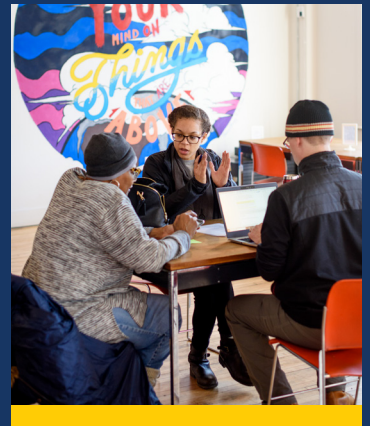




SCHOOL OF
INFORMATION
UNIVERSITY OF MICHIGAN



ENGAGED LEARNING OFFICE 2022 2023 ANNUAL REPORT



SI.UMICH.EDU



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Letter from the Director



“Your steadfast support fuels our commitment to transformative education, and we eagerly anticipate further opportunities for collaboration.”

Kelly Kowatch Director

As we look back on the 2022-2023 academic year, we want to extend heartfelt thanks to our alumni, clients, campus partners, and colleagues for their unwavering support and collaboration. It was a year marked by a return to campus life, though not without significant changes spurred by the pandemic. While students returned, their approach to education had shifted, prompting us to adapt alongside them.

Amidst our ongoing work, we collectively engaged in reflection, assessing the purpose and impact of our programs. This introspection led to meaningful changes. We refocused our efforts to embed engaged learning more deeply within the curriculum, recognizing the importance of access in enhancing the educational journey. This involved closer collaboration with faculty and the addition of two specialized roles to better integrate engaged learning.

We also made strategic decisions, retiring programs that had served their purpose while revitalizing others. Alternative Spring Break, for instance, saw a smaller cohort but continued to forge valuable connections and offer

professional development opportunities for students, while also enhancing capacity amongst our community partners. Additionally, we launched a new initiative in collaboration with student organizations, aimed at aiding their post-pandemic recovery and expanding our engagement with community organizations with needs that fall outside of the curriculum.

Furthermore, we embraced innovation by making plans for a Theme Year, designed to unite our academic and community efforts. This thematic approach promises to cultivate a shared intellectual experience, bridging classroom learning with real-world issues and enriching students' perspectives.

As we present our inaugural annual report, we invite you to join us in celebrating our accomplishments and looking ahead to future endeavors. Your steadfast support fuels our commitment to transformative education, and we eagerly anticipate further opportunities for collaboration. Thank you for your dedication to our mission.

ELO Staff

From left to right, first row: Alissa Talley-Pixley, Lara Pierce, Lori Donovan, Maggie Brodbeck. Second row: Gabrielle Strzalkowski, Adam Freed, Helmi Barzak, Angie Zill, Scott TenBrink, Kelly Kowatch.



Overview Stats



960

students participated in engaged learning experiences



72%

of partners are from public sector organizations



Introduction to ELO

What is UMSI?

The University of Michigan School of Information (UMSI) delivers innovative, elegant and ethical solutions connecting people, information and technology. The school was one of the first iSchools in the nation and is the premier institution studying and using technology to improve human- computer interactions.

UMSI offers five degrees: a Bachelor of Science in Information (BSI), a Master of Science in Information (MSI), a Master of Health Informatics (MHI), an online Master of Applied Data Science (MADS), and a doctoral degree (PhD).

UMSI's programs are broadly interdisciplinary. The faculty comes from many fields, from computer science to law to social networking to public health. The student body is likewise diverse, representing well over 100 majors.

Each member of the University of Michigan School of Information's scholarly community comes from a unique background, making the school stronger and helping to fulfill its mission of building a better world through technology and information. The faculty, staff and students reflect the intellectual diversity of the broad range of social and technological sciences that make up the unique UMSI approach to solving information problems.

What is ELO?

The Engaged Learning Office (ELO), founded in 2017, creates, manages, and facilitates high-impact student experiences that are essential to advancing the School's goal of working at the intersections of people, information, and technology. ELO programs guide students through the development and mastery of information-related and essential skills, meeting the needs of industry and broader civic society. The ELO curates a diverse portfolio of student educational opportunities that include client-based courses, study abroad, innovation, and civic engagement.

The ELO is committed to ethical and impactful collaboration with students, faculty, staff, global and local community members, and practitioners from the information field. ELO programs align with the University's engaged learning initiatives and reflect engagement best practices as recommended by the American Association of Colleges & Universities.

Engaged Learning Outcomes

- 1 Students experience a distinct educational journey enriched by active participation and diverse engagement, setting them apart in their field.
- 2 Graduates secure employment across distinct sectors and industries, showcasing the versatility and applicability of their acquired skills.
- 3 Alumni emerge as influential leaders within their respective industries and in broader civic endeavors, making significant contributions to society.

Funding

\$207,331

\$35,246 Awards

\$8,026 Project Funding

\$164,059 Scholarships

Our Mission

To facilitate transformational, high-quality engaged learning experiences for all School of Information students. We seek to:



Prepare students to be change agents in information professions and socially conscious alumni and citizens



Provide inclusive, equitable, and innovative information solutions to the local and global community throughout diverse sectors



Lead the field of engaged learning, globally and domestically, amongst Information Schools and at the University of Michigan

UMSI Alternative Spring Break participants contribute to open access mission

Martha Spall, UMSI Writer

Since 1999, University of Michigan School of Information students have been completing week-long service learning projects through the Alternative Spring Break (ASB) program. ASB connects students with nonprofit, cultural, governmental and educational institutions throughout the United States.

This year, Master of Science in Information students Rebecca Barabas and Meghan Berry worked on a mission to expand digital access to past university press publications for their Alternative Spring Break projects.

They joined a project involving the New York Public Library and the U-M Library that sent Barabas to the University of Massachusetts Amherst Press and Berry to the University of South Carolina Press. On these campuses, each student worked onsite with publishing staff and librarians for the week of spring break.

