Rhode Island Adult Education Content Standards

First draft, 10/15/07, Second draft, 9/10/09, Third draft, 2/13/10, Final draft, 5/7/10

Statement of Technology Use for the RI Standard: Utilize Technology for Information, Communication and Problem Solving

Electronic technology has a vital role in adult education in Rhode Island. Learners' use of technology allows access to lifelong learning opportunities and the development of skills necessary in work, family and community. Just as the other skill areas represented in the RI content standards, technology skills are essential to being a literate adult. The approach to technology skills in this Standard extends beyond the learners' knowledge of how to operate a particular technology to the use of electronic tools to reach their learning goals and to:

- communicate and express creativity;
- locate, retrieve, evaluate and share information;
- problem solve; and
- be a responsible user.

The use of the term "technology" in this Standard not only encompasses computers but all forms of electronic tools – telephones (including mobile phones), fax, DVD's, VCR's, PDA's, ATM's and more. The technology Standard was developed to best reflect and encompass the changing nature of technology so that learners have the skills to adapt to those changes.

The Standard is based on the development of technology skills – not language skills. However, in the context of the adult education field, it is expected that this Standard will be applied using an integrated approach of both technology and language skills. In other words, while the Standard focuses only on technology skills, it is expected that it is grounded in a foundation of parallel development of language skills. The levels described in the Standard are based on technology skill level not language. The benchmarks are divided in six levels – the intent was to keep consistency with Rhode Island's other content standards which are comprised of six levels. In some cases, benchmarks may be the same for more than one level. Our intent was to provide Performance Indicators to help the user of the benchmarks to distinguish the expectations between levels.

While there is currently not a national standardized assessment of technology for adult education learners and technology "literacy" is not recognized as a measurable outcome by the RI Department of Education, it is essential that these Standards be part of a wider discussion with the RI community, particularly business and educational institutions, in order to provide a seamless transition from adult education to employment and continued education and training. This Standard was developed with knowledge of the technology skills needed for success at the Community College of Rhode Island (RI). In addition, in order for RI adult learners to meet this Standard, it is critical that there is wide access to stable and state-of-the-art technology for all adult education programs. Trained and competent instructors are needed and should be provided with ongoing professional development.

The Utilize Technology for Information, Communication and Problem Solving Standard began development in 2007. The writing team consisted of Debbie Anthes (Rhode Island Department of Education), Gayle Dzekevich (Cranston Adult Education), Michelle Rajotte (Genesis Center), Angela Salvadore (Community College of Rhode Island) and Karisa Tashjian (Rhode Island Family Literacy Initiative). The writing team was informed by other states' adult education technology standards (where they exist) as well as the International Society for Technology in Education (ISTE) standards. The Standard was piloted in the Fall of 2009 by Jen Giroux (Rhode Island College), Anthony Hubbard (YouthBuild), Kim Libby (Rhode Island Regional Adult Learning), Michelle Rajotte and Karisa Tashjian. Johan Uvin (Rhode Island Department of Education), David Rosen, Jill Holloway (Rhode Island Adult Education Professional Development Center), Janet Isserlis (Rhode Island Adult Education Professional Development Center) and Judy Titzel (Rhode Island Adult Education Professional Development Center) generously provided their time, expertise and support throughout the process. Leslie Petty with Project IDEAL has reviewed the standards.

Outline of Standard:

LEVEL DESCRIPTIONS

BENCHMARKS AND PERFORMANCE INDICATORS:

Strand 1.0: TECHNOLOGY TOOLS AND APPLICATION (T)
Use of technology and terminology
Troubleshooting

Strand 2.0: COMMUNICATION AND CREATIVITY (C)

Strand 3.0: RESEARCH AND INFORMATION (R)
Access and retrieve research and information from a variety of technology tools
Source of information
Responsible use
Using technology for learning

Supporting Tools for Using the Standard:

- ✓ Glossary of Computer and Technology Terms
- ✓ Student Verification Checklist
- ✓ Teacher Self-Assessment
- ✓ Sample Lesson Plans

All documents are available at https://sites.google.com/site/ritechstandardspilot/Home

STANDARD: ***Utilize Technology for Information, Communication and Problem Solving.***

To utilize technology for information, communication and problem solving adult learners must:

- Determine the purpose for using information and communications technology
- Select the technology tools and resources appropriate for the purpose.
- Apply technological knowledge, skills, and strategies to use technology tools to locate, process, or communicate information.
- Monitor own ability to use the tools and the effectiveness of the tools in achieving the purpose, and if needed, use strategies to overcome barriers to achieving goals.

