cogo

Applying Cogo's Ethical Nudge Framework to drive climate action

Why Cogo is taking a behaviourally informed approach to drive climate action

November 2021

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1. A note from Cogo's founder

Kia ora from Aotearoa New Zealand,

My name is Ben Gleisner. I am an economist, environmentalist and social entrepreneur. I co-founded Conscious Consumers in 2011, a charitable organisation with the vision of mitigating the effects of climate change by changing consumer spending and business operations. That charity became Cogo and we now offer a world-leading API solution that allows businesses worldwide to integrate carbon footprint tracking and our 'Ethical Nudge Framework' seamlessly into their existing platforms.

We believe that by working together as consumers, business owners and governments, we'll achieve our combined goal of helping to save our planet for future generations to come.

The journey to here...

My journey started at medical school as a student where I realised that everyone around me knew they wanted to be a doctor for the next 30 years. I wanted something more. I turned my attention, initially, to chemical engineering and then, while running sustainable music festivals in my spare time, discovered my interest in social and environmental sustainability.

I went on to find my passion for the environment, completing a Masters on climate economics, focused on carbon taxes and carbon offset programmes. Following this, I worked for the New Zealand Treasury on climate change, welfare reforms, living standards and the wellbeing budget. Although I was exposed to world-wide experience in the climate change space during this time, I was also adding to the climate crisis by flying around the world for meetings. Driven by the conviction that we've got to change the world faster, I decided to begin my own personal sustainability journey.

Doing more, together...

Together with some visionary allies at Treasury, I started Conscious Consumers in 2011. It was initially an app that helped users align their spending with their values and featured 12 local (carbon conscious) cafes. Pretty soon, the app covered all sustainable cafes and restaurants across Wellington and then Aotearoa New Zealand (and more). In 2016, Conscious Consumer became Cogo, which has since raised more than US $8 million in funding with more to follow. Cogo has grown to over 65 staff across three markets.

Partnerships for BIG change...

Now, as a globally recognised behavioural science and sustainability data expert, Cogo has a significant opportunity to empower global consumers with the ability to measure, improve and compensate for their emissions. In the UK, Cogo's API will go live in November 2021 to 8,000,000 NatWest customers. In Australasia, we're working with Commonwealth Bank, one of the largest banks in Australia, to enable customers to view their carbon footprint and offset their previous month's transactions by purchasing carbon credits. Our consumer app (powered by open-banking and available in the UK) has had over 100,000 downloads.

Our vision for Cogo is to empower hundreds of millions of consumers globally to understand the effect their spending has on their emissions and take actions to reduce their impact. It's in our hands to make a difference. Together, we're creating a fairer and more sustainable world.

Let's go change the world together...

Let's Cogo!

Ben Gleisner

2. Behaviour change and climate action

2.1. The need for action

Climate change is happening. We are already seeing the effects around the world in terms of heat waves, hurricanes, flooding, wildfires and drought. These disasters are increasing in frequency and in scale and are impacting nearly every country on our planet. Climate change is recognised by scientists as the primary threat facing humanity, and will impact our health, our economies and our future on this planet. Despite repeated warnings, we have not taken nearly enough collective action and the need for change is now urgent.

Organisations such as the United Nations Framework Convention on Climate Change (UNFCCC) and the Intergovernmental Panel on Climate Change (IPCC) have helped us make some progress, however this on its own is simply not enough.

The impact of individual behaviour change might seem small, but when many individuals make changes, this change scales, becoming the collective, transformative shift necessary for a positive future here on this planet.

> **"The climate crisis has already been solved. We already have all the facts and solutions. All we have to do is to wake up and change."**
> Greta Thunberg
> TEDx Stockholm, December 2018

At Cogo, we recognise that many different solutions and approaches will need to come together for the world to transition to a net-zero society. This is why we have stepped up and are tackling the climate crisis head on.

This white paper explains how we're combining our world-leading sustainability data with behavioural science to support people on their journey towards more sustainable living; and why it works.

2.2. What is behavioural science?

The field of behavioural science studies how people behave in a complex world and identifies evidence-based strategies that can lead to changes in these behaviours. It draws on decades of research integrating disciplines such as psychology, economics, neuroscience and sociology to help understand our real-life decision making process and actions.

Conventional wisdom assumes that people make rational choices by weighing up costs and benefits. Behavioural science, however, suggests most of our decisions are unconscious and driven by our emotions, physical and social context, mental shortcuts and heuristics.[1]

Our lives are filled with routines and habits. Taking climate action involves many of these deeply habitual activities, such as commuting to work or preparing meals. While human behaviour is complex, Cogo applies insights and models from behavioural science to empower people to start making small, sustainable changes to our routines and habits so that, eventually, these changes become our new routines and habits.

