

Cartography as a Data Science

Horst Kremers

CODATA-Germany, Berlin

office@Horst-Kremers.de

Abstract

Besides the typical intrinsic view of cartography science and applications, there is a continuously rising demand of extrinsic aspects of cartography in the complex interdisciplinary landscape of science and technical development partners.

This becomes obvious especially in current discussions on national, multi-national and global activities

- a. National and Multi-National Information Infrastructures
- b. United Nations Global Programs and Conventions

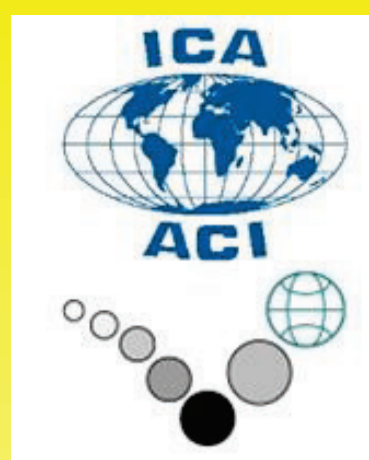
The competences of cartography science and applications are one of the core elements of successfully designing (research) data information infrastructures in science domains that are of current massive concern and complexity, e.g. Digital Humanities, Sustainable Development, Risk Reduction, Health and others.

The cartographic process always was concerned about data sources, intermediate analytics, dynamics and operational decision support. The massiveness, complexity, media-/structural variety, dynamics and veracity of information along with processes of data acquisition, interoperability and task-oriented decision and action along with information management for goal-reaching control (full information management cycle) explicitly rely on best practices support from a very broad view of cartography. The corresponding tasks of reaching out cannot be met by selecting data sets for individual / sporadic analysis and visualization but instead, need an involvement of cartographers in the principle high-level strategic discussions and overall design of information systems to be developed and applied for operational action.

The United Nations Global Programs and Conventions (UN ISDR, UN SDGs, UN IPCC, and others) are currently discussed especially with respect to the expectations for urgently reaching inter-program cohesiveness. It is pointed out that cartography is a key science with appropriate long-term cooperation and competence in cross-domain information systems semantic mapping and thus should be involved massively in such processes. Cartographers urgently need to be encouraged to get much more visibly involved in the shaping, wording and national/international implementation & control of UN conventions and programs.

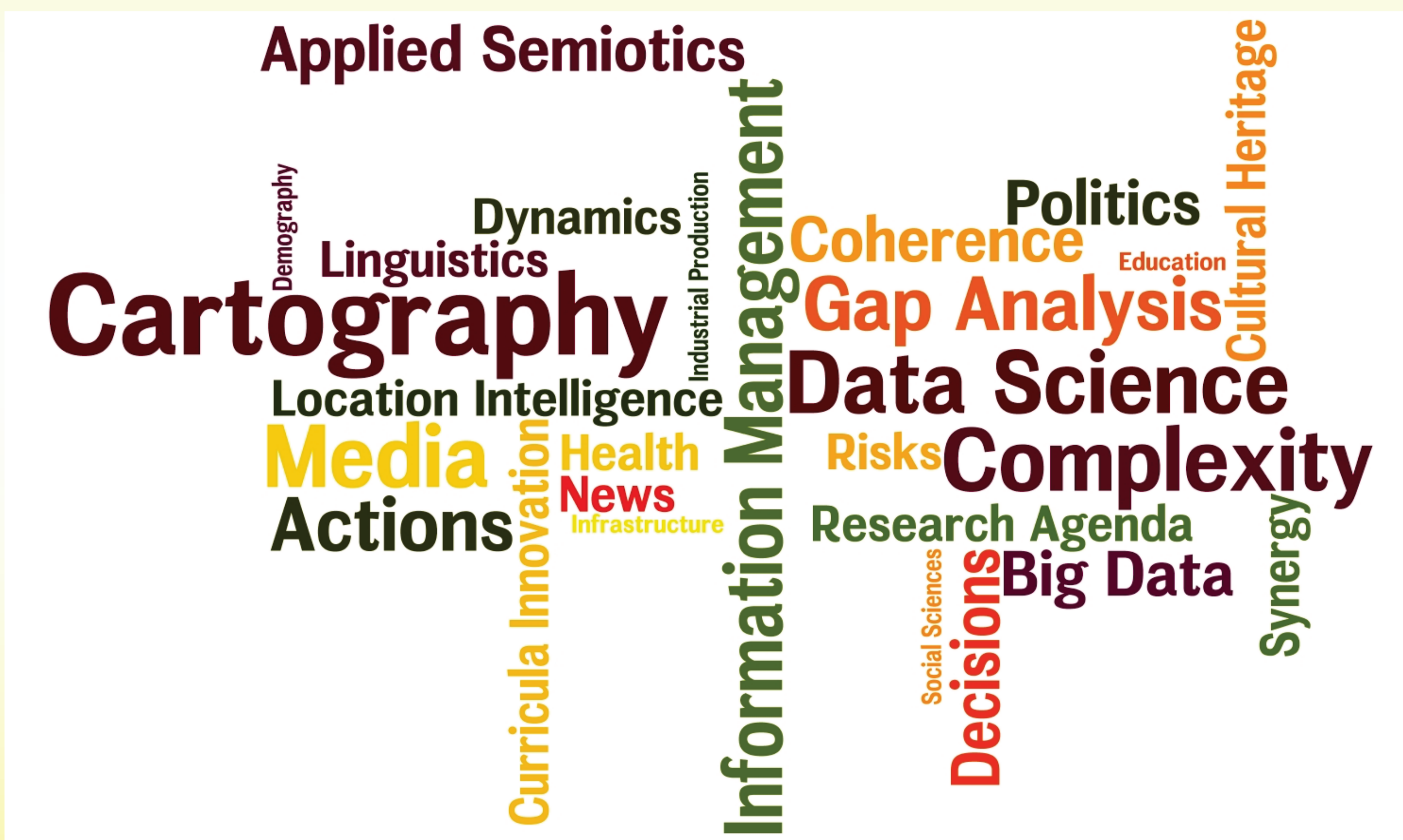
Decision and action relevance should not only be expected and believed to be useful for others but instead, the complete process of complex information management needs to be designed and specified in close cooperation with interdisciplinary and inter-organizational information management from the beginning.

In such way, cartography will find its appropriate central role in granting coherence and mutual synergies from holistic information management.



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Horst Kremers
Berlin (Germany)