
Founding Dynamicland

Dynamicland is a non-profit research lab and community space whose mission is to **incubate a humane dynamic medium** — a computing environment that is communal, continuous with human life, and gives all people creative agency.

WHAT IS DYNAMICLAND?

More and more, working on a computer **isolates us more than it connects us**. We have lost what it means to work side-by-side with other people, to work with our hands, to learn from our surroundings. Humanity is withdrawing from the real world just as the world most needs our attention and care.

Dynamicland is both a new kind of community space and a new kind of computer, where people create computational media with their **hands and ordinary physical materials**, not behind screens or in VR. In this new vision of computing, people work face-to-face, think with their bodies, learn spontaneously from everyone, improvise their own tools, and explore ideas in ways that would be impossible anywhere else.

In the long-term view, Dynamicland is a deliberate next step towards a **new medium of human communication**, which is intended to transform how all people work together, express ideas, and understand the world.

Is Dynamicland like a makerspace?

Like a makerspace, Dynamicland provides tools for the community to build things with their hands. But we are inventing a new kind of computational toolkit to enable projects that could never exist before.

Is Dynamicland like the Exploratorium?

Dynamicland is like an exploratorium in which visitors can create magical exhibits of their own, and remix those of others.

Is Dynamicland like an event space or art gallery?

We envision Dynamicland as a unique event and arts venue in which speakers and artists use the technology built into the space to communicate in ways that are currently not possible.

Is Dynamicland like VR?

We think of Dynamicland as a prototype of what comes *after* VR. We'd like to combine the VR community's ideas around immersive dynamic spaces with the flexibility and intimacy of physical materials and real-world collaboration. Instead of replacing the real world entirely, Dynamicland simply infuses computation into our one shared reality, without headsets or other wearable technology getting in the way.

What is Realtalk?

Realtalk is the “operating system” behind Dynamicland—our next-generation computing platform for authoring dynamic media in the world. Realtalk is inspired by systems such as Smalltalk and HyperCard, designed to be visible, understandable, and extendible by all. It's made for people to **make things for themselves**, not download apps.

Would you say that walking into Dynamicland feels like walking into a little slice of The Future?

We would totally say that! It's our vision of a future where technology brings people together instead of isolating us.

WHY ARE YOU FUNDRAISING?

For the last few years, we've worked within a research lab (CDG, later named HARC), pursuing this vision and inventing the technology. The lab was closed just as the research reached a point where it needs to go beyond a lab and into people's hands. Dynamicland is the next stage of our long-running project to invent a humane dynamic medium.

What will the funds be used for?

In the initial development phase, we need to pay our research staff, pay rent on our Oakland space, and purchase equipment. Dynamicland is powered by dozens of projectors, computers, and other devices built into the ceiling, so we have some unusual equipment expenses.

As the project continues, community engagement will become more significant—outreach, public events, workshops, after-school programs, and hosting students, scientists, and artists-in-residence. We'll also be building mini-Dynamiclands within partner organizations.

From another perspective, funds contributed to Dynamicland are an extremely long-term investment in a particular future for humanity.

Why is Dynamicland a nonprofit?

As a *place*, Dynamicland is modeled after traditionally nonprofit public-benefit institutions such as makerspaces, museums, arts venues, and public libraries. It's intended to be a public commons where all people are welcome to create, think, and play together.

As a *technology*, Dynamicland is one stage in a long-term research project. As with the internet and personal computing, this research will undoubtedly lead to commercial applications once it's matured, and is likely to spawn entirely new industries. But, historically, fundamental advances at this level of ambition have only been successful in a research context that's insulated from catering to the immediate market. We need the time to invent a technology that will not pollute the world.

Why should I support Dynamicland?

Computing. We are inventing a next-generation computing platform, designed to be *humane and empowering*—more humane than staring at screens and poking at keyboards, more empowering than being dependent on premade apps. Dynamicland is a **Xerox Alto-sized leap**.

Education. We are creating a new medium for learners to understand the world and exercise creativity. Dynamicland will be **the next Exploratorium and the next textbook**.

Community. We are building a new kind of civic institution to bring together the local community and enable them to interact in new ways. Dynamicland will be **the next public library and town hall**, with tools created by the community, for the community.

A medium of thought. We are inventing a new way for people to see, think, and communicate. Like the **printing press and the personal computer**, this new medium has the potential to transform civilization.

WHO IS BEHIND DYNAMICLAND?

Bret Victor has been working towards Dynamicland his entire life. He started in electrical engineering, enthralled by *bringing magic into the real world*, and created a line of bestselling and award-winning electronic musical instruments. He then turned to UI design, to invent *tools for understanding*. His work twice won the Apple Design Award, including an e-book on climate change with Al Gore that “transforms the act of reading into something totally new” (HuffPo).

