

## Serving up life in an online world

Ken Banks, IDG News

Thomas John Watson, Sr. was the President of International Business Machines ([IBM](#)) during its years of spectacular growth in the 1920's, 1930's, 1940's and 1950's. It was during this time that he nurtured IBM's innovative management style which, until recently, kept Big Blue at the top of the global IT league. Fast approaching 400,000 employees worldwide, IBM remains the world's largest information technology employer, although a couple of years ago Hewlett Packard overtook it based on total revenue (but not profit).

It was Thomas Watson's son, Thomas J. Watson, Jr., who took IBM into the "modern-day" computer business after taking over the reins in 1956, one month before the death of his father. Previously the company concentrated on the building of tabulating machines and cash registers – products which were to later be replaced by mainframes and personal computers. Thomas Watson Sr. was sceptical of the role of these 'new' machines – still very much in their infancy in his time – and was reported to have famously said that "there is a world market for maybe five computers". There is considerable debate as to whether he did or did not actually say this, but looking at the landscape 65 years on, maybe he had a point.

Of course history has shown us there was a much larger market for mainframe and personal computers, but had Mr. Watson said that the world could perhaps be run on five servers, then he might not have looked so out-of-touch. Just look at [Google](#), with its plans for on-line domination. First search, then on-line tools and applications which many believe will rival and eventually replace Microsoft Office as our main productivity tool. Even the mobile industry isn't safe, with Google's entrance via Android late last year. The company has had an astronomical impact since floating only four years ago, and, as with IBM in its day, it is blazing a trail with its innovative [work and management practices](#). Suddenly, it seems, everything is moving online and Google seem to be at the centre of much of it, much to the concern of others.

Of course, an online world is something of a double-edged sword for users in the developing world. In much of sub-Saharan Africa, rates of personal computer ownership remain low and many internet cafes, particularly those in urban areas, thrive as a result. With mobile phones holding immense promise but so far failing to deliver anything like an acceptable user experience, personal computers remain the best option for many hoping to join the IT (and online) revolutions, something which hasn't gone unnoticed by organisations such as One Laptop Per Child (OLPC), Intel and more recently Dell, who all have their own low-cost laptop initiatives aimed at these very markets. Intentional or not, many of these low-cost machines, with their relatively low storage and processing capacities, are ripe for this emerging online world, assuming, of course, that people can get online.

For now, internet café-based computers are more “public” than “personal”, and having access to rich online tools such as email, word processors and spreadsheets, and hefty amounts of online storage space is a huge plus. Personal computers no longer need to be personal, since multiple users can make use of them without worrying too much about privacy or where to save their data, or how they’ll access it if it’s saved on a hard drive somewhere and their first-choice internet café is out of action, or they can’t get back on the same machine they were using last time. Hard as it may be for us to appreciate, these are real issues that many users face around the world on a daily basis.

With the growth of this online world, thin-clients – poor man’s computers to some – are attracting renewed interest. In the days of mainframe computers, desktop machines acted as simple terminals, with little or no storage capacity and hardly any processing power or on-board memory to speak of. These ‘dumb’ terminals simply sucked down and displayed data on demand, and sent it back if the user decided it needed changing. Terminals had smallish footprints, were simple, relatively cheap and couldn’t do much if they weren’t connected to a mainframe. Today, the internet is the mainframe and many people find it hard, if not impossible, to work if they lose their connection. With our world increasingly served up online, the need for personal computers to be processor powerhouses with hundreds of gigabytes of storage seems less and less relevant. “Thinner client” machines being targeted at the developing world may well be just as relevant, if not more so, closer to home, and no doubt many of the innovative technologies developed by the likes of OLPC will one day make their way into our very own machines.

Imagining the landscape by the end of the next decade may not be that hard after all. Is it really so unbelievable to think that everything we do could be based on thin client computing devices, maybe even mobile phones, the thinnest clients of them all? And that all of our digital assets could be held on five solar powered mega-servers in Mountain View, home of Google?

Thomas Watson, Sr. could have been a lot closer to the truth than he ever imagined.

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