

Commission Report to the ICA Executive Committee

Commission: Cognitive Issues in Geographic Information Visualization

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The 2019-2023 term of the CogVis Commission was its third term, and the first term to broaden the leadership outside the original commission leadership. Although the disruption to travel (and working life generally) caused by the COVID pandemic necessitated the alteration of some of the Commission's original plans and a complete pause on activity in 2020 while everyone adjusted to the new circumstances, we have largely achieved what we set out to accomplish. We report briefly below on the achievements of the Commission in the last four years.

Our Commission's webpage has additional detail: https://cogvis.icaci.org/activities.html.

Commission/Working Group highlights (e.g. conferences, publications, products & services, awards, etc. and outcomes for the EC to take note)

- 1. Our commission developed a research agenda paper "Cognitive Issues of Mobile Map Design and Use" that is currently in revision for resubmission to the Journal of Location-Based Services. This paper is a product of work that was begun in the previous term of the commission at a pre-conference meeting in Beijing during July 2019. Work on it was paused in 2020, and recommenced in 2021. We expect publication of the special issue in which this paper will appear later in 2023, along with the papers led by the Commissions on Location-Based Services and User Experience.
- 2. Our commission initiated regular engagement with the Open Geospatial Consortium's (OCG) Portrayal Domain Working Group (DWG), throughout 2021-2023. This has included presentations at their meetings and ancillary discussions and is supporting the crafting of a technical paper on sharing cartographic knowledge with geospatial software developers.

We recently held a workshop at the OGC meeting in Huntsville, Alabama, in June 2023 to seek feedback on a draft of this technical paper. The draft technical paper and what we learned at the workshop will be presented at the upcoming ICC2023 and then the paper will be revised based on that feedback.

Notable cross-disciplinary events (e.g. with other ICA Commissions/WGs, regional and international communities)

Online workshop on "Adaptable Research Methods for Empirical Research with Map Users", co-organized with the ICA Commission on User Experience, 6 May 2021.

Online workshop on "CYBERCARTOGRAPHY: A beyond state-of-the-art role of geovisualization in understanding the world" at AGILE 2021, 8 June 2021, hosted by the Technical University of Crete, in conjunction with the ICA Commission on Visual Analytics and the ISPRS Working Groups IV/2 and IV/9.

Co-organized and contributed presentations to a special session on "Spatial Cognition in the Mobile Era" at the 28th Chinese Professionals in Geographic Information Sciences Conference, Nanchang, China, 3-5 November 2021.

Two pre-conference hybrid workshops at ICC 2021 in Florence, Italy, 13 December 2021, entitled "Sharing Cartographic Knowledge" (co-organized with the Commissions on SDI, Geospatial Semantics, and Open Source Geospatial Technologies) and "Immersive Cartography / Cartography for Immersive Environments" (co-organized with the Commission on User Experience).

Notable public events (e.g. invited public speech, Mapathon, TED talks, hackathon, etc.)

None in this term.

Educational highlights (e.g. degree programs, MOOCs, lifelong learning courses)

None in this term.

Any other sharable experiences

None in this term.

Upcoming events and planned actions

At ICC 2023, we will be holding a workshop on MapAI in conjunction with the ICA Commission on Visual Analytics.

We will be running a second workshop on our Draft Technical Paper at the September 2023 Open Geospatial Consortium (OGC) meeting in Singapore to reach developers in Asian countries who will be more numerous in attendance at this meeting.