Mozilla 2019 Internet Health Report

A Summary for Libraries

The Mozilla Internet Health Report is an annual publication which brings together information and reflections about key issues facing the internet today. With a commitment to free expression, access to information and privacy online, Mozilla is closely aligned with the views of libraries. The report therefore offers a great basis for thinking within the library field about issues around the way we access, share and create information today, through a series of 'spotlights'.

This briefing summarises these spotlights and other focus areas on security and privacy, openness, digital literacy, inclusion and competition, and highlights the questions that library and information workers can be asking themselves as they think about their role.

Artificial Intelligence

Anybody using the internet today likely interacts with one form of AI or another. The growing use of AI both online and offline means that the need to address the known risks is growing – for example gender and racial biases caused by flawed training data, as well as algorithm-fuelled crises of misinformation, to name a few.

Artificial Intelligence will have more and more impact on library patrons' lives.

Can libraries contribute to initiatives aiming to improve public understanding of AI and help their communities make informed choices?

In addition, societies at large need to decide how AI should be developed and used for good. This requires people's understanding of AI to be scaled up. Initiatives to improve common understanding of this subject are beginning to appear, and more contributions are welcome.

Do services your library uses feature digital advertisements? Given the flaws of the digital advertisement economy today, there are many ethical ramifications to consider.

Digital Advertisements

Almost everything users do online can be tracked, often for the purpose of targeted advertising. The potential of misuse is vast, and transparency is lacking.

Several governments, companies and civil society organisations are beginning to address the issue. In the meantime, private users should learn what data is collected, and can make use of ad-blocking or tracking protection technologies. However, the extent of the issue calls into question the entire current model of digital advertising.

The Power of Cities

Local governments have major possibilities to shape technological development through their public procurement choices can be immense. New technological solutions featuring microphones, cameras or sensors can improve the efficiency of public service delivery. However, they also raise many ethical concerns over transparency and civil rights. Through their choices, public authorities can set a standard.

Public procurement can be a powerful way to shape the role of technology in public spaces.

Public libraries may have the chance to make critical choices and opt for technology which promotes inclusivity, civil rights, fairness and diversity. Are they doing this?

Design choices can minimize the risks of abuse and promote fairness, diversity and inclusion. Local civic engagement can influence the choices about the use of technology in public spheres.

Digital Privacy and Security

Public awareness of digital privacy and security issues has shifted fundamentally. Well-known breaches like Cambridge Analytica prompt a discussion about the dominant digital business model, built on collecting and selling data. The benefits of the data-rich digital age exist alongside the risks. To mitigate these, informed user choices are important, but action from governments and private companies is also needed.

Online privacy and security are the focus of many ongoing debates. These issues call for critical reflection about the data libraries hold about their patrons.

Anonymity is another important consideration - how can and should libraries protect the privacy and anonymity of their patrons' online behaviour – for instance, by routinely erasing their browsing history?

1) The scope of **ransomware** attacks worldwide is substantial. To help affected users, an initiative to openly share decryption tools has been launched. Meanwhile, the best way to minimize the risk of an attack in the first place is simply to back up all files on a regular basis and to keep software updated.

2) **Online anonymity** often offers protection to crime victims – from banking security to domestic abuse and violence. While some argue that eradicating online anonymity would prevent crime, the constant surveillance it would entail has a substantial negative effect on civil liberties.

3) Handing over the rights to personal genetic data for commercial **DNA testing** means having no control over how it will subsequently be used. The substantial privacy and ethical concerns this practice raises shows the paramount importance of data protection regulations and awareness-raising.

Safeguarding Openness

Openness is a defining property of the internet. However, there are many questions on how it should be safeguarded and balanced with inclusivity principles in the face of new regulatory and technological developments.

1) **Data.** Trackers built into mobile apps or web pages allow companies to develop nuanced digital profiles of internet users. They have little control over what these contain and how this data is used. To help internet users understand what data is being collected, a three-tier model for teaching about data issues is outlined.

The first level focuses on making data users aware of the issues around sharing and to ensure that they can exercise control, such as through the way 'like' things or upload photos. The second tier is the issues around behavioural data – for example, time stamps or ignored content. Finally, the third tier is the machine-based analysis of all the existing data, able to profile such features as low self-esteem or political views. Such profiles are nearly impossible for users to control, and they often cannot access this layer of generated data.

