

# The Sustainable Ecommerce Handbook

The Rise of Ethical Shopping and How to Build  
a Green & Lean Online Brand



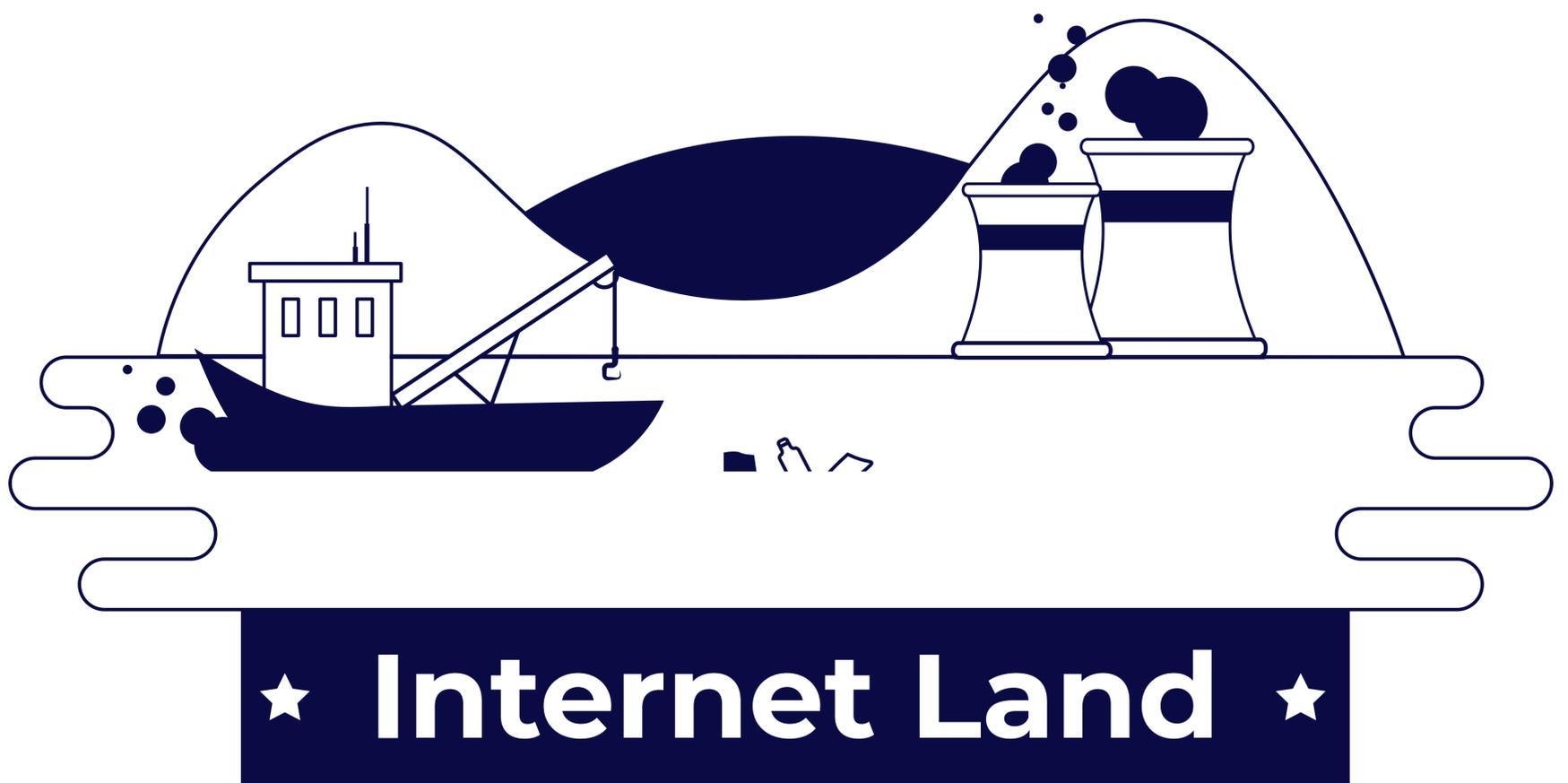
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# Foreword

It's a common misconception that digital is always better for the environment. Masses of energy are needed to power online experiences and the many electronic devices we access them on. In fact, digital is one of the fastest-growing sources of carbon emissions, and if the internet were a country it would be the sixth largest polluter in the world.



The ecommerce industry in particular has a major environmental impact. The convenience of online shopping has led to a huge rise in products being returned. To deal with the emissions from annual ecommerce returns in the US alone, 1.5 billion trees would need to be planted. It's also estimated that 30% of waste in landfills in the US is ecommerce packaging – cardboard boxes, plastic, and everything else associated with it (Source: [World Wide Waste](#) by Gerry McGovern).

We're in the midst of an ecological crisis that threatens the very survival of life on Earth, and consequently consumers now expect more from the companies they shop with. But ecommerce can also play a major part in making our world a more sustainable place. Businesses around the globe are

currently innovating to implement greener and more ethical practices, raise awareness of the issue, and inspire others to follow suit.

Ecommerce managers are in a great position to use their skills to take action and bring about meaningful, systemic change. To help you make a difference, for this book, we've teamed up with six leading experts in sustainability and social impact who are pioneering eco-friendly best practices.

The aim is to equip you with the information and practical techniques you need to make your online stores more responsible, and increase awareness among team members, stakeholders, and customers.

Let's work together. Let's transform online shopping to be truly sustainable!

The editor:

## **Oliver Lindberg**

Oliver is an independent editor, content consultant, and founder of the Pixel Pioneers events series.

Formerly the editor of net magazine, he has been involved with the web design and development industry for more than 15 years and helps businesses across the world create content that connects with their customers.



# **From Green to Mainstream: 6 Steps to Making Your Brand More Sustainable**



**Krissie Leyland**

The world as we know it changed in the last year or so. Every industry has felt the touch of the COVID-19 pandemic.

Ecommerce in particular has experienced a shift that's nothing short of extraordinary, with many offline businesses finally pushed to make the leap online.

It's said that the industry has been accelerated by up to five years in terms of concentrated growth. In line with this expansion, and no doubt influenced by the humbling impact of recent world events, our audience has evolved too.

Customers are increasingly choosing brands who step up to represent their values and be a force for good in the world. An estimated 71% of consumers prefer buying from brands aligned with their values, and almost half of online shoppers surveyed said they'd even actively abandon products and services from a brand that violated their personal values.

In this chapter, we'll cover the rise – and increasing prevalence – of sustainable ecommerce, and explore the six steps that you can take to ensure your own brand is keeping pace with the desire for a more sustainable ecommerce sector.

# Sustainable ecommerce: Green shoots of opportunity

Sustainable ecommerce has come a long way from bamboo toothbrushes and brown paper mailing bags. Today, the principles of sustainability are forming a core component of the values of some of the world's biggest brands.

Marketing is increasingly centred around eco-friendly messaging. It seems that every slick new direct-to-consumer brand (D2C) is positioning itself as a social enterprise.

Whether you portray yourself as an “eco brand” or not – it's time to start thinking seriously about sustainability. Consumer demand is rising and the expectation shifting. This is about more than paying lip service to a “trendy” promotional angle. Sustainable ecommerce is here to stay and, quite honestly, our planet can't afford for us to be anything other than fully committed.

The following six approaches, based on the [MindfulCommerce Sustainability Framework](#), will help you start making your brand more sustainable.

## 1. The way you do business

If you're going to truly commit to making your ecommerce operation more sustainable, it's essential that you take a long hard look at the foundations that you're building upon.



**Consumers are increasingly discerning – it's going to take more than switching out your packaging for recyclable mailers to satisfy their demand for true sustainability.**

What's driving your brand forward? Of course, we all want to make a profit (and if you're sustaining a workforce reliant on the income you provide, taking your responsibility to run a viable business represents a strong and ethical stance in itself!).

However, is there something more than that getting you out of bed each morning? By coupling your brand to a higher cause, or even a set of clear underpinning values that strive to benefit those beyond your immediate stakeholders, you'll be following in the footsteps of many major brands.

Think about the broader way that you do business, from sales strategies through to the ecommerce models you adopt.

Promotions that encourage excessive consumption and inevitable waste are increasingly coming under fire, with many brands turning away from the Black Friday hype for ecological and ethical reasons.

When it comes to your stakeholders, are you taking steps to ensure that a wider range of voices and experiences are being represented? Are you tapping into the circular or sharing economy, i.e. thinking about where your products end up once they are done with? Could you prevent them from going straight to landfill?

**Takeaway:** Do the groundwork first. Define your values. Set clear goals. Eliminate problematic business practices that don't align with this new direction.

## 2. Improvements to sourcing

Examine the products powering your business. If you're going to make a real difference, it's imperative that the goods you sell are part of the solution and not adding to the problem. There's a real need to make informed and responsible choices here (whether you sell items positioned as "eco" products or not!).

Additionally, it's important to strive for supply chain transparency. **Customers are increasingly interested (and critical) of the provenance of the products you offer.** Be proactive about communicating this story, for example through dedicating information pages on your website or FAQs on product pages.

A product's story can be a powerful marketing device – bear this in mind as you source your products. Is there a way their production benefits local communities, gives back in some way, or supports skilled workers? How can this add to their perceived value?

When addressing your sourcing, it makes sense to invest some time into properly mapping your supply chain to identify areas for potential improvement.

It's also important to remember that, when it comes to sourcing, small changes are better than nothing. It's unrealistic to expect that you'll change suppliers overnight, but any amount of positive progress counts and can be built upon. Look at the ways in which you can at least start to move towards a more ethical supply chain.

**Takeaway:** Source products you can be proud of, and explore the opportunity to get customers more invested in the origin of your products.

### 3. Greening up your operations

Sustainability is about more than products and packaging – the very act of running your business carries its own operational impact. What steps could you be taking to reduce this?

Your carbon footprint is a great place to start, but it's important to remember that this isn't just generated by the physical tasks you undertake.

Many people overlook the fact that our digital activities also carry a carbon cost. Your website may be an “intangible” asset, but it's powered by very real data centres, which are a huge drain on our planet's resources. **It's been estimated data centres could account for 3-13% of global electricity use by 2030.** For comparison, the aviation industry is currently responsible for 2% of annual human-generated CO2.

How can you reduce this footprint? It goes beyond offsetting (although, please, do that too!).

Switch to green energy suppliers for your physical properties, and host your ecommerce store on a platform that's carbon-neutral, such as Shopify. Design less power-hungry stores.

Think about the way you communicate digitally. Learn more about uncovering the hidden carbon cost of your ecommerce site as well as email, and adjust your habits accordingly.

**Takeaway:** Step back from your products, and look at the broader operational impact of your business and the way it runs on a day to day basis.

### 4. Delivering on delivery

Delivery is, of course, an essential element of ecommerce. All the more reason to ensure that you've taken all measures possible to improve the impact that your fulfilment process generates.

Arguably, delivery represents the most traditional and “familiar territory” when it comes to sustainable ecommerce. If companies are looking to make quick and highly visible improvements, this is commonly where they will invest their efforts – for example, switching to recycled packaging (with great fanfare). Eco packaging and offset deliveries are still important, but these actions represent the tip of the (rapidly melting) iceberg.

There’s plenty more you can do as an ecommerce business. How about taking steps to reduce your rate of returned orders and therefore minimize an especially frustrating, and arguably needless, addition to the miles your parcels travel?

This isn’t as commonly considered, but by taking steps to actively reduce the likelihood of orders being sent back (by providing better product descriptions and images, customer reviews, AI-powered fitting rooms and more) you can drastically slash your delivery emissions (and save yourself a good deal of money on processing and postage!).

**Takeaway:** Delivery can represent a great opportunity for improvement when it comes to immediate visibility – just make sure this isn’t the only thing you do for kudos!

## 5. Products: Examining the bigger picture

Sourcing is only part of the picture when it comes to picking products with the power to make a difference. Before you can find a sustainable supplier, you need to decide on the type of products you’re going to offer.



**The rest of your operation could be squeaky clean, but if you’re selling throwaway, poor quality items that are likely to rapidly end up in landfill, you’re still adding to the problem.**

It's important to think beyond the buying and selling of your products. Are they built to last, and be mindfully purchased? Beyond their initial purpose, how could they be recycled, resold, reused? How are you communicating and encouraging this?

Many brands are waking up to the potential of their products beyond the initial sale. This is great for your bottom line, as well as the planet. By integrating an app such as [Recurate](#) into your store to add a white-labelled resale marketplace, you're able to benefit from the resale of your goods (especially effective for branded items and those which retain a high value).

Similarly, life-extending product services are increasingly common, especially amongst high-end brands. Far from feeling cheap, the idea of investment in a product intended to be kept and treasured adds prestige. Even [Queen Elizabeth's favorite, Barbour, are in on the act.](#)

**Takeaway:** Look at the whole lifecycle of your products. When it comes to overconsumption, are they a part of the problem or the solution?

## 6. Clear communication

The final step on the path to sustainable ecommerce success? Letting everyone (and we really do mean everyone) know about the positive changes that you've been making. This is about more than getting your brand some well-deserved recognition (although, let's face it, you definitely deserve it) but also to help inspire other brands to follow your example, and to keep educating your customers to expect more from the ecommerce brands that they choose to shop with.

Transparency is really key here; it's so important that you're open and honest in the way that you communicate your actions and the associated intention. As conscious consumerism really takes off, many brands have tried to

exploit the beneficial brand-boost that can come with a message of sustainability.

Greenwashing – when a company pays lip service to sustainability with a handful of token gestures (likely vastly outweighed by the broader operational impact of the business) – isn't just unethical, it undermines the efforts of all the brands trying to do better and makes the public evermore cynical.

Sustainability reports are a great method of giving a total overview of your efforts and successes. Don't be afraid to show something that's less than perfect – progress and honest count for much more. Some brands have entire websites devoted to their commitment to do better – [here's a great example from Gap](#).

