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AI policies across the globe: Implications and recommendations for libraries

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Abstract

This article examines the proposed artificial intelligence policies of the USA, UK, European Union, Canada, and China, and their implications for libraries. As artificial intelligence revolutionizes library operations, it presents complex challenges, such as ethical dilemmas, data privacy concerns, and equitable access issues. The article highlights key themes in these policies, including ethics, transparency, the balance between innovation and regulation, and data privacy. It also identifies areas for improvement, such as the need for specific guidelines on mitigating biases in artificial intelligence systems and navigating data privacy issues. The article further provides practical recommendations for libraries to engage with these policies and develop best practices for artificial intelligence use. The study underscores the need for libraries to not only adapt to these policies but also actively engage with them, contributing to the development of more comprehensive and effective artificial intelligence governance.

Keywords

Artificial intelligence, AI policies, ethics, data privacy, AI governance, comparative analysis

Introduction

Artificial intelligence (AI) is revolutionizing the way libraries operate, offering new avenues for personalized recommendations, advanced research, and operational efficiency. However, the rapid advancement of AI also presents complex challenges, including ethical dilemmas, data privacy concerns, and equitable access issues. As such, the AI policies and regulations proposed by the USA, UK, European Union, Canada, and China not only provide a crucial framework for navigating these challenges, but also reveal areas of critique that need to be addressed.

The USA's "Blueprint for an AI bill of rights" (Office of Science and Technology Policy, 2022), the UK's "A pro-innovation approach to AI regulation" (Secretary of State for Science, Innovation and Technology, 2023), the European Union's AI Act (European Commission, 2021), Canada's Artificial Intelligence and Data Act (Government of Canada, 2023), and China's "Measures for the management of generative artificial intelligence services" (Webster, 2023) each represent a significant step toward addressing the ethical implications of AI and ensuring equitable access to opportunities. These policies highlight key themes, such as ethics, transparency, the balance between innovation and regulation, data privacy, and the nature of the regulatory landscape. However, they also reveal areas of critique that need to be addressed, including the need for specific guidelines on mitigating biases in AI systems, navigating data privacy issues, and determining the level of risk associated with a particular AI system.

While many other countries have or are also developing their own AI policies or road maps (OECD.AI, n.d.), these five proposed policies were selected for several reasons:

Global influence: the USA, UK, European Union, Canada, and China are all significant players in the global AI landscape. Their policies are likely to have a substantial impact on

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global AI standards and practices, influencing the direction of AI development and regulation worldwide.

Diversity of approaches: the selected policies represent a variety of approaches to AI regulation, from the more laissez-faire, innovation-focused approach of the UK to the comprehensive, risk-based approach of the European Union. This diversity allows for a more robust comparison and analysis of different regulatory strategies.

Relevance to libraries: each of these policies has significant implications for libraries—a key focus of this article. By examining these policies, we can gain insights into the potential challenges and opportunities that libraries may face in the age of AI.

As libraries progressively harness the power of AI to augment their services and operations—including the use of chatbots for reference services (Ehrenpreis and DeLooper, 2022), automated subject indexing and classification (National Library of Finland, n.d.), and machine-learning-enhanced institutional repositories (Yelton, n.d.)—it is imperative that they not only adapt to the prevailing AI policies, but also proactively engage with them. This engagement entails active participation in the ongoing discourse surrounding AI governance, advocating for policies that comprehensively address their unique needs and challenges, and the development of best practices for AI utilization that are in alignment with their mission and values. As the landscape of AI continues its rapid evolution, the policies and practices of libraries must concurrently adapt and evolve.

Ethics and transparency

A common theme across the AI policies of the USA, UK, European Union, Canada, and China is the emphasis on ethics and transparency. The USA's "Blueprint" and Canada's Artificial Intelligence and Data Act both highlight these principles, aligning with the core values of libraries. Libraries, as stewards of information and champions of intellectual freedom, have a responsibility to ensure that the AI technologies they use are ethical and transparent. However, the lack of specific guidelines on how to operationalize these principles could lead to inconsistencies in how AI is used and regulated across different libraries.

The USA's "Blueprint," for instance, underscores the importance of ethical considerations and transparency in AI systems, but it does not provide clear guidance on how these principles should be implemented in practice. This leaves libraries grappling with these issues on their own, potentially leading to inconsistencies in how AI is used and regulated across different institutions. Similarly, Canada's Artificial Intelligence and Data Act places a strong emphasis on the protection of personal information and promotes transparency in the use of AI and data. However, it does not provide specific guidance on how libraries should navigate the ethical challenges associated with AI and data use. This could lead to inconsistencies in how AI is used and regulated across different libraries.

