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# Liveness: Designing for Audiences and Interaction

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*CHI 2012*, May 5–10, 2012, Austin, TX, USA.  
ACM xxx-x-xxxx-xxxx-x/xx/xx.

## Abstract

In the literature on liveness there is a surprising paucity of studies that look directly at the character of interactions between audience members. Partly as a consequence of this, technological interventions in the live experience have focussed primarily on enhancing the performers' ability to project aspects of their 'act' or on enriching the 'generic' audience experience. We argue that the dynamics of the interactions amongst audience members is key to the experience of a live event and that if we attend to this directly new opportunities for technological intervention open up.

## Enter the Audience

To better understand liveness, we need to enter the audience. Consider sports fans chanting, dancers locking in step, gasps at the theatre or the mutual reinforcement of applause: it is clear that our interactions with each other as members of an audience help to define our experience of live events. Although there are a number of authors drawing upon the audience in their work on liveness, we find little that engages with this basic observation. With the audience's affective experience now nominated as the locus of liveness [1], we ask where is the work that engages with either the character of these group interactions or their experiential contribution?

Reading across the diverse literature on liveness we can find work that further motivates the topic. Writing for an audience versed in Performance Theory, Fischer-Lichte implicitly places liveness in the pragmatics of performer—audience and audience—audience interaction when discussing bodily co-presence and feedback loops where ‘it is not possible to not react to one another’ [6]. Writing on the cultural effects of mediatisation and communication, Couldry expounds the social character of liveness by noting that the sense of immediacy and intimacy associated with co-present liveness is now increasingly felt by geographically dispersed groups such as friends or news-followers’ through the embrace of the always-on connectivity of their mobile phones. In these authors’ qualitative analysis we can find a framing of liveness where the audience and interaction are central, and technological interventions can be embraced.

The significant contribution in our liveness reading is made by Reason in his study of actual, empirical audiences [13]. Placing liveness in ‘heightened social-spatial environments’, his analysis reinforces the framing we have arrived at above. But in having actual transcripts to offer as evidence, we find a great deal more of interest. Through his use of audiences’ pleasure-talks as an opportunity to explore cultural perceptions and constructions of the live experience, Reason highlights many ways in which the audience—audience interaction shaped each audience member’s experience. It suggests that many of the qualities of liveness could be a consequence of the heterogeneous construction of audiences, with ever-shifting perceptions of sameness and difference accounting for the pleasures and intensity associated with live events.

To explore interaction’s role in liveness, there is then a

clear need to go beyond a generic, undifferentiated treatment of audience as group or individual. Interaction-focussed studies have been proposed, eg. to examine the detailed communicative organisation of audience-performer and audience—audience interaction, [11] but results remain unpublished. We find the one study that can currently be drawn upon is Gardair’s ethnographic account of street performance [7], which details the carefully designed interactions the street performers used to transform a crowd of passers-by into an audience. What becomes absolutely clear is that the audience—audience interaction is as central to the live experience as the performer—audience interaction — if not more so.

### **Design Goal: Informed Performance**

To design for liveness, we need to embrace the audience. But how? We synthesise a review of technological interventions or instrumentations of the audience with the above analysis of the liveness literature. We propose the design goal of ‘informed performance’ and finding strong claims regarding the nature of dialog and performance suggest an approach that could realise it.

The technical work reviewed that is most concerned with enhancing live events through embracing the audience tends to have ‘active spectating’ as its design goal. What is active spectating? Reeves et al. brought to the foreground the notion that interaction is increasingly a public affair, and as such we should be considering the spectators’ experience of a performer’s interaction with technology. We should be “designing the spectator experience” [14]. Esbjornsson et al. discuss designing for spectating a sport, and in doing so make clear what has typically been couched in vague terms such as *engagement* before. They conclude that spectators put

considerable effort into trying to understand what they see, and so are not passive recipients of the “cars going by”, but rather it is through their interaction and observation that they produce the race as an enjoyable experience [5]. The opportunity here is neatly argued by Ludvigsen and Veerasawmy -

“We argue that acknowledging the intrinsic spatial and social qualities of being present on-site and being part of the crowd enable new technological designs to enhance the spectator experience, and further emphasize the active participation in the event.”  
– Ludvigsen and Veerasawmy, 2010 [12]

Should we design for active spectating? The agenda posited by such ‘active spectating’ work is one of creating a meta-activity around the spectacle or performance; in the two studies referenced this translates to peer-to-peer infrastructures for the sharing of observations or instrumentation to monitor and reward crowd behaviours. While these are interventions designed for audience—audience interaction, the motivation can be characterised as compensating for the difficulties of performer—audience interaction in their chosen site of liveness. We are looking for a design goal that articulates our placing of liveness in the interactions between both performer and audience, and within that heterogeneous audience.

