

ANNUAL IMPACT REPORT

2021

CONNECTION
COLLABORATION
COMMUNICATION





MESSAGE FROM THE DIRECTOR

The year 2021 marked the **Omaha STEM Ecosystems 5th anniversary milestone**. I often think back on conversations in which we began charting a course to gather community partners to work collectively on the goal of building a STEM workforce for tomorrow.

As a result of your willingness to collaborate and the energy you have invested in OSE efforts, we have made great progress. We've defined a common agenda, identified critical skills needed for tomorrow's careers, and created a framework to support partnerships between the education and business sectors.

The April 2021 launch of the STEM Community Platform is an example of how our Ecosystem's infrastructure can develop innovative programs that assure equity and access to STEM programs and resources. This accomplishment was achieved through a partnership with the AIM Institute, the sponsorship of Cox Business and the collaboration of many other community partners.

As we look ahead and begin to imagine what the new year will bring, the Omaha STEM Ecosystem is on track to achieve the long-term targets we defined in our 2020-2023 strategic plan. I encourage you to continue sharing your wisdom, knowledge, and experience. Your participation in events, promotion of resources on social media and outreach to your professional connections are all valuable tools that assure that our STEM community remains vibrant.

Thank you,

Julie Sigmon / Director

Mission

Building a stronger STEM community by connecting education and business development for tomorrow's workforce.

Vision

Transforming Omaha into a robust center of STEM excellence and innovation.

YEAR 5

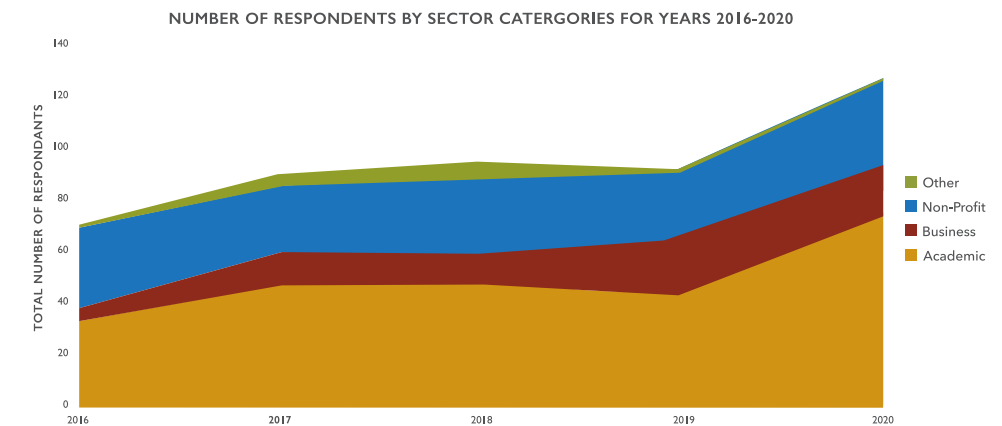
THE POWER OF COLLECTIVE ACTION is derived from the use of focused communications, connections and collaborations.

CONNECTIONS

Overall engagement is steadily increasing across all three sectors:

ACADEMIC BUSINESS NONPROFIT

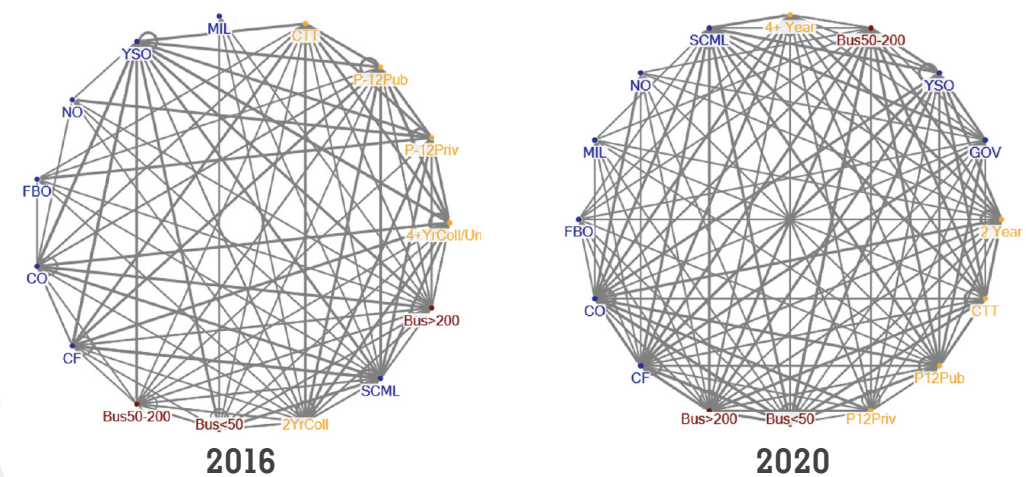
This represents nearly a 100% increase in respondents between 2016-2020. Respondents that don't fit into these categories are labeled **OTHER**.



