

PROCEEDING FROM PERFORMANCE: AN ETHNOGRAPHY OF THE BIRMINGHAM LAPTOP ENSEMBLE

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ABSTRACT

Inspired by recent third-stream research in the field of human computer interaction, we describe a recent ethnomethodological study of the Birmingham Laptop Ensemble (BiLE) and detail our approach to thick description of the group's working methods. A core aim of this work was to examine the range of performance modalities that players engaged in during the course of a composition. Initial findings show how traditional notions of composer and performer roles are complicated by the stakeholders in the collaborative process, who engage in both infrastructural and instrumental modes of design. We conclude with a series of observations that highlight the socially constituted nature of the group's performance systems and practice.

1. INTRODUCTION

This paper charts our initial efforts to characterise collaborative musical interaction in the Birmingham Laptop Ensemble (BiLE) through ethnographic examination of the group's working practices. Historically, ethnographic research methods have been valued for their potential to highlight the complex, socially constructed nature of interaction, such as when considering how particular musical communities of practice operate [5]. This contribution has been summed up as "the demonstration that culture can be viewed from inside its arrangements and relationships" [4]. The value of ethnography in the study of ensemble laptop performance is its potential to illuminate the differing perspectives of group members and to place the social dimensions of collaboration at the centre of inquiry. This is of particular relevance in a practice-led field which has largely been documented by its members or directors [11] [2] [10].

2. AN ETHNOGRAPHY OF BILE

The Birmingham Laptop Ensemble was founded in January 2011 by a group of postgraduate composers working within the Music Department of the University of Birmingham. At the time of the study, the group consisted of musicians Shelly Knotts, Charles Hutchins, Julien Guillaumat, Norah Lorway and Iain Anderson, and visual artist

Antonio Roberts. The overall approach of the group proceeds from a desire for each member to be regarded as a stakeholder in the collaborative process. As such, the group see themselves as closer in spirit to ensembles such as The Hub [9] or the Huddersfield Experimental Laptop Orchestra [10] than more formally directed approaches such as those proposed by the traditional LOrk model [11]. In their own words, BiLE emphasise: "integration, collaboration and the blurring of the distinctions between composer - performer - collaborator in a democratic non-authoritarian ensemble" [1].

In order for members to act as effective stakeholders in the group, it is important that they are able to draw on their existing composition and performance experience. However, as these skills differ significantly from member to member - and are often grounded in different software environments - a key challenge is how to foster meaningful collaboration in an ensemble of mixed abilities. To investigate these issues further, the first author accompanied BiLE during their weekly rehearsals from October to December 2011. The approach to conducting ethnography in this context is grounded in a number of existing research perspectives, drawing on ethnomethodology - a phenomenological method originally proposed by Garfinkel, which foregrounds the routine grounds of everyday actions [7] - as well as Geertz's technique of thick description [8], which represents one way of documenting such actions and subjecting them to formal analysis.

In technologically mediated contexts, thick description in the traditional sense is not sufficient to capture the interaction occurring at the interface. Here we take inspiration from Crabtree et al's evaluation of ubiquitous computing environments, which employ thick audiovisual methods to capture the underlying interactions of players with their systems [6]. In our approach, we used fixed cameras to capture close-up video of each performer and sought their cooperation in recording their screen activity. Audiovisual material was also captured at the group level, including wide angle camera footage, timestamped system logs of the group's networked chat system and more traditional field notes. Taken together, these materials provide a rich corpus of data on ensemble interaction.²

²See [3] for more detail on our data collection and analysis methodology.

3. PERFORMANCE MODALITIES

Performance modalities can be defined as the distinct activities that group members engage in during the course of playing a piece. In what follows, we formally identify five modalities that were required to realise *Laptopera Act 2* by Charles Hutchins. Our aim was to identify the stakeholders involved in each modality, the systems developed and used in each, and the way in which these systems were adopted in their totality.

In BiLE practice, the composer is charged with the task of proposing an initial idea to the group and guiding the process of collaboration to a satisfactory end point. In the case of *Laptopera*, the initial idea was presented in the form of a technical document - which provides instructions for performers - and a text score, which requires players to vocally perform and record lines taken from spam e-mails. A key feature of the piece is that recorded material can be accessed by all members of the group, allowing newly recorded lines to be juxtaposed with processed versions of existing material.