**Takeaway:** Sustainability needs to be sustainable in its own right! Businesses should be rewarded for their efforts – so don't be afraid to talk openly and honestly about yours!

## **Give the people what they want, give the planet what it needs.**

Hopefully, this chapter has got you fired up and excited for the changes you could make to your business – the improvements they can bring to your reputation and profit margins, as well as the obvious benefits to the planet and the people that call it home.

Sustainable ecommerce is the future – and it absolutely needs to be. With consumers becoming increasingly conscious and demanding of higher, more ethical standards, brands that fail to take this sea change as seriously as they should will eventually get left behind.

No business is perfect, and the path towards a more sustainable ecommerce operation is most definitely a

journey. If you'd rather not go alone, the MindfulCommerce community offers support, resources, and solidarity from other ecommerce brands trying to make the same positive changes that you're undertaking.

Membership is free, so if you're looking for a little extra guidance and support as you transition to a greener model of business, there's nothing to hold you back from starting to make those positive changes today.

*Check out The MindfulCommerce [Directory](#), [Community](#) and [Sustainability Framework](#) for support to become a more sustainable and environmentally-friendly ecommerce brand.*

The author:

## **Krissie Leyland**

Being an outdoorsy girl at heart, in particular surfing around the world, Krissie – co-founder of [MindfulCommerce](#) – is

very conscious of the environment around her and has become increasingly aware that our natural world is dying. Krissie wants to do everything she can to make ecommerce more sustainable and positively impactful.



# Making More Responsible User Experience Design Decisions



**Tim Frick**

With the rising popularity of plug-and-play platforms, the barrier-to-entry for designing online shopping experiences is now lower than ever.

More people have access to online revenue streams, and COVID-19 has made the internet an indispensable tool for getting the goods and services we need to live our locked-down lives. In fact, [eMarketer](#) noted that [online commerce in the UK alone grew 34.7% from 2019 to 2020.](#)

However, this has not occurred without some challenging consequences. Think rogue online pharmacies, fake storefronts, and web-based credit card fraud.

Ecommerce also has a direct hand in two of the most significant sources of greenhouse gas emissions on the planet: the internet and transportation.

The internet has a larger environmental impact than the commercial airline industry. It produces more emissions each year than most countries – up to 1.6 billion tons annually, [by some estimates](#). Emissions from transportation accounts for [16.2% of total global emissions](#). These two factors make ecommerce a notable contributor to climate change.

And that's not all. Here's a relevant quote from Mike Monteiro's thought-provoking book, [Ruined by Design](#):



**We've been designing giant world-wide networks that manage personal relationships, generate abuse and harassment, and can't tell (or don't care about) the difference between a good or a bad actor. We're happy to have Nazis on our platforms because they count as engagement. We're happy to let people post the addresses of parents of slain children because we can sell ads against it. We're also designing 'smart' devices that can listen to and watch everything we do in our homes. These things are being designed by people who have no idea what their professional ethical code is, or any recourse to deal with designers who break it.**

Advertisers are going to great lengths to sell us more stuff, including violating our privacy and exploiting whatever resources they can to increase sales.

However, the rise of ethical shopping and the proliferation of [B Corps](#), sustainable brands, and other avenues for conscious commerce show that there are better ways to facilitate responsible online shopping.

Designers, developers, and ecommerce managers are in unique positions to influence decision-making when it comes to the ethics and sustainability of products and services. Agencies in particular can guide their clients [toward more ethical and responsible decision making](#) with every project they take on.

With all this in mind, how might we design online shopping experiences that make more sustainable or responsible decisions easier?

# 11 ways to create a more sustainable ecommerce site

At my agency [Mightybytes](#), we are researching [corporate digital responsibility \(CDR\)](#) as a way to improve not only our own digital practices but those of other companies and organizations as well.

Elsevier's [Journal of Business Research](#) defines CDR as a:



**shared set of values and norms that guide an organization's operations with respect to the creation and operation of digital technology and data.**

As a [Certified B Corp](#), CDR is a natural extension of the impact work we're already doing. Certified B Corps are companies that meet the highest verified standards of social and environmental performance, transparency, and accountability. As of this writing, there are about 4,000 of us worldwide and the movement is growing rapidly.

If you're managing ecommerce solutions, this applies to your work. Let's explore some more ethical and responsible design decisions you and your team might make.

## Lead with transparency

First, be clear and up front on everything from your return and privacy policies to where your products come from and how you handle shipping.

Make this information easy to find by including links on individual product pages, search-on-site, and important links in your navigation or footer. If possible, include social proof like customer testimonials or links to your profiles on review platforms like [Glassdoor](#) and [Clutch](#).

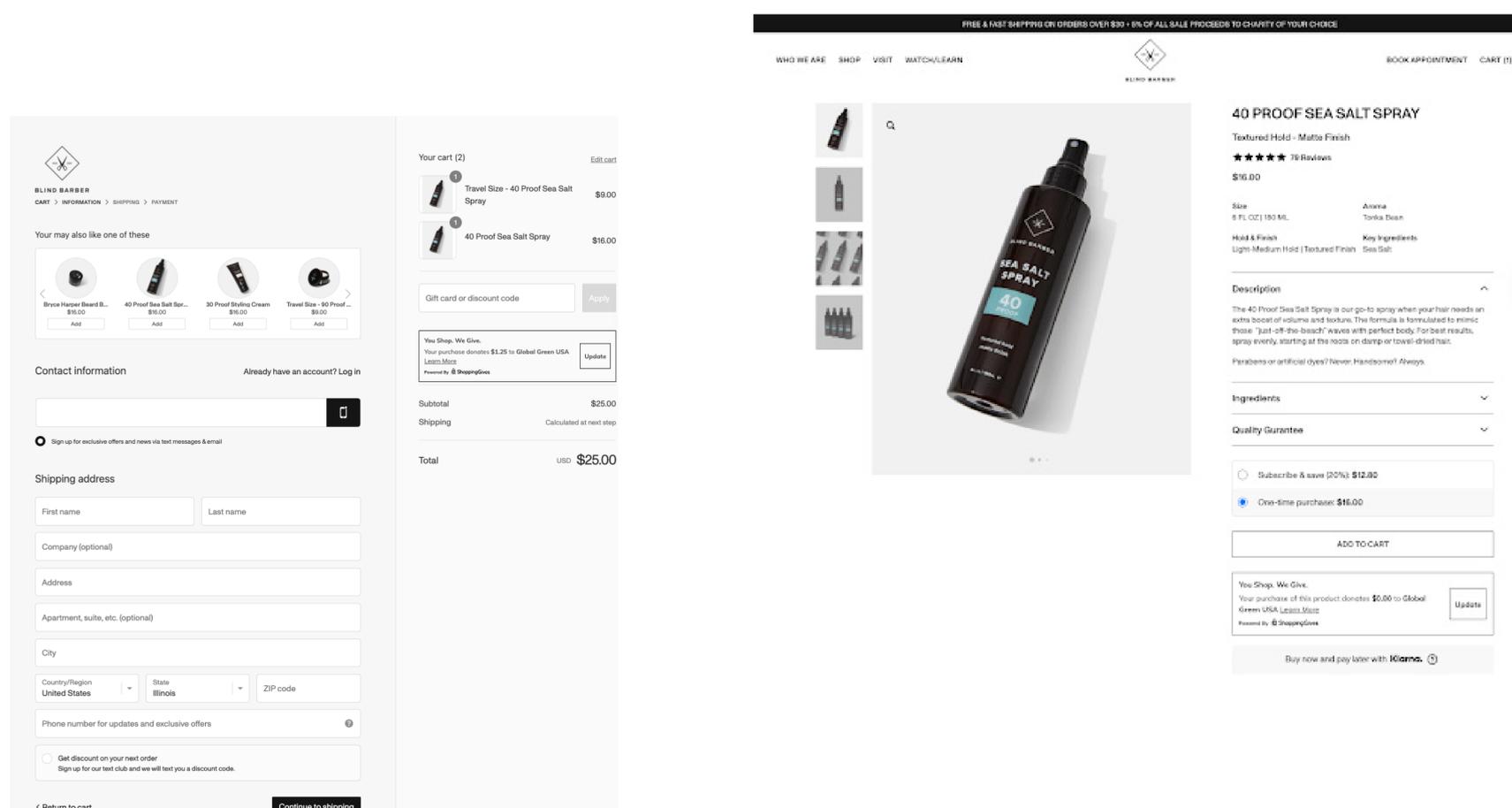
This may seem like obvious advice. However, bogus online stores don't often include these, which will differentiate you.

## Align your values

Similarly, purpose-driven customers are more likely to make purchases if they know you share their values. The products you choose to sell and the stories you choose to tell can impact the likelihood of casual visitors becoming satisfied – sometimes even passionate – customers.

Many books have been written on this deep topic. Russ Stoddard's [Rise Up: How to Build a Socially Conscious Business](#) and Christopher Marquis' [Better Business: How the B Corp Movement is Remaking Capitalism](#) are just two examples.

Creating and running a purpose-fueled business goes well beyond the scope of a single article on responsible ecommerce. That said, values alignment between company and customers cannot be overstated as something that's worth pursuing.



The integrated checkout process on ShoppingGives.

One simple way to increase engagement around common values is to add a philanthropic component to the shopping experience.

Chicago B Corp [ShoppingGives](#), for example, offers a service that facilitates charitable donations as part of the customer journey and checkout process. Shoppers can choose to support causes that align with their values or select from featured causes from the retailer. Participating companies donate a portion of each purchase to the chosen charities.

## Choice editing

[Choice editing](#) has long been a common process in sustainability circles. It involves limiting the choices people have in order to highlight a more sustainable or environmentally-friendly option.

However, in digital parlance, choice editing might also be considered a “[dark pattern](#)”. Have any of these situations ever happened to you?

- You register for email updates, but can't unsubscribe.
- You create an account that then spams your entire contacts list.
- A product or service is automatically added to your shopping cart.
- You click on something that *looks* like content but is really just a disguised ad or, worse, starts downloading software to your device.

These are dark patterns, UX choices meant to intentionally deceive users into making choices that aren't necessarily in their best interests.

When choice editing for digital products and services, the line between dark patterns and “green” patterns can sometimes be blurred. For instance, adding carbon offsets by default to a checkout process would be considered a dark pattern. Even

though carbon offsets may be a more sustainable choice, users should have the option to make that choice themselves.

Here's an example of good green choice editing: For products that require a USB power plug, UK B Corp [Tiger Global Ltd](#) asks customers during the checkout process whether they require another one for the product. It's a simple choice that can make a difference.



**Like most of us, many people have drawers and boxes full of power plugs already,” says head of digital/ecommerce Philip Ray. “Using this kind of thinking, we can make the progress required to slow down filling up the world with unnecessary products.”**

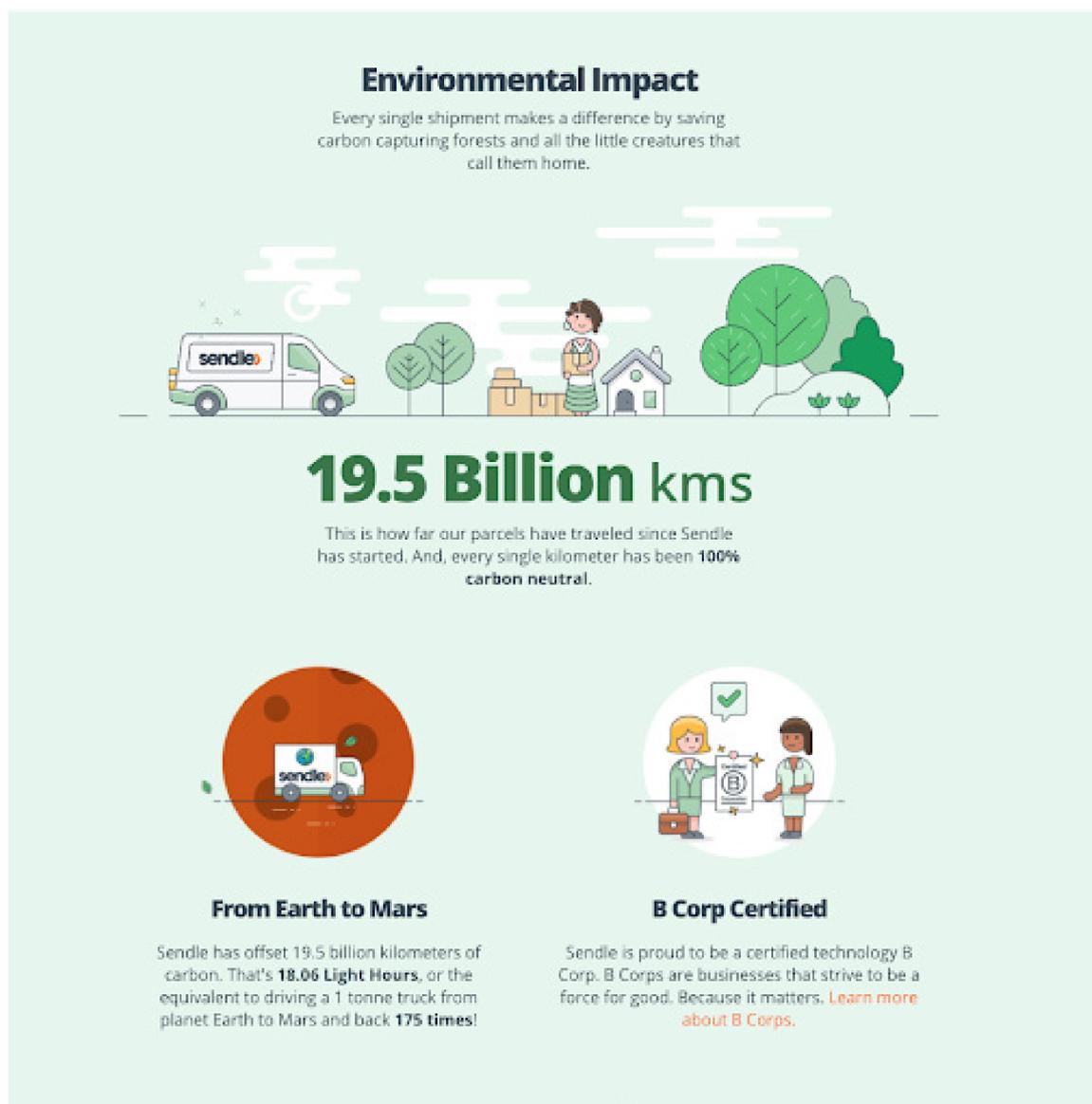
Many of the suggestions below involve some sort of choice editing.

