

LIGHTBEAR LANE: A CLOSER LOOK AT ETHICS AND SUSTAINABILITY IN THE DIGITAL CULTURAL SPACE

Table of Contents

Introduction.....	2
Environmental Challenges of the Internet and Data Storage	2
<i>Carbon in the workplace</i>	3
<i>The Data Problem</i>	4
Privacy Issues Facing Internet and Data Usage	6
<i>Social Media</i>	6
<i>The Rise of AI</i>	8
<i>Politics</i>	8
Relevance to the Cultural Sector	9
Evaluation Criteria	10
<i>How to responsibly use social media</i>	10
So how can organisations engage customers?	11
What now for your organisation?	12
The Future of Digital Ethics in the Heritage Sector	12
Further reading.....	12
Bibliography/Source List	13

Introduction

75kb of CO₂ are lost to every email. 72mb to an hour's worth of music. 1mb a minute to a WhatsApp voice call.¹ Platforms once considered carbon-neutral have never truly been so.

We normally see business ethics as a set of values, with typical teachings being focused on the immediate environmental impact, supply lines, shareholders and stakeholders. Very rarely does business ethics focus on the digital platforms themselves, and whether these can be ethical, let alone the multiple stages of digital emissions that creates an online brand and communication strategy. This report will discuss how digital emissions (carbon emissions created by using digital servers) are caused by all digital spaces and will discuss the degree to which organisations can control this.

This paper will also discuss the ethics of various platforms, such as Instagram, Facebook, X (formally known as Twitter) and Google; these sites are not ethically neutral platforms. The aim of this research has been to focus on these platforms, to look at their issues, and to discover how they can be engaged with ethically whilst still allowing organisations to bring in new customers and reach wider audiences.

This paper will find that greater focus on all stages of marketing campaigns in heritage, culture and the arts must be considered, such as platforms and planning, not just creating responsible content. It will suggest evaluation methods that organisations can implement to become more aware of their scope three emissions; defined as "emissions that are not produced by the company itself and are not the result of activities from assets owned or controlled by them, but by those that it's indirectly responsible for up and down its value chain".²

The aim of this paper is to challenge the lack of focus on the in-built processes that generate carbon, as well as draw attention to the biases and issues of social media engagement.

Environmental Challenges of the Internet and Data Storage

As mentioned above, the ecological implications of digital marketing and online activity are far from neutral, despite common assumptions that data exists in a "carbon-free" space. Internet usage, data storage, and the infrastructure that enables web-based marketing campaigns all generate significant emissions across all categories of the corporate carbon framework.

¹ "Concerned about your data use? Here is the carbon footprint of an average day of emails, WhatsApp and more", October 2024,

<https://www.theguardian.com/environment/2024/oct/31/concerned-about-your-data-use-here-is-the-carbon-footprint-of-an-average-day-of-emails-whatsapps-and-more#top>

² "What are scope 1, 2 and 3 carbon emissions?"

“, National Grid, <https://www.nationalgrid.com/stories/energy-explained/what-are-scope-1-2-3-carbon-emissions>.

To understand this better, the terminology of scoped emissions must be understood. Large companies are required to report on their emissions, but as of 2025 (though there have been calls for the widening of the SECR), scope three emission reporting remains voluntary.³

- Scope one emissions come from assets the company owns and operates directly. E.g. heating a building the company owns, or fuel consumed by company-owned vehicles.
- Scope two emissions come from assets the company uses or leases. E.g. purchasing electricity to power office lighting and internet access.
- Scope three emissions are not produced by the company but are generated through its value chain. Such as employee travel, transporting products and advertising.

Scope three emissions make up an estimated 70% (though some estimates place it much higher) of an organisation's emissions.⁴ Scope three emissions include the carbon generated by technology use, making this a critical issue for anyone concerned with full transparency around carbon footprints.

Carbon in the workplace

Despite organisations not having to individually report on these emissions, the creation of carbon from computer systems remains overwhelming. The information and communication technology (ICT) sector alone emitted an estimated 1.0–1.7 gigatonnes of CO₂, equivalent to 1.8–2.8% of global anthropogenic greenhouse gases, exceeding the annual emissions of countries like Australia or France.⁵

Data storage makes up a large portion of these hidden emissions. Data centres, which power everything from websites to targeted advertisements, already account for 2.5% of global CO₂ emissions, surpassing the aviation industry's 2.1%.⁶ At the same time, the material and resource demands of digital infrastructure are profound: manufacturing a single desktop computer requires 240 kilograms of fossil fuels, 22 kilograms of chemicals, and 1,500 kilograms of water.⁷ Adding to this, the process of digitisation (files, photographs, client records etc.) is far from being carbon neutral, with digitisation accounted for approximately 4% of global greenhouse gas emissions in 2020, a figure

³ Department for Energy Security and Net Zero, "Scope Three Emissions In the Uk Reporting Landscape", December 2023, <https://assets.publishing.service.gov.uk/media/652ea475697260000dccb9db/scope-3-emissions-in-the-uk-reporting-landscape.pdf>.

