# The Thought Leadership Report

## Building on the Bookends Scenarios

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# The Thought Leadership Report

# Old themes new questions

It is a characteristic of the way the world unfolds that the surprises of our generation (9/11; the Berlin Wall; social media; the genome; tsunamis; the GFC; Exchange Rates; China; World Cup 2014; Open Source; Internet of Things; Big Data; Cloud Computing; CCTV; Wikileaks; Wearable Computing; 3D Printing and so on) 'come not (as) single spies but as battalions'.

They punctuate the ordinary and organic change that we anticipate from past experience, catapulting us into new realities with their new challenges.

In this Report we take a bird's eye view of what has been going on in the external environment in which public libraries in Australia (and in particular in NSW) are operating since we reported on the future back in 2009.

Once again, the things we see have been classified using the Neville Freeman (I)NSPECT categories.

Nature
Society
Politics
Economics
Culture
Technology

The 'I' in INSPECT is a reminder that everything we see when we inspect our environment is based on the way we interpret the world, our experience and on our world views.

Thus the INSPECT approach recognises that libraries operate within a broad environment which is complex and reified by us the 'inspectors'. While we can influence some elements in the environment, we control very few. The way in which we might expect these drivers to play out varies from the relatively predictable (population growth, ageing); to the critically uncertain (economic growth/decline, information technology); to the complete surprise of what we call the wild cards (natural disasters, terrorism).

# 1. (I)nterpretation

Our world view - the way we interpret the world - involves the interplay of several activities
1.1 A descriptive model of the world
1.2 An explanation of the world
1.3 A sense of where we are heading
1.4 Engagement with ethics as we ask 'what should we do?'
1.5 Some theory of action about how we should attain our goals
1.6 An epistemology, or theory of knowledge - what is true and what is false?
1.7 An account of its own 'building blocks', its origins and construction

# 2. Nature

## 2.1 Climate change

*"On climate change, we often don't fully appreciate that it is a problem. We think it is a problem waiting to happen."*

<div align="right">Kofi Annan Former UN Secretary General</div>

*"The current policies we have are leading to a world where temperature goes up by 4 degrees. You can't do business in a [plus] four degree world."*

<div align="right">Ian Dunlop, Climate Change activist in Australia</div>

Exactly what is happening to our climate is still uncertain, but the majority of scientists now agree that something significant is happening and it's almost certainly our fault.

Nevertheless, debate about our climate has taken a backseat of late due to more immediate economic concerns. This is despite significant natural disasters such as Hurricane Sandy, which hit the US in 2012 and the widespread flooding experienced by Europe in 2014. Australia, as with most countries world-wide, is experiencing extremes in its weather with climatic outliers becoming the norm rather than the exception.

Some people are responding to climate change by unplugging or moving 'off grid', but for most of us it's a case of make do and mend and see what eventually happens, which in the case of human activity is even more uncertain than the weather.

Possible impacts of climate change, beyond pricing, taxation and regulation, include the widespread movement of people between regions, the failure of food crops (in turn impacting migration patterns) shifting disease patterns and wealth.

In the Australian context the greatest threat is probably drought, while in other regions, notably Europe, the greatest threat could be the opposite - flooding. However, as the Shell scenarios team has pointed out, water, food and energy are all linked, to which one might add employment.

On policy matters there is a remarkable lack of bipartisanship on matters climatic in Canberra. Almost the whole period since we reported in 2009 has witnessed policy paralysis without any political will for emissions trading, carbon pricing and taxing – a regulatory nightmare for people looking for leadership and certainty on one of the world's crucial issues.

> How will the politics of climate change develop as we go forward? What will Australia do without a Carbon Tax or Emissions Trading Scheme?

## 2.2 Water

*"The Romans realized, as have every civilized people since, that living in cities is impossible if the water supply is not reliably clean and fresh."*

Frank Chapelle, author of Wellsprings

The dismantling of the National Water Commission from the end of 2014 suggests that water is not a top priority as no alternative approach to water management is on the table.  It is hard to cite a policy area, which is more susceptible to current experience than water.  When we are in the midst of long term drought (1995-2009), we invest in desalination plants, use abatement schemes and other activities. But when the rain comes (2009-14), crisis management moves to the back-burner. As a result there is no long-term plan for the most precious of Australia's resources.

All of Australia is not the same and critics expect some areas to have significantly worse water outcomes. Australia is especially vulnerable to drought, but globally a number of major urban areas and coastal cities are similarly at risk from reduced ground-water availability, polluted surface water supply and rising sea levels.

To date, water management has failed to keep ahead of demand and technological innovation has been minimal. Water metering and pricing has had some impact, but what's really needed is a global rethink of how water is captured, delivered, priced and used.
Given how sensitive water is becoming in some regions, we may even see new laws and even water abuse and policing policies.

> How does the cost and availability of water relate to libraries and books in particular?

## 2.3 Energy / oil

*"The energy future we are facing today, based on projections of current trends, is dirty, insecure and expensive."*

Claude Mandil, International Energy Agency

One of the most dramatic shifts since 2009 has been the disappearance of 'peak oil.' As with Climate Change, the debate has been partly offset because people have become more concerned with their own security of employment than the cost of fuel. But it's also because oil is now thought of in conjunction with gas and due to advances in fracking there is a lot of gas to be extracted, especially in the US.