## **More sustainable packaging and shipping**

Let customers choose more environmentally-friendly options at checkout or while they're shopping. For customers, this might involve simply clicking a checkbox. The back-end requirements for choices like these, however, are a bit more complicated.

“With the explosion of ecommerce shipping during COVID, it's more critical than ever to take responsibility for your carbon emissions,” says [the CEO of Australian B Corp Sendle, James Chin Moody](#). “If you design a carbon-neutral business from the start, that's much easier to do. It just becomes the way you operate.”

[Sendle](#), a delivery startup, prides itself on being the first 100% carbon-neutral delivery service for small businesses in Australia and the United States. The company has offset nine billion miles worth of carbon. They also use packaging that is 100% biodegradable and compostable.



Sendle is very transparent about their efforts to offset the company's environmental impact.

To that end, if you handle fulfillment, find compostable packaging and incorporate that cost into your business model. If your online store only supports drop shipping, reach out to vendors to learn whether they offer planet-friendly options. If not, encourage them to do so. Better yet, seek out suppliers that do that from the beginning if you can.

During the checkout process, incentivize less polluting choices by offering shipping emissions offsets or discounts for more sustainable transport and packaging options. Highlight these options so they are clear and obvious.

## Product sorting and differentiation

When customers search for products, include options to sort by location, environmental impact, or similar. This is also an opportunity to provide incentives through discounts for users who select those products.

If you have them, add any certification logos – such as [Fair Trade](#), [B Corp](#), [Cradle-to-Cradle](#), [Green America](#), and so on – to product listings. This will help users more easily discern ethical products from their traditional counterparts.

## **Printing...yup, still a thing**

Believe it or not, people do still print web pages. Though it happens less and less frequently, recipes, bank statements, and contracts are all examples of things people might print out. For ecommerce sites, invoices and receipts will likely top that list.

Rather than relying on default browser printing options, consider how you might use the least amount of resources, like ink or paper, while still providing acceptable results. To do so, treat print equally alongside other media types, like screen and speech.

Although most browsers will change colors by default to save ink when printing, this is often not as effective as a custom solution such as a unique style sheet specifically created for printing.

## **Sustainable web design**

How quickly can your users find the content they need, checkout, sign-up, or surf from page-to-page? There's a whole movement of designers and developers using [sustainable web design](#) practices to create high-performing, low-impact digital products that are both people- and planet-friendly. Many of them start by signing the [Sustainable Web Manifesto](#) and committing to an internet that is clean, efficient, open, honest, regenerative and resilient.

For ecommerce sites, this means designing lightweight, fast-loading pages that help users on any browser, device, or assistive technology find content and accomplish tasks as quickly and efficiently as possible.

It also means you need to get a green web host. Try the [Green Web Foundation's directory](#) for starters. For a full list of practices, [check out this free educational resource](#) we created with our friends at [Wholegrain Digital](#), another B Corp agency in London.

**Sustainable Web Design** View strategies Contact Accessibility Controls ▾

# What is sustainable web design?

Web technology has the potential to bring huge benefits to society and the environment, but only if we use it wisely..

This website emits 0.49g of CO<sub>2</sub> →

Sustainable web design puts people and the planet at the heart of digital products and services.

## Online emissions

Adopting the sustainable web design ethos means paying attention to digital emissions. You can use a tool like Wholegrain Digital's [Website Carbon Calculator](#) to estimate individual page emissions, then create a plan to reduce them.

Some hosting companies will provide you with total data transfer rates for your account, which you can use to estimate emissions and purchase carbon offsets. Mightybytes did this as part of our company's commitment to Net Zero, making our already green web hosting *carbon negative*.

When [committing to a Net Zero](#) strategy, remember to reduce first, *then* offset what you can't reduce.

## Inclusive experiences

The plug-and-play ecommerce tools I mentioned at the beginning of this article don't often get high marks for accessibility. Thus, the solutions we build with them could alienate up to 15% of the global population who identify as having some sort of disability and often use assistive technology. Critically, if you're not paying attention to this, [you could get sued](#).

Commit to using the [Web Content Accessibility Guidelines](#) (preferably level "AA" or higher) to improve your website as soon as possible. While automated testing tools like [WebAIM's WAVE](#) or [SiteImprove's browser extensions](#) will quickly help you understand which problems to fix, you'll get better results by testing with real people using assistive devices, like screen readers.

## Fact-check everything

The [proliferation of misinformation](#) and fake news in recent years has understandably made people more wary of online sources. Be sure to fact-check all your product pages, blog posts, and other content before they go live. Whenever possible, include links to reputable sources that validate your claims.

If your platform includes user-generated content, appropriately resource and support moderators to police forums, comments, and so on. Oh yeah, and be sure to [pay those people a living wage](#).

## Privacy and security

Finally, [new and emerging privacy laws](#) in Europe (GDPR) and the United States (CCPA) could impact how customers interact with your digital products and services.

For example, if your website uses Facebook's Pixel, Mailchimp, Google Analytics, or other CRM or performance measurement tools, and you have customers in California or the European Union, you must let users "opt-in" to tracking and storing their information. Neglecting to do so could put you at risk for fines.

Similarly, if your website gets hacked and customer data is leaked, you could be equally liable. Be sure to adhere to security protocols: Keep software up-to-date, don't save credit card numbers, backup databases at least daily, and use end-to-end encryption and security certificates.

## Responsible product design and management is the future

The ubiquity of digital products and services in our personal and professional lives means that the policies and practices we use to govern them become inherently more complex.

Wider access to more cost-effective ecommerce tools can reduce inequalities and improve quality of life for many. This also strengthens the need for quality assurance and accountability to ensure that online stores maintain responsible practices and adhere to high ethics standards.

Hopefully, the suggestions above can jumpstart your efforts toward more responsible and sustainable ecommerce practices. If you have additional suggestions, I would love to hear them.

The author:

## Tim Frick

Tim Frick started his digital agency [Mightybytes](#) in 1998 to help purpose-driven companies, social enterprises, and large nonprofits solve problems, amplify their impact, and drive measurable results.



He is the author of four books, including [Designing for Sustainability: A Guide to Building Greener Digital Products and Services](#). Tim regularly presents at conferences and offers workshops on sustainable design, measuring impact, and problem solving in the digital economy.

# **Challenging and Motivating Your Team to Make the Planet a Stakeholder of Your Site**



**Neil Clark**

It requires a cross-functional team to design, develop, implement, and continuously improve an ecommerce website.

Skills ranging from product strategy, UX and UI design, and content production through to front- and back-end development, development operations (DevOps), search engine optimization, and quality assurance are all vital.

Some people might bring one or more of those capabilities to the team, and some might be covered by agencies or multiple freelancers. To be effective, a team needs a shared sense of direction, a vision and a joint understanding of who their stakeholders are and what they need and why they have those needs.

Making the planet part of that vision and treating it as another stakeholder has to be a fundamental part of every business decision if we're serious about making a significant difference.

## **Raise awareness to establish sustainability best practices**

There's still a lack of awareness of the digital industry's environmental impact. This is reflected by the lack of research in this area but, at its most conservative, the digital industry has an environmental footprint on par with the aviation industry.

COVID-19 lockdowns have seen internet traffic increase by 15-20% and availability of airline seats reduce by 66%, so the digital industry will undoubtedly have overtaken the airline industry as a result of the pandemic.

Many unknowns remain about when the world will reopen its borders and whether remote work is here to stay, which makes it impossible to predict if this will change again.

Recent documentaries and research collaborations have slowly raised awareness, but sustainable web design and development is still very far away from being an accepted way of working in the same way that accessibility is.

Therefore, the team responsible for your ecommerce website needs leadership. They need to know why this is important. They need to understand how other people have approached this. They need to audit where they are now and they need time to build this into their tools and processes and to come up with ideas specific to your site.

## Embrace constraints to innovate

Your team can't just work on this part-time, as a side project during lunch or after hours. It has to be factored into estimates, daily tasks and longer term planning.

In my experience, challenging people to reduce data transfer and using that as a constraint (constraints can be positive!) in the design, development and implementation of features tends to be really well received.

A lot of websites are very similar at their core, and so it's inevitable that teams become a little aloof to yet another cycle of feature development. Giving them something different to consider, which challenges so much of the status quo that has built up around the industry, might just reignite flames that have started to die down.

Open the conversation up to the wider team and ensure that everyone works together on this issue because there's never one answer. Additionally, a designer understanding why a developer struggles to build in a carbon-efficient way will be really beneficial for the long term.

To get them started, it helps to know what to say to different team members, and the most obvious areas are:

1. Content
2. Design
3. Tech

Let's look at them in detail.

## Content

Some of the following information isn't brand new, but it's important to refocus on the fundamentals when trying to solve complex issues.

Challenge your content team to:

### **Make sure people find your site quickly**

Understand what people are looking for, what search terms they're using, and optimize your content accordingly.

### **Facilitate quick content consumption**

Forget about content stickiness. Give people what they came for and let them leave. It's vital to understand what needs/problems/tasks they're arriving with and design the content around them.

### **Identify and remove ROTN content**

This acronym stands for Redundant, Out of date, Trivial or No longer being used. It ensures your site visitors won't get distracted, minimizes their cognitive load, and reduces your hosting costs as well as data storage and transfer, which in turn is good for the environment.

This needs to become part of the team's ways of working. Doing it regularly is manageable; doing it once a year will soon make it a painful task the team dreads. Tools such as [Sitebulb](#), [SiteImprove](#), [Monsido](#) and [Silktide](#) can help here.



**R**edundant  
**O**ut of Date  
**T**rivial  
**N**o Longer Being Used

## Regularly check the page weight

There is nothing more frustrating than implementing a lot of great techniques to reduce the emissions of a site and then watching someone load the site with stock imagery.

Make regular checks part of the editorial workflow. This will encourage editors to be creative. Can they optimise an image before it goes into the CMS? Can they blur the edges? Or can they commission an illustration instead?

## Be transparent and produce content about your efforts

This is vital. Being transparent and regularly publishing short posts about the changes you're making shows that you're not claiming to be perfect and to have all the answers. You're inspiring people and allowing others to stand on your shoulders. Treat these as blog posts written by the people who are making the changes, rather than branded, corporate statements.

When Allbirds announced their collaboration with Adidas, co-founder Tim Brown said,

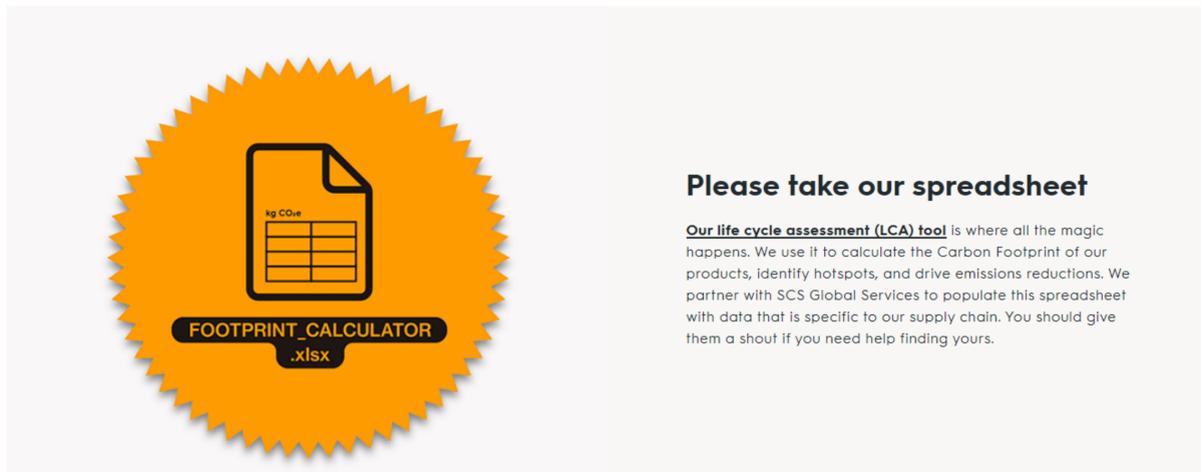


**When it comes to sustainability, we don't see ourselves competing with one another, but competing for the future. If we don't bring about change quickly, there won't be a future to speak of.**

To back up that statement, Allbirds have recently [open-sourced the calculator they use for their products.](#)

## Don't hide your pollution. Label it.

Secrets, secrets are no fun, especially when they could help the public make better decisions for the planet. So we're giving away our Carbon Footprint tools to the entire fashion industry. We know that sharing proprietary information might not make the most business sense. But the global climate crisis is bigger than business. And if competition got us into this mess, perhaps collaboration can get us out.



Allbirds are sharing their carbon footprint tools with the rest of the fashion industry, so other companies can calculate their emissions too.

## Design

Again, this isn't groundbreaking stuff, so just treat the following tips as conversation starters.

