

STUDENT
SUPPORT
POWERED BY
ARTIFICIAL
+ HUMAN
INTELLIGENCE

**AI-Enhanced Advising
for Postsecondary Pathways**
A PLAYBOOK

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The Hybrid Advising Co-op Project BLOCK Collaborative

Bottom Line
Let's Get Ready
OneGoal
College Advising Corps
KIPP: Public Schools

Facilitation: Shift
Technical Partner: Mainstay

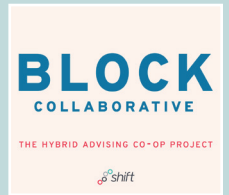
The Hybrid Advising Co-op is funded by the Gates Foundation.

Thank you to the Hybrid Advising Co-op's participating organizations for their generous and transparent sharing of knowledge, experience, and learning in service of innovation for the common good.

This playbook uses a modified APA format.

HOW TO CITE THIS PLAYBOOK

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Over the past decade, Georgia State University—my longtime employer—has developed a reputation as an institution committed to deploying innovative technologies (and lots of data) to address the most pressing challenges facing the higher education landscape. A growing body of independent research confirms that Georgia State’s use of emerging technologies, from predictive analytics to AI chatbots, has made significant and measurable impacts on helping our students navigate the path to and through college, with disproportionately strong gains for students from underserved backgrounds.

We are, of course, proud of our progress to date and excited for the opportunities and challenges still ahead. But to ascribe any of our success solely to technology is to leave out a crucial part of the equation, which this playbook aims to address: the human element.

Rapid advancements in technology have presented higher education institutions with unprecedented opportunities to level the playing field for students from all backgrounds and provide enhanced, personalized support to students at scale. This support, though, isn’t possible without the deep and substantive engagement of people at every stage of the process, from the administrators setting up the internal structures needed to implement technology successfully, to the coaches and advisors who step in when a student asks a question too sensitive for the technology to handle alone.

This playbook explores the ways that technology can augment and support the invaluable work of advising in particular. It draws on the experiences of several college access organizations that have embraced this potential by utilizing artificial intelligence, including chatbots, strategically paired with coaches and advisors, to provide equitable support for students as they chart a path to success in higher education. This “hybrid” advising model, one that Georgia State has been using since we helped pioneer it in 2016, blends the best of human expertise and technology to create a comprehensive support system, one that allows for personalized guidance while ensuring broad and timely access to assistance.

Keeping attention to the human element—both students and institutional personnel—is an essential part of any successful effort in this area.

The findings presented in this playbook should serve as a critical resource for institutions and organizations that aspire to harness technology for more equitable student support. The playbook outlines not just the initial steps required to embark on a hybrid advising approach and the design choices made by the participating college access organizations, but also the importance of using data to continuously refine and personalize the approach, enabling practitioners to make informed decisions that help them further improve student outcomes.

Perhaps most exciting is the potential for scalability. By sharing the experiences of the contributing organizations, this playbook encourages institutions to learn from the best practices of successful models to support large student populations. At a time when higher education continues to grapple with persistent gaps in both access and completion of college, particularly for first-generation students and those from low-income households, hybrid interventions like these have a powerful role to play in breaking down barriers that impede student success.

Having seen firsthand the potential of this hybrid model when developed and implemented thoughtfully to help students persist and succeed, I am heartened by these organizations’ commitment to bringing together innovative approaches grounded in empathy to promote equitable educational outcomes. I believe the experiences and learnings shared in this playbook can serve as a primer for institutions seeking to use technology to create a more inclusive and supportive environment for all students.

Dr. Renick is a leader in the field of hybrid advising, and his work at GSU served as an example of successful implementation. Dr. Renick also joined the Hybrid Advising Co-op Webinar launch to share insights and learnings.

THE Hybrid Advising Co-op is a collaborative improvement community fostering rapid learning for college access organizations. The Co-op’s focus is the integration of AI technology into human-centered advising practices to improve outcomes. The ultimate goal is to increase reach and depth of student support, particularly for Black and Latinx students and for students experiencing poverty.

This Co-op is funded by the Gates Foundation. The Co-op’s purpose is based on guidance from the foundation and its Pathways team.

IN developing early concepts around a learning community that became the Hybrid Advising Co-op, Pathways began to ask, *How might quality advising reach more students, regardless of high school resources and a family’s ability to provide information?*

This question centers on a hypothesis that with the right support, information, and experiences, students will be able to make the best choice for themselves about education and training after high school. This choice, in turn, will lead to greater persistence and improved outcomes for students.

To explore this central question, the foundation contracted Shift, which specializes in organizational improvement and cross-organizational learning networks, to lead a feasibility study to understand how organizations were already using tech-enabled solutions to augment advising practices.

The feasibility study revealed many organizations were piloting “hybrid advising,” a model in which human advising capacity is partnered with AI chatbot technology to reach more students with the goal of maximizing and enhancing program efficacy. Throughout this feasibility study, respondents expressed interest in—and reservations about—cross-organizational collaboration to learn faster together. Based on this interest, and aware of reservations, Shift facilitated a human-centered design process with an inclusive design team that included students, advisors, college access organizations, and a chatbot provider.



Strategy of the foundation’s Pathways Team

“We aim to ensure that more Black and Latino students, and students from low-income backgrounds, obtain credentials of value and have the professional skills, agency, and social capital needed to be successful in the workforce, recognizing that there is no ‘one size fits all’ path.”

THE Co-op’s design team drafted a theory of change with aims, measures, and specific interventions (change ideas) to guide the work of the Co-op. The Hybrid Advising Co-op aim centered on leveraging AI chatbot technology to improve advising practices, especially for Black and Latinx students and students from low-income backgrounds, to measure the effectiveness of the intersection of human advising and AI chatbot technology against the backdrop of a wide variety of advising models.

The Hybrid Advising Co-op also aimed to codify learning related to different use cases for AI in hybrid advising, including program efficacy, costs, and practical lessons to support adoption within the wider advising and education community.

Organizations were invited to apply to join the Co-op and were selected based on their experience with and interest in integrating AI into their human advising models. By participating in the Co-op, organizations agreed to share learning and data monthly, to test changes to their models, and to share learning to benefit the wider field of education.

The Co-op’s Purpose Was Guided by Four Main Design Principles

CENTER ON EQUITY

Learn how to better support high school students—especially Black and Latinx students and students from a low-income background—to access well-matched postsecondary options.

CREATE & SHARE

Utilize tools and resources from public learning to benefit the broader field.

ADDRESS SHARED AREAS OF PRACTICE

Improve AI chatbot technology support (e.g., responses, effective protocols, messaging) and address larger questions about hybrid advising models.

GENERATE SUFFICIENT EVIDENCE

Use continuous improvement and measurement to identify and prioritize areas for future research.

The Hybrid Advising Co-op

EACH of the participating Co-op organizations utilizes AI, specifically the Mainstay AI-enabled chatbot platform. Mainstay joined as a technical partner to minimize the risk that differences in technology could limit opportunities to learn from each other. In the pilot phase, organizations using the same technical platform were selected. They also share common challenges around staffing, budgetary constraints, and changing collegiate expectations. However,

organizational models for advising and the role of AI vary dramatically across the participants.

As a group of diverse organizations working toward common goals, the Hybrid Advising Co-op cultivates an environment of open sharing on AI integration to benefit other education organizations seeking similar technological support.

ORGANIZATIONS



The Student and Caregiver Advisory Council

Student voice and lived expertise were crucial to the development of the Hybrid Advising Co-op—from design to implementation. The Student and Caregiver Advisory Council (SCAC) served in a consulting capacity, providing feedback on hybrid advising content. Formed with a diverse group of 14 active members, the SCAC represented perspectives from students and caregivers from various Co-op organizations. Members were compensated for their time, insights, and contributions.

The primary goal of the SCAC was to evaluate and improve hybrid advising practices by offering real-

time insights into what was working and what needed enhancement. During monthly meetings, the Council discussed campaign messaging, script effectiveness, and the overall experience with hybrid advising. This helped refine communication strategies between advisors and students. For example, one key insight emphasized the need for messages to be specific and concise. The SCAC members also suggested that messages should clearly state the meeting's purpose, duration, and the organization's name to provide context and credibility, making it more likely for students to engage.

The consultation process influenced Co-op organizations and provided the SCAC members visibility into organizational efforts to reach students. Members shared about their fruitful experience below.

"Students don't express all their needs to parents. Parents need to have more groups like this."

- SCAC MEMBER

"... I just really wanted you guys to know that working with you was so beneficial in moving through challenges in college, setting schedules and agendas..."

- SCAC MEMBER

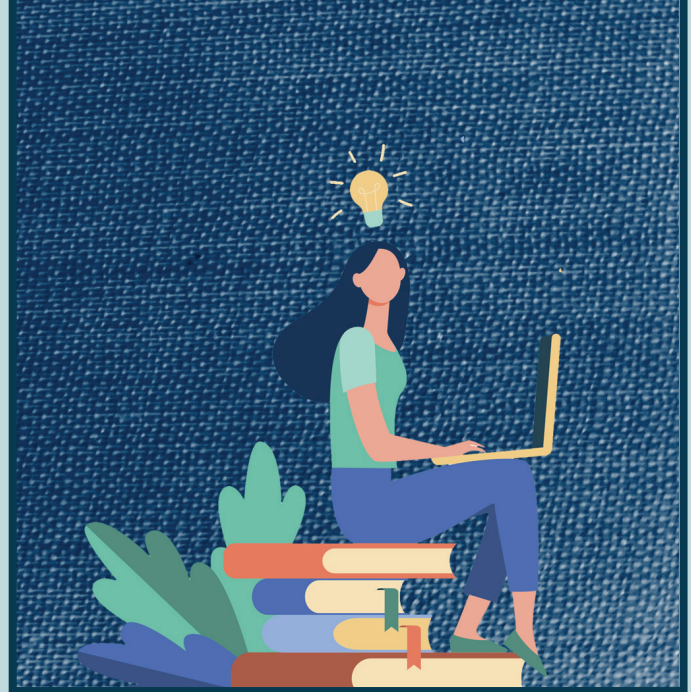
"... by connecting with [the organizations], we can also gain a broader perspective to the bigger picture goal of the organization and how we can best support based on our varied backgrounds. By giving us more of an insider perspective, it also provides us a greater sense of purpose and involvement in the project itself, as well as allows us to tailor our responses and feedback so that they are more realistic to what the chatbot is able to do, thus increasing its impact."

- SCAC MEMBER

WHILE postsecondary education is more accessible today than at any other point in the last 50 years,¹ access remains a significant issue for students of color, students experiencing poverty, and first-generation college students.² A study published in 2008 found that among 1,800 “college-qualified” high school students, more than half did not enroll in either a 2- or 4-year postsecondary program. The most common reason students did not enroll was a lack of clarity about the steps needed to enroll in college, including completing applications, applying for financial aid, and completing required standardized tests such as the SAT or ACT.³ Furthermore, the Internet and social media have created an overflow of information. With multiplying choices, proliferation of digital enrollment marketing, and general daily expectations, many students may find themselves at the edge of decision fatigue and anxiety around knowing the necessary information for making the “correct” choice. Providing high school students with timely advising about postsecondary pathways—and college students with advising to support their success in postsecondary programs—is, therefore, a promising area for intervention.⁴

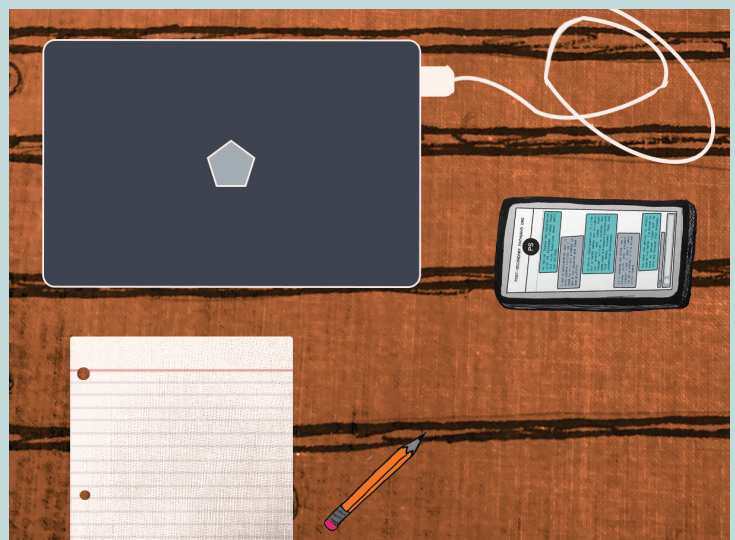
Despite the potential impact of advising high school students, access to advising remains limited. The American School Counselor Association reports a high student caseload for each college advisor, with a national average of 424:1.⁵ To address this issue, many mission-driven organizations partner with school systems to augment the information and support provided to students to access college. Many national organizations (e.g., CommonApp, College Board), state agencies, and college-advising organizations are turning to AI to improve the depth, reach, and equity of the information that provides students with access to postsecondary pathways.

THE COVID-19 pandemic accelerated the need for advising models compatible with the sudden (and lasting) virtual conditions of education. Virtual platforms opened new possibilities for both pandemic support and the rising need to reach more students with limited access to resources. After examining recent research⁶ and comparing the impact of advising supports by scope and intensity, the Hybrid Advising Co-op believes that streamlining communication and scaling the impact of person-to-person advising through extended reach would enable advisors to better support students furthest from educational justice.



“[Our college advisor] has been a godsend. She has helped us through everything from FAFSA to college applications, proof reading, essays... I just don’t know what we would have done without her this year.”

FROM
THE STUDENT CAREGIVER SURVEY



Based on findings from their own research as well as an extensive literature review, the authors of one study suggest that, for text-based messages and interactive advising strategies to be successful, it may be necessary to:⁷

ENGAGE TRUSTED SOURCES

Collaborate with local entities and institutions to establish a strategic partnership that provides credibility.

ALIGN OUTREACH

Coordinate timing and content topics with local entities and their existing college support messaging.

FOCUS CAMPAIGNS

Target advising efforts on student subgroups and populations most likely to respond to and benefit from virtual advising content.

EMPLOY STUDENT DATA

Customize and increase relevance and salience with personalized messaging.

Organizational Priorities

AI offers potential efficiencies for college advisors with large student caseloads across many schools. AI can provide support with routine or repetitive tasks, maximizing advisors' time to extend the reach and student support.⁸ For example, chatbots provide immediate responses and information for students with time-sensitive needs, and escalation protocols can be programmed to respond to time-sensitive questions that need to be answered by a person.

Organizations practicing relationship-based advising models are actively experimenting with how to incorporate this technology into their service models, workflows, and staffing. These organizations expressed a general sentiment (illustrated in the quotes below) that AI technology should augment (not replace) human relationships and student support.

ORGANIZATIONS adopted a hybrid approach to advising as a result of pandemic restrictions on their in-person advising models and/or with the goal of expanding their reach. Even

with specific organizational goals and operational needs, the Co-op identified intersecting priorities early in the project.

Hybrid advising provided opportunities to reach more students with core content and reminders, facilitate advisor-student communication, and create efficiencies to enable advisors to meet with more students and focus their efforts on the complex needs best addressed by advisors.

"We're trying increasingly to say, 'Let's give students multiple points of entry so that they can get the service they need, when and how they want it, with the goal, ultimately, of getting the best result when we can drive that personal connection and relationship.'"

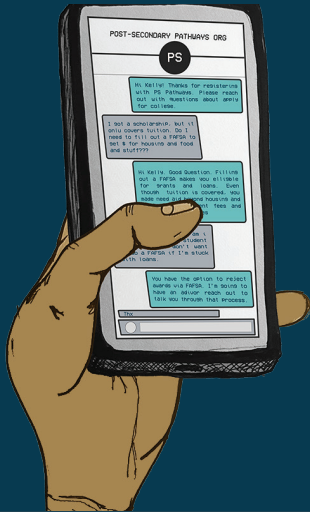
FROM
THE FEASIBILITY REPORT

"...[t]he [chat]bot...will help drive engagement, drive traffic, and make advisors' jobs easier... they don't have to do as much 'Hey, FAFSA just opened', the bot can do that..."

FROM
THE FEASIBILITY REPORT



Components of a Hybrid Advising Model



Proactive Outreach

ORGANIZATIONS develop advising curriculum utilizing mass texting with data-based personalization, complemented with program-based advisor outreach. Predefined campaigns are based on student need, timelines (milestones, deadlines, etc.), organizational goals, and other considerations.

The majority of outreach is proactive rather than responsive. This includes pre-defined campaign responses, AI-matched answers pulled from the knowledge base, and escalation protocols/advisor engagement.

