

"You never change things by fighting the existing reality. To change something, build a new model that makes the existing model obsolete."
– Buckminster Fuller

kynamatrix
Research Network

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innovation through collaboration
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Overview

What is kynamatrix?

kynamatrix Research Network is a framework for innovation through collaboration. We are a volunteer-operated, independent nonprofit scientific research organization founded in 2004. We view human-computer interaction (HCI) as an important tool for enriching our experience of life. We are a group of scientists, visionaries, and designers dedicated to advancing the science of interactive communication.

We promote innovation, research, and scholarship in the areas of computer science and multi-disciplinary collaboration. We foster strategic alliances between researchers in four quadrants; connecting industry, government, academia, and nonprofits.

Our name, pronounced "kinna-MATRIX", is a combination of "kyna" (meaning "intelligent; kinetic") and "matrix" (meaning "a network of intersections").

Mission

We scientifically research interactive communication through the investigation of alternative paradigms and through collaborative innovation. We are working to make technology more transparent, to accelerate the collaborative discovery process.

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Programs

We operate two programs which work together toward achieving our mission.

Program 1 Scientific Research

Innovation begins with questions: How do we make technology more transparent and useful? How can researchers across the nation interact face-to-face effectively without travel, saving time and energy? How can we help rescue-workers be more effective in assisting victims of natural disasters? We believe that new ideas are discovered at the boundary between two intelligent entities.

Through a network of researchers dedicated to the scientific understanding and advancement of human-computer interaction, we are seeking answers, solving real-world problems, and advancing innovation in the applied areas of 1) *communication*: discovering new ideas at the boundary between two intelligent entities; and 2) *public safety*: developing interactive solutions to make the world a safer place.

Visit our website to learn more about the following projects and additional research.

Project: ResearchHDDiscovery
Representing the next generation in collaborative research, this project is opening virtual windows between university labs to discover new ideas and eliminate boundaries. As tomorrow's technology leaders integrate 2-way HD into their thinking, the inertia of knowledge and experience will carry forward with these researchers as they advance their ideas, innovations, and careers.

Project: ProximityOutreach LifeLine
Millions can be left homeless when disaster strikes. We are planning sustainable and collaborative environments for the homeless to reintegrate into society. Our goal is to research, design, and document a scalable, emergency urban environment plan by creating a fractal-like recursive algorithm. We expect the plans to handle from 1,000 to 100,000 people per instance and to be rapidly deployable across the nation.

We are exploring the improvements necessary to operate such a system efficiently and effectively. Working with existing subsystems like American Red Cross, the Federal Emergency Management Agency, Hopelink, Goodwill, and others will provide the necessary ingredients to fully develop a useful management system.

Program 2 Grant Gifting

Through small grants to qualified universities and high schools, we foster collaboration and scholarship in the fields of computer science and human-computer interaction across the academic areas of art, science, music, and literature. Projects involving collaborative research using the ResearchHDDiscovery network are encouraged.

Notable Achievements

Within the Research Program, three years of planning and coordination culminated in the successful launch in April 2007 of the proof-of-concept project called ResearchHDDiscovery "Where research meets discovery in high definition."

Phase 1 of ResearchHDDiscovery established a permanent installation connecting researchers at six top U.S. universities. Carnegie Mellon University, Georgia Institute of Technology, Harvard University, Massachusetts Institute of Technology, Stanford University, and University of Washington received state-of-the-art 2-way high-definition videoconferencing equipment donated by supportive industry vendors and donated funds from public sources.

Graduate students and professors at these universities now have the opportunity to participate in face-to-face collaborative research projects. They can regularly brainstorm, develop and review inter-university graduate programs, and manage relationships with students and advisors while never leaving campus. Research labs can take advantage of the innovative systems to reduce travel costs. Furthermore, researchers can investigate the future directions which this technology enables such as: integration with operations, the remote sharing of knowledge, virtual personal assistance, and the socio-behavioral aspects of high-definition video communication.

Phase 2 of the project will connect more universities and participating researchers from industry, nonprofit, academic, and government institutions in the United States. Presently, we are assessing the usage and acceptance metrics of ResearchHDDiscovery. We will be inviting university Human Computer Interaction (HCI) labs to submit proposals.

Our goal is to raise public funds to build a network of research labs. With these funds, we will place high definition systems in research labs across the nation. We are not just placing systems to be used once; we provide a permanent installation for researchers now and in the future to collaborate and innovate.

In our Grant Gifting program, for a two year period ending October 6, 2008, kynamatrix awarded a total of \$18,500 in support of 18 diverse research projects at a number of schools and universities throughout the United States. See our website for more details.

University Coordinators

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*Professor, Technical Communication
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How You Can Help

You can make a difference by donating either financially or by volunteering your time and effort.

Donate!

Please consider a donation and remember your employer may match your generosity. We need your help to improve the educational and research infrastructure of our nation.

Because we are a volunteer-operated organization, 100% of your tax deductible donation will go directly toward our research and grant programs.

As a registered 501(c)(3) public charity, donations to kynamatrix are deductible under IRC 170. To donate or learn more, please visit our website.

Volunteer!

We value your thinking. Contribute your intellect. By volunteering as a technology investigator, the time you spend learning about and describing emerging technologies can help educate others. Your time and thoughts add value to our organization. To learn more, please visit our website. To volunteer, send an email request to volunteer@kynamatrix.org

Intellectual Property (IP) kynamatrix advocates open science and open licensing. We believe in reducing the barriers to web-enabled scientific research and we're a nonprofit organization - everything we do is free.

See creativecommons.org and sciencecommons.org for IP guidelines.

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