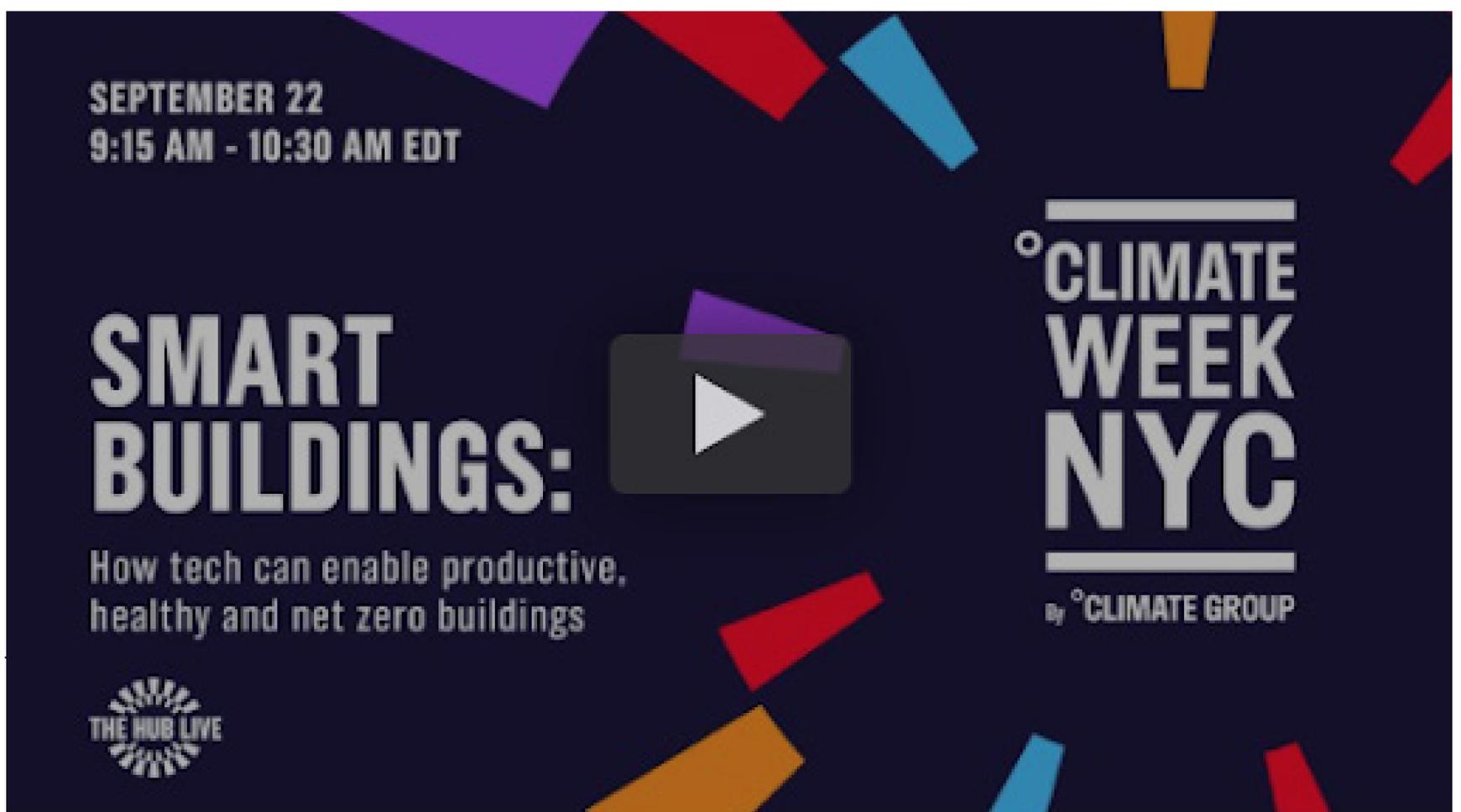
Challenge your design team to:

### Reduce the amount of images

Question whether they're really necessary (especially if there are a lot of images on a product listing page) and instead consider using animations, icons and illustrations that are both functional and beautiful.

### Reduce the amount of video and avoid autoplay

The dev team at Manifesto built a ['fake' video player](#) (see next page), which doesn't load the YouTube embed until the user has explicitly indicated they want to watch it. This stops a surprising amount of calls and data transfer, which also means YouTube can't track your customers around the internet.



The Climate Group's video player: A static image that only turns into a YouTube embed when the user clicks or taps it.

## **Use system fonts and as fewer fonts/variations as possible**

Font files often contain a huge amount of styles, weights and characters you'll never use (but those can be stripped out by the dev team). The most sustainable fonts? [Arial, Courier New, Georgia, Verdana, Helvetica and Times New Roman.](#)

## **Collaborate with the content team**

Ensure people can complete the tasks they came to do as quickly as possible before leaving. Delve into your analytics and find the people that look lost and are bouncing around. What can be done to help them?

## **Work hand-in-hand with the dev team**

Understand how the design might be implemented and what tweaks could be made to allow it to be created as efficiently as possible.

## Place a carbon footprint badge on your pages

A [badge](#) that automatically calculates and displays the carbon emissions of each page, added to the footer of your website, will show site visitors that you're being transparent, which builds trust. It'll also start a nice bit of healthy competition between you and your competitors!



Wholegrain Digital designed a lightweight open-source badge that further increases awareness of web carbon emissions.

## Tweak the brand identity if at all possible

Can you push the brand so the site has a dark background? Or use [less energy-intensive colors](#)? These are marginal gains but they all add up.

When I talk to designers about this subject for the first time, I always make sure I say this isn't about spoiling anyone's design fun. Mainly it's about challenging the status quo of how sites are designed (promotional block with an image – title – subtitle anyone?).

I haven't met a designer yet who hasn't found something inspirational from the following resources:

- [Designing Branch: Sustainable Interaction Design Principles by Tom Jarrett](#)
- [Organic Basic's low-impact website](#)
- [Formafantasma's low-impact website](#)
- [Volkswagen Canada's more carbon-efficient digital experience](#)
- [Sanctuary Computer's sustainability store](#)

This conversation might be tricky because the tech team might have already started to implement some of the answers to the below questions.

They're best practice for site speed and DevOps, but might have been turned down because the budget was prioritized for more customer-facing development. Equally, you may well outsource your support and maintenance, so it might not be obvious who to speak to straight away.

Whatever your situation, a few conversations starters might be:

- Is the data centre we use powered by genuine renewable energy? There is a whole load of nuance to the point of how data centres are powered and utilized but this is a good start!
- Can we reduce the data we transfer by using approaches like Jamstack?
- Can we save space (and money) at the data centre by using event-driven architecture?
- How far can we go with image and video optimization? Consider alternative file formats such as SVG, AVIF, and WebM.
- If we're serving customers all over the world, can we use CDNs to deliver data to them from closer to their device?
- How can we use design systems and pattern libraries to quality control designs and deployments?

Also, how can we more aggressively block bots to reduce server usage? Surprising fact:

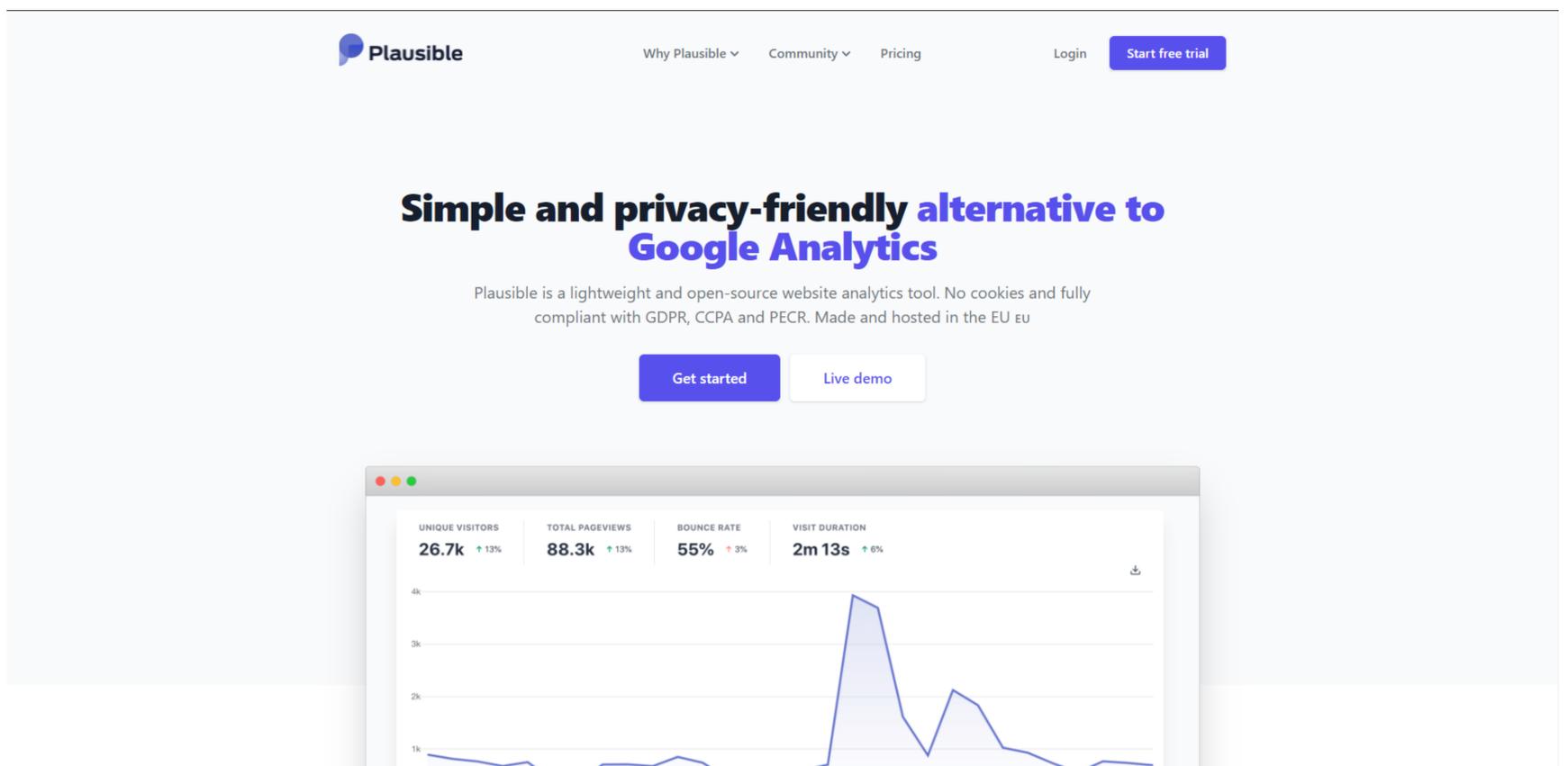
Half of the bot traffic is bad: scraping content, crashing websites, trying to find security loopholes, bulk-buying products on ecommerce sites, simulating advert clicks, the list goes on...

On average, any site can expect a quarter of its traffic to be from bad bots, and due to the latest levels of sophistication they behave in an almost indistinguishable way from humans, which means they are consuming HTML, CSS, JavaScript, jQuery images, or videos in the exact same way as a human, creating the same level of emissions.

As data centres charge by storage and bandwidth, the bots are simply increasing costs for no benefit to the organization!

Finally, challenge your engineers to be more like Danny van Kooten, a plugin developer, who recently [rewrote a piece of code](#) to connect two very well-used pieces of software. Danny shaved off a tiny amount of weight from his code but, because of how much it's used by other websites, he has cut enough emissions per month to stop more than the equivalent of 23 flights from London to Sydney!

Explore where we can optimize code to make significant changes. [Google Analytics alternatives](#) are always a good place to start, as are any third-party plugins, CSS files, font files and CMS themes.



Plausible is a lightweight, privacy-friendly and open-source website analytics tool.

Given the dev team knows the intricacies of the site best, the most fruitful conversation starter will be “how do you think we should do this?” They will be full of ideas.

## Leading by example

After bringing the team together, listen to them, and do it properly. Don't pay lip service to the idea. Make some difficult decisions. Don't ask the team to come up with loads of great ways to reduce site emissions and then whack them at the bottom of the backlog because you want to release a new promotional block.

Using planet-based KPIs is a great way to show the team and other stakeholders that you're serious. It helps embed the planet in your decision-making. For example, if you have a carbon budget to sit alongside your financial budget, it'll ensure you can prioritize a suggestion from a developer who wants to refactor a five-year-old piece of code, or help the designer who wants to get rid of an image carousel.

It might also help you break the dependence we all have on decreased bounce rates, higher page views and increased time on site. Increased bounce rates might mean your UX and content on a particular page is actually perfect, while increased page views might mean someone is lost and confused. And increased time on site might mean someone has been distracted from what they came to do.

Looking at your site through a new, planet-shaped lens will also open up opportunities to address other site issues, like accessibility and data hoarding.

Given the [mind-blowing amount of data](#) that an internet user generates every day it's vital to think about data minimization. Before you harvest as much data as possible, first define why you want to know something and how that information will help the people using your site. Then define the bare minimum data you need.

## **Don't treat digital differently**

People should be able to expect companies to look after the planet and work on their behalf.

Don't wait for wider public condemnation of the digital industry's environmental impact. Don't simply suggest decarbonising the electricity grid and wait for data centres to use renewable energy. Act now and start reducing the emissions from your sites.

Show people why this is important and lead the way for wider education and change. [Stripe Climate](#) is a great example of this.

A lot of the tips suggested in this article require a back to basics approach; question why you're doing what you're doing. That's exactly what the planet needs. When questioning how you as an individual can have an impact on the climate and ecological emergencies, the first answer isn't what tech you can invest in or what petition you can sign.

We have to educate ourselves to firstly understand the problem and the root causes, then question the fundamentals of how we live; challenging the status quo of throw-away consumption, animal exploitation, agriculture, travel, and land management. Then we have to discuss the issues with other people and collaboratively design impactful, contextual solutions, instead of blaming each other for not doing enough.

