## WHERE IT ALL WENT WRONG

The Text of a Speech delivered to the National and State Librarians of Australasia on

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by

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and released under a

Creative Commons Attribution Share-Alike License http://creativecommons.org/licenses/by-sa/2.5/ Bill Gates wrote a bestseller in 1995. He was on a roll: Microsoft Windows had finally crushed its old foe the Macintosh computer from Apple, Microsoft was minting money hand over fist, and he was hugely respected in the industry he had helped start. He roped in other big brains from Microsoft to write a book to answer the question, "what next?" *The Road Ahead* talked about the implications of everyone having a computer and how they would use the great Information Superhighway that was going to happen.

The World Wide Web appears in the index to *The Road Ahead* precisely four times. Bill Gates didn't think the Internet would be big. The Information Superhighway of Gates's fantasies would have more structure than the Internet, be better controlled than the Internet, in short it would be more the sort of thing that a company like Microsoft would make.

Bill Gates and Microsoft were caught flat-footed by the take-up of the Internet. They had built an incredibly profitable and strong company which treated computers as disconnected islands: Microsoft software ran on the computers, but didn't help connect them. Gates and Microsoft soon realized the Internet was here to stay and rushed to fix Windows to deal with it, but they never made up for that initial wrong-footing.

At least part of the reason for this was because they had this fantastic cash cow in Windows, the island software. They were victims of what Clayton Christenson calls *the Innovator's Dilemma*: they couldn't think past their own successes to build the next big thing, the thing that'd eat their lunch. They still haven't got there: Bing, their rival to Google, has eaten \$5.5B since 2009 and it isn't profitable yet.

I'm telling you this because libraries are like Microsoft.

At one point you had a critical role: you were one of the few places to conduct research. When academics and the public needed to do research into the documentary record, they'd come to you. As you now know, that monopoly has been broken. The Internet, led by Google, is the start and end of most people's research. It's good enough to meet their needs, which is great news for the casual researcher but bad news for you.

Now they don't think of you at all.

Oh yes, I know all the reasons why the web and Google are no replacement for a healthy research library. I know the critical importance of documentary heritage. But it's not me you're talking to at budget time. It's the public, through the politicians.

They love public libraries, in our country at least. Every time a council tries to institute borrowing fees or close libraries, they get shot down. But someone tries, at least once a year. And England is a cautionary tale that even public libraries aren't safe.

You need to be useful as well as important. Being useful helps you to be important. You need a story they can understand about why you're funded.

Oh, I know, you have *thought* about digital a lot. You've got digitisation projects. You're aggregating metadata. You're offering AnyQuestions-type services where people can email a librarian.

But these are bolt-ons. You've added digital after the fact. You probably have special digital groups, probably (hopefully) made up of younger people than the usual library employee.

Congratulations, you just reproduced Microsoft's strategy: let's build a few digital bolt-ons for our existing products. Then let's have some advance R&D guys working on the future while the rest of us get on with it. But think about that for a second. What are the rest of us working on, if those young kids are working on the future? Ah, it must be the past.

So what you've effectively done is double-down on the past.

I like to think of libraries as services in three areas: collections, discovery, and delivery. You maintain big piles of stuff, you help people find the right stuff, and then you let them use it.

In the paper world, this was dominated by the challenges of collection and discovery. So librarians have incredible expertise in preserving words on reeds, on calf skins, on pulped trees. There's huge mana in having a big collection. Collections must grow, they must be complete, deaccessioning breaks hearts and causes shouting matches. And, despite paper, you've been eager innovators and adopters of new information technology: card catalogues and the Dewey Decimal System were profession-changing inventions in their day.

Collections, discovery, and delivery. Delivery is runt of the litter in the paper world, I'm afraid.

One copy? One precious copy? Ok, sonny, you sit here. We'll bring it here. Don't cough, don't breathe, warn us before you blink. Or, in old days, help yourself and we'll trust you as a gentleman to bring it back. That was even less successful than pursed lips and the tyranny of the reading room.

The first movie was a camera pointed at a play. They didn't know the possibilities of the old medium, so they reproduced the old structures in the new medium. When confronted with digital technology, you've basically reproduced the old power structures in the digital world.

