

STUDENTS' HIDDEN NETWORKS:

Relationship mapping as a strategy to build
asset-based pathways

BY JULIA FREELAND FISHER

AUGUST 2022



TABLE OF CONTENTS

Acknowledgments	3
Introduction: A student-centered approach to building networks	4
What the research says: From bounded to unbounded networks.....	6
Relationship mapping: Taking stock by form and by function	7
When and how to use relationship mapping: Five use cases	9
1. If you're trying to teach students about the power of networks and social capital	9
2. If you're trying to increase the likelihood that students mobilize their networks	10
3. If you're trying to increase students' sense of belonging and access to support	10
4. If you're trying to expand students' professional networks	11
5. If you're trying to boost persistence and success long-term	12
Conclusion: Expanding the potential of relationship mapping	14
Appendix A: Organizational profiles	16
Notes	22
About the Institute, About the author	24

ACKNOWLEDGEMENTS

This paper builds on the knowledge of a range of practitioners and researchers in the field. Thank you especially to those who lent their time and expertise in our interviews and roundtable discussion: AiLun Ku, Katherine Hanson, Edward DeJesus, Michelle Thomas, Kate Schrauth, Eve Shapiro, David Berg, Glenn Manning, Tyler Thigpen, Sarah Schwartz, Jon Zaff, and Brian Lightfoot.





INTRODUCTION: A STUDENT-CENTERED APPROACH TO BUILDING NETWORKS

The research is clear: positive and diverse relationships in students' lives can buffer risk, boost academic performance and persistence, and ultimately expand professional opportunities. The opposite is also true: a dearth of connections can have dire consequences for students' wellbeing, academic success, and eventual career prospects.

But in the day-to-day work of K-12 and postsecondary institutions, the true array of relationships at students' disposal can get lost. In reality, schools know relatively little about the social landscapes that young people navigate. The degree to which a student is connected or disconnected within and beyond school is rarely measured in reliable or equitable ways.¹

You'd be hard-pressed to find anyone working in education who would disagree that "relationships matter" to student success. But in practice, relationship-centered approaches face major headwinds. Scarce resources spell punishing student-to-staff ratios across K-12 and postsecondary institutions.² In turn, schools often scramble to cobble together a reliable web of supportive relationships for each and every student. Amid these efforts, students of color face a double disadvantage: the limited faculty and staff they encounter are, on average, far less likely to share their racial or ethnic background than their white peers, despite well-documented benefits of having teachers and mentors that mirror students' backgrounds and experiences.³

To grow their students' support and professional networks, schools frequently depend on hiring more staff on the margins, enlisting existing faculty and staff to take on additional responsibilities like mentoring and advising, or launching initiatives that recruit volunteers or alumni to engage in pro bono stints. These well-intended efforts to shore up and expand students' networks are not all futile. But they are often institution-centric, rather than student-centric. These strategies risk burdening already exhausted faculty and staff, offering temporary help for relationships that benefit from consistency and familiarity, and stretching thin budgets even thinner.

These approaches not only threaten the mental health of staff and the long-term sustainability of programs, but also risk ignoring a whole stock of connections hiding in plain sight: the people students already know.

Ignoring these assets is especially pernicious—and all too common—when it comes to institutions aiming to support low-income students, first-generation students, and students of color. Administrators may assume that students don't already possess the networks they need to succeed academically or professionally. Although this may be *partially* true—national data suggests that access to relationships and resources, particularly job networks, is unevenly distributed along lines of race, class, and geography⁴—those statistics say little about existing assets. They shouldn't be construed as evidence that students from low-income households or non-white backgrounds have no social capital.

Put differently, efforts to invest in students' networks—either to bolster support or expand professional opportunities—should start with a deeper understanding of and appreciation for the networks of which they are already members. Recognizing and respecting students' inherent resources and cultural wealth is what this report refers to as an asset-based approach.

Luckily, a host of innovative organizations focused on more equitably building and maintaining students' social capital are doing just that. This report describes the profound potential of these organizations' approaches to mapping and mobilizing students' existing social networks, and details emerging strategies and tools that schools should consider.

To surface these examples, we interviewed and convened program leaders from a variety of schools, nonprofits, and social enterprises (see Appendix A).⁵ These leaders have all endeavored to help students map out, reflect on, and mobilize their existing networks in some form or fashion. This is not a comprehensive overview of all organizations creating and utilizing relationship mapping in the field, but instead a sample meant to illustrate emerging and promising practices. Because deficit-based approaches may be more common among institutions serving low-income students, first-generation students, and students of color, the majority of the programs we interviewed explicitly focus on serving students from these backgrounds, with strategies attuned to their students' racial and cultural identities.

This paper will first explore the research behind relationship mapping and the basic tenets of building a relationship map. To illustrate how and when schools can use relationship mapping to serve a variety of short- and long-term goals, it will highlight examples of current programs. Finally, it will offer recommendations for furthering the vision and unlocking the potential of relationship mapping.

What is social capital?

Social capital describes access to, and ability to mobilize, relationships that help further an individual's potential and goals. Just like skills and knowledge, relationships offer resources that drive access to opportunity.

WHAT THE RESEARCH SAYS: FROM BOUNDED TO UNBOUNDED NETWORKS

In sociology lingo, students' in-school networks are what researchers call *bounded networks*. They are networks that exist within the bounds of a classroom or program, codified in rosters and organizational charts. Within these boundaries, schools and programs can—to an extent—control these relationships. They can determine the time and cadence at which students and faculty interact. They can assign advisors or mentors to students who are struggling. They can administer culture and belonging surveys that measure how students and staff experience and perceive one another. They can seek to address conflict when it arises.

As important as these bounded networks are to running a school or university, they hardly represent the totality of students' social lives. In fact, all students operate in an elaborate relationship ecology far beyond the walls and quads of schools and campuses.⁶ These relationships make up what researchers dub *unbounded networks*—connections with family, friends, coaches, neighbors, and the like.

