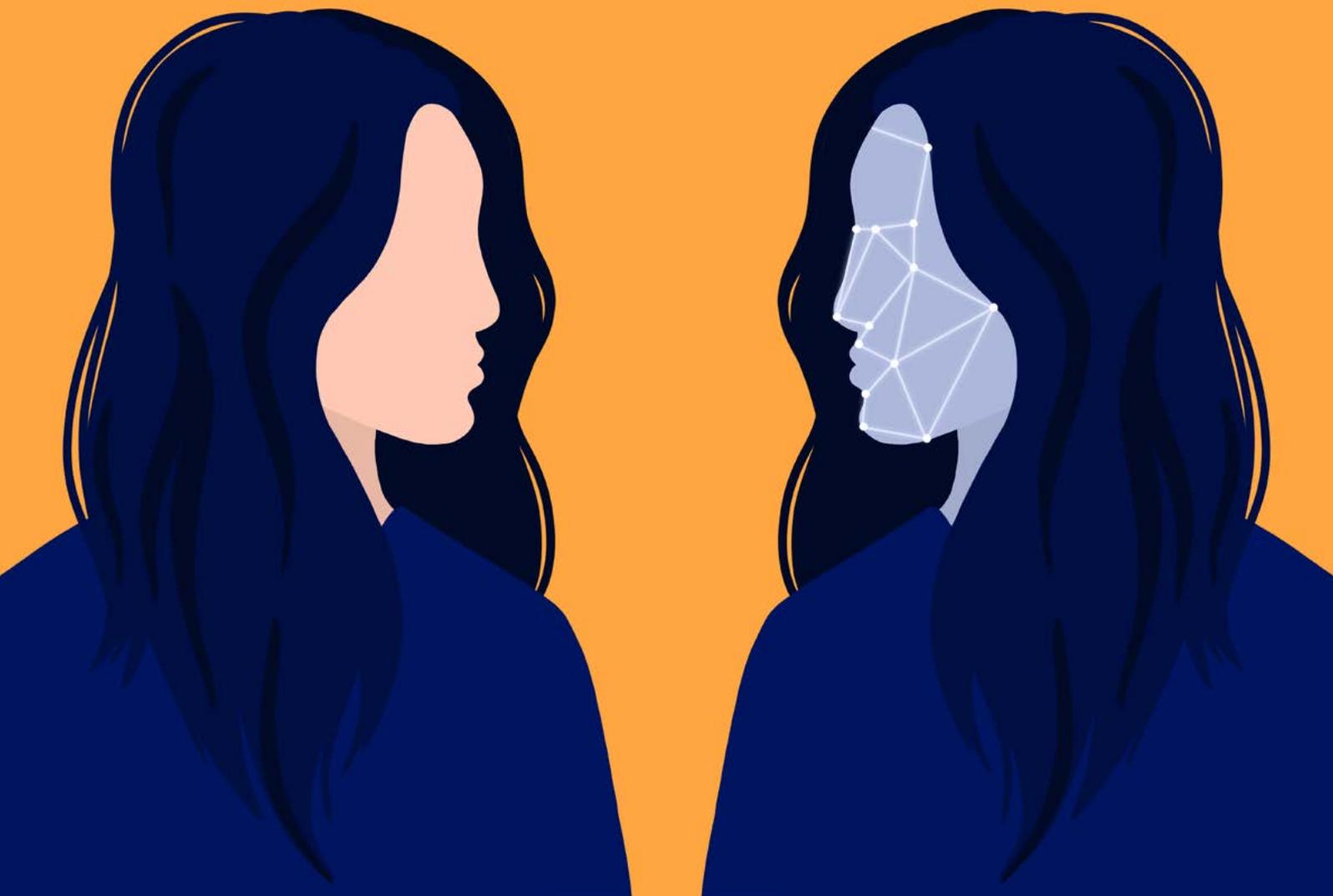


AI and Advertising

A consumer perspective

EXECUTIVE SUMMARY

HARRIET KINGABY



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Illustration and design is by [Ellie Shipman](#).

