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Boys & Girls Clubs of America
www.myfuture.net
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Introduction to My.Future Essentials

The significance and importance of being agile, adept and flexible with digital tools cannot be overemphasized. Education, career and civic participation have all been impacted by the pervasive spread and integration of digital technologies. Teachers ask young people to produce written materials, source high-quality information, and demonstrate sophisticated ideas using presentations created and hosted online. Workplaces expect employees to possess similar abilities. Moreover, online-community participation is gaining traction as civic engagement shifts from door knocking and the physical soap box to a virtual fora, and networked mobilization strategies provoke a profound real-world response.

Simply put, it is essential for young people to possess a specific, yet broad, formal foundation of knowledge in the skills, practices and cultures of digital life. It is essential they become adroit, self-guided learners who are skillful in not only teaching themselves new materials, but also in recognizing the possibilities for what they can learn, and the process of how to figure things out.

In 2000, The Boys & Girls Clubs of America recognized the beginnings of these needs and, in partnership with Microsoft, produced Skill Tech 1 and Skill Tech 2 to teach elementary computer use. More than a decade later, educators and young people are faced with a new digital reality. Through learning experiences at their Clubs, The Boys & Girls Clubs of America once again seeks to lead in enabling young people to gain skills and proficiency in the contemporary digital world.

Comcast has stepped forward to support The Boys & Girls Clubs of America to revitalize resources designed to provide high-quality technology education. The My.Future technology education experience will produce an entirely new paradigm for technology-focused education at BGCA.

Through My.Future Essentials, Club staff will be provided with fun and engaging project-based teaching experiences to help youth:

- Understand their media world.
- Identify and develop digital interests.
- Develop portfolios of work.
- Earn certifications as they make progress.

My.Future begins with Essentials, a staff-facilitated project experience that provides members of all ability levels with a foundation of technology skills.

When members have accumulated a defined number of project-based outcomes, as evidenced by their digital portfolio products and, at the advanced levels, an in-person presentation to their peers, they qualify for signed, certified, BGCA digital badges. These digital badges can be showcased online, shared with peers or added to a member’s resume in recognition of their technical competency.

Additionally, interest pathways are available through the Extensions component of My.Future, providing members access to robotics, game design and even online journalism. Extensions allow instructional coaches and members to dive into specific interest areas, which may be technical or computational in nature. For example, if members really enjoy logic, then a next possible step could be to promote
robotics programming, or to engage and build interest in competing in the First Lego League competition. Or, if members enjoy the logic of programming, they might like to explore introductions to coding through building a game, learning code through Khan Academy, or even using Code Academy to build experience in a formal programming language.

This program is designed with an understanding of the advantages and limitations of the existing technology infrastructures of the Clubs, and attempts to bridge the space between needs and moving forward in a digital world with a fun and malleable educational platform. My.Future provides the guidelines to facilitate new opportunities for Staff and members to participate in progressive technology.

We appreciate your participation and are counting on your insights, feedback and contributions as we continue shaping My.Future. We encourage you to get in touch. Please send any relevant My.Future communications to the BGCA Arts & Innovation Team to myfuture@bcga.org.
Acknowledgments

Boys & Girls Clubs of America gratefully acknowledges the many people who contributed to the development of My.Future Essentials. In particular, we extend our appreciation to Comcast, with special thanks to Fred Maahs and Tracey Giang for making My.Future Essentials possible. Through the Foundation’s generous support, Club members will be able to build their digital literacy and learn the technology skills they will need to be prepared for the 21st century schools, workplace and life.

Boys and Girls Clubs of America

The Program, Training and Youth Development Services division of the Boys & Girls Clubs of America led the development of My.Future Essentials.

- Dr. Damon Williams, Senior Vice President
- Kimberly Boyd, National Vice President
- Edwin Link, Senior Director, Innovation & Creativity
- Dan Rauzi
- David Crusoe, Director, Innovation & Creativity
- Danielle Johnson, STEM & Educational Foundations
- Elaina Ouimet, Director, Innovation & Creativity
- Mary Grybeck, Director, Integrated Project Management
- Lauren Taylor, Director, Editorial Projects (MCML)

Support was provided by the Editorial, Creative, Marketing and Resource Development departments. We thank the following individuals:

- Michelle McQuiston, PTYDS Editorial
- Unisa Asokan, PTYDS Editorial
- Karl Kaiser, Creative Department
- Jill Levenson, Creative Department
- Layal Akkad, Creative Department
- Amy Lamparter, Marketing Department
- Glori Bunnell, Resource Development Department
- Marissa Carney, Resource Development Department

The Information Technology division of the Boys & Girls Clubs of America provided significant support throughout the entire project.

- Norm Thompson
- Dan Casner
- Stan Kubis
- Richard Smyth
The staff and youth of the Boys & Girls Clubs that participated in the pilot test provided valuable insight and suggestions for refining and enhancing the program.

- The Boys & Girls Clubs of Lowcountry
- The Boys & Girls Clubs of Leominster
- The Boys & Girls Clubs of Denver
- The Boys & Girls Clubs of Metro Atlanta
- The Boys & Girls Clubs of Wisconsin Rapids

Outside individuals contributed to our conceptual development of the digital badge concepts, technological underpinnings and implementation.

- Doug Belshaw, Mozilla Foundation
- Ian O'Bryan, University of New Haven
- Badge Atlanta working group
- Mozilla Web Literacy working group

We also extend a special thanks to Sean Oakes Studios, Inc. and BootSoft, Inc. for playing a significant role in helping shape the design and implementing the My.Future technology.
BGCA Education Technology Standards

My.Future Essentials standards are designed in accordance with the BGCA Education Technology Standards to help staff productively engage members in learning about the digital world of computers and technology. These standards help participants achieve all the outcomes, knowledge, skills and attitudes we believe youth need to certain achieve 21st century competencies. These standards are designed to be aspirational, rather than required. Members will achieve them to varying degrees in a process driven by engagement and fun. Yet it is anticipated that by successfully participating in all My.Future Essentials activities, and through creating all project-based collateral, a member will achieve sufficient competence in the digital and technical space to meet K-12 schoolwork requirements and potential entry-level workforce needs.

Finally, these standards can be used by staff to (a) identify what else could be taught; (b) gain a sense for what a member might know, and where additional experience might be helpful; and (c) identify members capable to play a technical/junior staff role at a Club.

Building: Create for the digital world.

