Geo-Information from the Millions

I will certainly not be disclosing a secret when I say that collecting geo-information is a tedious and labour-intensive business. Indeed, 80% of the cost of most GIS projects concerns the data gathering part. Topographic data for compiling, say, 1:10,000 maps, is exclusively put together by highly-skilled professionals, either employed by the (national) mapping agency itself, or hired by the same. Consequently, updating of topographic databases is a costly and time-consuming endeavour and the frequency of updating is accordingly measured in years rather than in months. And this in a world in which the rate of change in major areas has never been so fast, not only as a result of population pressure, but also thanks to high levels of economic activity due to political relief or foreign support.

A decade or so back a layman would have said, "So you are involved in mapmaking. An easy job, I guess; no more white spots, everything has already been mapped." Today the millions are becoming increasingly geographically aware. We travel around a lot, some of us even all over the world. We use Earth Viewers to plan holidays or business trips, while GPS tells the traveller how to drive from A to B. One inevitably discovers discrepancies between the world as mapped and the world one drives through. Some of us just shake our heads, but others would like to get the frustration off their chest, inform the map publisher of the flaws they've found. So new technology has created potentially millions of individual information sources from which mapping agencies could benefit for updating topographic databases. However, communicating flaws via email is tiresome, and far from optimal in terms of transferring geo-information. And as long as no proper feedback infrastructure has been established, one would be unsure of receiving a response. Would the mapping agency appreciate my comments? A feedback infrastructure can be introduced by using today's web-based services. Against a backdrop of existent maps, the co-operative citizen could draw new features and insert GPS coordinates.

Wouldn't the information provided by laymen be unreliable? Why should it be? Use can be made here of the statistical law of large numbers. One source of information is no source, two are unsuitable, and with three comes a sense of reliability. Annual awards, presented during festivities, are very effective in stimulating the participatory approach, as GIS companies have been experiencing for decades. The participatory approach would enable an increase in update frequency and give participants the feeling of becoming part-owner of the map they are using. Why should the job be left to professionals alone, when so many laymen have become geographically aware and, given time, know how to control location-based technology?