82% of Cogo users in the UK state that they are concerned about sustainability issues such as Reducing Waste, Sustainably Sourced, Carbon Conscious or Carbon Neutral activities.

2.3. The role of behaviour change in climate action

Many of us want to live more sustainably and recognise that we need to change our habits if we want to move closer to a net-zero society. However, knowingly or unknowingly, we don't always take actions that are aligned with these values and intentions.

[1] Gigerenzer, G., & Gaissmaier, W. (2011). Heuristic decision making. Annual review of psychology, 62, 451-482.

Research has found that people report being aware of issues such as global warming, alongside high levels of care about protecting the environment, however positive behaviours, such as limiting their energy consumption and recycling, often fail.[2]

When people's values, intentions or attitudes aren't consistent with their actions, it creates a value-action gap.[3]

> **"Educating people and getting them to care won't drive action."**
> Katie Patrick
> Environmentalist, engineer, and designer

The value-action gap highlights that people don't struggle with understanding the urgency of climate action, but rather struggle with the follow through. Factors such as our existing consumption habits, what others are doing and whether or not we are reminded to take action at the right time can all influence our decision making. To close the value-action gap, we need to understand what drives behaviours and habits.

[2] Flynn, R., Bellaby, P., Ricci, M. (2009). The 'value-action gap' in public attitudes toward sustainable energy: The case of hydrogen energy. The Sociological Review, 57(2), 159-180.
[3] Kollmuss, A., & Agyeman, J. (2002). Mind the gap: Why do people act environmentally and what are the barriers to pro-environmental behaviour?. Environmental Education Research, 8(3), 239-260.

2.4. What gets in the way of behaviour change?

There are many hidden influences that can prevent us from living more sustainably and not following through with climate actions we committed to taking. Wikipedia lists over 200 biases and mental shortcuts that we rely on when making decisions. Here we present a few examples of barriers that might get in the way of our plans to living sustainably:

STATUS QUO BIAS

Our existing consumption choices are habitual and we tend to act in a way that's consistent with our past behaviours. Sticking with a known, default option is called 'status quo bias' and is evident when people prefer things to stay the same by doing nothing or by sticking with a decision made previously.[4] For example, we're often stuck in our ways around the brands we purchase, where we shop for our food and clothes and how we commute to work.

PRESENT BIAS

The consequences of our current consumption habits can be hard to quantify or properly understand without immediate feedback. Exacerbating this is 'present bias' which involves underestimating the things that will give us long-term value and falling back on the things that provide us instant gratification or are convenient in the moment.[5] For example, leaving lights on when leaving a room has no immediate or visible cost and it's easy to underestimate the positive consequences of putting an end to this habit in favour of what's easy.

SOCIAL NORMS

Our actions are influenced by people around us and what they do which is called 'social norms'.[6] We tend to do what others do or think we should do – such as commuting by car rather than bus in a community that views the car we drive as a status symbol.

[4] Samuelson, W., & Zeckhauser, R. (1988). Status quo bias in decision making. Journal of risk and uncertainty, 1(1), 7-59.
[5] Laibson, D. (1997). Golden eggs and hyperbolic discounting. The Quarterly Journal of Economics, 112(2), 443-478. O'Donoghue, T., & Rabin, M. (2015). Present bias: Lessons learned and to be learned. American Economic Review, 105(5), 273-79.
[6] Cialdini, R. B., & Goldstein, N. J. (2004). Social influence: Compliance and conformity. Annu. Rev. Psychol., 55, 591-621.

WHY IT'S SO HARD TO KNOW WHAT CLIMATE ACTION TO TAKE

Researchers Wynes, Zhao and Donner[7] conducted a study on how well people understand the climate impact of individual actions. They found that people often overestimate the positive impact of climate actions such as recycling, which has a low relative impact, and have a hard time correctly identifying high impact actions.

The researchers identified numerous barriers for this phenomenon, from **'confirmation bias'** (favouring how I act now as opposed to making changes) to **'availability heuristics'** (assigning extra importance to climate actions that spring to mind easily). They also identified **carbon literacy** as a potential barrier to correctly identify high impact climate actions.