Interactions between stakeholders of our various organization types have increased by 18.7% between 2016-2020. These organization types, the dots represented in the graphics below, are subsets of the sector categories and are colored as such:

ACADEMIC BUSINESS NONPROFIT

The lines connecting the dots represent the interactions. To see the full report by Tracie E. Reding, Ed.D / UNO STEM TRAIL Center, go to Omahastem.com.



Strategic Directions & 2023 Goals

OSE will accomplish this vision by...

1. Building Sustainability to Increase Impact

2. Expanding Communication to Elevate Collaboration

3. Measuring Impact to Ensure Progress

CONNECTIONS

As a connecting agency in our community, the OSE leverages the social capital of each partner to address the STEM workforce gap, and strengthen velocity of STEM pipeline opportunities.

- Million Girls Moonshot Advisory Board
- Heartland Workforce Solution-Youth Task group
- Dream It Do It Advisory Board
- NE Tech Collaborative – K-12 Board
- BioNE – Women in STEM Advisory Board
- Ralston School District – Blue Ribbon Advisory Board
- Clarkson College – Board of Directors
- Metro Science and Engineering Fair
- Kiewit Luminarium Advisory Board
- Aviation Nation Advisory Board
- ACE Mentoring Advisory Board
- UNO STEM Leadership Team / STEM TRAIL Center



ACE MENTOR PROGRAM
ARCHITECTURE • CONSTRUCTION • ENGINEERING



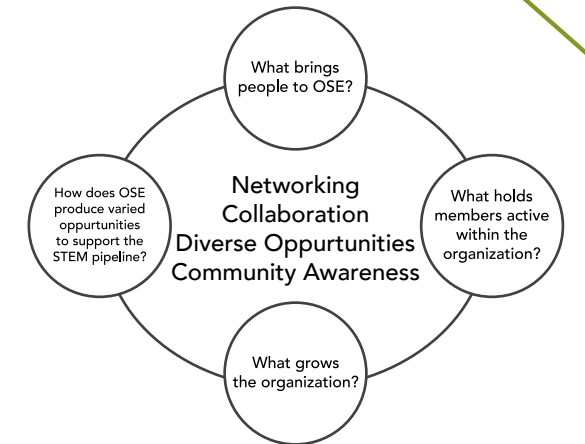
UNO STEM TRAIL CENTER

COLLABORATION

Theory of Success - UNO Doctoral Candidate - This year, we had the honor to work with two Doctoral students, Garret Higginbotham and Heather Daubert. They focused their Education Dissertation on the Theory of Success for the Omaha STEM Ecosystem.

Outreach to our community partners through collaboration are all valuable tools that assure that our STEM community remains vibrant.