Both Barabas and Berry are specializing in digital curation at UMSI. They were interested in getting hands-on experience with intellectual property and information law while learning about how publishers and librarians work together on open access projects.

Their main objective was to assess contracts for the status of the presses' digital rights to backlist publications. Having this information organized and accessible makes it possible for the presses to publish these titles as e-books, when rights allow.

The students were surprised to find how widely copyright concerns varied among backlist publications, making it challenging to establish guidelines for their work. However, their UMSI training helped them efficiently rise to the metadata challenge.

“This week was a great opportunity to apply coursework skills like reading contracts and managing workflows in a real-world setting,” Berry says. “My experience with other client projects prepared me to quickly adapt to a new work environment and understand the USC Press’ needs and priorities.”

Students build professional perspective and network during Alternative Spring Break

In addition to the impact benefits for the hosting organizations, Alternative Spring Break gives students a chance to venture into the career path they are interested in, make connections with experts in their field, and gather inspiring experiences.

Both Barabas and Berry were mentored by university press leaders who helped them make professional connections on campus and at the New York Public Library.

“Our week with Meghan showed that programs like UMSI’s ASB have unique advantages that complement the support we get from our other interns,” says Aurora Bell, acting associate editorial director at University of South Carolina Press. “UMSI students have specialized skills that can be matched with projects, and the concentrated week-long format allows the host to make a large dent in a project quickly and for the student to gain a deeper understanding of the project.”

Barabas’ mentor, University of Massachusetts Amherst Press director Mary Dougherty, says that Barabas’ ability to “improve the project assigned to her” sets her apart. Dougherty reports that by the end of ASB, Barabas submitted a revamped spreadsheet that assessed the status of over 240 books.

“We are clearly the big winners here!” Dougherty says. “Rebecca made a tremendous contribution, and we are grateful.”

The enthusiasm and generosity of the students’ hosts made for a memorable experience. A highlight of the week for Barabas was touring Special Collections and University Archives at UMass Amherst. Berry was excited to join USC Press staff at the ribbon-cutting ceremony for a new independent bookstore in Columbia, SC.

Students, colleagues, organizations all benefit from Alternative Spring Break projects

Barabas and Berry are part of a continuous legacy of service learning and community engagement at UMSI.

By spending their spring break answering a real information challenge, they have furthered a major open access project and their own career confidence.

“This experience is valuable for the presses in helping them provide access to past publications, for the broader collaboration among libraries and university presses that this work is a part of, and for the opportunities it gave students to gain first-hand experience with university publishing,” says Jeremy York, assistant director of the Copyright Office in the U-M Library.

Alternative Spring Break is funded by donors who contributed to the Alternative Spring Break Fund.



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01 | Rebecca Barabas

Photo I took when I met some scholarly communications librarians at the library.

02 | Rebecca Barabas

I took this photo the first morning of Alternative Spring Break.

03 | Meghan Berry

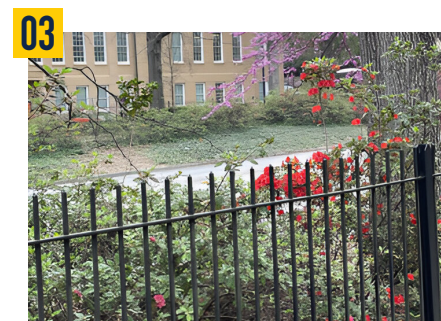
Here’s the photo from my walk across campus to the USC library today.

04 | Meghan Berry

I was able to attend the ribbon cutting ceremony for Columbia’s brand new independent bookstore, All Good Books.



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CIVIC ENGAGEMENT

The Engaged Learning Office remains steadfast in its mission to integrate community collaboration as a core component of its educational offerings.

The ELO upholds this commitment by providing diverse community engagement opportunities, ranging from short-term projects to sustained multi-year partnerships, through initiatives designed to complement students' academic knowledge while broadening their worldview and critical thinking abilities.

Through targeted community-based learning programs, the ELO has been instrumental in nurturing a robust sense of social responsibility among UMSI students. The focus is not only on student growth but also on enhancing the work of valued community and civic partners. The ELO is proud to facilitate a dynamic exchange, leading to meaningful and impactful experiences that encourage students' enduring participation in civic life and contribute to tackling the tangible challenges faced by civic and community entities.

The ELO's dedication to fostering these reciprocal relationships has not only enriched students' educational journey but has also reinforced a dedication to societal engagement, echoing the mission of the University of Michigan to serve the people of the State of Michigan and the world.

Community-Based Learning Programs

Civic Information Challenge (CIC)

In this two-part program funded by the Institute of Museum and Library Services, two focused teams of UMSI master's students utilized their community engagement skills and ability to solve real information challenges in the service of local governments.

Civic User Testing (CUT) Group

In partnership with city staff, small teams of four to six students worked over four weeks to develop, proctor, and report on user tests of government information tools with citizens of various local Michigan municipalities.

Alternative Spring Break (ASB)

Over the week of spring break, two students traveled to work at two university presses in a program that has immersed students in public sector organizations to work on capacity-building information-related projects for 24 years.

Student Organizations Engaged Learning Leaders (SO-ELL)

In this pilot program, four U-M student organizations with a combined eleven student teams were provided tiered leadership opportunities and training while student members engaged with community-based information projects.

