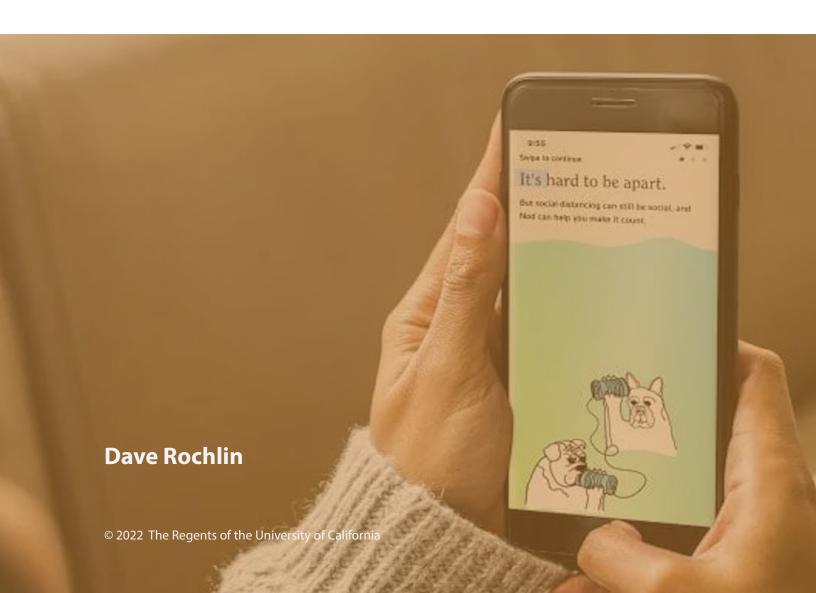
Berkeley Haas Case Series

CASE STUDY

Hope and Grit: How Human-Centered Product Design Enhanced Student Mental Health





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Hope and Grit: How Human-Centered Product Design Enhanced Student Mental Health

I've been reaching out to more people to cultivate friendships—asking questions, smiling more, and asking people to hang out.

—Freshman using Nod App at University of Oregon

Chris McCarthy prepared to take the stage in Austin, Texas, for the 2017 SXSW¹ creative conference where he was speaking on teen mental health and tech-based innovation. After nearly fifteen years pioneering human-centered design and innovation tools in the healthcare sector at Kaiser Permanente, McCarthy was in his second week as Vice President of Strategy and Innovation at Hopelab, a "Tech for Good" social enterprise focused on digital mental health tools for young adults (YAs). He would be leading product design and innovation but was still uncertain of where and how Hopelab could have the greatest impact.

At SXSW, McCarthy facilitated a "storystorming session" which combined brainstorming and storytelling to crowdsource possible concepts and opportunities. In the crowd was Andrew Baker, VP of Product at Grit Digital Health, an app developer that creates behavioral health and well-being

Lecturer Dave Rochlin prepared this case, with assistance from Case Writer Susan Thomas Springer, as the basis for class discussion rather than to illustrate either effective or ineffective handling of an administrative situation.

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¹ https://www.sxsw.com/

solutions. Both McCarthy and Baker were convinced that human-centered design—an approach that focuses on surfacing the core needs of users as part of the product and service development process—could be a powerful way to create more effective solutions to the growing mental health crisis facing teens and YAs. After the session, they agreed to seek out ways their two organizations might collaborate.

Wicked Problems and Systems Thinking for Improved Outcomes

Many mental health issues are considered Wicked Problems—a class of social problems that are complex and dynamic, have multiple underlying causes, and for which simple solutions often reveal or create other problems.² McCarthy and Baker understood that this was the case with student well-being, so they embarked on a discovery journey to learn the factors and root causes of mental health issues facing teens and YAs, using a methodology called systems thinking (**Exhibit 1**).

"Systems thinking was our first step in more deeply understanding this space. The map connected many of the inhibitors and accelerators of mental well-being in young people. We identified seven areas, opportunities that we felt Hopelab or others could impact. In particular, we started to see and hear more stories about loneliness in young people—especially in university and colleges—as both a growing problem and issue affecting mental and physical health," said McCarthy.

A 2018 study of adults 18-22 found that they were the "loneliest generation." Other research revealed that college students who were more successful at making connections were more likely to stay enrolled, feel mentally and physically healthier, and were more successful in school. A lonelier college experience led to lower confidence in their employment prospects and ability to succeed later in life. So, addressing the upstream issue of loneliness prevents significant health challenges from emerging later, including anxiety, depression, self-harm, and suicidal behaviors.

Strategic Alignment and Partnership Model

Hopelab and Grit Digital Health formed a working team in 2018 to explore solutions and soon landed on the idea of an app to support college students in making meaningful connections with others. The teams' research also indicated that students often embodied a growth mindset during transition periods, such as high school to college, making them more likely to try something new.

"Hopelab took on the challenge of understanding the problem, designing for the problem, developing for the problem," said McCarthy. "We have great behavior change scientists who build and test a pathway to impact. And we also have talented designers to build and test the form factor and user engagement."