- Contributed to efforts at the Metropolitan Science and Engineering Fair at Omaha's Henry Doorly Zoo and Aquarium.
- Partner in the annual City Nature Challenge.
- DHHS OWL PHIT Grant Submission
- The Build Back Better Grant Submission
- Dr. Kelly Gomez-Johnson, PI – NSF proposal: Teacher Voice in Organizational Instructional Change Efforts (VOICE)
- Dr. Neal Grandgenett, PI – NSF proposal: GRADIENTS: Geographic Reasoning & Action Delineated, Implemented & Estimated in Teaching STEM
- Letters of Collaboration for NSF and other grants
- Networking with SBI, Inc. on STEM Furniture and Space Proposal
- OSE is excited to bring on Cox Business as a new founder in support of our mission to provide quality STEM programs to everyone through their sponsorship of the STEM Community Platform.
- Facebook Grant and Video



Awards Ceremony 2021



Presentations

Heartland Women's Network
 AFCEA
 LinkedIn - Family Career Day
 Nebraska IT Symposium / Cox Business
 AIM Institute – Info Tech

Midwest STEM Forum – Des Moines
 Aviation STEM Day
 Catholic High Educator Tech Association
 Leadership Omaha
 AIM Institute Heartland Developers Conference

2021 Roundtable Series: Building a Thriving STEM Community

As we close our Roundtable discussions for 2021, we want to thank everyone that participated in the discussions. Each of these roundtable events allowed our community members an opportunity to cultivate and advance emerging ideas to shape our vision for STEM careers. The October 28th session highlighted key influencers and engagement experiences that spark innovation for students in their career exploration through the STEM Community Platform.

We appreciate the support and shared discussion of the community partners on the roundtable series, with 176 registered, representing 57 community organizations and businesses. A special thank you to our roundtable series sponsors: UNO / STEM TRAIL Center, BVH Architects, Avenue Scholars, Clarkson College and Omaha's Henry Doorly Zoo and Aquarium.

“ Interning with the OSE was the best decision I’ve ever made in college. It was my first experience working in a professional office environment. I learned how to work independently, with a supervisor, and also on a small team. At OSE I also had the privilege of wearing several hats where I developed skills in managing projects, copywriting, graphic design, data analysis, research, and web development. With that experience, I landed my first job in digital marketing right out of college. ”

– Matthew Swanson, OSE Intern



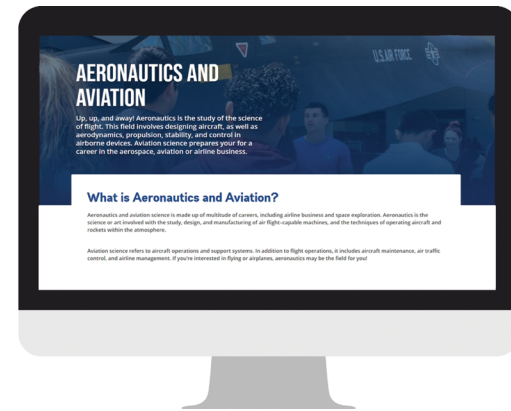
COLLABORATION

Launched in April, the STEM Community Platform is an online clearinghouse of information about program offerings, career information, and resources. This platform has allowed community partners to come together to ensure access and equity in education for all students. Thank you to all of the sponsors that helped make this platform possible.

Visit the platform at <https://stemplatform.aiminstitute.org/>

Why is this Important?

- Connects programs and resources to facilitate efficient and effective career paths to close the talent gap.
- Create a community culture as THE primary resource for promoting STEM programs and resources.
- Communication tool for parents, students, educators, business, non-profits, and industry partners.



COMMUNICATION

“ Through the Zoo Academy, students have an opportunity to see hands on different occupations that can be there whether they’re a veterinarian, a food handler or they want to get into exhibit architectural structure. ”

– Braeden Irwin,
 Zoo Academy Student



The strength and success of the Omaha STEM Ecosystem requires a clear and concise message that guides stakeholders to become engaged and impact change. Our goal in our strategic plan was to increase our media presence.

Social Media Presence

We successfully increased our social media presence by maintaining our Facebook, and LinkedIn accounts and by implementing an Instagram.

Our Facebook reach grew by 32,200 since 2020 and our impressions on LinkedIn was 15,872 more than in 2020.