The members of students' unbounded networks are not always known by educators, administrators, or staff. Those who are known through informal channels do not follow specific rules, norms, or schedules determined by a school or program. They are, for the most part, situated squarely outside of institutions.⁷

Although schools and programs rarely ignore these connections outright, they hardly ever center them in their strategies. Institutions tend to invest their energy in staff and formal relationships that can be tightly coordinated and whose expertise is a known quantity.

In many cases, this tendency to focus on relationships they can control also reflects institutions' bias that the unbounded networks of students from disadvantaged backgrounds can't offer them the resources they need to succeed.⁸

There are also logistical barriers holding schools back: short-term coordination costs, student safety concerns, and scheduling challenges can all deter administrators from integrating more members of students'

networks into their day-to-day operations. For residential colleges, geographic distance presents yet another barrier to enlisting connections from students' hometowns. And even for schools trying their best to connect the dots, mainstream data systems, like student information systems and learning management systems, lack the infrastructure to capture and maintain reliable data about students' unbounded networks.

In reality, however, that insular approach spells opportunity costs for both students and schools. The relationships in students' unbounded networks play a central role in their lives and directly impact their education and career pathways. For example, when selecting a college major, students are most likely to receive advice from family and friends, ahead of on-campus resources.⁹ Also, emotional support from their families is a key predictor of low-income and first-generation students persisting in schools.¹⁰ And students may be more likely to seek support from non-school or program staff.¹¹

How might schools better understand the relationships students have beyond the boundaries of school? How might they enlist these individuals in programs aimed at supporting student success? And how might they help students to mobilize these relationships in new ways? The answer is simple: ask students themselves and utilize relationship mapping, a strategy for helping students and institutions alike visualize, reflect on, and keep track of the people they know.

RELATIONSHIP MAPPING: TAKING STOCK BY FORM AND BY FUNCTION

Mapping students' relationships can take various forms. At its core, it's a strategy for students and staff to reflect on existing relationships and connections in students' lives.

Many approaches to relationship mapping trace back to what social workers call ecomaps.¹² Ecomaps have been used for decades to help clinicians assess their clients' sources of social support and stressors to both leverage positive connections and address gaps in support.¹³

In social work, mapping networks usually starts with clinicians asking clients to reflect on various domains of their lives, such as their household, neighborhood, place of work, and faith community, and to identify the people whom they know across each domain.

That same approach shows up in many of the education examples we identified. "Network mapping, ecomapping, relationship mapping, it's all the idea of trying to get on paper, 'Who are the people in your life?'" said Sarah Schwartz, a leading mentoring researcher. "When I do it with young people, I use a blank piece of paper, put their name in the middle and start drawing lines and asking them, 'Who's in your school? Who's in your community? Who's in your neighborhood? Who are your caregivers' friends? Who's in your religious community?'"

Schwartz is part of a team that developed a course called Connected Scholars, which she and her colleagues initially ran with high school students as part of a TRIO program aimed at supporting college success. The curriculum has since been studied and adapted to a range of settings, including a for-credit college course by the same name, and a free online training called Connected Futures, designed to help middle, high school, and college students understand and build their support networks on campus. In the course of both the Connected Scholars and Connected Futures curricula, students are asked to identify connections across a variety of contexts where they spend their time.¹⁴



Using the CERES Institute Web of Support Framework

For a list of sample prompts for educators and staff to use when leading young people through a relationship mapping exercise, check out Shannon Varga and Jon Zaff's [4-page overview](#) of how to get the most out of relationship mapping.

Source: Varga, S. M., & Zaff, J. F. (2021). Using the Web of Support Framework. Boston, MA: CERES Institute for Children & Youth.

Mapping along different domains allows students and staff to go deeper into particular aspects of young people's unbounded and bounded networks. According to Edward DeJesus, founder of Social Capital Builders (SCB), his program's social network mapping and analysis activity is about helping students develop the skills and knowledge to map opportunity networks and identify patterns of relationships and flows with people, groups, and organizations that can influence future economic opportunities. According to SCB, 73% of the young people it surveyed reported that they had people in their lives who could be a source of support, but needed guidance on how to go about tapping into their networks.

To offer that guidance, social network analysis is built into part of SCB's Foundations in Social Capital Literacy (FISCL) curriculum. "Young people have familial connections—family members and close family friends—and developmental connections—former teachers, mentors, coaches, etc.—who all can serve as rich sources of labor market information and career development support," said DeJesus. As part of the curriculum, young people perform their own social network analysis across these two domains: (1) familial connections (including both immediate and extended family members) and (2) developmental connections. In the course of the curriculum, young people are then taught how to strategically engage these familial and developmental assets to access others, including key industry or occupational stakeholders in their careers of interest, which SCB refers to as (3) gateway connections.

"At SCB, students are taught not to mix social capital building with networking. Networking is an activity; social capital is an outcome," said DeJesus. "Building social capital requires that the person on the other side is also open and invested in the process, which is part of the reason why SCB focuses on familial and development connections—the people who already care and are committed to helping youth but may not know how."

Relationship map domains can also be framed to reflect an institution's broader philosophy, surfacing student relationships that serve that

mission or vision. At the Forest School, for example, a diverse-by-design microscool in Fayetteville, Georgia, building social capital is part of the school's larger aim to ensure all graduates are "learning to live together." Students maintain a "Social Capital Tracker" in a Google Doc where they log the relationships they maintain and build with (1) people like them, (2) people different from them, and (3) people with influence. The school's co-founder Tyler Thigpen describes this exercise as a way to collect data on students' "bonding, bridging, and linking social capital," respectively.¹⁵

Students can start by mapping the form of their networks, and then reflect on the functions various relationships serve in their lives. For example, in addition to mapping relationships by domain, Connected Futures' curriculum also details the different *types* of support that social networks can offer—(1) emotional support, (2) informational support, (3) tangible support, or (4) companionship—and prompts students to reflect on which of these types of support different members of their networks could offer.

In some cases, programs take maps a step further to encourage students to mobilize their networks in particular ways. For example, as part of both Social Capital Builders' and Connected Futures' curricula, once students have mapped their networks, they're encouraged to write down who the people in their network might know and could then connect them to. Another organization, Beyond 12, which supports first-generation students to persist through college, has virtual coaches work directly with students to reflect on how different members of their networks could help them to reach their goals or tackle an acute challenge, and to write down a good "next step" for each relationship on their map.

