

Made to Last:

Product life extension through emotional durability

Robert Silkstone, MA Creative Practice





The problem of E-Waste

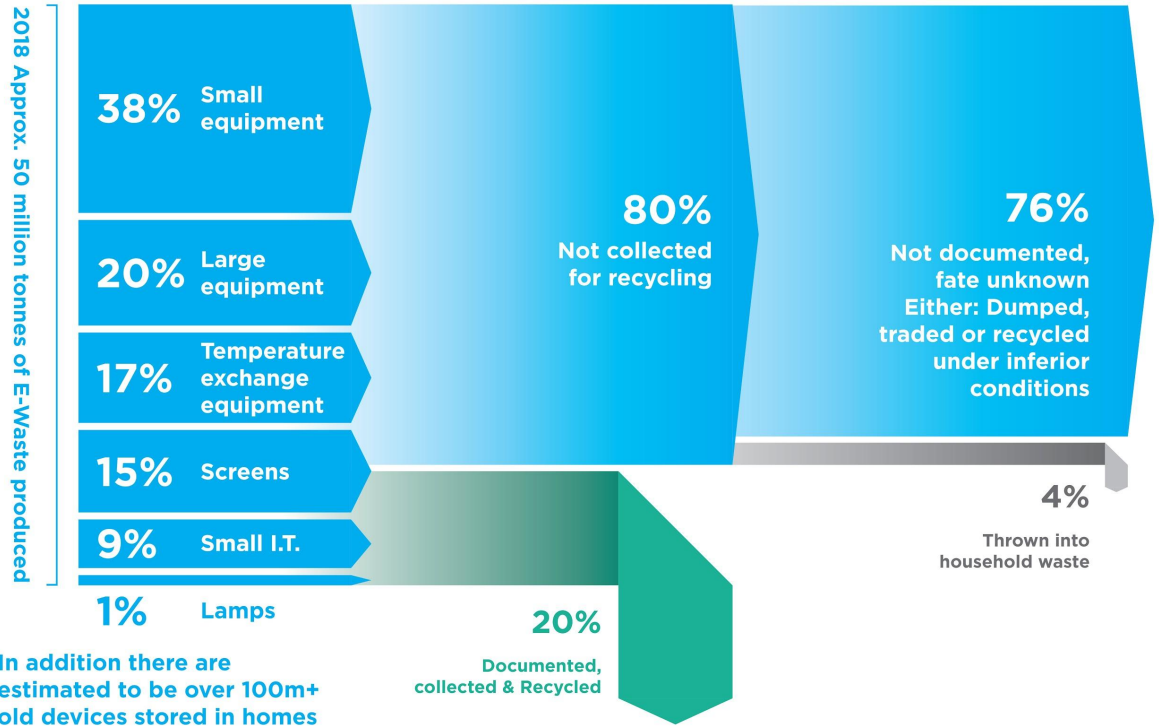
Resource consumption & waste

E-Waste is also known as waste electrical or electronic equipment (WEEE) is now the fastest growing waste stream in the world

United Nations University (2017).

Today humanity uses the equivalent of 1.75 Earths per year to provide the resources we use and absorb our waste.

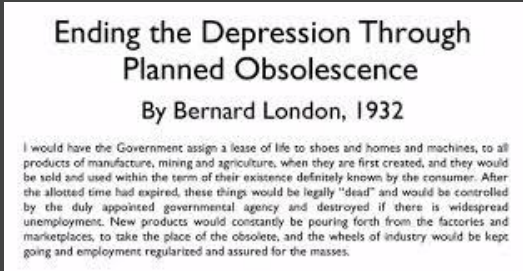
Global Footprint Network (2020).