⁴ MediaMath Blog. 'Digital Advertising's Contribution to Scope 3 Emissions'. Accessed 24 April 2025. <https://www.mediamath.com/blog/digital-advertisings-contribution-to-scope-3-emissions/>.

⁵ Istrate, Robert, Victor Tulus, Robert N. Grass, Laurent Vanbever, Wendelin J. Stark, and Gonzalo GuillénGosálbez. 'The Environmental Sustainability of Digital Content Consumption'. *Nature Communications* 15, no. 1 (2 May 2024): 3724. <https://doi.org/10.1038/s41467-024-47621-w>.

⁶ Emma Heley, 'Digital Marketing's Carbon Footprint', 5 March 2025. <https://theecologist.org/2025/mar/05/digital-marketings-carbon-footprint>.

⁷ Reader, The MIT Press. 'The Staggering Ecological Impacts of Computation and the Cloud'. *The MIT Press Reader* (blog), 14 February 2022. <https://thereader.mitpress.mit.edu/the-staggering-ecological-impacts-of-computation-and-the-cloud/>.

projected to grow substantially with the rise of artificial intelligence.⁸ All of this helps make up a large amount of carbon that businesses are not calculating, as it is technically generated through the company's value chain.

Furthermore, using online platforms to expand your business reach only compounds the problem. The marketing and advertising sectors exacerbate this, with programmatic advertising wasting up to 70% of spend on unseen impressions, each still consuming significant energy.⁹ For instance, a campaign delivering one million digital impressions can generate carbon emissions equivalent to a round-trip flight from Boston to London for a single passenger.¹⁰ Online advertising is far from environmentally neutral.

The Data Problem

Organisations need somewhere to store their data: data centres are the answer – and consequently growing at an unsustainable rate. Data centres' electricity consumption is expected to approach 1,050 terawatt-hours by 2026, placing them on par with entire nations, especially now due to the increased consumption of AI.¹¹ All data must, after all, be stored somewhere. Data storage being named after intangible ideas, such as “the Cloud” implies to users that their data is kept somewhere non-corporal. This is incorrect.

All data must be stored in data servers, massive rooms of warm storage units which house every video, gif, tweet, email and internet webpage to ever exist. The building of data centres is expected to grow by a fifth in the UK, with the global average of centres rising greatly in the AI boom (as AI needs far more data to be stored and trained on).¹²

⁸ World Economic Forum. ‘What Is “Dark Data” and How Is It Adding to All of Our Carbon Footprints?’, 5 October 2022. <https://www.weforum.org/stories/2022/10/dark-data-is-killing-the-planet-we-need-digital-decarbonisation/>.

⁹ Impressions is how often an advert is shown – viewers may skip over it, ignore it, or click it away faster than they can read it. (Google Ads Help).

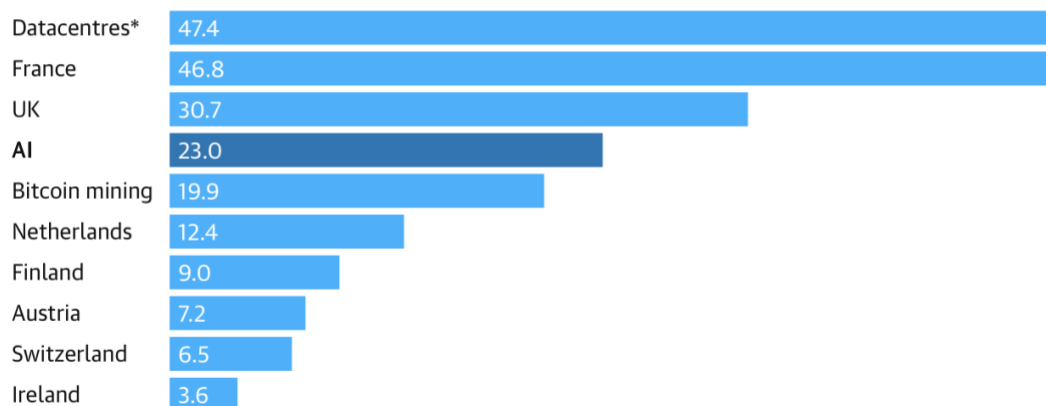
¹⁰ agMuire, Frank. ‘Building a Sustainable Programmatic Ecosystem with Sharethrough's GreenPMPs™ — Sharethrough’. Accessed 24 April 2025. <https://www.sharethrough.com/blog/building-a-sustainable-programmatic-ecosystem-with-sharethroughs-green-pmps>.