Creating a relationship map offers a simple and powerful strategy to make the invisible visible to students and institutions alike. The domains—by form, function, or both—against which students map and sort members of their networks should align with programs' philosophies and students' goals.



WHEN AND HOW TO USE RELATIONSHIP MAPPING: FIVE USE CASES

When and how to use relationship mapping depends on the goals and capacity of a school or program. Based on examples and guidance surfaced from field interviews, here are some of the common circumstances in which creating relationships maps can be a useful exercise.

1. If you're trying to teach students about the power of networks and social capital → Use relationship mapping to start the conversation

There's a simple reason why mapping relationships is a critical first step to investing in students' networks: visualizing their own network can ensure that students learn about networking through a personal and asset-based lens.

Teaching students about networking is often a component of career preparation curriculum and activities. But teaching networking to first-generation students, students from low-income families, and students of color risks devolving into sending the message that their current network isn't good enough.¹⁶

According to Eve Shapiro, Beyond 12's chief knowledge officer, mapping networks is a "way in" for coaches to engage students in a broader conversation about networks and the concept of social capital. In Beyond 12's model, coaches ask students to reflect on the connections that have helped get them to where they are, and the people whom they have helped and supported as well. This connects students' existing off-campus experiences and expertise to the sorts of activities they might benefit from on campus. "That way, students can understand the work of network-building in higher education as akin to what they have already done," Shapiro said. For Shapiro, the larger aim of the exercise is to "destigmatize and normalize" the acts of network-building and help-seeking that coaches then urge students to pursue in college.

Other organizations, like New York-based Opportunity Network, have taken a similar tack. Opportunity Network operates a six-year college and career program for underrepresented students across New York City to succeed in postsecondary education and careers, starting in high school. For Opportunity Network's president and CEO AiLun Ku, having students map their networks is aimed at "helping [students] see that their lives are already operating in networks." A physical drawing of their networks, in Ku's words, offers students "a visualization of their existing robust, dynamic networks." The activity also includes group discussions among students to share with one another how social

capital might be exchanged in their existing network, and how somebody might need something and somebody might be able to give it. This exercise is meant to serve as a hypothetical and safe way to explore how social capital is built and exchanged in our everyday lives.

As the curriculum progresses, Opportunity Network not only encourages students to continually reflect on these assets, but also applies a culturally-responsive lens to discussing networking and social capital: coaches discuss dominant norms around network-building and also emphasize to students that they have agency in choosing how they build and maintain relationships in school and careers. As Katherine Hanson, Opportunity Network's associate director of decision sciences, said, "In 11th grade, as they prepare for a speed networking event, a huge amount of students' time is spent analyzing professionalism norms." Coaches and Fellows apply critical consciousness to reflect on the ways in which professionalism "norms vary by industry, and norms in those industries are determined by those with historical and structural power. Those norms are unspoken but nonetheless rewarded and your reward depends on your personal proximity to historical and structural power." For Opportunity Network, these reflections offer students agency in how they adapt to different contexts. "Ultimately your goal is not to code switch but to know your desired industry's norms and then decide how and whether to engage with those professionalism norms," said Hanson.

2. If you're trying to increase the likelihood that students mobilize their networks → Attach mapping to personal goals and real-world stakes

Building a network doesn't just have to be about students meeting new people; it can be about students having new types of conversations with people they already know.

To increase the odds that students will feel motivated to engage with the relationships they identify in their map, relationship mapping should be tied to a goal or opportunity that students care about. At Beyond 12, for example, coaches ask students to identify people they know who can help them tackle real-time challenges they're grappling with at college. At Big Picture Learning, students are asked to suggest "opportunities" in their existing networks—in the form of prospective internship sites in their communities—that reflect their interests.

In other words, mapping their networks is a chance to reflect on the specific connections that could offer specific types of support or opportunities in service of students' goals and interests.

That approach has research in its favor. Researcher Brian Lightfoot, who's studied social capital across schools and nonprofits, has found that authentic social capital-building often comes from connecting "real stakes and purposeful action" to building networks. "There's a definitive connection between youth voice and putting young people in leadership positions and developing their social capital," said Lightfoot. By that logic, educators should strive to connect mapping to a goal or context that matters to students, not just to programs' own goals for students.

At the same time, practitioners have found that orienting relationships exclusively in service of goals can send the wrong message. As Forest School's Thigpen said, relationships can offer both inherent and intrinsic value. "Where we lose our way is when we overemphasize one and forget the other," he said.

3. If you're trying to increase students' sense of belonging and access to support → Find out who students already trust

Particularly in light of the pandemic, schools are focused on belonging and support as crucial ingredients to helping students thrive. Instead of assigning support, relationship mapping offers the opportunity to first ask students whom they already feel they can trust or depend on. For example, Making Caring Common (MCC), which offers a relationship mapping strategy, has more recently created and piloted a strategy to collect data from students themselves by having them list all of the adults in school they feel connected to; or, if schools don't want to collect staff names specifically, they can poll students about the number of adults at school they'd feel comfortable going to if they were having a hard time or facing a personal problem.

In some school communities, MCC has found that it's important for people to understand what the data is, how it will be used, and what will happen to it after. Moreover, it can be helpful to frame the exercise to educators as an exercise to build support networks, rather than a popularity contest. For MCC, bringing educators together to action plan based on relationship

mapping is critical. “We’ll then plan for action,” said Glenn Manning of MCC. “We’re saying if a student doesn’t have anybody, who on staff might be willing to reach out to her with a show of care and support. Then we also consider systemic obstacles to certain kinds of students linking up with adults. We then mark dates for the follow-up for a cohort of adults committed to this work.”

In-school approaches like this can help reveal how connected students feel. But if students are unable to name supportive or trusting connections within school, it can be important to ask students whom they trust outside of school. Some programs have found that young people may trust even more in people outside of a given school or program. If that is the case, rather than coordinating more support from existing staff, using resources to help train the existing connections in students’ lives to engage in supportive behaviors may be a better route.