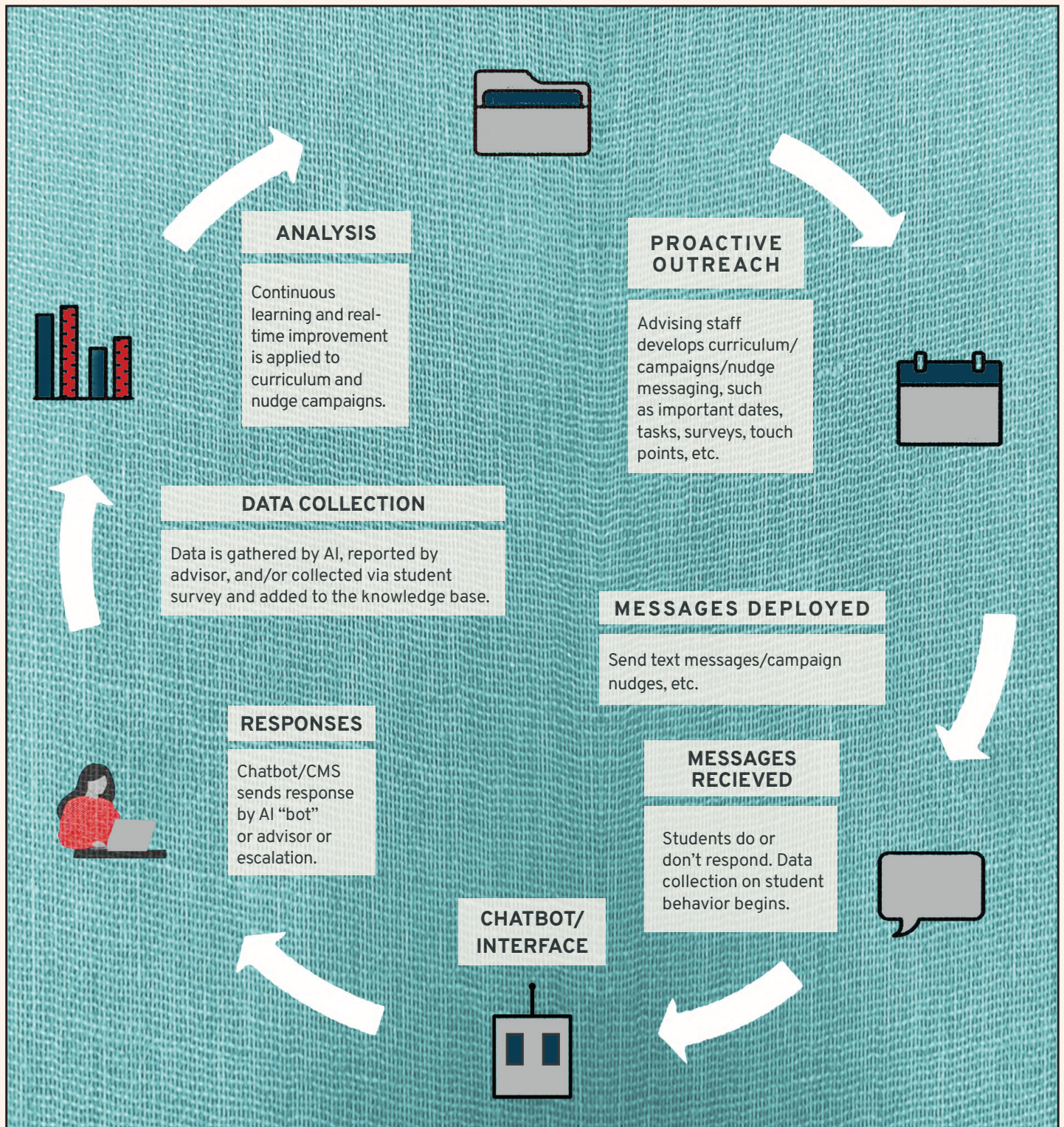
The data (including student responses and advisor feedback) helps improve outreach practices and content, and develop future campaigns. See Figure A.

TERMINOLOGY NOTES

ADVISOR	Organizations refer to the staff members who support students via text in many different ways: coach, mentor, advisor, counselor, etc. For the purposes of this playbook, we will use the word “advisor” as a general term for this role.		
CHATBOT	<p>“Chatbot” refers to the interface (or tool) used to communicate directly with students (and gather data). The chatbot is a communication platform, similar to an email application, that allows organizations to mass text students from one inbox. The chatbot platform also has built-in AI that allows the chatbot to match a student’s questions to appropriate, pre-defined answers 24/7. On occasion, organizations may use the colloquial term “bot” to refer to the personality (usually named) of an AI-enabled voice responding to students. Some organizations do not use a “bot personality” to respond to students, but rather have their advisors monitor the inbox and respond to students directly via text.</p> <ul style="list-style-type: none"> » Chatbots respond to students via pre-defined answers in the chatbot’s knowledge base. » Chatbots escalate to advisor/support. » Chatbots listen to students and gather information via interactive surveys. 		
CAMPAIGNS	<p>“Campaign” refers to the planned curriculum of content students are sent. Campaigns are typically related to measures, touch points, milestones, deadlines, and tasks for students to complete, and they can include the use of chatbots, as defined above.</p> <ul style="list-style-type: none"> » Scheduled content sent to students based on a timeline. » Scheduled content based on student responses. 		
NUDGE	For the purposes of this playbook, the term “Nudge” is used as an industry term for reminding students by text, but it is also specifically used to indicate a type of text that is not interactive. The term “interactive” is used as the opposite of this where a text is sent that collects and potentially stores the answers from students to help advisors with additional information about that student or to further segment/target information to students based on those answers. For example, KIPP’s Nudge campaigns start with planned curriculum content, students respond with text questions, and the chatbot populates answers from the answer bank.		
COMMON ACRONYMS	<table border="0" style="width: 100%;"> <tr> <td style="width: 50%; vertical-align: top;"> <p>CRM “Customer Relationship Management” is a technology tool for managing all relationships and interactions with customers—for the purpose of the Co-op–student–advisor relationships..</p> </td> <td style="width: 50%; vertical-align: top;"> <p>API “Application Programming Interface” is software that communicates between two applications. For the purposes of this Co-op, API connects Mainstay to Salesforce (for example).</p> </td> </tr> </table>	<p>CRM “Customer Relationship Management” is a technology tool for managing all relationships and interactions with customers—for the purpose of the Co-op–student–advisor relationships..</p>	<p>API “Application Programming Interface” is software that communicates between two applications. For the purposes of this Co-op, API connects Mainstay to Salesforce (for example).</p>
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THE hybrid advising models in the Co-op all follow a similar cycle with variations based on design features. Content is created to convey important updates and information and sent via text messages. Upon receipt, students may respond to prompts or reach out with questions. When they do, either the bot or an advisor will respond, depending on the model. Data is gathered by AI and advisors; relevant content may be added to the knowledge base, and data is analyzed and used for continuous improvement, like updating the content of campaigns.

FIGURE A. ILLUSTRATION OF TEXT-BASED ADVISING CYCLE



Examples of Outreach

TEXT messaging is at the core of hybrid advising programs. Students use text to communicate with both the bot and their advisors. Proactive, centralized campaigns include words of encouragement, important deadlines, and personalized content aligned with the student journey. In addition to those campaigns, advisors may reach out directly or intervene with a more appropriate response than the bot provided. The examples below illustrate the interplay among students, bot messages, and advisor interventions.

1. Happy Thanksgiving, Naomi! We hope you're enjoying the break from classes and enjoying the well deserved personal/free time!

Blueprint advisors will be unavailable until Monday, but I will be here 24/7 for any questions you have. Don't hesitate to send me a text and if you'd like to schedule a meeting with an advisor for when they get back, here's the link: <https://calendly.com/d/ds6-kgn-n2m/blueprint-student-meeting> Thanks!

- Blu

Hey Naomi, this is Sam from Bottom Line! Just wanted to check in to follow up on your registration. Were you able to register for next semester? If you'd like to schedule a meeting with me for additional support, here's the link: <https://calendly.com/d/ds6-kgn-n2m/blueprint-student-meeting> Thanks! -Sam

EXAMPLE 1 highlights how Bottom Line decided to differentiate messages from the chatbot vs. the student's advisor (with a "signature" for each) so that they can communicate from the same phone number.

EXAMPLE 2 is showcases of three different messages of encouragement from the chatbot that are sent (to many students at once), but with personalization through: (1) using the student's name (2) sending different messages depending on what's happening in their application process, (3) asking a simple question that feels unique to them.

EXAMPLES 3 and 4 highlight of students reaching out via text and the chatbot not having an appropriate answer. In each case, the chatbot matched to what it considered a "related answer" and advisors intervened with a more appropriate response.

2. ▶ Script

Hey Norine, this week I'm feeling 🙄😞😞😞
If you want, share some emojis that show how you're doing this week!

▶ Script

Your college admissions results do 🙅not 🙅 define 🙅 you, & your worth is not determined by the admissions people reading your app rn. You are awesome, you are so much more than the info in your college application file, and those colleges would be so lucky to get to have you as a student 🙌

▶ Script

How are you doing today?

3. Hi Madeira, I have an interview next week. Do you want to schedule a time to go over some common interviewing questionable

Since every company is different in what they consider appropriate workplace attire, look online for some tips to ensure you dress for success every time.

questions*

What can I help you with?

Hey Ke Han I just saw this. Those responses were from the bot

4. Habso, I'm incredibly blessed to say that I got into the University of Notre Dame!

Every school has different enrollment requirements, and they should send you information once you are admitted! You can also check the school's website or ask an admissions officer. Your LGR coach can also walk you through the enrollment process, just reply #coach and I'll connect you.

CONGRATULATIONS TIMOHTYYYY!!!

I am so happy for you!!

Are you hearing back this week from any others?

"...the tools you use with students should improve your students' experience. They should improve the quality of your programming. They should improve your ability to deliver culturally responsive programming. They should improve the impact for your students."

- GRACE BIANCIARDI
Chief Program Officer, Let's Get Ready

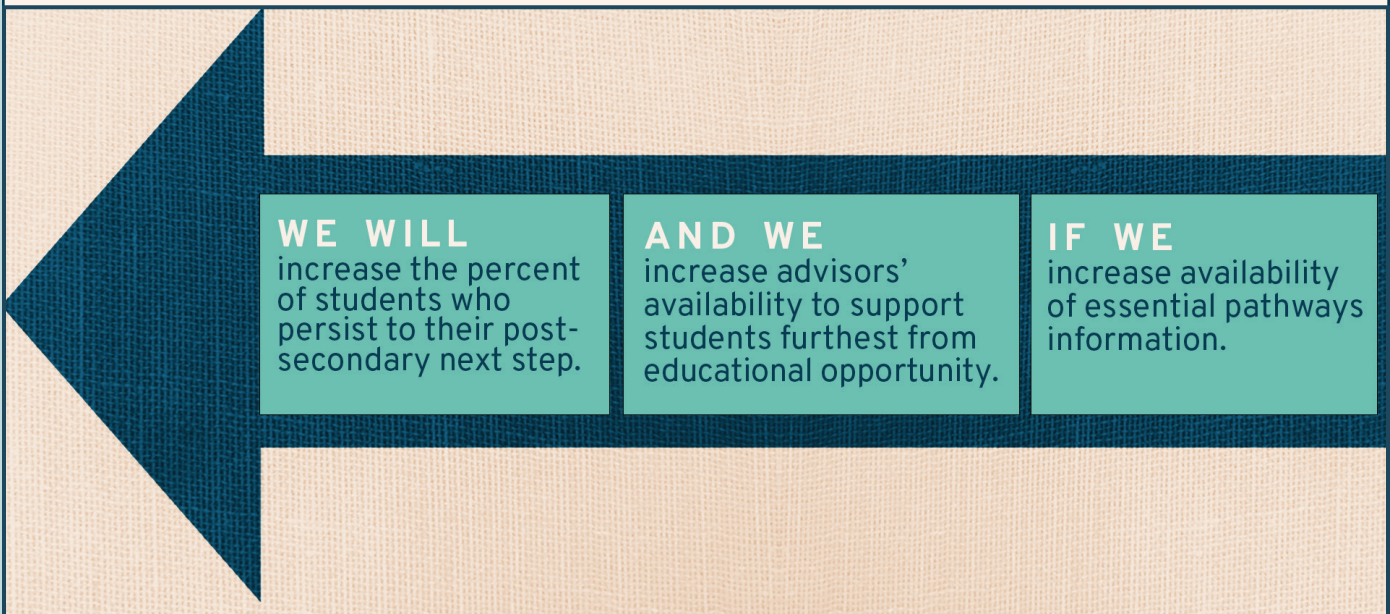
Goals for Hybrid Advising

EACH organization participating in the Hybrid Advising Co-op works to meet students where they are and help them achieve their postsecondary goals. The Co-op was designed to create a space to explore how AI-enabled technology could help these organizations scale their models.

As illustrated in Figure B, priorities across organizations were consistent: streamlining information dissemination, increasing the efficiency of advisors, and using that efficiency to increase the reach of high-quality support for students most in need.

As early adopters in this area, participating organizations had launched hybrid model pilot programs prior to joining the Hybrid Advising Co-op. The design choices for hybridization varied. This allowed the Co-op to learn from these different models to inform future approaches.

FIGURE B. HIGH-LEVEL THEORY OF CHANGE.



Designing the Approach

DESIGNING an effective hybrid advising approach begins with an understanding of the problem it seeks to solve and an examination of whether technology is the solution. To make this determination, review existing processes, inviting substantial input from staff and students to identify how technology can play a facilitative role. Engage diverse perspectives to ensure alignment with student, advisor, and other needs when developing improvement goals like those detailed below. Consider organizational infrastructure, values, the demographics of the student population, and the relationship between students and their advisors to inform the approach's development.



"...prepare to be surprised, because when we launched, we had certain expectations, and the data came in and actually pointed us in different directions...we have invested a lot in hiring more advisors; we were thinking that is where you are going to get the highest quality interaction... but we found from that first summer...that there was a subset of students who said that they asked the chatbot questions they wouldn't have asked a human. There was a level of discomfort and embarrassment, especially among first-generation students for not knowing, and exposing the fact that they don't know."

- DR. TIMOTHY RENICK

FROM

Student Support:

Powered by Artificial + Human Advising

TECHNOLOGY should augment human advising without disrupting important relationships. These relationships lend credibility to the information shared.

"Trust-based advising is critical here. Personalized coaching and human connection cannot be replaced by AI."

- WEBINAR ATTENDEE

FROM

Student Support:

Powered by Artificial + Human Advising

THE Hybrid Advising Co-op believes in creating hybrid advising programs that maintain strong relationships, tailor support for diverse student groups, and efficiently extend advisor availability for targeted student needs. Despite various strategies, all models emphasize the importance of fostering connections, understanding individual student circumstances, and enhancing the ability of advisors to provide crucial support.

EACH participating organization from the Co-op designed an approach to hybrid advising that reflects their resources, values, and goals. While these approaches vary, the conditions that are core to a successful hybrid advising program are consistent. This section focuses on the specific conditions that, when achieved, move organizations toward their goal of supporting students to pursue a postsecondary plan after high school. These conditions include:

- » Trusting relationship established and maintained with the advisor and bot.
- » Proactive, differentiated support.
- » Increased advisor capacity for critical student supports.

Organizations participating in the Co-op tested the associated change concepts outlined in Figure C.



“You may be really excited about a change that you would like to implement, but that may not resonate at all with students. [W]orst case scenario, you implement it across your entire program and then have to go back and reverse the change. So implement with small groups, get student feedback as much as possible, and grow from there.

- EMMA SABELLA
Virtual Programs Systems Manager, Bottom Line

FIGURE C: CREATING THE CONDITIONS FOR SUCCESSFUL HYBRID ADVISING

AIM	CONDITIONS	INTERVENTIONS
<p>By April 30, 2023, increase the percentage of Black, Latinx, and Pell-eligible students receiving hybrid advising through the Co-op who are on track* with their postsecondary next steps.</p> <p><small>*Includes having developed a well-matched postsecondary plan and completed the logistical/financial milestone for that plan.</small></p>	<ol style="list-style-type: none"> 1. Trusting relationship established and maintained with advisor and bot (if applicable). 2. Proactive, differentiated support based on data and knowledge of student priorities/needs. 3. Increased advisor capacity for critical student support. 	<ul style="list-style-type: none"> » Build relational trust between students and chatbot. » Strengthen relationship between advisors (organization) and student. » Normalize a wide range of postsecondary options among students, families, and communities. » Provide intentionally timed messages and information. » Tailor information to student profile and pathway. » Regularly collect, analyze, and use data from students, including milestones, priorities, and concerns. » Facilitate advisor access to the AI/bot. » Advisors manage their caseload with text and AI. » Efficient handoffs of information and progress. » Advisors intervene strategically to support the process (e.g., proactively address financial and logistical conditions; escalation protocols).