People often focus on choices related to solving highly visible problems (such as in the case of recycling – pollution) or on actions that are symbolic of environmentalism but not related to climate. For example, littering creates no emissions, yet researchers found that people estimated the impact to be roughly equivalent to a high-pollution flight across the Pacific Ocean. They flag that such misunderstandings around behaviours may have dire consequences for climate mitigation efforts.

> **"I know there is more I can do but it's not clear what I should do next."**
> Cogo research participant

[7] Wynes, S., Zhao, J. & Donner, S.D. How well do people understand the climate impact of individual actions?. Climatic Change 162, 1521–1534 (2020). https://doi.org/10.1007/s10584-020-02811-5

3. The climate action journey

At Cogo, years of working in consumer behaviour means we have gained deep insight into what drives positive change. The result of these learnings is a three step process that supports meaningful change towards a more sustainable lifestyle.
Each climate action journey starts with **measuring** your current impact, based on our world-leading, trusted sustainability data. We then help Cogo users find ways to **improve** their impact by increasing their understanding and suggesting ways to reduce their footprint. For any impact that can't be improved, users can **compensate** through certified offsetting solutions.

MEASURE

By applying our world-leading emissions factors data to a specific transaction feed, we create a tangible, personalised picture of an individual's carbon footprint. This step is based on Cogo's sustainability data.

IMPROVE

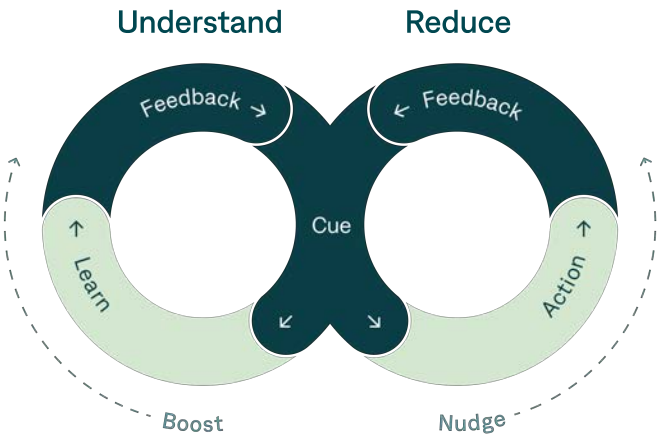
Cogo creates personalised tips and recommendations to support consumers and businesses to understand and reduce their carbon footprint. We focus on education, as well as suggesting tangible actions they can take in order to reduce their impact, simultaneously recognising the actions they have already achieved (to reinforce these behaviours and help them stick) while encouraging further progress. We base our approach to 'Improving' on the Ethical Nudge Framework (see 3.1.).

COMPENSATE

For any impact that can't be improved, users have access to local certified projects which allow consumers and businesses to offset their carbon footprint.

3.1. Cogo's Ethical Nudge Framework

The Ethical Nudge Framework (ENF) is how Cogo applies gamification and behavioural science principles to climate action. Successful climate action is a combination of understanding and reducing one's carbon footprint. The ENF follows the nonlinear journeys our users take, moving back and forth between the understand and improve loops.



This framework guides our understanding of where Cogo users are on their behaviour change journey, and enables us to design effective value-led solutions to help them achieve their goals.

Each behaviour change journey starts with an external or internal cue which, depending on the levels of the user's motivation and their ability to change their behaviour, prompts them to either understand (learn) or reduce (take action).

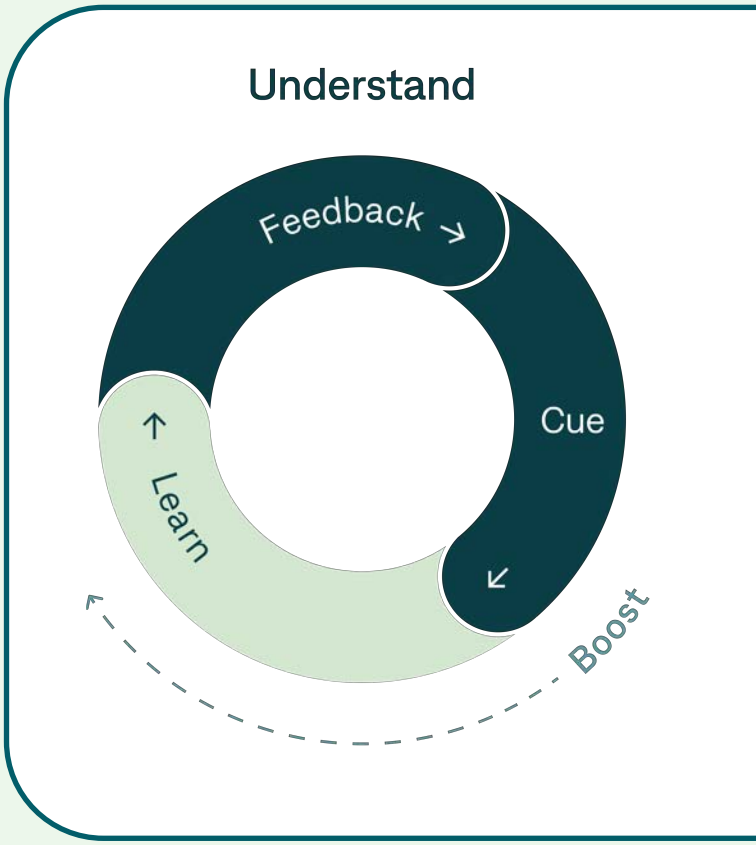
Cogo applies 'boosts' and 'nudges' in an attempt to remove barriers to taking action and make change more desirable, or normalise positive behaviour.