For example, the Everyday Mentoring program, developed by The Mentoring Partnership of Southwestern Pennsylvania, trains adults already present in students’ lives—from coaches, to family members, to community members—to engage in mentoring behaviors with the young people they already know.¹⁷ These approaches have research in their favor: not only does recruiting mentors from students’ everyday lives have greater scale potential, but this approach can also be paired with youth-initiated mentoring models (in which young people select their own mentors from within their networks), which have been shown to last longer than mentor-mentee relationships that were not initiated by students.¹⁸

4. If you’re trying to expand students’ professional networks → Start with the employers students and their families already know

Schools and career centers often look for ways to expand students’ professional networks by inviting guest speakers, mentors, and alumni to meet their students. While those new connections can be helpful, this approach tends to ignore the professional networks that may already surround students. Most schools tend to approach employer partnerships by either relying on formal partnerships with companies or local chambers of commerce, or leaving educators, counselors, or career offices to nurture their own networks.

Some organizations challenge this conventional approach by first starting with students’ networks. “In the case of schools, we have all these parents and these families and they have connections, if we know how to tap into those resources,” said David Berg of Big Picture Learning, which has built a technology called ImBlaze where students and schools upload and manage local internship opportunities. This may feel more expensive or time-consuming upfront, but long-term, it can have a multiplier effect. Berg explained, “We have programs that use ImBlaze that are 300-student-enrollment small high schools that have 3,000 opportunities in their dataset of potential mentors that students can tap into and explore real-world learning opportunities ... that just happens because schools see these assets and are able to collect those resources and connections year over year.”

Building a network doesn’t just have to be about students meeting new people; it can be about students having new types of conversations with people they already know.

“There’s a definitive connection between youth voice and putting young people in leadership positions and developing their social capital.”
—Brian Lightfoot

This exercise could stall if students just name immediate family members or caregivers, or have limited connections into certain industries where they might nonetheless have interests. That’s where urging students to think across multiple domains of their life can expand the connections they name and activate. For example, at Social Capital Builders, DeJesus urges young people to think about what he calls “gateway assets” as a way to identify connections beyond their immediate, closest contacts. “By understanding social network analysis, a young person’s developmental connection, like a former coach who works as a warehouse manager, can easily connect the young person to the head of any department within his company. Through quality social network analysis, young people self-discover that those people who they thought were not normally in their network actually are,” DeJesus said.

Connected Futures curriculum likewise urges students to think in this way: in one of its network-mapping activities, students trace out the chain of connections their networks could unlock. The activity prompts students to: *“Put the names of some people you know or are in touch with in the top row. In the row below, list anyone they know who may be able to get you closer to your goal. As you network with each person in the second row, list any other relevant people or resources each person might be able to connect you to in the rows below.”*¹⁹ The exercise, in other words, reveals a cascade of additional connections students can pursue.

Crucially, Big Picture and ImBlaze’s approach does not ignore those assets that may hail from institutional partners. “We also see the power of bringing in regional stakeholders as well—local governments, nonprofits, and chambers of commerce—to really round out the diversity of networks that schools have available to them,” Berg said. In other words, sourcing connections from students’ existing networks does not mean closing doors to other partnerships or institutions that could open new doors.

5. If you’re trying to boost persistence and success long-term → Use maps to remind students about various connections they’ve formed along the way

A relationship or network map can be a tool for students to revisit and expand on their networks as new goals or challenges emerge.

Often, that means pairing maps with coaching and support on help-seeking behaviors, and revisiting these maps on a consistent basis to update and reflect on progress. For example, at the Forest School, students’ Social Capital Trackers are displayed publicly in the school to normalize that all students are maintaining their social networks and to celebrate progress. Students update the Social Capital Tracker twice a year with the help of a guide (Forest School’s term for educators). To keep the tracker manageable and up to date, whenever students update their trackers, they are asked to identify the top five strongest relationships in each of those categories.

Additions and changes in the tracker are intended to reflect the social capital-building opportunities that are integrated into a variety of learning experiences at the Forest School, such as apprenticeships, visiting experts who give feedback on students' work, student exhibitions, and student "dream teams" comprised of family, community, and staff members who support students throughout the school year. Finally, to graduate from The Forest School, students must prove that they have successfully built social capital; the tracker is intended to serve as a way to build evidence of that mastery for their final practical.²⁰

Technology platforms can also offer solutions to keep track of students' connections and picture them in new ways. For example, iCouldBe, an online mentoring program, is currently in the process of building a "connections map" component on its platform where students will be able to visualize their networks on an ongoing basis. (Notably, students served by iCouldBe prefer the term "connections" to "networks"). While completing the online quests embedded in the iCouldBe curriculum, the map will be automatically populated as students identify real-world connections to strengthen, such as those with teachers, peers, coaches, and counselors. Students will be asked to fill out a form identifying what types of support these connections can offer and how frequently they connect with these individuals. The connections map will have multiple filters that allow students to see connections with shared career interests and different ways they know people (for example, through iCouldBe, family, school, community, internships, etc.).

Based on how students identify their frequency and comfort level communicating, solid lines will indicate strong ties and dotted lines will indicate weak (or light) ties. In addition to storing and visualizing their offline networks, students will also be able to log connections to other mentors that they network with on the iCouldBe platform. This new, interactive map will enable mentees to grasp the extent of their connections and identify how each person can help them create the foundation and agency they need to mobilize and grow their network as they pursue postsecondary career and education goals.

For iCouldBe, this marks a promising next phase from data-driven mentorship to data-driven network building. "We have this enormous database on the backend of the program and use data science tools to really look at how mentees engage in the program. For every single week of the program we see a weekly score based on mentees' and mentors' engagement," said Kate Schrauth, executive director of iCouldBe. "We are going to ... take these data science tools and add all of the metrics from the enhanced connections map so that we can understand how mentees are engaging with these networks over longer periods of time."