Please see Appendix Figure A for the complete KDD.

1 ESTABLISH AND MAINTAIN RELATIONSHIP WITH ADVISOR & BOT

RELATIONSHIPS and trust are crucial to prompting student action in response to chatbot messages. Regardless of the chatbot interface design, it is critical that students know that there is a trusted organization or individual behind the messages they receive. When a student replies to those messages, the response may be generated by the chatbot or their advisor. Some organizations provide

advisors direct access to communicate via the same texting platform as the chatbot. This allows the student to receive pre-defined outreach/curriculum and the ability to text back and forth with their advisor through a centralized platform.

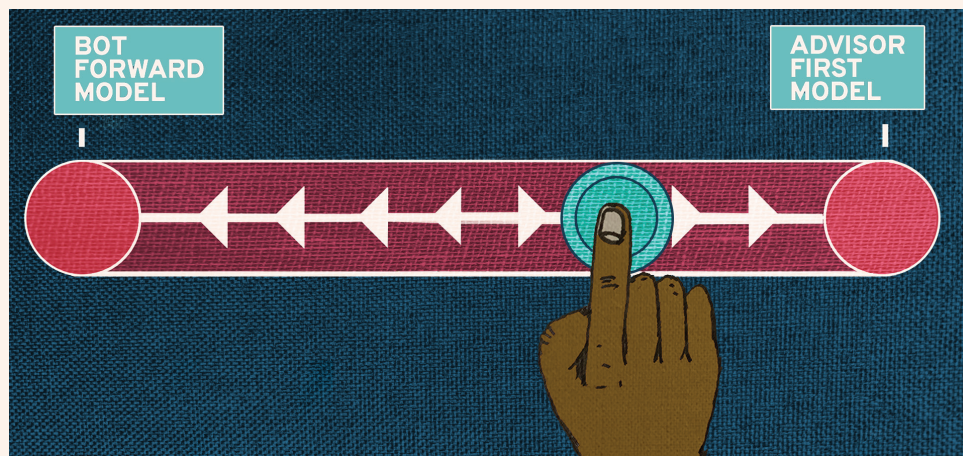
Organizations using chatbots to respond to students can design the chatbot with its own “personality”

separate from the advisor. A chatbot with a personality becomes part of the “support team.” Examples of chatbots with a name, personality, and specific voice include Wyatt (the FAFSA bot), Blu (Bottom Line’s Blueprint bot), and Aribot (the bot for College Advising Corps). Creating this parasocial connection increases the likelihood that students will ask the chatbot questions and engage with message content.

Determining the Right Model for an Organization.

CHOOSING the right hybrid advising model depends on the organization’s promise of advising to students. For instance, Let’s Get Ready centers the relationship between the student and their near-peer advisor, allowing them to text each other directly without interruption from the chatbot, which only works in the background for data collection and safety monitoring. On the other hand, KIPP targets remote advising with a chatbot that has a distinct “personality” for providing information and directing students as needed. Organizations should align their model with the organization’s

FIGURE D. VISUAL REPRESENTATION: SLIDING SCALE - FINDING THE RIGHT HYBRID MODEL



unique value to students, deciding if the chatbot should answer directly or simply gather information. Figure E highlights some design features to consider when building a model. This

choice should also consider the organization’s communication goals and how they match student expectations. See Figure F for examples of model cycles.

FIGURE E. VISUAL REPRESENTATION: CHATBOT MODEL DESIGN FEATURES

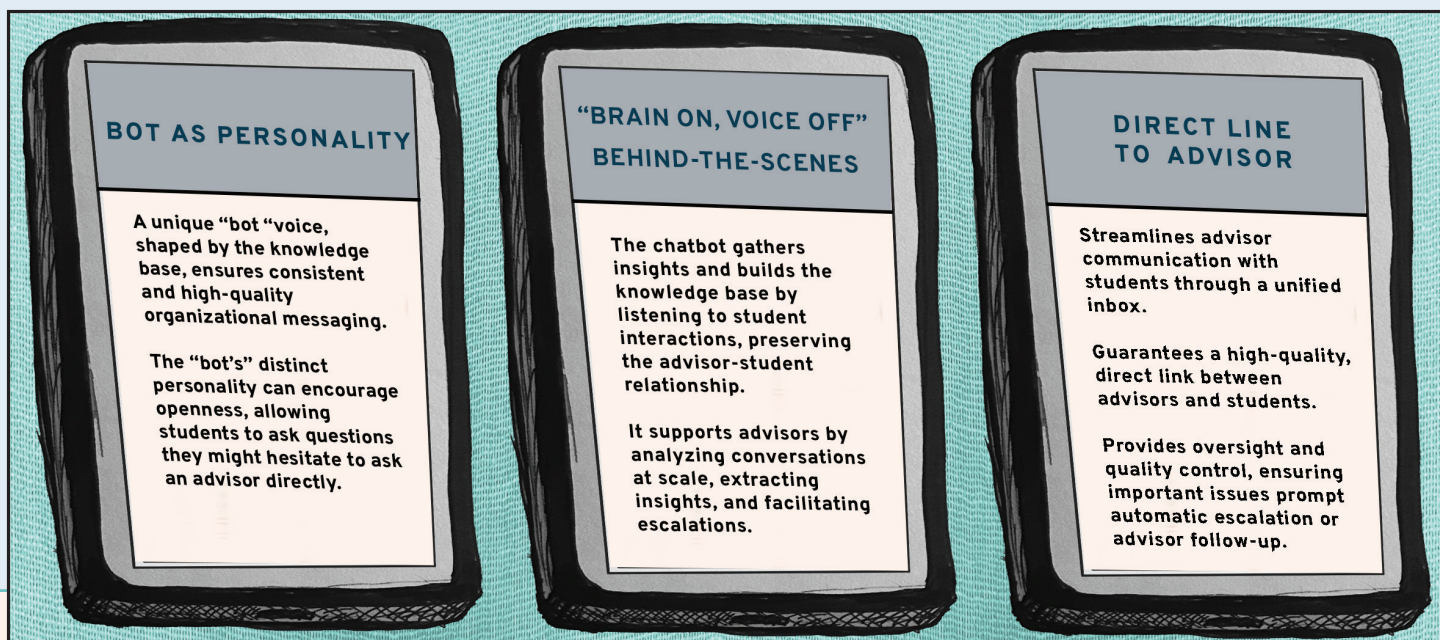
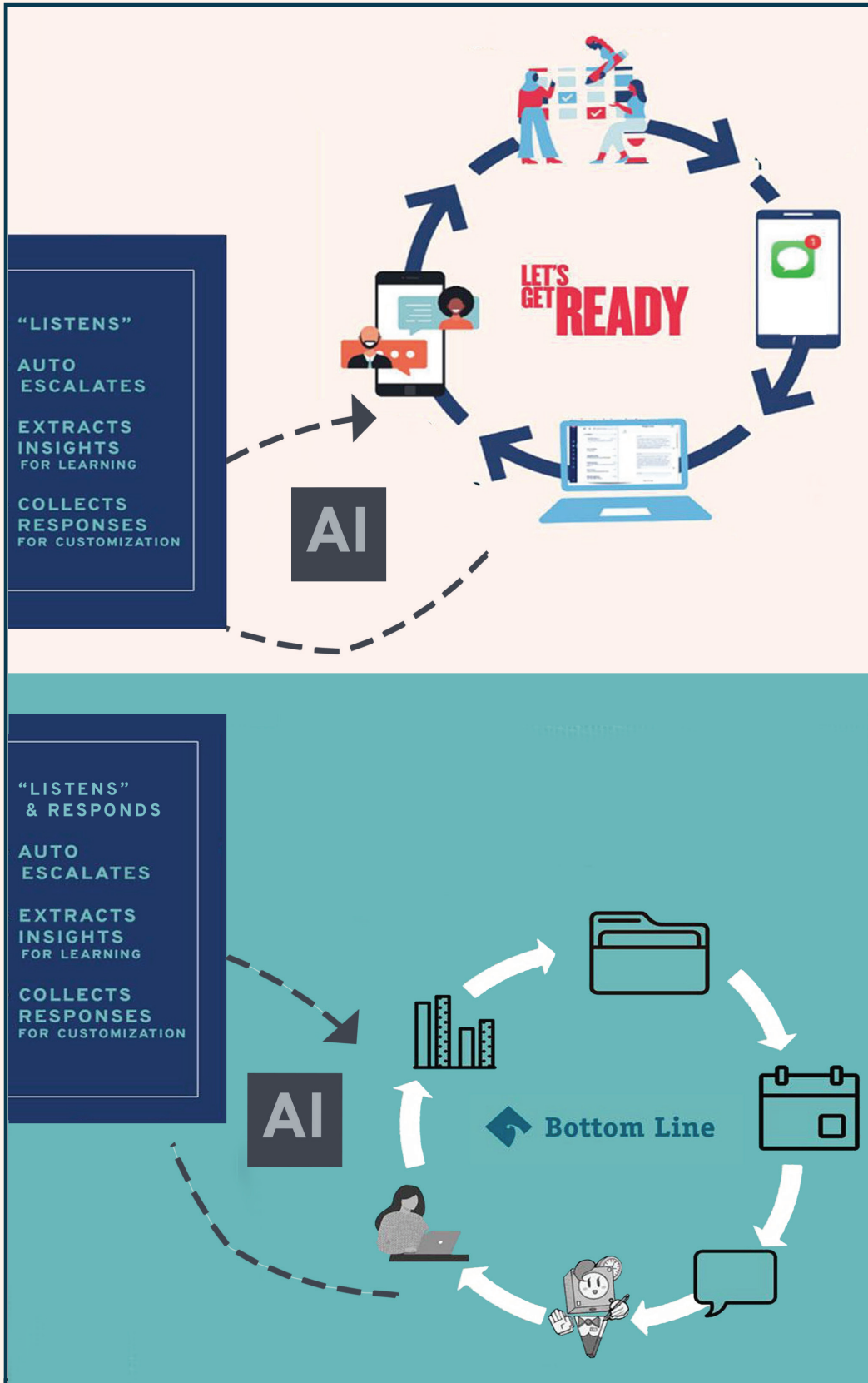


FIGURE F. ORGANIZATION HYBRID MODELS: BOTTOM LINE & LET'S GET READY



THE LET'S GET READY near-peer model prioritizes contact between the coach/advisor and their students. LGR employs some 53 part-time near-peer coaches to support 24,000 students nationwide. Students receive a weekly text on their phones with content that is tailored/differentiated to their context. Student responses go to a coach inbox and the coach responds. This model leverages AI behind the scenes, analyzing messages for trends, emerging needs, and opportunities for improvement.

BOTTOM LINE is piloting a bot-forward model called Blueprint to expand their support to students beyond their core model. A content calendar for the year is built internally, and students receive messages from Blu, the bot, weekly. Blu is also the first responder with students. Blu is available 24/7 and can respond to questions regarding financial aid deadlines and processes, study tips and best practices, career readiness, and provides general encouragement. Advisors intervene when the bot is unable to answer the question or when human support is required. The time Blu spends responding to simple questions frees up advisors' time to support higher-value, more complex challenges that students may face.

Insider Note

As an organization determines which AI design works best for them, it's also important to decide if the bot should have a different phone number from the advisors to separate the student experience and make it clear which "member of the team" the student is texting.

2 PROVIDE PROACTIVE SUPPORT THAT CONSIDERS STUDENTS AND THE SCOPE OF THEIR EXPERIENCE HOLISTICALLY

AN effective advising curriculum should not only inform but also inspire students towards a wide range of post-secondary paths. While many organizations start with a standard curriculum based on a set of standard milestones, to best support students, messages need to be personalized and relevant. Successful messages are tailored toward students' experience, cultural background, and aspirations.

AI can facilitate this personalized support by continuously collecting and analyzing student data. For example, organizations can use the chatbot to conduct surveys to learn which milestones students report having completed. This data, typically stored in a CRM system, enables advisors to follow up with students to ensure they are receiving the support they need. When common themes surface

in chatbot data, an organization may identify that a new campaign is needed on the topic. The updates students share on their milestone completion can also be used to customize follow-up messages—perhaps only targeting students who haven't completed the task. This process of continually surfacing and responding to needs is core to the success of a hybrid advising program.

Providing Proactive Support

AS students progress through their educational journeys, their needs will evolve.

Content strategies and chatbot content developers must be flexible to reflect these changes. Advisors should stay abreast of the latest trends in education and the job market to ensure the advice remains relevant.

- » Normalize a wide range of postsecondary options among students, families, and communities.
- » Provide intentionally timed messages and information.
- » Tailor information to student profile and pathway.
- » Regularly collect, analyze, and use data from students, including milestones, priorities, and concerns.
- » Adapt to changing needs.

Best Practices

- » Start with brief orientation meetings where students meet their advisors and learn what to expect from the bot.
- » Send culturally responsive messages (that are) written in a warm, consistent tone.
- » Send important, pertinent messages early in the campaign—timing and message frequency are crucial.
- » Keep an eye on data to minimize errors in bot responses.
- » Broaden the message range to cover mental health and emotional well-being.

"At CAC we are piloting an approach to differentiation. We looked at] qualities about the students like first-gen status, free and reduced lunch rate, GPA, as well as college milestones, whether they submitted college applications, submitted a FAFSA, or met with an advisor....we then met with our evaluation team to prioritize and weigh those factors to generate a score for students which we used to identify who needed more support."

- TOBI KINSELL

Chief Impact Officer, College Advising Corps

Insider Note: Mental Health Support in Hybrid Advising

To maintain a supportive environment, hybrid advising should have comprehensive mental health policies covering chatbot interactions. These policies enable advisors, who might lack specific training, to effectively respond to and support students showing signs of distress. Key policy areas include:

- » **Immediate Response:** Instructions for acknowledging and supporting students' mental health concerns.
- » **Referral System:** Procedures for guiding students to suitable mental health services.
- » **Advisor Training:** Education on identifying distress and providing empathetic communication.
- » **Confidentiality:** Ensuring the privacy of students' mental health data.
- » **Escalations:** Leverage AI to identify and automatically escalate concerning messages.

3

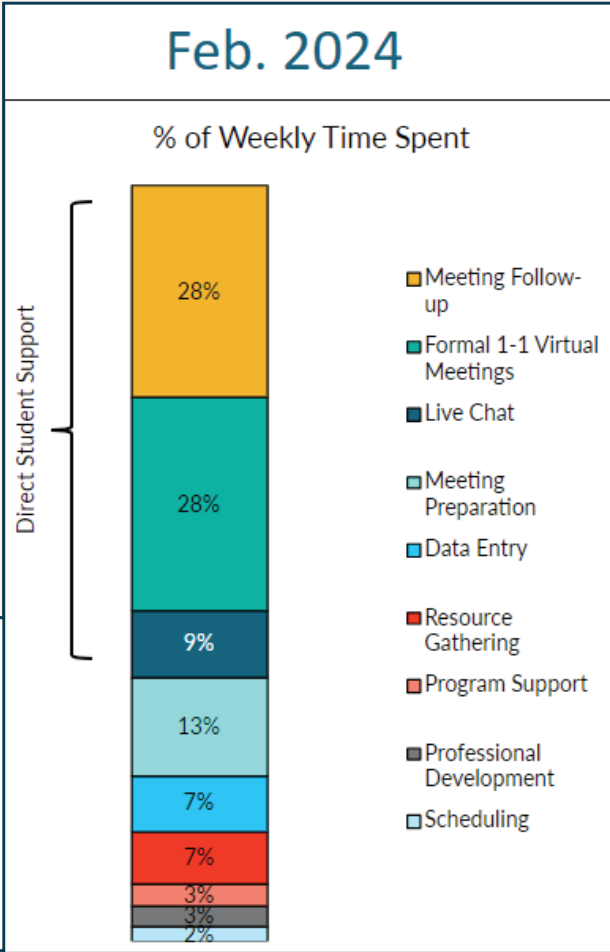
DESIGN ADAPTABLE WORKFLOWS THAT INCREASE ADVISORS' CAPACITY FOR DIRECT STUDENT SUPPORT

HYBRID advising programs present an opportunity to develop flexible workflows that balance AI chatbot use with human advising. Thoughtful integration of the chatbot, like careful attention to handoffs, can increase advisor capacity for more complex student needs.

Start by evaluating existing programs to spot opportunities for AI-driven efficiencies and areas for improvement. Both students and advisors can benefit from these efficiencies and improvements. See Figure G for an example of how Bottom Line's chatbot, Blu, has freed up time on routine tasks and allowed advisors to spend more time with students.