WHAT'S A CUE?

A cue can be a prompt in our physical or external environment (things we can see, touch or hear) or an internal trigger, (things we already do, feel or think).

Most habits or behaviours start with a cue. For example, Cogo uses cues in the form of push notifications in order to prompt users towards a suitable climate action based on their journey.

CUES, BOOSTS AND NUDGES ACROSS THE UNDERSTAND LOOP



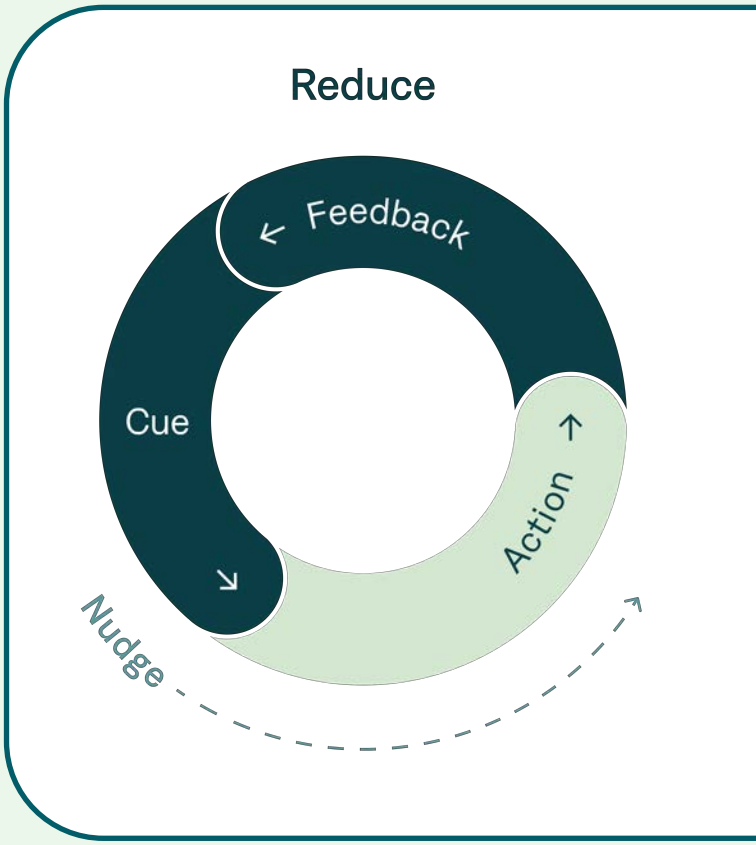
- **Cue:** This is a prompt or piece of information that Cogo uses to promote a learning opportunity to users.
- **Learn:** Our aim is to demystify carbon footprints – what they are, why they matter and how they work. The focus is on presenting a personalised carbon footprint (based on each user's transaction history) using clear, accessible language
- **Feedback:** We encourage users with a clear 'next step' to reduce any uncertainty.
- **Boosts** expand people's ability and motivation to go from knowing about their carbon footprint to doing something about it. For example, providing a link to switch to a renewable energy supplier could be a boost.

WHAT'S A BOOST?

Boosts are messages that can help people overcome the value–action gap by improving their ability to make choices more closely aligned with their goals. Boosts are transparent in that people can choose whether or not to take up a suggestion or offer. Cogo boosts users' motivation to change through education around future potential savings based on personalised climate action calculations, using our sustainability data.

