



## Forecast: Competition in the commercialization of geodata and geospatial services will intensify

Wed, 01/09/2008 - 3:11pm — Paul Torrens

### Description:

Popular fascination with browser-enabled maps, mapping, and mashups has reached a fever pitch. At the same time, knowing where you are in space is becoming a significant entitlement, much like knowing where you are in time. (Although, while strangers often ask me what time it is, they don't—yet—ask me what my lat/long is.) The power of position is not undervalued by technology companies, and many of them are falling over themselves to be the ones to not only tell you where you are, but to bundle that answer with a host of suggested services and transactions that you could enjoy while you are there. And, it would seem, there are plenty of groups who will pay for the privilege of being advertised atop that list. The commercialization of place and location will likely usher-in some serious wrangling for control of the geodata pipeline, particularly as newly emerging products and services prove their value in the marketplace, eat into, and disrupt existing business models.

### The map as user interface will become the new portal to a Web 2.0 world

Most of the current activity in this area is centered on the user interface—the map. The slew of browser-based mapping APIs and services makes for an ever-expanding list, with [Google](#) and [Yahoo!](#) joining the mix alongside long-standing initiatives from [Microsoft](#), and (AOL) [Mapquest](#). Many of these groups have already ported their cartographic interfaces to 2.5D, particularly for large cities. Fully-fledged virtual world interfaces cannot be far behind, and whether this will be dominated by Google Earth, MS Virtual Earth, MyWorld, or Sony Home, remains to be seen.

### Next-generation positioning systems will be developed

Control of current-generation consumer positioning technology is relatively shored-up by GPS providers. But, GPS have problems with urban canyoning in built-up areas, the very places where the user-base (and services to be sold) are co-located. Academics and industry have toyed with alternative positioning systems in the last few years, using Wi-Fi access points, cell towers, blue tooth devices, and even TV signals to triangulate position. (See Intel Research's [PlaceLab](#) initiative, and Microsoft Research's [NearMe](#) projects, for example.) Construction of complete alternative positioning systems for a whole urban area is not out of the question, and the upcoming bidding-war for urban spectrum-space may well create new markets for such positioning systems, also out of necessity to carve-out new business models to cover the costs of spectrum licensing.

### Access to, and ownership of, geographic information will become a prized commodity

Raw positional data is just one part of the equation. Maps are information media: they are abstract representations of a more complex reality, feature-rich, symbolized, annotated, and often heavily debated-over. The existing mapping and surveying agencies have huge standing investments in these products; are they likely to handover their archives for free? Here, already, there are signs of contested control. The Management Association for Private Photogrammetric Surveyors (MAPPS) and USA were just in court, arguing over whether federal contracting rules regarding licensing of practitioners should be applied to mapping or not, for example [1, 2, 3, 4]. Groups in West Virginia are currently battling over rights to publish tax maps Online (see the [Ars Technica](#) report [here](#)). Such squabbles are likely to feature prominently in the future as these ownership and access issues play-out.

### Geographic Information Science will move front-and-center into the IT debate

Questions regarding who will dominate in developing and applying the Geographic Information Science that connects the data to the interface and to the world are perhaps where much of the future struggles may emerge. This arena brings suppliers of browser-based mapping APIS up against



geospatial heavyweights like [ESRI](#), [Autodesk](#), [GE Smallworld](#), [Intergraph](#), [Leica Geosystems](#), and [Oracle Spatial](#), who have substantial intellectual property in GI Science and the Geospatial Web 1.0 (and 2.0 in some cases), as well as rubbing shoulders with long-running open source or public-spirited initiatives ([GeoTools](#), [GRASS](#)) and academia.

#### References

- [1] Documents and testimony regarding the suit are archived by the AAG [here](#)
- [2] MAPPS's archive regarding the suit is [here](#)
- [3] Schutsberg, Adena (2007). "Has There Been Enough Response to the MAPPS Litigation?". Directions Magazine, February 21, 2007
- [4] Luccio, Matteo (2007). "GIS Monitor Supplement: GIS — The Greater Extent". Professional Surveyor Magazine, 27(4)

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