit’s events feature. Users are able to view the time and location of the event as well as what the event is about. They can like, comment, or save the event to follow-up on its details. **Figure 8** shows the user flow of how the events board could be used from the perspective of a user that is browsing for an event to attend. The user flow was used to inform the design of this feature. Similar to the scheduling and socializing feature for classes, users have the option to see and reach out to other users who saved the event in case they would want to attend the event with a familiar face.

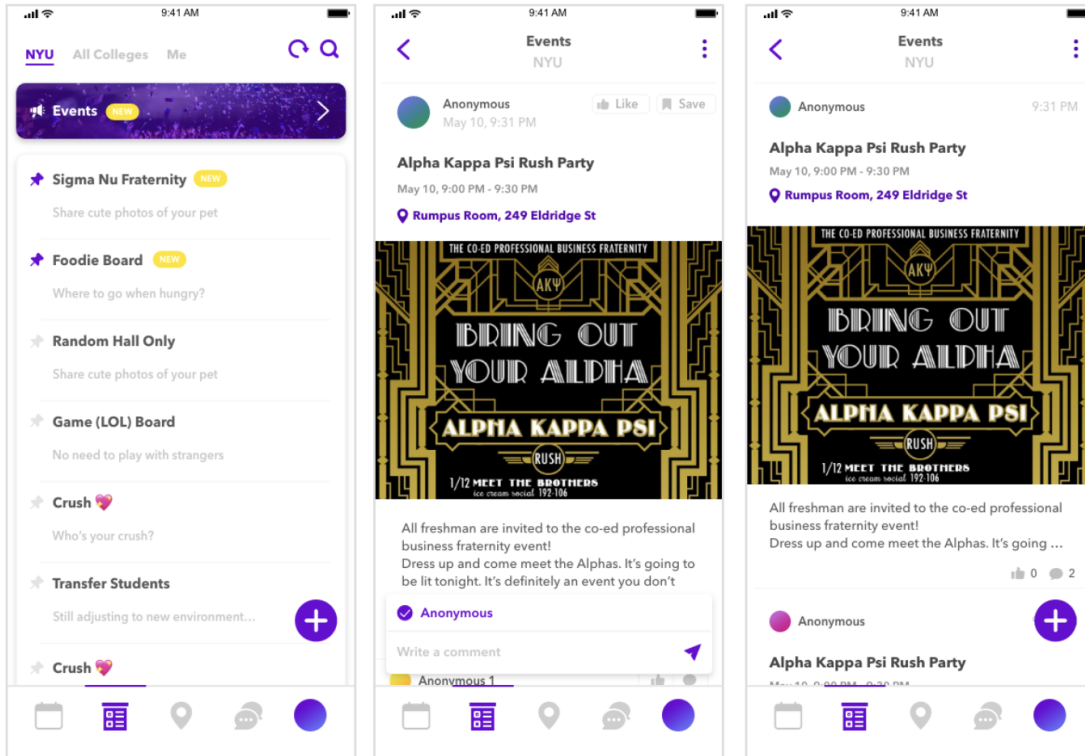


Figure 7. Digital prototype of Bondit's events feature

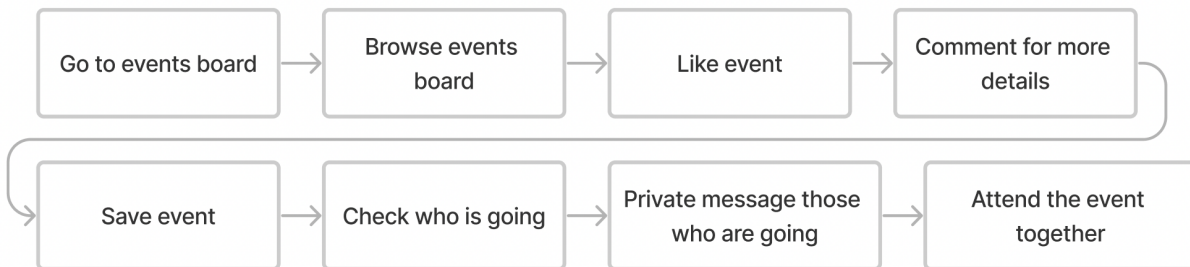


Figure 8. User flow of Bondit's events feature

5.3 College-specific filtering and suggesting system

A college-specific filtering and suggestion system was designed so that the user can find peers who share similar interests, have similar backgrounds, or have other factors in common. From the user research, the majority of the participants pointed out common interest as the primary component they would consider when making new friends [A1, A4, A8, A10]. For example, participant A8 said that “I bond with my peers the most when we genuinely share the same interests,” further commenting that when a friend group shares common interests, they feel less pressured to “forcefully make [oneself] seen a certain type of way.” This comment evidences how the outstanding factor Gen-Z college users value when socializing in a new environment is having a common interest. The filtering feature would enable users to select potential peers to bond, but only based on the type of information they entered during the login process. For example, if a user only shared their college and class year, they would only be able to filter by college and class year. This feature could potentially incentivize users to provide more information within the app since the user could filter college peers through more information fields if they provided more information. For example, if a user provides their major, the user would be able to filter college peers based on majors. However, many participants expressed reluctance in adding their information [A4, A5, A7, A8, A9, A10, A12, A14, A15]. Participant A13 shared that he “just doesn’t have the patience” to input information he is “used to short login” procedures. Therefore, it is important to address the issue of Gen-Z