CUES, BOOSTS AND NUDGES ACROSS THE REDUCE LOOP

- **Cue:** This is a prompt or piece of information that Cogo uses to promote an opportunity for change.
- **Action:** This is what a user opts to do to reduce their carbon footprint.
- **Feedback:** These are rewards that create positive reinforcement, including recognition and showing progress toward goals.
- **Nudges** remove the barriers that might prevent people from reducing their carbon footprint. For example, showing the number of other people in the Cogo community who have already made the change to a renewable energy supplier.



WHAT'S A NUDGE?

Nudges look to steer people towards choices that align with their values. Nudging towards a low carbon lifestyle is a powerful way to take action for the environment. For example, putting plant-based alternatives next to red meat in the supermarket would be a nudge. Cogo uses nudges in the reduce loop to change users' shopping habits to reduce their carbon footprint. Cogo suggests alternatives to their current spending by highlighting nearby low-carbon businesses. This removes the barrier around people having to search for value-aligned businesses, making it more likely that they will move away from their default shopping habits.

THE IMPORTANCE OF PERSONALISATION

In order for behavioural design to be meaningful and impactful, it needs to respect individual differences. Sunstein (2013) explained that simply knowing that people are different is not enough, it is important to understand who is different from whom and how.[8] This requires data and insights, such as personal financial data, which are relevant to individual context.

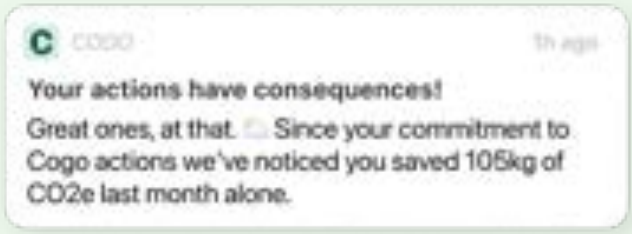
At Cogo, we use this personalisation to tailor climate action cues, boosts and nudges to suit each individual. These personalised messages promote the most impactful choices to users by providing supportive and positive feedback. Cogo also rewards, reinforces, and recognises any progress that is made, tailored to each person's individual journey and context.

3.2. Putting the ENF into Action

Cogo harnesses mental shortcuts to make it easier for people to change their behaviour and make progress on their sustainability journey. Here are a few examples of how Cogo weaves behavioural science principles into our UX.

MAKING THE CHANGE PERSONAL

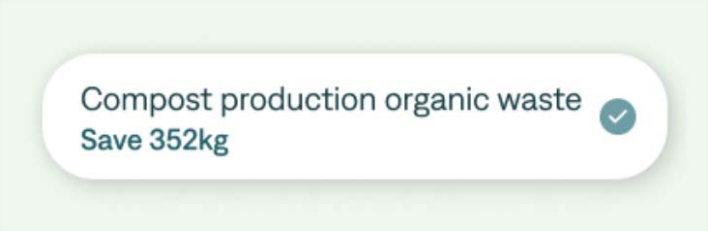
Sustainable behaviours sometimes fail to seem personally relevant. For example, it might feel like 'other people' in 'other places' are responsible. We support our users by sending them timely, positive feedback messages that highlight the impact their behaviour has had. This reinforces their choice and lets them know that they're on the right track.



[8] Sunstein, Cass R., Impersonal Default Rules vs. Active Choices vs. Personalized Default Rules: A Triptych (May 19, 2013). Available at SSRN: https://ssrn.com/abstract=2171343 or http://dx.doi.org/10.2139/ssrn.2171343

MAKING THE INVISIBLE VISIBLE

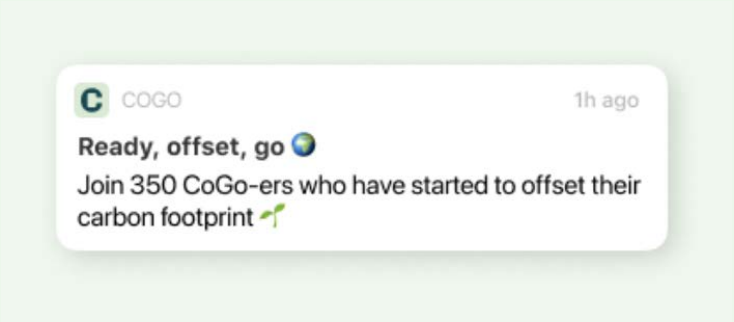
The consequences of our current consumption habits can be hard to quantify. Cogo shows a user the carbon footprint of every purchase they make, bringing the future into the present and making their consumption salient.