See the [bibliography of links](#),
and information about upcoming webinars and
workshops based on the contents of this report at
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Scope

This report, condensed here as an executive summary, is the outcome of a 10-month Mozilla fellowship programme, including 2 workshops in London and Delhi, desk research and expert interviews with advertising and AI experts, consumer protection groups, advertising professionals and digital rights groups.

REPORT
SUPPORTED BY:



Contents

Acknowledgements	2
Scope.....	3
The rise in digital advertising	6
Findings: Consumer Harms.....	10
Findings: Citizen Harms	12
Redesigning the system	14
Forum Priorities	16
Where this would take us.....	18
Paths forward.....	18
End notes	19



The rise in digital advertising

Digital advertising is a booming industry: worth over \$300 billion in 2019 alone. It's also the primary business model sustaining the internet, humanity's most important communications tool. But as AI-powered advertising grows more pervasive and sophisticated, it is doing so without guardrails. There are few rules to ensure it doesn't surveil, misinform, or exclude consumers. If the industry doesn't engage others to build a shared vision for an internet funded by advertising, and proactively deal with issues caused by emergent technologies, these problems will only grow more pronounced.

Advertising underpins the current business model of the internet, bringing access to the web for millions, funding quality journalism, diverse voices and accessible content, as well as the platforms that connect us. But it is an imperfect funder - excluding some communities, creating business models for hate speech, misinformation and consumer scams, as well as embodying surveillance capitalism. The sheer opacity of the ecosystem and its obsession with performance metrics is allowing it to be exploited by fraudsters, hate preachers and opportunists peddling disinformation.

"Ad-supported business models bring goods and services to customers who would otherwise be priced out. Thanks to revenue from advertising, consumers often pay lower prices, and sometimes even enjoy goods or services free of charge."

Makan Delrahim, US Assistant Attorney General, 2019

"Consumers are becoming increasingly frustrated with ads that disrupt their experience, interrupt content, slow browsing or eat up their data allowances. Advertisers and platforms should design commercial communication opportunities so that they are less intrusive and offer a better user experience."