college students wanting more information but being reluctant to share more information. This would be a high priority because it is critical that multiple users share more information in order for the filtering function to effectively work for socialization purposes; this is an important condition for the app to work as intended.

On the filtering page, there is a recommendation feature where users can see other users they have mutual friends with. During the user research, the existence of mutual friends was frequently mentioned as a compelling factor affecting users' interest in socializing with peers outside their circle [A4, A11, A14]. It was mentioned, "I mostly bond with people online or through mutual friends," since they have "much more to talk about" if they have a mutual friend [A2]. Thus, recommending other users with a mutual friend would help users to expand their social circle and form stronger connections to the school community.

Figure 9 shows the filtering and suggestion system on the digital prototype of Bondit, and **Figure 10** is the corresponding user flow that informed the design of the system. Users can see their friend's status messages and birthdays to better engage with them on their friends tab. Right next to the friends tab, users can see suggested friends based on the number of mutual friends, ordered in a way where users with the highest number of mutual friends would be listed at the top. Users can choose to filter the suggested friends tab by the number of information they provided during the login process. "My College" and "Class Year" would be available to all users as it is required in the login process to ensure that current college students

use the app, but other information such as major, clubs, dormitory, gender, nationality would be available based on whether the user inputted such information during the login process as it is optional. There is an option for users to add additional information through the settings icon on the top right of their profile tab that houses the “Friends” and “Suggestions” tab.

