

Malini Srivastava: Making the Impossible Possible



Photo credit: Matt Mead

How would you design the most energy-efficient, future-oriented house possible? For architect Malini Srivastava, this challenge from one of her clients in North Dakota was a crystalizing moment. Although Malini had a longstanding interest in energy-efficient design, it wasn't her specialization early in her practice. As an undergraduate student, Malini had an interest in designing buildings that harnessed the sun's energy for heating and cooling, a concept known as passive solar design. She then chose a graduate school that had a focus on environmental design and research. Despite her extensive studies of environmental efficiency in architecture, she hadn't set environmental efficiency as her primary professional focus due to the many different creative and logistical aspects of working as an architect. But Malini Srivastava

rises to a challenge, and her North Dakota client's question pushed Malini to focus on environmental efficiency and synthesize all her training on the topic. She developed a specialization in high-performance, energy-efficient building design, and became increasingly passionate about exploring how, as an architect, she could address issues of climate change through her work. Yet as a practicing architect working with individual clients, she continually faced the question of how to scale the reach of her work beyond each individual building. Malini felt driven to find additional ways to scale up her potential impact on climate change, and she saw the Bush Fellowship as the avenue to learn how to bring her impact from the individual level to a systems level.

Malini became a Bush Fellow in 2014, and in the five years since has shifted from making individual-level impact as a practicing architect to making broader systems-level impact through leading community-wide initiatives and teaching, writing, and mentoring in the field of architecture. In recent years, Malini has empowered communities to tackle climate change, influenced how universities approach diversity and inclusion practices and policies, and inspired young architects dedicated to tackling issues of climate change and conservation. **Across her accomplishments, Malini uses innovation to inspire, equip, and connect others, building sustainability into the work that she leads.**

Malini **inspires** others to pursue innovation.

Whether designing games that encourage K-12 students to save energy, guiding college students in designing homes that can be heated and cooled using the same amount of energy as nine light bulbs, or helping a university change its assessment practices to be more equitable, Malini inspires those around her to harness their strengths and passions and confidently pursue innovative solutions to community and regional challenges.



Fourteen public K-12 schools in Fargo, North Dakota, including 1,697 students and 46 teachers, competed to save energy through a game in which they battled the character villain "Waste-A-Watt." Through participating, students became the superheroes who saved their communities from energy waste. These roles extended beyond the classroom, influencing parents, families, and communities to become energy-saving superheroes as well. **Over a two-year period, energy use across Fargo decreased by 7 percent.**

Malini equips others with the confidence and skillsets needed to become leaders.

Malini uses an inclusive and empowering leadership approach that supports participation from everyone, from giving fourth graders the tools to present on energy conservation, to facilitating learning structures that allow architecture students to collaborate in new ways. This equips people with the skills and experiences needed to become the leaders their communities need in solving challenges and creating innovation.



“Kids are learning the skill of advocacy and positive ways to encourage others to have good behaviors...Kids are learning influencing skills; simple ways to get their message out.” – Brenda Cain, elementary school librarian, Fargo, ND

Malini connects people and ideas to amplify impact.

Malini combines multiple approaches to build bridges between people and ideas and create rippled impacts across communities. By finding shared interests among diverging groups, she creates coalitions that work for a common cause. By making new learnings easy to understand, she can help bring knowledge to non-traditional audiences and make innovations accessible to people who may have previously been excluded.



Malini and her university students featured their super energy-efficient house at the Minnesota State Fair in 2011, exposing many people to this new and innovative concept.

The Bush Fellowship helped Malini discover how to scale up her impact and improve her leadership through building partnerships and valuing self-care.

Discovering how to scale up impact

While at the architecture firm, Malini yearned for the opportunity to expand the positive impacts she was making with energy-efficient buildings onto a larger scale. She explains, “As an architect, I didn’t know how to scale it. Climate change was my worry. I knew I had knowledge [to bring], but the question I had before the fellowship was, ‘How do you address both the individual building level and at the same time scale it up?’” In the Ph.D. work she did through the Fellowship, Malini was able to research and put into practice the idea of engaging large numbers of people through gaming platforms. As discussed below in relation to the eFargo project, Malini found public engagement through gaming to be the strategy she was looking for to scale her work on climate change mitigation from the building level to far broader systems levels.