LEVEL DESCRIPTIONS:

Adult learners exiting each level can:

Level 1	Level 2	Level 3	Level 4	Level 5	Level 6
Demonstrate minimal knowledge of computers and other technology. Perform simple, highly structured tasks with considerable assistance after instruction.	Demonstrate limited knowledge of computers and other technology. Perform basic, highly structured, familiar tasks with assistance.	Determine when technology can benefit in completing a task and choose an appropriate technology tool for a task with assistance. Perform basic, familiar and unfamiliar tasks with some assistance.	Use technology to create products with little or no assistance. Work with or learn basic computer software. Solve common technology problems.	Create and share products using technology that organize and communicate ideas and other information inside and outside the classroom. Select and use several technology tools to perform a task.	Create products using technology independently. Research new technology tools to meet a variety of needs. Assist other technology users. Overcome obstacles to using technology effectively. Comfortably use technology and express creativity.

BENCHMARKS

When exiting each level, technology users at each level draw from the following sets of knowledge, skills, and strategies when utilizing technology for information, communications and problem solving:

Level 1	Level 2	Level 3	Level 4	Level 5	Level 6
Strand 1.0: TECHNOLOGY TOOLS AND APPLICATION (T)					
Use of technology and terminology					
T 1.1 Demonstrate how technology assists in everyday tasks. <u>Performance Indicators</u>: Recognize basic technology components and terminology. Use basic keys: arrow, enter, keypad, delete, ctrl, alt, function, shift, tab, backspace, space bar Use a mouse and keyboard. Use beginning proper keyboarding skills. Perform basic functions: logon/off, print, open, close, save. Use terminology appropriately:	T 2.1 Use basic technology functions and basic terminology. <u>Performance Indicators</u>: Insert a disk or USB drive. Use and install software. Create files and folders. Recognize file extensions: jpeg, doc, gif. Learn to scroll. Setup an email account. Use terminology appropriately: icon, toolbars, dialog box, dropdown menu, maximize, minimize, webcam, online, home page, http, hyperlink,	T 3.1 Use technology components and terminology. <u>Performance Indicators</u>: Select and use technology appropriate to the task with assistance. Create word processing document. Create a simple spreadsheet. Create a simple slideshow. Change page format including page setup, margins, portrait/landscape, font. Use cut, paste, copy. Create and use shared folders.	T 4.1 Use a variety of technology components and terminology. <u>Performance Indicators</u>: Select and use technology appropriate to the task. Use drawing tools and clipart. Create a diagram/graph/chart. Create a table. Track changes in a document. Use spell check, online dictionary and revision tools. Navigate websites. Use terminology appropriately:	T 5.1 Use advanced technology features and technology terminology. <u>Performance Indicators</u>: Select and use advanced technology features appropriate to the task. Use graphics in a product. Use a template. Use features of email such as attachments, address book and calendar. Use the Internet to accomplish simple tasks. Increase keyboarding skills so that accuracy and speed have little effect on efficiency or quality of work.	T 6.1 Independently use a variety of advanced technology and terminology. <u>Performance Indicators</u>: Independently choose and use technology appropriate to the task. Incorporate sound, animation and video into a product. Create and use a database. Use advanced features of email. Create a webpage. Edit a video. Use the Internet to accomplish complex tasks. Use terminology

