CHAPTER 1

Networks Seeking Large-Scale Impact

Entrepreneurs and inventors are no smarter, no more courageous, tenacious, or rebellious than the rest of us—they are simply better connected.
Andrew Hargadon

People around the world are afire with an intense desire to change the way things are—the pervasive injustices and other ruinous failings of modern systems. There is so much to fix, but there's nothing simple about fixing it.

Many of the alarm bells that are ringing loudly signal "wicked problems" that defy easy, one-shot solutions. The Covid pandemic, food insecurity, climate change, homelessness, racial injustice, and the lack of economic mobility: despite the urgency for change, there may be great uncertainty about what the solutions are and how to implement them.

These types of problems are systemic. They have multiple, linked parts that depend on and affect each other. They require responses in which many people and organizations must change their minds and behaviors. They likely need more than one intervention, and it takes substantial resources to reach the desired scale of change. Innovators addressing these issues, note leaders at IDEO, must "adopt a more systemic lens and intentionally coordinate multiple interventions with multiple actors to create more enduring change."

In the face of wicked systemic problems, social innovation requires the courage to stand up to business as usual and to tolerate the uncertainties of achieving success. The change process needs resources—money, creativity, and time. It takes tenacity to stay on a course full of curves and surprises, a journey that may last for a decade or longer. It cannot be done without new ideas about how things could work much better, and without the skills and discipline to turn these ideas into tangible innova-

tions that gain traction and scale. All of this can rarely be achieved without relying on networks of people and organizations.

Innovation loves company, but it's not just a matter of having a lot of people involved. It's a matter of orchestrating and catalyzing, of organizing many moving parts—people, ideas, resources, partners—and adjusting them as the innovation-making process unfolds. Networks provide unique organizing models for this work. They are built on connections, alignment, and collaboration among participants. They provide conditions critical for innovation: "blue sky" that offers room for research and idea formation; testing grounds for the necessary proofs-of-concept; real-world laboratories for prototyping and modifying inventions; and more. Networks can be highly flexible and adapted to the sequence of different innovation-development tasks and the discoveries that emerge during the process. They nurture innovators—supporting them, protecting them from opposition, challenging them to revise their vision and approach.

Networks offer enabling settings for system-changing social innovators and their efforts. But developing and scaling social innovations that transform systems most effectively depends on network leaders—founders, members, managers, and investors—recognizing, designing for, and dealing with crucial variables:

- Which system should they target for change? Which system-changing approaches should they pursue?
- Which types of social innovations should they develop? Which innovation-development processes should they use to create scalable innovations?
- Which scale should they seek and what scaling pathways should they follow?
- Which network models should they use? How should they sustain and evolve their networks?
- Which roles should network leaders play?

Taken together, these variables present social innovation networks with a complex landscape of choices and decisions as they take the jour-

ney of systems change driven by social innovation. We have worked with many networks that are navigating through this decision-terrain toward scale. Each takes its own journey, made distinct by context, personalities, and other factors. But useful patterns emerge when we look across the networks and their experiences.

This chapter describes the voyages taken by four networks that are achieving notable impacts and are striving for greater scale. We selected them because they are quite different in significant ways and thus present an initial, diverse portfolio of social innovation networks producing and scaling innovations.

- The US Water Alliance is driving equity and other community-centered practices into water systems in 28 cities and counties with more than 25 million residents.
- The Campaign for Free College Tuition is helping to advance public policy changes that now cover 25 states and 1 million college students, with much more impact on the horizon.
- The Talent Innovation Network of West Michigan is spreading its evidence-based innovation for hiring and promoting employees to businesses with roughly 90,000 jobs in one region of the US.
- OpenNews is engaging thousands of journalists in bringing crucial changes into the news media profession—elevating the voices of people of color and of technologists ready for the digital-media age.

These networks tackle different systems, create different types of social innovations, follow different pathways to scale, and develop different network models for collaboration. But, as we'll show after the story telling, their separate journeys reveal practical knowledge about how networks produce social innovations that transform systems.

Water Equity

Mami Hara is part of a small band of people striving to transform the US water industry. They work in a technical, engineering-driven sector that operates mostly in hard silos—separate entities for drinking water, storm-water, and wastewater—and focuses mainly on building and maintaining


Mami Hara

physical infrastructure and managing financial costs. The water innovators envision a radically different water system. It would help communities meet their environmental, economic, and social goals, not just provide the usual water services. It would ensure that everyone is able to access and afford water supply and services. It would secure the water system's long-term sustainability by using an integrated, rather than a siloed, approach to management of water.

While Hara was at Philadelphia Water, where she became chief of staff, she did the grunt work to set up the first annual summit, in 2011, of a new organization called the US Water Alliance. It had been created by a few water-industry people, mostly water utility managers, who wanted to talk, learn, and collaborate outside of the dominant engineering mindset—something they were not getting from the sector's professional associations. Not surprisingly, given the water industry's makeup, the Alliance's work at its inception was steered mostly by white, male utility leaders and water experts. They focused mainly on water-management issues, especially the development of a silo-busting "One Water" approach.

Much less attention was paid, however, to the larger vision for change: engaging the community in setting water system goals and addressing issues of water equity. When Hara—Japanese American, a landscape architect by training, and advocate for community-centered approaches—attended early Alliance summits, she says, "I felt like an outsider myself. It felt like a private club. I didn't feel like I had any intellectual or social home there."

Until 2016, that is. When the Alliance gathered in Atlanta that June for its 3-day annual summit, it was opening up to new, transformative possibilities. Nearly 500 people from 31 states attended—many of them community leaders, environmentalists, and racial- and economic-justice advocates from outside the water industry. Workshops included topics not usually offered to water system professionals, including "An Equitable Water Future," "Affordability and Water," and "Building the One Water Movement." The summit "was truly a watershed event," says Michael Mucha, chief engineer and director of the Madison Metropolitan

Sewerage District, an Alliance member. "It was unlike any conference I have ever attended. The diversity of attendees and topics contributed to very different conversations and brought a far deeper meaning and understanding to the work I do."