MAKING THE CHANGE SOCIAL

The actions we take are significantly influenced by what our peers and the people around us are doing. This tendency can be even stronger during uncertain times, where we look to others to see what the 'right' actions are. Leveraging prescriptive social norms (what we think we should do based on what's socially acceptable and valued) and descriptive social norms (what most other people are doing) are both important influences that we can apply to help individuals make lasting changes.

> **"My mum and grandmother as long as I can remember have recycled and brought milk bottles in glass, so growing up we knew you were supposed to do these types of things"**
> Cogo research participant



MAKING THE CHANGE EASY

We tend to take the path of least resistance and do what's easiest in the moment. Cogo focuses on simplifying change by creating bite-sized messages and making complex information easy to understand. Using 'boosts' that suggest alternate product choices (such as showing us where to buy second hand clothes) removes the small hassles of finding alternatives ourselves.

MAKING THE CHANGE FEEL GOOD

Our emotions motivate our choices[9] and negative emotions can prevent following through.[10] For example, feeling defensive or guilty about climate change may lead to avoiding the topic altogether and disengaging from climate action.

Cogo avoids using negatively framed messages that make people defensive. Instead we aim to evoke curiosity and make new habits 'sticky' by leveraging positive emotions such as pride and recognition.

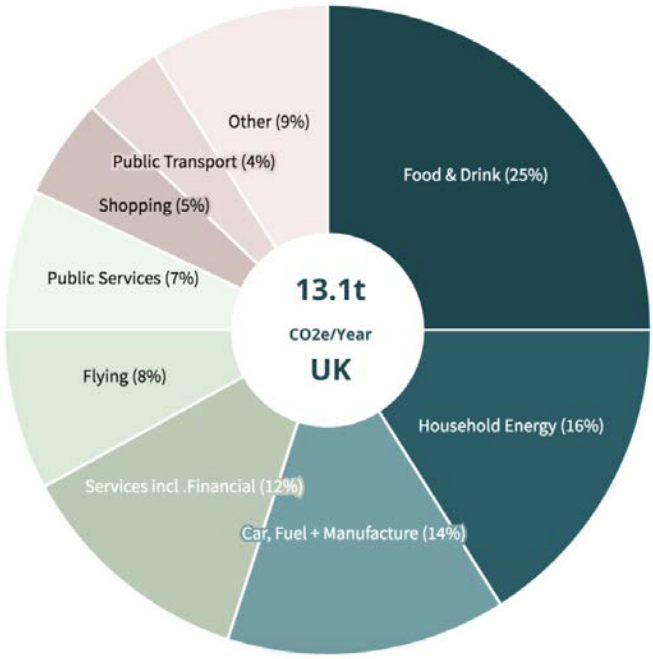
> **"I kept swinging from 'everyone has to change' to like 'it's worthless, I'm one person, I'm never going to change anything"**
> Cogo research participant

[9] Loewenstein, G. & Lerner J. S. (2003). The role of affect in decision making. In R. Davidson, H. Goldsmith, & K. Scherer (Eds.), Handbook of Affective Science (pp.619–642). New York: Oxford University Press.
[11] Schneider, C. R., Zaval, L., Weber, E. U., & Markowitz, E. M. (2017). The influence of anticipated pride and guilt on pro-environmental decision making. PloS one, 12(11), e0188781.

Case study: Helping the Cogo community switch to renewable energy suppliers

THE CARBON CONUNDRUM

In the UK, household energy on average accounts for up to 16% of a person's carbon footprint. That's an average of around 2 tonnes of CO2e annually. There are many ways people can reduce their climate footprint from energy consumption but no climate action is as easy or has as large an impact as switching to a renewable energy supplier.



Source: Small World Consulting

*A carbon footprint measures the total greenhouse gas (GHG) emissions caused directly and indirectly by a person. It's measured in tonnes of carbon dioxide equivalent (tCO2e) , a standard unit which expresses the impact of different GHGs.

