Project: Interactive Story Related to Women, People of Color, Other Minorities And Digital Technology				Weeks: August 23 - September 27		
Resource List: Raspberry Pi & Accessories, Breadboard & Electronics, Soldering Irons, Linux-compatible Laptop, USB Flash Drives With Live Linux Distributions, Desktops, Laptops, Tablets for Disassembly						

Wk	Proposed Activities/Lessons	Digital Literacy Learning Objectives For Project				
		Technical	Information	Cognitive	Socio-Emotional	Critical Sociotechnical
1	Keynote	Basic understanding of core computer science concepts, including: sequencing, iteration, conditionals, variables, and modularization	Ability to apply reference interview skills to design context so as to better understand the strengths, opportunities, and aspirations that are motivating project initiation by an individual or social group	Ability to generalize past and current problem solving to new contexts	The ability to communicate and collaborate with others	Ability to analyze how economic, social, cultural, historical, and political contexts, and personal preferences and biases, are embedded into a specific implementation of technology throughout the lifecycle of the technology
	Cog/Soc Lineup	Basic proficiency turning a project idea into working code	Ability to explore a range of information sources, guides and worksheets for similar projects, relevant code examples, and to collect new data in support of project ideation, prototyping, and iteration	Ability to turn strengths, opportunities, and aspirations into concrete project ideas	Ability to embrace failure as an essential step in project development, to plan for failure, and to use failure as a stepping stone (fail forward mindset)	Ability to evaluate positive and negative impacts that different technologies and specific implementations of a technology have on individuals and social groups from different economic, social, and cultural contexts
	Design Thinking & Project Intro	Basic proficiency with Python	Ability to evaluate, summarize, and integrate information from a range of sources	Ability to generate a wide variety of ways to accomplish project, and to logically analyze divergent pathways to assess potential impacts	Nurture personal confidence, persistence, and tolerance to tackle complex, ambiguous, open-ended problems	Ability to select between different technologies and implementations of a technology to better align with personal and group preferences, values, and goals
2	Scratch & CS4H Intro	Basic proficiency with Raspberry Pi hardware and the Raspbian OS	Ability to provide proper attribution when making use of information, guides, worksheets, data, and code from other sources	Ability to logically analyze and organize project tasks in ways that allow use of digital tools to help accomplish them	Ability to analyze current skills, compare to needed skills to accomplish project, and develop a plan of action to achieve skills development (growth mindset)	Ability to consider the social and individual ramifications of choosing open vs. closed software and hardware products within different contexts and for different social, economic, and cultural contexts
	Rapid Prototyping	Ability to identify core hardware components of computers: Input/output devices, integrated circuits such as system memory and CPU, storage devices such as a hard drive and CD-ROM	Ability to apply relevant and trustworthy information, guides, worksheets, data, and code to current design project		Ability to empathize with individuals and social groups across a wide spectrum of social and cultural contexts	
	Raspberry Pi Intro	Ability to perform basic computer maintenance, upgrades, and repair			Ability to identify personal current affects as a metric for understanding your current stage within the Information Search Process as applied to design project	
3	Breadboarding & Electronics	Ability to build a basic electronic circuit and to write programming code to interact with that circuit to achieve an application goal				
	Soldering					
4	Python					
	Command-line					
	Minecraft					
5	Desktop, Laptop, Smartphone, Pi					
	Keystroke Diagram					
	Community Collaboration Report Back					
6	Linux Distributions & Design Thinking					

Project: Internet of Things | **Weeks: October 4 - November 8**

Resource List: Raspberry Pi & Accessories, Network Cables and Switch, Breadboard & Electronics From Previous Project