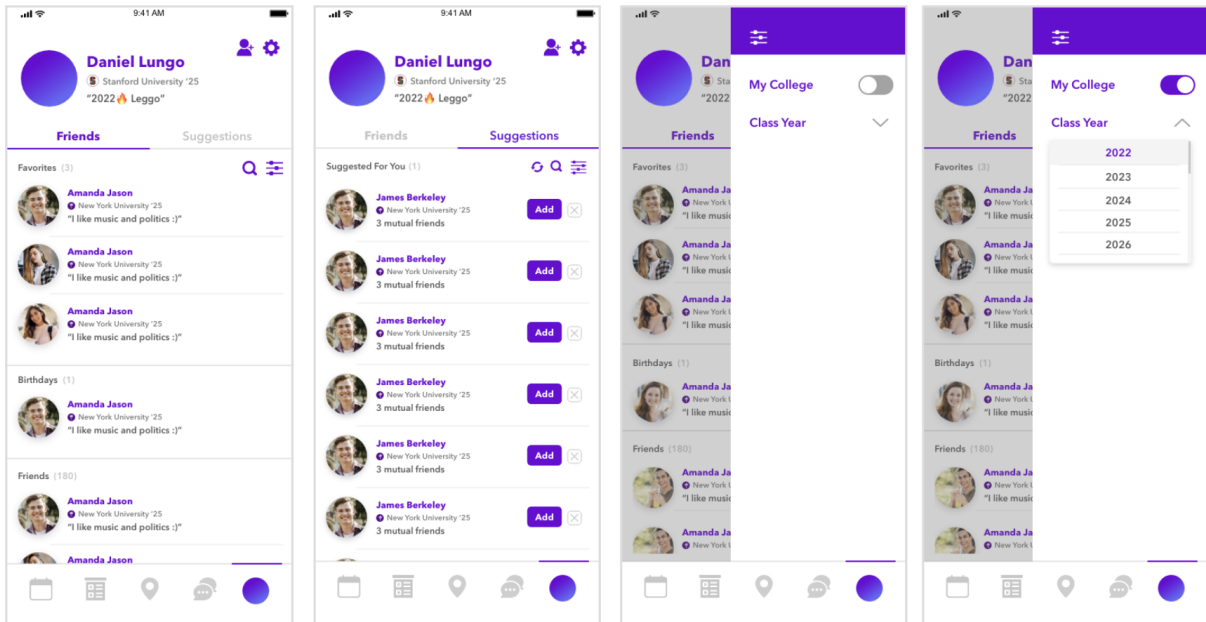


Figure 9. Digital prototype of Bondit’s filtering and suggesting feature

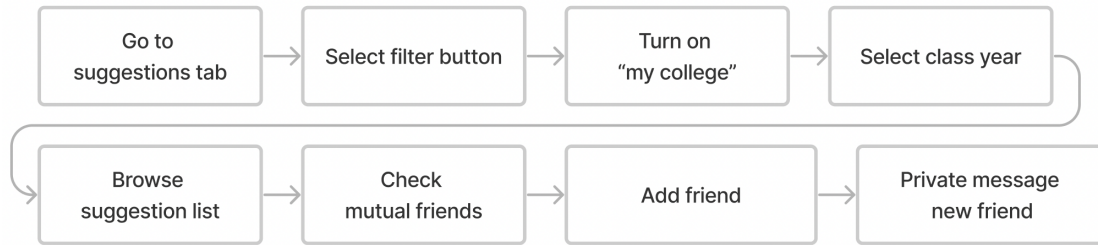


Figure 10. User flow of Bondit’s scheduling and socializing feature

6. Study 2 results

All 15 participants successfully completed the four tasks given within 30 minutes. The tasks included logging in and creating a profile, creating a class schedule and identifying a college peer they would like to bond with, going to the map feature and identifying a college peer they would like to bond with, and going to the events board feature and identifying a college peer they would like to bond with within Bondit. Many of the findings reported in this chapter validate and expand what I learned from Study 1.

For context, Bondit had 1,200 users at the time of Study 2, which was April 2022, and there was fake and real data uploaded into the app. Fake data, which included fictitious user profiles and course information, was uploaded to facilitate the study in case any of the participants could not find enough college peers or their course information on the app.

6.1 Task 1: Login and create profile

All participants completed the task, but a few concerns were identified. The majority of the participants took under five minutes to complete the login process [B2, B3, B5, B9, B11, B13, B14], but participants who could not find their college and major took more time as they searched for this information multiple times before realizing that it was not there and having to add it to the app [B2, B10]. Although a couple of participants said that the login process was “easy to navigate” and “easy to follow” [B5, B15], several participants also pointed out that it “feels long” and has “too many steps” [B1, B4, B14]. Participant B14 highlighted that having to verify her college email during the login process is “annoying” as she finds the process “long.” On the other hand, a couple of participants said that they appreciate the college email verification step because it makes the app feel “more secure,” and because it is “logical” and “reasonable” that an app for college students is asking for college verification [B6, B13].

Participants said only having “male” and “female” options for gender would make their peers “cancel” the app, which means that they would not use the app because only having two options available for gender would be deemed as “controversial” due to the app being “not inclusive” [B4, B8, B10, B12, B13]. The absence of “inclusive” options for gender or identity could result in the app looking “outdated” and “just not okay” as peers would also question why they are using the app when it is not mindful of inclusivity [B4, B8, B9].

When asked about the impression of the login process, participants liked the color scheme, font, and design because it was “not obnoxious,” but rather it was “trendy,” “pretty standard,” and “fun” [B5, B7, B9, B11]. Participant B14 highlighted that the login process felt “welcoming” because of the use of “emojis” throughout and the “blurb” on each screen that guides the user. There were some opposite opinions regarding “emojis.” For example, several participants stated that the use of “emojis” was making the app “cringe” because it seemed like the app was “trying too hard” to “be cool” [B1, B4, B5]. **Figure 11** shows the login process screens used during Study 2.