- Use a variety of word processing interfaces to write expressively and quickly
  - Type quickly and accurately
  - Apply typographic elements to express, highlight, identify or draw attention to language
  - Utilize textual elements, such as tables, bulleted and numbered lists to elaborate ideas
  - Utilize tools to ensure accurate spelling, syntax and grammatical selections
- Use spreadsheets to store, manage and analyze data and information
  - Develop column and row structures to manage data efficiently
  - Perform basic arithmetic calculations on data within a spreadsheet structure
  - Locate advanced help resources needed to perform more complex functions and operations
- Format documents to audience expectations
  - Identify audience expectations, and sources to understand audience expectations
  - Format documents as appropriate to letters, resumes, reports
  - Store files in an easily-accessible cloud or local location
- Collaborate to create written, audio, video and online products
  - Track changes made to co-created web resources, and viewing document histories
  - Co-create documents with comments and discussion
- Interpret and modify HTML
  - Identify core elements of HTML
  - Make changes to core elements of HTML to observe the effect it has upon a web page
• Construct visualizations of the information in spreadsheets
  o Analyze the values in a spreadsheet through basic bar charts and graphs
  o Merge and manage the values in a large spreadsheet through a pivot table
• Develop the ability to problem-solve through programming logic

**Exploring: Navigate the digital world.**

• Locate information, people and resources via the web
  o Using keywords, search operators, and keyboard shortcuts to make web searches more efficient
  o Finding real-time or time-sensitive information using a range of search techniques
  o Locating or finding desired information within search results
  o Synthesizing information found from online resources through multiple searches
• Use web browsers to safely navigate the web
  o Encrypt data and communications using software and add-ons
  o Change the default behavior of websites using add-ons and extensions to make web browsing more secure
• Critically evaluate information found on the web
  • Make judgments based on technical and design characteristics to assess the credibility of information
  • Research authorship and ownership of websites and their content
  • Compare information from a number of sources to judge the trustworthiness of content
  • Discriminate between 'original' and derivative web content
  • Compare the purpose for the origination of content (e.g., commercial content on .com, education-focused content by .org, primary government content by .gov)
  • Identify likely sources for malware
• Interpret the information displayed by visualized data
  o Read and critique visualized data
  o Understand the origins of data behind the representation

**Communicating: Safely, securely and productively use tools to engage with others.**

• Get involved in web communities and understanding their practices
  o Participate in web communities
  o Use constructive criticism in a group or community setting
  o Define different terminology used within online communities
  o Identify rights retained and removed through user agreements
• Verbally and visually present ideas
  o Construct narratives with slide presentation tools
  o Deliver presentations to audiences of varying size, interest and background
• Protect against malicious online behavior
  o Identify probable malicious emails
  o Develop secure passwords

- Revised May 1, 2014
**My.Future Essentials Planning Guide & Templates**

This guide is a planning tool to help the staff at BGCA implement My.Future Essentials. This guide will help you to strategize who you will reach and how to reach them. It will also help you identify any additional resources that may be necessary for implementation.

Download and complete this guide in a word processor of your choice. And, if you can, email a copy to myfuture@bgca.org to help the BGCA Arts & Innovation Team know what you’re up to.

**Planning Guide: Identifying Audience and Materials**

To assist your planning efforts, please use the following guide to decide the best plan of implementing My.Future Essentials. To start, decide which of your members, by age or grade range, will be participating. Determine the size of the group to include and the day(s) of the week and time(s) are best to implement My.Future with each group?

<table>
<thead>
<tr>
<th>Age range</th>
<th>Group size</th>
<th>Day of the week</th>
<th>Instructional time(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ex. 6th graders</td>
<td>15 on average</td>
<td>Tuesday, Thursday</td>
<td>4:30-5:30</td>
</tr>
</tbody>
</table>

Note: An ideal implementation is to have members practice keyboarding for 15 minutes per day, or at least two times per week, in addition to their participation in the standard lessons.
Complete the following assessment. Which equipment do you have available? What might you need to do to be ready to implement? Use highlighting to mark any equipment shortfalls you may need to resolve before implementing My.Future Essentials.

My.Future Essentials' activities are designed to be extremely accessible for both members and staff. There is a precept of flexibility built into the modules, though most involve computer devices and Internet access, you will find the lessons can be easily adapted to the type, quantity and speed of computer devices your club has on hand. Alternately, there are few limitations upon what members could possibly accomplish through these exercises, and new or additional equipment and software is helpful in that regard.

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Recommended</th>
<th>Available</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internet Access (WI-Fi)</td>
<td>Internet access is essential for My.Future and technology education programming. What is the result of your speed test at <a href="http://speedtest.net">http://speedtest.net</a> ?</td>
<td>30 MBPS download</td>
<td>4 MBPS upload (for 10 computers)</td>
</tr>
<tr>
<td>Computers</td>
<td>How many working computers do you have in your computer lab?</td>
<td>15 working machines</td>
<td></td>
</tr>
<tr>
<td>Tablets</td>
<td>Optional - Do you have tablets available for members to use? If so, how many?</td>
<td>10 (not required)</td>
<td></td>
</tr>
<tr>
<td>Digital Cameras</td>
<td>Optional - Do you have digital cameras available for members to use? If so, how many?</td>
<td>5 (not required)</td>
<td></td>
</tr>
<tr>
<td>Digital video cameras</td>
<td>Optional - Digital video cameras are helpful for recording presentations and working with video.</td>
<td>2 (not required)</td>
<td></td>
</tr>
<tr>
<td>Item</td>
<td>Description</td>
<td>Quantity</td>
<td></td>
</tr>
<tr>
<td>-------------------------------------</td>
<td>-----------------------------------------------------------------------------</td>
<td>-----------</td>
<td></td>
</tr>
<tr>
<td>Digital projector</td>
<td>Optional - A digital projector helps members present their work product, provide technology demonstration and/or give instructions to members.</td>
<td>1 (helpful, but not required)</td>
<td></td>
</tr>
<tr>
<td>Speakers</td>
<td>Computer speakers are helpful for presenting audio or music members have created.</td>
<td>4 pair</td>
<td></td>
</tr>
<tr>
<td>Microphone</td>
<td>Microphones are helpful for audio-oriented projects, including recording beats and beat lyrics or music.</td>
<td>4 USB microphones</td>
<td></td>
</tr>
<tr>
<td>Headphones</td>
<td>Headphones are important to listen to TED talks, musical creations, beats and audio related to teaching and learning.</td>
<td>One per machine</td>
<td></td>
</tr>
<tr>
<td>Webcam</td>
<td>Optional - A USB HD webcam is helpful for recording time-lapse video or for communicating with other clubs.</td>
<td>1 USB High Def (not required)</td>
<td></td>
</tr>
<tr>
<td>Whiteboard, chalkboard or other writing surface</td>
<td>A writing surface is a required tool for My.Future Essentials.</td>
<td>At least one 4’ x 6’ writing surface</td>
<td></td>
</tr>
<tr>
<td>Printer and printer paper</td>
<td>A printer is a required tool for My.Future Essentials.</td>
<td>At least one</td>
<td></td>
</tr>
<tr>
<td>Software or access to similar Web based applications</td>
<td>Spreadsheet, text editor, photo and audio software, or their Web based versions are helpful tools used in several My.Future Essentials.</td>
<td>The Club’s discretion</td>
<td></td>
</tr>
<tr>
<td>Cords, chargers, and adaptors</td>
<td>Several My.Future Essentials require cords and chargers for uploading media from a computer device to a computer.</td>
<td>At least one</td>
<td></td>
</tr>
</tbody>
</table>
Look at the following list. Which software resources do you have available? What else might you need?

