Data and Artistic Creation: challenges and opportunities of online mediation

Katerina El Raheb, Marina Stergiou, Georgia Koutiva, Vilelmini Kalampratsidou, Pandelis Diamantides, Vivi Katifori, Yannis Ioannidis

Philia Issari, Eugenie Georgaca, Evangelia Karydi, Dora Skali, Antigoni Apostolopoulou, Nikos Papadopoulos
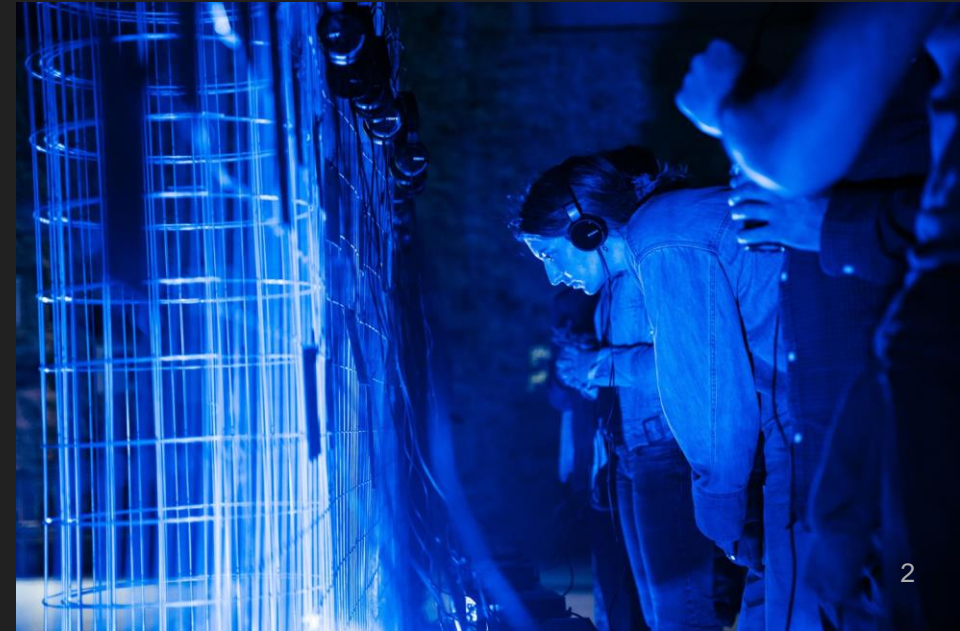
Virginia Vassilakou, Fofi Tsesmeli,Yannis Pappas, Panagiotis Giokas

ATHENA
Research & Innovation
Information Technologies

National and Kapodistrian University of Athens

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Data in Art

"To explore is to compare. And to compare, we need first to see.(or hear)"

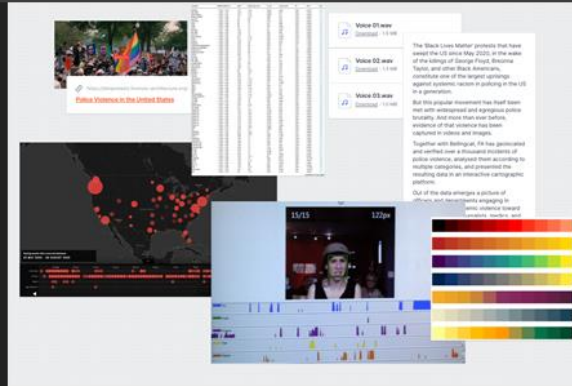Lev Manovich, *Data Science and Digital Art History, 2015*

Transition to 8 Concept

social issues
(local)

data/platform
moodboard to
capture and mediate

artistic creation &
sound production
(global)

Research Questions:

- What the artistic community need to transform data that convey a social issue into an audiovisual artwork?
- Can we facilitate online tools that would make such data available and easy to use as sound samples and what tools they use for sonification or visualizations?

Objective

To understand artistic practice workflows and identify
- ○ what are their common obstacles in the process of using data coming from the human body
- ○ what would be their needs and if they see such an approach to convey a statement on social issues.