Using networks to create partnerships

Instantly upon her recognition as a Bush Fellow, people interested in collaborating to solve challenges began contacting Malini. She worked closely with these connections and other

Bush Fellows to identify ways to merge passions and expertise. Already having a strong focus on collaborative work, the expanded networks that the Bush Fellowship opened for Malini sparked new ideas, inspirations, and partnerships, including both the eFargo project and partnerships with Native American communities discussed below.

Learning about self-care for sustainable leadership

An important part of the Fellowship for Malini was the program's focus on self-care for successful leadership. In highly competitive and fast-paced environments, the pressures to work long hours can be fierce, and the Fellowship culture and training reinforced for Malini that leadership can be more effective and sustainable when one takes the time and energy to do simple things to support one's own health and wellness, such as eating right and getting enough sleep and exercise. Malini describes that although forming new practices around self-care takes time and is a work in progress, simply having an increased awareness of self-care practices and implications has changed how she works with others. For example, she'll now make a point to communicate directly about self-care, such as letting research assistants know that if she chooses to work at night, that doesn't mean that she expects them to do so. What's more, Malini found that when she is careful to balance work with her own self-care, it makes a positive impact on people she's working with: "When I'm being mindful of my health and wellness...I'm also conscious of the wellness of people I work with. It gives [others] permission [to take care of themselves]. People are more engaged and passionate, there's a healthier atmosphere...People work really hard but do it when they're well."

The Bush Fellowship supported Malini in learning how to expand her positive impacts from individual-level to systems-level change and provided her with connections and skills for sustainable leadership that helped her launch her work to a new scale. The following stories illustrate how Malini works to [create broad community- and systems-level change](#) by [inspiring](#) participation from people of varying positions and backgrounds. She [equips](#) people and systems through facilitating learning, supporting growth, and encouraging improved structures such as more equitable university assessment systems. Lastly, Malini [connects](#) people and ideas to build synergy for creating change and making learnings more accessible to anyone.



Photo credit: Hunt + Capture

eFargo: Winning the impossible

When the Bush Foundation first announced Malini as a Fellow in 2014, people she had never met began reaching out to ask how they could help her work. One of these contacts told her about a national energy efficiency competition run out of Georgetown University called the Georgetown University Energy Prize, in which cities throughout the U.S. compete for a \$5 million prize.

In 2014, Malini, then a Senior Project Architect at North Dakota State University (NDSU) in Fargo, was having coffee at a local library with Fargo City Commissioner Mike Williams and Fargo Community Development Administrator Dan Mahli. The Georgetown University Energy Prize came up in the discussion, and they decided to give it a try. Initially, the group worried that North Dakota's fossil fuel economy combined with a history of conservative politics might make them unlikely candidates for such a prize. But Mike Williams had spent years building coalitions among people with different political views, and they saw this as an opportunity to bring people from divergent positions together around a shared goal. While the group knew that there were many different perspectives on climate change, they felt that everyone who would be involved in the project could agree on the benefits of saving money through saving energy.

A new way of leading

Despite the large size and scope of the eFargo project, spanning multiple sectors across the city from elementary schools to energy companies to government, Malini led with her values and set up the project with a high level of inclusion and shared power. Acting largely as an advisor, mentor, and coordinator, Malini

guided others—such as NDSU and elementary school students—in creating many of the systems and content that guided the work. Dan Mahli described her leadership style as “refreshing,” explaining that “she supported the work and the people doing it, and lifted them up. She had a unique perspective that if everyone who is working on this cares about the other people and makes sure they’re alright, then the whole thing will be better off. It will not just be that ‘my’ idea gets carried out—there were times when the whole project veered and changed, and she let it... Many times we just got out of the way...*She had a huge vision and saw where we could go together.*” As Mike Williams described her leadership style, “She’s a powerhouse. She does it in a way that’s not preaching or condescending at all...*Regardless of who you are, she makes you feel like you’re part of the solution.*”



Inspiring collaboration for a common cause

With Mike’s coaching on broad coalition building, Malini, Dan, and their growing circle of project partners gathered letters of support for the emerging eFargo project to *inspire* others to get involved. Emphasizing the shared interest of saving money for Fargo residents, schools, and city offices and other public spaces, they gained support from people holding a wide range of value systems, viewpoints, roles, and positions. This included both U.S. Senators, city leaders, utility companies, school officials, developers, builders, and environmental groups.