¹¹ MIT News | Massachusetts Institute of Technology. ‘Explained: Generative AI's Environmental Impact’, 17 January 2025. <https://news.mit.edu/2025/explained-generative-ai-environmental-impact-0117>.

¹² BBC News, “Data centres to be expanded across UK as concerns mount,” BBC, 15 August 2025, <https://www.bbc.co.uk/news/articles/clyr9nx0jrz>.

AI will be using more power than many countries by the end of 2025, claims new research

Power demand in gigawatts



Guardian graphic. Source: Alex de Vries. Notes: situation at the end of 2024, AI end 2025. 'Datacentres' excludes crypto mining. AI is considered 'all-in' including training power consumption, for instance.

With the rise of AI, researchers estimate that a single ChatGPT query consumes around five times more electricity than a standard web search.¹³ More AI usage, more data to be stored, more energy-consuming queries to be made, and a wider audience of consumers can only lead to heavily increased and unrecorded emission growth.

Considering this, three key areas of hidden or “dark” emissions demand the attention of conscientious organisations surrounding data emissions: the data storage itself, responsible digitisation, and online platform use, particularly in the context of digital advertising.

Large organisations generate and store enormous volumes of information, yet much of it is never actually used. This so-called dark data includes unused log files, redundant customer records, or archived communications sitting indefinitely on servers. While it may seem harmless, maintaining this hidden stockpile consumes electricity in data centres, contributing to emissions without delivering any business or social value. Tackling dark data starts with auditing what is stored and questioning whether it serves a real purpose, a step all organisations can make.¹⁴

Dark data encourages the practice of collecting single use knowledge. Marketing teams, for instance, may run one-off campaigns that collect detailed customer insights, only to discard the information afterwards. This wastes both digital resources and the energy expended to process them. Instead, knowledge should be captured in ways that enable reuse, allowing insights to inform multiple projects or long-term strategy, rather than being lost after a single application. This is in general a good business practice, as well as an environmentally conscious one.

¹³ MIT News | Massachusetts Institute of Technology. 'Explained: Generative AI's Environmental Impact', 17 January 2025. <https://news.mit.edu/2025/explained-generative-ai-environmental-impact-0117>.

¹⁴ Gartner, “Dark Data”, September 2025, <https://www.gartner.com/en/information-technology/glossary/dark-data>.

Addressing these challenges requires rethinking workflows and storage systems. Organisations can adopt greener practices, such as housing websites and data services in data centres powered by renewable energy or designing more efficient pipelines to avoid duplication. Regular data cleansing and stricter access policies also ensure only valuable information is retained. By embedding sustainability into digital processes, companies can cut energy use and reduce their environmental footprint.

These issues highlight how invisible aspects of the digital economy carry real ecological costs. Recognising that digital platforms are not inherently carbon-neutral is a necessary first step. From there, organisations can shift towards intentional data practices that balance efficiency and sustainability

Privacy Issues Facing Internet and Data Usage

Concerns around privacy and data protection highlight another major challenge in digital marketing, forcing businesses to question whether the platforms they rely on for publicity and engagement align with the ethical and environmentally friendly values they hope to uphold.

If an organisation champions principles such as inclusivity, transparency, or environmental responsibility, but continues to depend on platforms that undermine those very ideals, its brand authenticity and reputation may be at risk, as well as their customers' data. Modern audiences are increasingly savvy towards what brands say and do, and building honest relationships between consumer, client and organisation is increasingly crucial.

Social Media

This disconnect is particularly visible in the case of Meta-owned companies, (Instagram, Facebook and WhatsApp) where data vulnerabilities have repeatedly exposed user information at massive scale. In May 2025, a hacker claimed to have accessed 1.2 billion Facebook user records containing names, phone numbers, and emails.¹⁵ This most recent incident is part of a long-running problem with the leaking of sensitive customer data. For example, in 2023 530 million users' data was leaked onto a forum (April 2023) and in 2020 hackers managed to capture data from 300 million Facebook accounts.¹⁶ Instagram, as part of the same Meta ecosystem, inherits these vulnerabilities. Meta owned social media sites have repeatedly let down their customers – and this is just the customer facing issues. Internally, Facebook has been proven to manipulate elections, use customers sensitive data to advertise to them more efficiently, and train AI off personal conversations.¹⁷

¹⁵ TechRadar. 'Hacker Claims to Have Grabbed 1.2 Billion Facebook User Records – Here's What We Know'. Accessed 23 September 2025. <https://www.techradar.com/pro/security/hacker-claims-to-have-grabbed-1-2-billion-facebook-user-records-heres-what-we-know>. ; Security Boulevard. Accessed 23 September 2025. <https://www.securityboulevard.com>.

