

eleVR — Fundamental Research on Augmented and Virtual Reality

We formed in San Francisco in 2014 to explore VR as a tool for thinking, seeing, and feeling in new ways. We're using embodied cognition research to develop insight into knowledge usually labeled as intuition, bringing light to human capabilities that have been ignored by technology thus far. Many teams work on VR; we believe we are unique in the world in working constantly *inside* the medium, with a distributed team across the entire continent.

Overview:

- Research group co-instigated by Alan Kay and Vi Hart
- Created the first 360 web video player, the [eleVR Player](#), which directly inspired YouTube's 360 player
- Developed the theory of [panoramic twist](#) for 3D 360 cameras, as used in the Google Jump camera
- Advised the development of Chromium and Mozilla webVR; contributed integral content to mozVR launch
- Designed the first 3D spatial programming language

We are exploring:

- What you can think, see, and feel in a room that you can't on a page
- What a humane post-desk work environment looks like
- How living inside non-euclidean space changes your understanding of space
- Dynamic spatial tools that augment our understanding of complex systemic problems
- Art-based research for technology

Press:

- Group: [New York Times](#), [Nature](#), [WIRED](#), [Scientific American](#), [TechCrunch](#), [Bloomberg](#), [CNET](#), [Motherboard](#)
- Vi Hart profiles/interviews: [New York Times](#), [NPR](#), [Wired](#), [New Scientist](#)
- M Eifler profiles/interviews: [The Techies Project](#), [Folks Magazine](#), [Voices of VR](#), [Embodied Reality](#)
- Evelyn Eastmond projects: [BBC News](#), [New York Times](#), [Wired](#), [Fast Co.Design](#)
- Parable of the Polygons project: [Washington Post](#), [WIRED](#), [BoingBoing](#), [Salon](#), [New York Magazine](#), [The Atlantic's CityLab](#), [Hacker News](#), [MetaFilter](#), [Creative Commons](#)

"The EleVR team was instrumental in the launch and early success of 360 video on YouTube." -Andy Stack, Former Head of Creator Technology at YouTube, COO of Arcturus Studios

"Since 2014, the eleVR team has played a key role in defining the emerging WebVR ecosystem... I don't know of another team that combines such depth of engineering, creativity, and community cultivation." -Josh Carpenter, UX Lead for WebVR/AR at Google, Former Lead for Mozilla VR Team and A-Frame

Values:

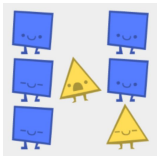
- Open research culture. Our work is open source and creative commons, constantly documented and shared.
- Working inside the medium. We strongly believe the direction of VR/AR technology should be set from within.
- Body-aware design. Technology should augment our body's abilities without causing injury or strain.
- Broad and inclusive approach. Human-empowering tools need the input of diverse experience to succeed.

Selected Projects:



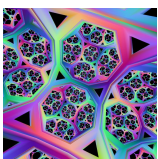
[eleVR Player](#), the first web player for stereo spherical/360 video

- Instrumental in the development of webVR
- Introduced YouTube to VR video and helped them develop their player
- Created as a side-effect of our long-term basic research process, not as a product



[Parable of the Polygons](#), an explorable explanation of systemic bias, with Nicky Case

- Proof of concept that dynamic tools can help people understand complex problems
- Played over 5 million times and used in classrooms around the world
- Foundational in the new genre of "explorable explanations"; inspired dozens of projects



[Hyperbolic VR](#), room-scale non-euclidean spaces for virtual reality

- Room-scale VR uses the body's intuition for movement to understand curved space
- We've now created 4 of 8 Thurston spaces (R^3 , S^3 , H^3 , and $H^2 \times E$)
- Covered by [Nature](#) and the [New York Times](#)

