

GLOBAL INFORMATION SOCIETY WATCH 2010

Focus on ICTs and environmental sustainability



ASSOCIATION FOR PROGRESSIVE COMMUNICATIONS (APC)
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Global Information Society Watch

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Introduction

With the Australian government wavering on its response to climate change, a national household energy reduction scheme in tatters, and illegal shipments of electronic waste (e-waste) still said to be en route to China,¹ the July 2010 launch of a National Waste Policy Implementation Plan could not have come soon enough.

The pressure on Australians to upgrade domestic information and communications technologies (ICTs) is set to spike. With the 2012 change over to digital broadcasting, new wide-screen high-definition televisions are in demand. So much so that current trends suggest that the number of televisions are “fast outnumbering people in the average Australian household.”²

An anticipated 40 million analogue radio receivers in Australia are also due to be discarded by 2012. This, together with LCD prices plummeting and 3D screens set to impact on the market, means that the volume of e-waste that will pour out of businesses and homes will be unprecedented. Kerbside e-waste, recognised by the Australian Bureau of Statistics as one of the fastest growing types of waste³ in the country, will undoubtedly increase.

In an environment that has seen a government renege on its major environmental promises, it may well require a stronger commitment from industry, in cooperation with civil society, to ensure sufficient incentives and measures are in place to increase the uptake of e-waste management initiatives and the opportunities they afford. In fact, the past decade has seen the private sector – and many in the civil society sector – do just that.

Will Australia seek to influence ICT manufacturers to reduce e-waste to zero sums, or will it further the need to advocate for a programme of toxic waste management? The increasing concerns around the radioactive waste site mooted for Muckatny cattle station in the Northern Territory suggests Australia has yet to find the leadership and commitment towards the establishment of a uniform and consistent approach to outright minimisation of environmental harm across all sectors.

Still, the National Waste Policy is a much sought-for step in very much the right direction.

Policy and legislative context

In the face of increased ICT consumption and civil society concerns, the government announced in July 2010 that, under the new stewardship legislative framework, it will implement an industry-led life-cycle scheme to collect and recycle end-of-life televisions and computers.⁴

Due to be implemented in 2011, the National Waste Policy aims to reduce the amount of hazardous waste for disposal. For instance, it is targeting up to 80% of all televisions and computers for recycling by 2021. Additionally, and in spite of the failure to get a climate change policy in place, the National Waste Policy is clear on its aim to reduce greenhouse gas emissions.

The scheme was developed on the work of civil society and the private sector, which had both established community awareness and e-waste collection programmes for close on two decades. Industry alliances such as Product Stewardship Australia and the Australian Information Industry Association, as well as green groups formed under the Boomerang Alliance had had significant impact in their calls for a national policy, which has lagged behind local imperatives and international initiatives.

Yet despite their innovations and entrepreneurship, industry-driven recycling initiatives are said to be operating well below their capacities. The Australian Bureau of Statistics refers to e-waste as the “exception” when it comes to recycling.⁵ Between 2007 and 2008 only one in ten computers was recycled. In 2009, 99% of Australian households participated in some form of recycling. However, nearly a quarter (23%) of electronic equipment disposed of in the twelve months prior to March 2009 was placed with non-recycled garbage for kerbside collection, and chucked into landfills across the country.⁶ Currently the Australian Capital Territory is the only state to regulate the disposal of e-waste, placing “a levy on the disposal of televisions and computers at landfill sites.”⁷

The National Waste Policy’s flagship is the National Television and Computer Product Stewardship Scheme (NCPSS).⁸ Although the National Waste Policy is not due to

1 Cubby, B. (2009) Toxic Australian e-waste dumped on China, *The Sydney Morning Herald*, 22 May. www.smh.com.au/environment/toxic-australian-e-waste-dumped-on-china-20090521-bh6f.html

2 Singer, M. (2010) TVs outnumber people, *The Age*, 19 July. www.theage.com.au/national/tvs-outnumber-people-20100718-10g4n.html

3 Australian Bureau of Statistics (2006) www.abs.gov.au

4 Department of the Environment, Water, Heritage and the Arts (2010) *National Waste Policy: Less Waste, More Resources*. www.ephc.gov.au/sites/default/files/WasteMgt_National_Waste_Policy_Implementation_Plan_Final_201007.pdf

5 Australian Bureau of Statistics (2009) www.abs.gov.au

6 Australian Bureau of Statistics (2009) www.abs.gov.au

7 Department of the Environment, Water, Heritage and the Arts (2009) *Draft National Waste Policy Framework: Less Waste, More Resources – Discussion Paper*.

