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CARTOGRAPHIC QUALITY ISSUES OF VIEW SERVICES IN GEOPORTALS

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Several countries have constructed, or are constructing, portals for spatial information, so-called geoportals. In Europe, this is governed by the European Commission's INSPIRE Directive. The INSPIRE Directive states, among other things, that each member state must have services for searching, viewing and downloading spatial information. In this paper, we focus on the cartographic aspect of view services.

A view service provides considerable flexibility. Users request which information (layers) they want to be displayed from different web sources (basic services); the response from the view service is a map in either raster or vector graphics format. The INSPIRE Directive sets a minimum requirement for view services: "view services must make it possible to display, navigate, zoom in/out, pan, or overlay viewable spatial datasets, and to display legend information and any relevant content of metadata". However, we argue in this paper that fulfilling these basic requirements is inadequate for efficient view services, especially concerning cartographic aspects.

View services will provide us with maps that can be adapted for various purposes. This is of course positive. But will the maps be better from a cartographic perspective? As in the case of many new technical inventions, we will probably see an initial decrease in cartographic quality. This follows a historical pattern; most technological innovations have initially led to worse cartographic products. The introduction of printing, for example, led to an initial decrease in cartographic quality, but we have since learned how to print good maps. More recent technological innovations, such as the computer and the web, initially provided poor maps, as most of us have seen. Today, we are in a situation where some good maps are available on the web, but we are facing a new technology (geoportals) that is likely to affect cartographic quality.

In this paper, we review some interlinked issues concerning the cartographic quality of view services: semantic heterogeneities, geometric heterogeneities, diversity of level of details, inefficiency of labels and inefficiency of symbols. For each type of issue we provide a number of relevant studies and methods; the description is not exhaustive, but reflects appropriate tools that are available to improve the cartographic quality of view services.