

Live, Learn, and Lead in the Digital Realm: Goals for Fluency in Information Technology at Simmons

Technology in Education Task Force College of Arts and Sciences, Simmons College

Intellectual Capabilities	Concepts	Skills
<p>Personal: Use technology in a thoughtful, proficient, and self-confident manner</p> <p>Evaluate, procure, install, and configure technology</p> <p>Use technology to evaluate and interpret text, numbers and images</p> <p>Think critically, solve problems, and test solutions (with and about technology)</p> <p>Troubleshoot technology</p> <p>Think about information technology abstractly</p> <p>Understand the value of keeping current on technological developments</p>	<ul style="list-style-type: none"> • Media literacy (how presentation shapes perception) • The difference between data and information • Research (testing theories, grounding assertions in evidence) • Basic hardware and software concepts • Basic computer network concepts • Issues of privacy and security in the digital world 	<ul style="list-style-type: none"> • Use technology to gather information relevant to a topic (identify appropriate sources, construct queries) • Evaluate the veracity and presumed bias of information retrieved online • Evaluate systems for connecting to the Internet and select a method of connection appropriate for the context • Use strategies to protect yourself from identity theft and malware (virus infection, etc.) • Plan and carry out systematic backups of your files • Make wise hardware purchases and select software that meets your system specs • Know how to set up a computer, install new software, upgrade existing software and use manuals to learn software • Know how to seek tech support and help beyond that provided in manuals (providing a coherent information about the issue you need to resolve) • Set up meaningful (and scalable) file and directory structures on a computer – and be able to find and retrieve files on a machine. • Use of basic operating system features • Use computers for online transactions • Evaluate, select, and use the proper technology for a given task • Use technology to analyze and interpret data (quantitative and qualitative) • Use technology to generate and test out ideas, solve problems, and pursue deeper understanding of a topic

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<p>Interpersonal: Communicate and collaborate effectively using technology in many different settings</p> <p>Recognize and accurately interpret the style, voice, and perspective of others in digital contexts</p> <p>Make astute decisions regarding style, voice, and perspective when communicating in digital contexts</p>	<ul style="list-style-type: none"> • Construction and manipulation of identity (self and other) • Linear vs. non-linear organization of information (e.g., printed article vs. web site with links) • Synchronous vs. asynchronous communication (e.g., phone and chat vs. email) • Distributed vs. centralized information sources (e.g., multimedia web page vs. Word file with images) • Etiquette and ethics • File types and data representation • Platforms (e.g., Mac, Windows, Palm OS) 	<ul style="list-style-type: none"> • Know how to name and save files so that other users can open and read them • Use the following creatively and appropriately for interpersonal communication: <ul style="list-style-type: none"> ▪ word processing software ▪ presentation/graphics software ▪ email/listserv/chat/discussion board ▪ the Web • Know how to engage in computer-mediated group discussions to generate deepened insight and understanding
<p>Professional: Communicate effectively in the workplace using technology</p> <p>Understand the role and function of information and technology in the workplace</p> <p>Use technology to solve problems in the workplace</p> <p>Use technology responsibly in the workplace</p> <p>Work collaboratively across geographic distances</p> <p>Think in terms of systems</p>	<ul style="list-style-type: none"> • Workplace ethics, etiquette • Legal concepts, including security and privacy • Version control (drafts) • Audience, users • Data integrity, including procedures for preserving the integrity of data across an organization • Modeling and visualization • Algorithms 	<ul style="list-style-type: none"> • Know how to distinguish between informal and professional conventions of communication, and make appropriate choices • Be familiar with technological tools and resources relevant to the profession (hardware, software, research databases) • Know which applications are used to view and edit file types relevant to the profession (e.g., .doc, .rtf, .jpg, .gif, .ppt, .xls) • Use technology to represent quantitative and qualitative data in an informative manner • Collaborate (at a distance) on the co-authoring of documents and co-development of projects • Use the following appropriately in professional settings: <ul style="list-style-type: none"> ▪ word processing software ▪ presentation/graphics software ▪ email/listserv/chat/discussion board ▪ spreadsheets ▪ databases ▪ the Web • Communicate effectively with IT and tech support infrastructure in the workplace

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<p>Societal: Keep current on technological developments</p> <p>Evaluate and assess emerging technological developments (e.g., feasibility, social impact, ethical ramifications, legal implications, etc.)</p> <p>Understand and evaluate the opportunities, threats, limitations, and impact associated with emerging technologies</p> <p>When deemed appropriate, be prepared to serve as an advocate for change in relationship to technology (e.g., inclusion, legal and ethical reform)</p>	<ul style="list-style-type: none"> • Copyright, plagiarism, intellectual property, software licensing • Fairness, security, and privacy • Globalization and the digital divide • Artificial intelligence • Databases and data mining technology • Digital manipulation of media • Open vs. proprietary software • Acceptable use policies • Impact of technology on consumerism • Political power and political systems in a digital age • Persistent change and lifelong learning • The role of gender in technology • Women as inventors of technology, leaders in the business of technology, and technology related policy makers 	<ul style="list-style-type: none"> • Obey appropriate copyright and intellectual property laws <ul style="list-style-type: none"> ▪ Read and comprehend the terms of software licenses ▪ Follow acceptable use policies • Read and comprehend technology related current events as they relate to society • Evaluate and select methods for lifelong learning that are appropriate to the need and context (e.g., face-to-face, distance learning courses, online tutorials, listserv discussions)