With this broad support, Malini and partners established the eFargo coalition among several key organizations and groups of people, each playing a different but pivotal role in creating a city-wide initiative to save energy and track the savings to compete in the national

competition. **City administrators**, including Mike Williams and Dan Mahli, provided pivotal support through envisioning goals and plans for the project, connecting the work to public policy, and advocating to obtain resources and approvals. The coalition was able to engage **the two major energy companies in Fargo** to make energy use data available to the project.

Several **North Dakota State University (NDSU) students and faculty** took a lead role in developing and running the project, which **equipped** the students with valuable experience. The NDSU student leaders handled components including creating the eFargo website and billboards, and two NDSU students worked with Malini and another professor to build systems to gather and analyze energy use data.

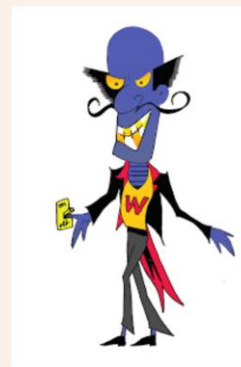


Peter Atwood, a former student of Malini's who later became an NDSU faculty member, served as technology lead for the project.

Peter's description of Malini's approach to leadership and mentorship illustrates how she guided students to build their own skills, rather than simply telling them what to do: "Usually Malini would say, 'Here's the problem and what we need to get done, but we don't know how, or what resources are needed, or who to involve.' I'd come up with a plan, and she'd give me feedback on design, being critical on what's happening, then offering suggestions for adjustments."

One of the primary components of eFargo is a game that Malini and partners designed through which K-12 schools compete to reduce their energy use. Students identify places in the school where energy is wasted, such as a light left on or an appliance plugged in when not in use, and tag that place with a small image of the game character Waste-a-Watt. The game teaches ways to save energy while empowering students with the

inspiration and skills needed to influence others to join in, such as making signs encouraging others to conserve energy and presenting to other classrooms. Again, Malini leaned on her empowering leadership approach to not only inform people of the benefits of energy conservation but to inspire and equip them to take an active role in inspiring others. Fargo public school librarian Brenda Cain described that students at her elementary school created an afterschool club focused on cutting energy waste. Brenda said, "Kids are learning the skill of advocacy and positive ways to encourage others to have good behaviors. They're making positive signs to post in the school that are funny and make people think. Kids are learning influencing skills."



In the eFargo game, schoolchildren become superheroes to defeat the dread Waste-a-Watt.



Brenda described that the students' role of influencers extends beyond the classroom and into their homes, where they bring their knowledge and leadership to influence their families. Parents have reported to teachers that family roles have switched, from parents constantly reminding their children to turn off the lights to their kids being the ones taking charge of turning off garage lights, outdoor lights, and

closing the fridge. Dan Mahli noted how this impactful youth leadership showed up in energy use data analyzed by the NDSU team: After participating schools began reducing their energy use, the team also saw similar reductions in the surrounding residential areas where youth took their leadership home.

Malini not only led and empowered youth to be leaders in energy conservation, but her presence demonstrated that women and women of color can be strong leaders in STEM (science, technology, engineering, and mathematics) fields. Malini became a source of inspiration for young female students who met her during final celebrations at schools where she thanked students and shared results. Brenda described the excitement of female students in learning about Malini's job, stating that "they saw what was possible for themselves as female scientists and leaders."