Bottom Line

- ~65% of advisors' weekly time is direct student support (compared to 49% in Core)
- 1:1 student meetings account for ~27% of advisors' weekly time.
- Blu saved advisors ~112.40 hours so far this year.



Bottom Line's chatbot Blu saves advisors time so they can focus on high-importance student meetings.

CASELOAD MANAGEMENT

Across the Hybrid Advising Co-op, teams found that AI supports an efficient approach to caseload management with high-quality, personalized support when:

- » Advisors can use chatbots for content creation and message distribution.
- » Responses to messages are automatically uploaded to the student database with automated flags for follow-up.
- » Repetitive tasks such as scheduling and basic inquiries are automated.
- » Criteria for follow-up and clear escalation plans that use data guide advisor intervention.

"At CAC, each advisor doesn't work with a specific student cohort, rather, one advisor serves the entire senior class. To effectively handle the large number of students and ensure their needs are addressed, CAC uses data analysis. We're continuously working on improving our chatbot system, and part of that involves better integration of our data application with our chatbot provider. This integration will allow us to exchange data instantly, improving our ability to offer personalized and timely assistance. Moreover, by leveraging real-time data and predictive analytics, we can better direct our advisors in supporting students."

- TOBI KINSELL
Chief Impact Officer, College Advising Corps

Careful Adoption of Technology:
Enhancing Student Advisor Connections

HISTORY OF TEXT-BASED PROGRAMMING & PILOT

For 26 years, Let's Get Ready (LGR) has supported first-generation college students and students from low-income communities in enrolling and persisting in college. The organization has grown from a student-led program in a church basement in New York to serving more than 18,000 students in 45 states and over 1,800 zip codes. Since 2014, LGR has recognized the important role of text messaging in providing timely, accessible reminders and resources to students navigating critical milestones and deadlines as they enroll and persist in college. The student and coach relationship is central to LGR's program model, and text messaging is the program's signature mode of delivery. LGR's integration of both student/coach relationships and texting provides a high-quality, scalable, and sustainable way for students and near-peer mentors to connect through a convenient and familiar modality. Moreover, the model leverages coaches' expertise by supplementing their personal college experiences with training, management, and resources provided by LGR, humanizing coaching while empowering students to overcome barriers.

In 2021, LGR made the decision to move its established text-based program delivery to the Mainstay platform. This strategic decision further enhanced student support and allowed the organization to explore the role chatbot technology could play in adding additional layers of responsiveness for students. Starting with a pilot program that included 1,000 high school and college students,

LGR focused on testing the role AI plays in improving efficiency and response time, supporting the quality of interactions between coaches and students, and improving data collection. This pilot phase was instrumental in shaping LGR's understanding of the AI tool's potential to support the advising central to their model.

CHATBOT "BRAIN ON, VOICE OFF" APPROACH

The pilot phase supported LGR's decision to use text messaging through Mainstay's platform to deliver its program model to high school and college students. This also led to a pivotal decision to leverage, but not lead with, chatbot technology. LGR's approach is to keep "the chatbot's brain on and turn the bot's voice off." Because LGR's model is based on interpersonal, humane community-building, the near-peer relationship between students and trained college students must be central to the mentorship and advice. The organization learned that the bot's participation in conversations interfered with the powerful relationships being built as denoted in their theory of change. Thus, LGR decided to keep the AI bot's analytical capabilities active ("brain" on) while ceasing its direct interaction with students ("voice" off). This strategy allows for AI-enabled analytics and escalations behind the scenes, ensuring the organization can maximize automation for message differentiation, personalization, and safety protocols without disrupting the near-peer advising and mentoring process.

FIGURE H. LET'S GET READY LEARNING - AI BEHIND THE SCENES

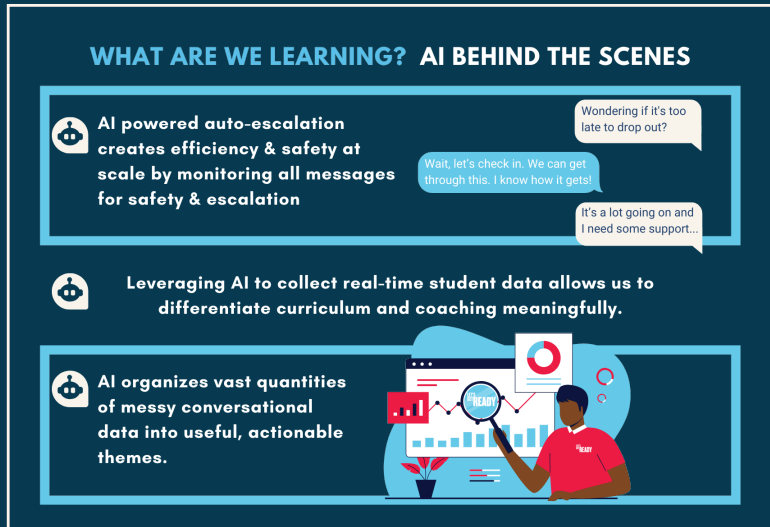
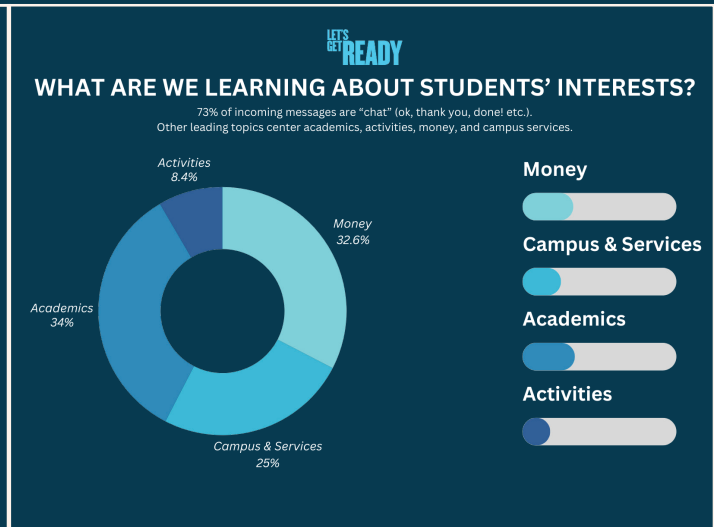


FIGURE I. LET'S GET READY LEARNING - STUDENTS' INTERESTS



KIPP: Public Schools, a leading national network of public charter schools, is pioneering a “light touch” model to extend support to students who KIPP would not have been able to serve as part of their traditional advising programming. KIPP’s mission is to, together with families and communities, create joyful, academically excellent schools that prepare students with the skills and confidence to pursue the paths they choose—college, career, and beyond—so they can lead fulfilling lives and build a more just world.

KIPP serves over 175,000 students and alumni across 280 schools; its student body predominantly identifies as Black or Latinx, with significant representations in special education and English-language learning. Driven by the vision to maximize high school value, expand career pathway support, and refine postsecondary outcomes, KIPP is committed to reducing inequities and developing sustainable models of postsecondary support. The use of technology, particularly through their advising system, enables KIPP to tailor support and optimize peer networking on a national scale.

KIPP has launched three main strands of nudge initiatives:

1. Nudge for Match: Targeting high school seniors across 21 regions to influence postsecondary planning.
2. Nudge for College and Career: Focusing on college students across 21 regions, encouraging continued engagement and career development.
3. Nudge-enabled Remote Advising (NERA) Pilot: Concentrating on college students in regions like NYC, Northern California, and Colorado, this program explores the potential that nudge strategies have to effectively support larger caseloads.

NERA seeks to maintain KIPP’s connection to alumni, exploring which populations benefit most from hybrid advising and determining effective caseload sizes. The strategy is to foster explicit relationship-building, create engaging content, and give their chatbot—a representation of KIPP’s identity—more personality.

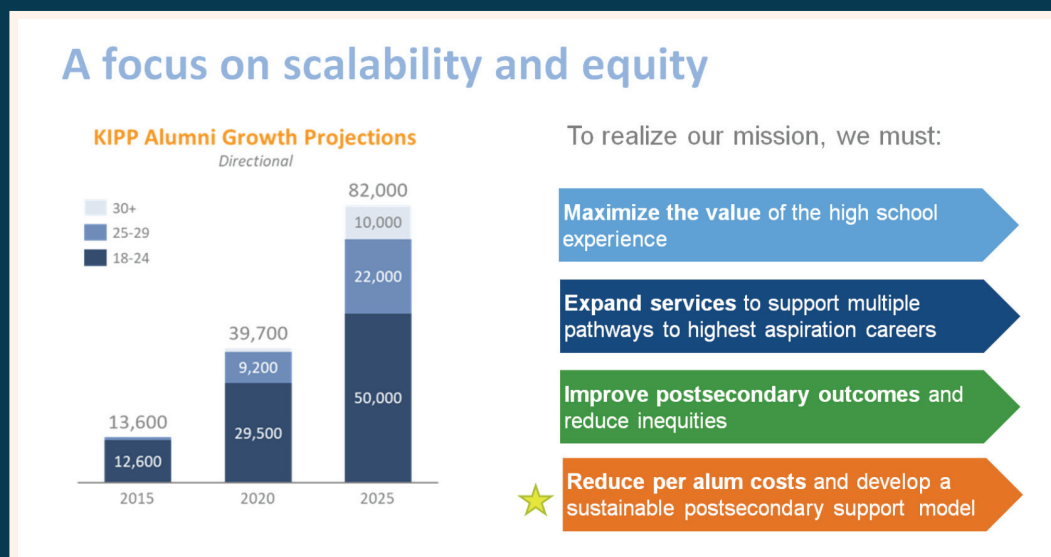
KIPP continues to innovate, with potential Continuous Improvement (CI) projects that could enhance their hybrid advising model. They aim to further engage students through personalized chatbot interactions and regular motivational nudges.

KIPP is a visionary institution adapting to the evolving educational landscape through data-driven, technology-enabled, student-centered approaches. Their journey underscores the importance of flexible models in supporting diverse student needs beyond the traditional high school environment.

“Hybrid advising is pivotal in scaling our ability to meet each student’s needs effectively, mirroring our organizational commitment to inclusive and adaptable support. This approach thrives on the active involvement of all stakeholders—students, families, schools, and advisors—ensuring that our strategies are not only informed by diverse perspectives but also embraced by the communities we serve. By weaving together technology and personal engagement, we enhance our responsiveness and adaptability, empowering every member of our community to contribute to the evolution of our programs.”

- ANDREA RASCON
Puentes Scholarship Coordinator/Advisor

FIGURE J. KIPP - A FOCUS ON SCALABILITY AND EQUITY



Bottom Line has effectively integrated AI chatbot technology with traditional advising methods to create a scalable, student-focused support system called Blueprint. Recognized for its student-designed mascot, affectionately named Blu, this program stands out for its timely affirmations, reminders, and guidance, directly impacting student engagement and program satisfaction.

Adapting to students' academic calendars, Blu's campaign timings have been recalibrated to better align with their scheduling activities. This adjustment, along with an expanded array of wellness resources and moderated message frequencies, showcases Bottom Line's commitment to responsive and tailored communication. Feedback from students showed they valued the continued support years into their college journey, and appreciated the push to persevere from Blu, underscoring the positive influence of these program improvements.

On the advisory side, Blu has significantly enhanced caseload management. Advisors highlighted Blu's ability to facilitate connections between students and advisors, especially during non-traditional hours, enhancing the support system's accessibility. They also emphasized how Blu's seamless integration allows for more focused support for students with immediate needs. From an efficiency standpoint, Blu allowed Bottom Line to evolve caseload management by expanding their initial advisor-to-student caseload size ratio from 1:300 to 1:650 due to adopting a communal caseload model.

The program's impact is further evidenced through pre- and post-survey analysis, revealing significant student engagement with Blu and appreciation for the bot's support across various academic and personal challenges. The surveys also identify areas for continuous improvement, such as optimizing message timings and expanding discussion topics to include vital resources like SNAP benefits:

Academic Skills Needs

Over 55% of students felt somewhat or very skilled in academic areas but identified time management and study skills as needing more support.

Student Challenges

Over 65% of students found navigating college and balancing life aspects to be from "not very" to "somewhat challenging," with networking and balancing school, work, and life being the top challenges.

Financial Costs and Support Needs

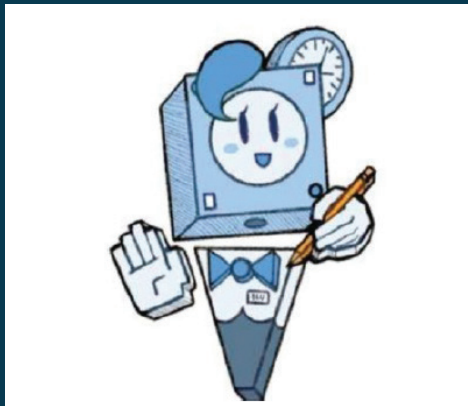
Over 50% of students reported \$0-\$5000 in out-of-pocket costs, with a noticeable shift in the cost range between semesters and groups. The Spring 2023 survey highlighted needs for tuition, scholarships, books, and housing/food support. To address these needs, Bottom Line administers Emergency Funds support on a semester basis, and recently launched a textbook fund dedicated to resolving immediate academic needs.

Helpful Topics for Students

Students found advice on financial aid, scholarships, career opportunities, time management, mental health, networking, and making friends most useful. Affordability was highlighted as a top concern.

As Bottom Line moves forward, the organization is poised to leverage Blu's capabilities even further. The intent is to deepen the engagement with first-year students and broaden the topics covered by the chatbot, ensuring that every student feels seen and supported. Through thoughtful analysis and strategic adjustments, Bottom Line is setting a standard for how hybrid advising models can evolve to meet the changing needs of students, making a profound and lasting impact on their educational journeys.

FIGURE K. "BLU" - STUDENT-DESIGNED CHATBOT MASCOT



"Bottom Line's chatbot Blu has been a wonderful resource for me as I manage a communal caseload of students. Blu is able to share links and resources for students to schedule meetings with advisors when they need additional support. It is especially reassuring to see how Blu supports students during overnight hours and weekends when advisors are not available. Students feel comfortable asking questions, and our chatbot has been trained to answer 900+ questions."

-SAMUEL K.
Bottom Line Advisor



BLENDING AI with human advising involves careful role definition and staff training. In general, AI is well suited for consistent, data-driven tasks, while human advisors offer personalized support. Training staff to monitor AI-generated texts ensures a balance between automation and human touch.

Staff involvement with program development allows organizations to address staff needs in real time, establishing a feedback loop for continuous improvement. This collaboration prioritizes staff needs and increases buy-in to co-create a successful hybrid advising system.

Management & Staffing Considerations

FOR EFFECTIVE, SUSTAINABLE HYBRID ADVISING PROGRAMS

<p>STRATEGIC PLANNING</p>	<ul style="list-style-type: none"> » Set clear objectives for hybridization aligned with the overall goals of the organization. » Develop workplans with specific timelines, milestones, and performance indicators.
<p>RESOURCE MANAGEMENT</p>	<ul style="list-style-type: none"> » Plan for resource allocation to evolve as the hybrid model matures—initial investment in project launch, including technology and training may be significant. As more students are served, this investment is spread out and ultimately brings down cost per student. » Consolidate human resources in areas where human input is most valuable, like developing content and meeting with high-need students.
<p>RISK MANAGEMENT: LEGAL & ETHICAL</p>	<ul style="list-style-type: none"> » Invest in cybersecurity and establish downtime protocols. » Investigate and adhere to data protection laws and ethical AI use guidance. » Develop effective escalation protocols.
<p>TECHNOLOGICAL INFRASTRUCTURE</p>	<ul style="list-style-type: none"> » Invest in specific hardware and software required to support AI applications and their integration with human advising. This includes reliable IT support for maintenance and updates, strong data security measures, capacity for large data analytics.
<p>ROLES & RESPONSIBILITIES</p>	<ul style="list-style-type: none"> » Define clear roles for both the technology and for each staff member to ensure efficiency and effectiveness in the hybrid model.
<p>TRAINING</p>	<ul style="list-style-type: none"> » Train staff on the platform’s technical aspects (e.g., basic operations, advanced data analysis) and its application (e.g., use with empathy, communication, and cultural responsiveness). » Conduct regular professional development opportunities to keep staff updated with the latest technological advancements and best practices in advising.
<p>CHANGE MANAGEMENT</p>	<ul style="list-style-type: none"> » Integrate change management strategies into organizational practices, including tasks to build confidence and comfort with new technology. » Communicate the hybrid model’s benefits and provide hands-on training and mentorship. » Co-create hybrid advising models and processes to enhance staff and student ownership. » Recognize successes and create a supportive environment. » Provide regular feedback and open forums to further facilitate smooth transition and continuous improvement.
<p>PERFORMANCE MANAGEMENT & EVALUATION</p>	<ul style="list-style-type: none"> » Establish Key Performance Indicators (KPIs) for both AI and human advisors. For AI, metrics like response accuracy and system uptime are important, while for human advisors, student satisfaction and caseload management are key. » Conduct regular reviews using both quantitative data and qualitative feedback, and ensure continuous improvement.