"Grit was the design and build arm of the project," said Baker. "We prototyped the design and managed the software engineering." Grit also brought its experience in developing and distributing behavioral health tools with creative branding and promotion—an important part of getting the app in the hands of the students who needed it the most.

² "Rittel and Webber, Dilemmas in a General Theory of Planning" Policy Sciences 4 (1973), 155-169 © Elsevier Scientific

³ (Cigna U.S. Loneliness Index, 2018)

⁴ Matthews T, Danese A, Caspi A, Fisher H, Goldman-Mellor S, Kepa A, Moffitt T, Odgers C, Arseneault L. Lonely young adults in modern Britain: findings from an epidemiological cohort study. Psychol Med. 2019 Jan;49(2):268–277.)

Equally important to their complementary expertise, the partners shared mission alignment. Both aimed to use technology to empower healthy behaviors. McCarthy and Baker felt they had the "special combination" needed to develop an app that was evidence-based so that it would be effective and trusted by both students and universities. One key to trust was involving and valuing students' insights *during* the design process as opposed to *after*. Also, the public-private business model allowed the team to identify positive health outcomes as a key goal in addition to revenue goals that enabled the app to have sustained impact.

Background on Hopelab and Grit

Hopelab

As a venture philanthropy, Hopelab "is dedicated to creating a world where all young people can be well." Through targeted social impact investments, translational research, and advisory services that focus on advancing mental health solutions, young people can be resilient and thriving.⁵ Hopelab was founded by The Omidyar Group, a philanthropic investment firm supported by Pam and eBay founder Pierre Omidyar, which invests in a diverse collection of companies, organizations, and initiatives, each guided by its own approach, but all united by a common desire to catalyze social impact.

"Hopelab has always been focused on using technology to improve the health and well-being of young people," said Hopelab President & CEO Margaret Laws. "The organization came to life when Ms. Omidyar had the insight to use video game interaction to improve outcomes in young cancer patients by helping them adhere to their regimes such as taking chemo drugs and antibiotics. Hopelab developed Re-Mission—which Laws said was one of the first digital therapeutics. Randomized controlled trials demonstrated use of Re-Mission increased compliance, resulting in better outcomes."

For Nod, Hopelab took a similar product development approach by funding development, identifying an impact strategy, providing research and evaluation, and collaborating on product design.

Grit Digital Health

Grit Digital Health develops behavioral health and well-being solutions through design and technology aimed at new approaches to mental health and well-being. As the company states: it's the type of convergence that empowers individuals to make their lives and the lives of those around them healthier and more fulfilling.⁷ The company's multidisciplinary team includes experts in the fields of psychology, design, communications, and technology. Grit created "YOU at College," a digital platform that personalizes well-being for students implemented at more than 180 campuses nationwide, and "Man Therapy," a groundbreaking men's mental health campaign which drew international acclaim for its creative approach to suicide prevention.⁸

⁵ https://hopelab.org/what-we-do/

⁶ https://healthtransformer.co/for-margaret-laws-innovation-springs-from-co-creation-df9ec03d59e8

⁷ https://www.gritdigitalhealth.com/about

 $^{{\}color{red}8} \; \underline{\text{https://mantherapy.org/pdf/White-Paper-Man-Therapy.pdf}}$

Grit founder and CEO Joe Conrad said social media platforms constantly track users' habits to learn their likes and feed them more of the same content to keep them hooked. Conrad referenced the documentary *The Social Dilemma* which chronicles how companies such as Facebook and Twitter use manipulative techniques to addict their users which can increase depression. By contrast, Grit seeks to use connectivity for good by developing solutions in an evidence-based approach to ensure they improve well-being while encouraging students to form relationships outside their app. 10

For Nod, Grit worked with Hopelab to provide concept development, student co-design, prototyping, user testing, brand development, engineering, distribution, and monetization.

Understanding Root Cause

The purpose of root cause analysis is to get beyond symptoms (e.g., loneliness) and identify the underlying causes of issues, so that they can be addressed: This is sometimes referred to as finding the "why behind the what."

In the case of college student loneliness and isolation, the high-level issue was clear—in one study, 30% of college students self-reported feeling lonely in a two-week period, 67% felt "very lonely" in the past year, 11 and a study by the University of Washington 12 found depression and feelings of loneliness were cited as two of the top reasons for students dropping out. Looking deeper, the Hopelab/Grit team found that:

- There are huge expectations; college was supposed to be "the best time of your life!" If it wasn't, students felt there was something "wrong" with them.
- There are major social shifts; students were leaving their home and high school support networks and expected to make new friends quickly.
- Expectations and pressures created a loneliness gap which was the difference between the friendships that students *expected* to have and the ones they *actually* had.
- For some college students, it was easy to fall back on pre-college relationships and avoid new friendship-building situations.

Intended Impact and a Theory of Change

Intended impact (or "impact pathways" as Hopelab referred to it) identified which root causes to focus efforts on, and what specific outcomes were aspired to.