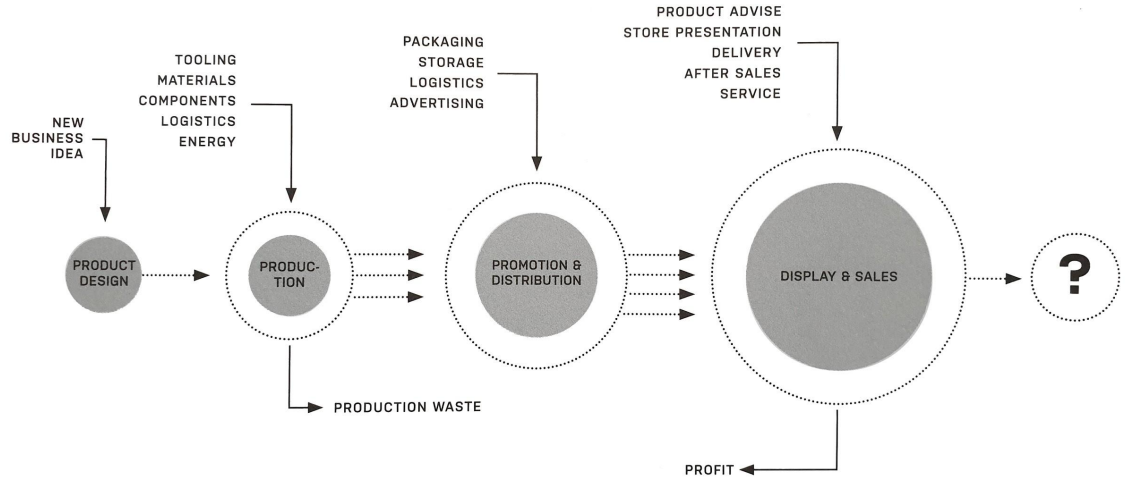
Global e-waste flows. (2017) Baldé et al.

“Throwaway culture”

The planned obsolescence of consumer goods was originally proposed by Bernard London in 1932 as a form of quantitative easing during The Great Depression.



London, B. (1932) Ending the Depression Through Planned Obsolescence. Pamphlet



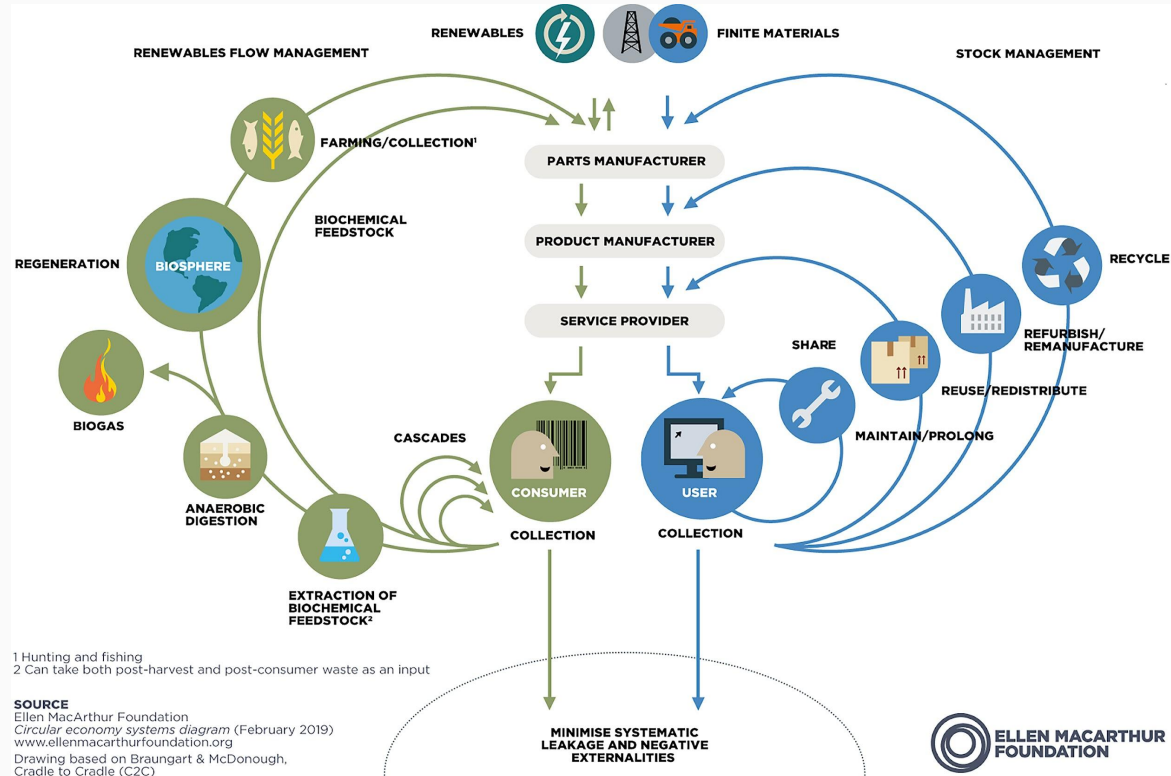
linear economy model. (2019) Bakker et al.

Circular Design

6 Strategies for Circular Product Design:

1. Design for Product Attachment and Trust
2. Design for Product Durability
3. Design for Standardization & Compatibility
4. Design for Ease of Maintenance and Repair
5. Design for Upgradability & Adaptability
6. Design for Dis- and Reassembly

(2019) Bakker et al.