TABLE A. MANAGEMENT & STAFFING CONSIDERATIONS

As technology advances, staying current and adapting to changes are continuous tasks.

"One of LGR's most significant lessons is that the hybrid model and features are very customizable, which allows them to be deployed across various program modalities within our signature near-peer coaching program."

- GRACE BIANCIARDI
Chief Program Officer
Let's Get Ready

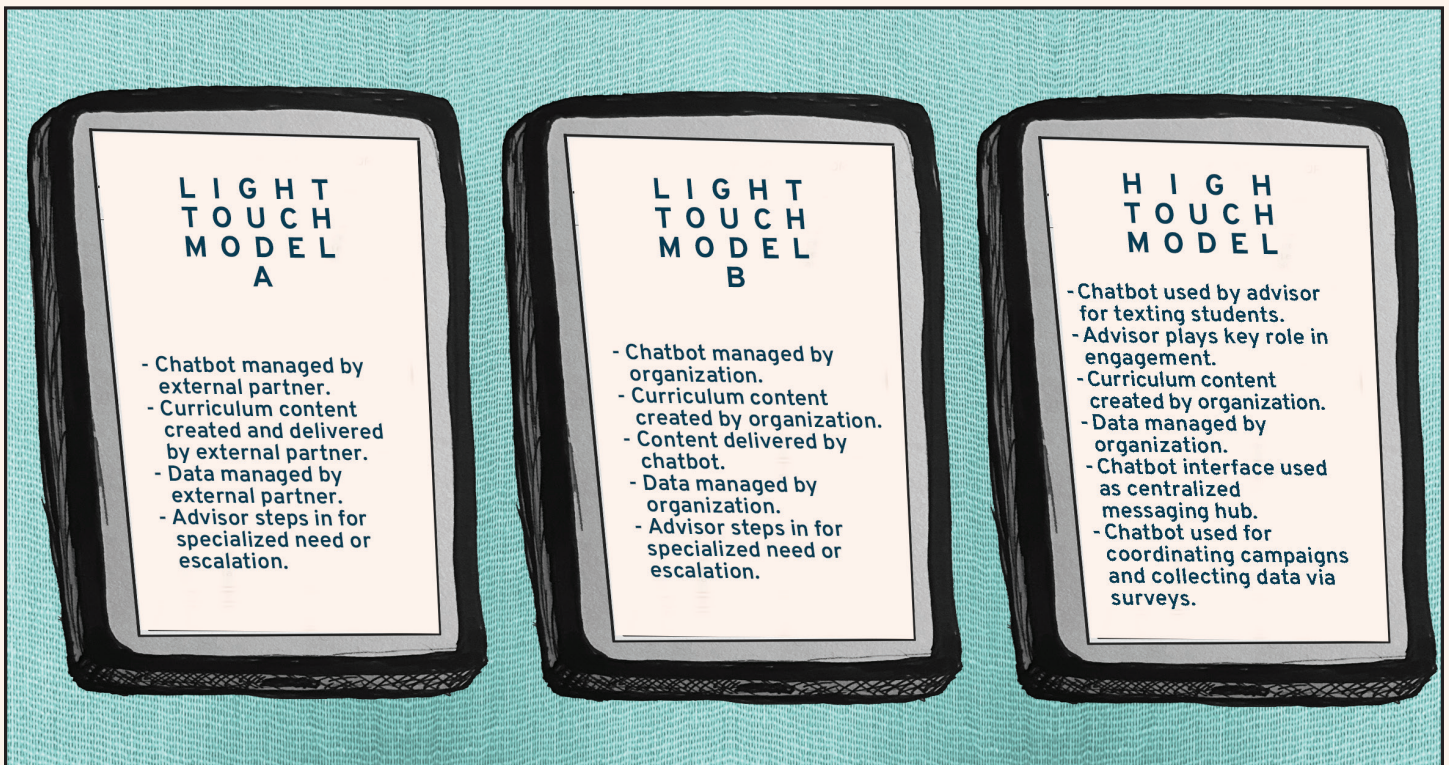
BELOW, Figure L illustrates three possible hybrid advising models. There are overlapping features and benefits (along with multiple variations of each example) that can be adjusted or changed based on staff capacity, organization growth, and population changes, among other considerations.

Light Touch Models A and B have very similar features. However, A's workflow relies on content creation and chatbot management from an external partner, while Light Touch Model B handles content and chatbot management internally. The similarities align around a tech-forward approach, where the chatbot functions as the first content.

The High Touch Model shows a similar approach to Light Touch Model A's content-use and chatbot management. In the High Touch Model, however, the advisor leads all student engagement. Depending on staff capacity, this model could be adjusted so that an external organization creates content/curriculum, delivery of planned content and data analysis.

See Appendix Table A for a detailed breakdown and further examples of hybrid advising models.

FIGURE L. EXAMPLES: LIGHT TOUCH & HIGH TOUCH MODELS



Recommendations

The following recommendations aim to enhance the efficacy and sustainability of advancing hybrid advising programs.



Identify Your Why & How

Start with “the why” by gathering a clear understanding of how hybrid advising will help to achieve your organization’s mission. This clarity will inform decision-making about your hybrid advising models as well as help when articulating the program’s value in student success.

“One size doesn’t fit all—and part of it is knowing who you are and making sure that these tools really help you do the thing that you do best.”

Lena Eberhart
CEO, Let’s Get Ready

Adopt Iterative Testing & Improvement

Hybrid advising programs will need to continuously evolve and adapt as student needs change and technology advances. Continuous improvement offers a structured yet accessible approach to testing, learning, and enhancing. Experiment with different hybrid advising methods, analyze outcomes, and refine approaches based on learning.

“...[the other thing we talked about is] having a theory of change—anchoring on your north star in what you want to be true about the way your program is interacting with your students ...it is not a simple copy and paste, it will be different from your existing TOC and needs to be treated differently. Know the places where you are willing to make design bends and know the places you are not because its going to be really valuable to you as you start to learn how the tool works and how it doesn’t.”

Steven Colón
CEO, Bottom Line

Promote Collaboration & Engagement

Foster open, inclusive discussions among those most impacted—schools, students, advisors, families—to gather diverse insights. This creates space for people to contribute throughout the process, promoting community ownership, facilitating a smoother rollout and enhancing program relevance and effectiveness.

“Hybrid advising is pivotal in scaling our ability to meet each student’s needs effectively, mirroring our organizational commitment to inclusive and adaptable support. This approach thrives on the active involvement of all stakeholders—students, families, schools, and advisors—ensuring that our strategies are not only informed by diverse perspectives but also embraced by the communities we serve. By weaving together technology and personal engagement, we enhance our responsiveness and adaptability, empowering every member of our community to contribute to the evolution of our programs.”

Monique Jaramillo
VP, Marketing + Communications
OneGoal

Insider Note

A logic model is an effective management tool to plan for “the how” of implementation by linking outcomes to necessary resources and key activities. This creates a space for collaboration and a mechanism for continuous improvement.



Explore Shift’s animated video series for a crash course in iterative testing and all things Continuous Improvement.

WATCH

Transforming Hybrid Advising Through Data

HYBRID advising revolutionizes student support by using data-driven strategies to address diverse student needs, especially for historically underserved populations. Using a chatbot interface provides the ability to use student data as a precision tool to pinpoint and address evolving priorities. This approach ensures personalized guidance at a large scale, effectively bridging educational disparities with increased efficiency and inclusivity.

Data Collection & Feedback Loop

THE success of hybrid advising relies on the effective use of student data to deliver pertinent support. This involves gathering a range of metrics, such as demographics, engagement, and academic performance, to develop personalized support plans. Advanced analytics further enhance this by identifying trends and insights, enabling advisors to offer support that is highly relevant and personalized to each student's circumstances. A continuous feedback loop of data analysis and strategy refinement leads to ongoing enhancements and adaptations, making hybrid advising increasingly precise and effective.

Data Infrastructure & Collection

FOR advisors to be most effective, they need access to basic information about the students they serve. The infrastructure for collecting and storing data may range from spreadsheets to sophisticated customer relationship management (CRM) platforms. While access to data varies from organization to organization, hybrid advising programs typically collect at least four types of data:

1. Whether and how students are completing critical milestones (such as established postsecondary goals or FAFSA completion).
2. The degree to which students engage with outbound messages and content.
3. Frequency of attending meetings with an advisor.
4. Outcomes, usually whether the students who benefit from the advising program continue along their selected postsecondary pathway.

With this information, advisors can better address students' needs, and programs can identify opportunities for improvement.

SETTING UP A DATA INFRASTRUCTURE FOR HYBRID ADVISING

USING DATA

Let's Get Ready uses AI to organize and analyze hundreds of thousands of exchanges between students and their advisors to identify themes and trends that help them better understand students' needs individually and in the aggregate, as well as inform the development of their curriculum and training.

Start with a few questions:

- » What information is currently collected and stored?
- » What data do advisors use? How do they access it? What data do they wish they had?
- » How is data used within the organization?

This assessment is a helpful first step to identifying student and advisor needs before deploying a hybrid advising model.

"...[even] if you run a perfect design process and pilot structure, Let's Get Ready has learned that you must also quickly integrate new data and learning. We learned that setting a clear north star and shared understanding of 'the problem' we are trying to solve and the social issue we are connected to helped us avoid being overwhelmed and distracted. The process translates best when it is open and ready to integrate new information as it becomes available."

- LENA EBERHART
CEO, Let's Get Ready

CO-OP members visualize various types of data within dashboards like the example from Bottom Line (Figure M). See Table B for a list of common measures.

With further analysis using criteria such as demographic information, location, etc., organizations can create customized outreach campaigns via chatbot that are segmented based on specific student needs or statuses. For example, students may only receive prompts to complete their FAFSA if they haven't already. This ensures the messages they receive are pertinent and increases the likelihood they take action.

For advisors, the chatbot serves as an efficient tool for gathering information. Having the chatbot send pre-designed messages also saves advisors time. With this efficiency, advisors can concentrate on personalized follow-ups where necessary, further optimizing the impact of the hybrid advising program.

A comprehensive approach to data utilization empowers decision-making and continuous refinement of the hybrid advising model, ensuring alignment with both student needs and organizational objectives.

Insider Note

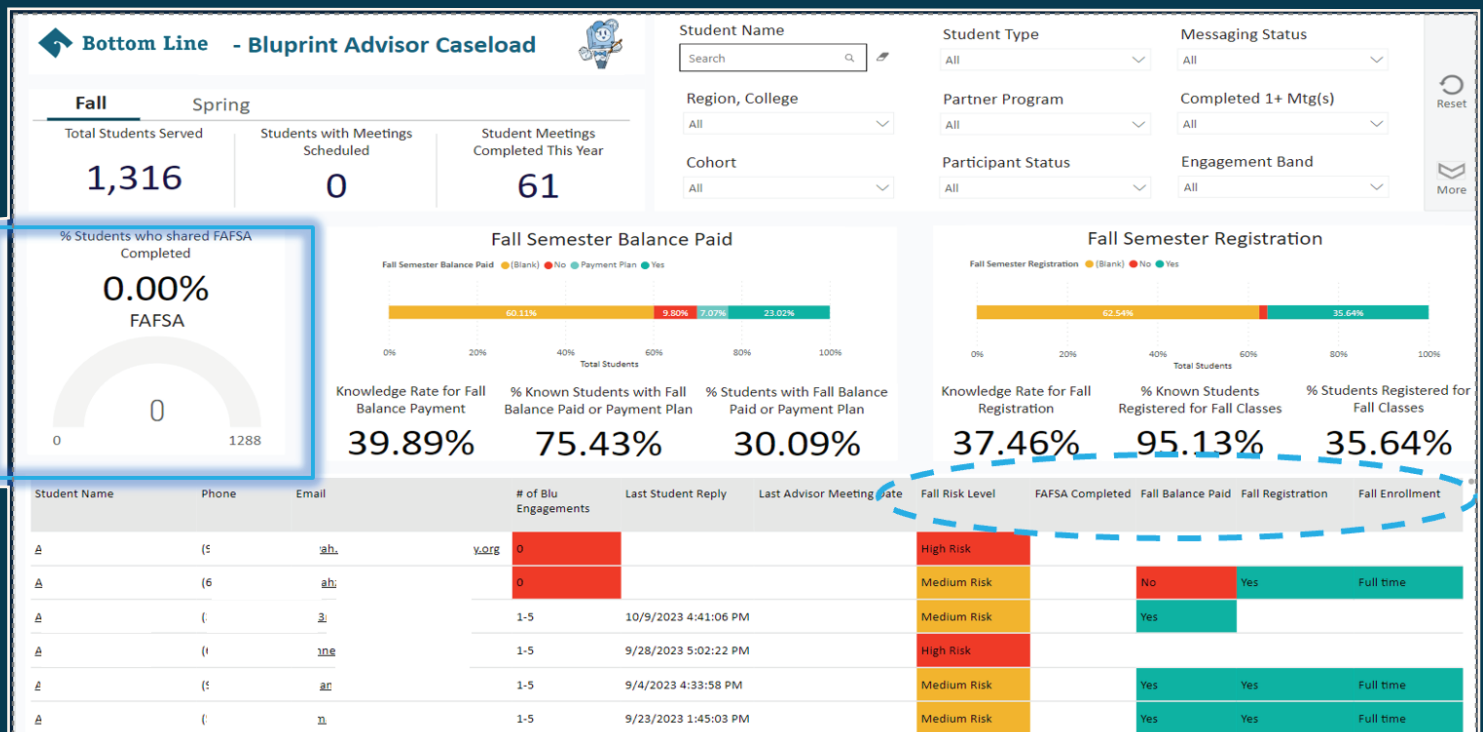
Hybrid advising models frequently use self-reported data collected via chatbots, streamlining the data gathering process. However, it is crucial to also collect data from students who choose not to self-report. Training advisors to effectively gather data during their interactions with these students ensures comprehensive representation in the data set, optimizing both time and resources.

Bottom Line uses AI as the front lines for communications. Their CRM interface (see below) allows advisors to track students' progress in real-time and responds appropriately.

"Bottom Line uses a communal caseload, meaning all advisors support all students. This means that case notes are important, allowing each advisor to view messages with the student and follow the thread. The integration of the chatbot with our CRM system has been critical for this functionality."

- SARAH PLACE
Chief Program Officer, Bottom Line

FIGURE M. BOTTOM LINE ADVISOR INTERFACE VIEW



Combining Data for a Whole-Student Approach

A hybrid advising model provides the potential to amass and utilize a broad spectrum of data, enabling advisors to prioritize support for students who need it most. A common insight from Co-op members is the importance of using reliable and accessible CRM systems. These systems provide advisors with a comprehensive “view” of their students’ data, incorporating features for inputting data, custom alerts, summaries, and segmentation based on specific criteria. With appropriate CRM functionalities, hybrid advising can combine data from chatbot interactions and advisor inputs, crafting a fuller understanding of each student’s journey.

“The way [our students] engage with the chatbot and how they communicate is constantly changing. So, what’s true for one month can be different another month, that’s why we think its really important that we continuously get feedback from our students. It helped us to ensure that we are creating a tool and support system for them.”

