



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? <ul style="list-style-type: none">Stop LAPD Spying Coalition: Thinking Critically About Privacy	<ul style="list-style-type: none">Expand your definition of privacy to acknowledge multiple definitions shaped by history, culture, and personal experienceReframe privacy as a thorny and actionable issue, where technology is not value-neutralInterpret the long conflict between privacy norms and technological advancement through historical and ethical lenses	<ul style="list-style-type: none">Construct a definition of privacy rooted in your personal experienceReflect on how the harms and benefits of privacy are often differential in natureApply specific ethical frameworks to your analyses of harms and benefits
Module 2	Data Collection, Data Use, and Data Reuse <ul style="list-style-type: none">California Consumer Privacy Act (CCPA): Understanding Legal FrameworksHenrietta Lacks and the Story of HeLa Cells: Reflecting on Human Subjects ResearchGEDmatch: Exploring How Changes in Data Usage Can Affect Notions of Privacy	<ul style="list-style-type: none">Identify key differences among laws and regulations governing privacy and understand the implications of these differencesUnderstand the harms associated with data collection and data usage, and the rise of ethics in human subjects researchGain insights into how data can be used in unpredictable ways and consider how these usages can shift notions of privacy	<ul style="list-style-type: none">Stop and think critically about privacy policies and what they do or don't protectCompare 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 imbalancesAnalyze how individuals and organizations respond to changes in how data is being used
Module 3	The Technology Battleground <ul style="list-style-type: none">Data Re-identification: Reconsidering AnonymizationEdX Data for Educational Research: Balancing Privacy with AccuracyThe U.S. Census: Implementing Differential Privacy	<ul style="list-style-type: none">Comprehend the implementation challenges of anonymizing a data setUnderstand some common technical measures of data privacy, specifically k-anonymity and differential privacyExplain the difference between anonymized and de-identified dataRecognize the difference between anonymity and having your personal data in a de-identified	<ul style="list-style-type: none">Identify direct and quasi-identifiers and the role they play in the de-identification and re-identification of dataExperiment with specific de-identification techniques and predict how they might affect the conclusions you can draw from a data setArgue when it is time to adopt a new technique for protecting privacy

Modules		Case Studies	Takeaways	Key Exercises
Module 4	The Price of Privacy	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> 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
		<ul style="list-style-type: none"> Deepfakes: Looking to the Near Future Birth and Death: Exploring the Edges 	<ul style="list-style-type: none"> Characterize deepfakes and the unique risks to privacy that they present Predict future privacy issues and the harms and benefits that might occur 	<ul style="list-style-type: none"> 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 Certificate of Completion from Harvard Online and Harvard Business School Online, participants must thoughtfully complete all 5 modules, including satisfactory completion of the associated assignments, by stated deadlines.