Success in the face of adversity

Malini, Mike Williams, and Dan Mahli were aware the possibility of winning the Georgetown University Energy Prize in a conservative state reliant on fossil fuels was slim. Despite these headwinds, they championed eFargo and believed in its possibilities. After two years of competing, the unlikely team of city officials, energy companies, college students, and K-12 students and their teachers and families worked together to create striking results.

In 2017, Fargo won first place in the Georgetown University Energy Prize by ranking fourth among the 50 cities for energy savings and having a high level of project sustainability. As first place winner, Fargo will receive in-kind support toward \$5 million in financing for an energy efficiency dream project, as well as education opportunities and workshops for Fargo.



When asked what they saw as the largest changes to their community from eFargo and winning first place in the national competition, both Brenda and Dan pointed to impacts vastly greater than \$5 million. They described the [ripple effects of Malini's leadership style of giving everyone voice and treating them as equals, and how this changed the viewpoints, actions, and skillsets of residents from schoolchildren to city administrators](#). They described children and young adults taking on leadership roles and seeing the differences that could result through influencing others. They described the inspiration, energy, and success from empowering people who are often excluded from finding solutions to community challenges. They described young girls of color being able to imagine themselves as successful scientists.

As stated by Dan, "When we give people the opportunity to lead from where they sit, to shift control from the way we've always done things, release the sense of 'this is how it's always been,' [it changes the way people think about the system](#).

Because we did something that, frankly, I don't think anyone thought was possible...What we set out to do—let's be honest—was impossible. Then we went out and did it. The young people got out there and did it. I [keep going back to the inclusivity of it—and how vital it is. Frankly I think it's the project's greatest strength.](#)"

When asked what would have been different if eFargo had not come about, Brenda said, "I don't think students would have had the same opportunity to empower themselves to be leaders in the same way. I'm thinking of the

"We did something that, frankly, I don't think anyone thought was possible..." – Dan Mahli, former Community Development Administrator, City of Fargo

21st Century skills, the opportunity to change something and share it with others and make a difference, and help others make a difference. [Where a student can say,] **'I can be the voice of change, as a fourth grader.' ... It's the whole idea of empowerment. We just have to get started and do something. And that anyone can be the person to start that change.'**

Dan described the energy and motivation generated by students when they were empowered to play such a major role in the work: "The wildest part is that including the young people was so simple...To be honest, Malini worked the hell out of us, but when we finished step-after-step, we felt like we wanted more and our team kept growing. **I remember the spaces: where young people were owning it, they weren't told what to do, they owned it.**"



The inspiration generated through eFargo was not limited to elementary school and college students. After they were awarded the prize, Brenda posted the announcement on her Facebook. Several teachers reached out asking, "Is that the project we're doing?!" Brenda described that "they made a connection that what they're doing in the classroom is being noticed outside our school—that what they're doing is being nationally recognized. People were more motivated."



Another ripple effect from the energy reductions K-12 schools made was a change in awareness and dedicated staff resources to energy conservation at the city level. Mike Williams described that throughout the competition, the City of Fargo contributed resources but didn't reduce their own energy use, partly because there were no benchmarks for city operations on energy use. Over time, Mike and others were able to create a new position

at the city: an operations manager to oversee all city buildings and manage energy conservation. This role would focus specifically on how to cut energy use at the city level.

eFargo's success has been reported regionally on Minnesota Public Radio's Climate Cast, a radio show focused on highlighting stories about the changing climate. Although Malini has now moved to Minneapolis/St. Paul, Minnesota, and is an Assistant Professor at the University of Minnesota, eFargo is still going strong. Malini's non-hierarchical leadership has imbued the coalition with a high level of sustainability. The K-12 curriculum and game is continually being revised and improved, with a new virtual game currently being developed. City of Fargo, NDSU, public school, and energy company partners are continuing the work. Malini remains project lead and attends meetings virtually, but eFargo has the established leadership capacity and diverse range of stakeholders necessary to continue forward.

