



IN 1995, the Japanese multinational NEC contracted me to create a vision of the "University of the Future." So I started to think about the student of 2015. It seemed to me that individual learners, linked by high-speed connections, would be able to create a peer-to-peer education for themselves. They would organize their own courses and also co-learn online, through live multimedia bulletin boards, with posts that contained graphics, sounds, hyperlinks, even videos.

Now that 2015 is just around the corner, online learning has again become a big part of the national conversation, with elite institutions like Stanford and MIT embracing the so-called massive open online courses. On one level, MOOCs are just an automation of the broadcast model, but for the kind of subject with problems that have exact answers — calculus, say, or coding — they can help teach people who might not have access to brick-and-mortar schools.

More important, though, we really are now seeing the emergence of new forms of social learning. Peer-to-peer platforms like P2PU and the Peeragogy project allow students to teach one another. And even in a more traditional teaching model, there are free and cheap tools that create a rich online teaching environment. For the courses on social media I teach at Stanford (and also on my own Rheingold U site), I use Google+ Hangouts to convene up to nine of my students through audio, video, and text chat. I can add whiteboards and collectively edit documents. And it all comes at no charge beyond my broadband connection. I suspect that NEC thought the university of the future would be far more expensive and corporate-operated than so much of today's learning has turned out to be.

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## UX

WHEN THE GRAPHICAL user interface took off in the 1980s, it presented a design challenge. Graphic designers were used to creating beautiful objects, a one-way communication that ended when the poster, advertisement, or album cover was finished. Now they were making experiences. Users weren't just looking at that icon on their desktop, they were clicking on it, dragging it, opening it. This interactivity required a new set of tools and skills. And so the design discipline of user experience — UX — was born.

With the arrival of the web, UX came into its own, transforming from a loosely defined discipline into a data-driven force. Suddenly, designers could see precisely how users experienced and manipulated their creations — and get tips on how to improve them. Every time a user typed a URL into a

browser's address field, each time they clicked the Place Your Order button on Amazon, whenever they looked up directions on MapQuest, they left behind a trail of data. The UX designer could use that information to refine the experience — making the address field a bit more finger-friendly, the button camber slightly more prominent, the map more zoomable. The web allowed artist and audience to interact as never before; customers made a product better simply by using it.

The rise of UX also shifted the priorities of the design world. Today, what matters most is not the aesthetics or design voice but how customers interact with a product. Sometimes that means designing ways for them not to interact with it at all. Think of the way Uber or Square customers can pay without exchanging cash or swiping a credit card, or the way Netflix lets users move an episode of *Arrested Development* seamlessly between their phones, tablets, and TVs. Even physical products are taking on this user-first philosophy — like the Nest thermostat, which adjusts its settings automatically based on a homeowner's natural patterns. Companies now live and die on the beauty, ease, and simplicity of their human-product interactions. Welcome to the UX generation.

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