¹⁶ Firewall Times. 'Facebook Data Breach Timeline'. Accessed 23 September 2025. <https://firewalltimes.com/facebook-data-breach-timeline/>.

¹⁷ The Guardian. "Metal to push on with plans to use UK Facebook and Instagram posts to train AI". 13 September 2025. <https://www.theguardian.com/business/2024/sep/13/meta-to-push-on-with-plan-to->

X (formerly known as twitter) has experienced similar failures. In January 2023, contact details for over 200 million users were made public following an API exploit (hacking).¹⁸ In March 2025 researchers discovered a 400 GB dataset containing 2.87 billion user records compiled from past leaks and scraping activity (“The automated process of extracting information, often personal or profitable, from websites.”).¹⁹

These events underline a common pattern: large platforms either treat users themselves as the product, monetising personal information for increasingly targeted advertising campaigns, often without meaningful consent, or they fail to protect the data that has been entrusted in them by their users. Furthermore, organisations’ private data is put at risk through overreliance on these platforms.

If heritage and cultural organisations overlook the data and carbon costs of social media when planning campaigns, they risk becoming part of the very problem they often aim to critique or remedy. In doing so, they place their audiences’ data in the firing line and put their own authenticity at risk.

For every person who continues to use social media, fully aware of the risks but convinced their data privacy doesn’t matter because they “have nothing to hide,” there is an eager data broker waiting to profit. The nothing to hide argument is short-sighted: while you may feel your data is harmless today, what happens if your key interests and identities are suddenly criminalised?

In the words of cryptographer, David Schneier on the idea that if you have nothing to hide then you have nothing to fear; “This is a dangerously narrow conception of the value of privacy. Privacy is an essential human need, and central to our ability to control how we relate to the world. Being stripped of privacy is fundamentally dehumanizing, and it makes no difference whether the surveillance is conducted by an undercover policeman following us around or by a computer algorithm tracking our every move.”²⁰

By ignoring these issues, cultural organisations risk normalising a dangerous narrative: that privacy is optional, and that environmental consequences are secondary to outreach. A more responsible approach would recognise that ethical digital practices are inseparable from cultural stewardship.

[use-uk-facebook-and-instagram-posts-to-train-ai](#) ; BBC, “Facebooks Data Sharing Deals Exposed”, December 2018, <https://www.bbc.co.uk/news/technology-46618582>

¹⁸ Ibid. API (Application Programming Interface) – hackers accessed the API to steal data. BBC, “Twitter: Millions of users’ email addresses ‘stolen’ in data hack”, January 2023, [https://www.bbc.co.uk/news/technology-](https://www.bbc.co.uk/news/technology-64153381#:~:text=Data%20alleged%20to%20contain%20the.registered%20with%20a%20sensitive%20address.)

[64153381#:~:text=Data%20alleged%20to%20contain%20the.registered%20with%20a%20sensitive%20address.](#)

¹⁹ CyberPress, “Massive 400GB of X (Twitter) User Records Allegedly Leaked – 2.8 Billion Records Exposed Online”, March 2025, <https://cyberpress.org/massive-twitter-data-breach/>

²⁰ David Schneier, David and Goliath: <https://www.goodreads.com/quotes/7240395-if-you-have-nothing-to-hide-then-you-have-nothing>

The Rise of AI

AI training on social media platforms has raised significant data protection and ethical concerns, particularly around the use of personal content without explicit consent. Meta, for instance, has moved forward with plans to use posts from Facebook and Instagram users in the UK and Europe to train its AI systems, despite objections from regulators and pressure groups worried about consent.²¹

While companies claim legitimate interest in improving AI tools, the practice undermines user autonomy and creates risks of misuse and biased outcomes. These concerns are amplified by regulatory tensions between the government and social media sites.²² For example, X has also faced GDPR complaints for training its AI, Grok, on user communications without clear consent. While the company allowed users to revoke this, the argued the burden was unfairly placed on individuals to discover and opt out, undermining the GDPR standard of informed consent.²³ AI needs data to train upon, and social media sites offer the perfect ground for this.