Wk	Proposed Activities/Lessons	Digital Literacy Learning Objectives				
		Technical	Information	Cognitive	Socio-Emotional	Critical Sociotechnical
1	Networking & Project Intro	Basic understanding of Local Area Network components, and how to design, troubleshoot, and maintain those components	Ability to apply reference interview skills to design context so as to better understand the strengths, opportunities, and aspirations that are motivating project initiation by an individual or social group	Ability to generalize past and current problem solving to new contexts	The ability to communicate and collaborate with others	Ability to analyze how economic, social, cultural, historical, and political contexts, and personal preferences and biases, are embedded into a specific implementation of technology throughout the lifecycle of the tech
	LAN	Basic understanding of Wide Area Networks like the Internet, how to select between Internet Service Providers, and how to connect to an Internet Service Provider to join the Internet	Ability to explore a range of information sources, guides and worksheets for similar projects, relevant code examples, and to collect new data in support of project ideation, prototyping, and iteration	Ability to turn strengths, opportunities, and aspirations into concrete project ideas	Ability to embrace failure as an essential step in project development, to plan for failure, and to use failure as a stepping stone (fail forward mindset)	Ability to evaluate positive and negative impacts that different technologies and specific implementations of a technology have on individuals and social groups from different economic, social, and cultural contexts
		Basic understanding of the Internet Protocol, IP addresses, IP names, and how they apply to nodes on your LAN	Ability to evaluate, summarize, and integrate information from a range of sources	Ability to generate a wide variety of ways to accomplish project, and to logically analyze divergent pathways to assess potential impacts	Nurture personal confidence, persistence, and tolerance to tackle complex, ambiguous, open-ended problems	Ability to select between different technologies and implementations of a technology to better align with personal and group preferences, values, and goals
2	Router Pi	Basic understanding of the client/server architecture and open protocols	Ability to provide proper attribution when making use of information, guides, worksheets, data, and code from other sources	Ability to logically analyze and organize project tasks in ways that allow use of digital tools to help accomplish them	Ability to analyze current skills, compare to needed skills to accomplish project, and develop a plan of action to achieve skills development (growth mindset)	Ability to integrate a basic technical understanding of Internet technologies with a critical sociotechnical perspective to advocate for more just Internet policies and implementations
	Dynamic & Static IP Addresses	Ability to setup and configure the Apache http server and MySQL database server, and the ability to access it both from a LAN and from the Internet	Ability to apply relevant and trustworthy information, guides, worksheets, data, and code to current design project		Ability to empathize with individuals and social groups across a wide spectrum of social and cultural contexts	Ability to distinguish, and appropriately select betweeen, centralized, tightly controlled Internet policies and implementations and decentralized, federated Interenet policies and implementations
	Registering a Domain, Public IP's	Basic understanding of, the distinctions between, and ability to properly use markup languages like HTML and XML, style sheets like CSS, and programming languages like PHP and Python to exchange information via the Internet			Ability to identify personal current affects as a metric for understanding your current stage within the Information Search Process as applied to design project	An historical understanding of the Internet from military research project, to design of open protocols & federation of locally controlled systems, through opening of the Internet to businesses, to increasing centralization & limited control
3	Apache, MySQL, Wordpress	Basic understanding of Infrastructure, Platform, and Software as a Service as operational definition of cloud computing				
	HTML, CSS	Basic technical distinctions between federation of locally controlled Internet devices using open hardware, software, data, and/or protocols, and centrally controlled Internet devices using closed hardware, software, data, and/or protocols				
4	Python and Electronics					
	Bitnet v Internet of Things					
	Community Collaboration Report Back					
5	Project Day (Prato)					
6	The Internet & Broadband Speeds					
	Last/First Mile, Community Wireless					
	Neo-colonization & the Internet					

Project: Community Project				Weeks: November 15 - December 6 (Due December 1
Resource List: To Be Determined In Collaboration With Community Partner				

Wk	Proposed Activities/Lessons	Digital Literacy Learning Objectives				
		Technical	Information	Cognitive	Socio-Emotional	Critical Sociotechnical
1	Community Collaboration Report Back	Determined by project	Ability to apply reference interview skills to design context so as to better understand the strengths, opportunities, and aspirations that are motivating project initiation by an individual or social group	Ability to generalize past and current problem solving to new contexts	The ability to tap into group difference as an essential resource for inclusively tackling complex, ambiguous, open-ended problems with a goal of more socially just outcome	Ability to apply meta-design principles to not only incorporate a user-centered approach, but to facilitate user-as-designer
	CI Practitioner Ethics		Ability to explore a range of information sources, guides and worksheets for similar projects, relevant code examples, and to collect new data in support of project ideation, prototyping, and iteration	Ability to turn strengths, opportunities, and aspirations into concrete project ideas	The ability to communicate and collaborate with others	Ability to recognize and foster the collective leadership of technology users as non-traditionally considered from feminist and critical perspectives so as to critically select, design, and/or appropriate specific technologies or implementations of technologies
	Project-specific In-fill		Ability to evaluate, summarize, and integrate information from a range of sources	Ability to generate a wide variety of ways to accomplish project, and to logically analyze divergent pathways to assess potential impacts	Ability to embrace failure as an essential step in project development, to plan for failure, and to use failure as a stepping stone (fail forward mindset)	Ability to analyze how economic, social, cultural, historical, and political contexts, and personal preferences and biases, are embedded into a specific implementation of technology throughout the lifecycle of the technology
2	ICT & Community Building		Ability to provide proper attribution when making use of information, guides, worksheets, data, and code from other sources	Ability to logically analyze and organize project tasks in ways that allow use of digital tools to help accomplish them	Nurture personal confidence, persistence, and tolerance to tackle complex, ambiguous, open-ended problems	Ability to evaluate positive and negative impacts that different technologies and specific implementations of a technology have on individuals and social groups from different economic, social, and cultural contexts
			Ability to apply relevant and trustworthy information, guides, worksheets, data, and code to current design project	Ability to consider the ethical implications of creating or adopting specific technologies and implementations within different social, economic, and cultural contexts	Ability to analyze current skills, compare to needed skills to accomplish project, and develop a plan of action to achieve skills development (growth mindset)	Ability to select between different technologies and implementations of a technology to better align with personal and group preferences, values, and goals
				Ability to identify emerging technology trends, to consider stage of awareness and adoption, and to determine feasibility and desirability of testing or adopting an emerging technology within different social, economic, and cultural contexts	Ability to empathize with individuals and social groups across a wide spectrum of social and cultural contexts	
3	Emerging Technologies and Information Sciences			Ability to logically analyze the steps for effective adoption and application by different individuals of a specific technology implementation to support individual and social group aspirations and goals	Ability to identify personal current affects as a metric for understanding your current stage within the Information Search Process as applied to design project	
				Ability to logically analyze and communicate the costs for appropriation, adoption, and sustainable implementation of different technologies and implementations of technology		
4	Class Presentations During Final Exam Period					