Infusing student empowerment and broad knowledge dissemination into academic architecture training

Innovative design studio class builds a novel, energy-efficient house at the Minnesota State Fair

In 2010-2011, before Malini became a Bush Fellow, she was engaged in an innovative

project on energy-efficient buildings that started with teaching an architecture design studio class at NDSU and extended to displaying a highly energy-efficient house design at the Minnesota State Fair, exposing new ideas and technologies to broad audiences. An element that drove this work, and that Malini later expanded upon and further developed during and after her Bush Fellowship years, was her approach to leadership and teaching that emphasizes empowerment, collaboration across stakeholders with varying viewpoints and worldviews, systems-level thinking, and creating greater widespread knowledge across diverse audiences.

According to mentor Mike Williams (of eFargo), this project came about as a series of steps, each requiring a creative problem-solving approach by Malini and her students and colleagues. As Malini described it, the Minnesota Pollution Control Agency (MPCA), familiar with her work in energy-efficient architectural design, asked her to submit a proposal to design and build a prototype energy-efficient house for display at the Minnesota State Fair. Malini submitted the proposal for her design/build studio class at NDSU to complete the project, and the MPCA accepted. The acceptance was great news, which led to Malini's class needing to raise \$100,000 of in-kind and cash funding. Malini and her students tapped their creativity to raise the funds: Malini reached out to all her professional contacts, including former clients and professionals in design, construction, and academic settings. Her students tapped their families, friends, and other networks. A wide range of sources supported the work: A company in Germany donated high-performance windows and shipped them to Minnesota; one student's

family donated an old, unused barn that the class deconstructed for wood; and another student, who worked at a restaurant, was able to obtain the restaurant's used wine bottles. The group crushed them up to create glass for counter tops.

Next, the class faced the challenge of collaboratively designing and then building the house on the state fairgrounds. Pushing into advanced design standards, the class used climate data from northern Minnesota to design the house specifically for that region and created an 800-square-foot house that could be heated and cooled using the same amount of energy as nine light bulbs.¹ Fourteen NDSU architecture students built the house on the state fairgrounds, then led the public education piece of explaining the design to fairgoers. Each challenge became an opportunity for engagement and empowerment. Reminiscent of Dan Mahli's comments about eFargo "doing the impossible," Malini's drive and energy enabled her to, when faced with new challenges at each stage of the project, keep bringing people together and helping them make things happen.

Peter Atwood, former technology lead of eFargo, was Malini's student at the time of the design build and participated in the project. Peter described the combination of innovation and design work, with an emphasis on bringing these innovations to the community for their engagement: "The project started as a high efficiency, small-footprint, passive house; a rating system for buildings that's primarily in Europe, we wanted to develop it for the U.S. ... Throughout the year we started to align on community education and engagement, which is what the project ended up being. **It was**

¹ "NDSU students show off super-efficient 'passive house' at State Fair." Stephanie Hemphill, MPR News. August 26, 2011.

<https://www.mprnews.org/story/2011/08/26/state-fair-passive-house#gallery>

this great, public project for all state fairgoers to see.”



Like the engagement aspect of eFargo, Malini’s focus was to be a connector between those deeply invested in architecture and cutting-edge environmental conservation designs, and the greater community, including people with broad ranges of world views, opinions on conservation and climate change, and income and education levels. This manner of bringing specialized knowledge to the broader public has great potential for systems-level change. For example, Noor Abdelhamid, one of Malini’s University of Minnesota students and an eFargo research assistant, pointed to how Malini is working to bring design and efficiency innovations to low-income communities. Such communities are often excluded from benefits of new design innovations but may be helped greatly by increased energy efficiency and lower energy bills. She said, “Malini has been really interested in targeting low-income buildings and populations...They live in buildings that are poorly performing, thus require a lot of energy, and have high electricity bills.”



Malini inspires students through a collaborative, hands-on approach to academia

Malini approaches her work in academia with her values of collaboration, equity, and non-hierarchical leadership. Traditional university architecture training can be hierarchical in the ways work is reviewed and assessed, and very independent in the ways students typically complete large projects mostly on their own. Malini’s students reflect that this traditional structure does not fully equip students for success upon graduation and working in architecture firms, and that Malini’s approach is somewhat different.