It is worth mentioning here that the score does not allocate specific modalities to specific performers; rather it is the case that all the modalities defined below are employed by all members of the group.

3.1. Hosting and Connecting to the Shared Folder

In *Laptopera Act 2*, the sharing of sound files between group members is specified by the composer and is fundamental to the character of the piece. This modality is a preparatory technical stage specified by the composer, which requires a single player to host a shared folder on the local network, which others can then connect to as clients. This is accomplished using the native folder sharing features of the Macintosh OS X operating system. Figure 1 provides an overview of this process, where solid lines in the diagram indicate local access by the player hosting the folder and dotted lines represent players accessing the shared folder remotely over the network. It is notable that performers are not stakeholders in this process and must simply follow a predefined set of instructions, with little room for individual differences.

3.2. Voice Recording

As stated, a key requirement of the piece is for players to vocally perform and record lines of dialogue to the previously established shared folder. Figure 1 provides an overview of this recording process. As observed during analysis, players keep a copy of the score open on screen at all times (see Figure 4b), which they refer to when choosing a line and also read aloud from during the act of recording itself. In addition, line choice also depends on other players. As stated in the technical document for the piece, "once a line is recorded, other players may record that line (or fragments of it) again, but cannot backtrack to a previous line."

In early rehearsals, players were able to choose between a Max/MSP or SuperCollider patch to handle recording, depending on their preference. However, the group later experienced technical difficulties reconciling these two patches and the composer took the decision to standardise the SuperCollider patch (see Figure 4a) across the group. Technologically, this emphasises the role of the *composer-designer* as a stakeholder in standardising interactions that are not seen as contributing valuable individual differences to the piece. From our observations, it can be said that what mattered to the composer here was not the way in which lines were recorded, but rather the way performances differ in terms of content and vocal style.

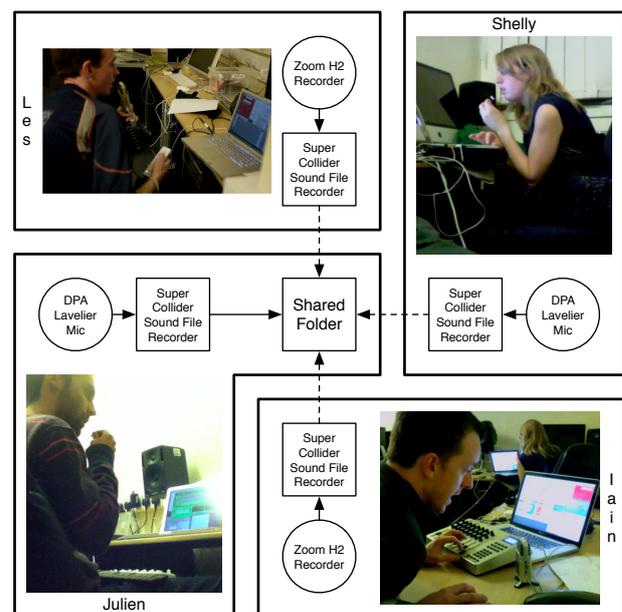


Figure 1. Voice Recording.

3.3. Voice Processing

BiLE practice requires members to develop their own approach to performance, where each member "is free to interpret the sound production elements of the piece" [1], representing the tacit acknowledgment that engaging in design serves as a motivation to perform. In the case of *Laptopera Act 2*, "sound production" refers to the way in which performers playback and process previously recorded lines from the shared folder. The type of design engaged in here is instrumental in nature and differs significantly from the composer-centred and primarily infrastructural form discussed in the previous section. Here, the performer is the key stakeholder, and the process differs from player to player according to their individual abilities and values. This does not mean that performers can design any type of instrument, as while they are free to implement the low-level details as they see fit, the patch as a whole must still conform to the basic category of a voice processing instrument, as specified by the composer.

