

Streszczenie pracy w języku angielskim

The aim of the doctoral thesis is to examine and characterize the areas in which geographic information systems (GIS, also geoinformation systems) have been developed and currently operate. While being a technology positioned exceptionally close to cartographic practice, it is also a set of scientific methods and algorithms designed to provide data necessary for the operations of various entities - governmental, military, commercial and scientific. The invisibility of this commonly used assemblage of cartographic methods and algorithms is therefore also significant for new research undertaken in the field of cultural studies. Due to personal scientific interests and involvement in the development of social practices, the following research is intended to be a response to the existing gap, especially in cultural studies of GIS and its infrastructural conditions, together with the networks of relationships it enters into. In the following dissertation, I undertake not only a historical and specialized, scientific analysis of GIS, but also an attempt to re-situate GIS in the context of contemporary cultures of cooperation, social activism, science and community mapping. This new approach is no longer taken from the perspective offered by the disciplines of geography or geoinformatics, but from the perspective of current social research practices that generate new cultural qualities. GIS as a technology is, to use the phrase of researcher Anna Nacher's, "a complex semiotic-material-affective hybrid" that was created for the extraction, recording, analysis and control of data obtained from the social, political and environmental. Research on the fundamental concepts and methods of Earth datafication used in GIS constitute the main axis of this dissertation. Reaching what seems to be the most exemplary for geoinformation systems, it is important to ask the question what type of spatial representation dominates the world and how is the technology of geographic information systems positioned in relation to it? GIS shapes social imaginations, defining the form and content of what reaches public consciousness. In view of the presented research problems, the dissertation also tries to answer the question of whether these technological systems based largely on Western cartographic principles and scientific methods, and reduced to the digital space, have the potential to be recovered for the benefit of new cultural proposals that aim to formulate communal, anti- and decolonial, postcollective spaces of cooperation and knowledge production. Ultimately, I am also looking for an answer to the question: why are these practices and technologies being recovered, is their recovery necessary, and if so, what is the ultimate goal of this action? Another important task in my research was to develop a language that would bridge disciplines. Translating, shifting and opening concepts existing in the hard sciences to the humanities and vice versa constitutes the interdisciplinarity of these studies. By proposing a cross-disciplinary approach oriented towards comprehension, this work can provide useful educational material for both students of the humanities and hard sciences. The following dissertation does not shy away from the difficult positioning in the area of interdisciplinary studies, while offering a contribution to the cultural studies.