The Third Spatial Revolution

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September 2007

The paradigm that hitherto defined the accessibility of geographic data has changed quietly, but irreversibly, in the last three years. Once affordable only to industry and government, and capable of being visualized only by the most complex machines, geographic data has since become the mainstay of our interconnected world at almost every level. Geographic space is truly the void-that-binds, and the way that the world thinks of, and interacts with, geographic information is on the cusp of another sea change.

The Desktop GIS introduced the first of the Popular Spatial Revolutions: with ArcView and MapInfo, geographic data – and its visualization and analysis – was available to anyone with a PC and modest pocket depth. The Second Revolution was triggered by the advent of free online mapping services: Google, Yahoo, and MSN brought mapping and imagery into the forefront of people's minds, not only by making geographic content so accessible, but by enhancing users' interaction with geographic data: mash-ups, standardized formats, and spatial APIs have allowed users to collate, visualize, and publish spatially-referenced information in a multiplicity of incarnations that no single corporation or data supplier could ever encompass, or envisage. We have moved from the idea of 'geographic data' to 'geo-informed data', using geography to enhance, and visualize all information that relates to place.

We are currently positioned on the brink of the Third Spatial Revolution which will be marked by the ability to define and describe the space around us, in our own terms. People 'get' geography because they directly relate to it: the process of digitizing, tagging, and publishing permits us to share our geographic worldview, but perhaps even more importantly, provides us the means to put our immediate physical environment on the map, and to define our space in terms that do not agree with statutory interpretations of geography. This Third Spatial Revolution will result in the increased visibility of local space, particularly neighborhood-level and below, and the increase of non-statutory geography.

This is the 'Long Tail' of geographic information, but inverted: the fine granularity of data, such as property plots and neighborhood definitions, have not been captured previously because they are either too fine, overly amorphous, or are not formal units of authority. User Volunteered Information (what we call 'User Defined Geometry' at Yahoo) will be created both implicitly and explicitly by tens of thousands of individuals; it will provide users what they want, but it will by consumed by larger organizations who do not have the means to collect and publish this information on a global level. The world will very quickly become more personal, more relevant, and that much smaller.

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