WFA Global Media Charter, 2018

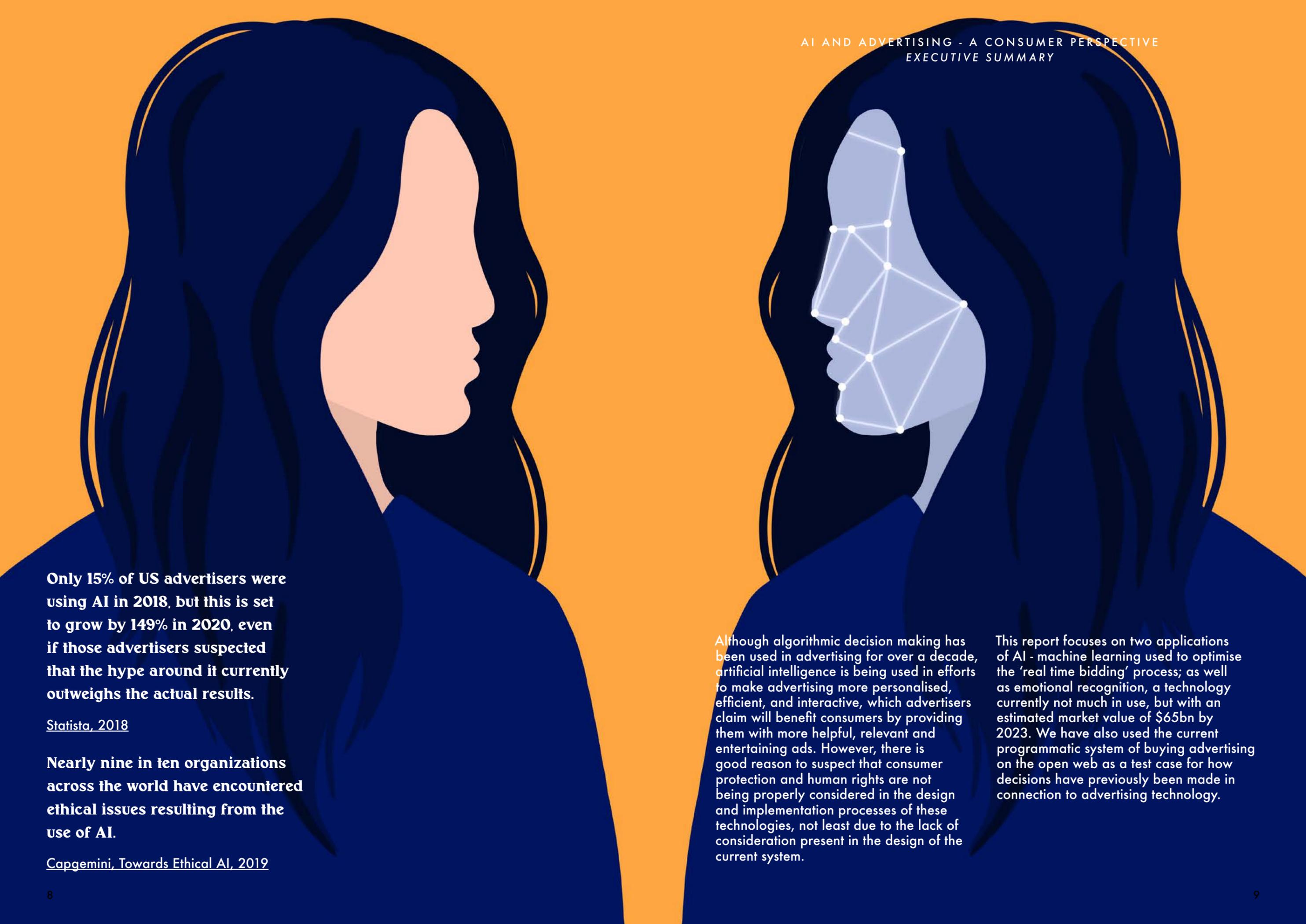
The result is declining trust and online spaces which increasingly work better for advertisers than citizens, and are shaped by commercial, rather than civic success metrics. Overuse of AI technologies risks further entrenching bias and privacy violations, while impacting the environment with their rapacious need for energy and data. Many people face these challenges without adequate legal frameworks to protect their human rights, the environment or personal data. And 43% of the world's population does not even have online access; onboarding them into this online world as 'newbies' in its current state could create challenges and opportunities not yet considered by governments, brands or civil society.

The funders of a free and open web wield great power - with which comes great responsibility. Advertising money is a key resource underpinning the development of the internet, and therefore should be accountable to civil society, senior leaders and investors.

Many of the issues outlined in this report are being tackled in siloes, by skilled organisations who share common concerns, but lack a common language and opportunities to engage with each other. As we enter a world of AI, smart cities and IOT, the inherently commercial nature of advertising is shaping the web in its image, creating worrying precedents - for surveillance, the erosion of public spaces and a lack of accountability or transparency when things go wrong.

Only by collaboration can these issues be resolved in an equitable manner for consumers, society and the environment. As we stand on the brink of an AI revolution, where smart cities, AR, facial recognition, voice controlled devices and machine learning will change the shape of the online world, and the digital advertising that funds it, we have to ask ourselves - what should the future of the internet look like? We call on advertisers, consumer experts and digital rights groups to engage with each other, to recognise and define the role advertising can play in funding a healthy internet, and to work together to design an online world which benefits all.



The image features two stylized profiles of a woman's head and shoulders against a solid orange background. The profiles are rendered in a dark blue color. The profile on the left is a simple silhouette. The profile on the right has a white wireframe overlay on its face, consisting of white dots connected by thin white lines, representing a digital or AI-related concept. The text is placed in white boxes on the dark blue background of the profiles.

Only 15% of US advertisers were using AI in 2018, but this is set to grow by 149% in 2020, even if those advertisers suspected that the hype around it currently outweighs the actual results.