2) **Introducing taxes on social media use** in several countries has resulted in more barriers to online access, including limits on freedom of speech and access to information. Taxes on the use of social media has particularly affected users with limited digital literacy who do not know how to use other internet platforms or functions. Targeting online content creators can be used to limit the freedom of speech. The negative impacts of such taxes demonstrate the value of internet access for many aspects of everyday life.

Taxes on specific types of internet uses can also become a barrier to libraries offering public internet access. Are libraries being active enough in advocating against such charges?

Digital Inclusion

Digital inclusion requires safe and meaningful access. Despite some positive developments, much progress remains to be made to address bias in tech products, diversity and working conditions in big tech companies, threats to marginalized groups online, and affordability of access.

1) Deep global **inequalities in internet access remain**, despite more half of the world's population using the internet. Internet access remains a challenge in many developing regions, and the gender divide is pronounced. Less-connected regions also face challenges with prices, speed, and dependability of connectivity. To overcome those, sustained efforts from the government, private sector and civil society are necessary.

2) **Codes of conduct** are being introduced to online communities of open source software developers. If properly enforced, these can be a valuable safeguard and create conditions for more inclusivity and diversity in those communities.

3) **The working conditions in technology manufacturing** sectors of many countries can breach safety rights and core standards. More transparency, accountability and workers' right protections are necessary to ensure a humane and sustainable supply chain of electronics.

The digital exclusion statistics highlight how crucial it is for libraries to offer internet access in areas with little penetration or affordability.

It is important to extend efforts to offer connectivity to the most vulnerable and marginalised members of their communities. How can this be done?

Web Literacy

The question of web literacy becomes critical as more people connect to the internet. This covers a wide range of issues, from basic skills to addressing the safety and privacy impacts of online behaviour. Educators and activists should be supported in their work to help communities understand the online world.

1) **Sex education in the digital age** should adapt to address the potential risks arising from the wide availability of adult content online. There are ongoing regulatory effects seeking to control such content. However, some regulations spark debate on privacy or possible impact on LGBTQ+ and sex workers' online discussion spaces, potentially depriving them of support networks and sources of important information.

2) **The internet affects democratic processes in the world**, both for the better and worse. While it can offer unprecedented access to information for voters, there is a growing number of examples of election interference that it enables. Emerging ideas to counter these risks include fact-checking initiatives, company pledges and codes of practice.

3) The unprecedented quantity of **children's online data** raises many concerns about privacy and identity. Regulations can address these issues; while help from schools and guidelines by private companies can help caregivers make informed choices.

What kind of web literacy do people need today? The report mentions the skills necessary to know what data is collected about them, understanding and facing deal with bias and harassment online, awareness of the harms of oversharing information about children, and much more.

What are libraries doing to help their patrons develop those skills, and can they be more proactive?

A Decentralised Internet?

The internet is dominated by a few large players, and decentralisation can create a healthier balance of power and help address some of the existing issues. Careful solutions can be developed both from top-down (e.g. competition standards) or bottom-up (e.g. upscaling local connectivity).

1) Understanding **the primary source of revenue of the biggest internet companies** can be important for those interacting with them on a daily basis. The Report suggests a categorisation of the companies based on their main sources of revenue – advertising, hardware and software sales, retail sales or services.

2) Alternative forms of entrepreneurship, including cooperatives and **shared ownership of internet platforms**, can introduce variety to the digital economy. They would offer more accountability and user control.

3) **When internet connectivity was down in the aftermath of Hurricane Maria**, it made it much more difficult to manage the humanitarian crisis. Strategic solutions to improve resilience of connectivity are needed, and opening data to the public is an important step in the recovery. Meanwhile, one of the ways to decentralise internet infrastructure and make it more resilient is to use schools as "anchor institutions" to share connectivity with nearby communities.

Alongside other anchor institutions, libraries can support the development of local networks, rather than just relying on major telecommunications companies.

They can find different ways to share their Internet connection with communities near them. This would help build a more resilient connectivity fit for local circumstances. How can libraries do more in this regard?