CONCLUSION: EXPANDING THE POTENTIAL OF RELATIONSHIP MAPPING

Relationship mapping is still an emerging practice in K–12 and postsecondary institutions. Innovators from on-the-ground educators, to entrepreneurs, to investors can help make this strategy more commonplace. At face value, prompting students to map their networks is a simple activity that can be undertaken with a pencil, a piece of paper, and an educator or coach willing to walk students through the exercise. But to scale with quality, this “simple” strategy will actually take sharper vision, more asset-based mindsets, and better tools.

Consider a vision for relationships

Ideally, schools will consider how relationship mapping can power their overall approach to cultivating relationships and expanding student support. “Programs need a social capital framework before adopting strategies,” urged DeJesus.

That framework doesn’t need to be a whole-cloth reinvention of school as we know it. Rather, the immense potential of relationship mapping is that it can be used to help students and institutions alike identify and mobilize relationships and resources that reinforce their existing efforts. Programs aiming to increase persistence can coach students to keep those in their existing networks apprised of and accountable to their goals. Schools trying to expand access to mentors can start by coaching students to initiate mentoring relationships with people they already know. Institutions aiming to expand access to internships and jobs can encourage students to share opportunities across their extended families and communities.

A vision will also reflect how the data that emerges from relationship-mapping can be stored in a secure and actionable way long term. Applied in one school or program, it’s an asset-based approach with the potential to boost students’ access to and ability to mobilize supportive connections. Scaled on a school district, cross-campus, state, or even national level, relationship mapping marks a first step to surfacing and sharing an entire reservoir of latent resources within and across communities.

Embrace mindset shifts and student voice

The fundamental mindset shift needed to accompany relationship mapping is the belief that all students need networks in order to thrive, and moreover, that they already possess social capital. Beyond that, educators need to believe that the upfront time spent harnessing that social capital will be worthwhile for schools. To foster these mindsets, educators and administrators should be encouraged to map their own networks, and reflect on all the ways in which their unbounded networks have impacted their own education and career journeys.

Students’ own stories can also inspire a greater appreciation for how they experience relationships and how mapping their networks can be a positive and empowering experience. Even if a school has a clear vision for why its students need to build and mobilize social capital, including young people in shaping that vision is a crucial step. “Activating and elevating youth voice is critical as we continue to create and implement tools. We are still working through the best way to do this, but I know this is an essential piece of work,” said Michelle Thomas of The Mentoring Partnership.

Relationship mapping can help students to connect the dots between where they are, where they want to go, and who they already know that can help them get there.

Ease time and logistical burdens for schools

To translate new mindsets into new approaches, entrepreneurs can offer both curricular and technological supports to schools. In particular, tools that address the practical applications attached to relationship mapping could be critical in moving relationship mapping from a standalone activity to an ongoing strategy for managing in- and out-of-school networks. Tools that make mapping a user-friendly experience, and that make data generated through mapping more secure and actionable, can help.²¹

A range of entrepreneurs are starting to build tools in that vein, such as Network Canvas (designed primarily for researchers to more efficiently collect and analyze network data), Lattus (currently being piloted by The Mentoring Partnership to map and connect students' support networks), Connect Our Kids (originally used by social workers and currently piloted with mentoring programs), MyOh (in development by Social Capital Builders), PARTNERme (a tool developed by Visible Networks Lab to map social connectedness), and Loom (a Salesforce plug-in to visualize connections across contacts). This list, of course, is not exhaustive. Additionally, some of these efforts also pair technology infrastructure with off-the-shelf curriculum to coach educators and students on the ins-and-outs of network building.

Identify use cases, pain points, and technical integrations

Entrepreneurs, and the institutions and programs they support, will also need resources to test, refine, and scale promising approaches to mapping students' networks and finding ways to connect those networks more broadly across systems. Currently, few philanthropic or impact investors are investing in the sorts of social infrastructure tools or trainings that can further the field. Investors should look to identify projects that can address both mindset shift and logistical barriers to more schools tapping into their students' unbounded networks. Crucially, these investments shouldn't just focus on understanding the technical needs associated with network mapping, but the various use cases that different types of schools and institutions gravitate toward, and what resources students and institutions need within those use cases. Sharpening that understanding will help to reveal where relationship mapping activities and new data capabilities could be integrated into existing curricula and data systems, and where new tools may need to be built or scaled.

For young people, being plugged into positive and diverse social networks is a predictor of academic success, wellbeing, and access to opportunity. Relationship mapping is shorthand for a variety of promising strategies aimed at identifying, mobilizing, and keeping track of students' existing social capital assets. For students and systems alike, it can make the invisible visible. In turn, it can help students to connect the dots between where they are, where they want to go, and who they already know that can help them get there.

APPENDIX A: ORGANIZATIONAL PROFILES

To surface the examples highlighted throughout much of this report, we interviewed and convened program leaders from a variety of schools, nonprofits, and social enterprises. These leaders have all endeavored to help students map out, reflect on, and mobilize their existing networks in some form or fashion.

The following profiles provide more insight into the methods and goals of the organizations referenced in this paper. This is not a comprehensive overview of all organizations creating and utilizing relationship mapping in the field, but instead a sample meant to illustrate emerging and promising practices.

For those seeking more insight into these organizations, the following profiles include additional material and extended quotations from our sources. For those interested in a briefer snapshot, we have included the TL;DR summaries.

It should be noted that the majority of the programs we interviewed explicitly focus on serving low-income students, first-generation students, and students of color.



Beyond 12

TL;DR Online coaching for first-generation college students, which includes a social capital module that uses relationship mapping as a conversation-starter for talking about social capital in an asset-based way

Beyond 12 is a nonprofit organization offering a longitudinal student tracking platform and a personalized student coaching service to help postsecondary, college access, and K-12 organizations provide their students with the academic, social, and emotional support they need to succeed in higher education. As part of its model, based on a “co-active” coaching approach, Beyond 12 offers college success curriculum and support through its MyCoach app. Although much of that curriculum is standalone, the specific exercise focused on mapping students’ existing connections is designed to be delivered in conversation with a virtual, near-peer coach.