This is not a tick box exercise that can be written as a user story. It's a mindset shift that becomes part of the success of every user story.

The author:

## Neil Clark

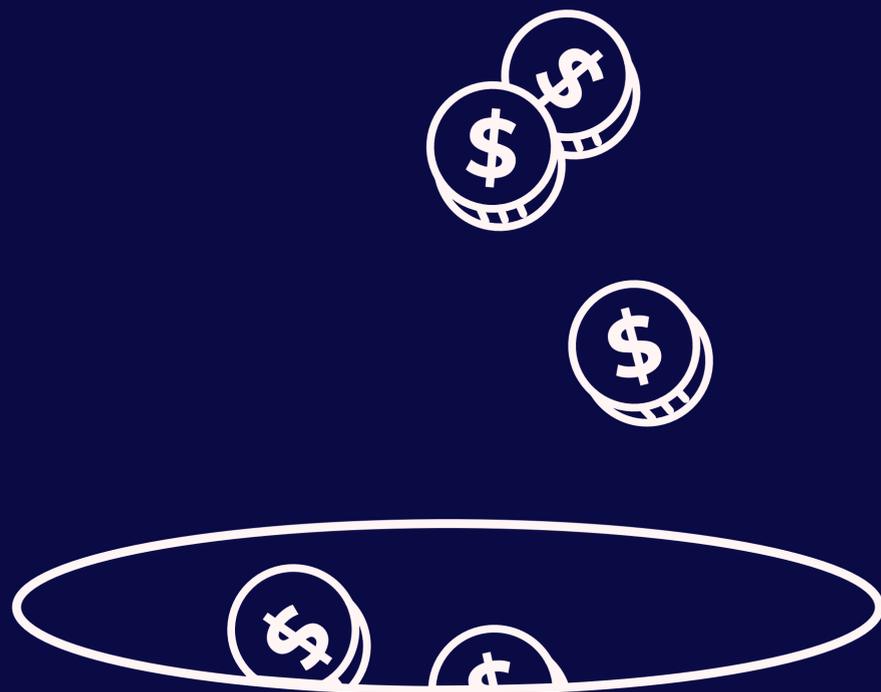
[Neil Clark](#) is the service design lead at [Manifesto](#) and environment strategist at [The Panoply](#). He is unashamedly passionate about helping to save the planet and everything that calls it home. In his

professional life, Neil works to enable people to do stuff easily, which covers service design, design thinking, business analysis, product ownership and agile methodologies.

He's also chair of the digital carbon footprint steering committee at the [Sustainable Digital Infrastructure Alliance](#), a member of the [BIMA Sustainability Council](#), and has organized London Climate Action Week's only event about digital sustainability. You can read some of Neil's musings on services and the environment at the [Manifesto blog](#).



# The Low Impact Manifesto: Organic Basics' 10 Guidelines for Building Greener Websites



Jesper Hyldahl Fogh

Organic Basics has been in the business of producing and selling sustainable clothes online since 2014. We're constantly trying to figure out how to be even better at sustainability, and last year this led us to build a [low-impact version](#) of our online store.

The low-impact version of our website reduces carbon emissions up to 70% by using some of the techniques outlined below. More importantly, the site tells the story of how sustainability doesn't just matter for the products you sell, but also *how you sell them*.

We had been reading more and more about sustainable websites all over the internet. [Low Tech Magazine's solar website](#) and Wholegrain Digital's [Website Carbon Calculator](#) had been appearing as inspiration in various Slack channels, so we decided to start experimenting ourselves.



Organic Basics low-impact website (top) and the regular version.

## Simple rules with endless possibilities

First, we read up on how to actually build a sustainable website and were inundated with tips and tricks. We soon realized that we couldn't do everything and needed to narrow down the options.

Inspired by the [Dogme 95 manifesto](#) and its [Vows of Chastity](#), we wrote a manifesto containing 10 rules for building a low-impact website. Like the Vows of Chastity, they tow the line between being hyper-specific and open to interpretation.

This allows designers and developers the space to find the solutions that work best for their technical setup, without compromising on sustainability. The rules don't specify the use of any specific technologies, and so these can grow alongside the technological development.

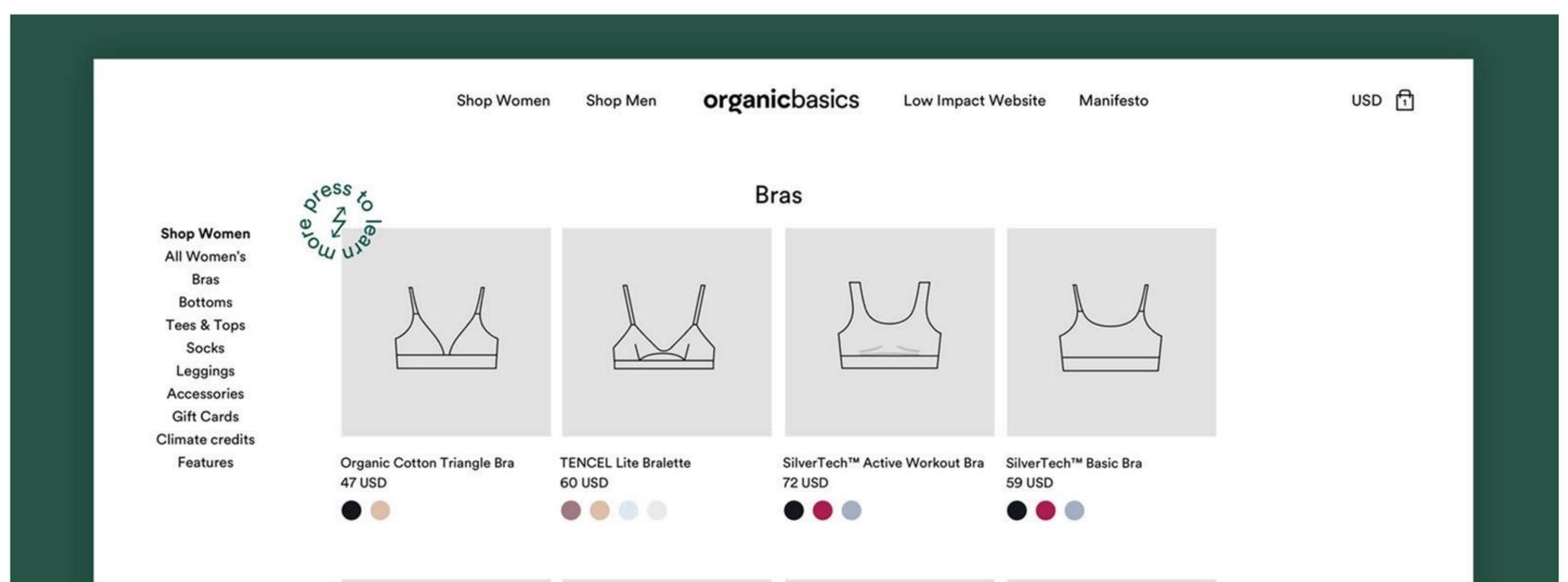
I'll go through the 10 rules below, and provide some ideas on how you can implement them on your own site.

## 1. Do not load any images before they are actively requested by the user

Images are a big contributor to the data usage of any website, and this especially applies to ecommerce stores. We need to show our products visually, and often from multiple angles or on different models.

What's important here is that we only load the images that users actually need to see. This can mean only loading images as a user scrolls down a page, as they click through a slideshow, or even hiding them until a user clicks "show image".

This rule is a bit tricky, because illustrations in the form of scalable vector graphics (SVGs) are still allowed, but the size of an SVG is incredibly small compared to most images. We've utilized this on our site by showing illustrations on our collection grid (see below), and only showing images on the product page when a user actively decides to load a slideshow.



## **2. Minimize the power consumption on the user's device**

This one can be difficult to measure, but is nonetheless important. The primary reason for including it is to make sure the focus is not solely on what happens in the transfer of files, but also about what those files do once they reach the user's device.

Currently, the two primary things that we focus on here is the use of animations and the amount of scripts actively running on your website. Any use of 3D can also really mess with a device's battery.

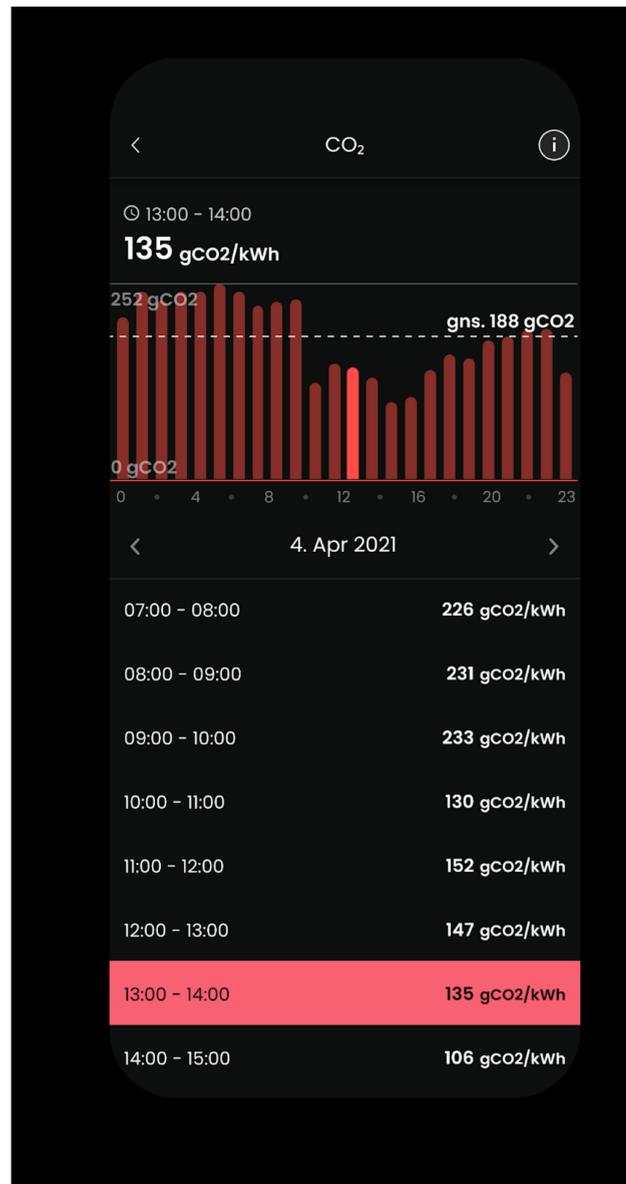
Some of the questions you can ask yourself to help work with this rule are:

- Does this animation / 3D / script add to the user experience, or is it just filler?
- Can we limit the amount that we use this animation / 3D / script on the site?
- Can we simplify this animation / 3D / script, so it only does exactly what it needs to?

## **3. Adapt to reflect the amount of renewable energy your site is running on**

With the way energy grids and the internet currently work, no website can run 100% on renewable energy. Even Google, which is increasingly focusing on renewable energy to operate its data centers, doesn't achieve that.

What we can do instead is to make our websites adapt to the amount of renewables in the electricity grid. A lot of energy companies, like [Barry](#), do something similar already by providing their customers with an app that shows when the electricity is less carbon intensive (see next page).



On the Organic Basics low-impact website, we rely on the [carbonintensity.org.uk](https://carbonintensity.org.uk) API to provide us with data. The API enables free and easy access to the carbon intensity of various regions in the UK. An alternative would be the [Electricity Map API](#), which is quite expensive, but has data from many more regions across the world. The downside of their API is the price of admission.

We had to choose the London data center since our site is hosted on Google Cloud and it's the only option in the UK. Ironically, this data center is located in one of the more carbon-intensive regions in Google's cloud hosting offering.

Depending on the carbon intensity, we change the quality of images being served as well as restrict the amount of animations. If the electricity is really carbon intensive, we even shut down the website entirely.

Instead, we show a bare bones page that lets our customers know that the site is inaccessible. It even gives an

approximation of when they can access the site again, based on forecasting data from the carbonintensity.org.uk API. Since we launched the site, it's been unavailable for approximately 12.5 hours.

#### 4. Inform the user of the impact of their browsing behavior

When I'm shopping online, I expect to be able to see how much my cart contents cost. This allows me to figure out whether I still have money to spend or whether I need to go hunting for some discounts. Similarly, we should inform our customers of the impact their browsing behavior has on the climate.

On our website, we continuously calculate the emissions that a user accumulates as they browse around. This way, they can be familiarized with what carbon emissions are and how they relate to website usage. If possible, you should also track these emissions yourself, because it's ultimately the responsibility of the website owner to reduce them.



This page is using ~**819kb** of data  
(**7.56x** smaller than the regular **front page**)



You've saved ~**14.69g** of CO<sub>2</sub> so far this session  
(compared to browsing our regular website)

## 5. Do not make use of videos

We love videos at Organic Basics, but they can really mess up a website's carbon budget. This rule is by far the strictest out of the 10, but there's a very good reason.

The internet has become more and more dominated by video, and instead of following the trend, we decided to go against it. To truly combat the climate crisis, we don't just need to optimize and minimize; we need [degrowth](#).

With this rule, we force you to think outside the video player and consider how to add motion and dynamics without relying on loading MBs upon MBs of video content. As an alternative, consider using CSS or SVG animations. Oh, and that goes double for GIFs. Don't. Use. GIFs.

## 6. Store data locally on the user's device to minimize data transfer

All content you show on your website can potentially be saved locally on the user's device. There's no point in downloading something twice if it's unlikely to change.

Most developers will already recognize this rule as important. It will optimize your website's performance while simultaneously reducing its environmental impact.

To achieve this, you can consider looking into building your website as a [Progressive Web App](#) and allowing for offline access.