Radhika Fox

The shift to an open, collective approach began in late 2015 when the Alliance board hired a new CEO, Radhika Fox, who had extensive experience in policy development and community advocacy at San Francisco's water utility and PolicyLink, a premier institute for racial and economic equity. Fox championed a vision of the Alliance as an inclusive national network of water-system stakeholders—community organizations, environmental groups, agricultural interests, labor unions, researchers, artists and other culture bearers, as well as utilities and government agencies. This expansive diversity of participants would connect and collaborate to develop, spread, and institutionalize transformative changes. The Alliance website captures the vision succinctly: "We are driving a One Water movement—an approach to water stewardship that is innovative, inclusive, and integrated."

Fox brought the skill set needed to pull off this approach. "I remember when Radhika got the job," says Hara, who in 2016 became CEO of Seattle Public Utilities and in 2020 became chair of the Alliance board. "She is very persuasive and visionary. She expanded the profile of who was included in the Alliance's conversations. She has enormous credibility as someone who can connect across sectors and bring people in who'd never had a voice before." Fox hired staffers with the capacities, energy, and knowledge to design and implement inclusive collaborative processes. She worked to ensure a diverse and focused board of directors and to develop governance alignment around a new vision for the Alliance. "There are go-getters on this board," observes Oluwole (OJ) McFoy, general manager of the Buffalo Sewer Authority and the board vice president. "The rebuilding of the Alliance that was performed over the last few years was essential to gaining the trust of community organizations, utilities, and philanthropic organizations."

Under Fox the Alliance redesigned its annual summits into large-scale, diverse gatherings that inspired participants. Before the 2018

summit in Minneapolis, recalls Emily Simonson, the Alliance's director of strategic initiatives, the gatherings involved "a lot of people and organizations that we knew. For Minneapolis, we started thinking about the summit as a way to engage new people, bringing in everyone we could touch."

Fox also persuaded several national foundations to support new initiatives, adding financial resources to the roughly $1 million in membership dues collected annually. And she plunged into the mostly uncharted waters of water equity.

Not long before Fox joined the Alliance the Flint water crisis had become national news. The lead poisoning of water in the majority-Black city of nearly 100,000 people, 40 percent of them living in poverty, became a massive public health crisis and a national racial-justice scandal blamed on state officials' efforts to save money. Even as city residents complained about the water's color and smell and tests showed serious pollution problems, the state denied there was reason for concern. The national water sector's response was disjointed, and many leaders were silent or defensive. "Flint's story is not unique," Fox says, "but the tragedy and media attention there made a lot of people in the water sector realize we didn't have a good understanding for talking about what racial equity looks like in the context of water."

Emily Simonson

For more than a year, an Alliance team engaged more than 150 people—academics, environment and justice advocates, water-utility managers, philanthropists, tribal leaders, and other stakeholders—in discussions about ways to make water management processes and outcomes equitable. "It was a collaborative conversation," says Simonson, hired by Fox after working on urban water issues at the US Environmental Protection Agency. "We wanted to connect all the different aspects of how equity shows up in the water space, showing that they are all part of the same story. We wanted to show who was doing what, what the bright spots were. That way you start to see the cracks in the system and where smaller interventions might add up."

The Alliance developed a definitive 64-page briefing paper, "An Equi-

table Water Future," released in 2017 and disseminated throughout the water sector. "As a nation, we face multiple water resource challenges," it declared, citing a lack of access to safe, reliable drinking water, decaying water infrastructure, and more. "Those most affected are often lower-income people, communities of color, children, and the elderly, among others. The impacts of water stress on physical and mental health, child development, and economic mobility are cumulative." The report identifies new practices, backed up with actual examples, that local water utilities can use to create social, economic, and environmental benefits for everyone.

With the equity framework in hand, learning teams in seven cities—made up of water utilities, community leaders, environmental advocates, and other stakeholders facilitated by Alliance staff—wrestled with how to apply what was being learned. They launched new efforts to make water services affordable and accessible and to create economic opportunities, while promoting new dialogue and understandings among stakeholders. "Every aspect of running a water utility is an opportunity to advance equity," notes Simonson. "The teams prioritized based on what was urgent or timely for them and moved to other topics over time."

OJ McFoy

The learning team for Buffalo, a majority-minority city of about 250,000—half the population it had in 1950—with a poverty rate of 30 percent, produced the first local roadmap for water equity, but not without difficulty. The team struggled to build trust between the utility and community group leaders at the table, recalls the sewer authority's leader OJ McFoy, an engineer born and raised in Buffalo. "When it came to trust, we started out as a 3 out of 10 and I would say we got to maybe a 7 and then fell back to a 6. During our equity journey there were rifts and arguments. The push from community leaders was that the utility wasn't changing fast enough. We pushed back: 'What are you talking about? We are moving fast!'" But, McFoy adds, the process allowed the participants to develop their understanding of each other and to realize that neither side had all of the answers. "That's the big thing about convening and taking the time to talk and listen, to be authentic and work together to create a common solution. I

love being in that space because it's when we get real and get to solve problems."

Buffalo's roadmap for water equity identifies priority actions for tackling affordability, water quality, infrastructure, workforce development, and waterfronts. "Drinking water and sewer rates are unaffordable to some segments of the population," it states, "especially those on fixed incomes. The Buffalo water system, which traditionally discounted rates for low-income customers, revised its rates to make them more equitable for residential users. During the Covid pandemic in 2020, it issued a moratorium on shutoffs for non-payment of water bills, forgave all financial penalties for non-payment, and helped arrange more affordable payment plans. It also started to look for federal government partners and funding, recognizing that federal programs support low-income household access to food and heating but not water.

Buffalo also prioritizes actions to further increase the diversity of the water sector's workforce, McFoy says, which is a way to support local economic opportunities. When he was hired into the utility in 2006, he notes, "I was the eighth person of color in the utility out of more than 200 employees. I thought, 'Come on. This is not 1956, it's 2006!'" Today, though, people of color make up 37 percent of the utility workforce, up from 4 percent in 2006, and the executive leadership team is 50 percent women and people of color. Now the utility is partnering with other local organizations to ensure that Buffalo adults have the educational credentials to qualify for jobs in water and other sectors that are and will be available.