IDENTIFYING ROADBLOCKS

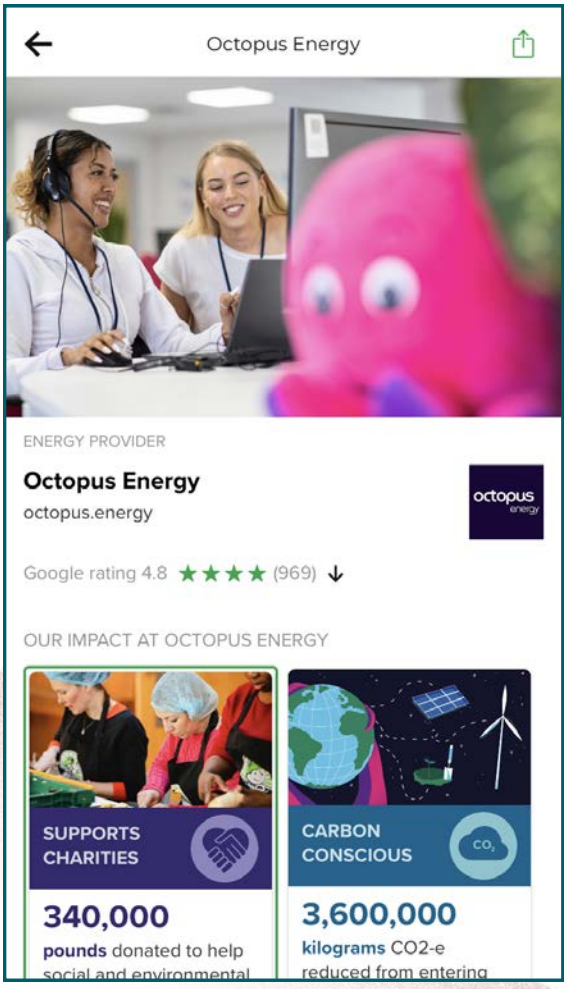
Consumers can experience many actual and perceived barriers with regards to switching energy suppliers. This can be explained in part by status quo bias, where consumers perceive that changing providers is a risky decision and would prefer to stay with the company they are currently using [BI Team, 2017]. Others might simply consider it a hassle, with no visible or personal benefit. The environmental impact of energy usage is hard to grasp and therefore easily forgotten. To the end-customer, renewable or non-renewable energy all 'looks the same' (for example, when they pop on the kettle). These barriers provided an ideal scenario for behavioural design to help Cogo users to close the value-action gap.

LEVERAGING BEHAVIOURAL SCIENCE FOR GOOD

We studied the behavior of 1,027 UK Cogo users who joined us on non-renewable energy suppliers during their first three months of using the Cogo app. 8% of these converted to renewable energy suppliers within this time.

MAKING THE CHANGE EASY

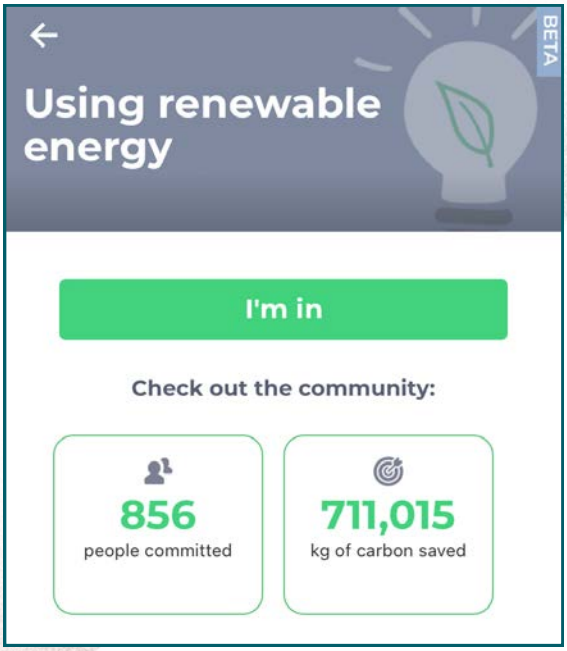
On the renewable energy action screen, we recommend renewable energy suppliers to users. These profiles highlight the social and environmental impact information of the company, verified through Cogo's Good Impact Framework, as well as their Google rating and their website. This saves users time by doing the research for them, while providing credible impact information.



Every time a user views a renewable energy supplier profile, the probability of switching to a renewable energy supplier increases by 7%.
(*p=0.01 significance)

THE POWER OF COMMITMENT

Cogo designed climate actions to harness the power of self-commitment. Cogo users can commit to climate actions in the app, which provides information on how many people in the community have already joined (social norm) and how much impact has already been created. Commitments are an effective tool to counteract a lack of willpower, motivating individuals to maintain a consistent and positive self-image.[11] This can be especially helpful in a scenario where the behaviour change is considered a hassle and the result of the change is invisible.



Joining the 'Using renewable energy' action increased the probability of a user switching to a renewable energy supplier by 8.7%.
(*p=0.01 significance)

TARGETING THOSE MOST LIKELY TO SWITCH

Our analysis has also found that age inversely predicts the likelihood of switching to a renewable energy supplier. Young and middle-aged people are more likely to switch to a renewable energy provider. This is in line with a market research study by Money Supermarket (2017) which states that 20% of younger people claim they consider renewable energy as a motivator to switching energy supplier.