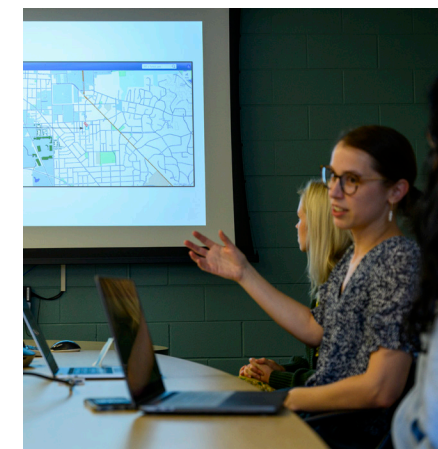


Key Civic Partners

- County of Washtenaw
- State of Michigan
- University of South Carolina
- University of Massachusetts-Amherst
- Auto Club Group
- BankBlack USA
- DPL Foundation
- City of Lansing
- Capital Area District Libraries
- City of Ann Arbor
- City of Dearborn
- Michigan Radio
- University of Michigan

"This work will make our portal more user-friendly. Which means we will gather more data. That data will mean we more accurately record our program's impact, and guide our future decisions about what outreach is effective."

-Susan Bryan, Washtenaw County, CUTGroup client



"In one week the student completed a project that would have taken a full-time staff member a month, since they would have had to spread out the work to fit it in among other priorities."

-Aurora Bell, University of South Carolina, Alternative Spring Break client



UMSI students team up with City of Dearborn to help residents access government services

Noor Hindi, UMSI Public Relations Specialist



Sometimes the most complicated problems have the simplest solutions.

That's what three University of Michigan School of Information students learned this semester while partnering with the city of Dearborn, Michigan.

Their project? Test a new visitor management system that helps residents access services at the Dearborn Administrative Center (DAC).

"I think as designers, you're typically working on the back end of a system," says Mansanjam Kaur, a Master of Science in Information student at UMSI. "You don't know how a user might react to a design. Usability testing helps us connect with users and better understand their needs."

Kaur, along with MSI students Phil Mendez, Sreelakshmi S.B. and Iris Yuning Ye spent the semester exploring the system, learning the needs of government officials and connecting with Dearborn residents to learn how the system could better help them.



I always love working with the Engaged Learning Office," says Phil Mendez. "This is the reason I went to the University of Michigan. The partnerships that ELO makes with the community and the way we're prepared for these projects is beautiful and meaningful."

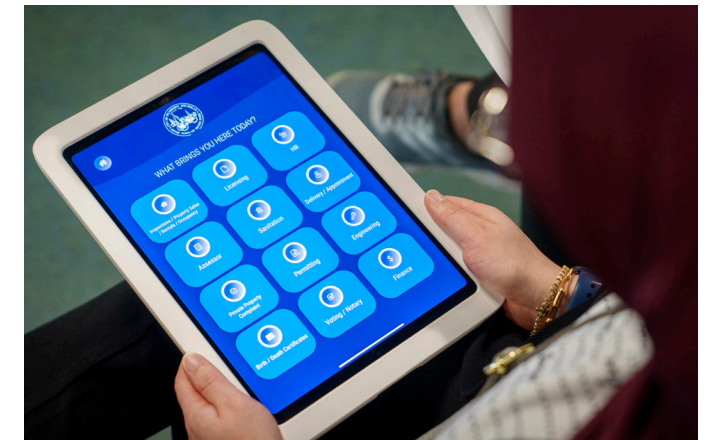
The project was voluntary and in collaboration with the Engaged Learning Office at UMSI. ELO facilitates hands-on learning experiences for UMSI students in courses and through volunteering activities such as CUTgroup.

This project is a continuation of work previously done by UMSI students over the summer. As part of SI 688: Immersive, Applied Projects in the Social Sector, UMSI students James Benjey, Jake Leslie and Zhaohui Zhao helped create a visitor management system. At the time, the DAC needed a way to help residents connect to services in a timely and efficient manner.

"The city reached back out because the system needed a few improvements," says Sreelakshmi S.B. "There were issues with the amount of information shown on the screen. They also needed an Arabic language function for residents."

Alia Phillips, director of community relations at the City of Dearborn, says she was looking forward to partnering with the ELO and working with the students again. She's already implemented the recommendations the students suggested and is seeing positive results from residents.

"I think this partnership between the City of Dearborn and UMSI is something all of us are really excited to continue and deepen over time," says Phillips. "The students have been so great, endlessly curious and incredibly helpful."



City of Dearborn resident Lama Beydoun looks over a welcome screen on an iPad during a Civic User Testing Group session with students at the Dearborn Administrative Center.

COURSE-BASED ENGAGEMENT

Amongst a variety of engaged learning opportunities embedded in the curriculum, a standout feature at UMSI is its breadth of client-based courses. These courses pair student teams with a diverse array of partners, including corporations, non-profits, government agencies, healthcare providers, educational institutions, and research organizations.

UMSI has deliberately designed a client-based curriculum to equip students with the skills needed to address real-world challenges effectively and constructively, creating a synergistic and positive impact. Through these opportunities, UMSI student teams gain invaluable real-world experience by tackling projects proposed by partner organizations. This exposure also broadens students' career horizons by exposing them to organizations and projects outside their worldview.

The Engaged Learning Office at UMSI stands out for its commitment to ethical collaboration with a wide range of organizations, fostering long-term relationships that serve the mission of each partner. The impact of UMSI students' work spans across various sectors, enriching the capabilities of technology firms, educational institutions, social service agencies, financial organizations, and healthcare providers. UMSI's client-based curriculum positions students to offer fresh perspectives, innovative ideas, and solutions that enhance organizational capacity. The recent centralization of external engagement within UMSI has streamlined the process for organizations to find suitable opportunities and to collaborate across multiple courses and years to achieve their objectives.