After the Alliance issued its briefing paper and worked for more than two years with the original seven learning teams, its water-equity efforts reached for greater scale of impact. "We heard from everybody on the task force that they wanted to stay together, they liked being connected," Simonson recalls. "We decided to create a larger network that is all about making the use of an equity lens a standard practice of the water sector." In September 2020, Fox sent an e-mail blast to 14,300 recipients announcing formation of the Water Equity Network with an initial 17 cities and counties. By 2022 the number expanded to 28 cities and counties serving about 25 million residents. The Alliance provides them with information about equity-oriented practices, technical assistance, facilitation support,

access to experts, and connections to other utilities.

Hara, whose Seattle utility joined the equity network, says that the Alliance's equity work "aims to become a cultural reference beyond the network's own membership, influencing the wider culture of the water sector. We can point to it and say, 'Look, it works.'"

Boosted by its signature efforts on water equity, the Alliance has evolved, expanded, diversified, and developed system-scale influence. Alliance members and participants are building a common identity, says strategic initiatives director Simonson. "No matter where they come into the Alliance, they are beginning to share a similar identity as 'One Water champions.' Whether they agree or disagree on things, they have this common element of wanting to achieve our shared grand vision. There's a feeling that being in the Alliance is part of being a leader in the water sector."

By 2022, the network's dues-paying membership has increased more than 50 percent to 131 members—70 of them utilities, plus 61 nonprofit organizations, unions, and water businesses. The utility-members touch nearly 15 percent of the US population, about 50 million people. In a 2020 survey, members said their top value proposition for being in the Alliance was "to connect to a network of changemakers at the top of their game." The Alliance's latest summit, in Austin in 2019, gathered more than 1,000 people from across the nation. Eight of the Alliance's 13 board directors are people of color and in late 2021 Mami Hara became the network's new CEO.

In early 2021 Radhika Fox accepted President Joe Biden's appointment to run the Office of Water in the U.S. Environmental Protection Agency—a crucial federal position regulating and investing in water systems nationwide. A few days later Biden signed executive orders requiring federal agencies to assess equity impacts of their policies and programs. Fox's appointment, says Hara, "is validating and affirming for the Alliance and its mission. We put into practice the significant network building and culture changing strategies she's bringing to this new job. It's a contribution the network is making to the nation."

During a virtual going-away party, nearly 100 guests celebrated Fox's accomplishments and sent her to Washington, DC, with a collective assurance. "You're not alone," said a longtime friend and colleague.

"Everybody on this call is committed to your success. We're not just on the sidelines cheering for you, we're walking with you."

Tuition-Free College

Back in 2012 two policy wonks—septuagenarians and longtime friends—decided their next policy-change effort would focus on "free college," the elimination of tuition for community colleges and public four-year colleges nationwide.

Morley Winograd

"We started with a question about what we could still do while still alive to further our lifetime cause, which is and was making American democracy work," recalls Morley Winograd. His co-conspirator, Doug Ross, proposed that in their 70's they should take up something they had never done. "We settled on the issue of economic opportunity since without it, democracies as diverse and large as ours can't maintain the support of the electorate," says Ross. "And then we decided that the key to economic opportunity in today's global economy was a college education. Then we concluded that the key to more people getting a college education was improving access, especially for children from low-income families. To do that we had to reduce the financial barriers that kept people from getting access."

Ross adds that they thought "the time was ripe for this change. We saw the growing tension between the needs of a knowledge economy and the levels of education in the country as analogous to those that generated universal primary education in the 19th century and universal high school in the first half of the 20th. We picked free college because we thought it was good policy, but also because we thought it had the advantage of strong historical and economic tailwinds. We wanted to not just fight the good fight, but to win."

Morley Winograd and Doug Ross didn't know much about the higher education system and its policies. At the time, only a few states were moving toward a tuition-free approach. It would be two years before Tennessee adopted a pioneering statewide free-tuition program for its community and technical colleges.

By 2022, though, the network that Winograd and Ross established

nearly a decade earlier, the Campaign for Free College Tuition, could count 25 states that had established free-college programs. The Tennessee Promise had enrolled a total of 88,000 students and covered $115 million of their college costs. In Michigan, where a free-college policy breakthrough was engineered in 2020—aligning a Democratic governor, Gretchen Whitmer, and a Republican-controlled legislature—more than 150,000 residents had registered online to have their state government pay for community college classes they planned to take. Between February and May 2021 about 70,000 adults applied to "Michigan Reconnect" to have state government pay all of the tuition for their upcoming community college classes. The surge added to the 83,000 essential workers who had been accepted in the fall of 2020 into another new state program, Futures for Frontliners, which provided them with free community college.

Doug Ross

Ross, a former state senator, state commerce director, and assistant US secretary of labor in the Clinton administration, had led the drive for Whitmer's initiative as the governor's senior advisor for Michigan prosperity. He lined up allies in the state's business community to press Republican lawmakers for adoption of the free-college legislation. It was one of the most visible actions of the small, highly decentralized network that he and Winograd, a former state Democratic Party chair and policy advisor to Vice President Al Gore, set up with their allies to influence policy making.

The network is bipartisan and lean: no full-time staff, no office, just volunteers, advisors, some contractors, and a post office box. One founder, Harris Miller, former head of the Association of Private Sector Colleges and Universities and a former congressional senior staffer, figured out how states could afford to pay for free college by using existing federal funds to supplement their funds. "The federal government actually already spends enough money in support of higher education to cover tuition for every public college student in America," explains the network's website.