Software listed below are recommended, not required, as My.Future is designed to operate flexibly depending upon the software your club can access, rather than a specific suite of required software. In many cases, counterparts or analogs to software applications can be accessed online. Nonetheless, the following are recommendations:

<table>
<thead>
<tr>
<th>My Future at My Club Software Checklist (Recommended, not Required)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Software</strong></td>
</tr>
</tbody>
</table>
| Operating System and System Tools | • Windows 8.1 Update 1  
• Microsoft suite: Movie Maker, .NET, Silverlight, Media Player  
• Adobe Reader, Adobe Flash  
• Apple Quicktime  
• XNA Framework  
• 7 Zip | |
| Security Software | • Anti-Malware software of your choice  
• Antivirus software of your choice | |
| Productivity | • Microsoft Office 2013  
• Microsoft Math | |
| Reference Software | • Google Earth  
• Kahn Academy (desktop link)  
• Wikipedia (desktop link) | |
| Web Browsers | • Google Chrome or  
• Mozilla Firefox  
• Internet Explorer | |
| Music Editing Software | • Audacity  
• ACID Xpress | |
| Graphic Editing Software | • Paint.Net  
• GIMP  
• Pivot Stick Figure Animator | |
| Programming Software | • Code.org (desktop link)  
• Scratch 2.x (or link to the web-based Scratch)  
  • Scratch 1.4 install - http://scratch.mit.edu/scratch_1.4/  
  • Scratch 2.x install – http://scratch.mit.edu/scratch2download/  
• KODU  
• Microsoft Small Basic  
• Microsoft Expressionweb  
• Notepad++  
• Filezilla | |
Selecting the Right Modules

Will your members earn digital badges by participating?

A digital badge is a symbol or indicator of an accomplishment, competency, skill or quality. It is much like the paper certificates distributed at school graduation, or awarded for participating in an event or for successful completion of a course. Digital badges can only be issued to members 13 years of age or older. My.Future technology will issue them to a personal e-mail address.

See the Member Badges document for detailed badge requirements. This document can be found through the My.Future Staff portal.

Will your members earn badges?

YES  |  NO

Which modules will you teach?

My.Future Essentials provides staff with a series of facilitated modules. Modules are instructional experiences that merge staff-provided direct instruction with staff-member dialogue and open-ended exploration. Modules designed at the “beginner” or “introductory” level are most relevant to younger, elementary-aged members, or members who are new to computing. Intermediate modules are appropriate to members who have developed some technology competency and are able to set and achieve small, project-based objectives. Advanced modules provide the most sophisticated experience and require a greater degree of self-directed learning and staff-supported coaching. Many modules require multiple computing sessions to accomplish.

The modules you select may or may not include badge activity.

To select beginner / introductory modules:

- Consider what you believe to be members’ strengths and weaknesses. Are they adept at typing? Using search engines? If not, you may want to focus on these areas.
- If you would like members to earn a badge, be sure to read the badge criteria.

To select intermediate modules:

- Consider what members are doing in school that might be supported through additional in-club experience?
- Are there any gaps or weaknesses you might need to fill through engagement?
• What are some opportunities to help members start exploring and creating products in their digital world? How can they deepen their commitment to a particular area of technological building?

• If you would like members to earn a badge, be sure to read the badge criteria.

To select advanced modules:

• What are your members’ interests? What kinds of projects will motivate them to create increasingly professional products?

• What kinds of products might members be able to produce to show other audiences? What will help them get there?

• If you would like members to earn a badge, be sure to read the badge criteria.

Print and complete a sufficient number of My.Future Essentials Instructional Planning Sheets on page 28, to help guide your My.Future implementation.

How do I pick the right modules for my members to do?

Actually, it's easy. What do you know about your members’ knowledge as it relates to what you'd like for them to learn? Once you have established what members know, it's easy to identify areas for further practice, or where instruction might help them develop further along a learning pathway trajectory. This is called scaffolding, which is the technique of helping learners move toward a stronger understanding by building on what they already know.

How does it apply?

If this sounds complex, don't worry. It really isn't. First off, My.Future Essentials modules begin with a short dialogue that helps you establish what members know, and helps members share their experiences with one another as a means to establish a common framework. For example, one module has Staff ask members to think of what they know about the Internet to prepare them to think more formally about what the Internet is.

You know your members best. Where are they in terms of their overall understanding and competence? The Essentials modules help you gain a baseline sense of where members are in terms of their skill, but it's up to you to monitor and assess their progress if even in a rudimentary way. For instance, your younger members may not know how to type accurately and quickly. But, they might. You decide when it's time to move onto more advanced My.Future activities.

On the other hand, all we know about typing tells us that it takes time to learn how to touch-type. As a result, you may need to adapt, and run a typing exercise for seven sessions in a row,
or start each session with a 10-minute typing activity, as precursors to more complex activities. The key to either situation is active monitoring. What do your members know and where can you guide them based upon what they know?

**What guidance can I find?**

The best guidance is to follow the Digital Badge Guide and Digital Badge Checklists that have been provided with My.Future Essentials. The My.Future Essentials digital badges outline a progression that's suitable for most members, including elementary, middle or high school members, younger members who are particularly savvy or even older members who might need a little basic practice.
My.Future Essentials Session Planning Template

Use this template to outline your plan for implementing the modules selected from the My.Future Essentials offerings.

1) Select a module to facilitate.
2) Estimate the number of sessions members will need to complete the module. Plan conservatively, as projects can take more time than anticipated.
3) What produce will your members produce as evidence of their learning?
4) Will this module be repeated to help members develop a greater level of competency (e.g., typing, image manipulation)? If so, with what frequency?

