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7 The Policy Context of Artificial Intelligence

Abstract: Policies, rules and laws have a direct impact on technologies including artificial intelligence (AI), and the companies, organisations, and researchers that develop these technologies. Despite rapid developments in AI policy, further effort is required by governments and industry to ensure that policy at all levels from laws to industry self-regulation addresses human rights, risks, and ethical concerns. As organisations committed to freedom of access to information and literacies, libraries are both important stakeholders in AI policy development, and users of AI tools and methods. The library sector's contribution to AI policies in Canada, Europe, and Australia demonstrate the sector's impact to date and potential for further influence. The chapter concludes by observing that while the heightened media attention paid to AI could be short-lived, opportunities to safeguard the free flow of information and rights must be sought to ensure that AI lives up to aspirations of being trustworthy, responsible, and people-centred.

Keywords: Library policies; Artificial intelligence – library applications; Artificial intelligence – political aspects

The Context

The policy context of AI is complex and rapidly changing. Policy is developed by government at the intergovernmental, international, national, and regional levels. It can also be designed to regulate specific sectors, often in collaboration with the industries and companies that are the subject of policy. In addition to formal policies, regulations, and laws, there are voluntary, industry-led agreements, standards, and other instruments. These agreements support self-regulation by industry. At another level, institutions such as universities and schools, library associations, and individual libraries may also set policies that define their obligations under relevant legislation and policies and outline how they will provide services. This chapter focuses on how government, industry, and institutional policies are shaping the changing landscape of AI regulation. Government, industry, and institutional policies matter for libraries because they impact the free flow of information, influence funding, shape how libraries provide their services, inform legal and reporting obligations, and provide for remedies if something goes wrong.

Government Policy Frameworks

Government AI policies often include a mix of research agenda-setting objectives, investment in research and development, standards, and broader geopolitical issues (Smuha 2021). In turn, AI itself has numerous applications and sub-fields that have influenced diverse policy developments. The use of natural language processing (NLP), machine learning (ML) and algorithms in information processing, recommender systems, and generative AI are prominent topics in AI policy. At the same time, harms and errors that result from mishandling data, data breaches, and bias have been documented by researchers and reporters in relation to the use of AI in applications including facial recognition, automated job candidate screening, and welfare payments (Bender et al. 2021; Henriques-Gomes 2021; Krafft et al. 2020). These errors have led to greater scrutiny and policy focus on the harms that these new technologies can cause. Policymakers have recognised both the opportunities and risks associated with AI in policies with concepts centred on trustworthy AI in Europe (European Commission 2024a) and responsible use of AI in Canada (Canada Treasury Board of Canada Secretariat 2019; Smuha 2021). At the intergovernmental level, UNESCO has adopted in 2021 recommendations on AI with a focus on people-centred AI (UNESCO 2022). UNESCO's recommendations aim to set a global standard to ensure AI systems work for the benefit of humanity and the environment and avoid harms through principles in line with international laws and agreements, respect for human rights, and practical action. Commitments to privacy, sustainability, awareness and AI literacy, transparency, and explainability are among the key principles. Further work has been undertaken by UNESCO at the second Global Forum on the Ethics of AI in February 2024.

At the same time, as governments consider responsible use of AI and its impact on people, awareness of AI is now rising across other portfolios which is likely to lead to further waves of policy development with implications for information management, data sharing, and privacy. At the intergovernmental level, the United Nations (UN) has raised numerous concerns about AI and risks to human rights (UN 2021). The European Space Agency (ESA) has been exploring the implications of AI in space, including applications spanning surveillance to satellite operations in space (ESA 2023). In the United States, the intelligence community has indicated that the rapid development of AI could have consequences across all aspects of research with impacts on security and stability (USODNI 2023). These examples highlight that there is no policy area that AI will not impact. While some of the policy areas are much further away from the interests of libraries than others, some of the policies being developed for the future may potentially have unanticipated impacts on the free flow of information and rights of individuals and will require consistent monitoring and potential action.

The Policy Challenges

With so many policy areas and stakeholders involved, a key challenge is to bridge the gap between researchers, industry, and policy to ensure policy options are effective. Furthermore, despite the rapid growth in AI policy across a range of government portfolios, there remain many gaps. Some of the gaps arise due to the multiple definitions of AI that have arisen over time, that take different perspectives on how AI systems think like humans, act like humans, think rationally, and act rationally (Russell and Norvig 2021). In the policy space, it is perceived that there is a gap between the way researchers conceptualise and define AI, and the way policymakers define AI. AI policies to date reflect a tendency of policymakers to focus on how AI systems compare to human thought or behaviour, while researchers tend to put systems and technical elements at the centre (Krafft et al. 2020). Some policy gaps provide the opportunity for further engagement by libraries, civil society, and industry alike to shape future policy (Bradley 2022). Yet, how and when these opportunities are likely to arise can be challenging to determine. Policy studies identify numerous factors that can influence when policy is likely to emerge. The factors include competition between topics for space on the political agenda, the role of interest groups in influencing policymakers, and a tendency towards incrementalism in policymaking that can be punctuated by crises (Baumgartner and Jones 2012; John 2012; Sabatier 1988). The specific political context in each country and opportunities to participate are other critical factors (John 2012). Policymakers are further challenged by the complexity of determining when to develop policies and regulations. Intervene too early and innovation may be stifled; take action too late and governments must play catch up (Guston 2014). Analysis of major AI policies to date concludes that there is no single approach that will work in all countries. The context is key (O'Shaughnessy and Sheehan 2023).