*We'd like to acknowledge that current volatilities in the Energy Market around suppliers as well as prices have a significant impact on people's energy choices.

[11] Cialdini, R. B., & Goldstein, N. J. (2004). Social influence: Compliance and conformity. Annu. Rev. Psychol., 55, 591-621.

3.6. Our Behavioural Science Principles

The last decade has seen nudge-based behaviour change principles applied to everything from healthy lifestyle choices to prompt payment of taxes, demonstrating their power and potential impact. Cogo acknowledges the ongoing importance of reflecting on how we apply behavioural science to ensure there is a clear ethical basis for our actions.

Inspired by the work of Lynn (2001), we look to follow three core principles: wellbeing, integrity and enablement.[12]

THE PRINCIPLE OF WELLBEING

When we apply behaviour change methods, whether directly or indirectly, it's with the goal of helping humans and the planet to thrive.

THE PRINCIPLE OF INTEGRITY

We do not misrepresent data or deceive or manipulate people in any way. We don't misrepresent the intentions and consequences of particular environmental policies and won't deceive or manipulate people into causing them to engage in behaviour change they aren't comfortable with.

THE PRINCIPLE OF EMPOWERMENT

We strive to create change 'with' people, rather than 'for' them. We make the best use of the available evidence to support an individual's ability to make informed decisions. We focus on empowering citizens to make democratic decisions about climate action through the best scientific, political, economic, and moral arguments available to the public.

[12] Lynn, W. S. (2001). The ethics of social marketing for conservation: A learning module. In Rare Training Manual. London: Rare.

4. Conclusion

INDIVIDUAL CHANGE FOR SYSTEMS CHANGE

Our vision is to enable everyone to join together to create a fairer and more sustainable world. We want to empower people to live by their values and use their spending for good to ultimately improve the world we live in for both people and the planet. We believe that if we can mobilise enough people to put their money where their heart is, businesses will follow suit. Individual change and systems change have often been depicted as conflicting approaches, but recent research has studied their tensions and connections and found that these two levels of change are not only both necessary but directly connected, influencing and reinforcing one another.[13]

Cogo believes that using our Ethical Nudge Framework enables us to empower our users to measure, improve and compensate for their carbon footprint; resulting in real, sustainable change at an individual level.

Behaviour science research has shown that individual climate actions influence others, and therefore help create conditions for change to happen. Through our own channels and through working with partners, we are on the road to successfully empowering hundreds of millions of consumers and businesses world-wide to take action. This is what is needed to make a real difference to people's lives and to our planet's future.

[13] Kubit, J. (2020). Individual behaviour and system change: How are they connected? https://www.rapidtransition.org/resources/individual-behaviour-and-system-change-how-they-are-connected/

About the authors

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CPO @ COGO

George has two decade's experience in public health, user research, and large scale behaviour change programmes across government, not-for-profit, and tech sectors. He's currently Cogo's Chief Product Officer.

Verena Wimmer

HEAD OF INSIGHTS AND BEHAVIOURAL SCIENCE @ COGO

Verena is Head of Insights and Behaviour Science at Cogo. Her passion lies in using data for good to create mass behaviour change. She has experience across tech sectors both in the UK and NZ.

Vishal George

CHIEF BEHAVIOURAL SCIENTIST @ BEHAVIOURAL BY DESIGN

Vishal is on a mission to make behaviour change tools more accessible. His thought leadership work applying behavioural science for climate impact includes motivating businesses to reduce their carbon emissions and "nudges" for landlords to insulate their houses.

Leanna Dey

LEAD DESIGN RESEARCHER @ BEHAVIOURAL BY DESIGN

Leanna is a strategic designer and researcher combining behavioural insights and systems thinking to help close the knowing – doing gap. She focuses on equity-centered approaches to behaviour change, to support people and the planet thriving together.

In collaboration with

Professor Stephen Todd @ UCL london, UK

Stephen has over 30 years' experience helping technology companies develop breakthrough products and services, including ten years with Hewlett-Packard and seven years with management consultants PRTM (now part of PwC). He is a Professor at the UCL School of Management and a member of the School's Senior Management Team.

CogCo London, UK

CogCo mission is to support companies to apply behavioural science, design and data science. CogCo is led by Owain Service, who co-founded the UK Government's Behavioural Insights Team (or 'Nudge Unit')