Politics

Beyond privacy, these platforms are also politically charged. Social media companies have long claimed neutrality, but their design and governance often reflect the political leanings of their founders and executives. Algorithms optimised for engagement tend to amplify polarising content, while suppressing or overlooking legitimate perspectives.²⁴ This works by content that promotes an emotional reaction being offered by algorithms more regularly, as studies show that people tend to pay more attention to content that evokes an emotion.²⁵

Simultaneously, hate speech and harmful misinformation often remain posted online despite repeated calls for removal, a long running issue.²⁶ Such dynamics demonstrate that platforms do not merely host discourse but actively shape it, raising difficult ethical questions about whether they can serve as responsible spaces for marketing and brand-

²¹ The Guardian. "Meta to push on with plans to use UK Facebook and Instagram posts to train AI". 13 September 2025. <https://www.theguardian.com/business/2024/sep/13/meta-to-push-on-with-plan-to-use-uk-facebook-and-instagram-posts-to-train-ai?>

²² BBC, "LinkedIn accused of using private messages to train AI", 23 January 2025, <https://www.bbc.co.uk/news/articles/cdxevpzy3yko>

²³ The Guardian, "Elon Musk's X under pressure from regulators over data harvesting for Grok AI", September 2024, <https://www.theguardian.com/technology/article/2024/jul/26/elon-musks-x-under-pressure-from-regulators-over-data-harvesting-for-grok-ai?>

²⁴ University College London. 'Social Media Algorithms Amplify Misogynistic Content to Teens'. Accessed 23 September 2025. <https://www.ucl.ac.uk/news/2024/feb/social-media-algorithms-amplify-misogynistic-content-teens>.

²⁵ Algorithmic Amplification for Collective Intelligence, Knight First Amendment, accessed December 8, 2025, <https://knightcolumbia.org/content/algorithmic-amplification-for-collective-intelligence>.

²⁶ UK Parliament Committees. 'Social Media Companies Shamefully Far from Tackling Illegal and Dangerous Content', Accessed 23 September 2025, <https://committees.parliament.uk/work/3206/hate-crime-and-its-violent-consequences-inquiry/news/100619/social-media-companies-shamefully-far-from-tackling-illegal-and-dangerous-content/>; The Guardian. 'Twitter Faces Legal Challenge After Failing to Remove Reported Hate Tweets'. Accessed 23 September 2025. <https://www.theguardian.com/technology/2023/jul/10/twitter-faces-legal-challenge-after-failing-to-remove-reported-hate-tweets>.

building. It can be damaging for a company's image to have a well-planned campaign a scroll away from offensive language or hate speech.²⁷

In this context, businesses must critically evaluate their reliance on social media. Using these platforms unthinkingly, simply because they dominate the digital landscape, can undermine brand identity and weaken claims to authenticity.

It of course is not all bad – organisations need to connect with their target demographics, and social media can allow meaningful communities to find each other. By contrast, deliberate and intentional use, aligned with core organisational values, ensures that digital presence reinforces rather than contradicts a brand's identity, allowing authenticity to permeate marketing strategies. It is a balance that needs to be struck, as platforms become simultaneously more ideological and more vulnerable to data breaches. This challenge is especially acute in the cultural sector, where public trust is foundational.

Relevance to the Cultural Sector

The cultural sector, understood here as theatre, the arts, museums, galleries etc. operates with a distinctive set of values that are central to its public mission. These values are not only expressed through exhibitions and educational outreach, but also through the societal choices these organisations make. Many arts and cultural venues have codes of ethics, especially around DEI, sustainability and social responsibility; the National Trust has their "Values and Behaviours", English Heritage has their "Sustainable Conservation Principles" and many local organisations prioritise conversations around social responsibility.²⁸ The arts often seem to lead the way when it comes to social responsibility.

In an era where online platforms and data practices carry significant ecological and ethical consequences, these same cultural trailblazers must consider whether their reliance on digital tools aligns with the ideals they champion. If environmental stewardship and respect for cultural heritage are to remain credible, then the same principles must extend to the way organisations handle data, manage social media, and engage their audiences online.

Many organisations have made environmental promises. The National Trust has championed Net Zero by 2030, but does not make mention of the technological and data storage changes that would be needed to be implemented to reach this.²⁹ The Museums

²⁷ StopHate UK: "Hate speech, particularly online, often describes those targeted as being 'the other', in opposition to the author's group, and even dehumanises them. Hate speech perpetrators often see 'the other' as enemies and the sole cause of problems in society." <https://www.stophateuk.org/about-hate-crime/what-is-online-hate-crime/online-hate-and-free-speech/>

²⁸ National Trust. 'Our Climate and Environment Policy'. Accessed 23 September 2025. <https://www.nationaltrust.org.uk/who-we-are/about-us/our-climate-and-environment-policy> ; English Heritage. 'Sustainable Conservation Strategy'. Accessed 23 September 2025. <https://www.english-heritage.org.uk/siteassets/home/0-about-us-new/01-policies-and-reports/01.08-sustainability/sustainable-conservation-strategy.pdf> .

