Performing Audiences

Composition Strategies for Network Music using Mobile Phones

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Abstract

This paper focuses on composition strategies for music where the audience dictates the evolution of the musical piece. We propose a set of 13 composition dimensions that deal with the role of the performer, the role of the audience, the location of sound and the type of feedback, among others. The dimensions focus on technical and aesthetic aspects. Four audience-centric mobile music pieces developed by the authors are analysed accordingly. This approach can be useful to analyse existing pieces as well as to compose new ones.

Composition Dimensions

Many different approaches exist for audience-centric participatory mobile pieces. Here we focus on a particular subset of pieces where the audience is expected to be active. The composition dimensions are framed as 5-point Likert items related to the presence or absence of each component and its importance in the piece. We focus on traditional concert venues, where a stage and a PA system are usually available.

Human configuration

- **Stage performers**: Are there any performers taking a central role on stage?
- **Mutual interaction between the audience's actions**: Are the audience's actions *multiplicative* as opposed to *summative*?
- **Mutual interaction between stage performers' actions and audience performers' actions**: Are the audience's and stage performers' actions multiplicative as opposed to summative?

Mobile technologies

- **Use of sensors**: Does the system make use of many sensors in the phone?
- **Visual feedback**: Does the piece provide a detailed visual feedback about the performance, potentially including a graphical interface, or does it supply a basic phone interface more based on sensor interaction?
- **Haptic feedback**: Does the system provide haptic feedback (e.g. via the Vibration API) to the audience during all the piece and for different events?

Sound system

- **Acoustic mirroring**: Does the PA system mirror the sounds produced in the audience's phones?
- **Complementary acoustic information**: Does the PA system provide complementary acoustic information to the sounds produced from the audience's phones?

Projection system

- **Visual mirroring**: Does the projection mirror the information in the audience's screens?
- **Complementary visual information**: Does the projection provide complementary visual information to the information in the audience's screens?

Computer music system

- **Pre-scored elements**: Does the composition include high to low pre-determined elements independent from the audience's actions?
- **System memory**: Does the composition use memory from past events as opposed to purely reacting to current events?
- **Use of samples (high bandwidth)**: Is any number of samples used?

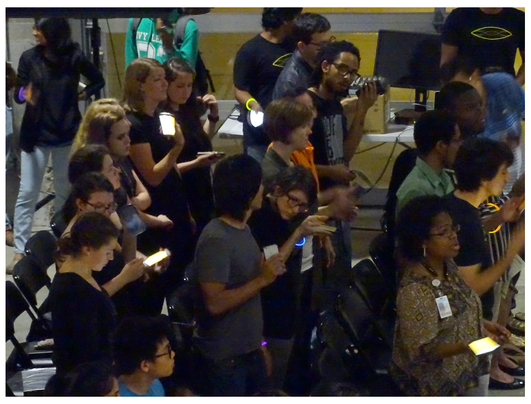
Acknowledgments

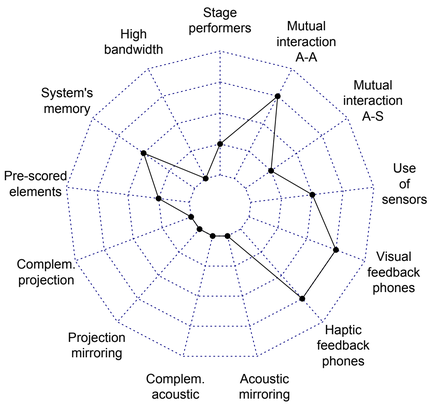
We thank all the audience performers who participated in the pieces presented here. Original poster template created by Elena Botoeva.

Case Studies

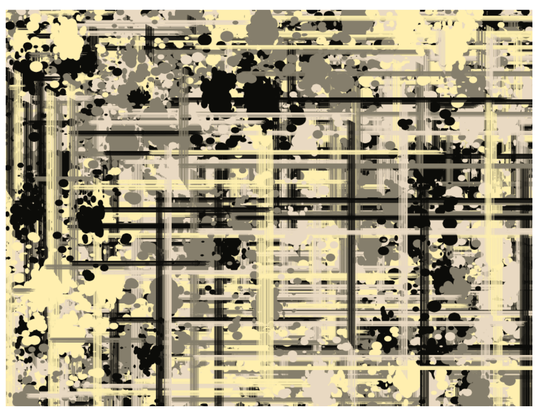
The authors reflected on their four web-based pieces and assigned a value for each dimension for each piece based on a reflective approach and a qualitative analytical approach inspired by group consensus. The score generally reflects the importance assigned to each dimension in each of the compositions, and the corresponding use of the available technologies. The score for each dimension is summarised in a radar chart for each piece.

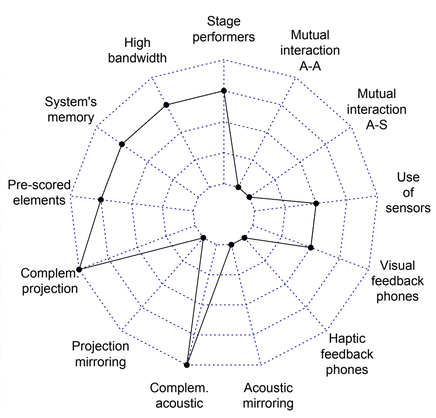
Do the Buzzer Shake



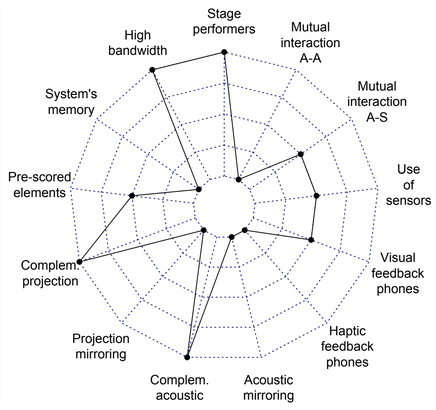


Hyperconnected Action Painting

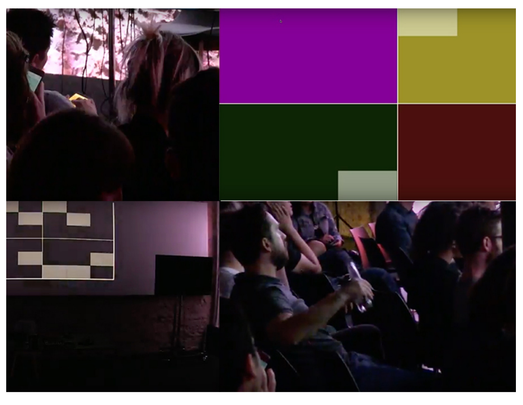


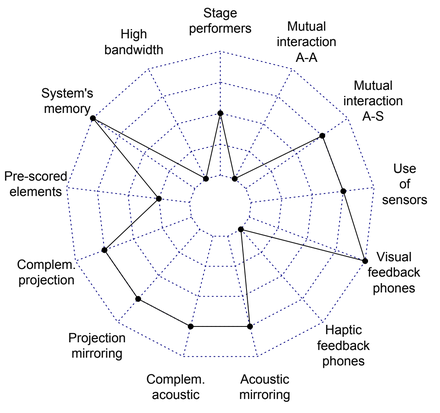


Imaginary Berlin



No Merge Conflicts





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