- Produced monthly Newsletters featuring our founders each month
- Facilitated monthly STEM programs in the Omaha Public-School Newsletter
- Facilitated monthly OSE updates in the UNO STEM TRAIL Center newsletter
- Featured in the Kiewit Luminarium Newsletter
- Hired a Marketing Communications Coordinator to promote the Omaha STEM Ecosystem to the community
- Promoted the Nebraska Robotics Expo



“ My time as a summer intern with OSE allowed me to learn crucial job skills, and network with some of Omaha’s best STEM advocates. The skills I learned have benefited me tremendously. I couldn’t have asked for a better experience! ”

– Olivia Washburn, OSE Intern

COMMUNICATION

Media Reach

Expanded communication to elevate collaboration through media presence, including increased audience reach by 14% with earned media placements

Ad Equivalency Value: \$397,901

Publicity Value: \$725,888

Media

- **Midlands Business Journal Articles** — March 2021; April 23; September 10
- **KIOS** — Podcasts with Mike Hogan; March 9; November 10
- **Omaha World Herald** November editorial and article
- **Podcast** — SAC Museum – April 28
- **FOX 42** — “Omaha’s Henry Doorly Zoo Gives Local Students a Chance to Get Hands on with Science” – November 11

Working with students is a foundational value of the OSE in helping to connect career exploration opportunities.

This is reflective in:

- Collaboration with UNO STEM Stars
- Internships in communication and marketing
- Assist in Eureka Girl Inc. Summer Camp
- MSEF participation
- Collaboration with the UNO STEM Stars for Outreach
- Creighton University’s Heider School of Business – Organizational Capacity Building Student Project



WHY WE ARE INVOLVED

The Executive Committee serves as the Omaha STEM Ecosystem’s governing board. The committee members are dedicated to moving our mission and goals forward and assure that Omaha remains a robust STEM community to grow our talent pipeline.

To learn more about what the Omaha STEM Ecosystem Committees are doing visit our website at <https://omahastem.com/about-us/>

“ I enjoy brainstorming with a diverse group of professionals to identify ways to clarify and communicate STEM career pathways which we hope will increase interest and keep young professionals in Nebraska. I’m also excited to see the STEM Community Platform (SCP) continue to grow and develop and my committee will focus on ways for business and industry to interact with the SCP! ”

– Lori Bachle, Career Exploration and Pipeline Alignment Committee



“ As a long-time STEM teacher, I appreciate my work with the Diverse and Engaged Stakeholder Committee for the Omaha STEM Ecosystem. I love digging into the question: who is already engaged with us, who is missing and how can we connect with them? STEM education, experiences and careers are not for anyone, they are truly for EVERYONE. Our committee is committed to engaging everyone. ”

– Dawn Nizzi, Diverse and Engaged Stakeholder Committee



“ Technological advances are unfolding at lightspeed. It’s a pleasure to work with an organization that understands the importance of centralizing the resources and equipping parents, educators and the business community with key resources and access to information as we look toward preparing our community for innovation and careers that are only now just emerging. ”

– Monique Farmer, Communication Committee



“ As a Research and Advocacy committee member for five years and currently as Co-Chair, it has been a pleasure working with a group of dedicated community partners. Our committee work is critical in moving the strategic direction forward through identifying needs assessment and adopting common measures of impact to ensure progress. ”

– Dana Richter-Egger, Research and Advocacy Committee



IDENTIFYING THE PROBLEM

- Less than 46% of Nebraska's 4th grade students are proficient in math. By 8th grade, proficiency drops to less than 38% according to the Department of Education.
- Similar is true in science, with proficiency less than 47% among 4th grade students and less than 41% among 8th grade students.
- The demand for STEM talent in Omaha has increased 31% over the past 10 years, and that trend is continuing.

Solution:

We are connecting STEM programs to facilitate efficient and effective career pathways through the STEM Community Platform to grow the number of local STEM professionals and create balance between industry demand and available talent. Research has shown that they key influencer for students is often an engagement experience that sparks innovation. The Omaha STEM Ecosystem and the STEM Community Platform speaks to that journey. We invite you to participate in this journey by uploading your programs, resources, and training opportunities for students and teachers to the platform.



What is STEM?

STEM is science, technology, engineering and mathematics. At its fundamental core, STEM is exploration and critical thinking for solving problems.

We Could Not Do this Without YOU!