²⁹ National Trust. 'Annex C – Values & Behaviours'. Accessed 23 September 2025. https://www.nationaltrustjobs.org.uk/files/6915/0487/3733/Annex_C_-_Values_Behaviours.pdf; Scope 3 emissions are mentioned – but not explained or evaluated.

Association has done a fantastic job partnering with the Digital Humanities Climate Coalition, which lays out frameworks for digital tools in research (such as maximal computing e.g. when is it appropriate to use AI and blockchains) setting a great example in the heritage space.³⁰ However, there is clearly room for improvement, or even just a little more thought when it comes to speaking about everyday carbon emissions. This is not to criticise, but it does help us understand that inbuilt emissions (such as the internet searches made to write this paper or find the references for this paragraph, to email it, to store it etc.) are not viewed in the same way as say, turning on a light or not unnecessarily printing leaflets.

Ultimately, the cultural sector has an opportunity to lead by example. By adopting clear criteria for the responsible use of internet data and social media, heritage organisations can demonstrate that digital engagement and ethical responsibility are not mutually exclusive. Instead, they become intertwined strengthening both brand progression and public trust in a way that is authentic, sustainable, and true to the values of heritage preservation itself.

Evaluation Criteria

Every organisation should feel free to tweak these, the key is to work out what your aim for any social media marketing strategy or presence is. Do you aim to grow your customer base? If so, what customers do you want? Loyalty is not going to be created by a viral video. This evaluation criteria is aimed to spar conversations within your organisation, and to help truly evaluate what it is you want from a digital platform.

How to responsibly use social media

1. Platform Moderation - does your chosen platform moderate and fact check effectively? Does your chosen platform tolerate hate speech or calls to violence? Does your chosen platform have a history of allowing abuse towards minority groups to go unchecked? Will your chosen platform interact with your brand identity – e.g. if focusing on helping disadvantaged groups access arts, will your content be shown alongside hate speech? If yes, how will your company lobby to change this?
2. Responsiveness to pressure – is your chosen platform able to listen to what users want and change policies accordingly to enhance user needs? Will they listen to governments and regulation whilst protecting users?
3. Privacy of content and user data – do you know that people using this app/social media platform can rely on the platform to protect their data? Do you know that the data you collect from it is being stored responsibly? If not, what does it take to move customers onto a platform where this data is protected, e.g. a company website?
4. Protection of diverse communities – inclusive marketing alone is not enough; are the platforms used genuinely committed to the protection of diverse communities? Can you rely on swift reactions to hate speech and threatening language?

³⁰ The Digital Humanities Climate Coalition Toolkit, accessed September 24, <https://sas-dhrh.github.io/dhcc-toolkit/>

5. Platform ownership, data sovereignty and governing laws – who owns the platform? Can you rely on them to abide by the law? Has the platform been found guilty of multiple data breaches?
6. Founding purpose – what is the purpose of your brand? Do you need to advertise and have digital presences on platforms that do not further this purpose?
7. Data residency – where is the data stored? Some data is stored in stations that use fossil fuels or require huge amounts of water.³¹ Be aware of this, especially when setting up websites.
8. Environmental responsibility – conscious growth, conscious data storage and targeted and deliberate campaigns are all ways we can encourage mindful social media use.

Evaluate each social media site against a set metric and set targets. Growth for the sake of growth plays into increasingly damaging narratives that businesses need to strive for continuous growth, when a smaller and dedicated community can be just as valuable.

Virality in an internet age is only valuable for the time that you are viral. Smaller consistent growth attracts customers that care, rather than those that consume content.

So how can organisations engage customers?

1. Strong website direction from all social media platforms. Prioritising a clear, readable and engaging website allows goals to be understood in more detail than a few lines of an Instagram post, as well as creating stronger offline communities.
2. Use social media smartly. Social media can be incredibly useful, especially when using specific and planned language to boost engagement. Using more customer orientated platforms (such as a personal website, blog, etc) to present oneself and build communities is far more valuable than having the same social media content everywhere.
3. Accept that some social media sites are unethical but also accept that interacting with them is sometimes necessary to reach the people you want to engage with. Be smart and intentional with social media use. Rather than seeing social media following and engagement as an end goal, why not utilise social media engagement as a vehicle to get customers to a website? Or to funnel into a newsletter?
4. In-person marketing in a digitally dominated world works. Well placed posters, promotion in physical newspapers, use of arts spaces etc all help build an offline brand presence.
5. Use cross promotion. By engaging with other arts and heritage spaces, we can capitalise on a shared brand power and create a thriving heritage scene.

