

SCREENFACTION: Supporting Creative Remote Communication in Film Scoring

by Julien Phalip
BSc., MSc., PhD.

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Parts of this doctoral thesis appear in other publications:

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Preface

Before jumping right in, I shall briefly introduce my background and the original motivations that led me to start this journey in postgraduate research. This may, I hope, help the readers and examiners of this thesis understand the orientation that I have taken throughout this PhD.

I was born in Reunion Island, a tropical little piece of France in the Indian Ocean, and spent the first 18 years of my life there until I received my high school diploma. Then, I moved to Toulouse in the South-West of France, my parents' native region, to undertake a Bachelors degree for four years in Mathematics and Software Engineering at the Paul Sabatier University. I then spent one year at the National School of Civilian Aviation (ENAC), where I eventually graduated with a Masters degree in Human-Computer Interaction (HCI). As part of this degree I was required to carry out an internship, which I was fortunate to be able to do in Sydney at the Commonwealth Scientific and Industrial Research Organisation (CSIRO), Australia's national science agency, under the supervision of Dr Cecile Paris. At the end of this internship I was hired by the CSIRO on a one-year contract to work in the field of Natural Language Processing. This fantastic experience enticed me to remain in academia seeking opportunities for PhD research. This is when I met Professor Ernest Edmonds, Director of the Creativity and Cognition Studios (CCS) at the University of Technology, Sydney (UTS), who was to become my supervisor. As a trained musician (I had studied clarinet and classical music at the Conservatorium and had played in symphonic and brass & wind orchestras), I was instantly attracted by the research undertaken at CCS as it tackled fascinating aspects of art practices. A few months later, at the beginning of 2006, I was privileged to be awarded scholarships by the Australasian CRC for Interaction Design (ACID) and the Regional Council of Reunion Island, starting my PhD in a domain that is a passion of mine: film music. Three and a half years passed. Now, here I am, honoured to be writing this snapshot in the life of a student researcher.

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I would also like to thank Matthew Morphet, a multi-talented composer and interaction designer, for mentoring me in the design phases of this work. And thank you to David Jean, who came from France to do his internship at CCS and helped me develop the early prototypes.

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Mia, you took care of me and made this journey seem so easy. Your presence is such a blessing for me.

I'll switch to French now, as I can't seem to get used to speaking in English to my family. Maman, Papa, Etienne et Mamie Reine, merci à vous tous pour vos encouragements continus, pour m'avoir rendu visite si souvent et pour m'avoir soutenu tout au long de cette aventure. Je vous serai éternellement reconnaissant.

Abstract

The research in this PhD thesis is concerned with the development of design principles and of computer tools to facilitate remote communication between stakeholders in the film scoring process.

Film scoring is a creative, multidisciplinary practice that involves two key parties: filmmakers (film or television directors and producers) and composers. In the position of clients, filmmakers start by hiring a composer and provide an oral or written brief describing how the music should support their vision. Then, musical ideas are discussed and developed through creative collaboration between the two parties until the score is completed and released with the picture to television or theatre. In this context of collaboration between music specialists (composers) and non specialists (filmmakers), certain problems repeatedly emerge primarily due to practitioners not sharing the same musical language. In fact, previous ethnographic records and trade literature have shown that this creative collaboration can face large levels of misunderstanding and frustration, and that little has been done to help practitioners communicate accurately and efficiently. With the advent of the Internet and fast bandwidths facilitating the exchange of heavy media such as video and music, it has also become commonplace for composers to work with filmmakers located in different cities or even countries. Although this situation greatly opens the market and brings new opportunities for collaboration, communication now faces new obstacles. In the absence of face-to-face, challenges can be aggravated as interactions between people are drastically limited.

Considering advances in recent technology and related academic endeavours, the research in this PhD concentrates on alleviating communication issues in remote settings through the use of computers. The research methodology was inspired from several domains and approaches, namely Human-Computer Interaction (HCI), Computer-Supported Cooperative Work (CSCW), ethnography in design, evolutionary prototyping, interaction design and goal-directed design. An

exploration phase included a longitudinal study with 31 practitioners and a 5-month long case study with 2 practitioners. The exploration identified communication challenges recurrently faced by practitioners while collaborating on film score productions. Based on the observation of habits articulated by practitioners to address the challenges, a set of guidelines for best practice were also developed. For clarity and ease of comprehension, challenges and guidelines were classified into four main levels of concern: organisational, interpretive, emotional and indexical.

A design phase comprised of two studies was then conducted to progress towards appropriate solutions for these communication issues. The first study led to the assembly of personas to facilitate the understanding of the main roles involved in the film scoring process. The second study showcased the design of a low-fidelity, paper-based, prototype to assist the remote discussion of music and video artefacts.

A high-fidelity version of the prototype, named *Screenfaction*, was later implemented as an interactive Web-based platform. This version was then evaluated over a four-week period with two practitioners in real-world conditions. Outcomes from the evaluation have stressed a need for establishing a clear scope in creative discussions and for resolving the ambiguity that occurs in remote collaboration. Feedback from participants also revealed the complex nature of the composer-filmmaker relationship and highlighted some interpersonal, technical and coordination issues that should be addressed when designing systems for distant communication.

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