

Envirofy your Shop: Real-time Tool to Support Eco-friendly Food Purchases Online

Gözel Shakeri and Claire McCallum, from the University of Glasgow and the University of Bristol, UK; first.last@university.ac.uk

Envirofy is the first eco-friendly e-commerce grocery tool for real shoppers. Envirofy was developed using both behaviour change theory and multidisciplinary evidence.

Problem Domain & Motivation

A **third** of global greenhouse gas emissions are **attributable to the food sector**, however **dietary change** could reduce this by **49%**. Many people intend to make eco-friendly food choices, but fail to do so at the **point-of-purchase**. **Educating consumers** on the environmental impact of their choices during their shop may be a **powerful approach to tackling climate change**.

Behaviour Change Techniques (BCTs)

A Behaviour Change Technique [1] is a strategy that helps an individual change their behaviour to promote in this case sustainable shopping.

The Main Features of Envirofy

- **traffic light colour coded icons** to convey the food product's overall, production, transport, and packaging carbon footprints;
- **reordering the items** on the website **from environmentally friendliest** (at the top of the page) **to unfriendliest**; and
- a **running total** of the shop's impact.

Conclusion

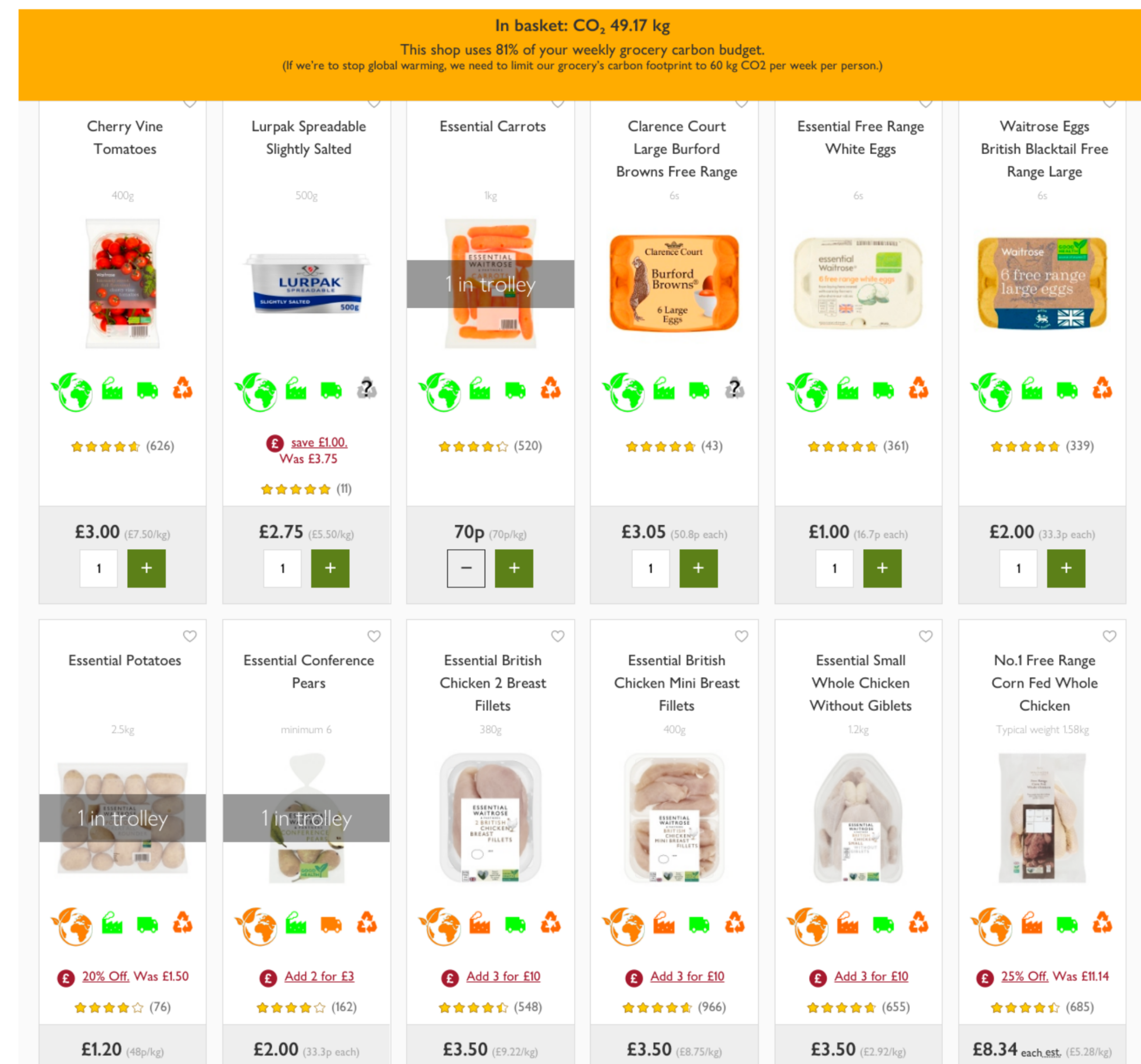
Human-Computer Interaction researchers have an **important role** in designing, developing and evaluating novel behavioural interventions that target sustainable food choices, intention-behaviour gaps in other domains, and ultimately **in reducing green house gas emissions**.

References

[1] Susan Michie, Maartje M Van Stralen, and Robert West. 2011. The behaviour change wheel: a new method for characterising and designing behaviour change interventions. Implementation science 6, 1 (2011), 42.

The Envirofy Web Browser Extension

Envirofy works on top and independently of standard websites of UK supermarkets (e.g. Tesco). Envirofy injects BCTs into the existing webpage (e.g. traffic light coded icons).



In basket: CO₂ 49.17 kg
This shop uses 81% of your weekly grocery carbon budget.
(If we're to stop global warming, we need to limit our grocery's carbon footprint to 60 kg CO₂ per week per person.)

Product	Weight	Price	Carbon Footprint (kg CO ₂)	Rating
Cherry Vine Tomatoes	400g	£3.00	7.50	5 stars (626)
Lurpak Spreadable Slightly Salted	500g	£2.75	5.50	5 stars (11)
Essential Carrots	1kg	70p	70p/kg	5 stars (520)
Clarence Court Large Burford Browns Free Range	6s	£3.05	50.8p each	5 stars (43)
Essential Free Range White Eggs	6s	£1.00	16.7p each	5 stars (361)
Waitrose Eggs British Blacktail Free Range Large	6s	£2.00	33.3p each	5 stars (339)
Essential Potatoes	2.5kg	£1.20	48p/kg	5 stars (76)
Essential Conference Pears	minimum 6	£2.00	33.3p each	5 stars (162)
Essential British Chicken 2 Breast Fillets	380g	£3.50	£9.22/kg	5 stars (548)
Essential British Chicken Mini Breast Fillets	400g	£3.50	£8.75/kg	5 stars (966)
Essential Small Whole Chicken Without Giblets	1.2kg	£3.50	£2.92/kg	5 stars (655)
No.1 Free Range Corn Fed Whole Chicken	Typical weight 1.58kg	£8.34	each est. £5.28/kg	5 stars (685)