CartoVis24
University of Warsaw • 7 September 2024
2024 ICA Workshop | AI, Geovisualization and Analytical Reasoning

Programme

8:00 - 8:45   **Registration & coffee open**

8:45 - 9:00   **Workshop intro from organizers**

9:00 - 9:45   **Lightning talks #1: Behavior and space**

A pipeline for automated area-of-interest (AOI) eye fixation analyses for outdoor mobile map-assisted navigation studies (Qi Ying, Christopher Hilton and Sara Irina Fabrikant)

Understanding How Maps Work in Infectious Disease Response (Anthony C. Robinson, Ruth Krebs Buck and Nita Bharti)

Using Glyphs to Visually Analyse Spatio-Temporal Patterns in Non-Verbal Behaviour Dynamics (Carolin Bronowicz, Susanne Bleisch and Matus Gasparik)

Recall of nature hiking landmarks on account of sketch maps (Pyry Kettunen and Gautier Le Gall)

LLM-Vision in enhancing the understanding of public spaces (Tom Komar and Philip James)

Using augmented reality in 3D modeling and geovisualization of urban design patterns and landscape projection (Krzysztof Malinowski)

9:45 - 10:00   **Break**

10:00 - 11:00   **10min talks #1: Tech-facilitated map understanding**

MapPool – Bubbling up an extremely large corpus of maps for AI (Raimund Schnürer)

Human reasoning for visual analytics in the moment of emergent generative artificial intelligence (Robert E. Roth)

Mitigating Cartographic Misinformation through Prebunking (Aileen Buckley)

How Generative AI Supports Understanding of An Ethically Sensitive AI-Induced Event (Mengyi Wei, Chenjing Jiao, Chenyu Zuo, Lorenz Hurni and Liqiu Meng)

Creating Quasi-Maps for Uncovering Space-Time Patterns (Natalia Andrienko and Gennady Andrienko)

11:00 - 11:15   **Break**

11:15 - 12:00   **Lightning talks #2: AI for automatization**

Personalising mobile maps with AI for better fit (Tumasch Reichenbacher)

Effective visualization of the AI-based road selection results for small scale maps design (Albert Adolf and Izabela Karsznia)

Combining rover images and satellite data in the process of automatic mapping of aeolian formations on the Martian Surface (Kamil Choromański, Joanna Kozakiewicz, Mateusz Sobucki, Magdalena Pilarska-Mazurek and Robert Olszewski)

Cartographic generalization of settlement representations: human vs. machine (Izabela Karsznia, Arzu Çöltekin and Veronica Sundstedt)

Multimodal metadata search - towards an integrated cartographic and natural language search interface for environmental management (Roar Engell)

Detection service based on coherent point cloud analysis with AI methods using CENAGIS libraries (Agnieszka Wendland, Dariusz Gotlib, Bogusław Kaczałek, Michał Stawowski and Kamil Choromański)

12:00 – 13:30   Lunch break

13:30 – 14:30   10min talks #2: User focus

Enhancing Location-based Storytelling and User Experience using Augmented Reality (Nuzhat Tabassum Nawshin)

User evaluation of the Polish geohistorical platform "Atlas Fontium" – preliminary results (Katarzyna Słomska-Przech, Tomasz Panecki, Aniela Wrzesińska, Arkadiusz Borek, Wiesława Duży, Izabela Gołębiowska, Jowita Radzińska and Grzegorz Myrda)

Eliciting user needs of a collaborative GIS for planning urban drone landing sites (Mikko Rönneberg, Anssi Jussila and Pyry Kettunen)

Analyzing colour use in urban point cloud visualizations (Jesús Balado-Frías and Izabela Gołębiowska)

Possibilities of using satellite data in the development of geoportals depending on users' needs (Anna Markowska and Karol Paradowski)

14:30 – 14:45   Break

14:45 – 15:30   Lightning talks #3: Trends in cultural and historical studies

Tactile maps of historic gardens (Jakub Wabiński, Albina Mościcka, Emilia Śmiechowska-Petrovskij, Andrzej Araszkiewicz, Damian Kiliszek and Anna Traut-Seliga)

CNN-based Semantic Segmentation for Comparisons of Old Maps: A Progress Update (Francis Harvey, Yves Annanias, Daniel Wiegriffe and Christian Meinecke)

Historical Atlas of Polish Towns – Warsaw issue (Karolina Wereszczyńska)

Geovisualization in Cultural Research of Borderlands: The Example of the Podlasie Region in Poland (Alina Awramiuk-Godun)

Differences in the Cartographic Presentation of Contemporary Polish Western and Northern Territories in European Cartography of the 20th and 21st Centuries (Marcin Wereszczyński)

Digital mapping and surface modeling of historical objects using modern visualization techniques (Krzysztof Karsznia, Książek Krzysztof and Ewa Świerczyńska)

15:30 – 15:45   Break

15:45 – 16:35   10min talks #3: Insightful cartography

Lessons from an Integration of Scientometrics, Cartography, and Contemporary GIS Platform Technology (André Skupin)

Mapping Time Lags in Epidemics (Gennady Andrienko, Natalia Andrienko and Miguel Ponce-de-Leon)

MLP Feature Extraction from Coordinates for Building Footprint Simplification using Graph Convolutional Networks (Martin Kada, Julien Baerenzung and Lilli Kaufhold)

Leveraging AI and Geovisualization to Understand the Impact of Internal Migration on Intergenerational Mobility in Shanghai (Issac Hsu)

16:35 – 16:45   Wrap up for the day