What is perhaps most important to note about the voice processing modality is that individuation occurs at the level of instrument design, not just playing style. Figure 2 shows

how these voice processing instruments differ in terms of their chosen interfaces - and is illustrated by a series of still images taken from rehearsal footage - whilst Figure 4c shows the graphical user interface of one player's instrument.

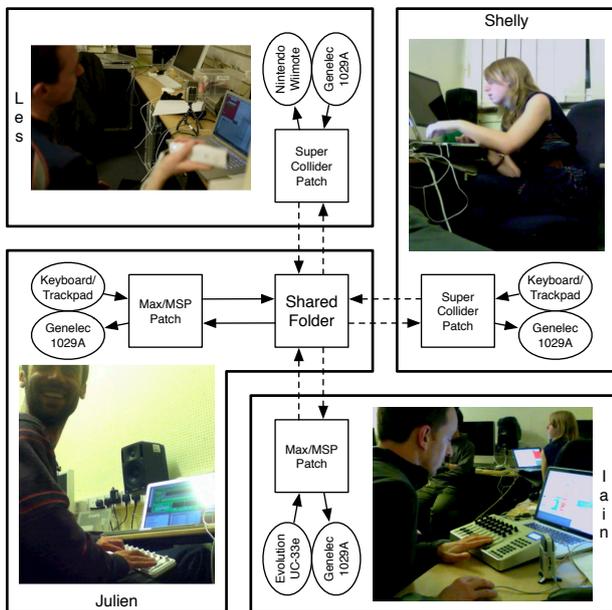


Figure 2. Voice Processing.

3.4. Sound File Playback

In addition to the vocal material, the score also calls for players to select and play sounds taken from Stockhausen's *Studie II*. These are required at the beginning of the piece, but may also be interspersed throughout. Although approaches to sound file playback are not as highly individuated as in the voice processing modality, the process is still approached in a number of different ways, with players accessing sounds from the OS X finder (Les), from the recorder patch (Shelly), or integrating them into their custom designed instrument patches (Julien and Iain).

3.5. Posting to Chat and Starting the Clock

In this modality, players make use of a network tool, written in SuperCollider. The tool itself can be seen in sections e. and f. of Figure 4. In BiLE practice in general, chat is primarily used to announce technical problems or to check when all players are ready to begin playing. The chat function of this tool plays a special coordinating role in *Laptopera Act 2*, where it is used to announce codes, which give the section and line number of recently recorded lines, in the same way they are referred to in the score. This allows players to track their position within the piece at any given time.

In addition to this chat functionality, players may also use the network tool to start or reset a shared clock. This process has something in common with the afore/-mentioned modality of hosting the shared folder 3.1, in that a single player must take on the role of starting the clock when the piece begins.

It is notable within this modality that use of the network tool is not specified explicitly by the composer or by performers but is instead emergent in nature, in that it forms part of the existing practice of the ensemble.

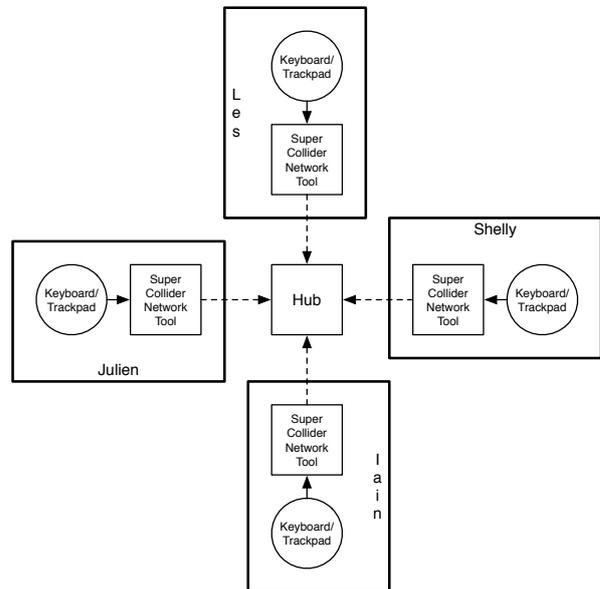


Figure 3. Posting to Chat and Starting the Clock.