You want a massive digital collection: SCAN THE STACKS! Give it to Google! Give it to a commercial partner! Just get the damn things digitized so we have a lot of bits of our atoms!

You agonize over digital metadata and the purity thereof. You maybe reluctantly part with your metadata (but not your precious collections!) to Trove.

And you offer crap access.

If I ask you to talk about your collections, I know that you will glow as you describe the amazing treasures you have. When you go for money for digitization projects, you talk up the incredible cultural value. ANZAC! Constitution! Treaties! Development of a nation!

But then if I look at the results of those digitization projects, I find the shittiest websites on the planet. It's like a gallery spent all its money buying art and then just stuck the paintings in supermarket bags and leaned them against the wall.

# You're in the digital world. Bits don't work like atoms. I'll give you five critical ways that bits don't work like atoms.

#### First, bits are cheap to copy.

By all means protect the digital master, but copies can be plentiful or even ubiquitous.

Physical access has been limited because you have one copy of each physical item, you need to maintain control of that copy to preserve it for the next patron, and copies are expensive to make. Digital copies are free to make, they're nondestructive, they free you from the burden of control, and you can have as many as you want. Those are vastly different rules.

This is, of course, why copyright is such a bugger in the digital age. It's riddled with assumptions about the difficulty of copying atoms that aren't true of bits.

#### Second, access is expected.

You can argue until you're blue in the face about the intrinsic value of collections, but as your research monopoly has been destroyed, you need to start delivering some other value. Access to those precious collections is it. Collections, discovery, distribution. If nobody uses your digital collections, what's the point? If nobody can find the digital objects, what's the point? If you recreate medieval standards of access in the digital age, what's the point? You won't get to the 21st century by doubling down on the 11th century.

Your new reading room is your patron's web browser. Are you designing distribution for that? How much did you spend building a new reading room, Bill? How much are you spending on digital delivery?

The first place they start looking for things is Google. Are you designing discovery for that? Do you know how to be found?

Example: the British Library had a company digitise, and got limited access and rights to the digitised content. Google contracts have restrictions on your use of the scanned material, too. Is this kind of arrangement acceptable?

It depends on whether libraries are primarily collections or whether you have high expectations for access, too. If you don't value distribution, you'll think these are good choices. The British Library says "hey, the physical objects were only available on our premises; this gives more access than there was before. Most importantly, though, we solved the digitisation problem!"

You can see the mistake they made. They focused on collecting digital assets and digitising their physical ones, probably even convened conferences on digital metadata.

And then hid their fabulous collections out of site. It's like they WANT to be irrelevant. "Please, don't be one of the first places people visit to research the nation's cultural identity! Let's make it hard for you to do scholarship!"

So, once again: distribution is critical in the digital age.

#### Third, the Internet is bigger than you are.

In the past, you had knowledge, frozen in books. Ordinary people came to you to get that knowledge. There was a bit of a class divide: those who Create Knowledge and those who Consume it.

Those days are gone. Online, everyone's a creator. Those of you doing digital harvest of websites know this. "Look at all the crap we have to save!" (The same is true of legal deposit collections)

The point is that you're saving the stuff that future generations will care about. And, increasingly, the stuff that future generations will care about is online. That's why Library of Congress acquired an historical and ongoing archive of tweets. Not because a tweet is comparable to a first folio, but because it's what future generations will care about when it comes time to determine the mood of the nation.

I personally believe that the greatest role you play is around the documentary national identity. People come to you to find out about their ancestors, to find out what life was like, to critically evaluate and understand the past.

If you consider your future in terms of documentary national identity, you might do other things. There's a software project here called Kete, Maori for basket, which is a way to capture and preserve family histories, stories of the area, photos, interviews, etc. Imagine a future where citizens contribute to and search these, perhaps through their local public libraries. Wikipedia won't take this stuff, it's not notable, but it's exactly your business: we'll take it and help other people search it.

You might do what the National Library of New Zealand did, and dispatch a photographer to Christchurch to document the earthquake aftermath and recovery to ensure adequate documentary record was available to future researchers. So, in short, much of the nation's cultural life is now happening Out There. You need to find more ways to gather it in.

#### Fourth, bits are so cheap we have too many of them.

Our grandparents grew up with very little. They valued every possession. I know this because I live in my grandparents' old house and I'm still finding balls of odd-lengthed twine in the basement. In fact, we humans evolved with very little. We were always starving for food, short of objects, desperate for information.