Statista, 2018

Nearly nine in ten organizations across the world have encountered ethical issues resulting from the use of AI.

Capgemini, Towards Ethical AI, 2019

Although algorithmic decision making has been used in advertising for over a decade, artificial intelligence is being used in efforts to make advertising more personalised, efficient, and interactive, which advertisers claim will benefit consumers by providing them with more helpful, relevant and entertaining ads. However, there is good reason to suspect that consumer protection and human rights are not being properly considered in the design and implementation processes of these technologies, not least due to the lack of consideration present in the design of the current system.

This report focuses on two applications of AI - machine learning used to optimise the 'real time bidding' process; as well as emotional recognition, a technology currently not much in use, but with an estimated market value of \$65bn by 2023. We have also used the current programmatic system of buying advertising on the open web as a test case for how decisions have previously been made in connection to advertising technology.

Findings: Consumer Harms

Findings include both harms to people as consumers in the marketplace as well as wider harms to consumers as public citizens or private individuals.

Excessive data collection

Data collection is excessive and does not respect a consumer's right to privacy.

Although consumers are prepared to hand over some data in order to access ad funded content, levels of ad blocking paint a more complex picture and desire for privacy. It is impossible to opt out of surveillance online, even in countries with strong data protection legislation and even the imminent phasing out of the 'third party cookie' has not brought about a sufficient mindset shift. Our research also found evidence of data ostensibly collected for advertising being passed to state actors in the USA and Chile. As we enter a world of smart cities and IOT, with AI demanding ever more data, these trends, from surveillance to bombardment, risk increasing rather than abating.

Discrimination and restriction of choice

Personalisation is restricting choice and leading to discrimination, while advertising incentivises content production for the most profitable communities.

Advertising's quest to tailor and personalise content is supposed to make advertising that is more relevant to consumers. However, algorithmic personalisation inherently restricts the products, services and content we see, as well as their price - particularly problematic when we consider essential services such as education, jobs and housing. Advertising block lists are also demonetising content from diverse communities and hard news reporting, restricting consumer choice.

Harm to vulnerable people

The advertising ecosystem is contributing to the manipulation of and harm to vulnerable people, including encouraging consumption in harmful ways.

Almost half the world's population are yet to come online, and when they do, most will immediately be exposed to sophisticated advertising. In many places, advertising regulators and platforms themselves place restrictions on what advertisers can advertise, where, and to who, in order to protect vulnerable groups. However, evidence suggests that consistency of enforcement is key to these measures working, and there is strong evidence to suggest that enforcement and detection is inconsistent.

Online scams

Failure to tackle fake sites, misinformation and ad fraud has created an environment where online scams thrive, resulting in financial losses and trauma.

"3 million consumers shared warnings and information about social media scams in the US over the last two years, 188,900 in the UK, 144,500 in Nigeria and 51,400 in Spain."

Consumers International, Social Media Scams, 2019

Failure to tackle fake sites, misinformation and ad fraud has created an environment where online scams thrive, resulting in financial losses and trauma.

The open web and platforms have huge disinformation and accountability problems which also allow scam adverts to thrive. Scams have the potential to cause significant harm to consumers in terms of financial loss, emotional well-being and degradation of trust. Ad fraud is a key funder of organised crime, causing further societal harms.



Consumer agency

Consumers have little agency within the current and future systems. Opportunity for redress and explanation are unfit for purpose.

Consumers have little control over how and what data is shared, or by whom, consent is often not meaningfully sought and existing data protection laws are not being consistently enforced. Although collective redress can be sought under GDPR, the complexity of the system means the consumer may not even understand they have been discriminated against, or have had their rights impinged. New formats, technologies and opportunities to engage are increasing the likelihood of bombardment, and increasing the prevalence of unreliable or biased AI raises cause for concern.

Findings: Citizen Harms

Environmental impact

Advertising is encouraging unsustainable consumption, funding climate misinformation and contributing to the energy consumption of the internet.

“Training one AI model produces 300,000 kilograms of carbon dioxide emissions, roughly the equivalent of 125 round trip flights from New York to Beijing.”