Another founder, former Michigan Governor James Blanchard, was instrumental in resolving a debate in the group about how ambitious its

advocacy for free college should be. "We had to decide how big to go: whether or not we should go all the way and advocate free tuition for both 2- and 4-year public colleges or do something less than that like advocating for limiting tuition prices," Winograd says. Some members of the group wanted to get control of tuition prices by linking them to the cost-of-living; others wanted free college, period. "Doug and I were in Blanchard's office. He jumped up from his desk chair, pounded on the desk, and said, 'Go big, go free, or go home! Unless you have a large-scale ambition, it's not worth doing.'" That became the network's mantra. About half of the group quit due to the decision, but those who remained were joined by other people attracted to the bold advocacy.

The network floundered at first. A loose affiliation of a few elected officials and free-college policy enthusiasts, it reached out to organizations of politically active Millennials. "Since the policy would benefit younger generations, our strategy was to make an alliance with them," recalls Winograd, coauthor of three books about the impact the Millennial generation will have on America. "We met with a half-dozen Millennial organizations and got turned down by every one of them. They said, 'We don't know who you are, and you didn't involve us in starting this.'"

But the network did discover several ways of attracting the interest of state-level elected officials and policymakers. It held well-attended workshops around the country and connected influential supporters to undecided policy decisionmakers, sometimes governor-to-governor. For instance, legislators in Connecticut told Winograd that the state's governor did not favor free-college policy and their fell0w lawmakers did not want to vote for something that might be vetoed. He passed the information along to the governor of neighboring Rhode Island, Gina Raimondo, who was co-chair of the campaign's advisory council. "She said, 'I'm having lunch with him next week. I'll talk to him.' And she did. We called our friends in Connecticut and said, 'Get on the governor's calendar to talk about the legislation.' He told them he didn't support it but wouldn't veto it." That paved the way for adoption of the policy. "We used one hub in the network to get another hub to do more than they otherwise might," Winograd observes.

Another time Winograd called the president of the West Virginia Senate, a Republican, who had advocated for a free-college program that

was rejected by Republican legislators due to lack of money. "I said, 'What do you need?' He said, 'I could use a lot of op-eds. I have to convince people in the state.'" So, the network wrote advocacy pieces and got them circulated in the state. Eventually, the Republican-controlled legislature passed the program, unanimously in the Senate. "Now," Winograd says, "people ask the senator, 'How did you do that? That's a policy that Bernie Sanders is for!'"

The network conducted and publicized research, including public opinion surveys that found a large majority of the public supported free-college policies. It published guidance for candidates running for state elected offices and created an extensive briefing book to help advocates design free-college policies and make the case in states. These materials provided a framework that detailed several versions of free-college policies. "We understood from our work in state politics that 'every state is unique,' at least as far as the politicians working in it are concerned," says Winograd. "Any attempt to design a model state law is doomed to failure and is a complete waste of time." The network's briefing book declares that states can follow more than one path to make their colleges tuition free.

The network allied with RISE, providing some start-up capital to the nonprofit that supports students in organizing campaigns for free college, ending student hunger and homelessness, and getting out the vote. "In California, RISE made free college policy happen," Winograd says. Then the student organization started spreading into other states. "RISE has a much bigger budget than we do," he adds. "We work in tandem. They operate independently, but cooperatively when it comes to planning."

The network also piggybacked on positive developments, including President Obama's decision to push for federal policies for free community college.

It's often difficult to determine who and what most influenced the adoption of policy changes, and the free-college network mostly stays in the background—connecting, arming, and advising advocates. But the network has obviously played a significant role in the policy changes that have occurred. "It's happened faster than we thought it might," Winograd reflects. "When we started the network in 2014 our first strategic plan said maybe by 2018 there'd be three to six states with free college."

With 25 states already on board, the network carries on. "When 50 states have this," says Winograd, "then we'll be done."

In February 2022 came another policy victory. New Mexico's governor, Michelle Lujan Grisham, co-chair of the campaign's advisory board, signed legislation that later in the year will provide free college for an estimated 34,000 students.

Talent Supply Management

One number stands out when Bill Guest describes the social innovation that TalNet is moving into the world: 10,000. It's the number of times that the employer that piloted the innovation, called evidence-based selection (EBS), used it to hire or promote employees.

Mercy Health, a nonprofit health care system with 9,000 employees in west Michigan, found its evidence-based selection results compelling. It achieved a 23 percent reduction in the first-year turnover of new hires and a 16 percent reduction in the time spent on hiring processes. And it doubled its number of non-white employees—an increase to 20 percent of its workforce, about the same portion as the population in its service area. The improvements drove cost savings and productivity gains and indicated increased employee satisfaction. By 2021, Mercy Health's parent company, Trinity Health, was expanding the use of EBS into the 22 states where it employs about 130,000 workers. The results also impressed other employers in west Michigan; 30 of them, with a total of about 90,000 employees in the region, signed up with HireReach, one of TalNet's initiatives, to use EBS.

Bill Guest

It has taken 15 years to get to this point, from the spark of a fuzzy system-change ambition to a well-tested innovation that is scaling up deliberately and catalyzing other innovations. "We struggled against all kinds of odds," says Guest, former automotive engineer, systems thinker, data geek, and cofounder and facilitator of TalNet. "Now everywhere we turn, it's going well. It makes the work a joy."

TalNet is short for the Talent Innovation Network of West Michigan, a cross-sector assemblage of employer associations, higher education institutions, K-12 education entities, workforce development govern-

ment agencies, nonprofit organizations, and several philanthropic foundations. A self-described "network of talent system innovators," TalNet's 10 founding organizations are aligned around a common social cause: "to accelerate economic mobility in West Michigan by improving the quality of career decisions in education, training and job selection." The talent-management system they are tackling is enormous; the west Michigan region, 13 counties anchored by the city of Grand Rapids, contains more than 30,000 businesses, 800,000 jobs, 83,000 students in college, and 400,000 children and youth.

The network's lead innovation goes by a wonky description: "evidence-based talent supply chain management." Talent supply refers to the system that employers throughout the US use to recruit and hire tens of millions of employees and that nearly everyone uses to prepare for and find jobs. "Everybody has a stake in the talent system," says Guest. "Everyone is a student, or the parent of a student, or an employee or employer."