Client-Based Courses

- UX Field Research in the Public Sector (SI 350)
- BSI Capstone (SI 405/405 and SI 407/487)
- Contextual Inquiry and Consulting Foundations (SI 501)
- Citizen Interaction Design (SI 538)
- Engaging with Communities (SI 547)
- Preserving Information Resources in a Digital Age (SI 581)
- Needs Assessment and Usability Evaluation (SI 622)
- Assessment in Cultural Institutions (SI 633)
- MSI Mastery Courses (SI 699)
 - User Experience Research and Design
 - User-Centered Agile Development
 - Special Projects in Librarianship and Archival Practice
 - Digital Curation

Key Partners

- City of Gainesville
- Service Express
- Palo Alto Networks
- U.S. National Oceanic and Atmospheric Administration (NOAA)
- Boston Public Library
- Google
- Highland Township Public Library
- Michigan State University
- Smithsonian Institution
- TechSmith
- Workit Health
- Henry Ford
- Kroger
- DIS
- Netflix
- Detroit Zoological Society
- Microsoft
- Creative Commons
- Miller's Professional Imaging
- Buddhist Digital Resource Center
- U.S. National Park Service
- West Virginia Schools for the Deaf and the Blind

"The students had a significant impact on our organization by providing innovative solutions that have paved the way for future growth using both current and emerging technology. Their work has not only helped us to improve our current processes but has also provided us with new insights and ideas that we can use to further develop our organization."

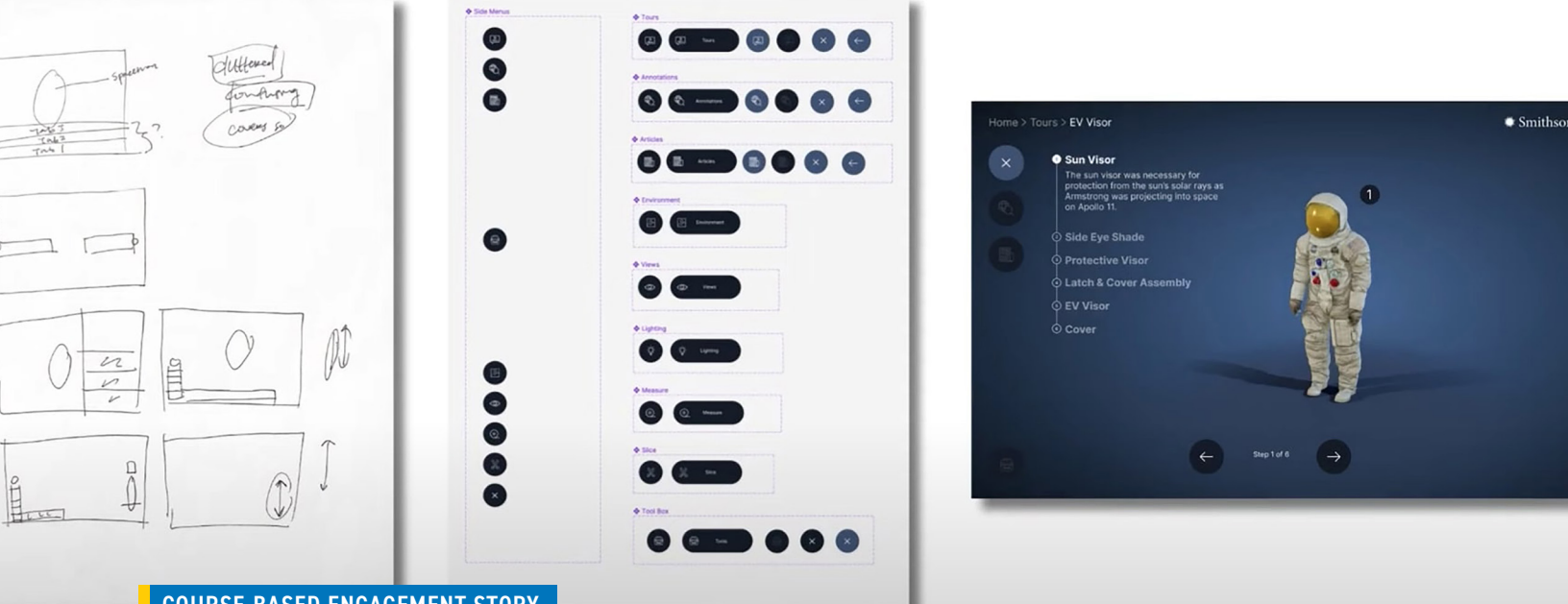
-Joshua Montgomery, Palo Alto Networks, SI 485 client



"The students delivered high quality research and communicated the results very well with my team. This project will raise awareness of user needs and pain points for a product used by tens of thousands of users each month. I expect increased support from my organization for this product as a result of this research."

-Tao Dong, Google, SI 622 client





COURSE-BASED ENGAGEMENT STORY

UMSI students team up with Smithsonian Institution to improve digital museum experience

Jeffrey Smith, Multimedia Producer

University of Michigan School of Information students teamed up with the Smithsonian Institution's 3D Digitization program to help bring space shuttles and dinosaur bones right into your living room.

Bachelor of Science in Information students Benjamin Decker, Lexi Fogel, Arjan Guglani and Christine Pak worked to evaluate the user experience of the Smithsonian's 3D content platform, 'Voyager', as part of their user experience design capstone course project.

The Voyager 3D platform seeks to bring the most notable objects of the institution's collection into the digital realm. Through the creation of highly detailed 3D models of objects ranging from fossils to spacecraft, more people throughout the world can interact with objects they might not otherwise have the opportunity to see in person.



Our goal was to figure out how they can better adapt the Voyager 3D tool to be more usable to the museum-going public, as well as educators and students," says Arjan Guglani. "We focused our efforts on usability studies and user interviews to characterize how different groups use the tool or what they expected out of the tool."

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Through the usability studies and interviews, they discovered that one of the pain points for users was a cluttered toolbar, which often caused confusion. "We tried to declutter the tool by providing better iconography and more steps and directions," says Benjamin Decker.

"I think the biggest takeaway here is the level of treatment and care you have to put into your research and avoiding bias, and building that trust," Arjan said of working with a client. "Even though we're still students, they will heed those recommendations and integrate them into a product that's used by millions of people."

Jamie Cope, lead developer for the Smithsonian 3D digitization team, and UMSI alumnus, said the students helped improve the Smithsonian 3D experience for all users. "Working with the UMSI student group was a great opportunity for us to get fresh eyes and new perspectives on our tools."