8 Department of the Environment, Water, Heritage and the Arts (2010) *National Television and Computer Product Stewardship Scheme*. www.environment.gov.au/settlements/waste/ewaste/index.html

come into effect until 2011, the NCPSS will require importers or manufacturers of computers and televisions to join a producer responsibility organisation to arrange for collection and recycling of these products.

Product stewardship in Australia

While the private sector has invested in the means to retrieve and recycle e-waste, and community groups recirculate outdated computers, the national government lagged in its uptake of a national approach until 2010. The NCPSS is a welcome development, building on business-led voluntary product stewardship schemes for at least a decade.

The 2001-2002 product stewardship case study, "Beyond the Dead TV: Managing End-of-Life Consumer Electronics in Victoria", clearly identified the benefits of life-cycle thinking. In a 2003 report to government, the researchers recommended a framework "towards determining what operating, funding and institutional arrangements may need to be put in place to support a recovery and processing scheme for consumer electronics."⁹ Additionally, industry participants in the pilot that was part of the study emphasised the need for opportunities that enhanced "the viability and profitability of the waste recovery and processing sector."

Going back even further, product stewardship was embedded in the principles of the Victorian Environment Protection Act (1970), but it would take three decades before businesses adopted the practice, and another before it would become a national programme. The NCPSS states:

The proposed co-regulatory framework aims to achieve a nationally consistent approach to product stewardship for targeted products – ensuring that the whole Australian community enjoys the same standard of environmental protection, while minimising the compliance burden for industry.

It is unclear what standard of environmental protection is being referred to. Australians are being subjected to a pandemic of irresponsibility that can be traced through climate, mining, power and forestry. With no clear national approach to climate change and a government talking up the need for more coal-fuelled power stations in the midst of a mining boom,¹⁰ we may take small comfort in the knowledge that a beleaguered environment will soon be spared a glut of ICT waste, even though it will have to suffer the consequences of business as usual elsewhere.

Although well behind the action plan set out in the Basel Convention on hazardous wastes, the NCPSS is a necessary addition to a plethora of initiatives already underway in Australia. Australia is yet to have a uniform approach to

duty-of-care for both the environment and its citizenry, but it does have a healthy, innovative and eager civil society and private sector that have taken up the challenge to both reduce e-waste and address the need for redesign from concept to consumer.

Civil society and privately led initiatives

Whether recycle or reuse, Australian companies and organisations are reducing the impact of e-waste on landfills and are educating the public in responsible use and disposal.

Reverse Garbage Cooperative¹¹

Reverse Garbage is a not-for-profit that encourages and practices reuse, refurbishment and repurposing of discarded electronic goods. Collecting up to 1,000 computers, monitors, scanners and printers every month, Reverse Garbage does not see itself as a recycler. For example, refurbished computers for resale and/or donation, and jewellery and other fashion items made from damaged motherboards and glass from old television screens, are part of Reverse Garbage's philosophy, employing environmentally benign processes and educating consumers in the process.

However, this does not come without its challenges. Accepting e-waste freely, Reverse Garbage is said to be overwhelmed by the sharp increase in volume they are now expected to manage. For some seven years Reverse Garbage has taken the burden of e-waste disposal off hospitals, schools, and small and large businesses, including some of the country's major financial institutions. Reaching capacity and with no government support in sight, come 2011 their e-waste programme may be halted to avert financial collapse of the entire cooperative.