Inspired by a teaching approach called the Harkness method, in which students discuss ideas with minimal teacher intervention, Malini leads her classes using a collaborative work structure with a focus on constructive cooperation and with a more balanced power hierarchy than would be found in many college courses. In this structure, students rely on themselves and their peers to discover solutions and ideas, empowering them to discover creative solutions rather than look to a professor for all the answers. Her students described this collaborative work structure as rare in their experience of university architecture training. As Malini’s University of Minnesota student Ashleigh Grizzell explained, “In traditional teaching of architecture, a student graduates having only ever been the chief designer of all of their projects. They have been in charge of every decision and have been allowed the final say in design direction. While this approach is an opportunity to take responsibilities for decisions a student otherwise wouldn’t until later in their career, exclusively relying on this approach leaves the student with little experience collaborating with others. Working on a design team means that you often must objectively assess your own idea with others and be prepared to abandon your initial idea and throw your support and creative energy behind the idea of a colleague. [Malini’s approach to teaching gives a student both the ability to develop their idea and practice developing the ideas of a team collaboratively.](#)”

Ashleigh Grizzell also pointed to how this more collaborative, less hierarchical approach is more equity focused: “[The way architecture has been taught historically has acted as a barrier to women and people of color entering the field. Malini’s teaching, while incredibly rigorous, seeks equity. She’s building upon a rich history but is pushing architecture education into the next generation, the next iteration. She approaches](#)

teaching as a design opportunity and isn't satisfied with the status quo. Her teaching today is the latest iteration, but in a way that fully anticipates and welcomes a future iteration."



Fostering inclusion in student evaluation

Malini's teaching innovations and focus on equity and loosening hierarchies has made a lasting and ongoing impact in the departments at North Dakota State University (NDSU) and the University of Minnesota. Although Malini is no longer teaching at NDSU, university faculty and administrators described that due to Malini's influence, NDSU has increased review committee diversity and is now paying closer attention to issues of representation.

David Bertolini, former Chair of the Department of Architecture and Landscape Architecture and former Dean of Arts, Humanities, and Social Science at NDSU, described, "We always believed we do a great job on gender diversity, but after the gender and design seminar that Malini co-hosted, all these young women pointed out that the thesis of the year committee is always made of men. They were right, and it was a huge problem that we missed. Groups of young women are mentoring new students now because of that experience. **The review committees are now more culturally diverse. We are now holding ourselves accountable.**"

Beyond increasing accountability of the University to have representative diversity within committees, the University is also looking at how it conducts student evaluations. Cindy Urness, Program Director and Associate Professor at the Department of Architecture and Landscape Architecture at NDSU, stated, "One way Malini made a great contribution to the department is through increasing focus on issues of inclusivity...in

terms of gender, ethnicity, and other identities; that student critiques should always include a diverse team. **Even after Malini's departure, the Department still follows many of the protocols she put in place and additionally takes a more hands-on approach to teaching...students understand buildings better as a result of the design it/build it approach.**"

At the University of Minnesota, Malini brought about a new structure for group review of student work. Malini has shifted from a top-down structure in which each student presents to a panel of professors, practitioners, and former students who critique the student's work, to a more collaborative and empowering discussion-based approach. With this new approach, Malini presents the work to the room in the middle of a circle, inviting professionals and students alike to discuss the work through conversation, asking questions, and highlighting the strengths and opportunities for growth of each student's work. In this way, the review becomes an experience of shared learning and collaborative thinking, rather than a moment in which each individual student is asked to defend their work in a five-minute presentation to a panel of outside professionals. Student Ashleigh Grizzell described this new approach as more empowering, humanizing, and transformative: "Students entering Malini's studio have usually only experienced a traditional approach to reviews that requires a student to defend their work to a panel of jurors and critics. Traditional reviews last four hours or longer, each student taking 15-30 minutes of combined presentation and defense. At the end of these traditional reviews, students are exhausted both mentally and physically. **In Malini's studio, I left the four-hour review with a sense of optimism and energy. In Malini's reviews, the student has a seat at the table rather than being the object of the critique. At the end of**

the review, all of the students looked at each other almost with a sense of shock. **We learned something. We taught something. We had great discussions that empowered us. The entire experience was so humanizing.**"

Teaching leadership and confidence

As discussed above in relation to the eFargo project, Malini's empowering teaching approach builds leadership skills and confidence in others. Her students described that she has a strong ability to identify and trust when people would like to step up and lead, and she provides opportunities for students to take on responsibility. This teaches them how to lead successfully.