Megan Dattoria, project manager for the Smithsonian 3D digitization team also noted the students' fresh perspective and energetic attitude. "They gave us actionable feedback that we've already begun to implement."

While the undergraduate capstone course is designed to provide students with important real-world experience working with a client, Benjamin says the team found unexpected benefits during the process.

"We made such a bond over this project," Benjamin said. "I made three besties in my last semester of college, and it's all because of this project."

GLOBAL ENGAGEMENT

UMSI global engagement programs offer students the chance to integrate their Information degree coursework with hands-on learning experiences at select educational institutions worldwide.

By studying information in an international setting, students deepen their understanding of user experience and information analysis while benefitting from exposure to culturally diverse perspectives on their anticipated career area. Participating in UMSI's international programs nurtures personal development, enriches students' academic journey, expands their global outlook, and boosts their professional opportunities.

UMSI has strong partnerships with institutions worldwide. These partners are carefully identified to provide UMSI students with a robust academic experience infused with cultural richness, complementing their studies at the School of Information. Similarly, UMSI welcomes students from partner educational institutions and integrates them into the UMSI academic community. This reciprocal exchange promotes cross-cultural learning and enhances the educational journey for all UMSI community members.

In line with the practical learning approach of on-campus coursework, UMSI global engagement programs encourage students to engage with real-world challenges. This hands-on approach encourages students to "create and share knowledge so that people will use information—with technology—to build a better world."

List of Programs

UMSI Exchange Programs

UMSI partners with institutions across the globe to facilitate academic exchange for undergraduate students.

Study Abroad Incoming: Students from around the world studied at UMSI and spent a semester in Ann Arbor.

Study Abroad Outgoing: UMSI students traveled around the world to universities and took courses that are directly applicable to the BSI degree.

UMSI Short-Term Study Abroad

Design Thinking in Barcelona: In this 3-week study abroad experience, students learned about the principles of Design Thinking at the University of Vic and engaged in cultural activities in Barcelona, Spain.

Locations

- B Barcelona, Spain
- D Dublin, Ireland
- L London, England
- M Madrid, Spain
- P Prague, Czech Republic
- S Sydney, Australia
- U Uppsala, Sweden



"U-M has many specialties that we simply don't have at UNSW. For example, I took an automotive user design course taught by a former lead designer at General Motors, where we learned about car design and user interaction. The self-driving car technology in the US is legitimately years ahead of what we have in Australia, and the coursework drew on issues that were developing by the day, such as the Big 4 Automakers strike."

—Incoming Exchange Student (UNSW Exchange Student)



"The professors were great and allowed us to not only learn about design thinking but also took us on field trips to the city which were extremely beneficial. I have made so many friends and positive connections through this program!"

—U-M Student on Study Abroad - Design Thinking In Barcelona



128 Engaged Students

13 Partners

\$140,000

in scholarships awarded to defray the cost of participating in UMSI-sponsored study abroad programs. These are intended to reduce financial barriers and encourage broader participation.

INNOVATION

Equipping students for leadership roles in diverse industries such as data science, UX design, product management, librarianship, and archival work requires a comprehensive approach to preparing them for the rapidly evolving professional landscape.

The ELO offers dynamic programs designed to foster creative thinking and innovation across various disciplines. Collaborating with units across campus, the ELO also provides students with a wide range of opportunities to develop innovation-oriented skills from the perspective of other disciplines.

With a goal of nurturing innovation, students are empowered to generate, iterate, and implement technically sound solutions to address complex information-related challenges faced by organizations. By engaging students in innovative practices, the ELO fosters creativity, critical thinking, and problem-solving abilities essential for recognizing and seizing opportunities in their respective fields.

Embracing an entrepreneurial mindset, students learn to navigate risk, demonstrate resilience, and adapt to changing circumstances—skills vital for success in the dynamic and ever-evolving information landscape.

Design Jams

In these short-term learning experiences (two to five hours), students from UMSI and other U-M programs responded to real-world, societal, and industry challenges presented by sponsoring organizations.

- Learning Levers Design Jam
- United Nations Sustainable Development Goals Week Design Jam
- Rapid Design Challenge at UX@UM Conference
- Community College Summer Institute Design Jam



95 Engaged Students



4 Design Jams



30 New Ideas Produced

Co-Sponsorships

Marsal Family School of Education Learning Levers



Garret Potter, a kindergarten teacher and dual degree master's student in the School of Information (UMSI) and the School of Education (SOE), noticed the eagerness of his students to learn about the world beyond what standard curricula offered. Motivated by this, he created Everstory, an audio/visual encyclopedia tailored for early learners. Everstory allows children to explore topics they're curious about, fostering a connected web of knowledge. Potter's innovative idea received recognition and funding, including the

James A. Kelly Learning Lever Prize and a UMSI Field Innovation and Entrepreneurship Grant. Further, he secured second place in the Michigan Virtual Ed Tech Contest, obtaining additional funding and resources for his startup venture. Looking ahead, Potter plans to expand Everstory with multilingual content and hopes to involve more educators and designers to ensure its global accessibility and impact on early learners.

Research in Action

Blaurock Award

The UMSI Teresa Noel Urban Blaurock Student Research Award recognizes undergraduate and master's-level graduate students in the School of Information who are engaged in research projects in partnership with UMSI researchers. In 2023, three students were awarded this grant.



"It was through my research work with Dr. Veinot that I was able to fully realize concepts taught in my courses through practical application. I was able to practice user experience research skills I had learned in school in a real-world setting with mentorship from more experienced researchers, which has been an extremely rich learning opportunity. Upon beginning graduate school, it was my intention to gain practical skills that would prepare me for a career in user experience design. Having been able to learn and practice user research and design skills through this work, I have far exceeded this goal I created for myself. It was also my hope to be able to use my skills for the betterment of my community. With our work being primarily in the metro-Detroit area, it has been very rewarding being able to work with community members and see the impact of this work on a local level."