desktop, disk, document, drag, click, double click, exit, point, shutdown, start button, text, hardware, software, monitor, data, create, screen, Internet. Describe the uses for calculators, telephone, tape recorder, scanner, microphone, laptop, handheld devices, PDA, fax, DVD, GPS, digital camera, ATM, copier.	website, webpage, URL, online, download, hard drive Learn proper keyboarding skills.	Use email account. Use terminology appropriately: indent, database, domain, edit, highlight, flash drive, USB, browser Practice keyboarding skills.	multimedia, plug-in, toggle, blog, touch screen, broadband, resize Increase keyboarding skills so that accuracy and speed have limited effect on efficiency or quality of work.	Use terminology appropriately: upload, popups, thumbnail, import and export.	appropriately: HTML, IP, network VoIP, podcast, server, social media, streaming Increase keyboarding skills so that accuracy and speed do not effect efficiency or quality of work.

Level 1	Level 2	Level 3	Level 4	Level 5	Level 6
Strand 1.0: TECHNOLOGY TOOLS AND APPLICATION (T) (con't)					
Troubleshooting					
T 1.4 Determine whether there is a problem. Performance Indicators: Ask a friend, family member, or coworker for help if there is a problem.	T 2.4 Use basic troubleshooting strategies. Performance Indicators: Check plugs and power supply (batteries). Identify potential sources of problem.	T 3.4 Solve common problems when using everyday technology with assistance. Performance Indicators: Try multiple restarting methods (e.g. ctrl/alt/delete). Use Help feature with assistance. Replace printer cartridge. Describe problem with technology.	T 4.4 Solve common problems when using everyday technology with assistance. Performance Indicators: Use Help feature and technical manuals. Check that media is properly installed.	T 5.4 Use troubleshooting and preventive maintenance strategies. Performance Indicators: Backup files and critical data.	T 6.4 Independently troubleshoot and perform preventive maintenance. Performance Indicators: Defrag and clean files. Empty recycling bin. Install updates. Run virus protection software. Respond to error messages.

Level 1	Level 2	Level 3	Level 4	Level 5	Level 6
Strand 2.0: COMMUNICATION AND CREATIVITY (C)					
C 1.1 Develop an awareness of how technology can communicate a message and express ideas. Performance Indicators: Select technology devices to collect and record data.	C 2.1 Use technology with assistance to communicate a message or express ideas. Performance Indicators: Select and use technology to collect and record data.	C 3.1 Select from and use technology to effectively communicate a message and express ideas. Performance Indicators: Select and use technology, with assistance to collect, organize, and display data.	C 4.1 Select from and use a variety of technology tools and features to effectively communicate a message to an audience with little assistance. Performance Indicators: Select and use technology to collect, organize, and display data in a variety of ways.	C 5.1 Use a variety of technology tools for creative expression and communication of ideas. Performance Indicators: Create a final product using two or more spreadsheet, database, presentation or web page design software and/or desktop publishing tools. Utilize data from a variety of sources to make predictions, decisions, or form conclusions.	C 6.1 Represent ideas using a combination of technology tools aimed at reaching a diverse audience. Performance Indicators: Create and share products to communicate ideas and other information with the products reflecting an understanding of the target audience. Evaluate effectiveness of technology choices. Utilize and present data from a variety of sources to support decisions.