A vital area that policymakers must now play catch up in is to ensure that AI policies more fully consider human rights impacts and the interests and rights of consumers. The intersection between AI, privacy, and other human rights is still emerging (Rodrigues 2020). Since 2022 and the launch of a wave of public-facing generative AI tools for text, images, and audio, there has been a sharp growth in awareness about the impact of AI on consent, data protection, and copyright. Large language models (LLMs) rely on extremely large corpora of text and images for training (Bender et al. 2021). There is little transparency about exactly what content such models are able to access leading to speculation that any open content on the web may be ingested without the knowledge or consent of the creators (Mims 2023). In response, some media organisations have called for a licensing scheme to compensate organisations for traffic and revenue lost to chatbots, with a passing resemblance to Australia's News Media Bargaining Code that compensates large

media organisations for revenue lost to social media and search platforms (Bossio et al. 2022; Di Stefano 2023). These responses are important to monitor because the interests of large rightsholders and the rights of individuals in consent and data sharing must be balanced. Despite growing awareness of the issues, the opportunity for full engagement with the human rights impacts of AI has not yet come to pass.

Several countries and regions have begun to pursue algorithmic transparency as one way to begin to address questions about fairness, consent, and data rights. An Australian report on human rights and technology recommended the development of accountability mechanisms for government and corporations, and compliance with anti-discrimination laws to promote algorithmic fairness (Australian Human Rights Commission 2021). In Europe, the *Digital Services Act* requires social media and e-commerce platforms to be transparent about their recommender systems and content moderation decisions (European Commission 2022). The introduction of the Digital Services Act aims to update existing regulations and harmonise legislation across the European Union's member countries that deal with illegal content and advertising online. "The Digital Services Act and Digital Markets Act aim to create a safer digital space where the fundamental rights of users are protected and to establish a level playing field for businesses" (European Commission 2024a).

The European Digital Services Act has designated social media and e-commerce platforms which must comply with stringent regulations.

The DSA classifies platforms or search engines that have more than 45 million users per month in the EU as very large online platforms (VLOPs) or very large online search engines (VLOSEs). The Commission has begun to designate VLOPs or VLOSEs based on user numbers provided by platforms and search engines (European Commission 2024b)

The very large online platforms and search engines include US-based platforms provided by Facebook, Apple, and Google along with Chinese platforms including Alibaba and Bytedance's TikTok, and European e-commerce sites Zalando and booking.com, among others (European Commission 2024b). Many of the platforms are actively investing in developing and launching generative AI tools and chatbots, and multi-modal AI that can generate sound and images from text prompts. Europe's approach to regulating companies and platforms through the Digital Services Act will be closely watched. Europe's approach taps into the region's longstanding orientation as a regulatory leader (Smuha 2021). As of late 2023, the EU reached agreement on laws on AI that would consider different applications and risks, however the proposed laws are not due for implementation until 2025 (European Parliament 2023).

Beyond Europe, amid a flurry of regulations designed to clean up the internet and data protection, China introduced regulations on algorithmic transparency in mid-2021 (Deutsche Welle 2021). Early reviews of the policy suggest that while regulation has helped to push for some transparency, algorithms created by platforms are extremely complex to understand and companies can be vague in their reporting (Sheehan and Du 2022). Likewise, when Twitter voluntarily released part of its algorithm in 2023, the effort was criticised for doing little to increase transparency (Bell 2023). The latest version of OpenAI's ChatGPT-4 was released without details about the training model and size, unlike earlier versions (OpenAI 2023). It remains uncertain what policy and self-regulation aimed at algorithmic transparency can achieve in practice, particularly if disclosures are selective and policymakers lack technical capacity to interpret them.