The exercise itself is part of a four-part curricular arc that takes an asset-based approach to networking and social capital and moves from understanding the power of networks to building networking skills and then to cultivating peer and professional networks. The first two lessons on connecting and engaging networks begin with an activity that prompts students to reflect on important accomplishments in their own life and the specific people that helped them accomplish those goals. It then asks them to think about current professional goals they have and who they might turn to for help in the future. From there, students are asked to reflect on how within their own networks they both ask for help and offer it to others, and explore and map the interaction styles present within their existing networks. Data from the exercise is stored in the coaches’ online notes, which they can refer to in future conversations with students. The exercise, however, is less of a data- or information-gathering approach for coaches, and more of an intentionally asset-based conversation-starter on the topic of networks and support.

According to Eve Shapiro, Beyond 12’s chief knowledge officer, the mapping exercise is a “way in” to a broader conversation about networks. The process allows students and coaches to explore the concept of social capital through a lens of existing connections by prompting students to identify the social capital that has helped get them to where they are, and the people whom they have helped and supported as well. This connects students’ existing off-campus experiences and expertise to the sorts of activities they might benefit from on campus. “That way, students can understand the work of network-building in higher education as akin to what they have already done,” Shapiro said. The larger aim of the exercise is to “destigmatize and normalize” the acts of network-building and help-seeking.

Big Picture Learning/ImBlaze

TL;DR ImBlaze technology platform designed to allow students to recommend potential internship opportunities from their existing networks

Big Picture Learning is a national nonprofit that supports internship-based learning high schools, and has designed a technology tool called ImBlaze to help schools manage work-based learning contacts and opportunities. At the start of their semester, Big Picture students are encouraged to upload existing and new contacts that they have in local businesses through their families, communities, and other networks. Students can suggest new opportunities that internship coordinators or other staff can review and approve or deny. From there, students across the school have visibility into the range of opportunities represented across their entire school community—not just limited to their existing, inherited networks. The tool also provides references and records on students’ previous experiences at various internship sites.

Additionally, ImBlaze’s survey functionalities allow schools to ask questions to students and mentors throughout their internship experience to gauge how they are forging or mobilizing relationships, such as: “What adults do you plan to work with today [in your internship]? How connected do you feel to the adults you are working with at your internship right now?”

Connected Futures

TL;DR Student-facing asynchronous course on building support networks in high school and college, including an ecomap exercise to identify current assets and gaps in students' support networks

Connected Futures is a curriculum designed by mentoring researchers to help high school and college students learn about social capital and network-building. Based on research on youth-initiated mentoring, the course aims to teach students how to build supportive relationships with non-parental adults, such as teachers, coaches, staff, extended family members, and others.

In addition to general content about setting goals and addressing barriers to accessing social support, students also receive targeted information about identifying, recruiting, and maintaining relationships with potential mentors in their lives.

The curriculum includes a unit in which students create ecomaps, or what researchers describe as "graphical representations of students' support networks including strong and weak ties." Through activities that urge students to consider different sources of support from various areas of their lives (e.g., school, extracurriculars, jobs, neighborhood, family), students create a visual representation of the people in their lives and what types of support they can provide. They identify areas where they have robust support and where they may need additional sources of support. They also engage in supported practice both in how to reach out to new connections to expand their networks of support, as well as how to draw upon and strengthen existing relationships. The course places particular emphasis in how to develop connections that will help students reach their academic and career goals.

iCouldBe

TL;DR Online mentoring tool for high school students that will soon include a network map functionality that allows students to visualize their support networks and filter by industry and function, and add new virtual connections from across the iCouldBe network

iCouldBe is a nonprofit virtual mentoring program for high school students from under-resourced communities. Students on iCouldBe select their mentors based on personal career interests. They collaborate weekly with their mentors on structured, interactive activities grouped into themed "quests" to achieve outcomes in social-emotional development, self-efficacy, self-direction, curiosity, problem-solving, and college and career aspirational development. Mentees lead discussions with their mentors on themes including academic success, preparing for graduation, gaining work experience, preparing for future education, and networking. Mentors provide feedback and support their mentees' efforts to: (1) define personal challenges or goals; (2) determine potential solutions and strategies; (3) identify networks of people who can help and how they can help; and (4) engage people in their network in the solution.

iCouldBe is enhancing the "connections map" component on its platform where students can visualize their webs of support. While completing the online quests, the map is automatically populated as students identify real-world connections to strengthen (with people such as teachers, coaches, and counselors) and new connections to develop (with people they would like to meet). Students are asked to identify what types of support these connections can offer and how frequently they connect with these individuals. The map will have multiple filters that allow students to see connections with shared career interests and different ways they know people (for example, through iCouldBe, family, school, community, internships, etc.). Based on how students identify their frequency and comfort level communicating, solid lines will indicate strong ties and dotted lines will indicate weak (or light) ties. In addition to storing and visualizing their offline networks, students will also be able to log connections to other mentors that they network with on the iCouldBe platform.

This new interactive network map will enable mentees to visualize their connections and identify how each person can help them as they pursue postsecondary career and education goals.

Making Caring Common

TL;DR: Relationship mapping strategy for K–12 schools and programs to map adult-youth connections and use that data to improve individual student supports and schoolwide culture

Making Caring Common is an initiative at the Harvard Graduate School of Education. Making Caring Common's Relationship Mapping Strategy²² is designed for schools and community organizations to ensure that every young person is known by at least one adult and has a strong connection to someone else. The strategy is most commonly used in K–12 settings, and is a core strategy of the Caring Schools Network.

Educators and staff are presented with a complete roster of student names, and are asked to identify both students they have a strong connection with and students they deem "at risk" for academic, personal, or other reasons. After mapping these connections, educators and staff meet to reflect on the data and consider: (1) school/program features that encourage or prevent strong relationships with students; (2) school/program-wide changes that could increase access to relationships for less-connected students; and (3) which staff can step in to ensure less-connected students are known and supported. Schools are encouraged to use the mapping tool at least twice per year, and more frequently if possible.

The Relationship Mapping tool is primarily designed to be adult-facing (i.e., to take stock of adults' perceptions of their relationships with students). Making Caring Common has more recently created and piloted a strategy to collect data from students themselves by having them list all of the adults in school they feel connected to; or, if schools don't want to collect staff names specifically, they can poll students about the number of adults at school they'd feel comfortable going to if they were having a hard time or facing a personal problem.