The University of Massachusetts, 2019

Advertising’s impacts on the environment are varied - climate disinformation counts advertising as a key funder, both on the open web and on platforms. Advertising can also be a key factor in promoting unsustainable consumption, and as a core part of the digital ecosystem is contributing to the ballooning energy consumption of the tech sector. This becomes increasingly concerning when including AI adoption, which requires huge amounts of energy to train and maintain.

Hate speech

The advertising ecosystem is inadvertently funding hate speech which causes harm to marginalised communities.

“At least \$235 million in revenue is generated annually from ads running on extremist and disinformation websites, fuelled in part by well-known companies across all sectors.”

The Global Disinformation Index, 2019

Advertising is a key funder of online hate speech and online hate preachers, often through exploitation of the reactive nature of platform and ad network policing, as well as fraud. Platform recommendation algorithms also recommend salacious content to keep people on them, and to serve them more ads, which has been found to radicalise in some cases. Concerningly, several new facial and emotional recognition start-ups claim to be able to tell personality or sexuality from facial features - disproved science, often steeped in prejudice, still sold as ‘revolutionary’ technology.



Redesigning the system

Engage

The report sets out recommendations for redesigning the system, so that it respects consumer protection, human rights and environmental sustainability. At the heart is a call for dialogue and forums to develop between digital rights groups, consumer protection experts, funders, publishers and advertisers, many of whom will be grappling with similar issues from different perspectives. Legislators and regulators should set and enforce legal parameters. Planning for the future must become proactive, rather than reactive.

The online advertising system as we know it today is based on flawed assumptions - that tailored ads are inherently more effective, that people are perpetual consumers online, and that advertisers are not accountable for their supply chain. Given that advertising is the current business model underpinning the web, these assumptions fail to support or sustain healthy digital spaces that are fit for purpose for the majority of users. As we enter a world of AI, smart cities and IOT, this is creating worrying precedents - for surveillance, the erosion of public spaces and a lack of accountability or transparency when things go wrong.

Mediated forums must represent both civil society and advertisers to challenge the status quo and designed to:

- **Create accountability and roadmaps**
Create accountability, shared understanding and solutions to the issues of internet health - including new charters of online rights for citizens wishing to escape surveillance capitalism.
- **Challenge harms**
Include active participation from civil society groups directly affected by discrimination, or other market failures, to ensure that human rights have equal weight to corporate interest in discussions and solution building.
- **Form new industry initiatives**
Form new industry initiatives and guidelines that create leadership beyond regulation, and a proactive approach to assessing AI implementation against human rights. Suggest new regulatory interventions, or call for enforcement where necessary.
- **Identify 'unknown unknowns'**
Identify and swiftly deal with the 'unknown unknowns' which will undoubtedly arise as a result of the implementation of new technology.

CASE STUDY: THE CONSCIOUS ADVERTISING NETWORK, EUROPE

The Conscious Advertising Network is a voluntary coalition of over 90 organisations, set up to ensure the ethics catches up with the technology of modern advertising. They have developed 6 open source manifestos on - consent, fake news, hate speech, children's welfare, ad fraud and diversity and inclusion. The principles of these manifestos are embedded in the procurement process of advertiser members, and the manifestos themselves are designed as actions that advertisers and their agencies can take to avoid malpractice. The Network is supported by ISBA, the UK advertising trade body, and contains members from civil society, who input into the design of the manifestos, and take part in forums with advertising stakeholders on topics related to the manifestos. They also engage with the UN on topics such as hate speech and misinformation.