Other developments include an expansion of wind-power, especially offshore wind in Europe, and advances in solar technology and algal biofuels (growing fuel with bugs and plants essentially). Plans to develop a North African solar grid to supply Europe are also now well under way. However, most of these alternatives are tied to subsidies and there is also the issue of scale.

Thus, the foreseeable future will heavily feature fossil fuels and this will almost certainly negatively feedback to climate change, in particular the frequency and severity of extreme weather events. How fast Australia will shift from coal-based energy in unclear, but over the longer term international pressure and economic sanctions to conform to measures to limit the impact of climate change will likely increase, as will the supply of solar farms and wind farms.

Look out too for innovations like wearable technology being recharged via body heat.[1] [2]

What will happen to energy prices between now and 2030? Will the internet be too expensive to operate from a power point of view (conducting a Google search or recharging an e-book is not 'free' but is often thought of as being so because the cost is hidden) or will e-books and virtual libraries be seen as a solution to constrained supply or expensive energy?

1 http://news.discovery.com/tech/alternative-power-sources/body-heat-could-charge-future-wearable-tech-140415.htm
2 http://theconversation.com/dead-battery-charge-it-with-your-clothes-26097

## 2.4 Pandemics

*"There is no governing structure for a pandemic, and little more than vague political pressure to ensure limited access to life-sparing tools and medicines for more than half the world population."*

Laurie Garret, author

At the time of writing the first Thought Starters Report, swine flu was a concern. Similar pandemic threats are again looming, most recently with ebola. The problems in West Africa are of concern. Meanwhile, vials containing smallpox have been discovered in a cold storage room in an unauthorised facility in the US. This may well be a false alarm in terms of being a real threat, especially in Australia, but our growing physical connectivity (urbanisation, migration, travel etc.) does allow for things other than people and products to travel around the globe.

Many experts believe that it is more a question of when rather than if a truly serious pandemic emerges. There are similar issues with plant-based diseases such as UG99, which have the potential to adversely impact food production.

During the 2013 H7N9 bird flu season, Sydney-siders with any cold / flu symptoms stayed home from work and additional sanitation measures were taken (e.g. disinfectant in public restrooms).[3]  People are likely to 'work from home' and avoid crowded public places during an epidemic.  Libraries offering a range of online 24/7 services should experience no major disruption to use.

If a pandemic were to happen what would people in NSW do? Would they go to work? Would they stay at home? Would they go to school or shopping malls? Most interestingly for us perhaps, what attitudes would people have to people spaces and items that have been touched by other (unknown) people?

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[3] http://www.smh.com.au/world/new-fears-over-bird-flu-20130425-2ihix.html

# 3. Society

## 3.1 Ageing

*"I think that given sufficient funding we have a 50-50 chance of completely stopping people from dying of old age within about 25 or 30 years from now."*

Aubrey de Grey, gerontology theoretician and author

Australia's population is likely to be, wild cards permitting, over 38 million by 2060, about 15 million above the population in 2014. The population of NSW will almost double. By 2030 NSW will have about 8.2 million people up from 6.9 today.
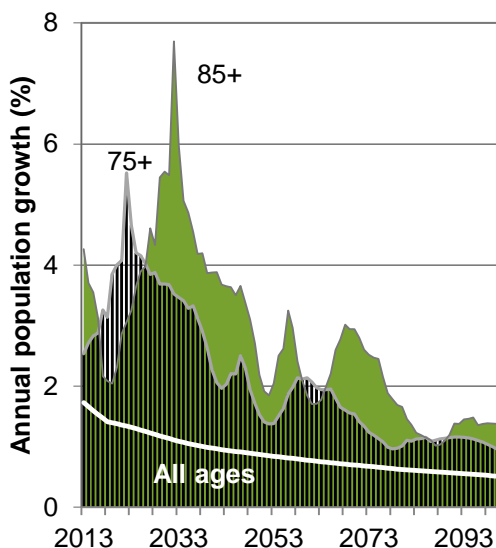


This chart is taken from the Ageing Australia Report[4] which, on the matter of ageing, has this to say:

> The number of people aged 75 years and over is projected to increase by about 4 million between 2012 and 2060 — an increase roughly equivalent to the current population of Sydney. The most striking illustration of ageing is the growth in the population of people surviving past 100 years of age. In 2012, there was roughly one person aged 100 years old or more to every 100 babies. By 2060, it is projected that there will be around 25 centenarians for every 100 babies, and with continued small increases in longevity, by 2100, there will be more people aged 100 or more years than babies born in that year.

Ageing is usually seen as a problem, especially from an economic or economic productivity standpoint. Commentators and politicians have made connections between ageing populations and fragile healthcare systems and pensions provision. Such concerns are real, but we should not forget that living longer is generally a good thing, the result of massive improvements in healthcare over the last 100 years, and productive use can surely be made of senior citizens, be it through the introduction of 'senior' assistants in hospitals, schools or even public libraries.

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[4] Productivity Commission 2013, *An Ageing Australia: Preparing for the Future*, Commission Research Paper Overview, Canberra.

