

Digital Tools For The Creative Industries

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ABSTRACT

The creative industries like art, fashion, crafts, animation and design to name a few are very important for the wellbeing of the economy. In this paper and demo, we present novel tools that improve the presentation, simulation, creation and marketing of outputs from the creative community. Our aim is to target this non-technical community and improving their outputs with novel interactive tools using new multi-modal devices.

Categories and Subject Descriptors

D.5.m [**Miscellaneous**]: Information Interfaces and Presentation (e.g. HCI) Miscellaneous.

General Terms

Algorithms, Management, Measurement, Documentation, Design, Experimentation, Human Factors and Standardization.

Keywords

Tools, Design, Suggestions, Designers, Fabrics, Apparel, Art,
Samples, Inspiration, Community, Methods, Creativity, Sharing,
Collections, Apps, Digital, Cloud, Creation.

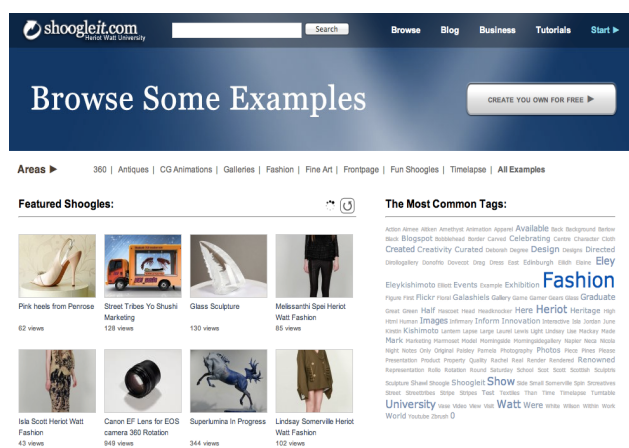


Figure 1. A screenshot of the Shoogleit cloud interface, for more details and to create your own please visit shoogleit.com.

1. INTRODUCTION

The main motivation for this work was to enable non-technical

designers to showcase their work with novel tools. We created various tools and the framework behind them. The tools exploit recent advance in human interaction, perception and engagement. Our tools allow anyone to create dynamic and interactive digital media that can be shared on the web, personal computer and mobile devices.

2. APPLICATIONS

Our first tool *Shoogleit* [1] allows anyone to create interactive objects. The tools run over the web and all the *Shoogles* (media) are stored in our cloud servers. To create interactive objects, users first need to record a short video (or capture a sequence of images) of an object in motion. Our cloud servers split video into frames. Then users can fix the frames and finally add interactivity using our web interface (see figure 1).

Our second tool Shoogleit App (www.shoogleit.com/app), will demonstrate a mobile app that allows designers and artist to create interactive portfolios of their work running on mobile devices (see figure 2). We hope artist will increase the impact of their work is they can showcase at any place or time.



Figure 2. Shoogleit mobile portfolio app.

Our final tool iShoogle [2] [3] will present a novel digital tool that improves on current archiving and simulation of fabrics by bridging the perceptual gap (human and digital) based on recent research in educational psychology and HCI (see figure 3 for an example or browse our video demos).

For iShoogle, while sophisticated devices for displaying and recording fabrics do exist. Creating a system that will only use widely available devices was our challenge. In our system, the recording requires nothing more than a consumer grade camera. Archiving and managing designs is achieved through a web interface running in the browser connected to our cloud servers.

The iShoogle interface can demonstrate apparel and it works on any iOS devices (iPad and iPhones).

3. DESCRIPTION OF THE DEMONSTRATION

We will showcase our various tools live using a small tumbler, a small camera, a laptop and various iPads. The presentation physical space can be limited to a single table. Various demonstrators will also show interactive objects on mobile devices like iPads and iPhones whilst explaining the technology and the innovation behind it.

The iShoogle demo will consist of a number of iPads running iShoogle fabric simulators and a setup where conference attendees will be able to archive fabrics or objects that they carry with them such as scarfs or sweaters. With their agreement, these objects will be archived to the cloud and users can interact with them using our mobile app.

4. TECHNOLOGIES AND INNOVATION

Our work in tools is built upon recent achievements in HCI, perception and educational psychology to achieve novel interaction systems. Shoogleit has become a popular tool for creating interactive samples with more than half a million views [1] and previously presented by Padilla et al [1].

For iShoogle, we achieved the adoption of a novel gestural interaction system while trying to strike a balance between learning and discovery of features. In Woobrock [4] users presented gestures based on the expected reaction, while our iShoogle interface is inspired by gestures based on searching known qualities. Orzechowski [2] attempted to establish a link between searching for a quality (like 'stretchy') and performing a certain gesture to assess it (pulling fabric apart with two hands). These natural movements of fabrics were transformed into touchscreen gestures in the expectation that performing them on screen will help us assess the same qualities more accurately than on the state-of-art fabric archiving tools.

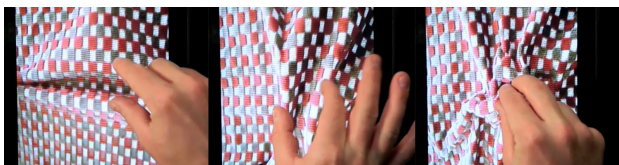


Figure 3. The iShoogle multi-gesture app demonstrating pinches and scrunch of a fabric.

In iShoogle when a gesture is performed it triggers a stop-motion animation of a fabric being deformed by a similar gesture (e.g.

pinching triggers the animation of a pinched fabric), the direction and speed of the gesture directly influence the movement of the fabric. Multiple deformation sequences of a fabric are pre-recorded and they share certain frames that make it possible to switch between different gestures performed by the user. The effect is a simulator-like interface where movements correspond directly with the visual stimuli displayed on the touchscreen.

We are currently investigating whether a touchscreen interface which uses well known real-life gestures (stroking, pinching, crunching) is easier to learn than interfaces using unknown gestures or even known GUI elements such as sliders.

5. TECHNICAL REQUIREMENTS

As some of our tools run on the cloud an Internet connection (Wi-Fi) is required. Also, space to demonstrate the creation of Shoogle is also required like a table or two.

6. CONCLUSIONS AND EXPECTATIONS

We hope to demonstrate the impact of our tools within the creative industries whilst showcasing our advances in human computer interaction and perception. Our expectation is to show attendees how our digital tools can change the community and their workflow.

7. ACKNOWLEDGMENTS

iShoogle concept originated within Digital Sensoria (EP/H007083/2), research and development jointly by Digital Sensoria and IMRC (EP/F02553X/1), software developed by IMRC.

8. REFERENCES

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