

Information explosion continues

EVERY PERSON, with the possible exception of someone living in a cave in Outer Mongolia, is generating data. In fact, because every government currently captures information on all its citizens in digital format every person worldwide is creating an increasingly large digital footprint.

The amount of digital information being

created, captured and replicated globally is expanding at an ever-increasing rate and United States research house IDC estimates that the current volume of information in what it calls the digital universe is about 281 exabytes (EB). To put that in perspective, if you were to buy the largest hard drive now available – 1 terabyte or 1 000 GB large – you'd need 281m of them

to store all that information. Enough to make a stack more than 7 000km high if you placed them one on top of each other.

That's 10% larger than IDC estimated it to be last year and it isn't slowing. From now until 2011, growth is expected to continue at 60% with more than 1 000EB of data being created in that year alone.

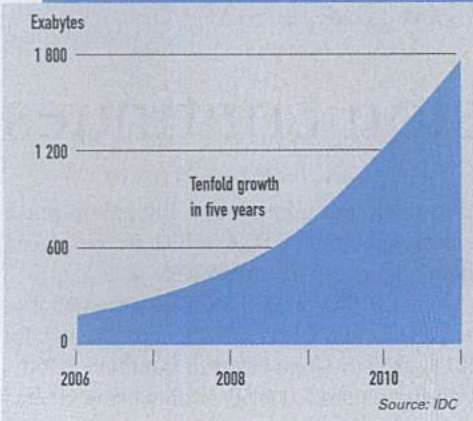


Surveillance adds up.
Roy Alves

You'll be pleased to know it's not the individual consumer that's responsible, although we all do play a part. The report states the primary cause of that is the massive growth in digital imaging technologies over the past few years.

In particular, the report indicates that the massive growth in surveillance technology, especially in large urban areas and China, is the key culprit. Most surveillance cameras are still analogue – meaning they record to tape instead of to disk. However, the market for digital surveillance systems is doubling each year. China is investing billions in security systems for this year's Olympic Games as well as in its 660 cities and 28 000 coalmines. In addition,

→ **DIGITAL INFORMATION CREATED, CAPTURED, REPLICATED WORLDWIDE**



REMEMBER TO CREATE AN ARCHIVE...

I HAVE SIX YEARS' worth of digital photos on my laptop chronicling many of the most important events in my life. Should my laptop go missing I, like many others, would struggle to recover those photos.

There's a clear distinction between a backup and an archive. A backup is a working copy of your hard drive while an archive is a repository for important documents that need to be stored for posterity. In a personal capacity you might be storing copies of scans of birth certificates, school reports or photos and video and in a business environment storing contracts or product specifications that are unlikely to change.

While it may seem a good idea to use optical media – such as CDs or DVDs – to

archive content, external hard drives are easier to check for errors and capable of storing significantly larger amounts of data. And if you need to transfer information from one source to another it's a much simpler exercise.

That's important, because technology becomes obsolete – just try finding a drive to read one of those old floppy disks – and the data that's stored will need to be transferred to a new technology at some point.

And if you want to be really diligent, copy your archive and ask a family member to keep it for you in case your house burns down.

• Source: www.jumpingmonkeys.com Episode 38

New York is spending US\$90m on surveillance technology.

Roy Alves, country manager for Axis Communications, says a single camera using motion detection will generate between 3GB and 4GB of data/day and in a typical environment that video would be retained for seven days. Given that a large site would have numerous cameras its storage requirements quickly add up.

Alves gives the example of a new airport in the Middle East, which according to his information has in the region of 1 800 cameras running 24/7 – creating about 10GB/camera/day – with all the footage being stored for 30 days. That would amount to a storage requirement of around 500TB just for the day-to-day storage of footage.

281
exabytes
of information.

The other factor driving up the size of the digital universe is the migration to digital television. While SA is only just starting out on that path many countries are much further down the road.

And then there's the adoption of digital cameras and camcorders that has almost reached saturation point. The report indicates less than 10% of still images were captured on film in 2007 and as the resolution of the images captured by digital cameras increases so does the amount of storage needed.

One area likely to create some confusion is the difference between the amount of available storage and the amount of data created. The difference is that much of the data created and transmitted is never stored. For example, every call you make on your cellphone – because it's a digital transmission – counts towards the total. But unless the police are tapping your phone it's unlikely your conversations are recorded and stored in a digital format. The same goes for digital TV transmissions, which – though stored at the TV station – the person viewing is unlikely to keep a recording of for an entire year.

This explosion of digital content is going to continue to place stress on both organisations and individuals as they continue to battle to store and manage all of it. Unfortunately, it's only going to get worse as more services previously analogue move to a digital medium.

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→ **INFORMATION CREATION AND AVAILABLE STORAGE**

