

Using Design to DISRUPT CONNECTIONS

BETWEEN *plastic packaging & produce.*

Background: Pre-packaged produce accounts for over half (53%) of all produce sold in Australian supermarkets.¹ Single-use plastic packaging, which is the leading contributor to Australia's plastic waste, accounts for almost 50% of all plastics deposited in landfills.²

RESEARCH

How can design be used to disrupt connections between single-use plastic packaging and produce?

QUESTION

Methods and Materials: Connections between single-use plastic packaging, produce and speculative design were identified through an academic literature review of peer reviewed research, Australian government reports and relevant statistics. Inclusion criteria were English language, published between 2000 and 2024. Keywords included "single-use", "plastic", "packaging", "produce", "consumer behaviour" and "speculative design".

Results: Using the inclusion criteria, a total of 94 sources were identified, after the exclusion of irrelevant or erroneous information. A sizeable gap in the literature exists regarding the use of design as a means of disrupting existing connections between produce and single-use plastic packaging. Noticeably, there was a strong focus on plastic waste recovery, plastic recycling, and the redesign of existing packaging with alternative materials - rather than removal of unnecessary plastic packaging for produce.



Figure 1. Potatoes in packaging. Adapted from Woolworths Cook Potato Baby Herb & Butter 400g https://www.woolworths.com.au/shop/productdetails/226918?googleshop=true&store_code=woolworths_supermarkets_2003

Conclusions

Consumer purchasing of pre-packaged produce is accelerating - driving increasing volumes of single-use plastic packaging into Australian landfills.^{1,2} Current approaches to addressing growing consumer preferences for pre-packaged produce are either absent, or ineffective.^{2,3} Design presents an opportunity to tackle this issue by disrupting connections between plastic packaging and produce around three pillars: **convenience, containment and consumerism.**^{4,5,6} By exploring provocative packaging concepts, design can be used to identify, exploit and disrupt connections between plastic packaging and produce, with the goal of encouraging consumers to choose unpackaged produce in supermarkets.^{7,8,9}

1. Norris, M. (2020, October 4). Pandemic Drives Purchases of Pre- packed Produce. <https://harvesttohome.net.au/static/archive/case-studies/> 2. O'Farrell, K., Harney, F., & Stovell, L. (2022). Australian Plastics Flows and Fates Study 2020-21 - National Report (PI348). Department of Climate Change, Energy, the Environment and Water. <https://www.dcccew.gov.au/environment/protection/waste/publications/australian-plastic-flows-and-fates-report-2020-21> 3. APCO. (2022). Australia's 2025 National Packaging Targets. Australian Packaging Covenant Organisation. Retrieved August 1, 2023, from <https://apco.org.au/national-packaging-targets> 4. Hawkins, G. (2018). The skin of commerce: Governing through plastic food packaging. *Journal of Cultural Economy*, 11(5), 386-403. <https://doi.org/10.1080/17530350.2018.1463864> 5. White, A., & Lockyer, S. (2020). Removing plastic packaging from fresh produce - what's the impact? *Nutrition Bulletin*, 45(1), 35-50. <https://doi.org/10.1111/nbu.12420> 6. Pierce, J., & Paulos, E. (2014). Counterfunctional things: Exploring possibilities in designing digital limitations. *Proceedings of the 2014 Conference on Designing Interactive Systems*, 375-384. <https://doi.org/10.1145/2598510.2598522> 7. Tonkinwise, C. (2013). DRAFT Design Away: Unmaking Things. https://www.academia.edu/3794815/Design_Away_Unmaking_Things 8. Acaroglu, L. (2018). Designed for Disposability. *Medium*. <https://medium.com/disruptive-design/design-for-disposability-962647cbcb0> 9. Fry, T. (2005). Elimination by Design. *Design Philosophy Papers*, 3(2), 145-147. <https://doi.org/10.2752/144871305X13966254124554>