Theory of change explained the broad mechanisms by which the organization would accomplish the work. Performing this work allowed Hopelab to identify key strategies it might use in addressing and reducing loneliness and the impact on college students' mental and physical health.

⁹ https://www.indiewire.com/2020/01/the-social-dilemma-review-sundance-1202207034/

https://psychcentral.com/blog/podcast-are-mental-health-apps-safe#block-d16de187-0ea5-4141-9a32-d83f0f3125aa

¹¹ ACHA National College Health Assessment, 2017

¹² Beyer, C., Davis-Under, A., Lowell, N., McGhee, D., & Peterson, J. (2014). UW undergraduate retention and graduation study (OEA report, 14-01). Seattle, WA: UW Office of Educational Assessment.:

McCarthy said most existing social platforms simply brought strangers together with no guidance on *how* to make friends. But research revealed that approach was inadequate because many young people lacked confidence in their social skills. So, putting strangers together without first providing connection-building skills only added to their stress.

Hopelab first started with the intended long-term impacts of increasing college retention rates while reducing anxiety, depression, and suicidality. Next, it used research to identify the short-term measures necessary to generate those long-term impacts. Identified pathways to building social connections included managing expectations, belief in personal growth, willingness to take risks, and a focus on attention towards others. So, the intended impact was both to close the skills gap and encourage people to take small social risks. And the theory of change was to create and distribute a tool that could accomplish this—specifically a tool that could coach, support, and help college students develop skills to build supportive friendships.

Assessing Other Efforts

The combined team assessed how existing players in the "health apps for young people" space addressed the problem of college loneliness as a source of mental health issues. Unfortunately, the team had learned that loneliness often led to additional problems for students including heightened risk for anxiety and depression, poor sleep, drug and alcohol use, self-harm behaviors, higher dropout rates, and suicide. The solution did not lie with traditional social media tools that promised to connect people, but instead fostered toxic environments. Even some platforms that attempted to bring college students together had the opposite effect. For example, the Yik Yak app became popular with students by allowing them to share anonymous "yaks" within a five-mile radius. It failed in 2017 after the unmoderated environment was filled with hate speech and threats of bomb and gun violence that caused colleges to ban the app. ¹³ Yik Yak returned in August 2021 with leadership promising to combat cyber bullying. ¹⁴

"Higher education is seeking safe ways to help students connect on and off campus," said Baker. "Nod is a science-backed intervention we designed and tested specifically to achieve positive health outcomes for students."

"Existing players weren't getting at the root cause. Campus loneliness was skyrocketing, and yet there were no proven interventions," said McCarthy.

Colleges were struggling to meet students' increased requests for mental health counseling. Educational institutions knew that the emotional needs of students were linked to both academic success and dropout rates. Colleges couldn't ignore any reason a student might leave college before graduation since the average institution lost around \$10 million per year due to attrition. ¹⁵ In one survey, feeling socially alone was cited as a reason for leaving by 41% of respondents. ¹⁶ So, encouraging social interactions over screen time made sense on all levels. Research pointed to social media as a big culprit in the student loneliness epidemic. One psychologist said, "Every time you check your phone in company, what you gain is a hit of stimulation, a neurochemical shot, and what you lose is what a friend, teacher, parent, lover, or co-worker just said, meant, felt."

¹³ https://www.nytimes.com/2017/05/27/style/yik-yak-bullying-mary-washington.html

¹⁴ https://techcrunch.com/2021/08/16/yik-yak-is-back/

¹⁵ https://files.eric.ed.gov/fulltext/ED562625.pdf

¹⁶ http://depts.washington.edu/assessmt/pdfs/reports/OEAReport1401.pdf

The "always on" reality shifted attention away from conversation with classmates to smart phone screens.¹⁷

Design Thinking and the Product Design Challenge

The team was armed with a clear theory of change—creating a tool that could coach, support, and help college students develop skills to build supportive friendships. They next used both design thinking and desk research methods to better understand how college students who are lonely think, feel, and behave within the college environment. A key to design thinking is to understand endusers deeply, and place their needs, hopes, behaviors, and pains at the front and center of product decisions. In Hopelab's case, this work included in-depth ethnographic interviews with a variety of first- and second-year college students.

As an example, one student told the team about her struggle to find meaningful friends in the first few months of college. Her therapist recommended that she "just try smiling at five people on campus today. Make eye contact and smile." She reported that this simple intervention led to increased self-confidence and better social connections. This story and others like it led to the insight that "small doses of trusted advice and support can have a big impact."

Other key insights were that:

- "People are around me but not with me—I feel left out."
- "Expectations are that college friendships are supposed to be like magic...Immediate. Big. Effortless."
- "Making friends can feel like an impossible challenge."

Using this feedback, they set a design direction for the product:

- 1 | Destroy the myth of "magical friendship"
- 2 | Empower students to try stepping outside their comfort zone
- 3 | Help process setbacks with compassion
- 4 | Build the friend-making muscle over time

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¹⁷ https://www.psychologytoday.com/us/blog/love-and-gratitude/201909/social-media-triggers-loneliness-in-college-students

End of Preview

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