

UNIT 5: Cybersecurity Law

Estimated Time in Hours: 6

<p><u>Big Idea(s)</u> 4 Data Security 1 Ethics 8 Implications</p>	<p><u>Enduring Understandings</u> 4.2</p>	<p><u>Projects & Major Assignments</u> - Research the adoption of a technology and find related legislation regarding the technology. - Compare and contrast iconic cybersecurity legislation. - Examine types of cryptography that can and cannot be exported.</p>
<p>Guiding Questions:</p> <ul style="list-style-type: none"> • What are the differences between policy and law? • What are examples of each? • What are the types of cybersecurity law? • Why does legislation have a hard time keeping up with technology? • What are other challenges in creating cyber law? • What is Personally Identifiable Information? • What are some examples of state, national, and international legislation? • Is hacking legal? 		
<p>Learning Objectives & Respective Essential Knowledge Statements</p>	<p>Materials</p>	<p>Instructional Activities and Classroom Assessments</p>
<p>4.2.1 LO: Students will compare and contrast data protection legislation, policies, and procedures that have been or are being introduced all over the world to protect personal data.</p>	<ul style="list-style-type: none"> • Computer, lecture slides, projector, graphic organizers, access to Internet 	<ul style="list-style-type: none"> • Show students pictures of different crimes being committed. Ask the students to identify what is happening in the pictures. Ask what they have in common and what the punishment should be for each crime. Ask students if a computer could be used to aid/detect each of the crimes. • Explain the differences between policy and law. Schools may have policies, but they do not have laws. This distinction is important later.

Hairston_Williams | Planning & Pacing Guide

<p>4.2.1g: An Acceptable Use Policy is a set of rules applied by the owner, creator or administrator of a network, website, or service, that restrict the ways in which the network, website or system may be used and sets guidelines as to how it should be used.</p>	<ul style="list-style-type: none"> • “Acceptable use policies.” <i>YouTube</i>, uploaded by DrPete Technology Experts, 3 Mar 2015, https://www.youtube.com/watch?v=t78LXufrq_nA • “Sample Acceptable Usage Policy.” Get Safe Online, <i>GetSafeOnline.org</i>, https://www.getsafeonline.org/themes/site_themes/getsafeonline/download_centre/Sample_Acceptable_Usage_Policy.pdf 	<ul style="list-style-type: none"> • Explain that one example of a policy is an acceptable use policy. The video linked on the left explains what this is. • Have students find an acceptable use policy, summarize its contents, and compare it to the example linked on the left.
<p>Click or tap here to enter text.</p>		<ul style="list-style-type: none"> • Discuss the differences between civil and criminal law. • Have students list ways a computer can be used in civil law offenses (breach of contract, property damage, slander) and criminal law (homicide, possession of a controlled substance, data theft). • Discuss the ways computers can be used in crime: <ul style="list-style-type: none"> -Computer-assisted -Computer-targeted -Computer as incidental

Hairston_Williams | Planning & Pacing Guide

<p>1.3.3b EK: Technology moves faster than laws can be created to govern it</p>	<ul style="list-style-type: none">• “Over 50 Years of Moore’s Law.” Intel, <i>Intel.com</i>, https://www.intel.com/content/www/us/en/silicon-innovations/moores-law-technology.html• Desjardins, Jeff. “The Rising Speed of Technological Adoption.” Visual Capitalist, <i>VisualCapitalist.com</i>, 14 Feb 2018, https://www.visualcapitalist.com/rising-speed-technological-adoption/• Smiley, Lauren. “A Brutal Murder, a Wearable Witness, and an Unlikely Suspect.” <i>Wired Magazine</i>, <i>Wired.com</i>, 17 Sept 2019, https://www.wired.com/story/telltale-heart-fitbit-murder/• Whittaker, Zack. “Judge orders Amazon to turn over Echo recordings in	<ul style="list-style-type: none">• Discuss Moore’s law (not a law but a theory). The video on the left is a good way to introduce it.• Using the Visual Capitalist site, have students look at the rate technology has progressed. Assign each students an item off the list from the site (click on Add technology on the right side of the graph). Have students find the years the technology took from introduction to full adoption. Have them research laws regarding the technology and give a report.• Ask student why technology moves faster than laws can be created. Students could look for examples, such as cryptocurrency, Fitbit Data, or Amazon Echo data, to explore this topic. Two relevant articles are linked on the left.• Have students brainstorm why cybersecurity laws are slow to be created. There are articles on the left to help with this.• Also discuss scope of legislation and the need to not stifle development.• Discuss the difficulty of determining jurisdiction and prosecuting people and business committing crimes in the US who are based in other countries.
---	--	---

Hairston_Williams | Planning & Pacing Guide

	<p>double murder case.” Tech Crunch, <i>TechCrunch.com</i>, 14 Nov 2018, https://techcrunch.com/2018/11/14/amazon-echo-recordings-judge-murder-case/</p> <ul style="list-style-type: none">• Harris, Marci. “Here’s what happens when tech outpaces government.” <i>Apolitical.co</i>, 12 Sept 2019, https://apolitical.co/solution_article/heres-what-happens-when-tech-outpaces-government• Selk, Avi. “There’s so many different things!”; How technology baffled an elderly congress in 2018.” <i>The Washington Post</i>, <i>WashingtonPost.com</i>, 2 Jan 2019, <a 118="" 512="" 836"="" 918="" href="https://www.washingtonpost.com/lifestyle/style/theres-so-many-different-things-how-</td><td data-bbox=">
--	--