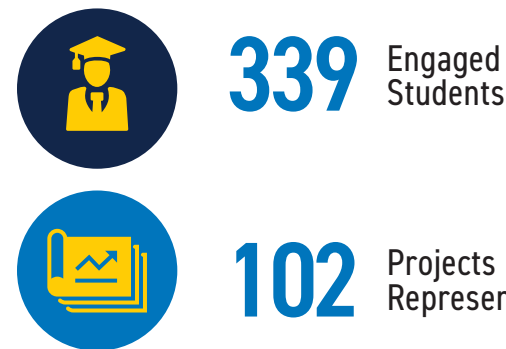
—Judah Pemble, MSI '23

"Judah Pemble has worked as a research assistant in my lab since fall 2022. He has made outstanding contributions to four different projects in that time. Among other things, this research work has involved helping to collect data, coding qualitative data, creating variables for quantitative analyses, summarizing survey free-text responses, conducting usability testing for an app for hemodialysis patients, creating technology design concepts based on participant feedback, building presentations for community partners, and presenting research findings. His work is always careful, thoughtful, deeply analytical, and creative. He has outstanding professional potential, and I hope he will pursue a research career one day as well." —Dr. Tiffany Veinot, UMSI Faculty

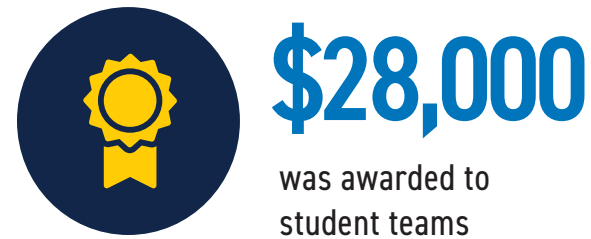
EXPOSITION

The School of Information annually hosts a poster fair to exhibit the exceptional work done by students through their courses, student organizations, co-curricular projects, and independent endeavors.

The 2023 Exposition was the first in-person Exposition since 2019, offered alongside a virtual fair, where more than 300 students presented over 100 projects. Judges from the UMSI Advisory Board, industry, and alumni from various sectors awarded prizes to winning student teams in the following categories: capstone and mastery course final projects; entrepreneurship/innovation; diversity, equity, and inclusion; civic/community engagement; and collaboration/teamwork.



- Industry and community organization leaders were invited to review posters and short videos created by students.
- Judges reviewed videos created by students and judges also had the opportunity to talk to students in-person at the Exposition.
- Presenting teams were eligible for awards and judged by a panel of UMSI-affiliated advisory board members, alumni and partners.



Final Project Awards (\$5,000 for first prize; \$1,500 for second prize)

Bachelor of Science in Information (BSI) Capstone

1st Prize **Course Kit**
Chuxuan (Claudius) Ma

2nd Prize **1st Gen Engin**
Sein Kim, Xiyu Hu, Kashaf Usman, Hiram Rodriguez

Residential Master's Programs Final Projects

1st Prize **Power to the Players: Video Games and Low Vision**
Emmy Thompson, Stephanie Tong, Elizabeth Riddle, Edith Zhang

2nd Prize **Developing a Project Management Tool for Digital Archives**
Claire Danna

Master of Applied Data Science (MADS) Capstone

1st Prize **Evaluating US School District Achievement Scores Based on Community Resources**
Kathryn Andrews

2nd Prize **Developing Online Course Recommendations**
Thomas J. James, Chauncey Raggie, Asia Paige

Thematic Awards (\$1,500 for first prize; \$500 for second prize)

Entrepreneurship/Innovation

1st Prize **Enhancing Scientific Computing Experience for Non-technical Users**
Le (Grant) Yang

2nd Prize **Optimizing Laparoscopic Surgery Training Skill**
Maria Bronson, Saumya Sharma, Xiaokun Qian, Yicheng Hong, Yujia Ke

Diversity, Equity, Inclusion

1st Prize **Sustainable Food Solutions on Campus**
Chiao Cheng, Chia-Ying Hsieh, Grace Lee, Sarah Lin

2nd Prize **RefugeeOne: Design And Build A Job Search Portal For Refugees**
Neha Kumari, Mike Wu, Tianchi Fu, Kenneth DeBacker, Yipeng Lin, Mingyu Li

Community/Civic Engagement

1st Prize **Do1Thing: Developing an App for Disaster Preparedness Education**
Grace Brindle, Jessica Browning, Steven Dobrovich, Caleb Schumake, Qingyi Wang, Zongyao Wang

2nd Prize **Preserving the Lillian Schwartz Hybrid Art Collection at The Henry Ford Museum**
Angelina Viana, Claire Danna, Gabi Acuña, Bella Barrie

Collaboration/Teamwork

1st Prize **Battling the Opioid and Mental Health Crisis with Research & Design**
Alexandra Lepore, Anders Lundin, Chloe Park, Grant Ho

2nd Prize **Neighbors Helping Neighbors**
Phil Mendez, Rena Shen, Ushio Wang, Whitney Speck, Xi Zhang, Ying Wang

PREVIEW OF 2023-2024

Whereas 2022-2023 was a year of reflection, sunsetting programs, and initiating new ones reflective of a growing school, 2023-2024 was a year of growth and stability for ELO. The ELO led the inaugural school-theme year, launched data programs, further engaged student organizations, and launched a new short-term study abroad program. Here is a preview of what is to come in next year's annual report:

Theme Year

UMSI's Theme Year initiative seeks to help students see a broad range of problems as types of information problems and adopt the lens of information professionals as they address challenges. **The goals of the Theme Year initiative include:**



Providing additional resources and depth for students' course projects or self-initiated endeavors



Connecting students, faculty, and staff on a common social issue as identified through the United Nation's Sustainable Development Goals



Practicing the lens of information, as seen in our School mission, on a topic of importance



Educating all UMSI community members deeply on an important social topic



List of New Programs

Theme Year-Water Access & Conservation

In its inaugural theme year program, UMSI leveraged one of the state's greatest assets — water. Students in courses across all programs and pathways used water conservation and access as a lens through which to learn about their area of interest in the information field.