Online participatory Workshop: Data in artistic creation.

18 artists and interdisciplinary researchers that work on the intersection of Computer Science, Performance, Music Composition, Choreography, Visual and Sound Arts who utilize movement in their compositions.

- motion capture, Kinect, and IMU's (13 participants)

- brain activity, heart rate, muscle activation, or skin conductance.

  - 5 EEG (Electroencephalography)

  - 2 ECG (Electrocardiogram)

  - 2 EMG (Electromyography)

  - 1 GSR (galvanic skin response) data.

Online Questionnaires for Music-Making Artists

a) their profile
b) digital artistic tools and workflows of the artistic process
c) what inspires them
d) if they are driven by social issues.

- 34 responses (28 male, 6 female, a fact that can be interpreted by the male dominance in music-making)
- European countries
  - 21 Greece
  - 5 Netherlands
  - 3 Cyprus
  - 1 Estonia, 1 UK, 1 Ireland, 1 Germany, 1 Belgium
- Aged from 26-35 (15 participants) 36-45 (18 participants and 1 aged 46-55.
- Concerning their profile 23 self-identified as full professionals, 3 as semi-professionals, 8 as amateurs, and 1 as 'I do not want to identify'.

Findings (Workshop): Bodily Data in arts challenges and opportunities

- interactivity and multimodality of the performance
- one can come closer to *"true and realistic expression creating feedback loops between the virtual and the physical in real-time."*
- ethical issues, concerns about privacy, agency, and consent of the participants
- technical issues and complexing practicalities, lack of technical knowledge on the artists' behalf
- being stuck in the phase of preparing the datasets, cleaning and anonymizing the data
- shifting the interest on the data rather than the artistic creation, its aesthetics, and meaning.
- incorporating data in a way that adds value compared to using synthetic data (a digitally created dataset that simulates a biosignal
- making the interaction with data visible (or audible) to the audience in a meaningful way.
- high cost of equipment, lack of financial support
- difficulty in finding affordable, sustainable solutions and devices.

Findings: Workshop: Data platforms as mediators to social issues

- interest in the idea of a platform that mediates local social issues to the global artistic communities.
- access to an "inspiration platform": e.g., music producers about social issues and our bodily reactions to them.
- they would expect to find abstract visualizations of the analyzed data, physiological data capturing people's reactions, and physiological reports on people's reactions, photos, videos, and voice documentaries.

Findings: Workshop: Datasets vs. Live Streaming.

need for pre-recorded data.
some participants mentioned that an "obsession in interactive art with real-time data" exists and there can be value in using pre-recorded data streams as they might be more easily manageable by the artists.

Findings: Questionnaire

- Background and tools.
- The digital creative process.
- Social issues as Inspiration themes for digital creations.
- Sources of Inspiration.
- Data as raw material and inspiration
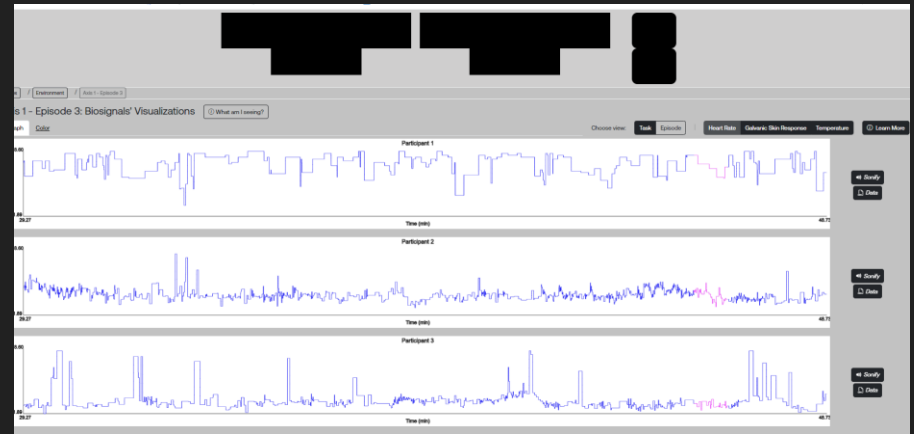
Social issues as Inspiration themes for digital creations.

creative process is affected by social issues e.g., COVID-19 restrictions, political situations, environmental issues, gentrification, and identity issues

"art and music have a close relationship to society, artists don't live in bubbles.", and "our environment and our society have a direct impact on what we think, what we feel and what we express".