FOUNDERS



UNIVERSITY OF NEBRASKA AT OMAHA
STEM TRAIL CENTER

University of Nebraska
Medical Center



Nebraska
Engineering

METROPOLITAN
Community College



DLR Group
Architecture Engineering Planning Interiors



Anne Hubbard

Parker Family
Foundation

Nebel Family

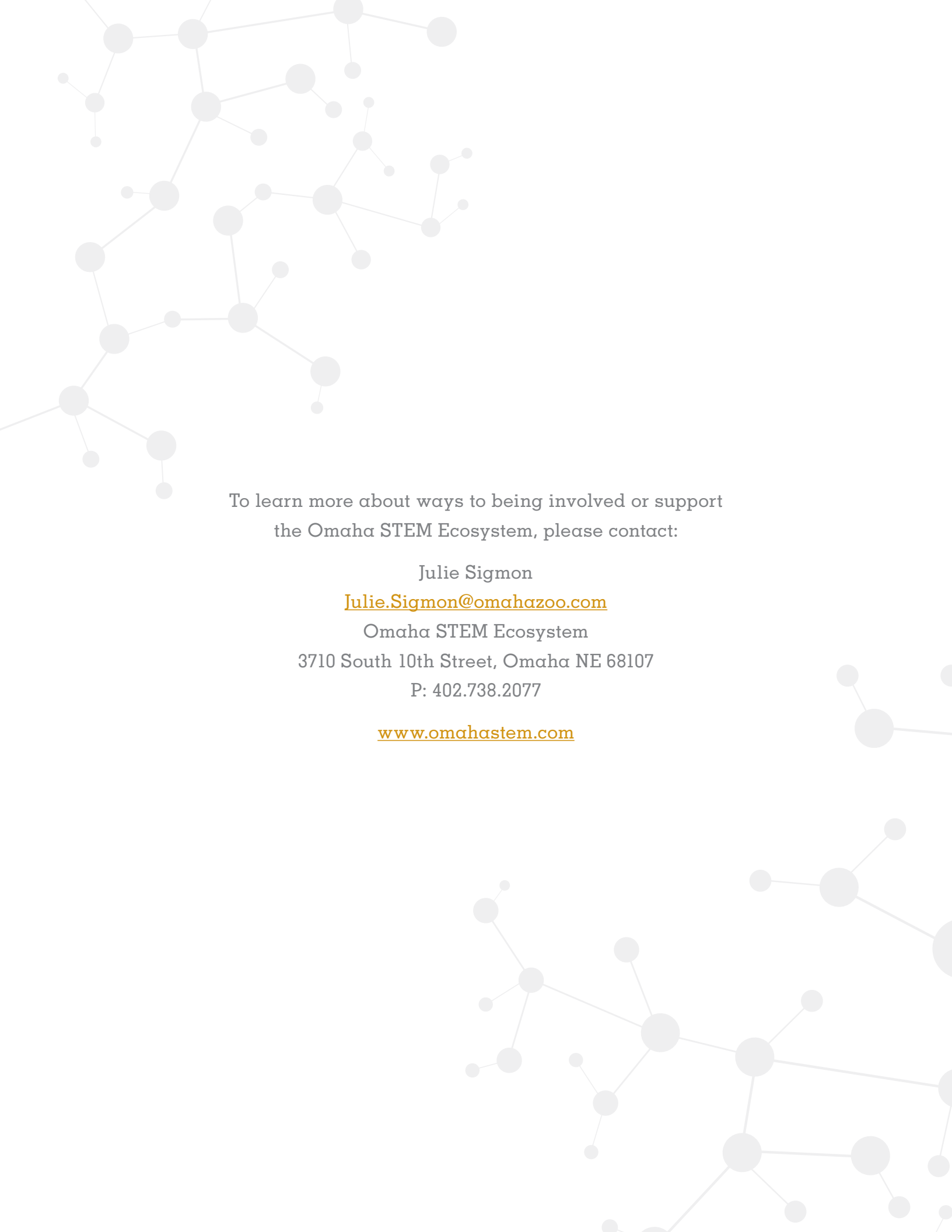


CHAMPIONS



Gary & Kathy Gates





To learn more about ways to being involved or support
the Omaha STEM Ecosystem, please contact:

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