RE: Submission to Productivity Commission: Right to Repair Inquiry

Dear Commissioners,

As an industrial design academic, I wish to submit a submission to the Right to Repair, Productivity Commission Issues Paper. My observations mostly regard technology products and product design matters. Technological products in consumer and professional services markets are highly susceptible to product obsolescence. Obsolescence will often occur due to technological, functional, economic and psychological defined reasons. Evidence shows that product repair is a remedy that can prolong product lifespans, mitigate obsolescence, and avoid e-waste.

In the Commission Issues Paper, it is noted that technological change dramatically increases the complexity of products and contributes to the evolving challenges for product repair.

- Increasingly consumer products, capital goods and professional equipment now contain a highly complex combination of mechanical, electrical and electronic systems.
- Subassemblies and components, for many products, are sourced from complex and highly distributed supply chains.
- The wide use of proprietary parts and firmware is being used for competitive advantage by OEM's, who control spare parts availability, distribution and cost.
- While Open-source and 'plug and play' enables interoperability and repairability for many types of products, a common business strategy for competitive advantage relies upon a 'secret sauce' of a closed system platform.

Conversely, technological advancements offer solutions promoting product repair, notably for self-repairers.

- Online secondary market and aftermarket non-OEM providers provide a universe of spare parts, new and old, refurbished and re-manufactured, genuine and reversed engineered. They are often equal to or, in some notable cases, superior to the original OEM parts in the failed product.
- Online repair information - including reproductions or rewritten repair manuals, how-to videos and advice via forums sharing tips and solutions are a vital source of repair information.
- Online niche marketing offers opportunities for small specialist repairers to market their services via online channels to a distributed audience who are seeking out such specialist repair services.

INFORMATION REQUEST 1

What would a 'right to repair' entail in an Australian context? How should it be defined?

While product design is a key determining factor for repairability, the Australian context is markedly different than the European union or other large manufacturing centres. Many technology products are imported, and our market size is comparatively small. That limits our influence for upstream design changes for repairability. However, unless we put in place minimum design standards for repairability manufacturers and suppliers are unlikely to respond favourably to proposed change. We may become a dumping ground for inferior products and subject to ongoing restrictive product repair practices. A few thoughts to help remedy this situation:

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- Harmonisation with EU regulations and other large manufacturing centres, so to exert multilateral influence on product manufacturers.
- Public labelling/infographic scheme - not dissimilar to the Energy Rating Label schemes. This could include a range of indicators, such as - manufactures declaration of availability of spare parts, parts available for self-repair, designed for disassembly assessments, end of life treatments.
- While consumer organisations consumer advocacy organisations, such as Choice, have helped raise awareness amongst Australian consumers about product durability and repair, there is little guidance for manufacturers, distributors and retailers other than ACL.
- Australian Standards have a role to play. But Standards should be freely and accessible for non-commercial use. Currently they are costly and difficult to access. Standards Australia should be brought back into government control and made freely available via public libraries and limited online viewing. By doing so standards information would be available to educate manufacturers, distributors and consumers.

INFORMATION REQUEST 2
a) What types of products and repair markets should the Commission focus on?
b) Are there common characteristics that these products share (such as embedded technology and software or a high/low degree of product durability), and which characteristics would allow policy issues to be considered more broadly?
c) If there are particular products that the Commission should focus on, what are the unique issues in those product repair markets that support such a focus?

Any product that contains a circuit board, an antenna, battery and/or a cord should be a priority for improving product repair action.

- Increasingly, these technology products rely upon microprocesses and embedded firmware systems. When they fail, they are usually replaced rather than repaired, which is then dependent upon the availability of replacement parts. An example of this scenario would be the replacement of a failed circuit board controller in a dishwasher. Generally, with an older machine there is an increased likelihood for the unavailability of replacement parts. OEM parts, if available, are often inflated in price. In addition to the cost of the spare parts is the cost of the repair services (labour). An all-too-familiar outcome is to replace the product rather than attempt a repair.
- Batteries in mobile powered devices require periodic replacement as they degrade overtime. Products containing batteries should be replaceable as they are a semi-consumable component. Degraded battery performance often becomes a catalyst for initiating a response to replace rather than repair.
- Many products are designed with no regard for repair or end-of-life. Some are ‘sealed for life’, while others require specialist tooling for disassembly and servicing. This is an unnecessary product design obstacle.
- The repair of technology devices often relies upon the replacement of subassemblies rather than individual components.
- As described above, circuit boards and batteries, in particular, need to be managed in a closed-loop system to avoid e-waste and recapture valuable materials for manufacture.

INFORMATION REQUEST 4
b) Is there any evidence of a difference in quality, safety or data security between authorised repair networks and independent repairers? Are there ways to address concerns around quality, safety or data security while promoting a vibrant independent repair market?

- *Is an absence of effective competition in the primary market a necessary condition for consumer harm from non-competitive repair markets?*
- *To what extent would measures that enhance competition in the primary market address concerns about a lack of competition in repair markets?*

Quality, safety and data security concerns are often used as a first line of defence by manufacturers and suppliers seeking to protect their repair networks and parts supply chains from independent supplies and self-repairers.

- While there are notable examples of where an unauthorised product repair or parts have resulted in disastrous outcomes, a literature review and independent assessment of existing examples and practices would likely find that most independent repairers and self-repairs of non-critical equipment are perfectly safe and of a suitable quality.
- Additionally, use of independent suppliers and repairers results in significant cost saving for consumers and creates opportunities for establishing new small business initiatives.
- Moreover, non-authorised self-repairs can offer users/consumers and repair communities a sense of achievement in fixing and cost savings.

INFORMATION REQUEST 8
a) What policy reforms or suite of policies (if any) are necessary to facilitate a 'right to repair' in Australia?

Well this is an area beyond my expertise I offer the following thoughts for consideration:

- Unity with a range of EU and US state level initiatives would offer globally a consistent approach to dealing with multinational manufactured products in the global marketplace.
- Standards Australia have role to play in developing design standards for design for repairability and design for disassembly. But the current commercial structure of Standards Australia first needs to be reviewed to position itself as an enabling tool for design innovation.
- Tax subsidies for repair in the form of the removal of GST for repair services. It could promote competition and growth in the sector.
- Alignment with Australian government and other research institutions circular economy initiatives - such as the recent CSIRO report- Circular economy roadmap.

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