- HAIJU QU

Senior Director Program Innovation, OneGoal

TABLE B. DATA TYPES TO COLLECT/MONITOR

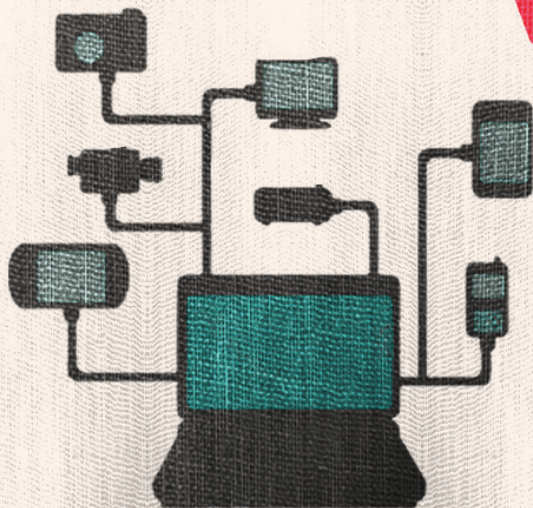
<p>CONTACT & DEMOGRAPHIC INFORMATION Basic information that allows for personalization, messaging, and segmentation of data.</p>	<ul style="list-style-type: none"> » Name and phone number (specify cell number and include parent, or guardian phone number in case the cell number changes). » School name, state, region, other location. » Age, race, gender.
<p>ENGAGEMENT WITH CHATBOT Tracking aspects of student behavior using qualitative and quantitative data allows advisors to identify and proactively address patterns and needs.</p>	<ul style="list-style-type: none"> » Responses to nudges. » Opt-outs. » Interactions.
<p>MILESTONES Required milestones are tracked to understand students’ progress and needs for support.</p>	<ul style="list-style-type: none"> » Established postsecondary plan. » Financial aid, FAFSA, scholarships. » SAT/ACT completion. » College application submissions. » Other college (re-)enrollment steps: immunization form, orientation, course registration, etc.
<p>ACADEMIC PERFORMANCE Academic performance is considered when identifying students’ support needs and may predict likelihood to persist.</p>	<ul style="list-style-type: none"> » Grades. » Course completion.
<p>EMOTIONAL, WELL-BEING, & MINDSET METRICS Provides insight on students’ emotional and mental well-being for holistic advising and allow for message escalation.</p>	<ul style="list-style-type: none"> » Stress or satisfaction levels. » Self-efficacy/mindset regarding postsecondary plans. » Self-efficacy around workload, success at college. » Screen for signs of dropout, other signs of distress.
<p>ENGAGEMENT WITH ADVISOR Meetings with advising staff can be tracked to ensure all students have access to personalized advising.</p>	<ul style="list-style-type: none"> » Advising appointments. » Missed appointments. » Other direct communication with advising staff (texts, phone calls, etc.).
<p>ADVISOR AND STUDENT FEEDBACK Facilitates ongoing improvement.</p>	<ul style="list-style-type: none"> » Post-advising surveys. » Feedback from students about chatbot support. » Feedback from advisors about chatbot messages, timing, usefulness.



Data Security

AS an organization moves toward a hybrid model, an underlying question remains (as it does with externally facing technological implementation): How safe is the data? Ensuring privacy and security for student data requires ethical standards and transparency. An internal practice that prioritizes ethics and security is an important first step.

It is beyond the scope of this playbook to cover general data storage and security in depth. However, incorporating an AI chatbot into the data infrastructure does warrant additional considerations for data collection and security.



DATA INTEGRITY CONSIDERATIONS

- » **Organizations are required to obtain consent to text students. Recommendations:**
 - ◁ Collect consent via onboarding process (sign-up form/survey/etc.).
 - ◁ Confirm recent FERPA requirements.
 - ◁ Ask explicitly for permission to text them.
 - ◁ Define opt-in/opt-out approach, including the process for enrolling opted-out students who change their mind, and the contact mode for those types of gaps.
- » **An AI chatbot platform will connect to another system (i.e., CRM) and will have access to the student data. Recommendations:**
 - ◁ Confirm vendor's FERPA and SOC2 compliance⁹ during assessment.
- » **Design data-sharing protocols between student data sources and the AI chatbot platform. Recommendations:**
 - ◁ Create and disseminate clear procedures.
 - ◁ Define and implement security requirements.
 - ◁ Train staff on procedures and requirements.

ETHICAL AI

Ethical AI use is critical to equitable student support. AI vendors have a responsibility to ensure algorithms are bias-free and to promote transparency in data handling. The potential for AI systems to perpetuate or amplify biases is a significant concern. Ensuring that algorithms are free from bias is not just a technical issue but a moral imperative. This requires a proactive approach to algorithm design and implementation, with a focus on fairness and transparency.

It's crucial to involve diverse perspectives in the development process to mitigate biases and ensure the AI system's decisions are equitable and just. When assessing possible vendors to provide this technology, it's important to remember that organizations are relying on their expertise to provide the best possible software and services.

- » What "gates" have they developed around the AI to guarantee exactly what answer students will get?
- » What reputation do they have in the industry for ensuring equitable student support and success?
- » How have they designed their system to best support students and advisors in general, and does it align with the organization's priorities and goals?

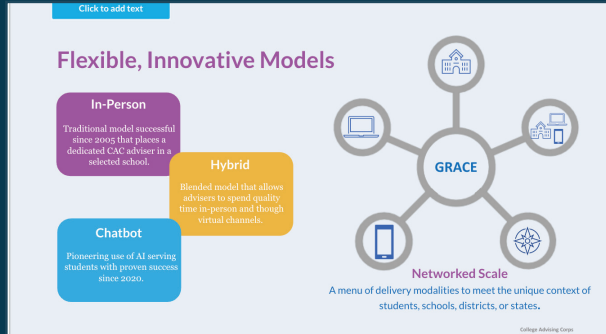
TABLE C. ELEMENTS OF SUCCESSFUL HYBRID ADVISING

<p>ROBUST DATA INFRASTRUCTURE</p>	<p>Establish a data system with comprehensive dashboard capabilities and CRM integration that aligns with advising goals. Prioritize systems offering scalability and adaptability.</p>
<p>AI CHATBOT AND CRM INTEGRATION</p>	<p>Integrate AI chatbot interactions with CRM systems for a comprehensive view of student engagement. This integration allows for real-time tracking of student queries and issues, enabling advisors to provide timely and personalized support.</p>
<p>ETHICAL DATA COLLECTION</p>	<p>Implement and adhere to stringent data privacy management practices. Ensure transparency and secure student consent for data usage, employing advanced encryption and access controls.</p>
<p>STUDENT ENGAGEMENT ENHANCEMENT</p>	<p>Use data to tailor student interactions. If analytics reveal that students engage more through mobile platforms, consider optimizing advising services for mobile use. Additionally, deploy AI chatbots for instant responses, but transition to human advisors for complex queries, as indicated by interaction patterns.</p>
<p>SYSTEMS ALIGNED WITH ADVISING GOALS</p>	<p>Ensure scalability and adaptability, and prioritize systems that align with advising goals. To establish a responsible and secure infrastructure, adopt data protection protocols compliant with regulations like GDPR or FERPA. Implement data encryption and access controls, and conduct regular audits to maintain data security and integrity. Plan for scalability to accommodate growing data needs, and ensure the system has sufficient flexibility to adapt to new technologies and advising strategy changes.</p>
<p>STAKEHOLDER PERSPECTIVES</p>	<p>Regularly gather feedback from students, advisors, and faculty to inform data interpretation. Use surveys or focus groups to understand how different stakeholders perceive the advising process and its outcomes. This holistic view can reveal gaps between data insights and user experiences.</p>
<p>DATA-DRIVEN DECISION-MAKING</p>	<p>Leverage data analytics to inform strategic decisions in advising. Utilize engagement metrics and academic performance data to identify areas needing improvement or expansion. For example, if data shows low engagement in a particular demographic, targeted initiatives can be developed and tested to increase student participation.</p>
<p>CONTINUOUS IMPROVEMENT</p>	<p>Establish a routine for reviewing and analyzing data, and use these findings to continuously refine the advising model. For instance, if data shows an increase in certain student queries at specific times of the year, adjust staffing or resources accordingly to meet these cyclic demands.</p>
<p>PROACTIVE DATA SECURITY</p>	<p>Regularly update security protocols and conduct risk assessments. Integrate measures like multi-factor authentication and provide staff with ongoing security training.</p>

BACKGROUND

College Advising Corps (CAC) sought to enhance its advising model to better serve students by making advising more efficient and increasing advisor and student engagement through integrating AI technologies and robust data systems. The goal was to leverage AI to make advising more effective and use data-driven insights to obtain deeper knowledge about how, when, and with whom the chatbot is most effective.

FIGURE N. FLEXIBLE INNOVATIVE MODELS



OPPORTUNITY

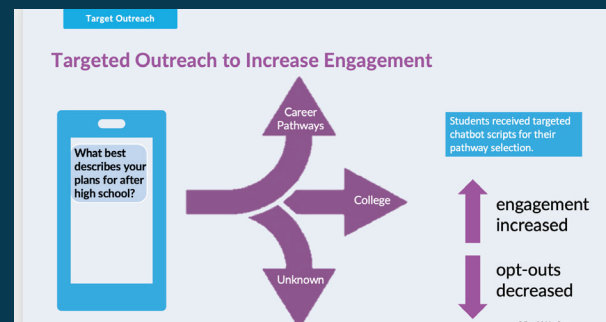
CAC joined the Co-op having the experience of launching an artificial intelligence-powered project in 2020 and a new hybrid model in 2021 integrating the use of a chatbot alongside CAC’s traditional model of advisors placed in schools. This work well positioned CAC to join the Co-op to build on the organization’s knowledge by improving technology integration and efficiencies, using real-time data for decision-making, and engaging advisors to design and influence the evolution of this technology.

SOLUTION

CAC implemented a technology integration, allowing advisors to view chatbot and student conversations, and view and respond to chatbot escalations in the advisors’ CRM system, GRACE. CAC also created a chatbot dashboard to display real-time chatbot performance data, measuring and reporting engagement, opt-outs, and message performance.

In addition to utilizing an enhanced escalation system, CAC conducted a test using student and advisor-reported data to deliver chatbot content targeted toward students’ unique desired pathway—college, workforce, or undecided. This made for a more tailored experience that resulted in increased student engagement.

FIGURE O. TARGETED OUTREACH



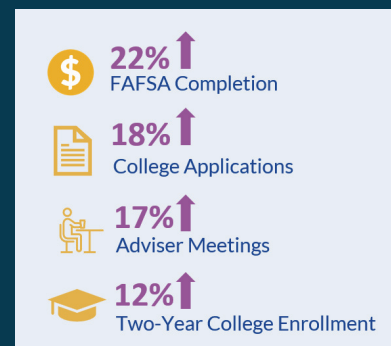
OUTCOMES

CAC’s experience highlights the significance of a well-integrated and strategically utilized data system in hybrid advising. The adept use of AI for case management, coupled with the refined GRACE integration, notably enhanced the efficiency of their advising processes.

This approach, paired with the hybrid advising model and proactive data collection, led to more efficient case management, where advisors could focus on priority-need students. The AI chatbot effectively handled common queries, freeing up advisors for complex, personalized interactions, while students benefited from being met where they were in the process with custom content.

CAC’s ability to analyze and segment student data effectively has led to more tailored and impactful student interactions. Their approach to managing and leveraging data has improved the responsiveness and adaptability of their advising model and provided valuable insights for continuous program enhancement. As a result, advisors reported approaching advising differently by being more strategic, and student- and data-centered.

College Advising Corps has always valued data tracking, aligning advising goals with key performance indicators. CAC’s performance measures illustrated the most compelling case for aligning and integrating chatbots with human advising. CAC found that, compared to the students who did not receive chatbot messaging, the students who received chatbot messaging had higher milestone completion, including college enrollment.



REFLECTION

Reflecting on the journey, CAC recognized the value of AI in identifying high-priority students and streamlining workflows. They found that using real-time data resulted in immediate action, significantly impacting their program’s efficacy. CAC is committed to continuous improvement and adaptation of data systems to meet changing student needs and advising challenges.

ONEGOAL has harnessed the power of AI chatbots in conjunction with human insights to refine its hybrid advising model, focusing on maximizing student engagement and support. Utilizing the Mainstay AI chatbot, OneGoal emphasizes student feedback in messaging, adaptively adjusts communication strategies, and carefully monitors opt-out rates to ensure effective student engagement.

EMPHASIS ON STUDENT FEEDBACK

OneGoal places significant importance on incorporating student feedback into their messaging strategies. This approach is evident in their use of run chart data and qualitative feedback from student focus groups to continually refine their communication. For instance, adjustments in their texting campaigns based on student input have led to measurable improvements in engagement, demonstrating the value of a student-centered approach in hybrid advising.

MONITORING OPT-OUT RATES

OneGoal’s strategic approach to messaging has resulted in impressively low opt-out rates, even as the number of unique campaigns increased. From January to September 2023, the data showed a thoughtful increase in campaign frequency, with opt-out percentages remaining consistently low. This careful balance exemplifies OneGoal’s commitment to keeping students engaged without overwhelming them, a key aspect of the organization’s hybrid advising success.

TABLE D. OPT-OUTS VS. UNIQUE CAMPAIGN

2023	Audience	Unique Campaigns	Opt Outs	Opt Out %
JAN.	c/o 2022	5	4	1.63%
FEB.	c/o 2022	9	1	.41%
MAR.	c/o 2022	15	1	.41%
APR.	c/o 2022	16	2	.81%
MAY.	c/o 2022 + c/o 2023	8	2	.81%
JUN.	c/o 2022 + c/o 2023	19	2	.32%
JUL.	c/o 2022 + c/o 2023	15	5	.80%
AUG.	c/o 2022 + c/o 2023	20	2	.80%
SEP.	c/o 2023	13	1	.26%
OCT.	c/o 2023	22	1	.26%
NOV.	c/o 2023	20	0	0
DEC.	c/o 2023	14	0	0

RESENDING CAMPAIGNS: A STRATEGIC MOVE

A notable strategy employed by OneGoal is the resending of campaigns to students who are non-responsive. They tested out timing and frequency to determine how the students would respond if they received a reminder right away the next day. OneGoal learned that even though some engagement increased, they would still need to do this sparingly because it also causes opt-out. Therefore, OneGoal would only use this tactic on critical campaigns. This approach, informed by student focus group feedback, has led to an increase in response rates. For example, an initial message sent at 2:00 p.m. with a 2.8% response rate saw an increase to 6.8% when re-sent the next day at 10:00 a.m. When asking students about the best time to receive

messages, there was no clear consensus from students given their varying school and work schedules. Therefore, OneGoal sends messages at a different time of day than the original message to potentially capture a different set of students (as well as generally sending all of their messages out at different times of day). This adaptive communication strategy underscores the importance of flexibility and responsiveness in engaging students effectively.

TABLE E. RESEND CAMPAIGN

Campaign Topic	Initial Send Date/Time (CT)	Response Rate	Second Send Date/Time (CT)	Response Rate
Financial Aid Renewal for College Students	6/1/23 7PM	7.8%	6/2/23 3PM	5.6%
Plans After HS Graduation to Unknown Students	7/26/23 7PM	5%	7/27/23 1PM	10%
Enrollment Verification	9/21/23 7PM	34.7%	9/22/23 12PM	14.3%
Check on Spring Class Registration	11/30/23 9AM	13.7%	12/1/23 2:48PM	19.8%

CLEAR COMMUNICATION VIA THE BOT MODEL

Students have reported a clear understanding of the distinction between AI-driven and advisor-driven messages, facilitated by OneGoal’s bot model. This seamless experience, where automated reminders are complemented by personalized advisor messages, has been praised by students for its effectiveness and reliability.

EFFECTIVE ESCALATION PROCESSES

OneGoal’s escalation process ensures that advisors are promptly informed about and can effectively address students’ needs highlighted by the AI chatbot. Advisors’ continuous engagement with the Mainstay platform and involvement in the feedback loop help enhance the system’s value, encouraging more proactive and informed advisor interactions with students.

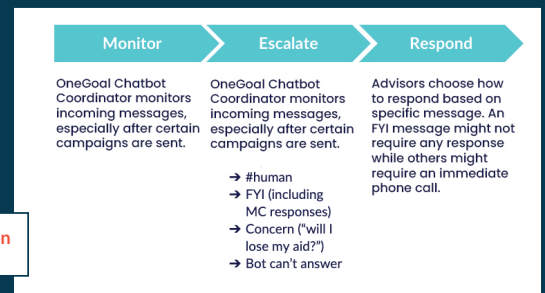


FIGURE Q. RESEND CAMPAIGN

KEY TAKEAWAYS

- » Student-Centered Messaging: OneGoal’s hybrid advising model excels in integrating student feedback to continuously improve engagement strategies.
- » Adaptive Communication: The practice of resending messages based on student schedules and frequency has proven effective in increasing response rates, highlighting the value of adaptable messaging.
- » Maintaining Low Opt-Out Rates: Data from January to September 2023 demonstrates OneGoal’s capability to increase engagement without elevating opt-out rates, with percentages remaining well below 10%.
- » Escalation and Advisor Engagement: The structured escalation process and active advisor involvement in the platform ensure that student inquiries are comprehensively addressed, enhancing the hybrid advising experience.

THIS section delves into the experiences and lessons learned from scaling hybrid advising in various settings, including postsecondary advising organizations, colleges, and regional or statewide initiatives. It highlights Georgia State University’s (GSU) decade-long journey in hybrid advising, showcasing their adaptive strategies for enhancing student access and success.