Scrapyard Challenge Workshops¹²

Although the concept had not been initiated on a permanent basis in Australia, the Australian Network for Art and Technology participated in this series of international workshops, hosting its own Scrapyard Challenge at its touring New Media Lab in Melbourne, 2005.¹³

Scrapyard Challenge Workshops do not require any prior technical skills. Discarded "junk" including toys, computers and sound equipment are reassembled into new, innovative electronic devices for myriad purposes. Workshops are often theme-based. The MIDI¹⁴ Scrapyard Challenge sought to create robots that draw. At the conclusion of every workshop participants are encouraged to "perform" or demonstrate the result of their efforts.

9 Consumer Electronics Suppliers Association (2003) *Beyond the Dead TV: Managing End-of-Life Consumer Electronics in Victoria*, p. 69. www.ecorecycle.sustainability.vic.gov.au/resources/documents/BeyondTV_v3.pdf

10 Morton, A. (2010) Critics blast Gillard's power-station policy, *The Age*, 23 July. www.theage.com.au/federal-election/critics-blast-gillards-powerstation-policy-20100723-10npx.html

11 www.reversegarbage.org.au

12 www.scrapyardchallenge.com

13 Australian Network for Art and Technology, New Media Lab, Scrapyard Challenge Workshop (2005) www.scrapyardchallenge.com/?p=48

14 Music Instrument Digital Interface

Miss Despoinas Hackspace Hobart¹⁵

An artists' collective based in Tasmania, Miss Despoinas Hackspace Hobart provides hands-on, do-it-yourself workshops that both reduce the mysteries of computer hardware and educate on its reuse. Participants get in "under the hood" and convert all manner of parts into wearable art, from jewellery to clothing modifications.

The collective also aims to use entirely refurbished computers and open source software in the creation of artworks, from performance to installations.

Sims Recycling Solutions¹⁶

The largest e-waste recycler in Australia, Sims Recycling Solutions handles up to 10,000 tonnes of discarded electrical products a year and is said to be running at 50% capacity. That aside, in the past three years it has managed to divert an astonishing 1.3 million units of redundant computers and parts, televisions, mobile phones and other electrical products from landfill sites.

Sims Recycling Solutions are a vocal opponent of landfills as a dumping ground for e-waste. With no outright national ban on such practices they may never see their Australian operations run at full capacity.

Sims Recycling Solutions can be found in India, Singapore and South Africa, with partners emerging in China, Japan, Korea, Taiwan and Thailand.

Mobile Muster¹⁷

Established by the Australian Mobile Telecommunications Association in 1999, Mobile Muster is an industry-led national programme aimed at preventing all mobile phones from being disposed in landfills.

A network of drop-off points across the country, located at local councils, government agencies and small businesses, provides the public with the means to dispose of mobiles, batteries and accessories for recycling.

Mobile Muster is a free service, voluntarily supported by handset manufacturers (Nokia, Motorola, Samsung, Sony Ericsson, HTC, LG Electronics, i-mate, NEC, Panasonic, Sharp); network carriers (Telstra, Optus, Vodafone, 3 Mobile); telecommunications service providers (AAPT and Virgin Mobile); and distributors (Force Technology).

With such a significant uptake from the telecommunications industry, it is no wonder that the programme had, by 31 December 2009, collected 667 tonnes – some 4.48 million handsets and batteries.¹⁸

Green PC¹⁹

Created as part of InfoXchange Australia's digital divide strategy, Green PC refurbishes second-hand computers and makes them internet ready for low-income people across the country. What makes Green PC unique is that it has been established as a social enterprise initiative with support from the Victoria government's Community Jobs Programme. As such, Green PC provides employment for the long-term unemployed with opportunities for advancement within the information technology sector.

Green PC has set a benchmark for those computers it can effectively redeploy within the community. Anything lower than a Pentium IV is not acceptable to the programme, with consumers left to find other means of disposal, generally by way of information available from local councils.

Planet Ark

Planet Ark has created a website called RecyclingNearYou.²⁰ The site provides the public with information about recycling options nearest to them. Four out of the five most requested enquiries relate to e-waste – a trend over the past two years running.