Level 1	Level 2	Level 3	Level 4	Level 5	Level 6
Strand 3.0: RESEARCH AND INFORMATION (R)					
Access and retrieve research and information from a variety of technology tools					
R 1.1 Develop awareness of various technology research tools and resources. Performance Indicators: Describe purpose of online encyclopedia, search engine and online dictionary.	R 2.1 Use technology research tools and resources with assistance. Performance Indicators: Explain difference between subject and keyword searches. Use a search engine.	R 3.1 Select and use technology research tools and resources with assistance. Performance Indicators: Search a database with assistance. Search by subject, keyword and author. Use advanced search feature and Boolean logic.	R 4.1 Use appropriate technology research strategies, tools and resources. Performance Indicators: Search a database independently. Search by subject, keyword and author independently. Use advanced search feature and Boolean logic independently.	R 5.1 Evaluate and use technology research strategies and tools. Performance Indicators: Evaluate and use technology research strategies and tools	R 6.1 Independently select technology research strategies and tools. Performance Indicators: Independently select technology research strategies and tools.
Source of information					
R 1.2 Determine, with assistance, the source of information. Performance Indicators: Recognize the meaning of URL extensions such as .gov, .edu and .com.	R 2.2 Determine the source of information from a limited number of sources. Performance Indicators: Determine the source of information from a limited number of sources	R 3.2 Select and use appropriate technology resources from several sources. Performance Indicators: Select and use appropriate technology resources from several sources.	R 4.2 Practice the proper use of information accessed through technology with assistance. Performance Indicators: Obtain permission to use the work of others. Cite electronic research sources following a prescribed format. Verify accuracy of information by researching two or more sources.	R 5.2 Practice the proper use of information accessed through technology independently. Performance Indicators: Obtain permission to use the work of others. Cite electronic research sources following a prescribed format. Verify accuracy of information by researching two or more sources.	R 6.2 Choose from a variety of appropriate information sources to support the completion of a task. Performance Indicators: Choose from a variety of appropriate information sources to support the completion of a task.

Level 1	Level 2	Level 3	Level 4	Level 5	Level 6
Strand 4.0: DIGITAL CITIZENSHIP (D)					
Responsible use					
D 1.1 Practice responsible use of technology. Performance Indicators: *Computer lab behavior:* Demonstrate adherence to no food or drink near equipment policy. *Computer lab behavior:* Leave equipment as found. *Computer lab behavior:* Shut down programs and equipment properly.	D 2.1 Practice responsible use of technology. Performance Indicators: *Computer security:* Demonstrate awareness of where personal information can be shared. *Computer security:* Describe and practice password security. *Intellectual property:* Demonstrate adherence to not copying, altering, deleting or moving other's work without permission. *Intellectual property:* Demonstrate awareness of the appropriate or beneficial use of information.	D 3.1 Practice responsible use of technology. Performance Indicators: *Computer security:* Describe precautions to consider when using technology such as social media.	D 4.1 Differentiate the benefits and risks of using technology. Performance Indicators: *Computer security:* Demonstrate adherence to not downloading files or programs. *Intellectual property:* Recognize that piracy of copyrighted material is illegal. *Intellectual property:* Understand the consequences of plagiarism.	D 5.1 Describe and practice legal and ethical behaviors when using technology. Performance Indicators: *Computer security:* Discuss the negative impact of unauthorized intrusions into networked data and describe actions to prevent those intrusions. *Intellectual property:* Practice netiquette when using the Internet and email including copyright and fair use guidelines.	D 6.1 Describe and practice legal and ethical behaviors when using technology. Performance Indicators: *Computer security:* Recognize and respond appropriately to scams such as spam, phishing and spyware. *Intellectual property:* Describe the purposes and uses of public domain information.

Level 1	Level 2	Level 3	Level 4	Level 5	Level 6
Strand 4.0: DIGITAL CITIZENSHIP (D)					
Using technology for learning					
D 1.2 Identify how technology can help with learning. Performance Indicators: Demonstrate awareness that technology is available to help increase skills. Recognize and identify a variety of technology that can help with learning.	D 2.2 Identify current technology innovations that can help with learning. Performance Indicators: Select, identify and describe how technology can help meet personal goals.	D 3.2 Use technology resources for learning with assistance. Performance Indicators: Set personal goals incorporating technology such as distance learning.	D 4.2 Use technology resources for learning. Performance Indicators: Demonstrate effective use of technology to meet goals. Describe and demonstrate how learning is enhanced or affected by use of technology such as distance learning.	D 5.2 Experiment with technology based educational opportunities. Performance Indicators: Use a wide variety of technology to effectively guide learning including distance learning.	D 6.2 Use technology resources for independent learning activities. Performance Indicators: Evaluate how technology based educational options for lifelong learning helps to meet goals and set new goals. Locate and participate in interactive ecommunities to enhance learning (discussion list, blogs, webinar, wiki).