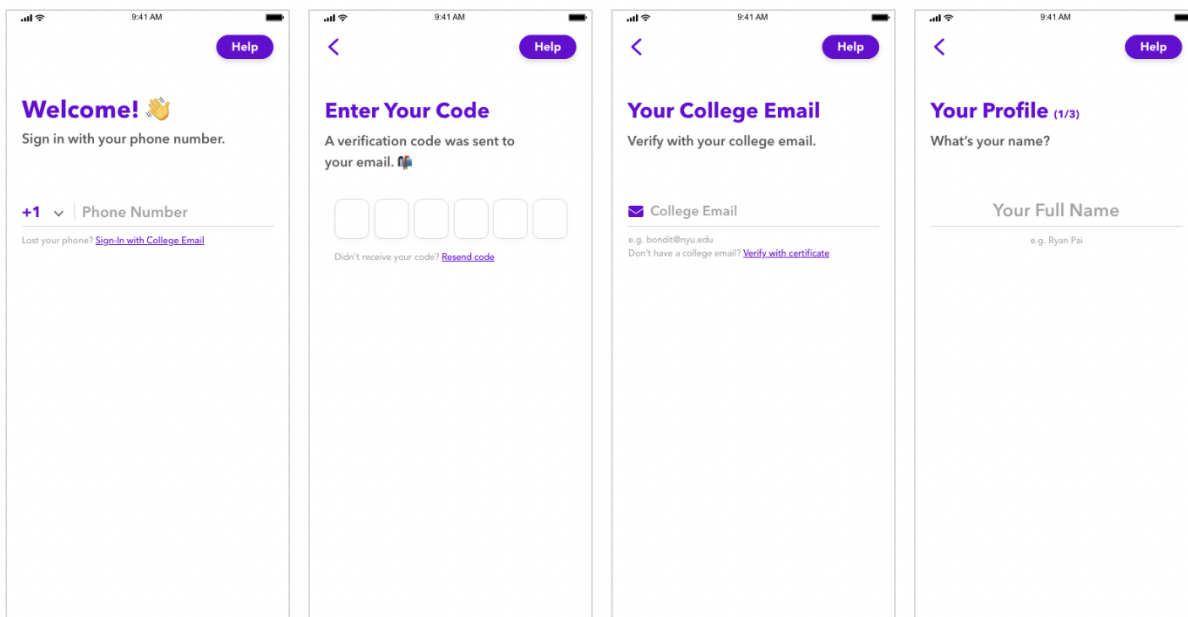


Figure 11. Login process screens used during Study 2

6.2 Task 2: Create class schedule and identify a college peer

While all participants completed the task of creating a class schedule, not all of them were able to identify a peer to bond with because they did not have their classes or peers listed [B2, B8, B12, B13, B15]. These participants took a long time adding their courses onto the app as they did not have all course information readily available [B2, B8, B12, B13, B15]. Other than the course title, participants input random information such as “abc” for the professor’s name when it comes to required information because they “did not want to look up” the information [B2, B13, B15].

Participants added courses they were interested in and checked the number of students taking them; then they browsed through the list of students [B4, B5, B7, B9, B11]. Similar to Study 1 findings, when asked to identify a peer they would like to bond with, participants said they would choose a peer with the “most amount of commonalities” such as the “number of classes” [B7, B9, B12]. Participants also said that they would want to bond with those in the “same major” and “same graduation year” since they would most likely be taking similar courses now or in the future [B4, B5, B8]. Several participants said it would be great to be able to connect with “upperclassmen” to gain advice on what courses to take since opportunities to connect with them in a casual way are “almost nonexistent” [B4, B5, B7]. Participant B4 said that she usually meets “upperclassmen” as “TAs” and “figures of authority” rather than someone she can casually talk to.

Participants asked why there are not any features for “rating professors” within the app, since “rating professors” would be one of the best ways to bond as they usually bond by talking about how tedious and difficult their classes, professors, and assignments are [B2, B3, B4, B5, B8, B12]. **Figure 12** shows the scheduling and socializing feature screens used during Study 2.

