American Public University System
American Military University | American Public University

STEM470

Course Summary

Course : STEM470 **Title :** Cybersecurity, Surveillance, Privacy and Ethics
Length of Course : 8 **Faculty :**
Prerequisites : N/A **Credit Hours :** 3

Description

Course Description:

This course offers an opportunity for students to look into the surveillance that takes place at all levels in today's world. The course will first review the collection of surveillance technologies such as CCTV, border control, traffic cameras, etc. The course will then continue onward to look into such innocuous and hidden data collection such as website analytics, app data collection, online identity databases, and more. These topics will be viewed not only from the collection standpoint but also from a privacy standpoint and an ethical standpoint. Students will study these data collections and look at the rationales for their collection and be encouraged to justify or refute these collections on an ethical or privacy basis.

Course Scope:

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Objectives

CO 1 – Develop an understanding of the impact of technological solutions in a social context.

CO 2 – Understand various types of surveillance and its evolution

CO 3 – Analyze motives and methods for data collection

CO 4 – Engage in an open debate on the role that surveillance should play in today's society and how the government and private sector are handling privacy concerns

CO 5 – Analyze various concept of privacy as applied to surveillance and data collection

CO 6 – Understand the development of the digital self, specifically how the individual of the real world has developed their identity online.

Outline

Week 1: Surveillance throughout time

Learning Outcomes

- LO 1- Assess the role of surveillance throughout history
- LO 2 -Evaluate the usage of surveillance by governing bodies over their people

Required Readings

- A Short History of Surveillance and Privacy in the United States
- Roman Empire to the NSA: A world history of government spying
- They Are Watching You—and Everything Else on the Planet

Assignments

Week 1 Introduction Discussion due Sunday

Week 1 Discussion Forum, Initial post due Wednesday and peer responses on Sunday

Assignment: Personal Thoughts and Opinions Worksheet

Week 2: CCTV (from Great Britain to the world)

Learning Outcomes

- LO 1 - Analyze the increasing use of CCTV
- LO 2 - Critique the use of CCTV to exert control over people
- LO 3 - Debate the intentions behind the continued expansion of CCTV technology

Required Readings

- CCTV in Britain, Chapter 2, pp 8-26
- Exporting digital authoritarianism: The Russian and Chinese models
- Wherever We Go, We Leave A Trail: Surveillance And Sousveillance in the United States and United Kingdom

Assignments

Week 2 Discussion Forum, Initial post due Wednesday and peer responses on Sunday

Week 3: Border Control, Access Technologies, and Traffic Cams

Learning Outcomes

- LO 1 - Analyze the advent of the virtual border wall systems
- LO 2 - Evaluate the role of traffic cams over the past few decades

Required Readings

- Parts of a 'Virtual' Border Wall, Built With the Tech Behind Driverless Cars
- CAUGHT IN THE WEB OF MASS SURVEILLANCE
- SURVEILLANCE, THEN AND NOW: Securing Privacy in Public Spaces - Part IV pp 23-48

Assignments

Assignment: Border Patrol and Traffic Cameras Research Paper

Week 4: Surveillance data and its uses from TSA to Amazon

Learning Outcomes

- LO 1- Debate the role of surveillance in society
- LO 2 -Identify who makes use of surveillance data
- LO 3 -Develop a recommended policy to increase privacy in surveillance data

Required Readings

- The Global Expansion of AI Surveillance
- The Watchers
- Amazon: Surveillance as a Service
- Unified surveillance systems: Data mining with PeekYou, GPS and facial recognition
- Are You Ready for Facial Recognition at the Airport?
- When Your Face Is Your Form of ID

Assignments

Week 4 Discussion Forum, Initial post due Wednesday and peer responses due Sunday

Assignment: Surveillance State Pro or Con Paper

Week 5: Website Analytics and your uniqueness on the web

Learning Outcomes

- LO 1 - Evaluate analytical tools used on websites
- LO 2 - Determine your uniqueness on the internet
- LO 3 - Students will develop an understanding of the digital self. The digital self is the persona you use when you're online.

Required Readings

- The Age of Predictive Analytics
- User Data Privacy: Facebook, Cambridge Analytica, and Privacy Protection
- Track Record: Wherever you go online, you are being followed
- It's not all about you: What Privacy Advocates don't get about data tracking on the web

Assignments

Assignment: How Unique Are You Really

Week 6: Mobile devices and the generation of apps and the data collected

Learning Outcomes

- LO 1 - Interpret the usage of various pieces of data collected by apps, such as GPS, Unique IDs, SIM card info, etc.
- LO 2 - Identify what data is collected by mobile device manufacturers and app developers

Required Readings

- Improving App Privacy: Nudging App Developers to Protect User Privacy
- Can Smartphones and Privacy Coexist?
- The Trump 2020 app is a voter surveillance tool of extraordinary power
- How smartphone apps track users and share data

Assignments

Assignment: Self Study of Mobile Habits

Week 7: Online Identity Databases and browsing history (Is there anything anonymous?)

Learning Outcomes

- LO 1 - Analyze the potential positives and negatives of sharing data.
- LO 2 - Determine what role individual actions play in exposing personal data.
- LO 3 - Evaluate digital self.

Required Readings

- Your Digital Self: How to present yourself online
- Your digital self — why you should keep every byte you create
- Private traits and attributes are predictable from digital records of human behavior
- Americans' complicated feelings about social media in an era of privacy concerns
- The longer and more often people use Facebook, the more ad preferences the site lists about them

Assignments

Assignment: Case Study of Your Digital Self

Week 8: Wrap Up: Ethical choices and Privacy concerns, how do you choose?

Learning Outcomes

- LO 1 - Interpret the digital ramifications of their choices in day to day actions.
- LO 2 - Determine relevant stakeholders and possible consequences of poorly reasoned actions with regards to PII and other personal data.
- LO 3 - Develop suitable actions to bring about morally justifiable decisions on PII.

Required Readings

- How the Internet Has Changed Everyday Life
- The Ethics of Technology and the Future of Humanity

Assignments

Week 8 Discussion Forum, Initial post due Wednesday and peer responses due Sunday

Evaluation

5 Discussions worth a total of 30% of the course grade

5 Assignments worth a total of 50% of the course grade

1 Worksheet worth 10% of the course grade

1 Paper worth 10% of the course grade

Grading:

Name	Grade %
Assignments	50.00 %
Surveillance State Pro or Con Paper	10.00 %
How Unique Are You Really	10.00 %
Self-Study of Mobile Habits	10.00 %
Case Study of Your Digital Self	10.00 %
Reflections on Surveillance	10.00 %
WorkSheet	10.00 %
Thoughts and Opinions Worksheet	10.00 %
Research Paper	10.00 %
Border Control and Traffic Cameras Research Paper	10.00 %
Discussions	30.00 %
Welcome Discussion	6.00 %
Week 1 Discussion	6.00 %
Week 2 Discussion	6.00 %
Week 4 Discussion	6.00 %
Week 8 Discussion	6.00 %

Materials

Book Title: Various resources from Trefry Library and/or the Open Web are used. Links provided inside the classroom.

Author:

Publication Info:

ISBN: D2L Note

Course Guidelines

Late Assignments

- Students are expected to submit classroom assignments by the posted due date and to complete the course according to the published class schedule. The due date for each assignment is listed under each Assignment.
- Generally speaking, late work may result in a deduction up to 15% of the grade for each day late, not to exceed 5 days.
- As a working adult I know your time is limited and often out of your control. Faculty may be more flexible if they know ahead of time of any potential late assignments.

University Policies

Student Handbook

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