Creating Maps in the Social Networking Era

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Geographical Information Systems (or GIS) are no longer limited to professional use. Through a process similar to the Wikipedia model, everybody can now create and share their local geographical data. New online maps, such as Microsoft Virtual Earth, Yahoo Maps, Google Earth, and Google Maps are attracting millions of users. Public administrations in many countries are contributing through the publication of their cartographic data for non-commercial use. This is especially true in Spain. The technology necessary to help associate data with maps and open them to ordinary public use is also now available. This is certainly the case with mashups, API, *Open Geospatial Consortium* standards, social networking software, and many GPS devices.

This confluence of technologies, devices, social networks, and applications has created all the conditions necessary for the triumphant advance of geographic information systems. Call it neo-geography. This Geography 2.0 is a democratizing evolution that places the average citizen above the providers of data and technologies. It offers people a new way of perceiving territories, cities, highways, oceans or even the universe. In fact, this new geography is shaped by to the interests and perceptions of each individual user.

Users are embracing this new tool with great enthusiasm. In turn, these users provide valuable geographic content for back streets, hiking paths, touring routes, historical maps, nearby service locations, or even all kinds of links to websites and social networks.

Cell phones are reinforcing this movement

This process runs parallel to another major shift in the use of GIS. The change involves a migration from desktop computers to GPS and onto the new geo-localization protagonist, the smart phone equipped with GPS functionality.

The GPS market has stagnated – even shrunken – but mobile phone manufacturers are filling the gap. Mobile phone purchasing, which is much more common, saves people from having to acquire a traditional GPS device even though the latter offers advantages such as better precision and longer battery life. Wireless broadband network implementation, the availability and low costs of GPS equipped intelligent mobile phones, the existence of flat rates for data communication, as well as applications for this type of device (á la Mobile GMaps) are all contributing to greater user acceptance and participation.

The evolution of Geography 2.0 is reminiscent of the process undergone by reference publications after the Wikipedia boom, powered by an impressive force of collective intelligence. One example of this participative style in the geographical realm is Wikiloc. This project, founded in Catalunya, currently involves 45,000 touring sport enthusiasts, such as hikers and bikers, who have made over 54,000 routes public and provided massive amounts of content through text, video or photographic links. Wikiloc's international repercussion has increased dramatically ever since it was admitted as one of Google Earth's integrated layers. It is now as prominent as videos that are geo-referenced in YouTube, National Geographic reports or NASA space images.

The existence of these sources for informal alternative geographical information puzzles geography professionals and traditional providers. Nevertheless, not unlike any other Web 2.0 project.

The British Open Street Map is a 2.0 street guide that allows users to enter their own information about streets, neighborhoods, and cities that they know better than anyone else. However, the contents offered in these participatory street guides often do not coincide with information published by companies specialized in these areas or by municipal administrations in their own traditional city maps. Local citizens can highlight aspects that are officially

ignored such as cleanliness or gentrification issues. The same occurs with the majority of social travel networks, from Dopplr to the Spanish Wolpy, in which travelers provide follow-up on their trips as well as those of their friends. This possibility may force a strategic change on the part of public and private sector providers who will have to accept critical opinions and act accordingly if they hope to maintain their credibility.

This new and revolutionary way of perceiving space and sharing information without intermediaries opens immense possibilities to society. Innovative projects are multiplying in all directions, and most of these have a clear international vocation. One example is GeoMe, a start-up that allows people to trace messages left by their community on a map in their mobile phone. Headquartered in Barcelona, founded by a Swedish entrepreneur and run by an Italian CEO, GeoMe allows its members (predominantly young people between 15 and 24) to receive an automatic alert on their mobile phone when they enter within a 20-meter radius of the point in which a message was left. Thanks to this innovation, GeoMe eliminates one of the access barriers to this type of service since it consistently respects users' privacy. Unlike other competitors, such as Google Latitude, users never see where the community member is. They only see the place and the text of the messages.

Neo-geography is now a fact of life, but its business models have yet to be totally defined. For example, Wolpy expects to survive on advertisements linked to specific places and agreements with tourism institutions. GeoMe is basing its business model on advertising and "virtual gifting". On Valentine's Day, it will now be possible to buy a virtual rose and leave it in a romantic place such as the Pont Neuf in Paris. Only time will tell if these economic expectations will become reality. Right now, it is AdSense advertising that is helping to pay Wikiloc's infrastructure costs. The same is true in many other similar initiatives. In this sense, neo-geography is a pure Web 2.0 phenomenon, a social force that is unstoppable but whose economic future is uncertain.