War on e-waste

As our device count grows, it's time to let go of unwanted gadgets, says **Ros Page**

The smartphone has recently marked its 10th birthday and, while it's a milestone in terms of mobile connectivity and computing, it's also part of a huge, and growing, problem – e-waste. The annual release cycle of new models of smartphones and tablets, with a boost in specs and computing power, has also sped up the cycle of obsolescence. And it's become apparent that recycling hasn't kept pace with the speed of innovation.

Recycling should be as simple as dropping off your old mobile phone or batteries at your nearest library or local council e-waste collection. It does mean finding the time to go out and recycle your device, or just doing a bit of research to find the drop-off point – but these shouldn't be major impediments to recycling. However, it seems many of us have serious reservations about recycling, related to the sophistication of these devices and the amount of our information they may contain.

Privacy fears

The fear of personal data ending up in the wrong hands is holding people back from recycling, according to research from industry recycling scheme TechCollect. It found the average Australian household has approximately 17 electronic devices in the home, and only 23% of us always recycle them. The reasons for not recycling include the fear of losing personal data or data getting into the wrong hands, not knowing where to recycle devices, not knowing e-waste could be recycled, and having to pay to have their device properly recycled.

TechCollect wants to encourage consumers to let go of old devices they're no longer using or that are broken beyond repair. It's urging people to overlook the sentimental value of once-loved devices and instead see the non-renewable resources that could be re-used in other devices if they're recycled correctly. The onus on device owners to embrace recycling will become even more urgent as the e-device market grows.

We don't want to put too much of the burden on consumers, but recycling should be seen as part of the lifecycle of device ownership. And manufacturers need to do their bit by designing upgradable devices; embracing third-party repair services; and even, shock horror, slowing down the upgrade cycle from the yearly/annual unrelenting pace that's become the norm.

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How green is your Apple?

Have you ever wondered about the green credentials of your computer, or any of the many other tech devices you own? Some manufacturers helpfully put some environmental information on their websites to explain their recycling schemes and green credentials, while others don't give much away.

It can be difficult to compare brands without consistent information on their environmental impact. Greenpeace has been producing the *Guide to Greener Electronics* since 2006 to track how the largest consumer electronics companies are managing their environmental impact. The latest report ranks 17 companies on three critical measures – energy, resource consumption and chemicals.

Energy rates the reduction of greenhouse gases though efficiency and renewable energy.
Resources focuses on sustainable design and the use of recycled materials.
Chemicals rates the elimination of hazardous chemicals in the products and in manufacturing.

The good, the bad and the downright dirty

The latest *Guide to Greener Electronics* found that, in general, supply chains lack transparency and that nearly all of the companies depend on dirty energy in their supply chains.

The report also found:

- Dell and Fairphone provide supplier details on their websites
- Huawei has nothing about supply chain greenhouse gas emissions
- there's little reporting on what's collected in e-waste programs or where it goes upon collection
- Samsung lags on renewable energy
- Amazon remains one of the least transparent companies when it comes to its environmental performance
- only Apple and Google products are free of potentially hazardous chemicals such as brominated flame retardants and PVC across their product lines
- Apple, Microsoft, and Samsung are not embracing sustainable design
- HP, Dell and Fairphone produce a growing number of repairable and upgradable products
- only Apple, Dell, Google, HP and Microsoft list the manufacturing restricted substances list to limit concentration of certain chemical substances in their devices.

How to wipe your devices

Smartphones and tablets can be reset to factory settings with a few simple steps.

iPhone and iPad: Settings → General → Reset and then choose 'Erase All Content and Settings.' Enter Apple ID, if needed.

Android devices: System → Reset. Then Factory data reset → Reset phone or Reset tablet → Erase everything. Enter password, if needed. ■

Recycling stats

WHAT IS E-WASTE?

Phones, computers, printers, storage devices, batteries, games consoles, power supplies, monitors and many other electronic devices.

WHY IS IT A PROBLEM?

The production and manufacturing of electronic devices uses precious materials.

Harmful substances such as mercury, antimony, cadmium and selenium can leach into the environment when left in landfill, potentially poisoning the ground and water.

Toxic substances can also come into contact with humans, which is particularly risky for people involved in dismantling and recycling devices.

HOW BIG IS THE PROBLEM?

It's hard to know the exact size of the e-waste problem because statistics are not produced regularly and there's been a lack of a global tracking program. It's estimated 44.7 million metric tonnes (Mt) of e-waste was generated in 2016, up 3.3 million Mt (eight percent) from 2014, according to the *Global E-Waste Monitor 2017* report produced by the United Nations University. The report predicts this figure to grow to 52.2 million Mt of e-waste by 2021.

However, the report also says that more countries are adopting e-waste legislation. It states that 66% of the world's population, living in 67 countries, is now covered by national e-waste management laws, up from 44% in 2014.

Guide to Greener Electronics report card

BRAND	OVERALL GRADE
Fairphone	B
Apple	B-
Dell	C+
HP	C+
Lenovo	C-
Microsoft	C-
Acer	D+
Google	D+
LG	D+
Sony	D+
Asus	D
Huawei	D
Samsung	D-
Amazon	F
Mi (Xiaomi)	F
Oppo	F
Vivo	F

Where to recycle

Mobile Muster at
mobilemuster.com.au
TechCollect at
techcollect.com.au
Local library or council recycling
recyclingnearyou.com.au