## 7. Compress all data to the greatest extent possible

Once your files reach the user's device, you should make sure they stay there until they get updated. That's called caching. But, before they even get there, you need to make sure that those files are as small as possible.

Minify your CSS and JavaScript and compress your images. A lot of modern frameworks, like [Nuxt.js](#) or [Next.js](#), will do this work for you for a lot of file types.

This is really a no-brainer and, like caching, makes sense from a performance perspective as well.

## **8. Load only the most crucial programming scripts, frameworks and cookies**

Every time you add a library or an external script to your code, you increase the size of the page. Even if the library is only 1kb large, this will quickly turn into 1MB if 1000 users load the page.

This rule is here to remind you to consider every single script, framework and cookie you add. The word “crucial” is what you should focus on here. Conversion tracking and analytics is crucial on all ecommerce stores, but is it really necessary on every page?

These considerations go great with a little privacy consideration, since [GDPR](#) and similar regulations require consent before loading scripts.

## **9. Limit the amount of light emitted by the screen**

Since announcing the manifesto, we’ve received comments suggesting that this rule doesn’t actually make a difference because using dark mode only reduces energy usage on OLED screens.

Well, we say: that’s good for users with OLED screens! On the Organic Basics low-impact website, we still use some white colors here and there because it’s an important part of our brand experience. However, as shown by the below example, we also introduce a yellow tint, as well as a grey nuance, to limit the amount of light emitted by the screen.

Another way to follow this rule could be by suggesting that users adjust their screen brightness to save battery.

## 10. Optimize and limit the use of custom fonts

Finally, we come to the use of custom fonts. Fonts don't really account for much in the larger scheme of website-related emissions, but it can easily get out of hand.

For this reason, we stuck to just one single custom font on the low-impact website. We also went as far as removing certain characters from the character set. There's really no need for cyrillic on an English-language page.

### The next step

If you follow these 10 rules, you are definitely well on your way towards transforming your ecommerce site into a low-impact version. More importantly, you've gone through the journey of seeing your website from a sustainability perspective and as an important piece in the sustainability puzzle.

When considering these rules, it's important that you find what works best for your brand. Not all rules are equally strict, and you should use this to your advantage. Your low-impact website is not the same as mine, nor should it be.

A sustainable internet, however, doesn't just stop with electricity and energy efficiency, which is the focus of these 10 rules. If we open up the perspective, we need to also start considering the materials that our devices, data centers and networks are made of.

The internet is built on (hilarious) cat memes and blogs, but it's also built with very real rare earth minerals that often mined by people in poor working conditions at great environmental expense.

Within the last couple of years, [Fairphone](#) has given us a more sustainable smartphone, but the conversation has not at all started about the internet as a whole. In other words, we need a Fairphone for server infrastructure.

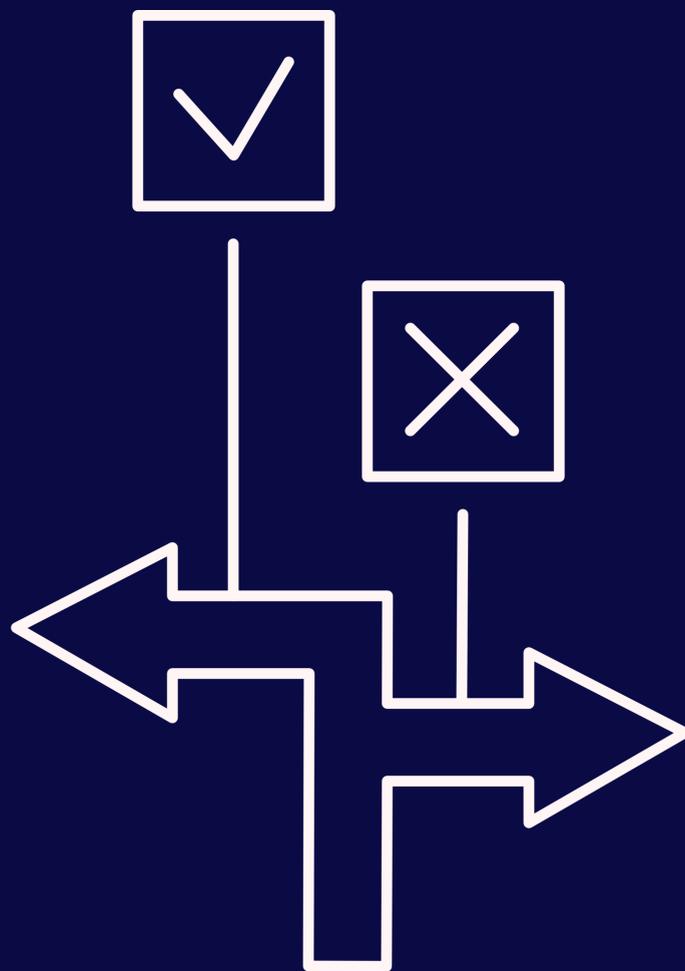
The author:

## Jesper Hyldahl Fogh

[Jesper Hyldahl Fogh](#) is the head of tech at [Organic Basics](#), a sustainable apparel company based in Copenhagen. In the past, Jesper has published and developed two mobile games, and co-founded an art/design studio called Circuit Circus.



# Influencing More Eco-Friendly Lifestyles With Thoughtful Design



Tom Greenwood

The internet has changed the world in profound ways and, although it does have a significant environmental impact in its own right, much of its impact is in what it enables (and encourages) us to do *offline*.

Ecommerce makes it easier than ever to buy “stuff”. Without leaving the sofa we can have the latest gadget, or trainers, or whatever we dream of, delivered to our front door in next to no time. It’s so easy to buy things online that it’s fair to say that the main environmental impact of ecommerce is its role in oiling the fast-turning wheels of global consumerism.

But maybe it doesn’t have to be this way. Perhaps, through thoughtful design, ecommerce could actually help educate people about environmental issues and encourage them to be more mindful in their purchasing decisions.

In this chapter, we’ll explore some of the possible ways that the design, functionality and content of ecommerce websites could help support people to make more eco-friendly choices when shopping online.

## Rising to the top

Whatever you're selling online, whether it be food, clothes, electronics, or furniture, you likely offer variants or similar products to give customers more choice.

The way that these products are presented on the website creates a hierarchy – intentional or not – that nudges customers more towards some products than to others. Just like merchandising of physical stores, the positioning and presentation of an online store can have a big impact on what people buy.

Therefore, we have an opportunity to use this same principle not just to maximize the profitability of the store, but to lead users towards the most eco-friendly products available.

Even if the green credentials of a product are not highlighted, the positioning of a product on a website alone can make a meaningful difference.

An ecommerce team could, for example, introduce a policy that only electronic appliances with at least an A+ energy rating are allowed to be featured on the homepage, or that any product highlighted as a “Best Buy” must also be better from environmental criteria.

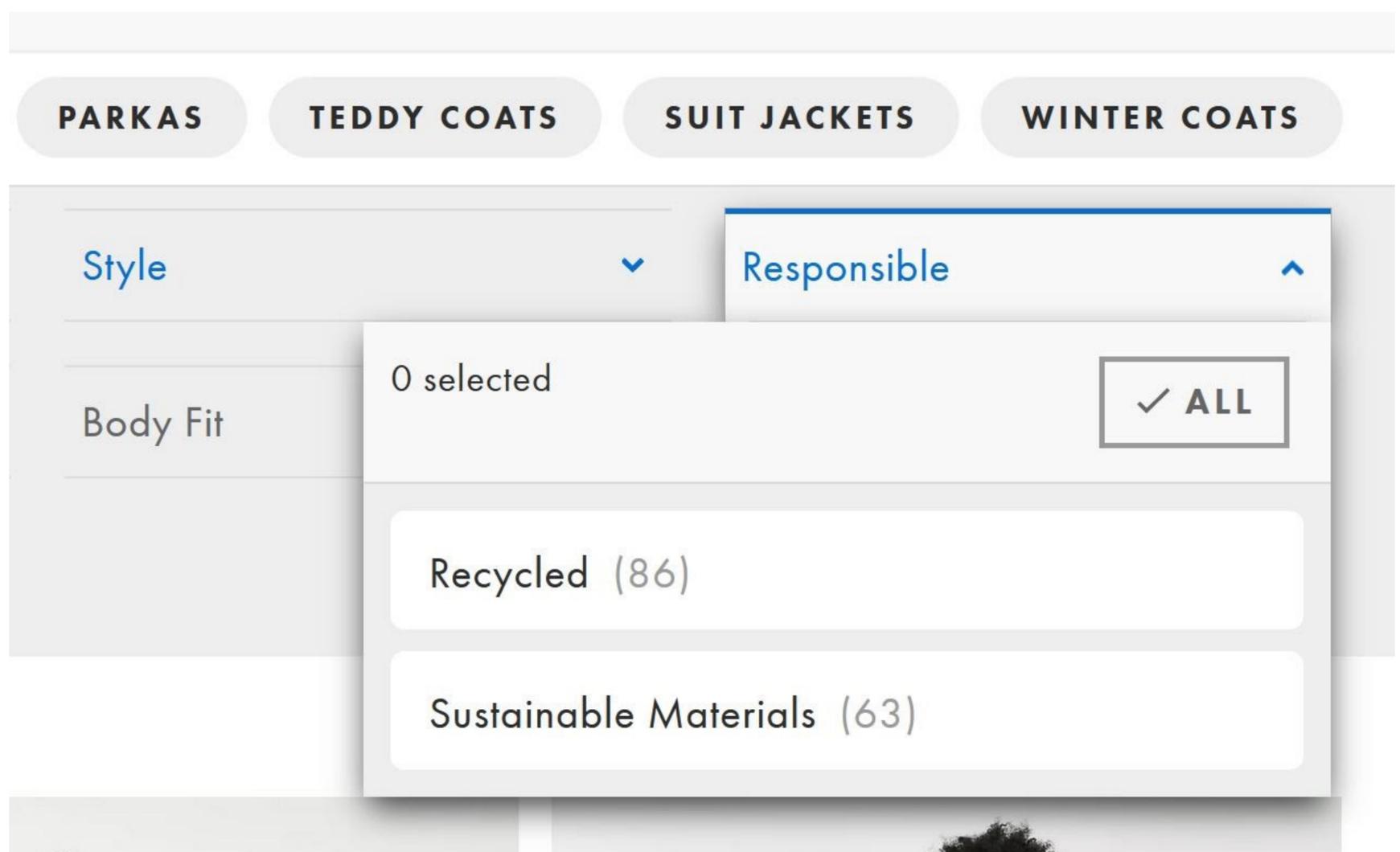
This approach could be carried through to the product search, where a metric of eco-friendliness could be added as a factor in the search algorithm, giving products tagged as “green” a higher position in the search results.

For example, if a customer searches for “blue jeans”, those made with eco-friendly fibres such as organic cotton could appear higher up in the search listings than equivalent jeans made with conventional fibres, helping to direct the customer's attention to look at these products first and increasing the chance that they purchase a more eco-friendly option.

This prioritization of greener products in search results could be applied in the background without the customer even being aware. Or it could be made visible to the user by highlighting greener options in the search listing, by displaying icons representing environmental credentials next to each search result, or by including these criteria in the search result filters alongside conventional filters such as price and star rating.

Environmental impact could also be added as an option in category filters in ecommerce stores, subtly informing customers that this is one of those criteria that they should be considering when choosing a product.

Fashion retailer [ASOS](#) achieves this nicely with its “Responsible” filter. The impact of filters like this could be increased by making them more prominent relative to some other filters on the page, or even by setting the eco-friendly filters to be switched on by default.



The Responsible filter on the ASOS website helps customers find clothes made with more eco-friendly materials.

These filters might include obvious green criteria like recycled, organic or energy efficiency, or they could be factors that the customer might not even consider to be environmental, such as length of warranty or country of origin.

The point here is that successful retailers know how to lead customers' attention towards certain products over others, and so there's a huge opportunity to use these existing techniques to steer customers towards more eco-friendly choices.

## Seeing the green

It's clear that retailers do have some power to quietly nudge their customers towards greener choices without even talking about it too loudly, but this power could be amplified by communicating green credentials of products more clearly.

A [study by NYU Stern's Center for Sustainable Business](#) in 2019 found that **sales of products marketed as being sustainable are growing 5.6 times faster than those that are not.** It's clear that customers want more sustainable product offerings, but they often do not have the knowledge or the time to research which products have the lowest impact.

The retailer, therefore, has an opportunity to make it easy for their customers while at the same time helping to educate them. This is a win-win for the customer, for the retailer and for the environment (so long as it's used responsibly without greenwashing).

This could be as simple as highlighting greener products with a symbol to make them stand out in the product listings, but the impact will be far greater if the website provides the customer with information about *why* a particular product is a greener choice. An easy solution to this could be an information panel on the product page, or even a tool tip on the product listing with a summary of environmental benefits.

The designer has an opportunity here to make this information grab a user's attention and communicate key environmental benefits in a way that's inspiring, informative, and easily digestible. This could be a simple and welcome addition to many ecommerce websites.

The next question the customer may ask, however, is whether a product is more or less eco-friendly than other equivalent products. Of course, there's not always a simple answer, but retailers could help the customer by highlighting alternatives using the information that they do have.

For example, for products that report their energy consumption or carbon footprint, the product information could include relative statements such as, "This product uses 20% less energy than average". The website could use such criteria when displaying alternative products, so that the customer can quickly see that a lower impact product is available.

## Y-2 Phone

Used, fully refurbished

128 GB storage

2-year guarantee

 95% less carbon emissions than a new phone

**300 EUR**

or 250 EUR with trade-in

In his article, [Green by Default](#), Brian Louis Ramirez suggests that stores could highlight the environmental benefits of used and refurbished products compared to buying new.

This approach could even be used to upsell products. For example, organic products are often more expensive than their non-organic counterparts so the retailer, and the environment, could benefit by recommending organic equivalents when customers view the non-organic versions.