<table>
<thead>
<tr>
<th>Module Title</th>
<th># of sessions</th>
<th>Work product / project outcome</th>
<th>Repeated?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

Note: You may wish to seek input or provide feedback about your experience. Be sure to check out the My.Future Staff Dialogue accessible through the My.Future Staff Portal.
<table>
<thead>
<tr>
<th>Title</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>QWERTY</td>
<td>Building</td>
</tr>
<tr>
<td>Team Typing Race</td>
<td>Building</td>
</tr>
<tr>
<td>Word by Word Typing Race</td>
<td>Building</td>
</tr>
<tr>
<td>Create a Basic graph</td>
<td>Building</td>
</tr>
<tr>
<td>Track your Words-Per-Minute</td>
<td>Building</td>
</tr>
<tr>
<td>What's the Internet?</td>
<td>Communicating</td>
</tr>
<tr>
<td>Win, Lose or Paint</td>
<td>Communicating</td>
</tr>
<tr>
<td>You, Your Password and Hackers</td>
<td>Communicating</td>
</tr>
<tr>
<td>Intro to Search</td>
<td>Exploring</td>
</tr>
<tr>
<td>Intro to Secret Codes</td>
<td>Exploring</td>
</tr>
<tr>
<td>Make a Mobile Movie</td>
<td>Building</td>
</tr>
<tr>
<td>Minecraft Create</td>
<td>Building</td>
</tr>
<tr>
<td>Collaborative Remix</td>
<td>Building</td>
</tr>
<tr>
<td>Create a Storyboard</td>
<td>Building</td>
</tr>
<tr>
<td>(re)Envision a Webpage</td>
<td>Building</td>
</tr>
<tr>
<td>Type Gaming</td>
<td>Building</td>
</tr>
<tr>
<td>Intro to Excel Ops</td>
<td>Building</td>
</tr>
<tr>
<td>Track Data in Charts</td>
<td>Building</td>
</tr>
<tr>
<td>What Do Your Friends Think?</td>
<td>Building</td>
</tr>
<tr>
<td>Caption Contest!</td>
<td>Communicating</td>
</tr>
<tr>
<td>Photo Manipulation</td>
<td>Communicating</td>
</tr>
<tr>
<td>What's in your (online + offline) name?</td>
<td>Communicating</td>
</tr>
<tr>
<td>You, Your Password &amp; Hackers</td>
<td>Communicating</td>
</tr>
<tr>
<td>Learn Something New About Where You Are</td>
<td>Exploring</td>
</tr>
<tr>
<td>Cracking Secret Codes</td>
<td>Exploring</td>
</tr>
<tr>
<td>Credibility Assessment</td>
<td>Exploring</td>
</tr>
<tr>
<td>Learn something new!</td>
<td>Exploring</td>
</tr>
<tr>
<td>Sleuthing Whodunnit</td>
<td>Exploring</td>
</tr>
<tr>
<td>Edit Wikipedia</td>
<td>Exploring</td>
</tr>
<tr>
<td>Tell It Like It Is</td>
<td>Building</td>
</tr>
<tr>
<td>You: MCML Author</td>
<td>Building</td>
</tr>
<tr>
<td>Ask the Experts</td>
<td>Communicating</td>
</tr>
<tr>
<td>Build a Blog</td>
<td>Communicating</td>
</tr>
<tr>
<td>Discuss Cyberbullying</td>
<td>Communicating</td>
</tr>
<tr>
<td>Video Fast Forward</td>
<td>Communicating</td>
</tr>
<tr>
<td>What's Your TED Talk?</td>
<td>Communicating</td>
</tr>
<tr>
<td>Why Should We Care About Who Got Hacked?</td>
<td>Communicating</td>
</tr>
<tr>
<td>Gone Phishing</td>
<td>Communicating</td>
</tr>
<tr>
<td>A Walk in the Woods</td>
<td>Exploring</td>
</tr>
<tr>
<td>Nuke Malware</td>
<td>Exploring</td>
</tr>
<tr>
<td>Mashing and Mapping Data</td>
<td>Exploring</td>
</tr>
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</table>
Sample Beginner Essentials Module: You, Your Password, and Hackers

Create a secure password to keep safe from hackers.

WHAT YOU’LL NEED

- Computer (one per member or one per small group)
- Internet connection
- White board, chalk board, or other writing surface

ACTIVITY 1 - Why do we have computer passwords?
TIME: 5 MINUTES

Ask members what they think about computer passwords. Why do they have them? What do they think passwords are for? Get them talking about the purpose of passwords, and take note of what they say on a whiteboard or writing surface. Create a list of their ideas.

Ask members to raise their hands if any of them use passwords for websites.

Ask them to raise their hands if they can answer "Yes" to the following questions:

- Is the password a real word?
- Can the password be found in a dictionary?
- Is the password under six digits?
- Do they use the same password on different websites?

For the members who raised their hands at any of the password questions, explain they are at risk for someone to hack into their account, steal information and possibly their identity.

Tell the members who did not raise their hands, they probably have a safe password.

ACTIVITY 2 - Testing passwords for security
TIME: 10 MINUTES

If members have their own computers, ask them to launch https://howsecureismypassword.net/. Ask them to test a few passwords in the password text box. Explain why the Web page changes color depending on the strength or weakness of the password they enter.

After a few minutes of playing around with the password security gauge, ask them what they learned. Under what conditions does the website indicate a password is weak? Strong? Have them describe the characteristics of both a weak and strong password.

Characteristics of weak and strong passwords:

- The length of the password
- Whether it's a real word or not
- If they used capital letters or other characters (i.e. question mark)
Record their findings on the board. If you feel comfortable, help them synthesize their findings into actionable steps everyone can follow. For example, Make the password long to make it safe. Use a real word when making a strong password.

What are some ways they can create and remember "strong" passwords?

- Use the acronym of a memorable sentence. For example, the password MbcDlf! is short for "My big cat Dan likes fish!"
- Or, use a strange word like "ArtfulSandwichYum!"

Try coming up with a few examples with members.

ACTIVITY 3 - Why is security important? What should you do differently?
TIME: 5 - 10 MINUTES

Ask the members why they think computer security and passwords are important? What does it mean if someone steals information or impersonates someone? Why is it bad? Talk with your members about what they think.

Ask them what they can do differently now and in the future to keep their online accounts safe.