³¹ Bird & Bird. 'Cooling the Cloud: A Focus on the Water Usage of Data Centres'. Accessed 23 September 2025. <https://www.twobirds.com/en/insights/2025/cooling-the-cloud-a-focus-on-the-water-usage-of-data-centres> ; Kanoppi. 'Green Hosting Explained: How Sustainable Web Hosting Reduces Your Carbon Footprint'. Accessed 23 September 2025. <https://kanoppi.co/green-hosting-explained-how-sustainable-web-hosting-reduces-your-carbon-footprint/> ; The Register. 'How Datacenters Use Water – and Why Kicking the Habit Is Nearly Impossible'. Accessed 23 September 2025. https://www.theregister.com/2025/01/04/how_datacenters_use_water/.

6. Where possible use ethical internet providers– green and local servers should be prioritised for website strategy to work. Data protection of customers and visitors should be paramount.

What now for your organisation?

There are many resources available for anyone looking to reflect on their organisation's relationship with social media and digital emissions. Further reading, conversations with friends and family, and considering what steps your organisation could take to be more proactive in its digital practices can all be valuable.

If your organisation already has CSR policies, data-protection standards, or compliance commitments related to any of these areas, it may be worth revisiting them with fresh eyes. Discussing how scope-three emissions are understood and accounted for could be a constructive next step. Viewing the world through a more data and digital emissions aware lens can make us safer, more responsible, and better equipped to continue the important work our sector provides.

The Future of Digital Ethics in the Heritage Sector

The digital world has long been mistaken for an immaterial, carbon-free space, but this essay has demonstrated that every click, campaign, and stored file carries an environmental and ethical cost. For the heritage and cultural sectors, where values of stewardship, and responsibility are central, acknowledging digital emissions and privacy concerns is not optional but necessary. By treating platforms and online engagement as active ethical choices rather than neutral tools, organisations can begin to align their digital practices with the values they claim to uphold.

This does not mean retreating from digital spaces altogether but rather approaching them with intentionality: auditing dark data, prioritising ethical platforms, embedding sustainability into digital workflows, and making conscious choices about where and how to engage audiences as well as where and how to run a website/digital platform.

Ethical responsibility in the digital age is not separate from cultural preservation; it is part of it. For institutions seeking to remain credible, the challenge ahead is to ensure that their digital presence sustains rather than undermines their community's trust.

Further reading

<https://sas-dhrh.github.io/dhcc-toolkit/> - Digital Decarbonisation research guide from the digital humanities research commission

Bibliography/Source List

Maguire, Frank. (Accessed 24 April 2025) 'Building a Sustainable Programmatic Ecosystem with Sharethrough's GreenPMPs™ — Sharethrough'. Available at: <https://www.sharethrough.com/blog/building-a-sustainable-programmatic-ecosystem-with-sharethroughs-green-pmps>

BBC News (December 2018) 'Facebook's Data Sharing Deals Exposed'. Available at: <https://www.bbc.co.uk/news/technology-46618582>

BBC News (January 2023) 'Twitter: Millions of users' email addresses "stolen" in data hack'. Available at: <https://www.bbc.co.uk/news/technology-64153381>

BBC News (23 January 2025) 'LinkedIn accused of using private messages to train AI'. Available at: <https://www.bbc.co.uk/news/articles/cdxevpzy3yko>

BBC News (15 August 2025) 'Data centres to be expanded across UK as concerns mount'. Available at: <https://www.bbc.co.uk/news/articles/clyr9nx0jrz>

Bird & Bird (Accessed 23 September 2025) 'Cooling the Cloud: A Focus on the Water Usage of Data Centres'. Available at: <https://www.twobirds.com/en/insights/2025/cooling-the-cloud-a-focus-on-the-water-usage-of-data-centres>

CyberPress (March 2025) 'Massive 400GB of X (Twitter) User Records Allegedly Leaked – 2.8 Billion Records Exposed Online'. Available at: <https://cyberpress.org/massive-twitter-data-breach/>

Department for Energy Security and Net Zero (December 2023) Scope Three Emissions in the UK Reporting Landscape. Available at: <https://assets.publishing.service.gov.uk/media/652ea475697260000dccb9db/scope-3-emissions-in-the-uk-reporting-landscape.pdf>

English Heritage (Accessed 23 September 2025) 'Sustainable Conservation Strategy'. Available at: <https://www.english-heritage.org.uk>

Emma Heley (5 March 2025) 'Digital Marketing's Carbon Footprint'. Available at: <https://theecologist.org/2025/mar/05/digital-marketings-carbon-footprint>

Firewall Times (Accessed 23 September 2025) 'Facebook Data Breach Timeline'. Available at: <https://firewalltimes.com/facebook-data-breach-timeline/>

Gartner (September 2025) 'Dark Data'. Available at: <https://www.gartner.com/en/information-technology/glossary/dark-data>

Google Ads (n.d.) 'Impressions'. Google Ads Help.