Additionally, the team at Making Caring Common has begun piloting peer-to-peer and educator-to-educator mapping tools.

Mentoring Partnership of Southwestern PA (TMP)

TL;DR Youth user-research project called F.I.E.R.Y. — Finding and Igniting Enriching Relationships for Youth—that focuses on understanding how young people experience connections and technology

The Mentoring Partnership of Southwestern PA (TMP) is an intermediary working to advance and support mentoring across Western Pennsylvania. Recently, the TMP team embarked on a project called Finding and Igniting Enriching Relationships for Youth (F.I.E.R.Y.).²³ F.I.E.R.Y. is rooted in the goal of equipping young people with the tools they need to cultivate supportive relationships within existing and new networks, both at school and in the community. TMP has conducted initial youth/user research for a tool that would help young people store and access connections, and could also be used by existing mentoring programs to maintain and forge online mentor-mentee connections.

That research has surfaced many insights on how young people think about relationships and technology, but one of the primary findings was that "youth and adults are more comfortable interacting with someone they already know....Youth are much more receptive to asking someone they know for help and support, if they talked to any adult at all. Adults are willing to help any youth who expresses need but see more value in long-term, trusting relationships and may be skeptical of brief interactions with youth they don't know."

Based on its initial research, TMP is in the very initial stages of designing the F.I.E.R.Y. tool on a technology platform called Lattus.

Also connected to this work, TMP supports programs in implementing Everyday Mentoring approaches and training.²⁴ Everyday Mentoring is a strategy to help ensure that young people have webs of support, and that a range of informal relationships with adults in young people's lives can be more mentor-like, even in shorter interactions.

Opportunity Network

TL;DR Program and curriculum supporting underrepresented NYC young people through college and careers using a network mapping activity to show students that they already possess robust networks, and to teach networking and social capital through an asset-based lens

The Opportunity Network (OppNet) is a nonprofit that operates a six-year, multi-dimensional OppNet Fellows program for underrepresented students across New York City to succeed in postsecondary education and careers. OppNet also builds capacity with practitioners and institutions to integrate culturally competent career readiness, networks, and social capital curriculum into their postsecondary work.

In OppNet's curriculum on networking and social capital, fellows start by unpacking author Diane Darling's definition of networking ("the art of building and sustaining mutually beneficial relationships"). They then engage in a relationship-mapping exercise. According to OppNet president and CEO AiLun Ku, the exercise is aimed at "helping [students] see that their lives are already operating in networks." The map consists of a bubble chart in which students are prompted to fill in the names of people they know across different groups or domains, such as school, church, neighborhood, etc. This produces, in Ku's words "a visualization of their existing robust, dynamic networks." The fellows then discuss with one another how social capital might be exchanged in their network, and how somebody might need something and somebody might be able to give it. This exercise is meant to serve as a hypothetical and safe way to explore how social capital is built and exchanged every day. Finally, OppNet applies a culturally-responsive lens to discussing networking and social capital: coaches discuss dominant norms around network building and also emphasize to fellows that they have agency in choosing how they build and maintain relationships in school and careers.

OppNet describes its relationship maps as a tool, not a database. In other words, data generated in the network-mapping exercise is not stored or used by the program itself. In addition to mapping their networks, fellows also maintain a Google contacts database during their time in the program to keep track of people they meet. Names in those databases are not collected by the program, but the exercise of storing contacts is intended to help build awareness and skills around network-building. "We're not in their Google contacts, so much of our programming is around supporting fellows' self-efficacy and agency, and how they can mobilize and leverage their contacts," Ku said. The database also offers a way for OppNet to measure proxies around networking-building and social capital, asking fellows if and how their network has grown, how a member of their network has helped them to achieve a goal, and how they've given back.

The Forest School

TL;DR Social capital tracker intended to help learners continuously keep track of different types of connections built and maintained with people like them, different from them, and in power

The Forest School is a diverse-by-design microscool in Fayetteville, Georgia, as well as an international online school. Students at the Forest School maintain a "social capital tracker" throughout their time there. On the tracker, which is built in Google Docs, students are asked to log the relationships they maintain and build with: (1) people like them; (2) people different from them; and (3) people with influence. The school's co-founder Tyler Thigpen describes this exercise as "bonding, bridging, and linking social capital," respectively. Whenever students update their trackers, they are asked to identify the top five strongest relationships in each of those categories.

Students' social capital trackers are displayed publicly in the school to normalize that all students are maintaining their social networks and to celebrate progress. Students update the social capital tracker twice a year, with the help of a guide (i.e., educator).

Additions and changes in the tracker are intended to reflect the social capital building opportunities that are integrated into a variety of learning experiences at the Forest School, such as apprenticeships, visiting experts who give feedback on students' work, student exhibitions, and student "dream teams."²⁵ Finally, to graduate from The Forest Schools, students must prove that they have successfully built social capital; the tracker is intended to serve as a way to build evidence of that mastery for their final practical exam.²⁶

Social Capital Builders, Inc.

TL;DR Experiential social capital literacy curriculum and app that guide young people through a social network analysis exercise to identify familial, developmental, and gateway connections; and coach them on how to mobilize and maintain those connections

Social Capital Builders (SCB) is a social enterprise that offers curriculum and training to help young people learn about and build social capital. According to SCB, 73% of the young people it surveyed reported that they had people in their lives who could be a source of career and educational support, but needed resources to help tap into these networks. SCB's course, Foundations in Social Capital Literacy (FISCL), is designed to bridge that gap by arming young people with the skills and resources to tap into their existing networks.

The FISCL curriculum consists of a series of modules aimed at helping young people: (1) identify potential social capital assets; (2) assess the resources those assets could lend them; (3) connect to those social capital assets; and (4) build, manage, and maintain those connections. At the start of the curriculum, young people do their own social network analysis to identify potential social capital assets across three domains: familial, developmental (people in institutions like schools and programs that students attend), and gateway (people in key industries that students don't yet know, but may know somebody or some institution that is connected to that industry). The goal of the social network analysis module is also about helping students to identify not only individuals whom they know, but also someone "who knows you and likes you" for an opportunity to further build social capital.