The Current State and Limitations of Voluntary Industry **Self-Regulation**

Turning from government to industry, voluntary codes and standards are intended to address the need for self-regulation either instead of government policy or in addition to it. A prominent example in March 2023 of concern for regulation of AI was an open letter penned by prominent US tech names that called for a voluntary pause in developing LLMs for six months (Future of Life Institute 2023). However, the letter was criticised by AI researchers for ignoring real harms to people that already exist due to AI, and for being inaccurate in indicating how the letter cited the researchers' earlier work on LLMs (Bender et al. 2021; Coldewey 2023). Some companies have been accused of restricting freedom of expression by pre-emptively facilitating censorship by not allowing some prompts to be actioned, such as images of politicians (Stanley-Becker and Harwell 2023). Ethics, bias, and accuracy are some of the key concerns raised concerning AI, but technology is fast outpacing industry standards and government policy. The consequences of bias in training data sets, unethical labour practices, and the predatory role of data brokers are widely documented in the literature (Krafft et al. 2020; Noble 2018; Smuha 2021). When industries fail to self-regulate effectively, policymakers may step in. In Australia, for example, the government has welcomed the development of industry-focused responsible AI networks while foreshadowing that government regulation may become necessary if self-regulation efforts are not sufficiently effective (Tonkin 2023).

Library Engagement in Artificial Intelligence Policy Development

Having introduced the broader policy context for AI, this chapter seeks now to highlight where the library sector has engaged with governmental and industry policy before turning to the work libraries are doing in their institutions to develop and implement policies. Libraries have engaged in different jurisdictions and across portfolios to ensure that policies safeguard research, culture, and the rights of creators. Library associations working with their member libraries and staff have a particular role in leading advocacy campaigns and policy engagement. Many AI applications are reliant on related policies such as data protection and copyright reforms to operate. These policies have in turn influenced the development of AI policy and how different platforms and industries are treated. For example, libraries advocated to the European Commission on copyright policy reforms to argue that new neighbouring rights in favour of publishers would impact the ability of libraries to make use of text of data mining or existing copyright exceptions in support of research, culture, and preservation activities (European Commission 2016). More recently, an analysis of national AI plans registered in the OECD AI Policy Observatory identified that libraries were included in plans in Switzerland, Germany, Norway, the Netherlands, Ireland, and Bulgaria (Bradley 2022).

Another example of engagement in policy development by libraries includes a response by the Canadian Association of Research Libraries (CARL-ABRC) to the consultation on AI regulation and its relation to Canadian personal information protection laws (CARL-ABRC 2020). Several Australian library organisations made a joint submission to a federal inquiry on the use of generative AI in education (Australia. Parliament. House Standing Committee on Employment, Education and Training 2023; ALIA 2023). As more policies are developed at international and local levels, the library sector will undoubtedly continue to identify opportunities to engage to make the case for access to information, maintenance of the cultural record, and user rights.

At the institutional or library level, there is a small but growing number of policies developed by libraries as more challenging and risky AI applications become available. Some AI methods and tools have been embedded in library systems and services for some time. Recommender systems, optical character recognition (OCR), and some elements of Natural Language Processing (NLP) that underpin collections as data work are familiar to many libraries. These somewhat prosaic uses of AI and ML have been joined by an explosion of media coverage around generative AI, consumer-facing robots, self-driving vehicles, and facial recognition.

While the recent developments have increased consciousness, enthusiasm, and concern about AI among the public, they have also raised questions from the library sector about the library's role in explaining the technologies responsibly such as by developing algorithmic literacy (Ridley and Pawlick-Potts 2021). Library associations have a key role in outlining the issues and policy considerations. While a statement rather than a policy, IFLA's statement on AI and libraries highlighted a range of ethical and technical issues for libraries to consider (IFLA FAIFE 2020) and IFLA has indicated that AI policy remains on its agenda in ten things to look out for in 2024 (IFLA 2024). In the United States, the American Library Association adopted a resolution on opposition to facial recognition in libraries in 2021 (ALA 2021).

At the institutional level, research, academic and school libraries have implemented guidance regarding the use of generative AI in assignments and research articles. Some guidance may be in response to government policy, for example in Western Australia students were briefly banned from using Chat-GPT in the classroom (Davis 2023). A framework for the use of generative AI in schools was subsequently released by the Australian federal Department of Education in late 2023 (Australia. Department of Education 2023). Educational institutions may set policies about the use of AI tools and other technologies, which libraries interpret through guidance about the responsible use of research materials, accurate referencing, privacy obligations, and managing digital well-being. These activities are ones with which libraries have long been involved. Consequently, these approaches can be viewed largely as an update to existing roles and practices.

Future of Artificial Intelligence Policy

AI policy is developing rapidly across multiple issue areas, regions, and sectors. Further engagement is required to prioritise access to information and to preserve individual rights at different levels. Emergent policy has a direct and indirect impact on access to information, the rights of creators and users of information, and the human rights of individuals and society as a whole. The breadth and speed of policy development mean that those monitoring the issues and opportunities for engagement must prioritise the aspects most likely to impact the library sector and the interests of library users. While many aspects of AI have received significant media attention recently, the period of deliberation and consideration will likely be short-lived as AI tools are further embedded into everyday applications, search, and other basic computing and information processing tasks. The challenge for the library sector will be to continue to find opportunities to make the case for the free

flow of information and to safeguard individual rights to ensure future AI policy lives up to aspirations of being trustworthy, responsible, and people-centred.

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