The Guardian (31 October 2024) 'Concerned about your data use? Here is the carbon footprint of an average day of emails, WhatsApp and more'. Available

at: <https://www.theguardian.com/environment/2024/oct/31/concerned-about-your-data-use-here-is-the-carbon-footprint-of-an-average-day-of-emails-whatsapps-and-more>

The Guardian (26 July 2024) 'Elon Musk's X under pressure from regulators over data harvesting for Grok AI'. Available

at: <https://www.theguardian.com/technology/article/2024/jul/26/elon-musks-x-under-pressure-from-regulators-over-data-harvesting-for-grok-ai>

The Guardian (13 September 2025) 'Meta to push on with plans to use UK Facebook and Instagram posts to train AI'. Available

at: <https://www.theguardian.com/business/2024/sep/13/meta-to-push-on-with-plan-to-use-uk-facebook-and-instagram-posts-to-train-ai>

Istrate, R., Tulus, V., Grass, R.N., Vanbever, L., Stark, W.J. and Guillén-Gosálbez, G. (2024) 'The Environmental Sustainability of Digital Content Consumption', Nature Communications, 15(1), 3724. <https://doi.org/10.1038/s41467-024-47621-w>

Kanoppi (Accessed 23 September 2025) 'Green Hosting Explained: How Sustainable Web Hosting Reduces Your Carbon Footprint'. Available at: <https://kanoppi.co/green-hosting-explained-how-sustainable-web-hosting-reduces-your-carbon-footprint/>

Knight First Amendment Institute (Accessed 8 December 2025) 'Algorithmic Amplification for Collective Intelligence'. Available

at: <https://knightcolumbia.org/content/algorithmic-amplification-for-collective-intelligence>

MediaMath (Accessed 24 April 2025) 'Digital Advertising's Contribution to Scope 3 Emissions'. Available at: <https://www.mediamath.com/blog/digital-advertisings-contribution-to-scope-3-emissions/>

MIT News (17 January 2025) 'Explained: Generative AI's Environmental Impact'. Available at: <https://news.mit.edu/2025/explained-generative-ai-environmental-impact-0117>

National Grid (n.d.) 'What are Scope 1, 2 and 3 carbon emissions?' Available

at: <https://www.nationalgrid.com/stories/energy-explained/what-are-scope-1-2-3-carbon-emissions>

National Trust (Accessed 23 September 2025) 'Our Climate and Environment Policy'. Available at: <https://www.nationaltrust.org.uk>

National Trust (Accessed 23 September 2025) 'Annex C – Values & Behaviours'. Available at: <https://www.nationaltrustjobs.org.uk>

Security Boulevard (Accessed 23 September 2025) Available

at: <https://www.securityboulevard.com>

Schneier, B. (2015) David and Goliath: Underdogs, Misfits, and the Art of Battling Giants. (Quote reference).

StopHate UK (n.d.) 'What is Online Hate Crime?'. Available at: <https://www.stophateuk.org/about-hate-crime/what-is-online-hate-crime/online-hate-and-free-speech/>

TechRadar (Accessed 23 September 2025) 'Hacker Claims to Have Grabbed 1.2 Billion Facebook User Records – Here's What We Know'. Available at: <https://www.techradar.com/pro/security/hacker-claims-to-have-grabbed-1-2-billion-facebook-user-records-heres-what-we-know>

The Digital Humanities Climate Coalition (Accessed 24 September 2025) Toolkit. Available at: <https://sas-dhrh.github.io/dhcc-toolkit/>

The MIT Press Reader (14 February 2022) 'The Staggering Ecological Impacts of Computation and the Cloud'. Available at: <https://thereader.mitpress.mit.edu/the-staggering-ecological-impacts-of-computation-and-the-cloud/>

The Register (Accessed 23 September 2025) 'How Datacenters Use Water – and Why Kicking the Habit Is Nearly Impossible'. Available at: https://www.theregister.com/2025/01/04/how_datacenters_use_water/

UK Parliament Committees (Accessed 23 September 2025) 'Social Media Companies Shamefully Far from Tackling Illegal and Dangerous Content'. Available at: <https://committees.parliament.uk>

University College London (Accessed 23 September 2025) 'Social Media Algorithms Amplify Misogynistic Content to Teens'. Available at: <https://www.ucl.ac.uk/news/2024/feb/social-media-algorithms-amplify-misogynistic-content-teens>

World Economic Forum (5 October 2022) 'What Is "Dark Data" and How Is It Adding to All of Our Carbon Footprints?'. Available at: <https://www.weforum.org/stories/2022/10/dark-data-is-killing-the-planet-we-need-digital-decarbonisation/>