Throughout the rest of the FISCL curriculum, students are prompted to reach out to familial, developmental, and gateway connections and interview them using questions relevant to the next module. They are also prompted throughout the curriculum to leverage their closer familial and developmental connections to create new gateway connections. To encourage reflection, they come back together as a cohort to share the resources gained in the course of those interviews.

In addition to FISCL, SCB is launching a new app called MyOH (short for My Opportunity Hub) based on principles of network science. The app is designed to help young people who have completed FISCL to maintain close-knit networks of up to six "opportunity guides" (who can be familial, developmental, or gateway connections, and who can support them). Using the app, young people can keep up-to-date on their progress in order to continuously build social capital and reciprocity with their connections.

NOTES

1. For further discussion of why few systems currently measure relationships and how that might improve over time, see Mahnaz R. Charania and Julia Freeland Fisher, “The Missing Metrics: Emerging Practices for Measuring Students’ Relationships and Networks,” Clayton Christensen Institute, July 2020, <https://whoyouknow.org/measurement-report/>.
2. For recent student-to-teacher ratios in K–12 schools, see “Changes in Pupil/Teacher Ratios in 2020: Impacts of the COVID-19 Pandemic,” NCES Blog, National Center for Education Statistics, April 20, 2022, <https://nces.ed.gov/blogs/nces/post/changes-in-pupil-teacher-ratios-in-2020-impacts-of-the-covid-19-pandemic>. For recent student-to-high-school-counselor ratios, see “School Counselor Rules and Ratios,” American School Counselor Association, accessed July 7, 2022, <https://www.schoolcounselor.org/About-School-Counseling/School-Counselor-Roles-Ratios>. For various data points on postsecondary advising ratios, see “Advisor to Student Ratio /Caseload Resources,” NACADA Clearinghouse, accessed July 7, 2022, <https://nacada.ksu.edu/Resources/Clearinghouse/View-Articles/Advisor-to-Student-Ratio-Caseload-Resources.aspx>.
3. For racial composition of high school counselors, see “ASCA Research Report: State of the Profession 2020,” American School Counselor Association, 2021, <https://www.schoolcounselor.org/getmedia/bb23299b-678d-4bce-8863-cfcb55f7df87/2020-State-of-the-Profession.pdf>. For more on racial composition of advisors in postsecondary institutions, see Jake New, “A Counselor Who Looks Like You,” Inside Higher Ed, March 3, 2016, <https://www.insidehighered.com/news/2016/03/03/students-demand-more-minority-advisers-counselors>. For more on the benefits of having teachers who share students’ racial background, see Seth Gershenson et al., “The Long-Run Impacts of Same-Race Teachers,” NBER, https://www.nber.org/system/files/working_papers/w25254/w25254.pdf.
4. For example, see Camille Busette et al., “How We Rise: How Social Networks Impact Economic Mobility in Racine, WI, San Francisco, CA, and Washington, DC,” Brookings, January 2021, <https://www.brookings.edu/essay/how-we-rise-how-social-networks-impact-economic-mobility-in-racine-wi-san-francisco-ca-and-washington-dc/>.
5. In spring of 2022, we conducted interviews with a host of organizations (cited in Appendix A) that were using relationship mapping in some form or fashion in their programming and/or building tools where programs could keep track of students’ existing networks. After interviews to better understand their distinct approaches, we brought these individuals together for a virtual roundtable discussion during which each organization shared its approach, fielded questions, and discussed themes with one another. Brian Lightfoot, a researcher, also joined the roundtable as a discussant. All quotations within this paper, unless otherwise cited, are from personal interviews, the roundtable discussion, or email correspondence with the organizations cited in Appendix A.
6. For example, see Shannon M. Varga and Jonathan F. Zaff, “Defining Webs of Support: A New Framework to Advance Understanding of Relationships and Youth Development,” Center for Promise, February 2017, https://www.americaspromise.org/sites/default/files/d8/WebsSupport_ResearchBrief_v2.pdf.
7. One important caveat is that informal academic relationships (e.g., with faculty who aren’t assigned advisors) may still offer hidden value to students who seek out guidance. See Jakki Petzold, “Where Do Students Get Advice,” LSSSE (Law School Survey of Student Engagement) Blog, December 2, 2020, <https://lssse.indiana.edu/blog/where-do-students-get-advice/>.
8. For a more complete treatment of this trend, and the various forms of social and cultural capital that can go ignored or undervalued by members and institutions in dominant cultures, see Dr. Tara Yosso’s Community Cultural Wealth framework, originally detailed in Tara J. Yosso, “Whose Culture Has Capital?” *Race, Ethnicity and Education* 8, no. 1 (2005): 69–91.
9. “Major Influence: Where Students Get Valued Advice on What to Study in College,” Strada Education Network and Gallup Inc., September 2017, <https://cci.stradaeducation.org/report/major-influence/>.
10. Anne E. Bromley, “What Parents Can Give Their College Students that Money Can’t Buy,” UVA Today, August 2, 2018, <https://news.virginia.edu/content/what-parents-can-give-their-college-students-money-cant-buy>.
11. “F.I.E.R.Y.: Finding and Igniting Relationships for Young People,” The Mentoring Partnership of Southwestern PA, accessed July 20, 2022,

About the Institute

The Clayton Christensen Institute for Disruptive Innovation is a nonprofit, nonpartisan think tank dedicated to improving the world through Disruptive Innovation. Founded on the theories of Harvard professor Clayton M. Christensen, the Institute offers a unique framework for understanding many of society's most pressing problems. Its mission is ambitious but clear: work to shape and elevate the conversation surrounding these issues through rigorous research and public outreach.

About the author



Julia Freeland Fisher is the director of education research at the Christensen Institute. Her work aims to educate policymakers and community leaders on the power of Disruptive Innovation in the K-12 and higher education spheres. She is the author of “Who You Know: Unlocking Innovations That Expand Students’ Networks” (Wiley, 2018).