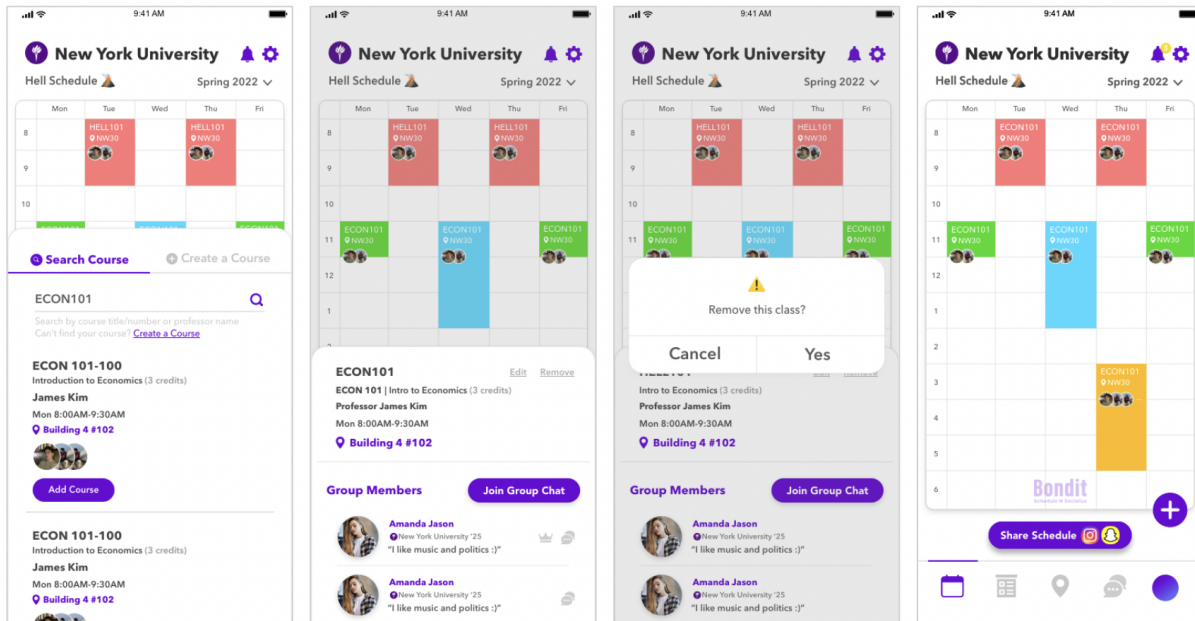


Figure 12. Scheduling and socializing feature used during Study 2

6.3 Task 3: Go to map feature and identify a college peer

All participants completed the task of going to the map feature and identifying a college peer they would like to bond with. In Bondit version 2, users can either see all Bondit users, which includes those from other colleges, or only users from their respective colleges.

Participants who could see other users from their college chose to bond with them [B1, B3, B4, B6, B9, B10]. Participant B6 said that he would reach out to peers that he is taking the same class with, or heard about before since he would be able to “walk to class together,” “have a study session,” or initiate the conversation by talking about the classes they take together or by saying that they hear their name before. Participants who could not see those from their college decided to bond with peers of the same graduation year or geographic proximity [B2, B5, B8, B11, B12, B14, B15]. Participant B14 said that he would reach out to someone who is close by since he could make a friend in the “neighborhood” and since they would probably be of the “same age range” if the graduation year is the same.

The map privacy setting made many participants feel uncomfortable as it only had the “on” and “off” option [B4, B7, B9, B10]. Participants expressed that they would prefer the option to let them choose who they can show their location to, and that they want to be able to customize privacy exposure as much as possible [B4, B6, B9, B11]. **Figure 13** shows screenshots of the map feature that was used during Study 2.

