EXPERIMENTAL PRACTICES. Humanities and Arts in the Process of Constructing Knowledge for the Data-based Society.

Information about the authors:
The Humanities/Art/Technology Research Center was founded in 2010 at Adam Mickiewicz University in Poznan (Poland) on the initiative of Prof. Dr. hab. Agnieszka Jelewska and Dr. Michał Krawczak. The Center is a pioneer institution in Poland doing transdisciplinary research and experimental artistic projects. The HAT Research Center co-operates with theoreticians, artists, designers and engineers of various competencies and specializations. As a scientific-artistic hub it initiates cutting-edge projects and research that are hard to define in the conventional range of existing artistic and academic disciplines.

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Introduction:
Accelerating progress in the development of technological tools, the achievements of the sciences, and above all the ways of collecting and modelling data, are significantly changing the mechanisms of knowledge construction. This process, together with related artistic-research practices, are becoming a crucial part of the process of analyzing and interpreting such data, with a focus on their social and cultural impact. Thus, the humanities have all the more entering into synergetic relations with science and technology.

Objectives:
• The development of new methods for the analysis and interpretation of data within the framework of experimental ecological methods, which take an interconnection of cultural, social, political and economic factors into consideration.
• The inclusion of the humanities in the applied sciences: the new humanities being co-responsible for the implementation of knowledge in society, and its significance.
• Education through the use of data-analysis tools, in order to continuously redefine knowledge production procedures in post-technological society.

Development:
The current leading research projects and the methods being employed:

Monitoring, forecasting and society's adaptation strategies. The analysis and interpretation of weather data, pollution data as culture-generating factors, and the management of group behaviour in post-technological society.

Example of interdisciplinary collaboration:
Mediorological station for Smart City (ongoing project). Constructing a small weather station based on IoT sensors (weather, air quality, noise and light sensors). A study of the relationship between air quality, noise in the city, weather conditions, people's emotional states and group behaviour.

A prototype project for new forms of pollution warnings in cities.
The project is being implemented through the cooperation of Humanities / Art (Technology Research Center, Laboratory for Experimental Media, Department of Climatology - UAM).

Research Grant:
Art as Laboratory of New Society. Cultural Consequences of Post-Technological Turn, 2014-2019, founded by Polish National Science Centre (grant no. UMO-2014/13/B/HS2/00588)

Example of education / experimental workshop:

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The installation involved the use of open-source weather data being collected time from environmental disaster sites and places related to politics and energy management (e.g. Chernobyl, Fukushima, Los Alamos and others). The data were downloaded in real time and sonificated in order to create an interactive audiosphere. The installation was awarded the Golden Medal for sound design at the Prague Quadrennial of Performance Design and Space, 2015.

Art as research method:
Post-Apocalypse, 2015, Prague, Czech Republic, (interactive installation, designed by art and research group: Agnieszka Jelewska - researcher, Michał Krawczak – researcher, experience designer, Rafał Zapala - composer, Paweł Janicki – media artist, creative coder, Michał Cichy – architect, 3-D printing designer)

Example of education / experimental workshop:
Autoimmune Media Workshop: I have an Other-Acha, an interdisciplinary workshop in Folkwang University of Arts, Essen, Germany, 2015, (leading: A. Jelewska, M. Krawczak).

Research grant:

Conclusion:
• In a global world where knowledge is based on collecting, processing and preserving data, the humanities and artistic-research practices provide an opportunity to experiment extensively with ways of analysing and interpreting these data, taking social, economic, political and cultural factors into account.
• Humanities and Art are becoming an important sphere for social debate on the forms of expert knowledge and the procedures of its production.
• Humanities and Art are able to generate new educational methods for democratic and responsible societies in the post-technological era.
• The humanities can initiate the transfer of knowledge between science, the social sciences and culture – through specific and experimental methods of analysis and the critical interpretation of scientific data.

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An investigation of the cultural, ecological and political mechanisms involved in the spread of autoimmune diseases in European societies (based on the example of Hashimoto's disease), as a complement to an analysis of medical data.

An example of interdisciplinary collaboration:
An analysis and interpretation of data on the increase in the incidence of Hashimoto’s disease in Poland and Germany since 2010, in relation to cultural conditions and disease management policy. Autoimmunology as a method for conducting research on culture. (An ongoing project carried out in cooperation with Humanities / Art (Technology Research Center, Laboratory for Experimental Media, Department of Social Medicine, Medical University of Poznan).

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The pirate radio programmes dealt with transport disturbances. The participants constructed DIY FM radio transmitters and used them to broadcast their own programmes in urban space, thus interfering with the reception of other radio stations. The pirate radio programmes dealt with the issues of air pollution in the city and transport disturbances.

A study of the cultural mechanisms involved in the spread of pain and the limits of its social acceptance. An experimental practical workshop exploring the concept of autoimmunity media for theoreticians and artists.

Conclusions:
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