Talent management is actually a system of systems made up of employers' workplaces and human resource processes, labor markets for employment, K-12 and higher education, and workforce development for training and job placement. A talent system fuels the economic success of companies that need employees with particular skills and provides people seeking jobs with opportunities for economic mobility, career advancement, and well-being. It supports the economic prosperity of a region's workers, businesses, families, and communities.

But the nation's talent supply system is widely acknowledged to be broken. Its labor-market component, in which job vacancies are filled, doesn't function well to match supply and demand. Typical hiring practices don't effectively assess the competencies of job candidates or how well candidates match the skills companies need; therefore, they don't predict how well candidates will perform in the jobs. They often allow biases and stereotypes to seep, unconsciously and consciously, into hiring decisions, which penalizes people of color, women, older candidates, and anyone else who is considered "different."

Meanwhile, the system's education component—K-12 and higher education—doesn't prepare most students with the skills that employers are looking for. The massive pipeline of schools and workforce develop-

ment entities that moves millions of young people from school to work doesn't effectively guide them in their education, job training, and career decisions.

Together, these talent system problems result in less-than-optimal job performance, high and costly employee turnover rates at companies, low diversity of the workforce, and low job satisfaction of employees. The system's chronic difficulties, apparent for decades, have attracted dozens of national, state, regional, and local problem-solving efforts and large amounts of government and philanthropic capital.

But TalNet brings something new to the table—evidence. "We are measuring skills that matter and we are doing it fairly and objectively," explains Guest. This sounds much simpler than it is. Most employers are not very precise about what competencies are required to do their jobs well; they are more instinctive than analytical. Most of their hiring processes rely on types of evidence, like work experience, education degrees, and references that, according to industrial psychologists, are weak predictors of a job candidate's performance. Instead, it takes a combination of structured interviews and tests that examine cognitive skills—critical thinking and problem-solving—personality traits, such as integrity and conscientiousness, and career interests to generate a reliable, objective, and valid predictor of job performance.

Part of the TalNet origin story dates back to 2010 when Thomas Karel, a top human-resources executive in the Trinity Health system, told Guest that his organization wanted to dramatically improve its talent system to ensure it hires only the best employees to serve patients. "Tom said, 'I want an evidence-based selection process that we use every time, and we don't override." Guest recalls. "Afterward, I got in my car and thought, 'Oh, man, I've been working on this sort of problem for years, but I don't know if we can do it or not.'"

They did do it, starting with the Mercy Health pilot and its 10,000 EBS transactions. TalNet's innovative evidence-based selection solution provides employers with methods and tools that change their hiring models. Employers meticulously identify the knowledge, skills, training requirements, education level, compensation, and other features of the jobs they have. Typically, an employer's many jobs will boil down to a small set of "job families," jobs with similar characteristics that can be

assessed in similar ways. Then employers determine which assessment tools and methods to use to examine job candidates, focusing on tests and structured interviews. They standardize the use of assessments by their human resources staff and hiring managers so that hiring processes are fair, objective, and valid. They adopt TalNet's "compensatory rating system" that bundles a candidate's various assessments into a single "whole person" rating (1 to 5 stars) that takes into account cognitive skills, personality traits, career interests, online reference checks, and historical behaviors evaluated by interviews.

Guest uses a sports-film analogy to explain the essence of the EBS solution. "Have you seen Brad Pitt in *Moneyball*?" he asks, explaining that it's about the way baseball teams select their players, their talent system. Pitt plays Billy Beane, the baseball executive who abandoned the traditional model of player selection that was based on hunches and biases and favored powerful homerun hitters. Instead, Guest notes, "Beane paid attention to data analysis of games that showed that players who got on base frequently were more important for winning. And they were cheaper to hire than the home-run hitters that everyone was pursuing. The analysis provided Beane with a version of evidence-based assessment. When he hired players with a documented ability to get on base, his team set a record for winning games and did better than teams with more expensive payrolls."

The EBS process fundamentally changed Mercy Health's understanding of how to hire employees. "Before the pilot," Guest says, "they had a sense of what made a good performer and they hired based on that. But when we did the job analysis and also the analysis of employee performance, what we found was that there are additional specific competencies that make the difference. So, they started testing and hiring for those too."

TalNet is the latest configuration of social innovation collaborations that started 15 years earlier in west Michigan. "Hundreds of people have contributed to improving the talent system," Guest says. For nearly two decades, business leaders and educators in the region organized studies and initiatives. In 2005, they obtained a $15 million grant from the US Department of Labor to develop national-scale innovations in workforce development—an effort that supported Guest's early engagement in changing the talent system.

TalNet was designed to usher the EBS solution and other talent-system innovations to a new level, starting by building a critical mass of employers using the solution so that evidence-based selection becomes a regional standard. In 2019 two TalNet partners launched an initiative called HireReach, with financial support from the W.K. Kellogg Foundation, to expand use of the EBS solution in the region. They recruited 30 employers in the region, including prominent employers such as Steelcase—a global furniture manufacturer—the YMCA of Grand Rapids, Mercantile Bank, and the City of Grand Rapids.

Luis Lugo

The idea of establishing a network to reach regional impact came from Luis Lugo, director of community initiatives for the Doug and Maria DeVos Foundation in Grand Rapids. A self-described "recovering academic," Lugo has led the foundation's investment in the network, $3 million by 2022. He says he was impressed by Guest's approach and the ripeness of the talent-supply effort. "I've always been inclined to systems thinking. Bill thinks systems, so we were really simpatico. He has a track record of on-the-ground experience and working well with a variety of partners."

To Lugo, using a network structure was a way to build on readiness in the region for significant investment in changing the talent-supply system. "There were already organizations on the ground"—education, workforce development, and employer entities—"with track records of working on the systems," he explains. "We were not starting from scratch. So why form yet another organization? Instead, we could help to link the organizations, because the real payoff is in aligning them. Bank on their good work, don't displace them or take the focus off of them. Help them to realign their resources through collaborative efforts."