Upon joining Apple, Bret’s work established the “HID Proto” future-interfaces prototyping group, whose inventions have shaped the last decade of Apple products. Leaving Apple in order to work in the public domain, his research into *dynamic media for understanding systems* yielded a series of talks, including “Inventing on Principle” and “Media For Thinking The Unthinkable,” which received wide industry acclaim and spawned numerous products and companies. Design legend Edward Tufte recognized Bret as a “design theory wizard, at the cutting edge of interface designs for programming, seeing, reasoning.”

Driven by the need for a new medium to understand and address the world’s critical problems, Bret co-founded the CDG research lab with computing pioneer **Alan Kay**, and finally discovered how to close the loop and *bring dynamic media into the real world*. After three years inventing and prototyping the foundations of Dynamicland, his team is ready to make it a reality.

Toby Schachman noticed that in the best learning environments, students make more eye contact with each other than with their screens. He wants to live in a world where we learn programming the way we learn cooking, dancing, woodworking, or singing: practicing and playing together; supporting, challenging, watching, and learning from each other. He builds programming environments that support spatial reasoning, such as Apparatus, a dynamic canvas for drawing interactive diagrams, and Shadershop, which Edward Tufte described as “visual reasoning about symbolic functions. So rich, so elegant, so clear.” He holds degrees from MIT and NYU’s ITP.

Paula Te thinks and makes with her hands, and is building Dynamicland because education and learning should value the whole human body. Moreover, she is driven to make technology accessible in the widest possible sense—across cultures, abilities, and socio-economic statuses. Her research on tangible interfaces for digital fabrication has been featured at SIGCHI IDC and Prix Ars Electronica. Previously, Paula worked as an interaction designer at Xerox PARC, and in design education in Kathmandu at Karkhana and in Boston at MIT. She studied at the Copenhagen Institute of Interaction Design and MIT.

Josh Horowitz believes that new kinds of mathematical literacy will enrich countless lives and give humanity the tools to address global challenges. He is building Dynamicland to incubate the medium that will make this possible. His work is informed by experiences teaching at MIT and Stanford, wrestling with computers at Google, and wrestling with data at Coursera. He has degrees in math and physics from MIT.

Luke Iannini believes we’re at the very beginning of human potential, and that there are 7.5 billion living geniuses awaiting a chance to demonstrate theirs. He focuses on synesthetic representations to help convey ideas as holographically as they appear in our minds. Luke’s work includes *Creatura*, a centerpiece exhibit at the Children’s Creativity Museum where kids create musical creatures together in a shared world, *Rumpus*, a live-programming environment for rapid prototyping of VR worlds, and *Pattern*, a language for composing music and visual representations of music simultaneously.

Virginia McArthur is building Dynamicland so our kids will have a place to play, learn and collaborate without having to hide behind a screen to solve tomorrow’s problems. Virginia is all about getting stuff done. Before Dynamicland, she was an executive producer at EA, Hasbro and Zynga, creating games that promoted sharing and creativity, most notably the Sims. She also cofounded the nonprofit Zynga.org, which raised over \$15 million for charitable causes.

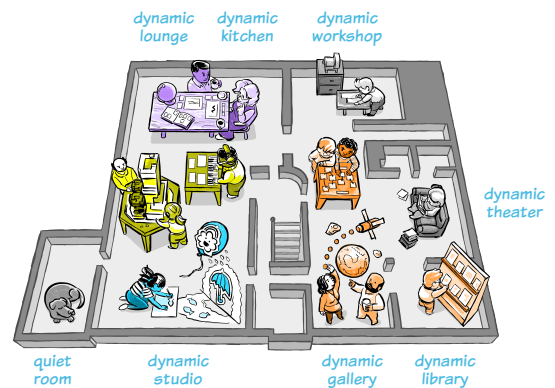


PARTNERSHIPS AND ENDORSEMENTS

Maneesh Agrawala, Professor at Stanford and MacArthur Fellow —
Bret’s vision is brilliant. Dynamicland’s focus on providing an interactive space for people to create, learn and collaborate is very exciting. At the Brown Institute for Media Innovation at Stanford we are building a physical space for our students and we look forward to building Realtalk into the space so that the technology supports our students as they develop new forms of media and storytelling.

Shawn Douglas, Assistant Professor at UCSF —
In my lab at UCSF, we are developing bio-inspired nanotechnology to treat incurable diseases such as cancer. Surprisingly, our biggest challenges aren’t technical but rather the slow process for each scientist to develop an intuition for working with biological systems. My interest in overcoming these bottlenecks led me to meet Bret and his team. They are already a great inspiration for us, and we are excited to integrate Realtalk into our work. I wouldn’t be surprised if someday it will be difficult to remember what research was like without Realtalk and its successors.

Kennan Scott, Oakland teacher and CODEd Academy founder —
Partnering with Dynamicland gets me juiced because they perfectly integrate Computer Science into MakerEd. Their work is going to push future generations of problem solvers to think creatively for new solutions. My students left the space with a greater appreciation for research and the power of tinkering.



HOW DO I DONATE?

Dynamicland is organized under a 501(c)(3) nonprofit, and donations are tax-deductible. Please get in touch at donate@dynamicland.org.