In contrast, the European Union's AI Act and China's "Measures" take a more comprehensive approach to AI regulation, covering a wide range of AI applications and emphasizing the involvement of academic and research institutions in the development and use of AI. These policies could provide a robust regulatory framework for libraries to follow, but the complexity of these Acts could also pose challenges for libraries, particularly in implementing their provisions on ethics and transparency.

A recent study on the knowledge and perception of AI in Zambia found that the majority of the librarian respondents believed that AI could significantly enhance library services, but they also expressed concerns about data privacy and the ethical use of AI. This finding underscores the importance of developing clear guidelines and ethical standards for the use of AI in libraries (Subaveerapandiyan et al., 2023).

Innovation versus regulation

The balance between promoting AI innovation and ensuring adequate regulation is another key theme across the AI policies of the USA, UK, European Union, Canada, and China. The UK's policy leans toward promoting AI innovation, recognizing the transformative potential of these technologies. This could help libraries to leverage AI to enhance their services and operations. However, a "pro-innovation approach" could potentially lead to a lax regulatory environment that does not adequately protect library users from the risks of AI.

On the other hand, the European Union's AI Act and China's "Measures" take a comprehensive approach to AI regulation, covering a wide range of AI applications. This could provide a robust regulatory framework for libraries to follow, but the complexity of these Acts could also pose challenges for libraries, particularly in implementing their risk-based approach to AI regulation.

The USA's "Blueprint" and Canada's Artificial Intelligence and Data Act, while acknowledging the

importance of AI innovation, also underscore the need for adequate regulation to ensure the ethical use of AI and protect users' rights. However, the fragmented regulatory landscape in the USA and narrow focus on data privacy in Canada's Act could lead to inconsistencies in how AI is used and regulated across different libraries.

Data privacy

Data privacy is a major focus of Canada's Artificial Intelligence and Data Act and China's "Measures," reflecting the increasing importance of this issue in the age of AI and big data. This emphasis on data privacy is crucial for libraries, which handle a wealth of sensitive user data. However, the Artificial Intelligence and Data Act and the "Measures" do not provide specific guidance on other important issues related to AI use in libraries, such as ensuring fairness and avoiding biases in AI systems.

The USA's "Blueprint," while acknowledging the importance of data privacy, does not provide clear guidance on how libraries should navigate the data privacy challenges associated with AI use. This could lead to inconsistencies in how AI is used and regulated across different libraries. In contrast, the European Union's AI Act takes a more comprehensive approach to data privacy, covering a wide range of data-related issues and emphasizing the need for robust data protection measures. However, the complexity of the AI Act could pose challenges for libraries, particularly in implementing its provisions on data privacy.

The UK's policy, while recognizing the importance of data privacy, leans toward promoting AI innovation. This could potentially lead to a lax regulatory environment that does not adequately protect library users' data.

The use of third-party services, such as enhanced discovery layers, introduces an area of concern for librarians who are seeking to uphold the tenets of intellectual freedom. These systems often collect data—sometimes personally identifiable—on users. This is often seen as a necessary part of continually improving a system, by providing an algorithm with feedback about its efficacy via data about the user's behavior when browsing in order to further improve the system. Serious consideration of the dangers to patron privacy should be seen as a crucial element of upholding intellectual freedom with regard to adopting AI technologies in patron-facing services (Smith, 2021).

Fragmented versus centralized regulation

The regulatory landscape for AI varies significantly across the USA, UK, European Union, Canada, and China, with some of the countries favoring a more fragmented approach and others opting for centralized regulation. This distinction has significant implications for libraries, which must navigate these varying regulatory landscapes in their use of AI.

In the USA, the regulatory landscape for AI is quite fragmented. The "Blueprint" proposed in 2022 represents an important step toward addressing the ethical implications of AI and ensuring equitable access to opportunities. However, the specifics of these proposals are generally lacking, and many would require Congress to give additional legal authority to agencies, which seems unlikely in the current political climate. This fragmented regulatory landscape could lead to uncertainty and inconsistency in how AI is used and regulated in libraries, resulting in a lack of standardization in AI practices across the sector. On the other hand, the European Union's AI Act represents a more centralized approach to AI regulation. The Act aims to regulate the use and development of AI across the European Union, with a comprehensive approach to AI regulation and an emphasis on the involvement of academic and research institutions in the development and use of AI. However, the complexity of the Act could pose challenges for libraries, particularly in implementing its risk-based approach to AI regulation.