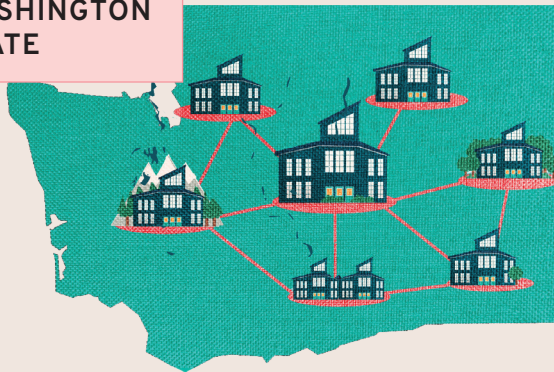
The chapter also examines the distinct approach of Washington State in incorporating artificial intelligence into its advising frameworks. Concluding with reflections from the five organizations in the Hybrid Advising Co-op, this section outlines future directions and scale-up plans for hybrid advising, drawing from their collective insights and experiences.

“Some students need a lot, and some students don’t, and what we really appreciate about hybrid advising is that it helps us to figure out who needs a lot and who doesn’t...We aren’t looking to serve the most students we possibly can: managing the biggest caseload with the fewest advisors. Our goal is to match students’ needs. So, yes, hybrid advising allows for efficiencies that allow us to be able to put a lot of students on a caseload, but we also want to be careful not to just focus on efficiency, because there are students who need more and we want to be prepared for both scenarios.”

- GRACE BIANCIARDI
Chief Program Officer, Let’s Get Ready

Lessons from Scaling AI-enabled Chatbots

WASHINGTON STATE



Mike Meotti, executive director of the Washington Student Achievement Council (WSAC), shared insights into enhancing student engagement using [OtterBot](#), an AI-based chatbot, in conjunction with the [College Bound Scholarship](#) (CBS). Initially focusing on 12th graders and expanding to include younger students and parents, WSAC uses OtterBot to directly text users to

improve engagement over traditional email methods. The program covers around 10,000-15,000 students and 25,000 parents per grade, functioning primarily without direct human advisor integration.

To refine OtterBot, WSAC partnered with MDRC, a nonprofit, nonpartisan organization dedicated to improving the lives of people with low incomes through high-quality research and evidence, on a project to understand student interactions with the bot. Hispanic students, who form a significant portion of the scholarship recipients, were identified as a group to focus on for improvements. This led to improvements in Spanish-language support and messaging to better address the needs and barriers faced by students. WSAC is exploring ways to integrate OtterBot with local institutions for broader educational attainment, including rebranding the bot for local relevance and expanding community partnerships to support post-secondary enrollment equity.

Watch Mike Meotti’s presentation on the work of WSAC from the Webinar Session, “Meaningful Data Use to Optimize Student Experience and Support.”

Also available: All webinar series recordings featuring Co-op leaders and subject matter experts (including Dr. Tim Renick discussing content on subsequent pages). See Appendix for more details.

WATCH



Lessons From Scaling Hybrid Advising

GEORGIA STATE UNIVERSITY

BASED on insights from Dr. Tim Renick and Lindsey Fifield from GSU's National Institute for Student Success, this section explores GSU's pioneering role in hybrid advising. As an early adopter, GSU demonstrates the dynamic application of hybrid advising across various student success initiatives. This summary reflects GSU's journey through experimentation, deployment, and evolution of hybrid advising in response to their educational landscape's evolving demands.

GSU'S ADOPTION OF CHATBOT TECHNOLOGY

In 2016, Georgia State University (GSU) introduced chatbots to tackle the increasing issue of summer melt, where students commit to enrolling but don't show up for classes. This problem peaked at a 19% melt rate in 2015, disproportionately affecting non-white, first-generation, and low-income students due to the noncompletion of administrative tasks, like submitting FAFSA or immunization proofs.

To address this, GSU undertook a comprehensive review across departments, identifying a chaotic messaging system with over 400 uncoordinated messages sent to students. This led to two pivotal changes:

1. The creation of a student portal to guide incoming students through enrollment steps, also provides insights into where they disengage and enables targeted staff interventions.
2. The introduction of Pounce, a chatbot designed to streamline and prioritize communications, offering instant, round-the-clock access to vital enrollment information.

An initial trial with Pounce led to a 17% reduction in summer melt for the test group. Over seven years, summer melt rates halved from 19% to 9%. The chatbot's efficiency in handling administrative queries freed staff to address more complex student needs, demonstrating the potential of AI to enhance student support significantly.

CONTINUOUS LEARNING THROUGH IMPLEMENTATION & SCALE

Based on these positive findings, GSU expanded Pounce to other use cases across six campuses, now supporting 40,000 students from enrollment to graduation. Lindsey Fifield shared valuable lessons from GSU's journey, summarized in the following content.

MODEL ADAPTATION & RESPONSE TO COVID-19

GSU's Pounce, primarily a "directional tool," was adapted to more interactive uses during COVID-19, reflecting GSU's blend of technology with human advising. Operating within a 1:350 ratio, this shift underscored the model's flexibility in enhancing human interaction, ensuring students received personalized guidance and support, especially during unforeseen challenges like the pandemic.

LEARNING THROUGH SMALLER SCALE TESTING

One of the most valuable lessons learned is to "stair-step" learning with sequential tests before scaling. By initially targeting smaller student groups before wider implementation, GSU continuously refines messaging and bot knowledge, ensuring readiness for broader student engagement. This important point is reflected in the following quote from Lindsey Fifield in sharing her biggest lesson:

"GSU was exceptionally strategic in how they piloted and scaled to students. We took the time to understand where bots could most be leveraged to improve student outcomes and prioritized communications in line with that objective. We were fortunate to have leadership that encouraged us to pilot and test bot interventions to ensure they worked where and how we intended and then scale appropriately versus rushing to scale. Our randomized control trials provided proven data on how to best use and adapt the technology not just for student engagement, but for student action, and as we scaled, lessons learned from analyzing this data became the backbone of our communication strategy. Beyond the randomized control trial model, the idea of pilot test and scale can continue to be implemented to better understand how student engagement continues to evolve. Even at scale, piloting a message to a few hundred students before sending the message more broadly can allow you to make the adjustments needed to improve nudge impact. The pace of feedback through the bot allows for quick integration and adjustment to better land the messaging, with the ability to integrate learnings from messages almost immediately."

This approach reflects one of continuous learning and improvement in which organizations test and learn on a smaller scale, incorporating learning from prior tests while increasing the scale of testing before full-scale implementation where stakes are higher.

STREAMLINING COMMUNICATION & ENGAGING STAFF

GSU's scaling approach included centralizing texting communications through Pounce, which improved consistency and effectiveness across departments. This policy fostered collaboration among various campus entities, demonstrating Pounce's ability to meet diverse needs. To ensure staff buy-in, GSU highlighted Pounce's benefits for both staff and students, emphasizing its role in enhancing faculty work and improving the student experience, beyond just policy enforcement.

IDENTIFYING & ADDRESSING STAFF NEEDS

GSU leveraged the chatbot to successfully encourage students to engage with advisement offices early. This eased high-traffic periods like registration and ensured that the students needing extensive advisor time, such as those with academic holds, received support early in the semester.

PROMOTING THE BOT AS A COLLABORATIVE TOOL

GSU presented Pounce as a collaborative tool, beneficial not just for students but as a partner for faculty and staff. By showcasing how the bot aids their tasks—streamlining communication, providing student insights, and handling routine queries—GSU fostered acceptance of Pounce as a valuable asset, facilitating its widespread use and positive reception across the university.

SUSTAINABILITY & FUTURE OUTLOOK FOR GSU

Key lessons from GSU's experience include the importance of policy protection, centralized messaging control, targeted personalization, and comprehensive impact measurement. Looking ahead, GSU is exploring new frontiers in hybrid advising, including piloting bot-assisted courses, and partnering on large-scale grants to further integrate AI into curriculum support.

GEORGIA STATE UNIVERSITY'S experience in expanding hybrid advising highlights the effective blend of technology and human understanding to establish an adaptable, student-focused advising system. Their story provides key insights for other institutions aiming to develop or improve their hybrid advising efforts, underscoring strategic planning, flexibility, and a commitment to student success.

Next Steps

The Hybrid Advising Co-op Organizations



As the pilot Hybrid Advising Co-op closes, each participating organization reflected on a shared set of questions about plans to scale hybrid advising models, key lessons from transitioning between a pilot to scale, specific instances when their organization had to pivot or adjust to overcome obstacles due to scale, and future steps for sustainability. This brief question-and-answer section serves as a repository of advice and best practices from Co-op members (in their own words).

Considerations (or Plans) for Scaling Hybrid Advising

WHILE we are still in the third year of our pilot, we are energized by what we are learning and excited about meeting or exceeding many of the goals we set at the outset of the pilot that were used to indicate our measures of success. As we plan for the future of Blueprint, we see a promising path to grow the program and serve more students in the future.

- BOTTOM LINE

BEFORE joining the Co-op Learning Community, we began piloting hybrid advising in 2021, messaging approximately 3,335 students in two states. During the pilot, we added schools in two additional states, for a total of just over 10,000 students. While we have moved beyond a formal “pilot” stage, we are still learning a lot about implementation and scaling.

Greatest lessons learned:

- » **Staff Capacity: Capacity is necessary to support the chatbot.** When we began using chatbots alongside in-school advisors, our existing staff managed the chatbot and the relationship with our chatbot provider. We quickly learned that to manage it well and leverage it to the greatest extent possible, we needed at least one full-time person dedicated to management and implementation. We hired a chatbot manager during our participation in the BLOCK collaborative. We are now learning that we need more staff. We recommend that organizations think about the workflow and staffing in terms of: administrative and technology management; bot content and campaigns; advisor, student, or partner alignment; and data and learning. You need internal capacity to support each of these areas to fully leverage the chatbot and realize its full potential.
- » **Technology Integration: Integrating technologies supports use and efficiency.** We began our pilot with escalated messages being sent to advisors’ email. From a functional perspective, this worked fine, but it was not the most efficient for advisors, nor did it allow for advisors or staff to engage with or fully leverage the chatbot to support students. Therefore, in our second year of implementation, we developed our client and data management application (GRACE) to integrate with Mainstay’s system (our chatbot contractor) so that student questions that the chatbot could not answer would escalate directly to their advisor within GRACE. We also integrated the systems so that advisors view the historical “conversation” between the student and chatbot, enabling the advisor to gather information, context, or data collected by the chatbot. Lastly, we use the GRACE platform to notify advisors of new chatbot

content, so they know what messages are being sent to their students. We have more advances we want to make to integrate our technology, but thinking ahead about this, budgeting, and planning is necessary.

- » **Systems and Processes: Setting up system and process flow is necessary for optimal operations.** The National College Advising Corps office works with University Partner Programs, as well as local or regional organizations, to hire advisors and support students. Therefore, in implementing the chatbot, we align and work with our partners to launch and manage the chatbots. Through our pilot, in learning what systems and processes must be in place to ensure communication and efficiency, we:

- ◁ Created a timeline and process flow for launching the chatbot with a new program or region.
- ◁ Learned how and when to share chatbot content with advisors through our client and data management system, ensuring advisors are aligned with the content.
- ◁ Structured communication and partnership with stakeholders (regional or state) to align data, content approvals, etc.

- » **Data and Impact: Access to timely chatbot data and using the data to learn and adapt is necessary.**

- ◁ There is a large amount available data, including student data collected by the chatbot and data on student interactions with the chatbot. We created a Chatbot Data Dashboard for partners to access weekly chatbot interaction data, such as opt-out and interaction rates by message, school, region, and state.
- ◁ It is necessary to set up time and processes to review, learn, and act on collected data. For example, seeing that a message had great interaction is a win, but “why?” What about the message made it engaging?

- COLLEGE ADVISING CORPS

WE began the NERA pilot after we were already using Mainstay at scale across many of our regions for both college access and persistence. We are still considering how/if we will continue to support NERA past the pilot phase.

- » A pilot for hybrid advising is not expected to resolve every challenge prior to its full-scale implementation. Given the novelty of hybrid advising, the pilot phase was instrumental in providing us with an insight into what a hybrid advising model could look like (such as bot versus advisor-forward models) and constraints (including the accuracy of bot responses and effective metrics for evaluating student impact). Through this process, we made some progress in understanding how to improve accuracy of bot responses and assessing student outcomes. However, it is now clear that achieving substantial improvement in these areas will require a sustained commitment of time and effort.
- » Another key lesson was the need to continuously engage

advisors to ensure that the development of the chatbot aligned with the needs and expectations of our advisors and cultivates a collaborative environment conducive to ongoing improvement. Throughout the pilot phase, we actively engaged our advisors in shaping the hybrid advising model. We asked for their preference between a bot-forward and an advisor-forward approach, and they expressed interest in exploring the bot-forward model. Following the initial pilot, we asked for their feedback on whether the bot-forward model supported their advising with students. The positive response indicated that the bot-forward model was indeed adding value to their interactions while also taking in consideration of the improvements that still needs to be made to the bot responses. Consequently, this feedback supports our decision to proceed with the implementation phase, while also acknowledging the importance of ongoing enhancements to refine the process further.

- KIPP

WHAT we learned:

- » Get clarity on your metrics for measuring engagement with and impact of your hybrid advising work and set those impacts as a north star. We were ready to move out of our pilot into whole-program implementation when we saw that our hybrid model was delivering meaningful impact on our students' college outcomes (specifically enrollment and persistence), at scale, without compromising on students' reported positive connection to their near-peer mentor. With that clarity, we moved out of our pilot charged with maintaining that balance, even as we explore new ways of leveraging the technology.
- » Build the mechanism and mindset for ongoing learning, feedback, and iteration into your post-pilot model design. The technology will continue to change and present new

possibilities for how to best leverage humans + AI to support the evolving needs of students. We've made it a priority to maintain that structured learning mindset—even as we moved out of our pilot—to ensure that we're continuing to identify gaps, test improvements, and maximize student impact. It's also been critical to our success to involve all of our stakeholders in that ongoing learning so that any innovation is directly connected to the needs of implementers and students.

- LET'S GET READY

THROUGHOUT the pilot phase, we actively engaged our advisors in shaping the hybrid advising model to align with their needs and expectations and cultivate a collaborative environment conducive to ongoing improvement. We asked for their preference between a bot-forward and an advisor-forward approach, and they expressed interest in exploring the bot-forward model. We asked for their preference between a bot-forward and an advisor-forward approach, and they expressed interest in exploring the bot-forward model. Following the initial pilot, we asked for their feedback on whether the bot-forward model supported their advising with students. The positive response indicated that the bot-forward model was indeed adding value to their interactions. Consequently, this feedback supports our decision to proceed with the implementation phase, while also acknowledging the importance of ongoing enhancements to refine the process further. As the initial excitement surrounding the chatbot can wane over time—for both advisors and students—we learned that we need to continuously think about advisor and student buy-in. This looks like celebrating intermediate outcomes and particularly successful campaigns and analyzing the overall impact of the chatbot in addition to continuously asking for advisor input.

- ONEGOAL



Reflection: The Journey & Key Learnings

AT Bottom Line, we entered the hybrid advising model with a clear expectation of testing our impact over a three-year period and conducted the program as a formal pilot. We framed our evaluation model around three key questions:

1. Will students want it? (Growth rate, student satisfaction rate, opt-out rate).
2. Will students use it? (Active and passive engagement rates).
3. Will hybrid advising work? (Persistence, advisor time savings, cost per student).

- BOTTOM LINE

FOR CAC, our impact data indicates that students receiving chatbot messaging have higher FAFSA completion rates, a greater number of meetings with an advisor, and more

college applications. This data along with feedback suggests that it is having a positive impact. At the same time, there are considerations as we look at scale. Those considerations include:

1. Additional Data and Research – While the data suggests impact, we have more to learn about the students who are engaging and those who are not engaging. Should the chatbot be deployed to all students or certain types of students? Are there regional or local contexts that impact students' engagement with or interest in the chatbot?
2. Funding – While the cost per student is lower than hiring an advisor, there are costs involved.
3. Capacity – Scaling will require additional staff.
4. Phone Numbers and Permissions.
5. Saturation – To what extent is a school or state already messaging students?
6. Data Integration.

- COLLEGE ADVISING CORPS

AS Let's Get Ready (LGR) projects are expected to substantially grow over the next few years, they will continue to leverage and deepen their AI and human-enabled programmatic delivery. This ensures responsiveness to students and partners across the country who represent diverse student profiles, identities, and aspirations. Specifically, LGR aims to:

- » Find new ways to leverage the highly efficient message automation features available on the platform to target individualized support to more than 18,000 students this year.
- » Increase the percentage of students who respond to nudge campaigns in order to drive interactions with near-peer advisors.
- » Test new ways to leverage AI-enabled features behind-the-scenes to support efficiency, learning, and quality as the organization organically grows in scale.