The effectiveness of this message could be amplified by telling the customer why this is worth paying extra for. A simple statement like, “Going organic helps protect wildlife, farm workers, and your family from harmful chemicals”, for instance, will incentivize many people to pay a little extra.

This concept could even be integrated into the shopping cart with a simple “Switch to Organic” button next to relevant products, encouraging customers to make the switch before they checkout. Of course, the same principle doesn’t just apply to organic and could be used for other relevant environmental factors.

There are many opportunities for online retailers to highlight environmental considerations in the user journey, but one of the challenges retailers face is a lack of information from manufacturers, particularly those with less commitment to strong environmental practises.

However, this too presents an opportunity because the retailer can highlight the lack of transparency and make the customer aware that environmental information is not available for a certain product. It might make some customers think twice and switch to products from more transparent manufacturers.

This would in turn also encourage manufacturers to be more transparent on factors such as energy, carbon emissions, recyclability, repairability, and intended lifespan. Retailers are the link between manufacturers and end customers and can therefore support customers in demanding more transparency around issues that matter.

## Don't send it back

One of the biggest environmental impacts of many ecommerce businesses is the product returns. [According to the National Retail Federation](#), **20-30% of goods sold online are returned**, which creates approximately 15 million tonnes of CO2 emissions per year in the US alone – the equivalent to three million cars. Also, additional materials are used in packaging and many returned products can't be resold and end up as waste.

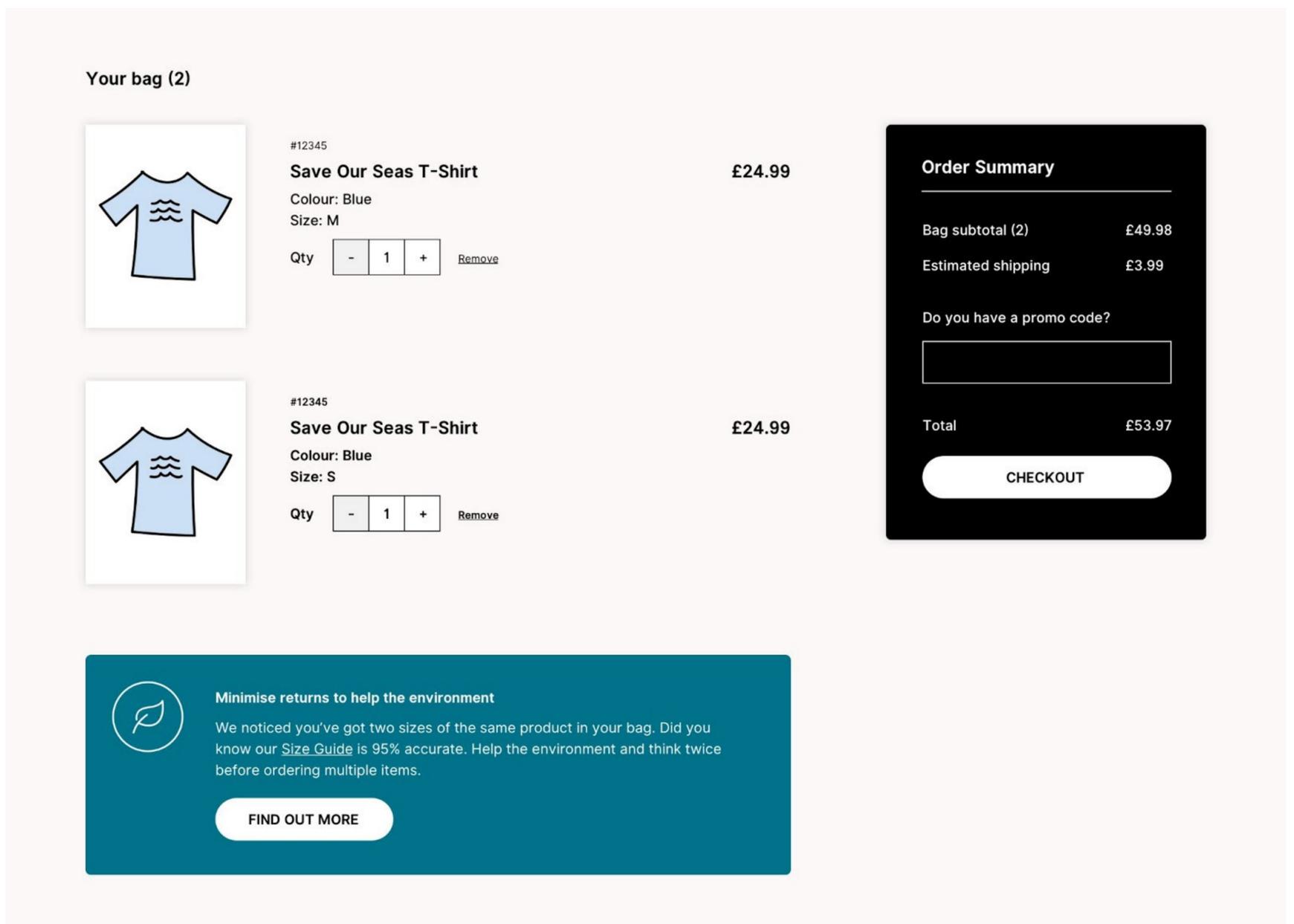
A lot of online retailers offer free returns as a way of lowering the barrier to customers making a purchase. However, the high level of returns also costs retailers a lot more money and harms the environment.

The ecommerce retail experience can help to mitigate this issue through information and tools that help the customer to select the right product and right size. Basics such as clear photography and product descriptions are the foundation of helping customers select the right product for their needs.

It can be particularly helpful to highlight in the product information any features that a customer might not expect, such as an unusually small or large size of a product or whether the product is compatible for use with common products that the customer might already own or has in their shopping cart.

Likewise, simple illustrated guides, animations, sizing tools and videos to help customers choose the right product can easily pay for themselves, both financially and environmentally.

There may also be value in communicating the environmental impact of returns to the customer in the shopping process. This could be integrated into the standard returns messaging. For example, instead of just saying, "Free returns for 14 days", the website could say something like, "Free returns for 14 days. Minimise returns to help the environment".



Unnecessary returns could be reduced by prompts in the shopping cart to highlight that the customer is ordering multiple sizes and encourage them to check the sizing guide to find the correct size (image created by Wholegrain Digital).

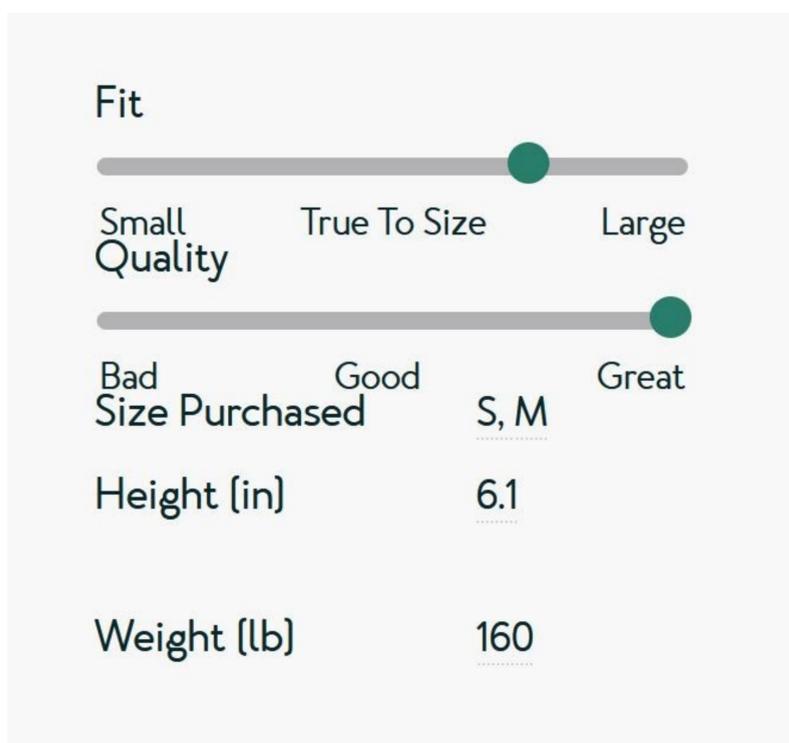
A related opportunity in the shopping cart interface would be to highlight products that are being ordered in multiple variations. It's increasingly common for customers to purchase the same product in multiple sizes or colors, fully intending to pick their favorite and then send the rest back.

The ecommerce system could spot these multiples in the shopping and prompt the customer with a simple message like, "Did you mean to order multiple sizes? Try our size guide to help you choose the product".

This could potentially be accompanied with a simple environmental message too, prompting the user to think twice while also offering them help to select the perfect product before they place their order.

Sustainable clothing brand [TenTree](#), for example, provides their customers with information that aids their decision for purchasing the correct sizing.

Their product reviews indicate whether other customers thought that the product was true to size. This helps customers select the correct size based on other people's experiences and potentially eliminates the need to purchase multiple sizes, resulting in fewer returns.



### Styled By Happy Customers

These heroes are saving the planet ten trees at a time.

4.9  
Based on 140 Reviews

★ ★ ★ ★ ★ (127)  
★ ★ ★ ★ ★ (11)  
★ ★ ★ ★ ★ (2)  
★ ★ ★ ★ ★ (0)  
★ ★ ★ ★ ★ (0)

Fit: Small True To Size Large  
Quality: Bad Good Great

[WRITE A REVIEW](#)  
[ASK A QUESTION](#)

**REVIEWS** QUESTIONS

**Sandy A**  
on 09/16/2020  
★★★★★

**Cute sweatshirt. Sizing is off compared to other Tentree items**

I recently purchased the Women's Australia Animal Crew in size large and it fit me well, fitted but still loose enough to cover lumps and bumps. So when I wanted to get the Llama hoodie I figured I would be the same size. Based on some of the comments below, I ordered one size smaller, a medium, and prayed it would work out. Turned out the Peru Llama medium fit just like the large did in the Australia Animal Crew! I'm so glad I didn't get my usual size. I hope Tentree considers including some garment measurements going forward, especially since exchanges aren't free. The material is fine, I just wish it would have been a bit heavier in weight for a richer look. It doesn't look like a \$78 hoodie to me.

Weight (lb) 160 lbs  
Height (in) 52  
Size Purchased M  
Quality: Bad Good Great  
Fit: Small True To Size Large

Was this helpful? 7 0

The product reviews on TenTree encourage customers to rate the fit of the product (from small to true-to-size to large), which contributes to fewer items being returned.

## Encouraging responsible use

A significant proportion of the environmental impact of many products happens during their use. Although the behavior of customers in using their products might not be the responsibility of the retailer, the online retailer does have an opportunity to help encourage more responsible use of the products that they sell.

For example, online clothing retailers could provide information about product care, explaining how to look after them to extend their life, and encouraging customers to wash clothes at lower temperatures with eco-friendly detergents.

Perhaps they could even encourage customers to purchase products that help them to care for their products, such as the [Guppyfriend Washing Bag](#), which minimizes wear and tear on clothes during washing while also preventing microplastics from entering the sewage systems, or form affiliate relationships with retailers of eco-friendly care products.

This could be taken further by creating content with tutorials and guides on how to care for products, and how to make repairs. It could even create a commercial opportunity to sell replacement parts or offer a repair service to existing customers.

Online retailers are often the key source of information about the products that they sell and so the creation of responsible product use, care and repair information is an opportunity to become more of an authority on a particular product or brand, add real value for customers and have a positive influence on the environment.



Some clothing brands like [Evamoso](#) give the customer tips for responsible use on the clothing label. Why not put the same information in the ecommerce experience?

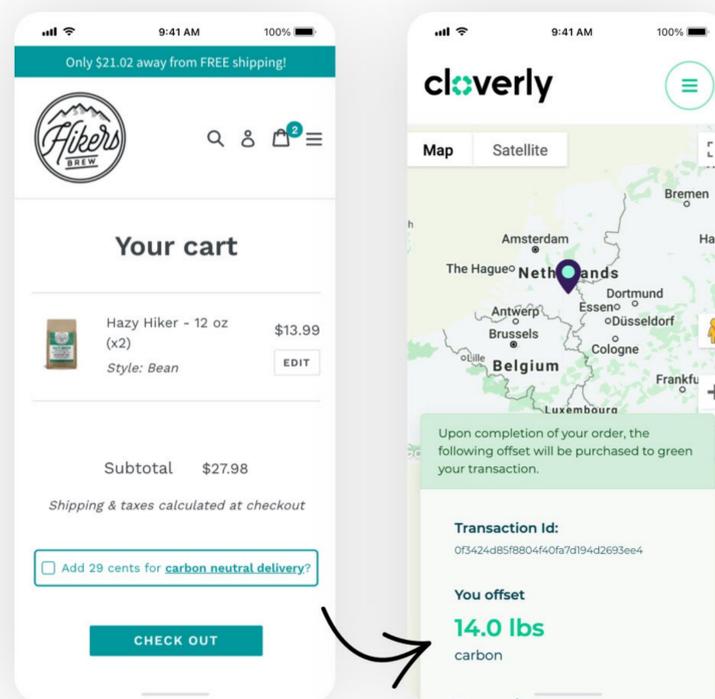
## **Giving back to nature**

Many businesses are looking to carbon offsetting as a way of mitigating environmental impact from their activities. While I have many concerns about carbon offsetting as being a cheap way to alleviate guilt for our ever-increasing consumption, it can have a place in helping to generate funding for valuable environmental protection projects.

The ecommerce process can be used as a tool to facilitate this through offsetting organisations and it needn't be too difficult. Tools such as [co2ok](#) and [Cloverly](#) can be integrated into a number of popular ecommerce platforms and calculate the quantity of emissions to be offset for each purchase.

