Two Perspectives on the Designer-User Relationship

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ABSTRACT
In this paper, we use two audio/visual performance projects based on differing design approaches to consider the relationship between designer and user. Using the examples of *OverWatch* and *Waves*, we examine similarities between classical designer-user development processes and practice-based scenarios where designers draw upon native knowledge of the design space.

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Design, Human Factors.

INTRODUCTION
The field of human-computer interaction (HCI) offers us a range of approaches that we may follow when designing interactive technology. Depending on our choice, the roles of the user and designer may vary significantly. In traditional design processes, the designer has minimal contact with individual users, relying on a requirements specification that they may have had little or no role in researching. This contrasts with the approach of the stereotypical art practitioner whose work is autobiographical and primarily responds to their own personal aesthetic preferences. Most modern design practices are sited somewhere along this spectrum, for instance, in participatory design [3] the user and designer become collaborators in the creation of the product. A perceived advantage of working closely with, or considering onself as the user (as in the case of autobiographical design [4]) is the potential depth of insight gained from immersing oneself in the design space. Conversely, maintaining a distance from the user allows an objective view of the design problem.

The spectrum of approaches in design is no more apparent than in the fields of audio/visual (AV) performance where practitioners commonly craft their performance setup from a combination of off-the-shelf and self-made technologies. Previous projects that explore art practice from an HCI perspective have designed from various positions on this design spectrum ranging from the autobiographical through participatory approaches to more traditional paradigms.

In this paper we draw on our experiences of creating interactive technologies for AV performance from two distinct points on the spectrum of design intimacy in order to highlight their differences and similarities. We explore *OverWatch*, a project led by Guy Schofield using his own existing creative practice as a test-bed for concepts to be later developed for a wider audience and compare this to *Waves*, a performance system designed by Jonathan Hook in response to the personal practice of an audiovisual artist. Moreover, we draw on different perspectives on the design process afforded by our differing backgrounds as researchers[1].

Figure 1. Waves (left) and OverWatch (right)

TWO PERSPECTIVES ON DESIGN
OverWatch is a performance project involving direction of a real time computer graphic (CG) movie using live musical performance which forms part of an on-going inquiry into developing new techniques and tools for creative practitioners working in live AV contexts [4]. The research centered on the development of both a system to map features of the musical performance to virtual camera controls and creative content with which to test it. *OverWatch* takes the form of a 30 minute theatrical performance where editing, camera movement, animation and lighting is affected by a musical score played by the researchers in front of a live audience. The work emerged largely from the researchers' own creative practice as video artists and musicians and was intended to provide tools for their own performances as well as those of other users.

By testing the performance themselves and essentially occupying a dual role as designers and users, the researchers were able to directly experience the impact of their design decisions, eliminating some of the need for traditional user requirements extraction. Placing the

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[1] The authors approach HCI research from differing backgrounds, Guy Schofield as a visual artist and musician, Jonathan Hook as a Computer Scientist.

researchers squarely within the performance frame allowed a depth of insight that may have been lacking in a classical design process where a designer might evaluate the piece at one remove. Their position within the piece required a considerable consideration of and investment in each individual design decision as any failure in the system would reflect instantly upon the performers. The researchers found that viewing their performance practice through the lens of a design research project forced a heightened awareness of their own decisions especially during performances and became a valuable tool for self reflection.

A particular challenge of this approach was to constantly acknowledge the necessarily subjective nature of the designer/user's perspective and employ strategies to allow proper self-reflection and evaluation to take place. In the case of *OverWatch*, this manifested itself as an uncertainty concerning how well the audience could read connections between the musical score and the visual content, something that could be easily discerned by a spectator. Also, as the researchers were working within a familiar discipline, there was a constant concern that research insights that might be valuable for other users might go unreported if the performers wrongly assumed they were common knowledge. A less tangible concern was the effect that reframing a creative practice in research terms could have on the practice itself. Shifting the focus of the performance from its own internal goals to those of satisfying a research process might well compromise its success as a piece of art.

Waves is a multi-touch interface for the manipulation of CG visuals during a live AV performance. *Waves* was created by Hook as part of on-going research into the expressive interaction of video-jockeys (VJs). The user interface was designed in response to the preferences of an individual artist, which were ascertained during a series of interviews that addressed the relationship between his practice and the elements VJ expressivity revealed in [1]. During a *Waves* performance the VJ manipulates and collages a range of visual elements, which are created prior to the performance with the technical assistance of the researcher. These are then projected on a large screen for an audience to see.

A major advantage of the more traditional designer-user relationship utilized in the making of *Waves* is the objectivity that a designer can bring from outside the design space. By considering user's performance practice from a spectatorial standpoint, the designer may more easily identify features which might be applicable to a wide range of practices rather than just the one in question. Additionally, when taking an external viewpoint the designer may also be sensitive to subtle elements of a practice, which may go unnoticed by the native who may take them for granted. Furthermore, it was found that the act of challenging the performer with ideas and designs external to their creative process had the potential to inspire insights into their own practice.

Challenges were however faced when addressing an artist's practice from a peripheral standpoint. Unlocking aspects of the artist's experience when performing with *Waves* proved particularly difficult. Although able to rely on traditional methods of investigation such as interviews, observation etc, the researchers were unable to directly experience the user's perspective on their practice. This was a particular handicap in the case of tacit aspects of experience. As *Waves* was designed by the researchers, they feared that the artist would not be as invested as if it were a piece they created entirely. To circumvent this, the design was iterated in response to the opinions of the artist and he was given the opportunity to take the lead when creating the visual materials that comprised the performance. Despite these efforts the researchers still sensed a detachment between the performer and piece, as if they were a subject in an experiment (which of course they were). Finally, Hook also experienced a fear of imposing his own creative input on a practice that was obviously personally significant to the artist, not least of which because of a perceived mystique surrounding artistic practice. Coming from a Computer Science background he felt somewhat unqualified to offer input seen as purely creative.

CONCLUSIONS

In the development of both Waves and OverWatch, the researchers began their inquiries from particular positions on the spectrum of design intimacy. Over the course of each project we found that our practices converged in many respects, the most pertinent of these being the evolving relationship between the design process and our own personal creativity. In the development of OverWatch, Schofield was able to reflect on his personal creative practice using strategies such as McCarthy and Wright's Threads of Experience [2] to harness his personal creative goals as a mechanism to inform design that would be useful for others. In contrast, by embracing his own creative input into the design of Waves, Hook was able to create a system that not only responded to the user's needs but inspired them to reflect upon their own practice by offering novel avenues for exploration.

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