

## **Think 66: *Design that Understands Us***

A Thinking Matters Course | Winter Quarter 2018-2019

### ***Professor:***

Ge Wang, Associate Professor  
Center for Computer Research in Music and Acoustics (CCRMA)  
Department of Music (also Computer Science, by Courtesy)  
Stanford University  
ge@ccrma.stanford.edu

### ***Core Questions***

What is the nature of design—and the meaning it holds in human life? Why do we bother to design beauty into useful things? To what extent can (and should) the shaping of technology reflect our values as human beings?

### ***Ways of Thinking / Ways of Doing***

- *Aesthetics and Interpretive Inquiry (AII)*; This course centrally investigates the aesthetic dimension of design, as the shaping of technology that affects our everyday lives.
- *Creative Expression (CE)*; Design is most authentically taught as an interplay of thinking, doing, and feeling; students will be asked to design in “design etudes” in which the critical lenses they acquire throughout the course can be brought to bear.

### ***Course Description***

What we make, in turn, makes us. We find ourselves in an age of rapidly evolving technology, where the world we inhabit, increasingly, is the world we make. This course examines the nature, purpose, and meaning of *design* in human life, and asks the fundamental questions of what design is, why do we do it, and the ways in which the fashioning of technology can speak to who we are as humans. It explores design as something that both embraces and confronts technology, not purely as means to yet another end, but also in its potential for humanistic meaning, understanding, and poignancy. It asks whether it is sufficient to design from practical *needs* (as we are often taught), and examines the idea of designing from the *values* underlying our needs. You will learn about different aesthetic frameworks and the fundamental language of design so that you can begin analyzing everyday examples of media, tools, toys, and games—and apply them to the act of design conscientiously. You will also learn to think critically about the design of social networks, artificial intelligence, machine learning, robots, virtual reality—in terms of needs and values, pragmatics and aesthetics. *Design that Understands Us* is a meditation on design as the art of shaping technology—not only what it does for us, but also what it does *to* us.

### ***Ge Wang (Music and Computer Science)***

Professor Ge Wang is a designer of musical programming languages, instruments, toys, and games. He is the inventor of the ChuckK music programming language, the founding director of the Stanford Laptop Orchestra, the co-founder of Smule (a mobile music startup), and the designer of *Ocarina* for the iPhone.

***Selected Course Material***

Aristotle, *Nicomachean Ethics* (349 B.C.E.)

Mary Shelley, *Frankenstein: or, the Modern Prometheus* (1818)

Bruno Munari, *Design as Art* (1966)

Don Norman, *The Design of Everyday Things* (1988)

Ge Wang, *Artful Design: Technology in Search of the Sublime* (2018)