The main takeaways:

- Use strong passwords
- Use a different password for every website

ACTIVITY 4 - Badge Credit/Save to Portfolio
TIME: 5 - 10 MINUTES

If they are comfortable, they can take a screenshot of a secure password on the Howsafeismypassword.com site and paste it into a Word document, along with their security findings. Depending on your club's operating system, screenshots can be captured quickly and easily using the snipping tool or Print Screen key on the keyboard. Remind members to give the file a clear name and date, e.g., Password-Screenshot-5-12-2014.doc. Member should save and store the information in their online portfolio in an organized fashion.

Members should create screenshots of weak and strong passwords.

These screenshots should be uploaded into members' online portfolio and stored in an organized fashion. Help members identify an organization method (folders, tags) that works best for them and the technology they have selected for their portfolio.

The product of this activity counts toward their Beginner badge.
Sample Intermediate Essentials Module: Collaborative Remix

Start a fun collaborative project, such as a song or a story, using a document shared by members.

WHAT YOU’LL NEED

- Computer (one per member or one per small group
- Internet connection

ACTIVITY 1 - Preparation
TIME: 5 MINUTES

Identify text that you would like to use. This can be anything! Possible sources include:

- Text from a book found on Project Gutenburg
- Text from a web page
- Song lyrics

Create a Google Doc or a MS Live Drive doc.

Make sure to set permissions so that "anyone with the link can edit".

Learn about permissions editing on Microsoft SkyDrive or Google Drive.

Paste the text you would like members to remix into your document.

Create a short link so that the document is easy to access.

Identify the objective: are members writing to make the lyrics funnier? More meaningful? Have them talk about their community?

Write the link on a whiteboard or other writing surface.

ACTIVITY 2 - Writing with the masses
TIME: 20 MINUTES

Share the link to the document with members, on the whiteboard or other writing surface, and tell them to open the document. Outline the objectives. What are members making edits to accomplish?

Possibilities include:

- Add a new beginning, middle or ending
- Make it funnier
- Make it more powerful
- Make it reflect the community
As members engage this activity, monitor the session for rule-breakers and "deleters". You can identify a deleter by using "undo" on individual machines by pressing Control-Z or using the drop-down menu, Edit then Undo.

ACTIVITY 3 - Badge Credit/Save to Portfolio
TIME: 5 MINUTES

Members should be able to download and/or make a copy of the file that has been created. They should save the file (as a PDF) to their computer, and then save that file to their portfolio.

Remind members to give the file a clear name and date when saving and uploading files to their online portfolio, e.g., Collab-Article-5-12-2014.pdf. Help members identify useful organization methods, such as assigning tags to files and creating folders.

The results of this activity count toward an Intermediate badge.

Resources: Project Gutenberg - https://www.gutenberg.org/
Sample Advanced Essentials Module: Ask the Experts
Engage with subject experts online to support research efforts.

WHAT YOU'LL NEED

- Computer (one per member or one per small group)
- Internet connection
- White board, chalk board, or other writing surface

ACTIVITY 1 - Identifying communities
TIME: 5 MINUTES

Brainstorm and discuss the following questions:

- What is an online community? Ask members to identify words that describe online communities, and record the words on a whiteboard.
- What online communities can they think of? Write down the communities.
- Which community would they consider visiting with their research questions?
- What qualities makes one community better than another for asking questions and receiving good answers?

ACTIVITY 2 - Writing good questions
TIME: 10 MINUTES

The Right Question Institute has created a very simple and powerful formula for developing questions. Their formula has four rules:

- Ask as many questions as you can
- Do not stop to discuss, judge, or answer any questions
- Write down every question exactly as it is stated
- Change any statement into a question
- Explain these four rules to your members, and then prompt them to think about their research topic.

Ask them to brainstorm for five minutes about any research questions they have on their topic. Encourage them to keep producing questions even if they claim to have run out. Members should keep track of their questions on a piece of paper.

After five minutes has passed, ask them to look at their list of questions. Explain the difference between open ended questions and closed-ended questions. Open-ended questions invite a longer response. Closed-ended questions are typically answered with a “yes” or a “no”. An example of an open ended question to a video game developer is, "What was it like creating the characters for Super Mario Brothers?" The same question asked in a closed-ended style is, "Was it fun creating the characters for Super Mario Brothers?"

Talk with your members about the benefits and drawbacks to each type of question. Why would they select one over the other? How can one type be converted into the other?
Finally, ask them to take five minutes and prioritize their questions in terms of importance to their research project. What are the top five questions that will get them the most valuable information they can use to further their research?

ACTIVITY 3 - Test the questions
TIME: 10 MINUTES

Ask the members to form small groups and ask their questions to each other. Which questions receive the best possible responses? Which receive responses that aren't helpful? How can the questions be improved to gather more relevant information? Members should revise their questions based upon what they learn from the group's feedback.

ACTIVITY 4 - Post the questions
TIME: 20 MINUTES

Members should search for, and then register with an expert community that can best answer their question needs. For example, Ask.com is a popular community many young people visit to post questions and answers. But other good resources exist, too. To find other communities, they can:

- Use the online form to ask a question of a librarian at the Library of Congress: http://www.loc.gov/rr/askalib/
- Use Ask.com and other online networks
- Try the Math Forums at Drexel to ask for expert help in math
- Use a search engine to find "online community" and the subject of their choice

Show some examples of online experts, if you like:

- Ask the fishing experts: http://www.fellowfishermen.com/
- Investigating nanotechnology: http://nanohub.org/

ACTIVITY 5 - Badge Credit/Save to Portfolio
TIME: 5 MINUTES

Members should copy and paste their correspondence into a document. Remind members to give the file a clear name and date, e.g., Expert-Correspondence-5-12-2014.doc.

This document should be uploaded into members’ online portfolio and stored in an organized fashion. Help members identify an organization method (folders, tags) that works best for them and the technology they have selected for their portfolio.

The product of this activity counts toward their Advanced badge.

ACTIVITY 6: A few days later
TIME: 15 MINUTES

Make sure to follow up with members. Reflect. How did it go? What was useful or helpful about the questions they asked? How would they change their approach in the future, or what would they do again?
Portfolio and Digital Badge Implementation

Would you like for your members to create and store a portfolio of their module work?

YES | NO

Where will members store their online portfolio work? Member portfolios can be stored online or offline, at your volition. Members under the age of 13 should not use personal accounts to store information online. Members over the age of 13 can have their own online accounts, if you and your Club support that decision.

Storage examples:
- If members are 13 years of age or older, they may create a login with Drop Box, Google Doc or Microsoft Sky Drive.
- You or another staff may create a personal Drop Box, Google Doc or Sky Drive folder and provide access to members for storage of their work.
- If your Computer Lab has a file server, members may store files in a personal folder on the file server.