The EBS solution is an essential starting point for larger scale system change because it changes employers' practices, Lugo says. If employers won't change their hiring practices, he continues, little else in the talent management system can change. When a critical mass of employers changes hiring practices and precisely defines the skills needed for job success, those skills can then be communicated to other players in the talent supply chain: workforce organizations, higher education and K-12

schools. Today the network uses its evidence-based approach to support aligned change in the region's education and workforce development systems. A CareerPoint team is developing a career pathways project to establish a seven-step process that helps students and adults match their interests and abilities with training, support, and career opportunities. A SkillSense team is creating common definitions and tools that people can use to develop and document their soft skills, such as communication and teamwork abilities. A JobSync team is defining career qualifications by distilling massive amounts of occupational data to provide practical information to individuals, educators, trainers, and employers. And IncludeAll is working to advance leadership practices of diversity and inclusion, ensuring that each TalNet innovation has a strategy and metrics for advancing these goals in the talent system.

Each of these innovation-development efforts, along with evidence-based selection that is already spreading among employers, is part of a larger approach to developing a radically changed regional talent-management system that better serves children and adults.

"No other region in the country has attempted this scale of transformation," says Guest. "West Michigan can set an example for the country."

Newsroom Communities

Sandhya Kambhampati

Three years before the *Los Angeles Times* hired Sandhya Kambhampati as a data journalist—an investigative reporter who mines databases for stories— she was tapped unexpectedly to join a small network of journalists specializing in using digital technology. She had applied for the position with OpenNews, which was introducing data miners and software coders into newsrooms, but she figured she was too young and inexperienced to be accepted. "When I got the call that said I was a finalist, I said, 'Are you sure? Why me?'" The network told her that a small nonprofit news outlet in Germany wanted her to work there. "We did a Skype interview and the next thing I know, I was getting a visa and moving to Germany. It happened so quickly." For 10 months she worked there as a network fellow, investigating the poor quality of care in nursing homes and other stories. "I worked with newspapers across Germany doing data analysis."

Now Kambhampati is an active leader in the growing OpenNews network, mentoring other journalists, creating tools for news managers to use, blogging, attending annual conferences. In early 2021 she helped with the network's new effort to increase the racial diversity of newsrooms, supporting the creation of an online "safe space" for people of color and women in journalism to meet and talk with each other.

OpenNews began life about a decade ago as an experimental fellowship program, created by the Knight Foundation and the Mozilla Foundation, which supported development of open-source software. The goal was to embed dozens of technologists in news organizations. It was a way to strengthen the technology-journalist talent pipeline while shifting the culture of newsrooms to embrace the new digital world and accelerate much-needed digital innovation in the media.

Ben Welsh

Back then, only a few hundred employees in US journalism could be described as technologists. But the news business was on its way to being "fully transformed by the Internet," says Ben Welsh, editor of the data and graphics department at the *Los Angeles Times* and a participant in the OpenNews community. Today, news about current affairs is distributed online globally 24 hours a day to computers and mobile devices, often for free, and with audio, video, graphic, hyperlinks, and interactive enhancements. This provides fierce competition with what traditional newspaper, television, and radio outlets typically provide. In 2008, more Americans reported getting their national and international news from the Internet than from newspapers. By 2021, *The Washington Post*, a leader in the digital shift, had about 3 million digital subscribers and more than 100 million monthly unique visitors to its website. In contrast, circulation of its daily printed edition maxed out at a little more than 300,000, half the number in 2013.

For Welsh, trained as a reporter, the shift to a digital news model was career changing. "I was one of the last cohorts to be inducted into the journalism field with the older generation approach. But I was seeing what the next era would be like and realized I needed to evolve." He learned how to write software code and joined networks of web developers. In the mid-2000's, Welsh explains, "the transformation was just

gathering steam, moving beyond boutique experimentation. In major newsrooms small digital teams were starting to make things happen on the web." Several major newspapers—*The New York Times* and *The Washington Post*, in particular—began making the transition on their own. But many smaller news entities haven't had the awareness or resources to advance, and their economic survival is at stake.

Over the years, OpenNews expanded its network-oriented activities to engage a growing community of technology-journalists, not just a small set of fellows. It developed a website for information and communication, a repository of digital tools, low-cost hack-a-thons, other sponsored events and convenings, and an annual conference, SRCCON. By 2016, more than 1,100 journalism technologists—including software engineers, data scientists, and visualization/infographic designers—had participated in network activities and were creating freely available software and other tools used by an array of newsrooms worldwide. Meanwhile, journalism schools at universities started to reshape their courses to train a new generation of digital technology journalists.

Participation in OpenNews continued to increase. In 2021, the NewsNerdery collaboration space in Slack, which OpenNews staff help administer and moderate, had 4,600 participants. By then, the network's main focus on bringing technologists into the media had evolved. The network's 2020 report, "Vision25: Building Racial Equity in Newsrooms," positioned OpenNews and two partner organizations as "a catalyst in a social change movement that seeks to build journalistic institutions where newsrooms are actively anti-racist and collaborative, and journalists of color feel like they truly belong." Just a few months later, *The New York Times* released a report on diversity and inclusion that acknowledged its newsroom culture and systems "are not enabling our work force to thrive and do its best work. . . It is particularly true for people of color, many of whom described unsettling and sometimes painful day-to-day workplace experiences."

"My peers and I could see the momentum that OpenNews' organizing had among the younger generation," Welsh says. "The emphasis on software has diminished. OpenNews is becoming a safe space for underrepresented voices to organize and make change. The support gives people a way to talk about and negotiate their struggles."


Sisi Wei

More than 100 journalists, including Kambhampati, are involved in developing the network's racial-equity initiative, says Sisi Wei, OpenNews' co-executive director, who is orchestrating the effort. Wei, like Kambhampati, feels passionate about making sure journalists of color and software coders are treated equitably and valued in the journalism profession. After working almost 10 years as a technology-journalist who coded, reported, and managed data-visualization projects in prominent newsrooms, she started to work at OpenNews in 2020. Two weeks into the job transition, she blogged that the change "feels like moving from working for one, amazing newspaper, to being able to work for all of journalism."

