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5-31-2016

As our lives become increasingly mediated by the internet, digital experiences take on an alarming amount of power in shaping reality. Like earlier mass-media technologies, the internet frames our perception of the environment, other people, and ourselves. While the web radically decentralizes authority and democratizes access to information, the interplay of human psychology, the architecture of the internet, and its contingency on the real world, transforms the human condition in an unprecedented fashion. The essence of this change has less to do with the quantifiable aspects of computers than with the inherently complex and often unintuitive aspects of the people who use them.

An emerging group of academics are starting to read the internet critically, although we have yet to formalize discourse about it. They look to its emergent patterns, infrastructures, and systems to reveal their impacts on human conceptualization, meaning creation, and decision-making. This critical discourse is bringing about a system of ethics, standards, and practices in the design of digital experiences, as they relate to human-computer interaction, user interfaces, telecommunication, and other useful abstractions. We have a newfound responsibility to consider the wider effects of the digital in the every day, and the semiotic implications of this new world puts more onus on artists, designers, and philosophers than on engineers or technicians.

As a designer curious about the built environment, I consider how nonhuman entities and architectures have subtle interplay with our psychology and personal experiences. In my studies of architectural history, technics, and sociology, I've become accustomed to critical theories about people, places, systems, and objects. I've been enraptured in viewing the rapidly evolving qualities of the internet and its users through the lens of 20th-century philosophy. As a millennial who has grown up inside the internet, I am privileged with a substantive perspective on how it feels to be an internet citizen from the early 2000s onward. I've been a part of the rise of smartphones and the emergence of social media, from its early message-board days to the ephemeral media feeds of today. Thus, I have some personal insight into the implicit politics and apparent design trends of the internet as a whole.

In research, I'm interested in having critical discussions about the design of digital experiences and their impacts on people, from the earliest days of computing to the near future. I wish to create/program functional systems which blend the built world with the digital to create an enhanced-but-honest expression of human knowledge, history, sensation and thought. I'm interested in nonhuman entities and how they impact our ability to acquire and maintain meaningful perceptions in an apparently chaotic world. I believe our engagement with the digital will have a massive effect on how we live our lives. I also believe the internet is an artifact which most accurately describes human thought/affect in the 21st Century.

My work to this day includes two notable extracurricular projects. The first is RIVEEL3D, a digital archeology database embodied in a comprehensive 3d scanned model of Nicosia, Cyprus. I am responsible for user interface development in Unity 3d, and have experimented with VR headsets and physically tracked controllers to realize a museum-quality educational experience. I've come to realize the limits of immersion/interaction in VR and have thus shifted my interests towards how we can use real physical space to map information in a human-intuitive way. Rather than build up an isolated virtual museum experience, I'm interested in letting smartphone users access data at real locations, based on what conceptual threads they follow. This decentralized system would allow the addition of information, commentary, and artifacts by people with different backgrounds who have proximity to a given site. As a tourist, this nonlinear, interactive exploration of real urban space would be far more enjoyable than an abstracted representation at a museum. Even a local could learn and engage with the history of their urban condition without leaving their surroundings. In this sense, the real city could become a living museum of its history, with information mapped onto real locations, asynchronously uncovered by those who are curious or nearby. The ubiquity of powerful smartphones and wireless internet would allow this to happen today.

The second project is a light and music installation called the data-radio. It's an experimental method for displaying information in an ambient fashion, without needing a screen or graphical/figural representation model. Our system uses MAX/MSP to generate patterns and colors on a light strip to reflect 11 dimensions of recorded/real-time weather conditions. The data includes accurate day-night cycles, temperature, cloud cover, fog, precipitation, humidity, and the wind. The installation brings sensible outdoor data to interior spaces lacking a physical connection to it, as is the case in many contemporary offices. With much time spent on embodying the data into expressive light-patterns, we hope that a person with this sort of light might always intuit outdoor conditions without necessarily realizing how they got the information. This alleviates the phenomenon of lost-time in isolated settings. While weather made for an expressive pilot implementation, the lighting system may communicate many kinds of real-time data, from the general emotion of recent news releases to the current inhabitation level of the building, or its energy use. The way this installation embodies information contrasts the popular pedagogy of displays and creates a passive mode of engagement with information. We hope the installation sparks thought about the freedom we have in information embodiment.