SIGCHI 2015: Collaborating With Intelligent Machines

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Position Paper

As a media artist and designer I have been working with interactive media since the 1980s. My work has spanned areas from self-organising and generative media to synaesthetic automatic TV and interactive narrative. Throughout this the question of whether working with intelligent, interactive tools becomes a collaboration has been a recurring theme.

Due to my background in lens based media I have been following, and sometimes collaborating with, the ongoing experimental work in audio and music in parallel to the developments in commercial software and hardware for digital imaging.

In the world of imaging there is a tendency for developments of presets, plugins and filters to 'stall' around a particular look (the photoshop look, the iPhoto look, the instagram look etc.).

While there is also experimental work challenging this trend, such as the work of Adam Magyar [1] (fig 1), often the interfaces for working with machines and processes are poorly conceptualised and divorced from creative working practices.

Commonly within the field of imaging, the discussion is centered on creating new forms of narrative with existing



Figure 1: Adam Magyar's Optronis high-speed camera equipped with custom parts and a modified battery pack.



Figure 2: eSuperHighway by Nam June Paik.









Figure 3: Mountains Moving by Penelope Umbrico.

technologies, with artists and photographers from Nam June Paik [2] (fig 2) to Penelope Umbrico [6] questioning the nature of what a recorded image may be and investigating the historical and cultural origins of the camera and photograph itself. (fig 3)

Just as electronic and digital technologies have freed musical instruments from the physical constraints of the acoustic, so have digital technologies freed lens-based media from the constraints of analogue film and chemistry, allowing the potential of using data sampling and processing as means of expression.

What if we could instead broaden our understanding of what a camera might be?

Would we be able to build a camera like an experimental instrument?

Coming from a non-musical background, I am interested in exploring the three main questions proposed by this workshop, in order to re-consider my own field for creative expression. Questions such as:

What will the disappearing computer mean for media art?

How can intelligent agents be integrated into tools and processes for visual work?

How (or why) can we collaborate with the intelligent agents, emerging and already present, within our systems?

And what would be the nature of such a collaboration?

I would like to participate in the workshop to investigate, how these concerns are addressed and worked with in the field of sound and audio, with an ultimate view to extend methods and strategies to my own investigations in the field of lens-based media.

The advent of complex new imaging technologies such as Red [5] and Lytro [4] and interconnected camera systems such as those from Samsung [3] is broadening the possibilities of what can be done with commercially available tools.

How can we take advantage of this new flexibility to create new tools of our own?

Can we build a prepared camera in the same spirit as a prepared microphone?

By manipulating time in sound and vision, might we ultimately be creating tools of magic?

References

- [1] Einsteins camera, how one renegade photographer is hacking the concept of time. *matter*,. https://medium.com/matter/einsteins-camera-88aa8a185898.
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- [4] Lytro-Inc. Lytro light field camera.
- [5] Red-Inc. Red, manufacturer of digital cinema cameras. http://www.red.com/.
- [6] Umbrico, P. http://penelopeumbrico.net/.