Forum Priorities



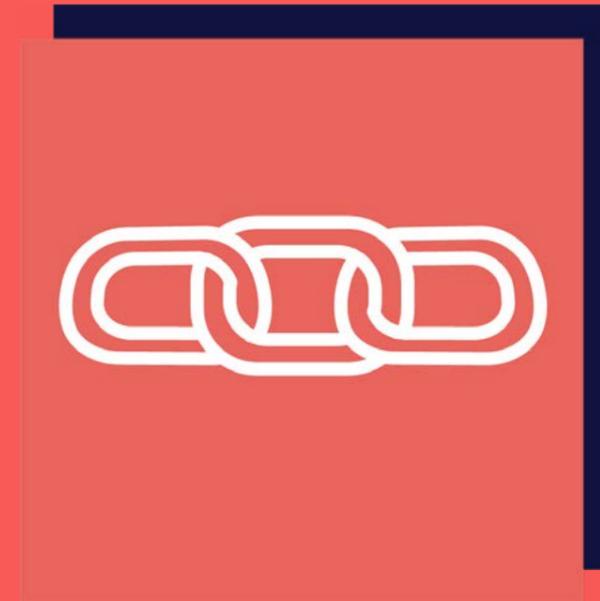
1. Build consumer protection and human rights back in

Simply layering AI into the current system and data collection practices will exacerbate existing issues. Consumer protection and human rights must be core design principles when creating new formats, technologies and advertising strategies. This new innovation requires collaboration across sectors, and genuine consideration of 'privacy by design'; environmental degradation and 'human rights impact assessments' for new AI technologies; as well as funding to stimulate creation of new technologies which are effective and considerate.



2. Proactive AI stewardship

Increased data collection and use of AI is not the only solution to reaching and building relationships with consumers, and the relationship between advertiser, publisher and consumer must be reimagined to correct the power imbalance. Greater use of contextual advertising, or that which includes genuine privacy by design should be promoted. Consumer protection and digital rights groups should be used to both predict and solve issues surrounding the implementation of new technologies. AI, particularly facial and emotional recognition technologies, should be used sparingly, if at all.



3. Demand supply chain accountability

Creating a more transparent advertising ecosystem will bring about benefits for all. Since the 1990s, corporations have worked on their physical supply chains, mapping and improving them in line with international coalitions and standards. An organisation's digital advertising supply chain should be subject to the same level of accountability, including suppliers and partners, and its governance integrated with their sustainability and consumer protection targets and obligations.



4. Reimagine advertising spend as a resource funding a healthy internet

A healthy internet will ensure advertising is more effective, and plays a role in maintaining healthy societies. All sides should recognise and embrace the role played by advertising as a funder of the open web, and its responsibility to fund diverse voices, quality content, and accountable platforms, while defunding hate, misinformation and fraudulent activity. Creating a collective vision of advertising's role in funding a free and open internet, which respects consumers, society and the environment.

Where this would take us

Paths forward

- Improve internet health by taking a proactive stance on its maintenance.
- Take a proactive and inclusive approach to embedding AI technologies that respects human rights, consumer protection, and outpaces regulation.
- Restore trust in advertising by improving the user experience online, and create a resilient relationship between people, their data, advertising and content.
- Improve the quality of content available online, ensure journalistic standards, and create an online environment which benefits global consumers and respects human rights.
- Protect our environment, and ensure that online advertising grows in a way that does not exacerbate climate change.
- Consumer and digital rights groups, advertising bodies and publishers to engage and set up forums that set the agenda.
- Consumer and digital rights groups to find individual advertising 'sponsors' to support and champion human rights and consumer protection issues.
- Continued legal challenges to areas and technologies that fall foul of existing legislation.
- Funders to create pots for adtech and advertisers willing to embrace human rights, consumer protection, and privacy by design.
- Legislators to ban the use of facial recognition and emotional recognition in advertising, and regulators to enforce or enact data protection legislation.
- Individual advertisers to create advertising strategies which respect the rules of the forums.

End notes

The use of AI in advertising cannot be allowed to reproduce the mistakes of the past. If consumer and digital rights groups engage with industry to demand more accountability within the system, and legislators create legislation which resets defaults around privacy, environmental harm and human rights, they can shape the internet in ways that are better for the future of consumer experience, society and the environment.

Only by considering digital advertising and AI in the context of the online environment and its impacts on people, society and the environment, can progress be made towards trustworthy AI.

READ THE FULL REPORT AT
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