In some countries, notably Japan, an ageing population, especially one that refuses for economic or other reasons to give up work, means less opportunities for younger people to enter the workforce and even when they do generational differences and conflict can emerge. In Japan, a lack of incoming migrants can make things even worse, which is why robotics and automation are so enthusiastically embraced. In other nations, migrants might be the solution, although integrating such migrants can still be problematic.

Over the shorter term we can expect the war for talent to get worse, especially if the economy is booming, but we will still be left with the question of what to do with and how to treat an increasingly elderly population. Is this a problem or an opportunity?

What should the role of libraries be in responding to an ageing Australian population, not only in terms of an ageing user base, but also in terms of employment opportunities? How should libraries adapt to not only serve growing numbers of older people but in terms of becoming environments more suited to older employees?

# 3.2 Urbanisation

*"Growth is inevitable and desirable, but destruction of community character is not. The question is not whether your part of the world is going to change. The question is how."*

Edward T. McMahon

More than half of the world's population lives in a town or a city and most major cities are getting bigger, which creates issues around essential infrastructure provision, especially transport, although smart infrastructure, mobile devices and local hubs may make things much easier in the future. Could libraries do more to position themselves as co-working spaces and if so should this be for free or for a fee?

Meanwhile, in top-tier global cities we are seeing the impacts of income polarisation, with the poor and unskilled being pushed out to the margins due to booming real estate values in the centre and the influx of cash-rich lifestyle refugees from abroad. In some global cities such as London this has created a partial 'hollowing out' of the middle class, with many professionals no longer being able to afford the type or location of real estate in which they grew up as children.

Thus polarisation is happening not only within cities but between cities – megacities (with populations greater than Australia) have burgeoning slum communities, crime and disease and are economically and socially disadvantaged as a result. Libraries have traditionally associated themselves with excluded group, but how might this change? Is digital exclusion now an integral part of social exclusion and one that all libraries must address? And just how will Australia's larger cities cope with the dramatic population increases forecast for the next 30 years?

Some of the key questions must surely be whether global migration patterns continue, whether real-estate values continue to climb and whether migrants continue to settle in a handful of key cities or whether migration is more evenly distributed across nations and regions. Also, in the Australian context, how might grey nomads, tree-changers and sea-changers impact on library catchments?

This tension between the 'global' and the 'local' is one of the key emergent themes over the last five years and will likely figure large as the future for public libraries unfolds.

Take a look at the latest thinking on smart cities[3] and community-led libraries[4] and then ask:

> Will libraries need to tailor their services even more to local demographics or could a 'one size fits all' in terms of products, services and business model ever work?

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[3] http://cities.media.mit.edu/
[4] http://www.librariesincommunities.ca/resources/Community-Led_Libraries_Toolkit.pdf

# 3.3 Households

*30% of UK children live in homes that contain no books.*

Ref: Independent (UK)

Alongside ageing, one of the most significant demographic shifts is the number of people living alone or with only one significant other.
According to ABS the fastest growing households are lone person households, projected to increase to 28% of all households in 2031.  We are also likely to see more share housing arrangements to mitigate housing costs. [5]

There are also more elderly people living at home alone and, in many countries, more divorce among seniors ('till death do us part' now becoming more serious due to extended lifespans one assumes).

Another notable trend in family dynamics is children not leaving the family home or returning to it again after university. Indeed, and in contrast to the growth in smaller households, in some instances we are witnessing the return of the extended family under one roof, with grandparents and children moving in with mum and dad.

What are the implications in terms of media use, communications (and possibly the breakdown of communication), shopping habits, savings and leisure pursuits? Could libraries ever become 24/7 spaces with no books where people bring their own 'content'?

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[5] http://www.ausstats.abs.gov.au/ausstats/subscriber.nsf/LookupAttach/4102.0Publication14.12.103/$File/41020_Futurehouseholds2010.pdf

## 3.4 Generational differences

*"They know the way things go down and are no longer naïve about the workings of the world and the intentions of businesses and other organizations."*

Peter Sheahan: Gen Y: Thriving and Surviving with GenY at Work.

Back in 2009, we noted that it was interesting how fast things had changed. A year before (2008) the media (and many employers) were obsessed with Generation Y. They were, it was said, arrogant, impatient and in charge. But following the GFC many of these concerns withered. Nowadays, Gen Y seems less of a threat and our anxiety is now focused on the Millennials (Gen i), who we have yet to categorise or understand.

If Gen Y were characterised by connectivity and collaboration, could Gen i be defined by shortened attention spans, a refusal to acknowledge the differences between real life, virtual life and perhaps narcissism?

Web 2.0 (a phrase we no longer hear very much, alongside mobile platforms) has morphed into the 'share' or 'like' economy, which is in turn morphing into 'normal.' It is, of course, possible that some kind of rebalancing or technology regression will occur, but it now seems more likely that physical and online identities and presence will merge and that online will increasingly erode and replace the physical, with some notable exceptions.

Apart from the expansion of Facebook (now being replaced by younger users with Snapchat, Whatsapp and Instagram - the latter two now owned by Facebook) the most important technological development since 2009 is the introduction of tablets. This has not only resulted in simultaneous screen viewing (interactive TV plus tablet), but has made inroads into work and most critically education.

