

Avalanche of Technologies

by Paul Gibson



"Communication is the key to tying the knot..."

The advances that have taken place in technological research that have caused this "avalanche of new devices" are really centered around or focused on data mining, drilling, and bandwidth. Data mining refers to the capability of software to "mine" through data, interpreting and transmitting data in different ways and codes. Most of these technologies are included in what they call "search engines." You have inevitably heard of the most famous ones: Google, Yahoo, Askjeeves.com, etc.

Data mining involves informational retrieval corresponding to a series of parameters or commands which the user has introduced or input into the system. Drilling is a bit different and may produce different results. Drilling involves starting from particular specifics and arriving to a general category of information. It is the exact opposite of data mining, which uses specific information to retrieve general data. Finally, bandwidth is basically the amount of sound waves that occupy any given region or area. Bandwidth is important in the transmission of data, processing times, cost and efficiency of communications and data transmission systems.

Computer programming has also been changing the capability and functionality of software, hardware and internet services. Computer languages such as Java which replaces Microsoft Basic and SQL language in the 90s are now being replaced by revolutionary "Web App" Computer programming better known as Linux. Linux allows users to introduce modifications and program their own personal application software allowing for a greater variety of programs and functionality. The advantage of such systems are in

cutting the cost of expensive software packages that normally include useless accessories and applications, while replacing them with only the necessary software needed to process information. This is key to "streamlining" business processes and increasing efficiency. Turnover time, which refers to the time it takes to process any order or request, have been increasingly reduced through the introduction of Linux and "Linuxlike" programming and programming languages.

Other forms of business technology are at the institutional or corporate level. While "mobile offices" are more common as time goes by, corporations still require basic technological infrastructure that allow them to function where they are at the local level, while interacting in an increasingly international market. How do they accomplish this? Communication is the key to tying the knot... Companies have come a long way since the era of WAN (wide area networks) and LAN (long area networks) and now like to have their own internal network using Web Apps or Portals that manage the workload and monitor the development of projects in progress through status reporting, independent of your physical location. Technologies like PC Anywhere allow international sales personnel interact in real time while allowing secure access to employees on the move.

Logistics has always been a major target for new technologies...and they couldn't help but heed the call! ERP software organizes how each department interacts with each other and offers an important management tool for those in charge. ERP or Enterprise Resource Planning allows managers to make timely decisions, measure cost efficiency and compare alternatives for virtually any stage of the production or assembly line. ERP or CRM (customer relationship management) software, allows an enterprise to manage not only their own business processes, but their relationship with vendors, outside sales people and an entire range of target customers.

The ERP process is essential to any business plan and assesses a company's structure, market characteristics, business volume and target clients in order to determine the proper integration system for each case.

PDAs or Portable Digital Assistants are the most popular electronic devices on the market these days. "Blackberrys" are still very common. They integrate communication systems and data processing to provide a unique platform for mobile office solutions. Most assistants have a complete package which includes internet, networking, CRM, ERP and mobile solutions for the modern day professional.

The most important contribution of new business technology however is how it affects society and promotes social change. Consumer habits and behaviour have completely changed and will continue to evolve as new ways of marketing using new business technologies evolve. The face of business has been forever changed in a collage of computer screens, keys and sound technology. Our children will now grow up in a more demanding, digital and impersonal society. There is always something impersonal about technology, but most businesspeople agree that in order to do business effectively, a healthy dose of impersonality together with " a personal touch" can go further or at least a very long way, compared to traditional "door to door" marketing or sales.

Mobile phone technology, together with wireless and ultra wide band technologies will forever change the traditional flow of information. The danger lies in the endless "bombardment" of information which leads to ineffective solutions. More information is not necessarily the answer to complex business solutions... The key to making better informed decisions is to know which information you are looking for or need to do your work the best way you know how, and to send out intelligent agents to retrieve the information you require at any given point in time.

The interesting development in recent years has been the apparent decline in space technology with respect to business technology. BT is a major part of IT or Information Technology, but certainly one would think that such important initiatives with billions-of-euros price tags would have advanced more quickly than they have in the past decade. The boundaries and limitations of certain technologies seem to have met their match. With the advent or manufacture of new space shuttles, we seem to have lost the initial key to successful aeronautical vehicles manufacture. However, as years go by, BT will influence how astronauts and scientists forecast and theorise using forecasting and new simulation modules to do their research.