So what work aims at Ludvigsen’s opportunity but has performer—audience interaction? An example could be the Hawtin ‘connectivity’ work, providing various technological infrastructures for the audience to access Hawtin and colleagues’ performance of electronic music and to feature in the visual display [10, 9, 8]. The result

can be characterised as limited interactions that expose the performance. Shorthand for this could be a feeling of broadcast, a superior playback. The increasing use of audience members’ touchscreen smartphones for the interaction and delivery also calls attention away from the shared focus of attention and social environment, consideration of which as an embodied activity on a swaying dance floor should illustrate the issues clearly. This ‘upgrade’ of active spectating would seem to be the opposite of live, so what direction should we take instead?

If we are to embrace *interaction* we need to get beyond a simple reaction or one-way channel. Rather than expose the performance, we should be in dialogue with it, designing for performance that embraces the audience, opening itself up to influence and exchange. Referencing Reason, if we can then also experience this dialogue through and with others, we might be starting to exploit the liveness fully. So rather than active spectating *around* a performance, this research suggests designing for the performer—audience—audience interaction required for an *informed performance*.

Having started to view liveness in terms of dialogue over monologue, in the discourse on face-to-face dialogue we can find some very strong claims concerning performance. These shall form the basis for our final notion to consider. Bavelas, Coates and Johnson showed experimentally that no matter how good the plot is to a story you’re telling, a good listener is crucial to telling it well [2]. The open question is how to open up this line of research from one-on-one storytelling to the many-to-many to be found at live events.

The key insight is to consider dialogue not as discourse, but as moment-by-moment collaboration. Bavelas showed that ostensibly passive listeners were in fact actively

involved in the narrative process, ie. the performance. The listeners responded to the narrator, and the nature of their multi-modal feedback had demonstrable effect on the quality of narration. There were generic responses such as nodding and “mhm”, and specific responses such as wincing or exclaiming that were tightly connected to what was being narrated at that moment. A distracted listener would make fewer responses, especially specific ones, and the narrator would then tell their stories significantly less well, particularly at what should have been the dramatic ending. The interactional expectations of one-on-one storytelling are significant and specific, and so the specific result here has to remain in this particular performance trope, but in the authors’ consideration of the effect of moment-by-moment collaboration and multi-modal feedback on performance there is much to learn. There is also a certain resonance here between the multi-modal feedback identified by Bavelas and the phenomena alluded to by performers in their working language: routinely distinguishing between “good” and “bad” audiences and between moments of intense engagement – “crackle”, “movement”, “lift” – and moments of “drop” and “drift” [11].

If liveness is fundamental to our sense of what makes performance engaging, with the observable phenomena and theoretical model of collaborative storytelling in the Bavelas research equating to engaging performance, we have a firm position from which to research liveness further, and a clear metaphor for a key quality of liveness: dialogue not monologue.

### **Study: On the same page**

Classrooms are live situations, and trends such as podcasting lectures are bringing their live quality into sharp relief — and the consideration of a popular

audience. In a classroom, we can see a certain functionality to the liveness: the lecturer’s efficacy is dependent on a delivery appropriate to the students. There is no point in the lecture continuing if the delivery is incomprehensible to the students, so how does the lecturer find out; how do the students let the lecturer know?

We are currently in the process of staging a study of liveness in the classroom, putting into practice the notions described in this paper. Informed performance is key here, and is well developed in the studies on audience response systems in the classroom by Draper and Cutts [4, 3]. Where our liveness-motivated work departs from the pedagogical motivation of Draper and Cutts is in our consideration of the shared focus of attention. We ask how can we facilitate informed performance *without distracting from the ‘moment of performance’*. More concretely, how can we support the fluid, moment-by-moment collaboration shown by Bavelas to be central to effective narration, and do that at the one-to-many scale of a classroom?

In this study, designing for liveness becomes the honing of the facilitation of a very particular interaction. We identify two strategies for informing our design process. First, we can observe sites where informed performance is to be expected, such as one-to-one tuition and small group seminars. From this, we can identify publicly manifest cues of interaction that could contribute to informed performance. This provides us with hypotheses of mechanisms for successful informed performance that we can attempt to relocate to the site of our study. Second, we can observe sites where we want our designs to work, such as large classes or lecture theatres. From this, we can identify the pre-existing phenomena we can co-opt for our intervention. This provides us with the

design material to execute our hypotheses of mechanisms for successful informed performance without introducing new tasks and overheads into the site. *What is behind the existing interactions that we can filter or amplify; what are the observable phenomena we can concretely work with?*

Our first response addresses this by developing a slide-viewing tablet application as analogue to slide presentation and paper print-outs, that when deployed in number will passively monitor the page position of lecturer and students and re-display a subtle aggregation of this information. In colloquial English, the expression “we are on the same page” is used to mean “we share the same thoughts or ideas”. So we’re seeing if we can do exactly that.

### Acknowledgements

Toby Harris is currently working on his PhD thesis “Liveness: exploiting the here and now of us together”, from which the content of this paper is drawn. This work is funded by the Research Council UK’s Digital Economy programme, as a scholarship to the Media and Arts Technology Doctoral Training Centre at Queen Mary, University of London.

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