The iPad could of course be a fleeting technology itself as we see the creative expansion of smart phones and the minimisation of tablets. There is much more going on – take a look at these developments.[6] [7]

> How has the iPad and its fellow travellers changed libraries and could an increasingly online and tech-savvy generation question the need to use public libraries even more than Gen Y, or could the relative safety, slowness and tranquility of public libraries now come into its own?

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[6] http://www.telegraph.co.uk/technology/amazon/10980706/One-in-three-ebooks-sold-on-Amazon-are-self-published.html
7 http://qz.com/209950/the-homepage-is-dead-and-the-social-web-has-won-even-at-the-new-york-times/

## 3.4 Education

*95% of kids (presumably in the US) 12 to 15 years of age own at least one smartphone, tablet or other media device and have, on average, 78 Facebook friends that they've never met in person.*

Ref: Mashable

There appear to be notable similarities between schools, especially primary schools, and public libraries. Both share similar goals concerning social inclusion and lifelong learning. But while many libraries are still primarily concerned with physical lending, some schools are starting to drift away from physical books and tap into global information and learning resources online such as the Khan Academy[8] and various platforms including MOOCs.[9]

Will this trend continue, and start to more strongly influence Australia? Will libraries be the place where increasing numbers of mobile school-students assemble to do their stuff?  Or will reading and learning on paper (and in particular physical environments) be superior to the 'anytime, anywhere, any device' approach?[10] How might libraries respond to a world that's shifting from text to images?

8 Khan Academy is a non-profit educational organisation created in 2006 by educator Salman Khan to provide "a free, world-class education for anyone, anywhere."
9 A MOOC is a Massive Open Online Course.
10 See, for example, 'Why the Brain Prefers Paper', Scientific American, Nov 2013, which argues that reading on a screen is quite different to reading on paper.

# 3.5 Multi-culturalism

The cultural diversity of Australia's population of 23 million is the result of a history of migration from countries around the world and this migration is likely to continue and potentially expand if resources and infrastructure can keep pace.

Many young Australians see themselves as part of an international community, defined more by their interests than by where they live, although it's noticeable that the importance of Australia Day is growing rather than declining. Could we see a return to a 'white Australian' ethos or is multiculturalism and tolerance firmly set?

Just how will the stand-off between wealthy white Australians and their healthy non-white compatriots work out? What are the long-term implications of increased immigration or of immigrant baby boomers retiring that do not speak English as a first language?
What, in short, are the future library needs of immigrants across all age groups, ethnicities and income levels?

## 3.6 Obesity

*About 25% of Australia's population is obese.*

In the US, 31.8% of the population is obese, while in Australia it's 25.1% and the UK it's 24.9%. If you look at the numbers of people that are overweight, these figures are much higher. One spin-off of this is Type 2 diabetes, which is turning into a major health issue globally. However, recent studies in the US suggest that obesity might be plateauing (or should that be 'fateauing?'!).

At the other end of the weight and Body Mass Index spectrum, about 1% of Americans are anorexic, with 90% of cases being among women.

A 2012 report has found that almost 1 million Australians are currently suffering from an eating disorder - well above previous estimates. The Deloitte Access Economics report looked at the economic and social impact of eating disorders including anorexia, bulimia, obesity and binge-eating.

The report found that 913,000 people are living with an eating disorder - nearly two-thirds of them women.

> What is the role of public libraries with regard to health issues such as this? Should Australian libraries be introducing plus sized furniture for larger customers? [11]

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[11] http://www.americanlibrariesmagazine.org/article/your-library-plus-size-friendly

## 3.7 Traditional vs social media (paper vs pixels)

*The urge to check a mobile phone hits us, on average, 150 times per day, or every 6 minutes based upon a 16-hour waking day, according to a study by Nokia.*

Facebook says 9 million Australians use their site every day, including 7.3 million who log in via mobile. On a monthly basis, the number of Australian users is around 12 million.
In the past a symbiotic relationship between mainstream or traditional media (newspapers, magazines, books, television and radio etc.) and social or new media (blogs, podcast, online social networks etc.) was a topic of discussion. It is still true that one feeds off the other, but influence does appear to be moving in the direction of online media and media owners at the expense of traditional media.

What are the implications of such changes for libraries and how best should libraries be drawing on social networks for content and communications? Are the downward trends for printed materials predetermined or will there be a push back against the trends? What are the key developments in 'free' versus paid and pay-walled media since 2009 and how do they impact libraries? Also, how should libraries connect to social spaces? [12]

One small but significant development since the 2009 Thought Starters Report is the emergence of Slow Media and Slow Reading. There has also been a significant amount of discussion about the importance of switching off, disconnecting or unplugging for short periods (c/f New York Times, Fast Company magazine, Stylist magazine, Delayed Gratification magazine), some of which links to emerging research about screen use.

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## 3.8 Privacy

*"America's Facebook generation shows a submission to standardization that I haven't seen before. The American adventure has always been about people forgetting their former selves - Samuel Clemens became Mark Twain, Jack Kerouac went on the road. If they had a Facebook page, they wouldn't have been able to forget their former selves."*

Jaron Lanier, author

Personal attitudes to privacy since the advents of Google and Facebook have been to say the least somewhat puzzling. The baby boomer generation (and its forbears) have a natural bent to protect personal privacy that has been ditched by Gen Y and the Millennials. It's as if the emergence of one's multi-virtual persona has destroyed the need to protect one's analog self. One side effect of this is the destruction of respect for copyright and online ownership. All is fair in love and war as fair dealing expands its scope to cover every use imaginable!