Circular economy systems diagram (2019) Ellen MacArthur Foundation

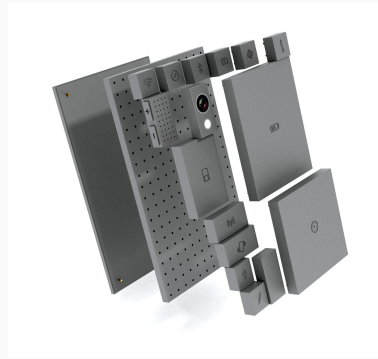
Sustainable Design

The average phone weighs 200g but in reality consumes 500kg of the earth's resources in its production and distribution of which 78kg is CO2

Chapman, J. (2014) Inaugural Lecture, Professor of Sustainable Design
University of Brighton

The average life of a mobile phone is 18 months, by doubling it to 36 months it will instantly create a 50% cut in all consumption waste associated with the creation of that object.

Chapman, J. (2014) Inaugural Lecture, Professor of Sustainable Design
University of Brighton



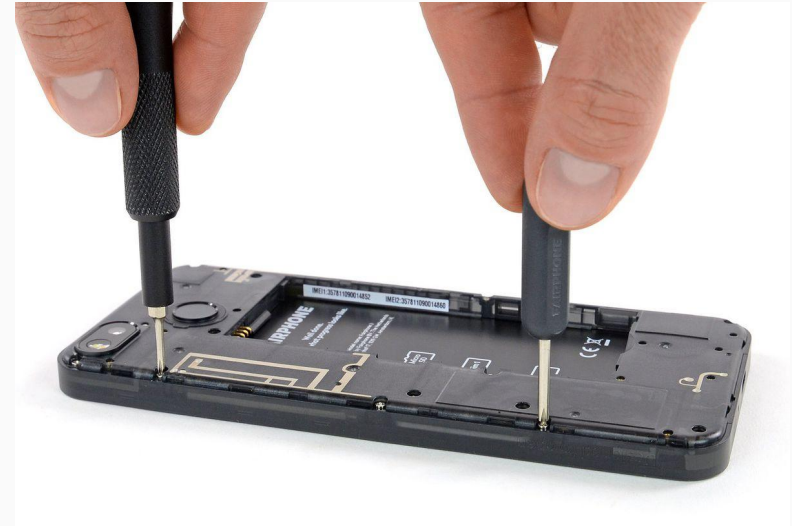
Hakkens, .D (2013) Phonebloks



Motorola/Google Advanced Technology and Projects group (2016) Project Ara



Fairphone B.V. (2019) Fairphone 3



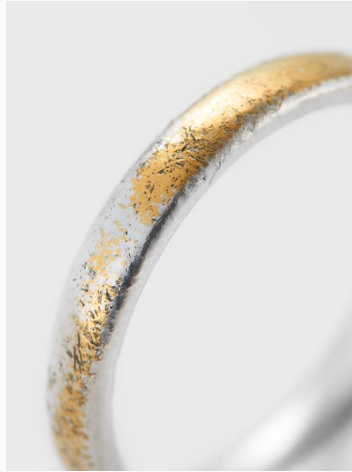
Emotionally Durable Design

"It's actually very easy to design and manufacture a toaster that will last 20 years; that can be done. What's not so easy is to design and manufacture a toaster that someone will want to keep for 20 years, because as people... we haven't been trained to do that."

Chapman, J. (2014) *BBC Radio 4's Today Programme* 09/02/2013.



Kintsugi, the Japanese art of repairing broken pottery by mending the areas of breakage with lacquer dusted or mixed with powdered gold, silver, or platinum.



Torafu Architects (2017) *24k Gold wedding ring*



The Agency of Design (2013) *The Optimist Toaster*



Bethan Laura Wood (2006) *Stain*

Further work

The MA Creative Practice research will be underpinned by EDD and qualitative mixed methodologies to uncover the reasons why people form attachments with certain products.