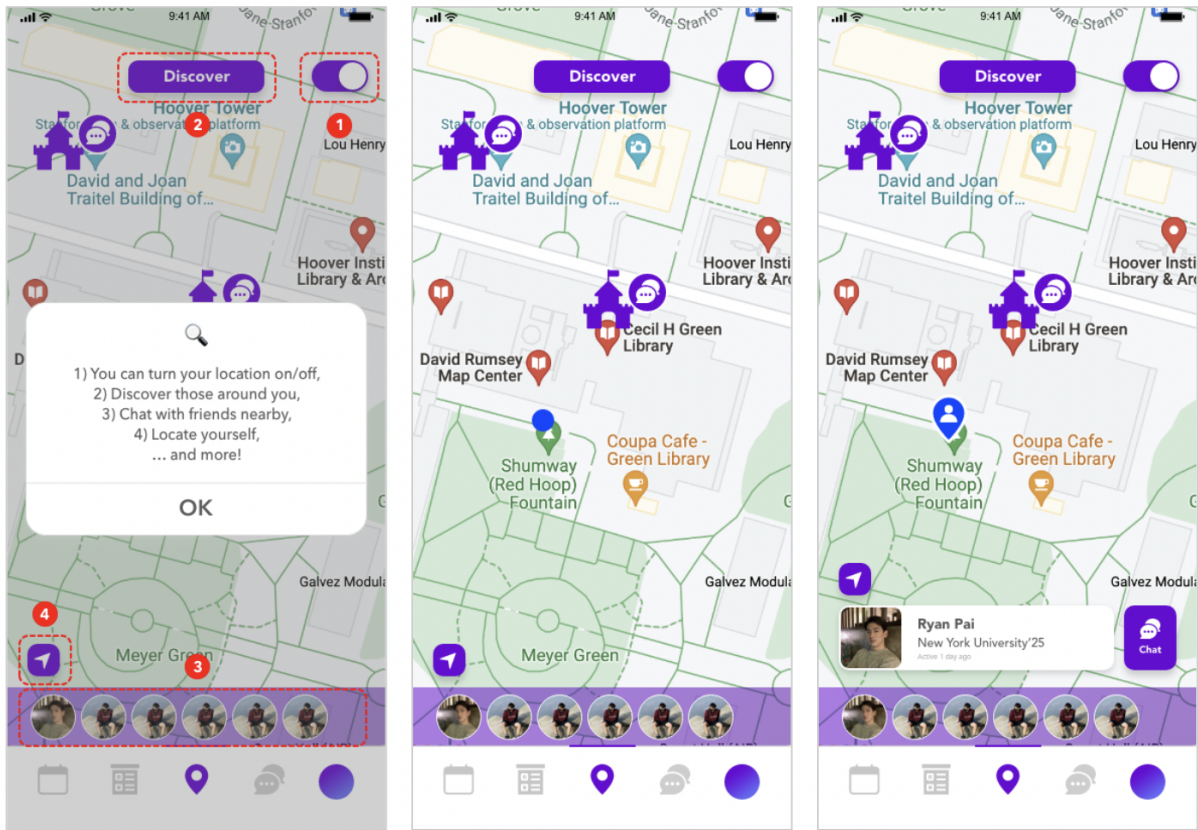


Figure 13. Map feature used during Study 2

6.4 Task 4: Go to events feature and identify a college peer

All participants completed the tasks of going to the events feature and identifying a college peer they would want to bond with. Participants described the events feature as “straightforward” and “intuitive” because the title says “events” and the design is “like other

apps” [B5, B9, B11, B12, B15]. Without receiving guidance, most participants followed a similar sequence of actions to create an event: click on the plus button on the bottom right of the screen, and then pinned a few events of their interest [B1, B4, B7, B8].

When asked what peer they would like to bond with, the majority of the participants said they would bond with someone who uploaded an “event of their interest” since they could “go to the event together” or ask about “details of the event” [B1, B4, B5, B7, B8, B9, B12, B14, B15]. Some participants said they would also think about reaching out to a peer if they “said something funny” in the comments section or if they noticed they had other commonalities such as being in the “same dorm” or “departmental college” [B5, B8, B9, B12]. **Figure 14** shows images of the events board feature that was used during Study 2.