Another development since 2009 has been the new debate about online and offline privacy. Edward Snowden and Julian Assange have shown how secrecy, privacy and confidentiality can easily be compromised and Facebook and Google have both been criticised for ignoring privacy issues. The potential casualty of this complex debate is the preservation of net neutrality. Just as 9/11 was used to jettison some basic human rights, so info-leaks (Wiki and others) threaten the survival of an unpoliticised and democratic Internet.

Locational privacy (where people are) is fast becoming an issue and Google Glass - or other mobile devices containing facial recognition software - may yet prove a step too far for many people.

Other developments linked to privacy concerns including wearables, workplace tracking and self-tracking.

Will the loss of privacy continue or is there to be a push-back to earlier values? Do people (and governments) care what people read and could *where* people read ever become an issue? [15]

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[15] http://www.danah.org/books/ItsComplicated.pdf

# 4. Politics

## 4.1 The politics of identity

*Politics appears to be in flux. Young Brits are politically minded. 70% think social media should be used for social change, and a quarter are highly knowledgeable about politics. Yet only 12% would definitely vote in a general election. Why are they so disillusioned? And is engaging via social media the answer?*

Canvas8 newsletter.

Across Europe a rightwards shift continues and despite economic austerity measures, the left, and especially the far-left, have had little impact of late politically. Issue-based politics is becoming more important and this further questions the role of traditional left/right politics and political organisation.

In Australia, the 2014 debate about the Federal budget has confirmed the growing shift between the theatre occupied by the political parties, which is inexorably losing its audience, and the burgeoning social media sphere, which includes groups such as Getup. Issues relating to the funding of public libraries are likely to be buffeted by this growing divide.

One further development since 2009 has been the continued 'de-globalisation' in the sense of countries fragmenting. Will Europe, for example, expand or fall apart and will devolution in Scotland (or partition of Ukraine or the Middle East) continue?

Just how will the internal tensions of an expanding China impact on Australia and its neighbours? Is it conceivable that NSW could fragment or could it 'add territory' from other states? Indeed, could NSW ever be asked to provide essential services for a 'failed' Australian state? What are the key political trends that we're not seeing?

## 4.2 Levels of government

Government systems around the world are becoming more complex with multiple centres of policy making and regulation. Globalisation is also contributing to this complexity with more standards being set in international forums. The challenge of managing complex intergovernmental systems requires a whole-of-system and whole-of-policy area approach.

The present Australian intergovernmental system has been labeled as outmoded and inefficient and there has been much speculation on the sustainability of the three tiers of government. However it has also been argued that there are advantages in a system with two spheres of government as multiple governments provide greater democratic input and access points.

> What might the consequences be of a two-tier approach in Australia with the NSW State government being removed? Just how national does local have to travel before it is no longer local?

## 4.3 Public Private Partnerships

Privatisation in all its forms is still relatively under-developed in Australia. The recent decision that Australia Post will not be privatised may provide some solace for public libraries as the two institutions share similarities in their local community roles.

Public library funding is the major issue facing the sector and the pressures to outsource costs and infrastructure are likely to be ever-present.

> What will be the public-private mix in library provision in 2030?

## 4.4 e-Government

*"There is a connection waiting to be made between the decline in democratic participation and the explosion in new ways of communicating."*

Robin Cook, UK Politician

Governments around the world have been slow to embrace the internet and the online delivery of services despite obvious cost benefits.

How quickly will State and Federal government expand the range of e-services that are available and what will the role of public libraries be in helping people, especially lower-income and older households to access such services?[13] Will more and more services be available only online?

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13 http://www.btplc.com/Betterfuture/ConnectedSociety/Valueofdigitalinclusion/BT_ValuingDigitalInclusion_FINAL.pdf

# 5. Economics

## 5.1 Growth

Globally, economic growth is picking up and confidence seems to be returning to markets across the globe. However, markets, along with confidence, appear to be fragile and it would not take much to throw things backwards, especially if there were a major economic crash in China or one of the other BRIC countries.

If the global economy, along with real incomes, does recover to previous levels, how long will this last and is there a new bubble in waiting? If things crash once again, how deep will this be and how long could it last? Would it be minor or could it be significantly bigger than last time?

In any scenario, what might happen to library funding? Is money (funding) tight in all imagined scenarios or is there a future world in which funds flood in? The recent UK model shows a crash and burn approach, with a few exceptions, also shows increased anger within the library community (the current CILIP fight is a good example) and increasing tension in what libraries offer – are they book depots with volunteers or deskilled staff, or are they really libraries with skilled staff who respect their skills?

The demand for library services increased in the USA during the global financial crisis, many libraries offering job seeking services and information about government services. Conversely in the UK and Europe many public libraries were closed by their municipal funding bodies as part of austerity measures. The political will and understanding of the value of libraries seems to be the deciding factor.