4. SOCIALLY CONSTRUCTED SYSTEMS

What becomes apparent from the previous examination of performance modalities in *Laptopera Act 2*, is that performers systems as a whole are a complex, interlocking mix of instrumental and infrastructural software, which must be adopted in their totality in order for players to be able to successfully perform the piece. We define these here as *socially constructed performance systems*, where Figure 4 shows the different elements involved in such a system from the perspective of an individual performer. Such systems represent the socially negotiated needs and requirements of different stakeholders in the group, in this case consisting of standardised infrastructural aspects specified by the *composer-designer*, and individuated aspects contributed by each *performer-designer*.

There is no doubt that socially constructed systems pose a number of challenges for interaction, such as the degree to which performers are able to devote attention to each of the constituent elements, the extent to which these elements can be successfully integrated into their practice or adapted to their needs, and the ease with which players can switch between different performance modalities that the system as a whole affords. In Les' case, his instrument was tightly integrated with the sound file recorder by design, allowing newly recorded soundfiles to be selected immediately by using a button on the Wii Remote. In contrast, Iain kept a copy of the shared folder open and monitored the addition of new sounds, before choosing these from a menu in his patch. Julien also took this approach, but dragged sound files directly from the shared folder into his instrument window.

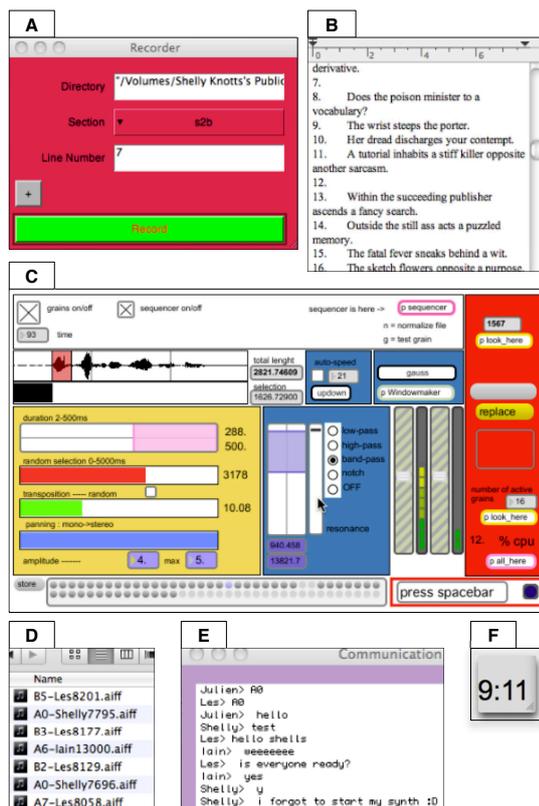


Figure 4. Elements of a Socially Constructed Performance System.

5. CONCLUSIONS

In the course of this paper, we have presented an ethnographic study of performance modalities in BiLE’s Laptopera Act 2, identifying the stakeholders involved in each modality and considering how multiple modalities manifest themselves as socially constructed performance systems. Our investigation shows that whilst traditional roles of composer and performer are present within BiLE practice, the consensus driven nature of the group produces a dynamic set of orientations, which do not strictly define players’ sole activities. Instead, interaction is perhaps best understood with reference to hybrid roles such as a) the *composer-performer*, reflecting the fact that the member who conceives of a piece is also involved in playing it, b) the *composer-designer*, reflecting the need for composers to design infrastructures which aid realisation of the piece by simplifying interaction, and c) the *performer-designer*, reflecting the fact that performers are required to design instruments which stand apart from each other. As these latter two roles show, design inheres within both composition and performance, but in service of different sociotechnical functions, representing the need for standardisation of particular modalities, whilst allowing for individuation in others. In addition, other modalities can be described as emergent, due to their reliance on tools or approaches that the group have developed as part of their wider practice.

Taken together, these findings reveal the essentially complex, socially constructed nature of musical interac-

tion in BiLE practice. Here it is precisely the way in which the bounds of collaboration are negotiated anew - rather than their explicit formalisation - that acts as the primary driving force in the creation of new work.

6. REFERENCES

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