Students described their increased leadership and confidence as one of the primary changes they have experienced since working with Malini. When asked what a friend would notice had changed about him after he had been working for some time with Malini, former student and eFargo technology lead Peter Atwood said, "**I think that they would notice that I was much more confident in what I think should be done and more willing to express that and put that out into larger institutions.** For example, my current job is to manage a large group of instructors to pursue large-reaching goals within a department and to convince the college that those goals are the right way to go. My role is empowered to make those decisions. **Previously, I would want to discuss and ask questions, but now there's more of that drive and confidence.** I've learned enough and listened enough to know the direction to go, and I have the confidence in my ability. In the imaginary scenario, it's related to something Malini has said to me. She sometimes said, 'Peter, you need to do your own thing. Figure out what you want to do because that's important.' In the scenario

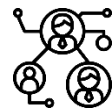
she'd come back and see that I did my own thing."



Malini's mentorship inspires, equips, and connects her students

Malini's students also described the strength of her mentorship approach and her ability to **equip them with capacity to reflect upon and expand their ideas.** Multiple students described how they sit with Malini to talk through their work, ideas, and challenges. They valued her talent for identifying the spark in their ideas and helping them figure out what to focus on. This not only helps each student with the project at hand but equips them with the skills to do this on their own, creating long-lasting ripple effects.

As Peter Atwood described, "A lot of the work we did together that I've alluded to is her ability to listen, have a conversation, and to linger in that conversation to help you unwind some of the cobwebs and tangles...She constantly motivated me."



Malini's students pointed to her ability to both identify what people are interested in and help **connect** them with opportunities to pursue those interests, as well as to **inspire** people to develop and follow their interests.

"At the end of Malini's studio, I was reminded of the reason I chose a career in design. The studio restored my faith in the power of architecture to create real change. Change that is urgently needed. Her teaching style made me feel empowered rather than deflated." – Ashleigh Grizzell

Malini's students described being connected with opportunities to take leadership roles in her own projects, being connected with internships and job opportunities, and with other professionals in the field. She also helps place graduate students at the University of Minnesota as research assistants in

architectural firms. They are able to work on research that is of interest to communities on topics like conservation, equity, and the sharing economy. Tom Fisher, Director of the Minnesota Design Center and Dayton Hudson Chair in Urban Design at the University of Minnesota, described these partnerships between graduate students and architectural firms as: “Malini is working on systemic change in the way architectural firms, the University of Minnesota, and students interact and share information.”

Malini helped organize a national symposium, the Symposium on Gender Equity in Design, which explored diversity issues and their impact on the broader community of architecture. As with her eFargo work with schoolchildren, Malini is a role model for female architects and architectural students of color. As noted by Cindy Urness, “Malini is an award-winning architect locally and nationally. She won the American Institute of Architects (AIA) Minnesota and national Young Architect Awards...She is a role model to young women of color considering architecture and for all young students.”



In terms of Malini’s capacity to awaken passions in people, Ashleigh Grizzell described, “She has such high regard and respect for her students as designers. That’s what’s so infectious about working with her—she inspires you to be the best version of yourself, whatever your passion or interest.”



Student Noor Abdelhamid described how working with Malini has inspired her, explaining, “When I come back and visit my family in Egypt during the summers they notice how passionate I’ve become about architecture, specifically that’s geared towards sustainable design and design that’s conscious of and accessible to low-income populations.” Noor emphasizes Malini’s contagious passion for

environmental sustainability in architectural design, explaining: “My parents are also architects—we talk about projects, and now I poke them with questions about how the buildings are performing. Who’s being served? Are you disregarding low-income people’s situations or people who won’t be able to access the building? I really owe it to her for helping me develop those thoughts.”