> Will the demand for public libraries continue to grow inversely with the growth in the economy or might advances in technology offset this?

## 5.2 Employment & Jobs

While employment in some regions continues to climb, much of the growth in economies such as the US is 'jobless' and there is a concern that job prospects could be hit hard by a second round of technologically induced unemployment (i.e. future automation could be at the expense of jobs, especially in the skilled professions).

What will the people that have been replaced by machines do? Where will they go to find new work or learn new skills?

Will the future of work be dominated by freelance, part-time working and zero-hours contracts? Is collaborative and virtual working set to become the new norm, or will people swing back to formalised 9-5 working in traditional offices? If economic growth returns, one might expect to see more job mobility and promiscuity. In contrast, if things become tough, people might stay in their posts for considerable periods.

And what of the impact of more women in work, less job openings for younger people or more ethnic diversity? What are the really big trends at work, how long will they last and what will the impact be on libraries?

In Australia, the eternal question is – when we can no longer depend on digging up and exporting our natural resources and our manufacturing industries continue to decline; where are the new jobs for a country of 35-40m people going to come from? And do libraries have role to play in figuring this out?

## 5.3 Private debt

Another major economic issue is the indebtedness of the Australian people. Many Australians are mortgaged to the hilt and any rise in interest rates (which is looking more likely rather than less), could have profound implications for spending.

Would a continued economic downturn cause an increase in library visits and borrowing or would it lead to an increase in joint ventures and affiliations with profit making organisations and, if so, what might the terms of any 'deals' be? Free is likely to be important in a downturn, but how might 'free' change?

## 5.5 The creative economy

As countries continue to move from manufacturing and information to service and knowledge-based economies there is a demand for different sets of skills and education will come under further pressure to provide the 'right' sort of workers for future employment.

Broadly speaking this shift will be from left-brain analytical jobs (the accumulation and application of information) to right brain employment where people are paid for skills such as creativity and human empathy.

What are the broad implications of the new economy for libraries and librarians? Do attitudes of librarians still have to change and if so how and how fast?

## 5.6 Ownership

*'Something wicked this way comes'!*

Ray Bradbury

The conglomeration of ownership of the commercial media is moving quickly as we debate the future of public libraries.  Rupert Murdoch's 80 billion bid for Time Warner may have been rejected in July 2014 but don't be fooled. The big are destined to get bigger as book publishing imprints disappear into the stratosphere. But the acquisitive impulse is not limited to traditional M&A. Social media is increasingly the focus for action as the acquisition by Amazon of the GoodReads website for US$190 million website proves. Wait for the full commercialisation of blogging by talent managers and – of course – the YouTube for text media.

As the public space occupied by libraries becomes smaller and smaller, how will its reason for being change? Will libraries evolve away from books and artifacts into maker spaces and solution stores?

# 6. Culture

## 6.1 Popular culture

*"There is a huge trapdoor waiting to open under anyone who is critical of so-called 'popular culture' or (to redefine this subject) anyone who is uneasy about the systematic, massified cretinization of the major media. If you denounce the excess coverage, you are yourself adding to the excess. If you show even a slight knowledge of the topic, you betray an interest in something that you wish to denounce as unimportant or irrelevant. Some writers try to have this both ways, by making their columns both 'relevant' and 'contemporary' while still manifesting their self-evident superiority. Thus—I paraphrase only slightly—'Even as we all obsess about Paris Hilton, the people of Darfur continue to die.' A pundit like (say) Bob Herbert would be utterly lost if he could not pull off such an apparently pleasing and brilliant 'irony'."*

Christopher Hitchens, author

Media and entertainment continue to be driven by technology and it seems apparent that there is a shift occurring towards mobile media and visual content, especially video. In contrast, within personal communications, face-to face and verbal communication is declining while texting and image-based communication (photo sharing) is rising. One can also add to this the dramatic rise of user-created media and entertainment content and the continued dominance of celebrity culture.

Where will all this take us and just how will it change the role of public libraries and librarians? What will represent status in 2030? Will words like physical or digital have any real meaning in 2030?

## 6.2 Values

*Brace yourselves!*

Who is 'we'?
Do Australians have a set of shared values and how, if at all, do these values relate to libraries? Will rising income polarisation, along with deepening individualism, create a two-tier library system or will libraries simply become book depots?

## 6.3 Trust

*"There has been declining trust in government for many years, but trust in government is cyclical. It was very low in the 1970s but revived under Reagan, then fell, and came back under Clinton, and then fell. Trust in government reflects our level of satisfaction with the economy and our international stature. Trust in people has been declining since the 1970s and has not revived at all. Trust in people tracks the increasing level of inequality in the US very strongly."*

Dr Eric Uslaner, US academic

We appear to be living in an era characterised by anxiety and uncertainty and this can be directly related to a decline in trust.

We no longer generally trust politicians, businesses, scientists or members of the clergy. In fact the only types of people that people do generally trust appear to be doctors, nurses, teachers, librarians and, strangely, networks of people they've never met.

Will this trust become an asset or a liability for libraries? What could reverse the current level of trust in libraries and librarians?
Does a library full of CCTV cameras make people feel safer or stop people coming? Equally, if libraries become associated with censorship or commercial product placement could this make them less socially acceptable?