Hairston_Williams | Planning & Pacing Guide

	<p>technology-baffled-an-elderly-congress-in-2018/2019/01/02/f583f368-ffe0-11e8-83c0-b06139e540e5_story.html</p> <ul style="list-style-type: none"> • Kaal, Wulf. “What Happens When Technology is Faster Than the Law?” The CLS Blue Sky Blog, <i>Columbia.edu</i>, 22 Sept 2016, http://clsbluesky.law.columbia.edu/2016/09/22/what-happens-when-technology-is-faster-than-the-law/ 	
<p>4.2.1a EK: Policies can be introduced and enforced at the local, state, and national levels.</p>		<ul style="list-style-type: none"> • Tie levels of policies and legislation to types of law.
<p>4.2.1b EK: Laws are in place to protect the disclosure and misuse of financial, personal, and private information.</p> <p>4.2.1f EK: CCPA (California Consumer Privacy Act) was signed into law in 2018. It is</p>	<ul style="list-style-type: none"> • “Data Privacy Explained Cybersecurity Insights #11.” <i>YouTube</i>, uploaded by Absolute, 12 Feb 2019, https://www.youtube.com/watch?v=3YIPQrEWOeY 	<ul style="list-style-type: none"> • Have students define privacy. Explain why privacy laws are needed. Have them predict areas where privacy laws would be needed (education, medical, finance, etc.) • Define Personally Identifiable Information (PII). Have students list examples. • Discuss CCPA and its implications (state level legislation.

Hairston_Williams | Planning & Pacing Guide

<p>intended to extend the privacy rights of the citizens of California.</p> <p>4.2.1e EK: CFAA (Computer Fraud and Abuse Act) prohibits accessing a computer without authorization, or in excess of authorization.</p> <p>4.2.1d EK: HIPAA (Health Insurance Portability and Accountability Act of 1996) is United States legislation that provides data privacy and security provisions for safeguarding medical information.</p> <p>4.2.1c: GDPR (General Data Protection Regulation) is a set of regulations designed to give citizens in the European Union more control over their personal data.</p> <p>4.2.1 LO: Students will compare and contrast data protection legislation, policies, and procedures that have been or are being introduced all over the world to protect personal data.</p>	<ul style="list-style-type: none">• “Data Privacy Laws Cybersecurity Insights #12.” <i>YouTube</i>, uploaded by Absolute, 26 Feb 2019, https://www.youtube.com/watch?v=v9I8iDLFtqE	<ul style="list-style-type: none">• Discuss FISMA (national level legislation).• Discuss CFAA (national level legislation).• Discuss HIPAA (national level legislation).• Discuss GDPR (international level legislation).• Activity: Have students create a poster or slideshow contrasting data protection legislation, policies, and procedures all over the world. This could be a summary of different countries, or a jigsaw activity, with each student doing an assigned country(ies).• Activity: Show the 2nd video linked left, and ask students to compare GDPR to CCPA (California’s Law).
--	--	---

Hairston_Williams | Planning & Pacing Guide

8.1.2c EK: Early government policies discouraged the use of encryption to build secure networks.

- “Information Security: Context and Introduction | Introduction to Cryptography; The Cryptography Dilemma.” created by University of London, accessed via [coursera.org](https://www.coursera.org/lecture/information-security-data/this-video-explains-why-control-of-cryptography-presents-a-society-with-a-dilemma-fbN2G), <https://www.coursera.org/lecture/information-security-data/this-video-explains-why-control-of-cryptography-presents-a-society-with-a-dilemma-fbN2G>
 - “Clipper Chip – Ethics in Computing.” NC State University Computer Science Department, [NCSU.edu](https://ethics.csc.ncsu.edu/style/privacy/encryption/clipper/), <https://ethics.csc.ncsu.edu/style/privacy/encryption/clipper/>
 - Matthews, Tim. “The Clipper Chip: How Once Upon a Time the Government Wanted to Put a Backdoor in Your
- The Clipper Chip (MYK-78) is a good example of this. The video on the left discusses government control of cryptography.
 - Have students research technologies like the clipper chip and develop a list of pros and cons related to the technologies. Students should also discuss if the device is ethical. (there are 2 useful resources linked left which pertain to clipper chips.) An alternative would be to have students research China’s censorship and view on encryption. The sources below would be helpful to these students.
 - Have students examine what types of cryptography can or cannot be exported (Encryption and Export Administration Regulations (EAR). The site linked on the left would help with this research.

Hairston_Williams | Planning & Pacing Guide

	<p>Phone.” Exabeam, <i>Exabeam.com</i>, https://www.exabeam.com/information-security/clipper-chip/</p> <ul style="list-style-type: none"> • “FLOWCHART 1: ITEMS DESIGNED TO USE CRYPTOGRAPHY INCLUDING ITEMS NOT CONTROLLED UNDER CATEGORY 5, PART 2 OF THE EAR.” Bureau of Industry and Security, U.S. Dept. of Commerce, <i>bis.doc.gov</i>, https://www.bis.doc.gov/index.php/document/new-encryption/1654-flowchart1/file 	
<p>1.3.3 LO: Students will discuss how even when a cybersecurity practice is legal, it may not be ethical.</p> <p>1.3.3a EK: The legal and ethical consequences of cybersecurity practices can be explored</p>		<ul style="list-style-type: none"> • Have students discuss the ethical implications of the clipper chip. Although legal, is it ethical to use? • Introduce the concepts of white, gray, and red hat hacking. Stress that students need written permission from the involved parties to hack. • Discuss careers such as pen tester or cyber legal advisor.

Hairston_Williams | Planning & Pacing Guide

<p>through ethical versus malicious hacking.</p> <p>8.1.1h EK: Cybersecurity events have led to the development of various cybersecurity career paths and various needs in order to prepare people for these new types of jobs.</p>		
---	--	--