Wei, Kambhampati, and Welsh are part of a growing community and are committed to helping others in the community. For them, OpenNews—an open, sprawling network with no membership eligibility requirements or obligations—makes possible crucial new developments in the news business like open-source digital technology and racial diversity and inclusion. The network is scaling up within the professional field of journalism. In such a network, creating a sense of belonging is critical, says Wei. "A main goal of OpenNews is to identify and remove the sense of loneliness, while bringing new skills into the industry."

In OpenNews, what the community says it values drives the use of network resources. "When we survey people about what they care about, diversity is incredibly important to our community," says Wei. It's up to network staff like Wei to enable participants in OpenNews, but not dictate to them. "I'm not telling them what do to," Wei says of the racial-equity initiative. The network uses a "light structure to create impact," she continues. "My role is to create a framework with them and bring them together. I will help document it and turn the things they are doing into things for other people to use. We want those who care about this to own it."

Sandhya Kambhampati certainly cares. "I engage a lot with OpenNews. It's a good support system; like-minded people who will help you out," she says. "Any time OpenNews asks me, I will help, because they helped me so much. I care deeply about OpenNews." The sense of isolation that once prevailed for her as a technology-journalist of color

has changed. "I feel like everywhere I look, the OpenNews community is there."

A Maze of Choices

We've told the stories of these four social innovation networks to set up the frameworks in the chapters that follow.

In some ways the networks are quite different. They were initiated and are led by different people with different life experiences. They have tackled different systems, created different social innovations, sought different scales, and developed different capabilities. They have faced different barriers and navigated through different turning points. They have had different impacts.

But the networks also share similarities: passion, collaboration, and time—characteristics you're likely familiar with in your own work. The wonderful people involved have an enduring passion for taking on seemingly impossible missions. They build powerful collaborations with many others to make change happen. Their efforts persist for many years to approach success.

The networks have something else in common. They display the main features of the complex landscape through which social innovation networks pass on their way to large-scale impact. It's a setting that presents innovators with predictable choices with a range of options. These choices force decisions that fundamentally affect the network's performance. Understanding this landscape of choices and options can help social innovation networks anticipate and make decisions that enable their efforts to build enduring collaborations with transformative strength.

The choices are about five elements of large-scale transformation: systems, social innovations, pathways to scale, network models, and leadership roles.

Systems

Social innovation networks have to get clear about which systems they target and which system-changing levers and approaches to use.

The networks we described have targeted huge systems for change: water management, higher education finance, talent supply, and journalism. The systems are quite different from each other, and this has implica-

tions for how change-agents proceed. A talent-management system, as we've seen, is a mashup of labor markets, workforce development entities, K-12 school systems, higher education institutions, and numerous employers' human resource units. The professional field of journalism is spread across numerous news enterprises, a few of them large and well-resourced businesses, most of them struggling to cope with dramatic changes in the business brought on by digital technologies. The water management system is highly fragmented into thousands of local water utilities, some very large, many quite small. Its knowledge and learning processes are dominated by large trade associations for water professionals. The higher education financial system is a hodgepodge of state and federal government and higher-ed institutional policies and funding sources.

These systems include a private market (employers and job seekers), a professional field of practice (journalism), and public institutions (water utilities, public colleges, and K-12 education). The differences between these types of systems inevitably affect the types of innovations worth creating.

Social Innovations

Whatever system they target, networks have to determine which type of social innovation to develop and how to produce them.

The US Water Alliance, for example, creates experience-tested knowledge about what changes water utilities and their stakeholders should make and how to make them. It demonstrates this know-how at real-world sites and then shares it with the water sector using information products and sometimes assisting those who want to make changes.

OpenNews targets the personnel/culture parts of journalism field/newsrooms system, and the innovations it is developing are practices. It brings together and into the news media field a critical mass of people who have been kept at its margins: people of color and digital technologists.

In contrast, the Campaign for Free College Tuition pursues public policy changes by state and federal governments, while TalNet produces tools and practices—solutions—which employers embed into their own processes to change the performance of their hiring systems. Solutions are not information and advice about what to do; they are products, including software apps, or services, such as financing and data tracking and analysis,

or business models—all of which actually make change happen.

Creation of these different types of innovations requires networks to employ different innovation-development processes and build different capabilities. Sooner or later along the way, they will encounter the challenges of scaling up.

Pathways to Scale

Networks have to identify the pathways to scale they will take with their social innovations. This starts with clarifying what type of scale they pursue. Is it a market, a field, or a government? The Campaign for Free College Tuition targets governments, which formulate policies for financing public colleges. The US Water Alliance targets the field of water management—especially, professional water utilities, while OpenNews engages the journalism field of practice. TalNet is scaling its evidence-based selection solution in the labor market. Often, though, system changers wrestle with more than one scale.

For each of these scales there is a unique pathway. Networks take new products and services into markets. They grow new practices within fields and persuade governments to adopt policies. Each pathway has distinct factors for success.

As innovation networks move from developing and testing innovations to scaling them, the fundamental nature of the network changes.

Network Models

System changers have to figure out which model of network to develop and evolve. There are many options, but systems-changing innovation networks tend to need a design that can continuously develop innovations and then shift to moving innovations to scale. They also need to be able to mount additional activities, such as leadership development, consulting, and movement building, using additional networks.

As their tasks become much more complex, networks may change their underlying design to be able to coordinate the growing number of participants conducting multiple functions. They may become "networks of networks" and "strategic hubs," which allow them to manage complexity while maintaining the flexibility and other desirable characteristics of a network.