## 6.4 Risk aversion

Due to declining fertility we are becoming more risk averse around children (when there are less kids we value them more highly!). There is also a precautionary principle at play in that individuals and especially organisations know that if something goes wrong someone, somewhere may seek redress in the form of monetary compensation.

> Will a rogue customer seek compensation for injuries sustained whilst visiting a library (falling down steps, reading the wrong kind of book?). This happens already, but where could the trend go? How extreme might this get?

## 6.5 Inward focus

*"We have turned the focus inward, and concentrated on things that seemed to be within our control: backyards, home renovations, our children's schools, and our next holiday. This shift has been reflected in a corresponding shift in our TV program preferences: we have gradually lost interest in current affairs, and developed a voracious appetite for so-called 'lifestyle' programs."*

Hugh MacKay

But the increase in book groups in the last six years shows the community element as important too – and book groups are not the only community examples at libraries.

# 6.6 Consumerism

Consumerism is a significant feature of most 'western' cultures and Australia is no exception. Australians are obsessed with money and material things, with our expectations for material wealth outstripping our means, resulting in growing levels of consumer dissatisfaction and debt.

One idea that does seem to be challenging the need to own or buy (possess) things is the growing Peer-to-Peer movement, which seeks access to rather than ownership of certain products.
Car ownership (Go Get etc.) might be a good example. Rachel Botsman's pioneering work on the collaborative signposts this well.

This 'renting' and 'sharing' culture also ties in with ideas surrounding sustainability and the efficient use of resources.

How does an 'ownership' culture relate to ideas such as 'free' and borrowing that have been the bedrock of the library culture for so long? Could the current ownership obsession ever be reversed?
Will the demand to own less not only de-clutter households but also promote e-book usage?
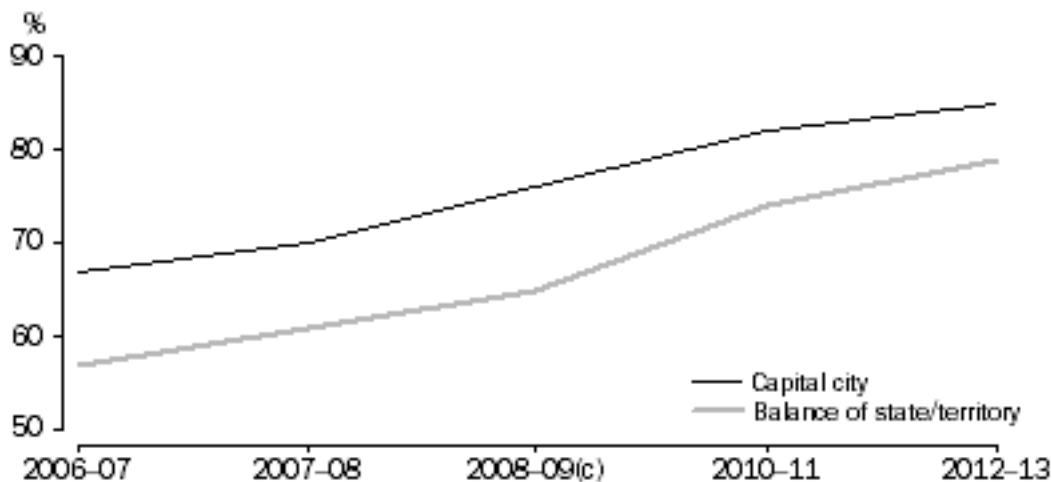
# 7. Technology

*"Less than1% of the things that can be connected to the internet are connected to the internet."*

<div align="right">Cisco</div>

The Internet of things has hardly begun!

## 7.1 Internet

*Households with Internet access in Australia have increased significantly since 2009 - with the regions catching up on capital cities.*



(a) As a proportion of total households.
(b) Area of usual residence named Region prior to 2010–11.
(c) HUIT data were collected biennially from 2008–09.

Access has also changed increasingly from mobile devices such as smartphones or tablets. Over 20m subscribers are registered as at Dec 2013.

With the advent of the NBN, the Internet is becoming faster, and mobile (wireless) access will spread even further.  Development of things such as verbal search, picture search, facial recognition and wearables will move on apace with multiple impacts on communications, privacy, democracy and security.

Big data and the internet of things will influence the way we interact with our physical environments (eg. air con adjusting to increase of people in a room), how services and advertising are personalised, etc.

This may lead to an increased expectation of highly personalised library services supported by technology.

Despite our desire at times to melt into cyberspace, until people themselves become truly virtual it is hard to imagine how they will not need spaces to occupy.

Mobile technologies have already changed the way libraries work and the way library clients seek and use information.[14]

> What are the implications of such ubiquitous connectivity to information for public libraries? Will all libraries eventually become virtual and if not what is the role of physical spaces in an increasingly virtual world? Is it an 'either' 'or' future that beckons or everything together!?

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14 http://23mobilethings.net

## 7.2 Web 2.0 and beyond

The Internet has developed considerably from its early origins. What started off as searching for information on fixed (deskbound) devices has moved to searching for people on mobile devices. The next step has been adding geography and trust to both information and people.

Another key development is user creation. We no longer sit back and consume information and entertainment, but are actively involved in its creation.

