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Cartography of the datasphere

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DESCRIPTION OF THE SESSION

The digital revolution is an offspring of the ever-growing adoption of information technologies and of the global interconnexion of information and communication systems. Even though it consists in the massive development of new technological tools, it cannot be separated from the social and physical environment in which it takes place. (Kitchin, 2014). The digital revolution has profoundly disrupted the social, economic, and political practices of our contemporary societies. Thus, more and more research works in social and human sciences, including in Geography, are dedicated to the study of these technologies and their inherent disruptions.

However, decrypting, understanding and analysing these changes raise new challenges for researchers. Among them, the question of how to map the apparently immaterial datasphere is one of the most difficult for geographers and cartographers (Dodge & Kitchin 2007, Graham et al 2015). Datasphere can be seen as "the representation of a new spatial whole formed by the totality of digital data, the technologies that underpin it, and their interactions with the physical world, human and political world in which it is embedded" (Douzet, 2020). Far from being the 'end of geography'(Virilio, 1997), the advent of digital networks is a structuring issue of contemporary geopolitics. They are a new space of power projection. Some governments already use the networks and their geography to achieve strategic goals or to exert their power over populations, for instance by conducting digital censorship (Ermoshina & Musiani 2017).

Thus, behind the technical dimensions of these infrastructures, geographical and geopolitical approaches reveal political issues at different levels. Since maps are essential instruments for the exercise of political and military power, to be able to visually represent the datasphere is becoming a more and more strategic asset. But it is also a good way to grasp the extent of power rivalries among an important diversity of actors for the control of and within the datasphere. Existing research focuses on the physical dimension of the datasphere such as infrastructures maps (Limonier, 2014), when others try to design topological maps of the datasphere (Douzet et al. 2020), or to use graphs to map social interactions (Gerard & Marotte 2020). They all need to design new methodologies to map the existing complex dynamics inside the datasphere and their impacts on human society.

The aim of this panel is to discuss the challenges raised by this new cartography from a conceptual and and critical perspectives. It will address these following (but not exhaustive) questions :
- Conceive new kinds of mapping representations such as topological representation of the datasphere
- How to move from a heuristic mapping representation to didactic mapping representation ?