Service Day

Students, staff, and faculty spent a day volunteering at organizations around Ann Arbor during the 2023-2024 student orientation.

A2 Data Dive

Working with local community organizations that provided rich data sets, a team of students and ELO staff brought data novices and experts together to develop fruitful insights on complex data problems in this day-long community hackathon.

Course-based Data Engagement

The ELO developed new processes and partnerships that allowed students in mastery and MADS courses to engage with real-world data projects in novel ways, enhancing the educational experience for these student populations.

Student Organization-Engaged Learning Leaders (beyond pilot)

In its first full year, the SO-ELL program connected more students to projects and organizations than ever before and shored up training for student organization leaders in the areas of project management, ethical engagement, and leadership.

Web Accessibility in Dublin

In this 3-week study abroad experience, the SI 339 course on responsive, accessible front-end programming is combined with cultural activities that enable students to learn about the unique culture of Ireland.



Water management will be one of the challenges of our generation," Michigan's Lieutenant Governor Garlin Gilchrist II told students. "In order to understand how we can meet that challenge, we need smart, we need bold, we need connected information professionals to be part of the process."





THEME YEAR STORY

UMSI launches theme year on water conservation and access

Abigail McFee, UMSI Writer

“Water conservation and access” brings a slew of images to mind: wastewater flowing through main lines to a city treatment plant, a fisherman yanking invasive mussels off the hull of a trawler, the installation of filters in communities that lack access to safely managed drinking water.

Most people don’t picture massive datasets or the backend of a website. But these are the tools that students at the University of Michigan School of Information will be using this year to tackle urgent water-related issues in Michigan and around the globe, as part of UMSI’s inaugural theme year.

“The goal of the program is to help students see a broad range of problems as types of information problems and adopt the lens of information professionals as they address challenges,” said Cliff Lampe, professor of information and associate dean for academic affairs.

The fall semester will have a regional focus, as students work with representatives from the City of Ann Arbor, the State of Michigan and the National Oceanic and

Atmospheric Administration on client-based course projects. Students, faculty and staff will be invited to attend theme-related events — including a design jam and lectures by local experts — throughout the fall, with Lt. Gov. Garlin Gilchrist II giving a keynote speech on Sept. 28 about water-related issues facing Michigan communities.



A view of the Huron River from Argo Nature Area in Ann Arbor, Michigan.

In the winter semester, the scope of the theme year will broaden to encompass global projects and partnerships related to water conservation and access.

“We selected this inaugural theme as a result of deep consideration of the United Nations Sustainable Development Goals and in recognition of our regional asset, the Great Lakes,” said Kelly Kowatch, director of the Engaged Learning Office.

Project #1 A 500-year storm in our backyard

This summer, after an intense thunderstorm that brought nearly five inches of rain in three hours, many residents of Wayne County and surrounding areas received a push notification on their phones urging them to avoid contact with rivers and flood water due to potential contamination.

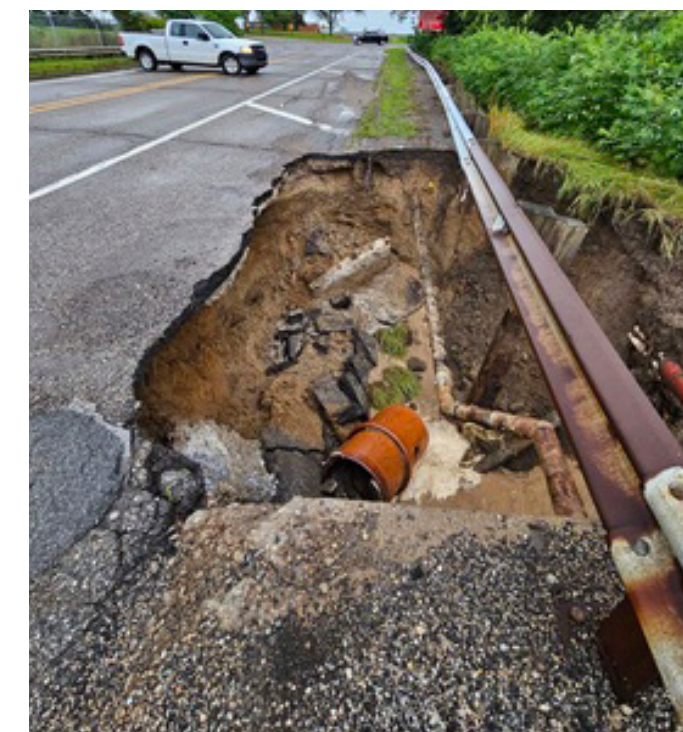
“Although it is easy to take water infrastructure for granted, managing water is an incredibly complex task that is central to societal health,” said Ben Green, assistant professor of information. “Climate change creates new challenges — not just higher temperatures, but also more intense rainstorms. A smaller number of more intense rainstorms can lead to flooding and contaminated water.”

This fall, Green is teaching SI 305 Introduction to Information Analysis alongside lecturer III Hanna Hoover. Undergraduates in this class will work with data related to rainfall, water quality and water main breaks. Using datasets from the City of Ann Arbor, NOAA and the U.S. Geological Survey, they will look for patterns to inform policy decisions related to storm management, drainage systems and water quality.

“Water protection, affordability and infrastructure are areas of growing concern in our region,” said Molly Maciejewski, interim water treatment services manager for the City of Ann Arbor. She hopes the work students do to analyze data and inform policy will also inform their own paths, leading them to “more deeply engage in water protection efforts as they

Six of the 17 U.N. sustainable development goals relate to water — from clean water and sanitation to climate action. Kowatch said these goals were important to consider because they represent issues of global concern, a criteria that all of UMSI’s theme years will meet.