These new creators are not just bloggers but literally everybody. Just as smart phones have made us all photographers, so URLs will make us all publishers.

Public libraries are becoming publishers and archivists for the e-book content generated by their local community – smart libraries may do this in a federated and collaborative way and thus emphasise the importance of place in a digital future.

Libraries will introduce linked data and APIs to their catalogues to meet the needs of digital researchers and this will make collections more interactive.

> How is material now catalogued and reviewed (again, by members of the public potentially) and how should librarians reach out to their local communities?[15]

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15 https://www.youtube.com/watch?v=YZBN_iYZ38g

# 7.3 e-books

There is precious little statistical data available on the e-book market in Australia. But we can learn things from the scene in the UK and the US.

Back in August 2009 it seemed that books would go the same way as music and photography. The data soon confirmed what many people feared, with e-book sales soaring 366% in 2011 alone.

So what happened to sales of e-readers in the UK in the 10 months to October 2012? The answer is a rise of just 16%. In the week before Christmas 2012, sales of printed books went up, reaching a volume last seen in 2009. It was a similar story in the US, which is usually seen as a year or so ahead of the UK in terms of e-book uptake.

In December 2012 30% of PEW survey respondents said they had read an e-book in the last 12 months compared to 89% who had read a book on paper. Of Americans using an e-reader, 90% still read physical books.

What on earth is going on here? It's still too early to say. Some people say people are getting frustrated, especially with the fact that e-readers break. Yes, you can take them on holiday, but they don't mix well with sea and sand. They don't mix so well with friends either, as they're reasonably expensive and you might not get them back if you lend them out. They don't age well or smell nice either. Screen reading, it seems, suits low-value, disposable information and light entertainment. In other words, the kind of words found in paperbacks sold in supermarkets and airports.

But of course, a word of caution here, as one rant can be outdone by another. There is diverse research on this topic drawing different conclusions – the most important of which maybe that multi-tasking and multi-platforming are the characteristics of each of us – we flip from one to another without prejudice depending on the situation and often for accessing the same object.

Many of the early adopters of e-readers have now migrated to iPads, Kindle Fires and other more interactive mobile devices. Sales of e-readers are therefore, in a sense, irrelevant. There are still clearly usability issues too, such as the fact that most e-readers can only be read in one direction (yes, there are bookmarks, but they don't work that well). This may change, but a bigger issue is perhaps what you remember.

Recent research by Kate Garland, a psychologist at the University of Leicester, says people are more likely to remember things if they read them on paper than on a screen. If this proves true, it would undoubtedly be a bigger issue in the longer term than any technical matters, which can be solved eventually.

Interestingly, according to PEW in the US, users of e-readers consume an average of 24 books a year compared to 15 titles for readers of physical books. This could be because screens breed an appetite for information and ideas or it could be that readers of e-books can't remember what they've read?

## 7.4 Biotechnology & genetics

Developments in biotechnology are moving fast. Faster, in fact, than computing. One development on the horizon is personalised medicine.

Could we one day see personalised learning plans and book lists tailored to genetic information? Are there any other implications for libraries here?

## 7.5 Neuro-science

As with genetics, developments in neuro-science may result is rich information about how individuals function and especially personalised learning plans based upon neurological understanding.

How might the love-affair with neuro-anything affect service provision by libraries?

## 7.6 3D printing (addictive manufacturing)

*"3D printing will be bigger than the internet"*

Chris Anderson, former editor of Wired magazine

We heard about book vending and printing machines back in 2009, but how about machines that can print anything? So far 'anything' includes spare parts, spare body parts, shoes, houses and pizza. Should all public libraries contain a 3D printer for public use?

Could we be printing whole libraries in 2030?

## 7.7 Robotics

*"I just want the future to happen faster. I can't imagine the future without robots."*

Nolan Bushnell, founder of Atari

The robots are coming, but we don't yet know where, when or why.

At present, most robots are largely unseen. They exist in wars, down sewers and car assembly plants. Except in Japan, where they help with customer service in shopping malls, teach Japanese to kindergarten kids and look after elderly people in care homes.

What use could relatively inexpensive and highly intelligent robots be to librarians? Would they be used to find things, answer questions or provide storytelling? Should libraries be teaching people how to build robots? And given the choice, would we decide to make them all look like George Clooney or Scarlett Johansson?

## 7.8 Green (clean) tech

In rural NSW, local energy harvesting and local grids may become significant. The current hiatus in carbon pricing in any of its forms is making the clean energy market characteristics very uncertain. How green and alternative energies develop is subject to political complexities that are still emerging.

Will libraries be mandated to use (or supply) green power and/or will they be at the forefront of educating communities about how to use alternative energy and water conservation technologies?

## 7.9 Copyright

Copyright is not a technology but is a technology issue. The idea of exclusive ownership rights is becoming outdated and yet new models are not emerging. Creative Commons is an interesting step forward in an age of co-creation and co-consumption. In a world of info-glut it takes a Don Quixote to assert his or her copyright. Most people assume they have the rights until someone says 'no'.

Libraries are built upon the idea of free access to copyrighted material, but does free access necessarily deny copyright as a property right? What are the unseen risks for libraries surrounding copyright?