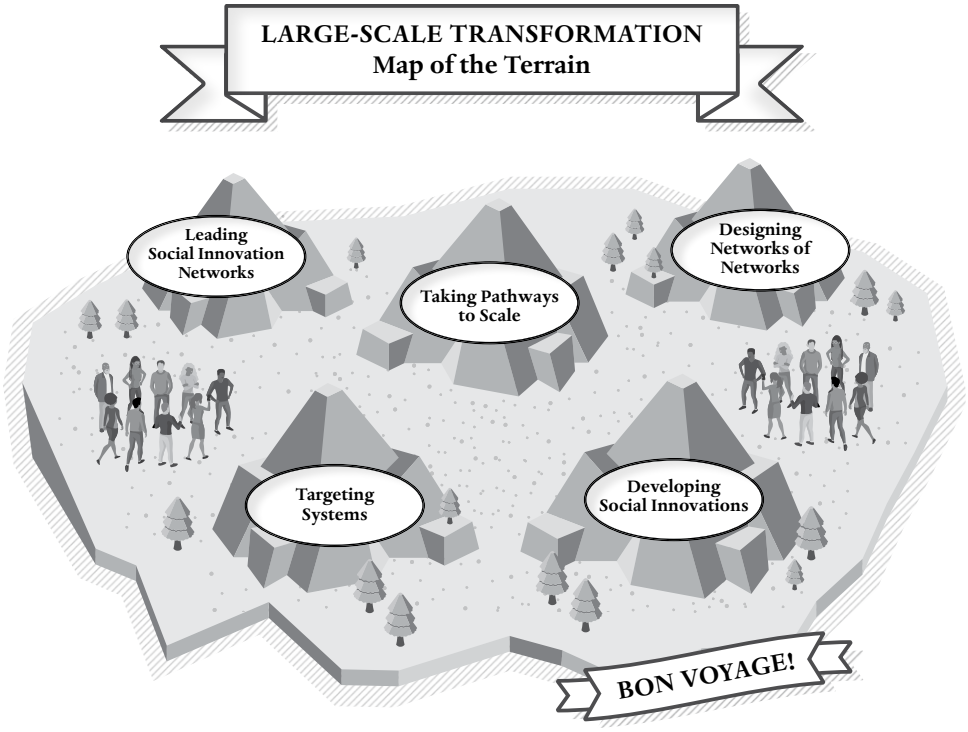
Leadership Roles

Finally, leading social innovation networks involves several key and somewhat unique roles. Leaders have to enable social innovation development processes and a supportive and creative network culture. Sometimes they get deep into the weeds of developing a particular innovation.

They have to help innovators build the strong relationships within the network that enable innovation development, and they have to build connections with outside partner organizations needed for taking innovations on pathways to scale.

They have to lead strategically—drawing on insights from outside and inside of the network.

And they have to tell the most compelling story of the network—to members, partners, and investors.



Networks & Seeking Scale

The frameworks described above may seem like a strictly linear progression—from systems to innovations to scaling and models—but the action rarely unfolds in a straight line. Social innovation efforts to change systems are characterized by ongoing, recurring, and shifting challenges, a dynamism that intensifies the challenges of navigating through the maze of choices we've sketched.

The drive for systems change may not start with a system analysis. Social innovation networks arise in different ways. Many, as we explained in *Connecting to Change the World*, emerge from a mash-up of like-minded people and organizations that share a problem. They get together to see what they might do and invent a common path forward. Their understanding of the system is probably more from experience and intuition than analysis and assessment. These and other networks may have an instinct about a social innovation to create, but not because they have a deep understanding of the system. Other networks start less impulsively; they are engineered into existence, the result of analysis, planning, and negotiation, processes often required and funded by philanthropic investors. But the system analysis that they develop may need to be enhanced and revised.

The system itself can be a moving target. As the US Water Alliance pursues best practices for One Water approaches, new technological products and government regulations are being introduced into the water system. For the Campaign for Free College Tuition, the 2020 election of a new US president changed who the policy decision-makers were in the higher education finance system and introduced new policy preferences and priorities. A "policy window" opened at the federal government level, but within a few months it closed when the Democratic majority in the US Congress could not agree on adopting free-college policy.

The scale of a change effort may shift. Bill Guest and colleagues spent years working to develop a "national laboratory" for workforce development in west Michigan but shifted their sights to the regional scale in west Michigan after the DeVos Foundation, located in the region, expressed interest in investing in work at that scale. The 2020 presidential election affected the Free College network's strategy for scaling. "We're

busy changing focus from state governments to the Congress," Morley Winograd reports. "It's quite a reach for us; a federal focus requires new tactics, new partners. But when circumstances change enough, the thing to do is to do your plan over."

Many system-changing initiatives may need to produce more than a single social innovation in order to achieve transformation. The social innovation network may serve as a catalyst of multiple interventions in a system. This is the case, for instance, with the US Water Alliance; water equity is just one of a half-dozen major efforts. In 2021, the network also had initiatives to respond to water-sector stresses caused by the Covid-19 pandemic, advance a blueprint for federal policies, support change-management leadership, consolidate small utilities, build climate resilience, promote collaborations between artists and water utilities, and operate a national campaign championing public investment in water infrastructure.

Or a system intervention may be one of a number of efforts developed by multiple networks and organizations with similar aims. TalNet, for example, is one effort among several to shift the west Michigan's talent-supply system. "I think about it as a community," says Guest. "We don't think we're the center of the world. And we don't want to step on other people's innovations."

Finally, networks that undertake system-changing social innovation may need to evolve and even change dramatically. OpenNews morphed from a network concentrating on technology-journalism to a network also focusing on racial inclusion in the news media. The US Water Alliance shifted from a small, exclusive network of water-management professionals into a large, inclusive network of water-sector change agents. These sorts of shifts may affect a network's purpose, strategies, innovations, and model.

Different kinds of systems and scales, social innovations, pathways to scale, and network models: these are main features of the complex, shifting landscape through which social innovation networks must navigate on their way to large-scale impact. That's exactly what the four networks

we've described are doing: steering toward systems change. So are other networks that we'll introduce.

Whatever these networks' origins, maturity, and capabilities, at some point they had to develop an understanding of the system they have targeted. They had to identify levers they could move to change the system. And commit to a general approach for engaging the system over the long run.

Targeting the system: that's the next stop in our exploration of this stirring and daunting space.