QUESTION: Where members will store their online work at your Club? Write your answer in the box.

Digital badges are the official certification used to recognize a members’ portfolio work. Many Boys & Girls Clubs have used technology certifications to provide members with access to expanded opportunities. Will the recipients of digital badges gain additional Club privileges or opportunities?

Examples of rewards for badge accomplishments:
- Obtain a My.Future Beginner Badge and a My.Future Intermediate Badge as a gateway to obtaining the wifi password.
- Obtain a My.Future Advanced Badge and a Techspert Badge to become a Club Techspert, and potentially open a Junior Staff opportunity.
- Obtain a My.Future Beginner Badge and complete NetSmartz to gain access to the computer lab.

QUESTION: What opportunities will Essentials badges unlock for the members at your Club? Write your answers in the box.
About Digital Badges

What are digital badges?

A digital badge is a symbol or indicator of an accomplishment, competency, skill or quality. It is similar to the paper certificates one receives upon school graduation, participation in an event or successful completion of a course. The chief difference between the traditional paper certificates and a digital badge lies within its portability. A digital badge is an image file, and can be easily shared. Yet, a digital badge is much more than an image file. Within its code, a digital badge contains hidden, encrypted data with information on its owner, its origin, the criteria required to earn it and a link to the documentation that confirms it was successfully earned. Thus, the performance task, criteria and evidence all become accessible to educators, employers and others who may want to understand more about a student, candidate employee or volunteer.

How are digital badges used with My.Future Essentials?

To earn My.Future Essentials badges, members must demonstrate progressive, broadly-based levels of digital competence. Members who are awarded all three My.Future Essentials badges will be positioned to explore, build and communicate in their digital world. They will be able to perform in manners consistent with the high expectations of school and the entry-level workforce, and be more resilient to technological advances. Finally, the intent of My.Future Essentials is to expose members to areas that may capture their further interest, and lead to the development of digital expertise along technical pathways.

Who issues digital badges?

Staff members at Clubs issue digital badges to members by email through the Staff log-in at the My.Future back-end. Members must be at least 13 years of age to earn a digital badge, and must have, or wish to have a personal email address. Digital badges utilize personal email address to ensure portability. We realize that not all staff members or Clubs will be comfortable with issuing badges to members. Therefore, the digital badge is optional.

Where are digital badges stored and displayed?

Once a digital badge has been issued to an email address, a member can optionally upload their digital badge to an Open Badge Backpack. The Open Badge Backpack. https://backpack.openbadges.org/, is an open and private portfolio run by the Mozilla Foundation that allows individuals to store, and if they wish, publicly display their badges.

Badges can also be uploaded to an increasing number of portfolio systems. There are also opportunities to upload digital badges to LinkedIn, although the badges must be displayed through an external site or server.

Use of these systems is optional and will require members to register personal accounts with the Mozilla Open Badge Backpack.
Digital Badge Criteria

Please see the table provided for available badges, criteria for earning, and evidence of accomplishments.

<table>
<thead>
<tr>
<th>Digital Badges</th>
<th>Description and Criteria</th>
<th>Evidence</th>
</tr>
</thead>
</table>
| **Kilo Badge (Beginner)**<br>See Kilo Badge checklist on p. 21 | This badge signifies an entry-level knowledge about technology and the media world. Member has completed a minimum of eight modules, including:  
- At least two keyboarding modules, repeated until some competence has been achieved  
- Web Search  
- Introduction to Secret Codes  
- At least four additional Beginner modules instructor's choosing | Member has completed modules to staff satisfaction, and:  
- Learned how to save a file to the desktop or computer directory  
- Has saved material from at least one module to the computer |
| **Mega Badge (Intermediate)**<br>See Mega Badge checklist on p. 22 | This badge signifies that a member possesses a solid platform of knowledge about the digital world. Member has completed a minimum of eight Intermediate modules, including:  
- Credibility assessment  
- Sleuthing Whodunnit  
- What's in your offline/online name | Member has created a digital presentation (PowerPoint, Prezi, etc.) that includes:  
- One work sample from each of the eight modules (a minimum of eight slides)  
- One slide that indicates what the member enjoyed the most  
- One slide that indicates what the member would like to learn more about |
|                                | • Read and discuss the most common passwords list  
|                                | • At least four other Intermediate modules of Instructor's choosing | Presentation has been created to staff satisfaction. |
| Giga Badge (Advanced)          | This badge signifies that a member possesses a robust, broad knowledge about the digital world. Member has completed the Intermediate badge and a minimum of eight Advanced modules, including:  
|                                | • You: MCML Author  
|                                | • What's your TED Talk? | Member has created a digital presentation (PowerPoint, Prezi, etc.) that includes:  
|                                | • One work sample from each of the eight modules (a minimum of eight slides)  
|                                | • One slide that indicates what the member enjoyed the most  
|                                | • One slide that indicates what the member would like to learn more about  
|                                | • One slide that indicates what the member would like another member to teach her or him about, in the digital arena | Member has presented her or his presentation to a session of peers, such as friends, fellow Staff, parents or community members. |
| Techspert                      | This badge signifies that a Member has an advanced proficiency in the technical space, and has taken a leadership role in helping other Members learn more about technology.  
|                                | Member has completed the following modules: | Member has created a digital presentation (PowerPoint, Prezi, etc.) that includes:  
<p>|                                | • One work sample from each of the eight modules (a minimum of eight slides) |</p>
<table>
<thead>
<tr>
<th>(re)Envision a Web Page</th>
<th>One slide that indicates what the member enjoyed the most</th>
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</thead>
<tbody>
<tr>
<td>Edit Wikipedia</td>
<td>One slide that indicates what the member would like to learn more about</td>
</tr>
<tr>
<td>Mashing and Mapping Data</td>
<td>One slide that indicates what the member would like another member to teach her or him about, in the digital arena</td>
</tr>
<tr>
<td>Nuke Malware</td>
<td>Member has presented her or his presentation to a session of peers, such as fellow Staff, parents or community members.</td>
</tr>
<tr>
<td>Learn Something New</td>
<td>Member has mentored and/or coached fellow Members at the Beginner, Intermediate and/or Advanced level for at least six My.Future sessions.</td>
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<tr>
<td>(this must be focused on learning something new in the technical space, e.g., Javascript code, digital art/vector drawing, etc)</td>
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<tr>
<td>Ask the Experts</td>
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<tr>
<td>Why should we care about who got hacked?</td>
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<tr>
<td>Video Fast Forward</td>
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**Digital Badge Checklists**

