Flow and Metaphoric Sound-Based Composition

Creative Compositional Technique for Computer Music

Thesis Outline

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Abstract

Summary (English)

Summary (Dutch)

Motivation

I. Introduction

A. What is the aim of this research?

B. What are key definitions?

Electronic music composition process

the design of electronic instruments and the manner of their use in the composition and/or performance of organized sound

Human-Machine Interaction

the compositional and technical factors, visible and hidden, involved in the composition process of the electronic musician

Flow

a state in which the mental (compositional) and physical (technical) processes are harmonized, enabling high creativity

C. [mission statement] ex. This paper presents a novel composition method for computer music composers and sound designers. The method is designed to enhance the creative process. It attempts to induce flow by harmonizing human-machine interaction through the use of sound-based metaphors. The efficacy of the composition method will be tested in practice, and will be evaluated according to our investigation of the psychological, musical, and technological factors involved.

II. Flow in Electronic Music Composition Processes

A. What is flow

B. What conditions are necessary for flow

    1. Challenge vs. Ability

C. How do these conditions translate in the electronic music composition process

    1. Novelty vs. Familiarity
    2. Reason vs. Intuition
    3. Human-Machine Interaction

D. How to harmonize human-machine interaction?

    1. A binding, integrating, synchronizing agent: Metaphor

E. Related issues

    1. Psychological
    2. Technical
    3. Philosophical

III. Hypothesis

A. Change the relationship with tools

    1. Past occurence of purposeful metaphoric composition
        a. Traditional
            i. Programmatic composition
            ii. Opera/ballet
            iii. Mimetic approaches
        b. Modern
            i. Jazz
            ii. Improvisation in general
        c. Post-modern
            i. Ambient
            ii. Sound-scapes/-objects/-maps
    2. A means to transcend the composer/technology duality
        a. Should integrate imagination and interaction
        b. Should be coherent, repeatable, transferable
        c. Should be (relatively) universal applicable
        d. Avoids an infinite regress of sources
    3. Metaphor as a unifier of subjective/objective
        a. Literary metaphor
        b. Psychological metaphor
        c. Metaphor in music and sound

B. The composition technique
    1. Description
        a. Format
            i. Typed document
                -Step by step guide
                -Tutorial
                -Extra materials
        b. Principles contained
            i. Imagination guided by sound design
                -Sound as embodiment of “characters”
                -Instruments as “puppets”
            ii. Music guided by imagination
                -Perform the puppets
                -Body, mind, and machine synchronized
                -Characters and stories arise by default
    2. Use
        a. Functions
            i. As a stand-alone composition method
            ii. Combined/integrated in process
        b. Approaches
            i. As a creative tool
            ii. As an experiment
            iii. As a performance
            iv. As an exercise
            v. As a game
        c. Potential users
            i. Sound designers
            ii. Composers
            iii. Producers
            iv. Other creatives – Crossovers
    3. Is it new
        a. Literature
        b. Research
        c. Interviews
        d. Reinventing the wheel
    4. Hypotheses
        a. The Audio Puppet technique enhances creative flow
            i. It harmonizes interaction and imagination
            ii. It is coherent, repeatable, transferable

iii. It is (relatively) universal applicable
iv. It avoids an infinite regress of sources
v. Enhances "flow"

IV. Evaluation

A. Factors for evaluation
    1. Queries
        a. Does it synchronize imagination and interaction
        b. Is it coherent, repeatable, transferable
        c. Is it (relatively) universal applicable
        d. Does it avoid an infinite regress of sources
    2. Limitations
        a. Quantifiability
            i.Test surveys
            ii. Testimony
            iii. Aesthetic evaluation
        b. Subjectivity
        c. Lack of control
        d. Near-infinite variables
    3. Data
        a. Personal assessment of creative flow
        b. Rate of successful application
        c. Rate of correct application
        d. Amount of inspiration at each step
B. Experiment description
    1. Method
        a. Application of method by test group (workshop)
        b. Survey test group
        c. Observe test group's musical output
    2. Resources
        a. composition method document
        b. Music creation tools
        c. Survey document
    3. Study population
        a. 40-80 participants
        b. Composers, sound designers, producers

c. 1st year, 4th year, post graduate, professional
d. Interact through workshop/lecture

4. Data collection
    a. Electronic – e-mail, digital audio

C. Results
1. Data representation
    a. Subtotals, totals
    b. Graphic data display
    c. Summaries
2. Flaws
    a. Margin of error
    b. Blind spots
    c. Potential anomalies

D. Analysis
1. Identifiable trends
2. Answers to queries
    a. Does it synchronize imagination and interaction
    b. Is it coherent, repeatable, transferable
    c. Is it (relatively) universal applicable
    d. Does it avoid an infinite regress of sources
    e. Subjective experience of "flow"? Creativity?
3. Further discussion

V. Conclusion

A. Does the method harmonize human-machine interaction?

B. Does it induce flow?

C. Does it have merit in other aspects?

D. Other

APPENDIX