In sum, Malini’s approach to teaching and mentorship builds confidence and leadership skills in her students through supporting them in creating their own ideas, inspiring them to find their passions, and connecting them with opportunities to gain leadership skills. These are all ways in which Malini’s strong leadership, creativity, and innovation are being passed on to others in the field of architecture and academia. She accomplishes this transfer of qualities through shifting departmental practices to be more empowering and equitable and influencing students and those in the field of architecture.

Bringing energy-saving housing to Native American communities: on the horizon

Through her exposure to the work of other Bush Fellows, Malini became more aware of some of the issues that Native American communities are experiencing. When a faculty member in engineering at NDSU asked if she was interested in a project to help create highly energy-efficient homes in partnership with Native American communities, she decided to get involved. The team received a National Science Foundation grant to do preliminary planning for a project

to provide zero energy use (energy-creating) housing in partnership with Tribal communities on the Standing Rock Sioux Nation.

With her inclusive approach to leadership, she saw the importance of having community engagement, so Malini invited additional team members, including Dominic Fischer, Associate Professor of Landscape Architecture at NDSU, to join the group and lead an arts-based community outreach component. In Dominic's words, "From the beginning, the team recognized that we wouldn't be able to design an appropriate home for these communities on our own. And we were right."

Dominic and his team led a series of community engagement sessions in which they asked volunteers to take photos of what "home" means to them, or what they would like to be a part of their homes. Then they hosted community discussions about the photos taken, asking people what they feel "home" is, or what they would like their homes to be.

Through these discussions, the team learned critical things about needs of the community that they would otherwise not have known. This completely changed the trajectory of the planning. For example, none of the participating community members were interested in living within the city, so the planning shifted toward off-grid housing. It was also vital to the community that new housing be integrated within the local economy, using Tribal labor and using resources produced in the community. The planning team learned that strategies needed to be created to enable financing that would work within the Tribal structure. And finally, the team discovered that homes should be flexible enough for shifting family sizes across generations, which has major design

implications around size of the home and energy production and use.

Overall, through using arts-based community engagement, the team shifted a common planning paradigm of top-down design in which "experts" lead planning to a more inclusive approach. In Dominic's words, "We learned critical things we wouldn't have learned otherwise. We're not even in the design phase yet, but it's completely changed the team's approach." The team is concluding the design phase of the project in fall 2019 and will apply for a grant to carry out the design phase of the project.

Sources

The Improve Group created this feature in 2019 and collected data through phone and in-person interviews with the following individuals:

- Malini Srivastava
- Malini's former project and academic mentors and advisors
- University faculty and administrators at North Dakota State University and the University of Minnesota
- Project partners, faculty, and students from the eFargo, Net Positive Studio, and ZEROH projects

In addition, the Improve Group consulted the following secondary sources:

- "NDSU students show off super-efficient 'passive house' at State Fair." Stephanie Hemphill, MPR News. August 26, 2011. <https://www.mprnews.org/story/2011/08/26/state-fair-passive-house#gallery>
- "Duluth, Fargo vie to be nation's most conservative city (on energy)." Dan Kraker, Dan Gunderson, MPR News. January 5, 2016. <https://www.mprnews.org/story/2016/01/05/duluth-fargo-energy-conservation-prize>
- "Advancing Energy Efficiency in Small Cities." Uwe Brandes, Christofer Nelson, Adrianna Smith, Georgetown University. June 2018.
- "Fargo named as one of ten finalists in National Competition for Energy Savings." City of Fargo News Release. November 22, 2017.
- "Fargo Wins Nationwide Competition Aimed at Creating Innovative Solutions for Reducing Energy Consumption." Georgetown University Energy Prize Press Release. December 18, 2017.
- "Think Bigger, Think Differently: Courtyards of Creativity." Marisa Jackels, *bMagazine*. <http://bmag.bushfoundation.org/think-bigger-think-differently>

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