Photo Manipulation Tools for Everyone

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Taking pictures is easy, but editing them is not. In 2012 Facebook reported that people were uploading photos at a rate of more than 10 million per hour. The overwhelming majority of these pictures are casual - they effectively chronicle a moment, but without much work on the part of the photographer. In contrast, professional artists and designers expend great care and effort in pursuit of composing and editing aesthetically-pleasing, impactful imagery. Commercial and research software offers a powerful array of tools for manipulating photos. Some of these tools are easy to understand but offer a limited range of expressiveness. Other more expressive tools are time consuming for experts and inscrutable to novices. I will describe several methods designed to make photo manipulation easier for everyone.

First, I will introduce a simple, intuitive and interactive tool that allows non-experts to recolor an image by editing a color palette. Next, time permitting, I will also preview several ongoing efforts towards making photo manipulation easier for novices, including tools that allow people to adjust camera and subject pose after a portrait was taken, and that help people manage their huge photo collections.

Adam Finkelstein is a professor of computer science at Princeton University, where he has taught since 1997. His research interests focus on creating tools that help artists express themselves in the digital medium, including photo and video manipulation and stylized rendering for animation. Finkelstein holds several patents, he has received a number of awards including the NSF CAREER Award and an Alfred P. Sloan Fellowship, and he is a Fellow of the ACM. Finkelstein was a graduate student at the University of Washington in Seattle, drank a lot of coffee, and eventually received a Ph.D. in 1996. In the late 1980’s, he was a software engineer at Tibco in Palo Alto, where he developed software for the financial industry and windsurfed in the San Francisco Bay. He was an undergraduate student at Swarthmore College (class of 1987) where he studied, occasionally, physics and computer science. http://www.cs.princeton.edu/~af/