Need for more collective and participatory approaches.
"Certain works of mine revolve around micro-societies (democracies) of people (and objects) and co-creation do-it-together composition methods.

Connection with space and city issues: "Through playful, improvised, collaborative elements I try to help counteract the lack of physical, social spaces – even if just experimentally or philosophically, because often there is simply no space to make art in a sustainable way. Gentrification is a big problem.".

Discussion: data for artistic creations to mediate the lived experience of a social issue

- Ethics, bias and interpretation
- Skills, data labour and inspiration
- Bodily data vs. a social lived experience

How can they be curated to create a balance between providing context related to the data collection circumstances and not over-interpreting the data to the point that no freedom is given to the artists to create?

Conclusions and Future Work

Collecting data coming from the body should follow a process, which involves several actors that communicate with each other through the data (including locals, psychologists, researchers, and artists), and develop discussion bridges between the different disciplines.
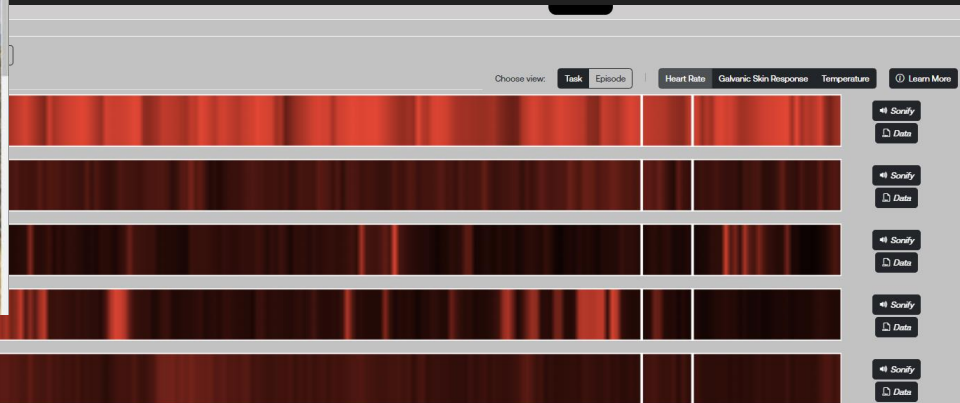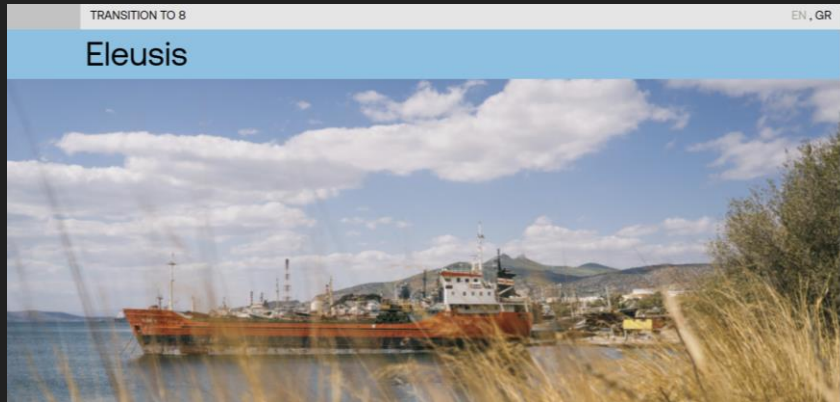
Acknowledgments

Transition to 8: Bridging social issues, tech and contemporary art (T2EDK-00623)