For example, LGR is currently piloting the use of a discrete chatbot for students who are considering an institutional transfer. The chatbot will be on an isolated channel on our platform in order to not disrupt students' interactions with their coaches. LGR hopes testing this institutional transfer

chatbot will share insights on whether students' and coaches' access to highly specialized advising information improves.


LGR's journey exemplifies its devotion as a learning organization as it proactively evolves its hybrid advising approach. Their leverage of emerging technologies to support their people-forward advising structure positions AI not as an effective and efficient conduit for scaling their rigorous, people-centered program model.

- LET'S GET READY

ONEGOAL'S initial findings suggest that students using the chatbot were more likely to persist and report completion of FAFSA. Additionally, advisors noted that it supports their advising strategy. Encouraged by these early successes, OneGoal will be scaling up to reach more students and leveraging insights from the initial pilot to effectively implement the hybrid advising model organization-wide.

- ONEGOAL

Next Steps for Sustainability & Scale



EVERY year, about 40% of the students from our Access cohort attend colleges outside of our target college network, making them ineligible for our Success program. Blueprint allows us to retain and support these students who would otherwise not have been able to continue working with Bottom Line. We therefore have a guaranteed pipeline of students we can support each year, and we are also exploring other potential growth opportunities, such as partnering with scholarship organizations or peer organizations who may refer students for postsecondary support. Our next major consideration for the growth of Blueprint will be to ensure we have a path to financial sustainability, which could look like a combination of philanthropic support.

- BOTTOM LINE

ONE of our biggest obstacles has been procuring and retaining accurate phone numbers and permissions. At the scale that CAC serves students across the country (200,000 students across 16 states), we have found it challenging to maintain accurate and consistent access to phone numbers. In both collection instances, phone number availability is inconsistent. We have found access to accurate and consistent phone numbers challenging. To address this, we have worked to conduct phone number collection drives with advisors by creating a "School Toolkit" to help advisors and schools promote the chatbot to increase participation.

Another instance of pivoting was when we scaled to a state that required parental permission for students under 17. College Advising Corps serves high school seniors, many of

whom are over 18 years old. For students under 18, we developed a parental permission text message that we texted to parents or guardians, and with a couple of "clicks" they could opt their student into the chatbot.

- COLLEGE ADVISING CORPS

WE shifted to a campaign model where KIPP continues to write the campaigns, but Mainstay inputs them into the platform and sends them out on our behalf. This gives regions the opportunity to customize each campaign and add regional campaigns. This also helps with our capacity, allowing us to use resources on the meaningful work of designing campaigns without spending time on the technical work of loading them.

- KIPP

AS we implement hybrid advising for more students, there is increased legal risk from incorporating another platform with student data. This required us to come up with strategies to gain legal consent from students. We shifted to allocate more workload to the Technical team and enhanced support for the Programs team in managing the knowledge base. This adjustment addressed the specialized skills and resources required to manage the complex data and technology demands.

- ONEGOAL



Strategic Pivots & Adjustments

Addressing Scaling Obstacles

WHILE we will always embrace the spirit of continuous improvement and learning, we are coming out of the pilot with a stable plan for program implementation and have a strong case for future growth and expansion.

- BOTTOM LINE

IN 2022, we took steps to sustain our chatbot work by hiring a full-time chatbot manager. It is our intent to maintain the current states and schools in which we are deploying the chatbot. Through participation in the Hybrid Advising Learning Community, we now have the systems and processes in place to scale to more programs. Steps we are taking include:

- » Engaging in more data mining and evaluation.
- » Codifying hybrid processes in our model.
- » Securing funding for further scale.
- » Further integrating technology so we may collect data.

- COLLEGE ADVISING CORPS

WE are exploring an opt-out model that would allow us to enroll most students on the platform. We are also working on an API that will make data sharing between our Salesforce database and Mainstay much less time-intensive for information technology and product management staff.

- KIPP

WE will incorporate what we learned from our pilot to adapt the approach as we scale to additional regions in our implementation phase. We will continue to refine the hybrid advising model; train staff on best practices in developing campaigns and supporting students; and leverage the chatbot to prioritize advisor outreach and tier support. Additional next steps include plans to:

- » Streamline centralized texting curriculum.
- » Provide centralized support for campaigns to be tailored for regional needs.
- » Continue to integrate the student-facing website, GradPlan.org, into the chatbot's knowledge base and campaigns.

- ONEGOAL

"When you get to a hard point where you think something is really difficult, talk to a student. Students will tell you exactly where they are falling off the path or why they're falling off the path, and that should drive your design because we have our own problems for what we want students to do, and students have their way of navigating around this very weird, hard-to-describe field of college access and student success. Never be afraid to pull in a student and ask, 'why are you not doing the thing?'"

- CARY CLAIBORNE
Chief Program Officer College Advising Corps

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The Hybrid Advising Co-op Organizations

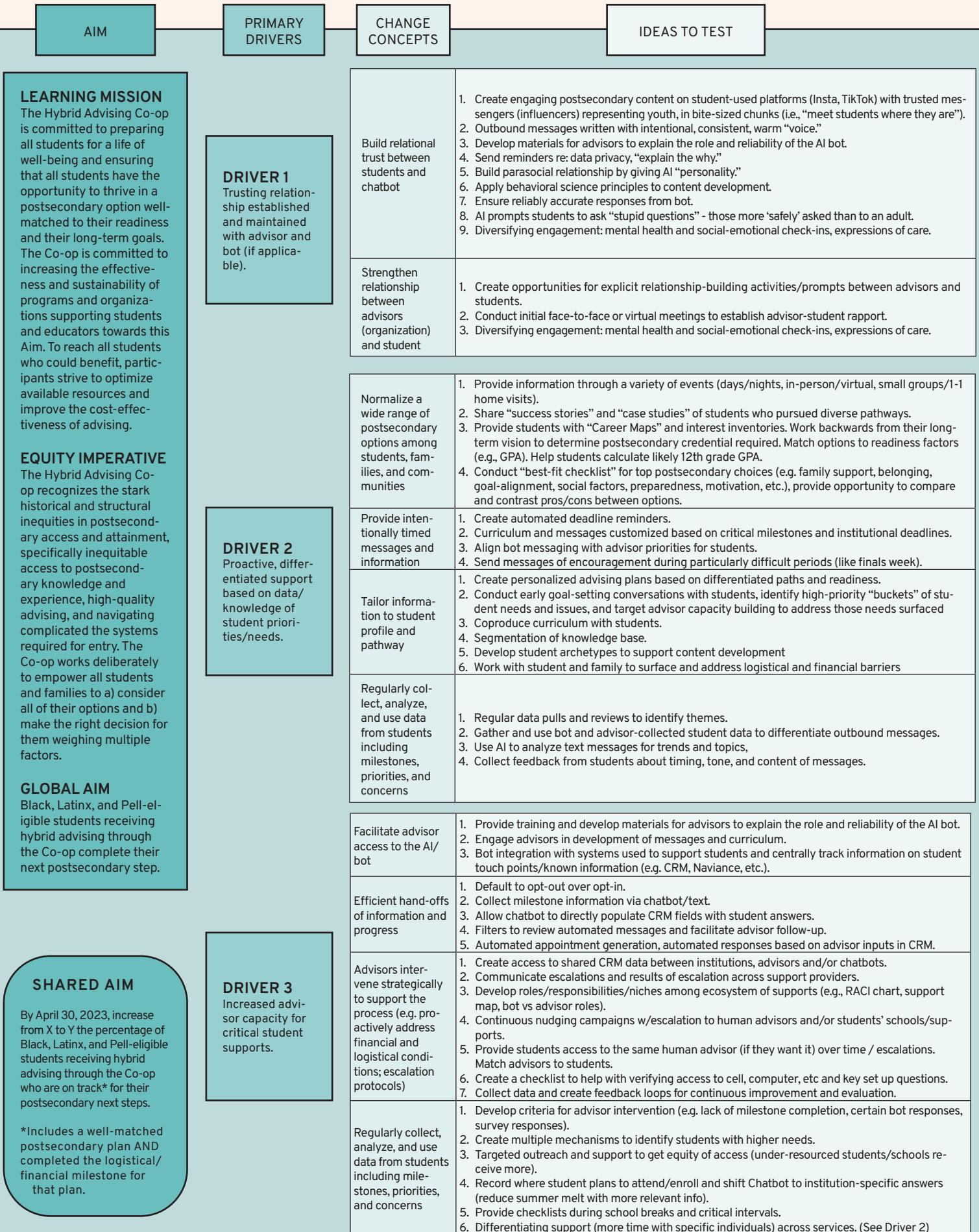
Bottom Line: bottomline.org
 Let's Get Ready: letsgetready.org
 OneGoal: onegoal.org
 College Advising Corps: collegeadvisingcorps.org
 KIPP: kipp.org/schools

Mainstay: mainstay.com
 Shift: shift-results.com

Funded by the Gates Foundation

	MODEL 1	MODEL 2	MODEL 3
GOAL AND ROLES OF CHATBOT AND AI INTEGRATION	<p>Using chatbot to offer light-touch support to students who don't continue down high-touch support path but still need support.</p> <p>This is a chatbot-forward model where the bot has a personality and is the first-line responder.</p> <p>Chatbot provides centralized proactive communication and uses AI to match answers for student questions 24/7.</p> <p>The bot will automatically escalate sensitive topics (using keywords) to be sure the advisor is aware.</p> <p>The bot and advisor both use the same phone number, but messages from the bot are signed by the bot.</p> <p>Students can also proactively reach out for an advisor using commands like #advisor.</p>	<p>Using chatbot to complement high-touch support model to encourage more engagement from students and offer different modalities for engagement.</p> <p>Students meet with their advisor for specific topics.</p> <p>Students can also proactively reach out for an advisor using commands like #advisor.</p> <p>Chatbot provides centralized proactive communication and uses AI to match answers for student questions 24/7.</p> <p>The bot will automatically escalate sensitive topics (using keywords) to be sure the advisor is aware. The bot also escalates questions it can't answer when human support is needed.</p> <p>The chatbot and the advisor use different phone numbers when texting the students.</p>	<p>Using chatbot as advisor's communication modality for high-touch human support model.</p> <p>Chatbot used to deploy centralized campaigns, as a texting tool for advisors, and to collect information via surveys; all communication is handled by the advisor via centralized platform.</p> <p>AI is used behind the scenes for data mining and analysis to generate insights for curriculum and advisors. It serves a listening and escalating function, while gathering valuable data for program refinement; complex cases are escalated to managers for oversight.</p>
ADVISOR LEVEL OF "TOUCH"	Light Touch	Medium–High Touch	High Touch
TOTAL STUDENT POPULATION (SERVED BY AI MODEL)	N/A	10,000	20,000
ADVISOR: STUDENT RATIO	1:650	Varies for chatbot Median: 160 / Max: 460	Varies based on student need 1:30 to 1:2500
ADVISOR TYPE	Professional virtual advisors employed by the organization.	School-based near-peer advisors supporting a hybrid model that includes a blend of in-person and virtual advising.	Virtual near-peer advisors/college students employed by the organization providing a unique perspective and reliability to the student experience.
STUDENT DATA SOURCE(S)	Via the program/university partners and advisor data collection activities.	Via the program, school, partner, and advisor data collection and entry activities.	Via the program/university partners and advisor data collection activities.
DATA COLLECTION AND ANALYSIS	Use both chatbot and other systems to collect data on student interactions, performance, and feedback, which is then used for personalized advising and program improvements.	Use chatbot performance data to measure student engagement with the bot and various performance/milestone metrics. Conduct advisor satisfaction and feedback surveys and focus groups. Track and measure key performance indicators and college enrollment of chatbot-treated students.	Use chatbot data that is internally managed with a focus on student feedback, engagement, and performance data to inform tailored advising strategies.
PROGRAM MANAGEMENT	Managed by internal staff with support from external partners for AI integration and data management.	Overseen by internal staff, with a strong emphasis on integrating career pathways, milestone navigation, and advisor training for bot utilization.	Overseen by internal staff, with a significant emphasis on relational trust-building and personalized student support.
CURRICULUM DEVELOPMENT	Blend of internal and external curriculum development.	Uniform, externally and internally developed curriculum focusing on postsecondary milestones, career pathways, emotional support, and decision-making support content.	Internal messaging and curriculum development. Primarily internal development, leveraging near-peer advisors' insights and experiences to create relevant content.

APPENDIX: FIGURE A. COMPLETE KDD FOR THE HYBRID ADVISING CO-OP



Student Success: Powered by Artificial + Human Intelligence Webinar Series

THIS four-part series, facilitated by Shift and moderated by Maurice McCaulley between January and April 2024, focused on the transformative realm of hybrid advising—a powerful alliance between AI technology and the human advisors who support students. This series showcased the experience of the five organizations collaborating in the Hybrid Advising Co-op to learn faster together how to harness AI technology to advance student access and postsecondary success. Each webinar centered on a different theme and included guest speakers leading initiatives in relevant areas.

GETTING STARTED: DESIGN CHOICES FOR HYBRID ADVISING

This series opener explored the dynamic intersection of human relationships and AI technology in shaping future-ready advising models that drive access and equity with quality, consistency, and efficiency. Three esteemed education leaders in the field shared their success stories and learning as they recounted their unique paths in integrating AI while delivering timely, personalized, and impactful student interactions.

FEATURING

- » Tim Renick, Executive Director of the National Institute for Student Success and Professor of Religious Studies, Georgia State University
- » Lena Eberhart, CEO, Let's Get Ready
- » Steve Colón, CEO, Bottom Line

GENERATING POWERFUL COLLEGE & CAREER ADVISING CONTENT

The third episode focused on the process of crafting engaging, culturally responsive content that resonates with students. Panelists shared their unique processes of combining technological innovation, behavioral science, and comprehensive understanding of student needs. Participants gained invaluable knowledge about delivering empathetic content at scale to promote inclusivity, relevance, and student action, all backed up with the power of AI to monitor quality and to deliver the most relevant content when and how students need it.

FEATURING

- Julie Delich, VP of Content Architecture & Solutions, Mainstay
- Sarah Place, Chief Program Officer, BottomLine
- Grace Bianciardi, Chief Program Officer, Let's Get Ready

ALL SESSIONS MODERATED BY

- » Karen Zeribi, Founder, Shift
- » Maurice McCaulley, Program Officer, The Gates Foundation
- » *Shay Bluemer-Miroite, Director of Programs, Shift

* MODERATED SESSION 4.

MEANINGFUL DATA USE TO OPTIMIZE STUDENT EXPERIENCE AND SUPPORT

The second episode of our series shined a light on the impact of data use in transforming postsecondary advising to better support advisors and serve students. This session focused on practical ways in which data can help advisors to more easily see and address the diverse needs of students, contributing to the goal of fostering equitable access and success, while also digging into the typical obstacles and challenges along the way. Panelists shared insights to underscore the significance of relevant, engaging, and transformative data use in postsecondary advising.

FEATURING

- » Michael Meotti, Executive Director, WASC
- » Erika Lundquist, Senior Research Associate, MDRC
- » Brit Henderson, Research Associate, MDRC
- » Tobi Kinsell, Chief Impact Officer, CAC
- » Kait Sweetman, VP Technology, OneGoal
- » Haisu Qu, Senior Director of Program Innovation, OneGoal
- » Zachary Marx-Kuo, Director of Innovation, OneGoal

BUILDING ON OUR LEARNING & PARTNERSHIPS FOR SCALE

Our concluding episode engaged panelists as they spotlighted the opportunities and potential challenges associated with keeping pace with swiftly evolving technology. Panelists shared learnings as they scaled initiatives from testing small pilots to supporting large cohorts of students. This episode provided insightful perspectives into future opportunities for higher education institutions, college access organizations, and government entities to strengthen collaboration and partnerships to provide greater student-centered support throughout different stages of the student journey.

FEATURING

- » Laura Brennan, Assistant Commissioner for College and Career Advising at the Texas Higher Education Coordinating Board
- » Lindsey Fifield, Senior Program Advisor, National Institute for Student Success
- » Cary Claiborne, Chief Program Officer, College Advising Corps
- » Grace Bianciardi, Chief Program Officer, Let's Get Ready
- » Tobi Kinsell, Chief Impact Officer, College Advising Corps
- » Emma Sabella, Virtual Programs Systems Manager, Bottom Line
- » Kait Sweetman, Vice President Technology, OneGoal
- » Haisu Qu, Senior Director, Program Innovation, OneGoal

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