HARVARD
Online

Data Privacy and Technology

Syllabus

Data Privacy and Technology is a complex and multifaceted concept. This course aims to help you become a better-informed citizen and contributing member of privacy-forward communities, business task forces, and your personal data-sharing practices. You will explore legal and ethical implications of one's personal data, the risks and rewards of data collection and surveillance, and the need for policy, advocacy, and privacy monitoring.

Modules		Case Studies	Takeaways	Key Exercises
Module 1	**What is Privacy?**	• Stop LAPD Spying Coalition: Thinking Critically About Privacy	• Expand your definition of privacy to acknowledge multiple definitions shaped by history, culture, and personal experience • Reframe privacy as a thorny and actionable issue, where technology is not value-neutral • Interpret the long conflict between privacy norms and technological advancement through historical and ethical lenses	• Construct a definition of privacy rooted in your personal experience • Reflect on how the harms and benefits of privacy are often differential in nature • Apply specific ethical frameworks to your analyses of harms and benefits
Module 2	**Data Collection, Data Use, and Data Reuse**	• California Consumer Privacy Act (CCPA): Understanding Legal Frameworks • Henrietta Lacks and the Story of HeLa Cells: Reflecting on Human Subjects Research • GEDmatch: Exploring How Changes in Data Usage Can Affect Notions of Privacy	• Identify key differences among laws and regulations governing privacy and understand the implications of these differences • Understand the harms associated with data collection and data usage, and the rise of ethics in human subjects research • Gain insights into how data can be used in unpredictable ways and consider how these usages can shift notions of privacy	• Stop and think critically about privacy policies and what they do or don't protect • Compare what's similar and different across several scenarios involving the collection and sharing of personal data, while understanding the impact of changing norms and power imbalances • Analyze how individuals and organizations respond to changes in how data is being used
Module 3	**The Technology Battleground**	• Data Re-identification: Reconsidering Anonymization • EdX Data for Educational Research: Balancing Privacy with Accuracy • The U.S. Census: Implementing Differential Privacy	• Comprehend the implementation challenges of anonymizing a data set • Understand some common technical measures of data privacy, specifically k-anonymity and differential privacy • Explain the difference between anonymized and de-identified data • Recognize the difference between anonymity and having your personal data in a de-identified	• Identify direct and quasi-identifiers and the role they play in the de-identification and re-identification of data • Experiment with specific de-identification techniques and predict how they might affect the conclusions you can draw from a data set • Argue when it is time to adopt a new technique for protecting privacy

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Modules		Case Studies	Takeaways	Key Exercises
Module 4	**The Price of Privacy**	• Algorithmic Bias in Facebook Ads: Understanding the Cost of Categorization to Individuals • Proton: Exploring Privacy as a Business Model • Extremism Online: Understanding the Cost of Personalization to Society	• Recognize how algorithms differentiate based on otherwise protected attributes and why de-identification of the individual is not enough to protect people from harm • Compare the economic value of privacy at the individual and group level, and how some companies build their business model around privacy • Understand how personalizing each of our views of the world leads to information silos	• Experience a view of online advertising through multiple different identities • Analyze the economic value of privacy and understand its limitations as a measurement • Think about what you share and why you share it
Module 5	**What's Coming?**	• Deepfakes: Looking to the Near Future • Birth and Death: Exploring the Edges	• Characterize deepfakes and the unique risks to privacy that they present • Predict future privacy issues and the harms and benefits that might occur	• Analyze potential privacy challenges presented by the rise of deepfakes • Apply your critical thinking skills to emerging privacy issues • Reflect on how your definition and understanding of privacy has changed

Learning requirements: In order to earn a credential from Harvard Online, participants must thoughtfully complete all 5 modules, including satisfactory completion of the associated assignments, by stated deadlines.

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