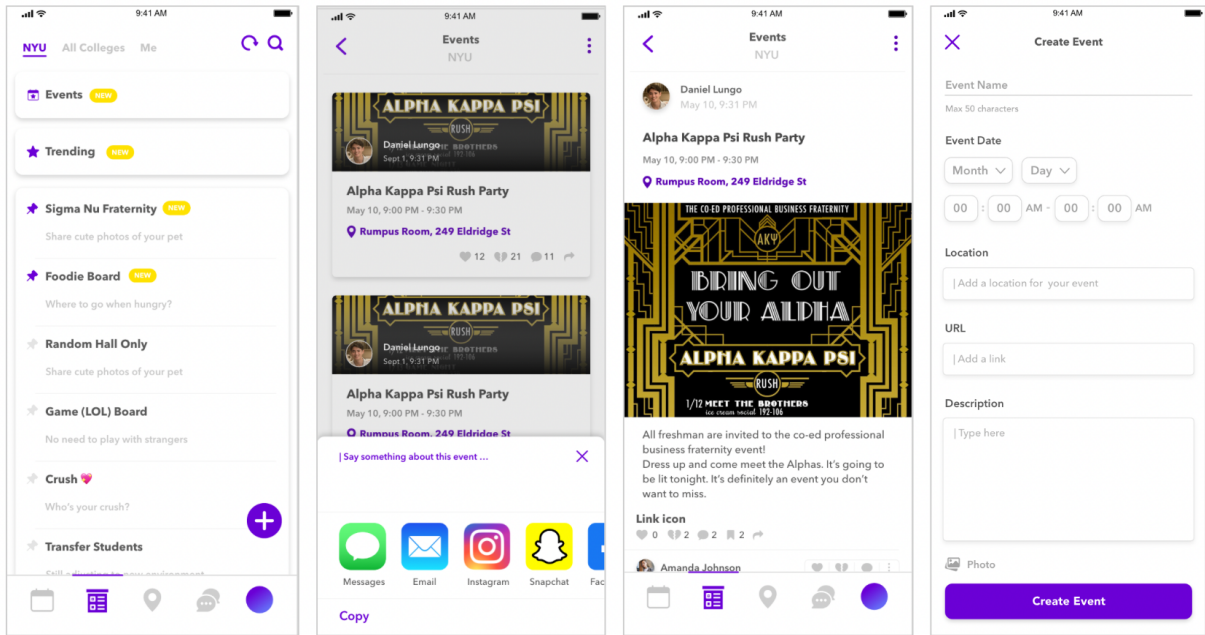


Figure 14. Events board feature used during Study 2

7. Discussion

Based on the results of both studies, I identified three important sets of findings, which could inform other social media platforms that wish to design and develop features aimed at promoting bonding amongst Gen-Z college students.

7.1 Factors that influence bonding amongst Gen-Z college students

There are multiple factors that influence bonding amongst Gen-Z college students, but the most prominent one is **common ground**. Gen-Z college students are more likely to bond with peers that have similar interests or share something in common because this mitigates the awkwardness of reaching out to someone they do not know. Common grounds that promote bonding include, but are not limited to, classes, graduation year, major, dormitory, hometown, gender, clubs, music and movie interests. Based on Study 1 results, it is clear that Gen-Z college students want to socialize in a more natural way and bond with students of similar interests. Study 2 expands these findings and suggests that Gen-Z college students wish to bond with peers with at least one commonality because this makes them feel less embarrassed when reaching out to them. Bonding based on common grounds stemming from school and creating a community would contribute to an increased sense of belonging, which would positively contribute to Gen-Z college student's success in college (Gopalan & Brady, Bryk et al., Thomas et al.).

Another factor that influences bonding is **proximity**. Being nearby another peer allows students to meet in-person and possibly go to class or study together. Based on Study 1 results, Gen-Z college students desire to build offline connections, and they use social media to strengthen the connections they already have. Study 2 results validate these findings, which are also in line with Thomas et. al's research. Facilitating offline relationships through social media has a positive correlation with college students' mental health (Thomas et al., 2020).

7.2 Major concerns about social media

Privacy is a major concern for Gen-Z college students. Findings from Study 2 demonstrated this concern on various occasions. During the login process task, participants shared that they would be hesitant to make their location visible to their college peers, and that they would prefer to only show it to selected friends that they already know as they were cautious about strangers. This validates Thomas et. al's findings on how interacting with complete strangers on social media has a negative correlation with mental health as participants were not willing to share sensitive information with everyone. Concerns over privacy are also in line with existing research of how Gen-Z college students choose to use social media platforms such as Snapchat because it is more private than other platforms (Dorasamy, 2018). In other words, Gen-Z college students value platforms where they have more control over privacy.