The UK's "pro-innovation approach" outlines the country's commitment to fostering AI innovation and development. While this policy emphasizes promoting AI innovation, it could potentially lead to a lax regulatory environment that does not adequately protect library users from the risks of AI.

Canada's Artificial Intelligence and Data Act, part of Bill C-27 (Department of Justice, 2022), is a legislative measure that is designed to regulate the use and development of AI and data across the country. The Act places a strong emphasis on the protection of personal information, mandating robust data privacy measures and promoting transparency in the use of AI and data. However, the Act's narrow focus on data privacy leaves other important issues—such as the potential biases in AI systems and the need for equitable access to AI-driven resources—inadequately addressed.

China's proposal represents a comprehensive and centralized approach to AI regulation. The proposed measures cover a wide range of issues, from the ethical use of AI to data privacy and the prevention of discrimination. However, the complexity and breadth of these measures could pose challenges for libraries, particularly those with limited resources or expertise in AI.

Practical recommendations for libraries

As libraries navigate the complex landscape of AI, it is crucial that they not only adapt to the existing policies, but also actively engage with them and develop best practices for AI use. Here are some practical recommendations for libraries:

- *Establish an AI ethics committee*: libraries could establish an AI ethics committee comprising librarians, information technology staff, and other relevant stakeholders. This committee would be responsible for reviewing the library's use of AI, ensuring compliance with relevant policies, and addressing any ethical issues that arise.
- *Advocate for inclusive policies*: libraries should advocate for AI policies that fully address their needs and challenges. This could involve participating in public consultations on AI policies, submitting position papers, or partnering with library associations to lobby for inclusive and equitable policies.
- *Develop best practices for AI use*: libraries should develop best practices for AI use that align with their mission and values. These best practices could cover a range of issues, from data privacy and transparency to user consent and the mitigation of biases in AI systems.
- *Provide AI literacy education and training*: libraries should provide AI literacy education and training for their staff and users. This could involve training on the ethical use of AI, data privacy, and how to comply with relevant policies.

Conclusion

The proposed AI policies from the USA, UK, European Union, Canada, and China serve as a pivotal road map for libraries navigating the intricate terrain of AI. These policies underscore key themes, such as ethics, transparency, the equilibrium between innovation and regulation, data privacy, and the nature of the regulatory landscape. However, they also expose areas for further exploration and improvement, including the need for explicit guidelines on mitigating biases in AI systems, addressing data privacy concerns, and assessing the risk level associated with specific AI systems.

It is crucial to recognize that these five AI policies, as of this writing, are in the proposal and development stages, and are not yet codified into law. Their final versions may significantly deviate from their present forms, highlighting the dynamic nature of the AI policy landscape. This fluidity necessitates that libraries remain vigilant and responsive to these evolving developments. As these policies mature and potentially transition into law, libraries will be required to adjust their practices to ensure compliance with the most recent regulations, all while continuing to utilize AI to augment their services and operations.

The evolution of AI is a continuous process and, in parallel, the policies and practices of libraries must also progress. By engaging critically with these policies and contributing to the evolution of more comprehensive and effective AI governance, libraries can fully exploit the potential of AI, while simultaneously addressing the intricate challenges it poses. This proactive approach will ensure that libraries persist as trusted, inclusive spaces for learning, discovery, and community engagement in the AI era.

The practical recommendations outlined in this article serve as an initial guide for libraries to engage with these policies and formulate their own best practices for AI use. By forming an AI ethics committee, advocating for inclusive policies, developing best practices for AI use, providing AI literacy education and training, and fostering engagement within the library community, libraries can effectively navigate the intricate landscape of AI, thereby contributing to a more equitable and inclusive AI future.

Beyond these recommendations, libraries should also contemplate the role of AI literacy within their services. Libraries can play a pivotal role in cultivating AI literacy among the general public, promoting transparency, creating a demand for accountability, and fostering critical engagement with AI decisions. Libraries can also implement measures to safeguard patrons' data in the context of AI, such as ensuring that any experiments with AI applications which modify or nudge library user behavior are carried out on an informed opt-in basis, or meticulously reviewing library choices of third-party AI applications to assess their impact on users' privacy (IFLA, 2020).

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