Planet Ark has also created services specifically for businesses, including a hotline that assists in dealing with general office waste and electronics.²¹

These initiatives have been shown to be extremely popular, with some 1,830,829 visits to the RecyclingNearYou site alone from 1 May 2009 to 30 April 2010. With enquiries increasing, it has become evident to Planet Ark that without a concerted national programme, significant areas of the country will remain without access to recycling services and/or drop-off points. In their 2010 report, Planet Ark identified the fact that there were no disposal options whatsoever in rural locations.²²

Action steps

The following recommendations, addressing shortcomings of Australia's National Waste Policy, are drawn from civil society concerns and the various organisations and businesses engaged in either recycling or reuse.

Though not exhaustive, they would not only bring the aims of policy in line with international conventions, but would provide significant leadership to other countries struggling with their own e-waste crisis.

- Make product stewardship a mandatory requirement for all electronics/ICT manufacturers who wish to do business in Australia.

15 www.sistero.org/mdhhh/index.php?project/e-waste-hardware---opening-up-the-hood

16 apac.simsrecycling.com

17 www.mobilemuster.com.au

18 Australian Mobile Telecommunications Association - Mobile Muster www.mobilemuster.com.au/what_is_mobilemuster

19 www.greenpc.com.au

20 www.recyclingnearyou.com.au

21 businessrecycling.com.au

22 Planet Ark (2010) *Taking the Byte Out of Waste II*. recyclingnearyou.com.au/education

- Declare an outright national ban on all e-waste disposal in landfill sites.
- Provide grants and/or tax incentives for organisations tackling e-waste head on with reuse, refurbishment and repurposing programmes.
- Increase opportunities for e-waste refurbishment schemes within the social enterprise model across the entire country, addressing the shortfall of both e-waste solutions in rural areas and the increasing need for alternative forms of employment there.
- Establish recycling and/or e-waste drop-off points and the means for their collection in rural Australia.
- Implement consumer education programmes that encourage the use of reusable electronic goods and increase access to information, online and offline, about e-waste disposal options.
- Implement a vigorous research programme and increase research funding to both the private and civil society sectors to encourage the rapid redesign of the way we create, manufacture, distribute and employ ICTs in all facets of human life.
- Out the companies that have yet to apply environmentally benign methods in manufacturing processes and product design.
- Update the Australian Green Office Guide²³ to include reuse philosophies and current information on e-waste schemes countrywide. It appears not to have been updated since it was launched in 2001. ■

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²³ National Appliance and Equipment Energy Efficiency Committee (2001) *Green Office Guide*. www.environment.gov.au/settlements/publications/government/purchasing/green-office-guide

GLOBAL INFORMATION SOCIETY WATCH 2010 investigates the impact that information and communications technologies (ICTs) have on the environment – both good and bad.

Written from a civil society perspective, **GISWatch 2010** covers some 50 countries and six regions, with the key issues of ICTs and environmental sustainability, including climate change response and electronic waste (e-waste), explored in seven expert thematic reports. It also contains an institutional overview and a consideration of green indicators, as well as a mapping section offering a comparative analysis of “green” media spheres on the web.

While supporting the positive role that technology can play in sustaining the environment, many of these reports challenge the perception that ICTs will automatically be a panacea for critical issues such as climate change – and argue that for technology to really benefit everyone, consumption and production patterns have to change. In order to build a sustainable future, it cannot be “business as usual”.

GISWatch 2010 is a rallying cry to electronics producers and consumers, policy makers and development organisations to pay urgent attention to the sustainability of the environment. It spells out the impact that the production, consumption and disposal of computers, mobile phones and other technology are having on the earth’s natural resources, on political conflict and social rights, and the massive global carbon footprint produced.

GISWatch 2010 is the fourth in a series of yearly reports critically covering the state of the information society from the perspectives of civil society organisations across the world.

GISWatch is a joint initiative of the Association for Progressive Communications (APC) and the Humanist Institute for Cooperation with Developing Countries (Hivos).

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2010 Report
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