# SDI Still Evolving

I enjoyed all the discussion and speculation at the GSDI 12 Conference in Singapore last October over what 'SDI 2.0' would look like. There were also exciting ideas about user-volunteered geographic information, even better interoperability, and greater reach and range of web services. But aren't we already beyond 'SDI 2.0'? I think we are.

**Early Days**
Those first SDI efforts in more developed nations that started in the early 1990s, 'SDI 1.0', if you will, were rooted firmly in the leading-edge technology of that era. Influenced by public-sector mapping organisations, these programmes were devoted to enabling people firstly to specify the type(s) of spatial data for which they were searching, secondly find out online where and how they could be accessed, and then thirdly either download or place an order for the files on CD. Regardless of how the data arrived on one's desk, they were then loaded onto a computer workstation and manipulated using its software.

**GPS and LBS**
SDI 1.0 encouraged better and better online access to support offline usage of geospatial data. Curiously, although many of these government organisations were
also simultaneously establishing national GPS control networks, little formal attention was paid to real-time positioning and navigation
as part of national SDI. Private companies took the lead in developing Location-Based Services.

**Cloud Gazing**
Today much of our work is conducted on the web and 'in the cloud'. Modern transaction-based applications, geared to everything from property information services to route planning, represent a fundamental shift away from earlier usage patterns. Rather than the 'find it, get it and save it' of SDI 1.0, today's mainstream users access information online, and then 'use it and lose it'. Each view becomes a disposable commodity, employed for a given purpose and then deleted.

**Upping the Ante**
But now the ante is being upped again with the convergence of three factors: firstly inexpensive, easy-to-use GPS; secondly, widely available, high-quality street network databases covering entire countries; thirdly, high-speed digital wireless communication systems; and fourthly, networked servers and processors capable of handling hundreds or thousands of simultaneous online requests. Table 1 illustrates some early examples of this convergence. Most currently widespread applications employ the technology to tell individuals exactly where they themselves or specific things are. Future applications will move beyond this to provide things with the ability to recognise and act, based on past, present or predicted future locations of other things.

**Not Quite There**
Are today's SDIs as we know them capable of supporting all this? Not yet. Not completely. But you can count on these developments having a big impact on future partnerships between public and private data suppliers, third-party distributors, and strategic partners.

https://www.gim-international.com/content/article/sdi-still-evolving