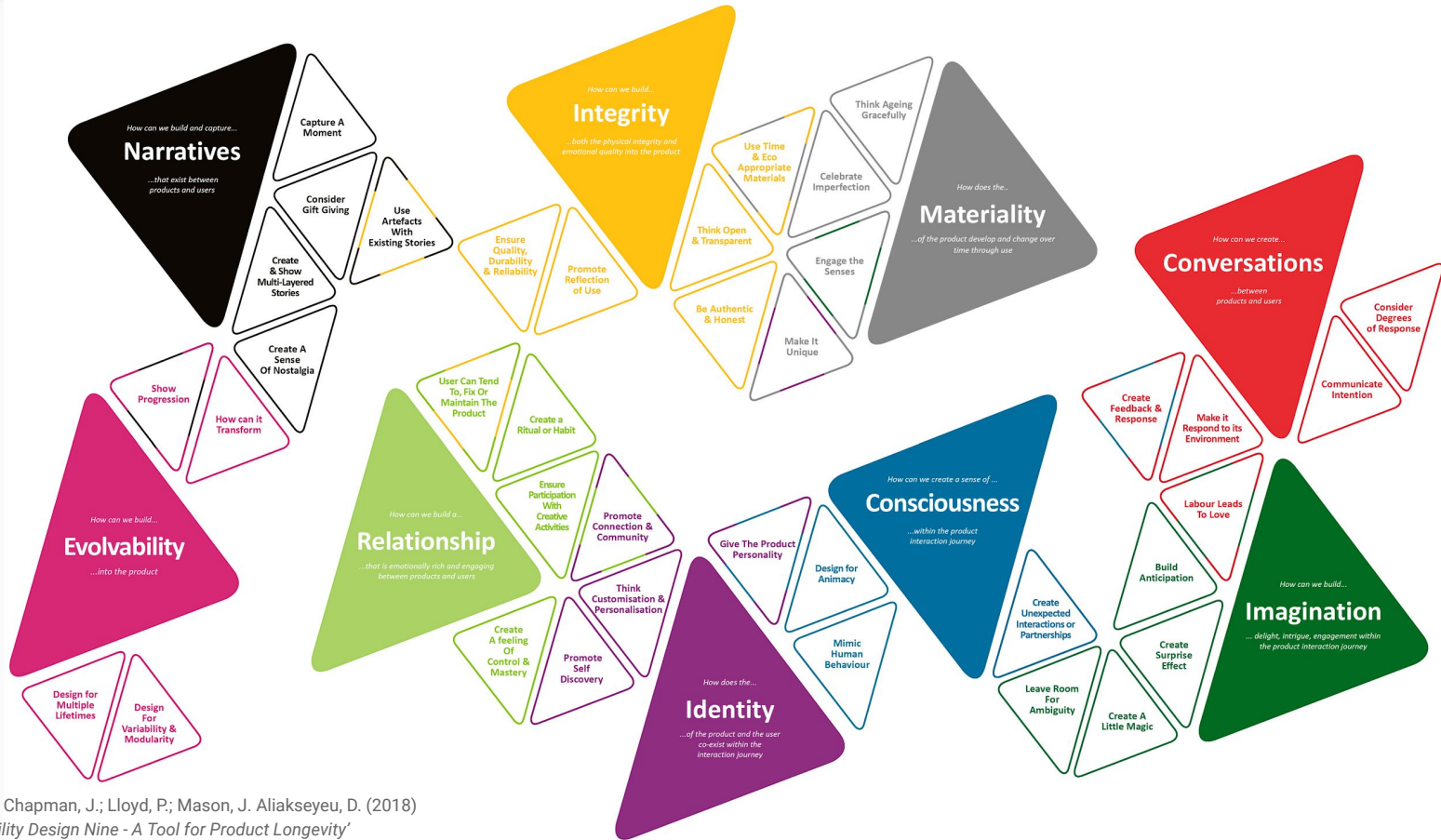
Interviews, focus groups and questionnaires will inform the design and development of new products with the whole life cycle in mind through the consideration of materials within circular business models for long term sustainability.

Research questions

What influences the significant, emotional attachments in product user interactions?

How can we use these insights to design small electronic products that people want to keep for longer?

Emotionally Durable Design Nine



Speculative Critical Design

“product design remains closely aligned with market expectation and is one of the few areas in which conceptual and commercial approaches really do not mix.”

Dunne, A., Raby, F. (2013) Speculative Everything



Thwaites, T. (2011) The Toaster Project: Or a Heroic Attempt to Build a Simple Electric Appliance from Scratch

“It seems the need to buy more stuff to save our economy and the need to buy less to save our environment are on a collision course. So, we either have to value what we've got a lot more, or spend as much time and effort taking things apart and disposing of them as we do putting them together.”

Thomas Thwaites

Call for Participants

Please go to this link:

<https://forms.gle/HLgSTPB7oPDJqXGz9>



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