To make awarding digital badges a little easier, please use the following checklists to determine eligibility. Be sure to award the digital badge to your member if they qualify. Log in to the staff portal at http://myfuture.net and send a digital badge! Members can preserve their digital badges in their email or portfolio, and share their digital badges online. If your members are below the age of 13, you may wish to print the digital badge for them. To print the digital badge, log in to the staff portal at http://myfuture.net and when awarding the digital badge, select the print option.
### Kilo Badge: Skills Checklist

<table>
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<tr>
<th>Member First Name</th>
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<td>Member Last Name</td>
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This badge signifies an entry-level knowledge. Member has completed a minimum of eight modules, including:
- At least two keyboarding modules, repeated until some competence has been achieved
- Web Search
- Introduction to Secret Codes
- At least four additional *Beginner* modules instructor’s choosing

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<thead>
<tr>
<th>Required modules</th>
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<tbody>
<tr>
<td><strong>Module Name</strong></td>
<td><strong>Completed?</strong></td>
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<tr>
<td>Keyboarding Module 1 (adequate progress)</td>
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<tr>
<td>Keyboarding Module 2 (adequate progress)</td>
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<tr>
<td>Intro to Web Search</td>
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<tr>
<td>Introduction to Secret Codes</td>
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<tr>
<th>Four additional basic modules of Staff choosing</th>
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<tr>
<td><strong>Module Name</strong></td>
<td><strong>Completed?</strong></td>
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Member has completed modules to staff satisfaction, and:
- Learned how to save a file to the desktop or computer directory
- Has saved material from at least one module to the computer

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<th>Staff Signature</th>
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<td>Date</td>
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Mega Badge: Skills Checklist

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<th>Member First Name</th>
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<tr>
<th>Member Last Name</th>
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This badge signifies that a member possesses a solid platform of knowledge about the digital world. To quality, Member must complete the following four modules AND at least four other intermediate modules of Instructor's choosing.

<table>
<thead>
<tr>
<th>Required modules</th>
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<tbody>
<tr>
<td>Module Name</td>
<td>Completed?</td>
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<tr>
<td>Credibility Assessment</td>
<td></td>
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<tr>
<td>Sleuthing Whodunnit</td>
<td></td>
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<tr>
<td>What's in your offline/online name</td>
<td></td>
</tr>
<tr>
<td>Read and discuss the most common passwords list</td>
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<table>
<thead>
<tr>
<th>Four additional intermediate modules of Staff or Member choosing</th>
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<tbody>
<tr>
<td>Module Name</td>
<td>Completed?</td>
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</table>
Member has created a digital presentation (PowerPoint, Prezi, etc.) that includes:

- One work sample from each of the eight modules (a minimum of eight slides)
- One slide that indicates what the member enjoyed the most
- One slide that indicates what the member would like to learn more about
- Presentation has been created to staff satisfaction.

<table>
<thead>
<tr>
<th>Staff Signature</th>
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<tbody>
<tr>
<td>Date</td>
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Staff: Be sure to award the digital badge to your member. Log in to the staff portal at http://myfuture.net and send a digital badge! Members can preserve their digital badges in their email or portfolio, and share their digital badges online.
### Giga Badge: Skills Checklist

<table>
<thead>
<tr>
<th>Module Name</th>
<th>Completed?</th>
</tr>
</thead>
<tbody>
<tr>
<td>You: MCML Author</td>
<td></td>
</tr>
<tr>
<td>What’s your TED Talk?</td>
<td></td>
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</tbody>
</table>

**Required Modules for the Giga Badge**

**Also required, six additional intermediate modules of Staff or Member choosing**

<table>
<thead>
<tr>
<th>Module Name</th>
<th>Completed?</th>
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</table>

This badge signifies that a member possesses a robust, broad knowledge about the digital world. Member has completed the Intermediate badge and a minimum of eight advanced modules, including:
Member has created a digital presentation (PowerPoint, Prezi, etc.) that includes:

- One work sample from each of the eight modules (a minimum of eight slides)
- One slide that indicates what the member enjoyed the most
- One slide that indicates what the member would like to learn more about
- One slide that indicates what the member would like another member to teach her or him about, in the digital arena
- Finally, Member has presented her or his presentation to a session of peers, such as friends, fellow Staff, parents or community members.

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Staff: Be sure to award the digital badge to your member. Log in to the staff portal at [http://myfuture.net](http://myfuture.net) and send a digital badge! Members can preserve their digital badges in their email or portfolio, and share their digital badges online.
Techspert Badge: Skills Checklist

<table>
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This badge signifies that a Member has an advanced proficiency in the technical space, and has taken a leadership role in helping other Members learn more about technology. To quality, Member must complete the following modules:

<table>
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Boys & Girls Clubs of America
www.myfuture.net
Member has created a digital presentation (PowerPoint, Prezi, etc.) that includes:

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- One slide that indicates what the member enjoyed the most
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- One slide that indicates what the member would like another member to teach her or him about, in the digital arena
- Member has presented her or his presentation to a session of peers, such as fellow Staff, parents or community members.
- Member has mentored and/or coached fellow Members at the Beginner, Intermediate and/or Advanced level for at least six My.Future sessions.

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Staff: Be sure to award the digital badge to your member. Log in to the staff portal at http://myfuture.net and send a digital badge! Members can preserve their digital badges in their email or portfolio, and share their digital badges online.
Interest Pathways into Extensions

Expertise is developed over time. We all start as novices at things that we like to do, whether its teaching, kite building or playing a musical instrument. Over time, and through repeated practice and work, we become better. We gain competence and expertise.

My.Future Interest pathways are a series of outlines that enable staff members to provide members with experiences that will help them develop expertise in interests they may have. Extensions are specific opportunities within each interest pathway. For example, First Lego League is an extension of the project-based learning that may occur in RoboTech. First Robotics, in turn, is an extension of First Lego League.

My.Future provides a number of extension experiences that allow instructional coaches and members to dive into specific interest areas, which may be technical or computer based.

Where the extensions experiences can be found

Extension experiences are available through the website's Extensions' section. Extensions adhere to one of three categories: Building, Exploring and Communicating. Initially, these extension experiences will include programs originally available through Club Tech, including RoboTech, Clay Tech and Game Tech. However, we have provided other opportunities for you to consider as a way to build up to, or upon, those program experiences.