These tools can potentially help to educate customers about their carbon footprint when shopping and could be included by default, encouraging greater adoption while still giving the customer the opportunity to opt out if they want to.

This education piece will be greatly enhanced by providing the customer with a reference point that they relate to, for example “The lifecycle emissions from this purchase are equivalent to driving 63 miles”.



Cloverly makes it easy to add carbon offsetting into the ecommerce experience, but could the messaging tell a stronger story?

It certainly is not a panacea but it does offer us one more way for ecommerce stores to raise awareness of environmental issues and generate much needed funding to support environmental projects.

## Conclusion

The environmental impact of ecommerce is not purely digital. The products being sold will nearly always have a far bigger impact than the digital technology and, with ecommerce acting as an accelerant to consumption, it's important that the ecommerce sector tackles this head on.

There are bigger questions to be asked about the products and business models themselves, but it's clear that there are many opportunities to encourage more responsible shopping through the design and implementation of the ecommerce experience itself.

Most of these opportunities are simple to action, and some could even help increase revenue for the retailer. It's an opportunity not to be missed.

The author:

## Tom Greenwood

Tom Greenwood is the co-founder of the London digital agency [Wholegrain Digital](#), a Certified B Corp and a specialist in WordPress, web performance and sustainability. He is the author of the book [Sustainable Web Design](#) from A Book Apart, co-author of the [Sustainable Web Manifesto](#) and editor of the monthly green web newsletter, [Curiously Green](#). He loves pushing boundaries in design, business, sustainability and natural health, and problem solving in the digital economy.



# **Conducting a Sustainability Storytelling Audit on Your Online Store**



**Katie Boothby-Kung**

With the pandemic forcing everyone home this past year, like most people around the globe, I found myself discovering new brands and shopping entirely online. As a buyer who shops based on the business' mission, learning more about a company's sustainability stance is important to my shopping experience.

I don't only do this for my personal purchases – I do it for work, too. As a senior manager for social impact at Shopify, I help Shopify's storytelling and marketing teams feature socially-conscious businesses.

My job is to search through many online stores, reading their sustainability pages and learning more about their products and how they're making a positive change. And yet, there are so many online businesses out there that hide their sustainability stories deep in their blog pages, or as a footnote on their homepage.

For customers looking to vote with their dollars and shop from brands that align with their core values, these businesses make it difficult for customers to learn about those values and start shopping. In many cases, if shoppers can't find the answers they're looking for quickly and seamlessly, they move on.

So how can you make sure you're captivating potential customers the moment they land on your store and start shopping? A sustainability statement on your homepage is a good start, but sharing your impact is more than having a flashy headline. Your impact and brand storytelling needs to be woven into the entire customer journey.

In this chapter, we will go through each element of the customer journey and how to showcase your business's sustainability story to better highlight your commitments and your impact to date (or how you intend to measure impact).

## Start on the homepage

In a [UX study with fashion brand Eileen Fisher](#), researchers found that “almost one third of surveyed users said they were influenced by the brand’s story.” If that’s the case, one third of customers need to know that brand story in the first scroll on your homepage to be encouraged to continue shopping.

Depending on your theme, a visible statement of your impact and social mission should live in your revolving hero image or be prominently displayed below your collections section.

According to David Carr, storefront optimization specialist at Shopify:



**When a first-time visitor lands on your store, they should be able to tell if the product range offered suits their needs within 10 seconds of landing.**

You can apply the same principle to your sustainability statement: when a visitor arrives at your store, they should understand the basics of your company’s values and impact within the first 10 seconds. This way, the shoppers who are looking for value-based businesses can start shopping right away, while visitors that aren’t can understand one of your unique selling points and may choose to continue shopping knowing that your company offers something different.

So let’s say the customer is intrigued and interested in learning more. They head to your About page to read details about your brand mission and possibly your blog to skim through some compelling stories of your impact.

## Telling your sustainability story

These pages usually appear in your navigation as “About Us”, “Our Story”, or even “Sustainability”. This is where you can dive into the details of your company’s impact beyond the short description on your homepage.

Transparency is key when communicating your sustainability efforts on these pages because customers are becoming more critical, especially when shopping with socially-conscious brands. Vague statements about “being ethical” or “sourcing sustainably” are no longer good enough to convert socially-minded buyers.

In the same Eileen Fisher study mentioned in the previous section, the researcher notes that “more than half the surveyed users said that knowing where their clothes are from influences their purchasing decisions.”

This is where the details are important. If your products are manufactured locally, in a factory that provides fair and equal pay, or with a manufacturer that employs underserved communities, share this! Include stories, images, and impact measurement numbers, such as total emissions or number of people paid fair wages, to increase brand transparency and, in turn, customer trust.

Not sure where to start? Try this exercise:

Get a pen and paper and write down everything your business does that has a positive impact on people and the planet. When carrying out a sustainability storytelling audit with a jewelry brand called [Biko](#) in Toronto, I started the conversation by asking the founder about her sustainability journey. Corrine Anestopoulos had a lot to share, from using recycled metals and jewels in her pieces to giving back to various causes.

Just by sharing this story, together we were able to come up with a Sustainability Page that shared her sustainability journey in a crisp and succinct way. The result is a snapshot of all the efforts at Biko, a highlight of their values and mission, and short descriptions of their sustainability efforts.

Formatting these pages is also important. David Carr says



**Customers rarely read websites word by word. Instead they scan the page, picking out information that is relevant to them. For this reason it's very important that your description is properly formatted to make it easy to read and scannable.**

In fact, according to UX researchers Nielsen Norman group, the average visitor reads just 28% of the words on a site.

With this in mind, David also recommends making sure the keywords are bolded and highlighted to stand out. Adding in appropriate page breaks and pictures will also help scanners digest the content quickly and pull out the information they're looking for.

Your About page is a chance to present a snapshot into all your sustainability efforts, but some of your followers may want to dive deeper and learn more about your processes and projects. To further share your story and educate your customers on how you think about sustainability, you can create additional content – perhaps by explaining your choice of materials, manufacturing processes, and business operations.

An example of a well-known company that spearheads sustainability and regularly publishes educational content about their carbon footprint is Allbirds. The internationally popular shoe brand has a thorough sustainability section that teaches interested customers about their work in regenerative agriculture, reversing climate change, and overall business operations.

Allbirds break down the materials they use in their products, how they're sourced, and why you should care. Fun images and graphics accompany the science talk to make it digestible and an easy read for customers looking to learn more.

## INITIATIVES

Reversing Climate Change  
How We Operate  
Carbon Footprint  
Regenerative Agriculture  
Carbon Offsets

## FEATURED



Allbirds' Sustainability menu navigation enables customers to explore the company's various initiatives to reduce greenhouse gas emissions and draws attention to its eco-friendly materials.

Educating customers is particularly important if your products have specific end-of-life instructions consumers need to follow ([see below](#)), or if you need to help them understand why making a sustainable choice is better than the fast and easy alternative.

Buying toilet paper is mundane, for example, so most of us want this purchase to be easy and painless. At [Reel](#), they had to convince potential customers to switch from their conventional toilet paper to their sustainable bamboo toilet paper that is more expensive than the average roll and takes longer to arrive.

Their website is simple and makes learning about their initiatives seamless. Potential customers can explore the value of using bamboo toilet paper over traditional tree and pulp-based products. Bamboo grows quickly, uses less water, and the paper is softer for your tushy.

Once the customer is intrigued, they educate them on the subscription model so they no longer have to worry about being without environmentally-friendly paper, or have to run to the store to pick up traditional paper once they run out. This allows their customers to make better choices, easily.



# Why we love bamboo...

27,000 trees are cut down everyday to make toilet paper, and they can't even be recycled. We're leaving the trees alone.

Sustainability-centered toilet paper company Reel has a separate page that explains why it favors bamboo over trees.

## **Selling your products**

Your product pages are another opportunity to showcase your impact with more granularity based on each specific product. It personalizes the experience, allowing the customer to feel like they are part of your sustainability journey and that, by their singular purchase of a product, they are making a specific impact.

Learning the story behind the product also reinforces its value to customers. In Eileen Fisher's study, interview respondents said that knowing the product and brand's story meant they were able to justify the higher price and were willing to pay for the product.

Here are a few ways you can share the footprint of a specific product:

## **Include the impact directly in your product description**

This option is the easiest. Simply describe the product's impact right in the product description. Make sure to highlight keywords, so it doesn't get lost. An alternative way to emphasize the impact is by enabling an accordion for your product description and adding a dedicated section called "Impact". This way, it has its own tab and doesn't get lost in the rest of your descriptions.

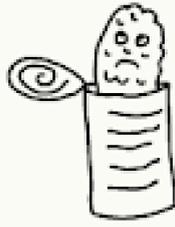
## **Create a product image describing the impact**

Consider including a graphic or photos in your product image carousel to drive home the impact of the product. Visuals are powerful and have an immense effect on the human brain. Sharing your impact on the product page through visuals and easy-to-read infographics will help your story resonate with your customer and show them the positive influence they will have by purchasing your product.

## **Include an end-of-life description**

Designing for sustainability and circularity is only effective if you equip your customers with the information they need to ensure your product is disposed of correctly at the end of its lifecycle or use. Your product page is another great location to share this information, especially if you have multiple products with varying end-of-life requirements.

A business doing this well is [Meow Meow Tweet](#). If you look at each beauty product page, they give detailed instructions on how to recycle or return some of their packaging.



## THE BREAKDOWN

### GLASS BOTTLE

refill, repurpose or recycle

### PLASTIC PUMP

reuse or return to us for Terracycling

### PAPER BOX

repurpose, recycle or compost

Skincare brand Meow Meow Tweet features information on every product page that explains how customers can recycle or return the individual parts of the packaging.

Another great example is [Rothy's](#), a popular footwear company in the United States that turns recycled plastic into shoes, which makes them machine washable. Washing instructions are included directly on the product pages, so new customers can see just how easy it is to wash and continue using their shoes.

Existing customers can also search for the shoes they purchased to pull up the instructions should they need a reminder. By making these instructions easy to access, brands empower their customers to extend the product's life.

SELECT SIZE

---

MATERIALS & FIT

+

---

WASHING INSTRUCTIONS

-

**Our shoes are fully machine washable.**

- Slip out insoles. Pop shoes and insoles into the washing machine.
- Use cold water, mild detergent and the delicate cycle.
- No heat, please—always let your shoes air dry.

---

FREE SHIPPING & RETURNS

+

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Direct-to-consumer footwear brand Rothy's features washing instructions on their product pages.

Remember, once the product leaves your warehouse, the disposal, repair, or resale is in the hands of your customer. If they are not given easy access to end-of-life information, it's very likely the product and packaging will end up in a landfill.

## Use a partner to help measure and display

There are agencies that can help you research your product's impact and display these insights directly on your product pages. Case studies suggest that these product insights have substantially increased online conversion rates. You'll need to do your own research on how each company calculates the impact of a product reliably, but one example of a partner in Shopify's ecosystem that is worth exploring is Green Story. The consumer engagement platform for responsible businesses publishes [case studies](#) where merchants sharing their products' impact saw "+107% increase in online conversion rates" and "+251% increase in repeat sales".

## Help reduce returns

Ecommerce is inherently carbon intensive since everything needs to be shipped to the customer. And while we can't stop shipping, businesses should do their best to reduce returns.

According to [Common Objective](#), “in the US alone, five billion pounds of landfill waste is created by returns, contributing 15 million metric tons of carbon dioxide to the atmosphere, equivalent to what three million cars would emit in one year.”

By providing your customers with detailed information on your products, they are able to fully understand what they will receive in the mail, and if it's the right color or size. Here are some things to consider on your product pages to reduce returns:

### 1. Detailed product images:

In addition to a hero product image and beautiful lifestyle shots, include details your customers want to see. The texture, how it fits on different body shapes, or size comparisons are all very helpful for customers trying to make a purchase decision based on 2D-images.

### 2. Try-on or sizing app:

If you are a fashion or apparel brand, consider integrating a try-on app for your customers. Eyewear brand [Genusee](#) uses a try-on feature called [Ditto](#) so you can see what a pair of glasses will look like on your face before you buy. You can also check out the [Shopify App Store](#) for other options.

### 3. Provide live consultations:

Luxury and sustainable lingerie brand [Mayana Genevieve](#) offers live consults with a member of their team to help women determine the best fit for their body. Since launching their live consults, Mayana Genevieve has managed to reduce their returns to zero for the women who book with them.

## **Start your audit!**

Time and time again, I've seen incredible, sustainable brands miss huge opportunities by not communicating their impact story across their online store. Some don't include it at all!

While some companies might be telling these meaningful stories on their social accounts, it's important not to neglect your online store. Sharing your impact directly throughout your website has been shown to increase conversion rates, customer loyalty, and positive brand affiliation.

Take time to document your sustainability story and every aspect of the goodwill your company generates, be it environmental, social, or within your own employee base. Use these details to craft statements on your homepage, a dedicated sustainability page, and product-centric details and numbers to personalize the shopping experience for your customers.

As more customers shift their buying behavior towards values-based businesses that make a positive impact on the world, it's more important than ever to make sure your sustainability story is visible throughout your website to make your brand stand out. You work hard to make a positive difference in the world, so be proud of that and share it!

The author:

# **Katie Boothby-Kung**



From 9-5, Katie is a senior manager of social impact at Shopify. By working closely with social impact businesses around the world, she is able to build educational tools and provide platform support to launch and grow successful social enterprises. Prior to Shopify, Katie worked for the Prime Minister of Canada and other federal ministers in policy and communications.

Outside of work, Katie is the founder of [Copper Root Collective](#), an eco-conscious bath and skincare company based in Ottawa with 100% of the profits going directly to water projects in Zambia. On the weekends, Katie can be found hiking with her puppies or playing board games with her hubby.

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