Now we have too much of everything. Cheap plastic crap from China means everyone can have a crappy version of everything they need. Cheap industrial crap food means everyone can get calories, even though they might not be good for us. And easy copying of bits mean we have too many of the damn things.

Computer scientists think they can solve this problem. We've got indexes and search engines. What we can't programme is critical thinking in humans. That's where librarians come in.

Let's assume that Google's search engine is the state of the art at finding gemstones buried in dungheaps. This state of the art is not great. It struggles with relevance, it tries to filter out spam, and it personalizes so I see different results than you do. And, of course, it's beholden to its advertisers. This can never be the only answer to helping citizens find what they need.

The best solution is when both man and machine work together: librarians make sense of indexes, this is what they do. Computers are great at building indexes. Don't think either-or, think **and**.

Part of a national or state's library's role is to get stuck into this and help. Teach information literacy. Teach basic research skills. Work with schools so kids know how and where librarians exist. Discovery is important online, and it's not just having accurate metadata and Google.

#### Fifth, the Internet connects things.

I know, it sounds obvious, but that's what it does. Good broadband is coming to all of us, thanks to the national broadband projects which are by now too big to fail. That broadband isn't just for sending digitized books across. It's also the medium by which librarians and libraries can work together.

Oh sure, you can share collections. This is threatening to institutions because the collection forms a key part of the institution's identity. Both countries have projects to provide one-stop-shop search across all cultural collections (search but not delivery!) so we're starting to get our heads around sharing collections. I imagine a National Digital Library where the collections are shared like this. But not just the collections.

You can share services too. You've probably experimented with online services. NZ has AnyQuestions, for example. High-quality video conferencing, email, and the web are ways to deliver human services across the Internet.

If you have people delivering services online (answering questions, making recommendations, entering data, etc.) then you can share people without having to physically move them around. What opportunities does this open up? Share staff between institutions, or have specialist staff offer services in a physical location where they cannot be.

The Internet also connects computers. This is the age of "the cloud". Can you provision equipment for other institutions to use? The National Library has a project to provide regional libraries with an affordable functional modern catalogue system so they don't need to spend the dollars themselves. What joint purchasing can you share in this fashion?

#### So, to recap:

- + be useful as well as important
- + collections, discovery, distribution
- bits are cheap to copy
- access is expected
- + the Internet is bigger than you are
- + we have too many bits
- the Internet connects things

You can't afford to be bad at digital. I tell businesspeople: It's your inventory, it's your storefront, it's your customer service line, it's your supply chain, it's your advertising, it's your profit and loss.

For libraries, the Internet is your collection, it's your reading room, it's your catalogue, it's your interloan, it's your helpdesk, it's your opportunity to reclaim relevance.

And I'm afraid to say, you're the pointy end of the digital redefinition of culture and heritage institutions and public services, because text is small and the first to go digital. E-books? Next are e-music, e-movies, e-ephemera, e-maps, epaintings, e-sculpture, and who knows what e-lse. Every archiving institution will face your problems, some are already grappling with them (e.g., the Powerhouse Museum).

Online search? Online helpdesk? Online loans? Every public-facing organisation will face your problems. At least you can take comfort from the fact that you won't be the only ones disrupted by this change.

Finally, let's consider Microsoft. Nobody wants to be in their place: 15 years after discovering the Internet, they're still tipping money into it with little success.

The company that successfully transitioned from a Microsoft business to the Internet age was Apple. When Jobs returned in late 90s, he threw out the 40odd products they had and said "we're going to make computers that are build to connect to the Internet, and the software on them will be Internet-aware software." They focused on four Internet computers (that's where the i in i-Mac came from) and from that success he was able to focus on successively further extensions like iPods and iPhones and iPads.

You need to focus. Success for you is relevance. Make things that people use. Value the skills that your people have and the services they deliver, but don't be a slave to atoms. Value helping people.

Then when someone asks "why do we tip all these millions into this?" or "doesn't Google do that already?", your relevance is your answer. You must do this. Libraries are the homes of critical thought, of long-term cultural preservation, and of democratic access to knowledge. This can't end with the Internet.