This population of students also cares about **inclusivity** because they are cautious about their reputation, and because they want their identity to be represented. During Study 2, Gen-Z college students were concerned about only having two gender options available during the login process as this did not seem inclusive. Social media platforms that decide to create features for Gen-Z college students should also add inclusive options; otherwise, lack of inclusivity could result in users diverting away from the platform.

7.3 Social media app features

Based on the results of Study 1 and Study 2, I identified three social media app features, shown in **Table 8**, that could further address Gen-Z college student needs for bonding.

Recommended social media features for Gen-Z college students	
1	Notification feature for common ground and proximity
2	Pre-populated information and incentive feature to upload more data
3	'Layered' privacy feature

Table 8. Recommended social media features for Gen-Z college students

A **notification feature** that highlights the commonalities and proximity between Gen-Z college student users could help address their needs to socialize in a less awkward way, build offline connections, and bond with students of similar interests, which are findings identified in Studies 1 and 2. This type of feature could actively let a user know when there is a Gen-Z college

student that has a commonality with them. This commonality may involve their major, graduation year, or hometown.

Pre-populated information and an incentive feature to upload more data could help address Gen-Z college students' need for "ready access to information" (Selingo, 2018). It is highly important to ensure that Gen-Z college students upload data as the lack of data makes them divert away from the platform. Partnering with colleges could be a solution to pre-populate information; partnering with college clubs, fraternities, sororities, and independent living groups could give an incentive for college students to upload more data, but there should be more research done to test this idea.

If participants feel that they don't have customizable and 'layered' privacy control, they are more likely to leave the app. Gen-Zers have high privacy concerns and are used to social media platforms that provide 'layered' privacy control such as "Instagram" and "Snapchat" (Morning Consult, 2022). A **'layered' privacy control** means that the user is able to select the visibility of the content in multiple layers. For example, a user would be able to select a group of close friends that they would want to share content with when they are uploading content. Therefore, social media apps that target Gen-Zers should be mindful of users' privacy concerns by providing 'layered' privacy control options where users can specify who they want to share information with.

8. Conclusion

The main goal of this study was to better assist Gen-Z college students bond with their peers by improving the first version of the Bondit app with features specifically designed to address their needs. To achieve this goal, through semi-structured user interviews, I focused on identifying and analyzing the motivation factors that drive the targeted population to return to a social media app to enhance their college experience. Three main findings emerged: Gen-Z college students are looking for a less awkward way of reaching out to strangers, for a way to better build offline connections, and for connecting with peers who share the same interests. To meet such needs, a scheduling and socializing feature, an anonymous board, and recommendation of friends based on a filtering system were designed, incorporated, and tested in Bondit. After the task analysis study, I identified three more specific social media features that could be added to future version of the app to further address Gen-Z college user needs: a notification feature for indicating common ground and proximity, pre-populated information and incentive feature to encourage uploading more descriptive data, and a 'layered' privacy feature to give users control over their own information.

Other important findings of this thesis shed light on factors that influence bonding amongst Gen-Z college students, such as common ground and proximity, and major concerns about social media, including privacy and inclusivity. These findings could contribute to social science or education related research focused on understanding Gen-Z college student bonding

experiences and their concerns regarding social media, while design recommendations expand human-computer interaction research. Social media findings and proposed features could provide guidance to designers working on a digital service that aims to help Gen-Z college student bonding.

8.1 Limitations

The study could have recruited a larger and more diverse sample of participants as most of the participants were freshman from the University of California college system as the narrow set of colleges and grade level could have influenced the results. Another limitation is that Bondit featured fictitious user profiles and fake course information to help facilitate the task analysis process in addition to real user data.

8.2 Future Work

For further studies, expanding the research population to include incoming freshmen who are attending high school at the moment would be beneficial since students start using applications for bonding right after being admitted to college. Other studies could focus on testing Bondit with only real data and a more diverse sample of participants. The implementation of all the reported features in Bondit would help identify other factors that can help Gen-Z college students socialize through social media platforms.

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