“Students will have the opportunity to fully immerse themselves in an important social issue and apply what they are learning in their classes,” Kowatch said.



Heavy rains washed out the shoulder of a road in Washtenaw County. (Photo courtesy of the Washtenaw County Road Commission)

“I’m excited about having students work with real-world data at the very beginning of their UMSI experience,” Green said. “Making change with data isn’t just about knowing how to program and use statistics. It also requires navigating messy datasets, learning about complex societal domains and working with non-technical domain experts. SI 305 will push students to focus on real-world impacts as the priority of their information analysis work.”

Project #2: In the Great Lakes, a clear problem

The clear blue waters of Lake Michigan obscure a concerning reality. Over the past three decades, zebra mussels have invaded all of the Great Lakes, establishing themselves in the trillions. Each zebra mussel, striped and about the size of a fingernail, can filter up to one gallon of water a day and, with it, the phytoplankton that forms the base of the food chain for native species.

Clearer water doesn't mean cleaner water — zebra mussels produce pseudofeces that accumulate on the lake bottom, consuming oxygen and releasing toxic by products.



Mussels coat the propeller of an outboard motor. (Photo courtesy of U.S. Fish and Wildlife Service)

“Worldwide, aquatic invasive species rank along with habitat loss as the leading cause of biodiversity loss,” said Rochelle Sturtevant, program manager at the NOAA Great Lakes Environmental Research Laboratory. “The Great Lakes are no exception.”

The harm caused by invasive species is also economic. Zebra mussels and their close relative quagga mussels attach to infrastructure like the water intake pipes that carry drinking and irrigation water from the Great Lakes, costing the U.S. an estimated \$1 billion per year in removal and repair.

Sturtevant manages the Great Lakes Aquatic Nonindigenous Species Information System, a publicly accessible portal that provides the best available information on aquatic nonindigenous species in the Great Lakes, including species profiles, maps and risk assessments. The goal is to limit the introduction, spread and impact of invasive species like zebra and quagga mussels.

This semester, students in SI 307 Introduction to User Experience Design will work to redesign the data portal, making it more accessible. GLANSIS has a wide pool of target users — from a graduate student conducting research on a particular species to a congress member who needs to determine budgetary priorities to a recreational fisherman who wants to identify a species to know if it is “good” or “bad.”

“Each of these individuals would benefit from information stored in GLANSIS, but our usability testing indicates that users often ‘give up’ before finding the information they need,” Sturtevant said. “UMSI students can have a real impact by helping us to redesign the website.”

“I think it’s really cool that we’re using information to tackle invasive species and the climate crisis,” said Deja VanOeveren-Goss, a student in SI 307. “In the past, I worked in nonprofit doing watershed awareness, so this is something I felt really excited to do. It has a bit more soul than the normal marketing redesign.”

Lecturer III James Rampton, who is teaching the course alongside associate professor Eric Gilbert, emphasized the amount of access students have been given to NOAA’s data, logo and icons, which will ensure that they can create a high-quality end product.

“Our partner is eager to hear their ideas,” he said.



Rochelle Sturtevant, program manager at the NOAA Great Lakes Environmental Research Laboratory, presents to students in SI 307.

Project #3: The water we drink

90% of all U.S. freshwater is contained in the Great Lakes. Geographically, Michigan is a state surrounded by water, with borders on Lakes Superior, Michigan, Huron and Erie.

“The supply of source water is plentiful,” Kowatch said. “However, issues such as contamination, water affordability, infrastructure and conservation regularly affect the citizens of Michigan.”

This semester, master’s students in SI 501 Contextual Inquiry and Consulting Foundations, taught by lecturer III Melissa Chalmers, will work in teams to investigate a problem related to drinking water. On Sept. 11, students attended a talk by Kris Donaldson, clean water public advocate for the State of Michigan. Donaldson’s office was created in the wake of the Flint water crisis,

through a 2019 executive order by Governor Whitmer. It serves as a resource for the public, ensuring that drinking water concerns like suspected lead contamination can be reported and investigated.

Based on Donaldson’s talk and interviews with subject matter experts, students will identify a project of interest and, over the course of the semester, work to synthesize qualitative data and propose recommendations. As students of information, this is where their power lies: They will sift through the data — however murky or messy it might be — to find specific solutions.

“Water affects everyone. But some individuals, communities and countries face more adverse effects,” said Elizabeth Yakel, interim dean of the School of Information. “Information professionals can play a role in highlighting and mediating water issues.”

The Water Conservation and Access Theme Year ended in June 2024.

MAIN ENTRANCE



Thank You to Our Partners

Client Organizations

To our client partners, who provide projects, guidance, and collaborative experiences for UMSI students—the ELO could not exist without you. We appreciate your time, patience, and understanding as you work with UMSI staff, faculty, and students to be true partners in the educational process for UMSI students. We offer our most sincere thanks to you.

U-M Partners

To our University of Michigan colleagues, thank you for sharing best practices, a listening ear, and for being collaborative partners in the work of external engagement. As we aim for a streamlined and ethical process for the University of Michigan's external partners, we are grateful to work with those to share a similar goal.

UMSI Faculty

To the faculty who collaborate with the ELO to provide high-impact learning experiences for UMSI students, we thank you for teaching students the information-related skills and providing professional mentorship and support they need to deliver strong deliverables and impactful outcomes to clients—helping to cultivate a mutually beneficial experience.

UMSI Colleagues

To our colleagues at UMSI—in development and alumni relations, marketing and communications, career development, academic and student affairs, finance, human resources, and everyone else—we couldn't do this without you. We are grateful every day to work with colleagues who share our goal of providing transformational experiences for all UMSI students.



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