How to select the most appropriate extensions

Selecting appropriate extension experiences requires a little thought about what members already know and like to do, and the experience potential to help them "take their learning further." For example, some Clubs may be equipped to help members get footing in coding or graphic design, others may have access to Lego robotic equipment and a First Lego League team. However, many other Extensions resources are freely available online. For example, we have provided a number of opportunities to teach and learn computer code and computer science. These opportunities are Web based, which means that as long as you can identify a member's interest and direct them to the resource, the member should be able to pursue the opportunity with little other support, other than coaching support that you may provide.
Club access privilege models

What are privilege models?

Clubs can offer members a wide variety of opportunities including access to Club computers and devices based on privileges earned over time. Members’ unsupervised use of Club computers, extended access to Club equipment, or use of a mobile tablet device with Wi-Fi internet are all examples of privileges. These privileges all require Club staff to trust members, to depend on members’ education and subsequent quality choices, and to have a shared understanding of the rules and expectations.

This privilege model establishes the criteria to facilitate access to specific opportunities. For example, Clubs that lend mobile devices to members may require members to complete the NetSmartz and Essentials programs in order to have borrowing privileges. Other Clubs may require a completion of the Essentials program as a criteria to participate in RoboTech or general access to the computer lab.

Additionally, a privilege model is a construct in which Club staff has the opportunity to develop trust, administer education and deepen understanding with members. As members earn access to Club opportunities, they are able to take advantage of those opportunities safely and responsibly.

How do privilege models work with Essentials?

The Essentials module design supports a Club privilege model and offers a variety of exciting opportunities. It's important to understand that while Members who complete Essentials activities may possess a breadth of digital literacy competencies, these competencies do not lead or equate the same depth of understanding a NetSmartz level might convey in terms of Internet safety, or other technological capabilities. It is important to consider what the programs cover in determining what role each program might play within the privilege model you construct.

Examples of how Essentials might fit within your Club:

- Completing Essentials at a Basic level might provide members with access to the Computer lab
- Completing Essentials at an Intermediate level, and completing NS Tweens, might allow members to "check out" a mobile device
- Completing Essentials at an Advanced level, and completing NS Tweens, might allow members to mentor younger members in aspects of technology

An example of existing privilege models at the Boys and Girls Club of Metro Denver

The Boys and Girls Club of Metro Denver has created "Techsperts", a program that provides members with three levels of achievement. In their words, "Techsperts is intended to increase [member] skills and is a leadership opportunity. Techsperts are generally the assistants in the tech lab, and service hours are required to finish the program. In April, there is an organization-wide Techsperts dinner, where the kids are taken to a restaurant to recognize their work. Once the kids are 14 years old, they are eligible to be selected as the peer leader. The peer leader commits to at least two hours per week, for twelve weeks that can be between November and March. One hour is for planning, and one is for leading a Techsperts session. They are awarded a stipend when they complete twelve weeks. "

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Member Online Portfolios

About Portfolios
A digital portfolio is a collection of work samples that allow for collaboration, illustrate learning, indicate competence and provide for sharing and showcasing. In My.Future, a digital portfolio contains both raw and completed work samples members have created through their technology education experience. The raw samples are those created in a single session but not completed, or those products that have relatively lesser meaning to members. Completed work samples are those samples that members care most about -- items necessary to obtain badge certification and/or those the member may wish to perfect for intrinsic or extrinsic reasons. Both kinds of media - incomplete and complete - may be contained within a members' My.Future digital portfolio.

By nature, the use and utility of an online portfolio increases as the volume and quality of work samples contained within it expand. The ultimate value of the portfolio, however, is determined by the members and staff. Clubs may use collections of digital portfolio products as the criteria needed to earn digital badges, and members may unlock club opportunities (like access to a Wi-Fi network) by earning specific digital badges. Alternatively, members may use products from their digital portfolio at school, for their college applications or even for job applications.

Where do we recommend members store their work?
The Boys & Girls Clubs of America does not provide the software for members to store their work online at this time. Instead, we recommend you explore and assess one or more online storage options. Three of the most significant options are Microsoft OneDrive, Google Drive and DropBox. Each of these technologies provides its own affordances, or benefits and opportunities, and each has its own drawbacks. For example, DropBox is easy to synchronize with a specific desktop and makes uploading simple and quick. However, DoprBox does not provide software to support internal content creation. Microsoft and Google provide a cloud platform that supports document editing and collaboration, but require different steps to upload content.

Education providers have also created digital and online portfolio solutions. While BGCA does not recommend one platform over another, options could include Weebly for Education and Edmodo.

Whatever your selection, you must be prepared for change. Technology companies make frequent changes to their core products, and only a fraction of the changes they make are communicated clearly. Knowing this, plan for robustness. Select a technology based upon:

- Longevity. Is it a new, small company or a large, older company? How likely will members' work be accessible in one to three years on the given platform?
- Security. Have you heard of the company? What's the likelihood of their having a robust security team?
- Privacy. Do they provide a privacy policy? Are members' profiles accessible to the outside world by default?
• Cost. Is that free account today going to cost something tomorrow? What are you giving away in exchange for "free"?

• Potential benefit. Does the technology or platform provide a way for members to share their work with others, if they so desire? Could educators, parents or potential employers access content if the need or desire arose?

How do members showcase their portfolio?

As part of My.Future Essentials, members are encouraged to showcase compilations of their portfolio work to obtain digital badges. However, members may showcase their portfolio in other settings, too. For instance, a member who really enjoys producing music may expand the breadth and content of the music they store in the digital portfolio. They may use that content to produce a mix CD or other musical compilation to be shared with friends or others. Depending on age, members may wish to share their work over social media, such as YouTube. Members may enter their work into Boys & Girls Clubs of America arts competitions or for other awards opportunities.

User Profiles and Online Storage in "The Cloud"

User Profiles

What is "The Cloud"? "The cloud" is really about where information is stored and accessed and an appropriate way of replacing the phrase with someone more familiar is "someone else's computer". The cloud, put simply, is all about storing and interacting on someone else's computer. Programs traditionally installed on computers are now accessible online, through the web. Files that once would have been stored on computers, similarly, can now be stored on the web. That's "The Cloud".

To access software and files on the web, providers like Microsoft (Microsoft Sky Drive), Google (Google Drive) and DropBox require users to create an account. Each cloud services provider either requires or provides an e-mail address to accompany matching free services. Typically, very little personally-identifiable information is required to obtain an e-mail account.

The Essentials program anticipates a future in which most if not all software and personal information is stored on networks. At this time of this writing (2014), this is a near-term certainty as even powerful software suites like 3D rendering programs, graphics suites and word processing/productivity suites, and even the operating systems, evolve to be web-based. Prepared or not, our members are inheriting a world in which software and personal files are stored, accessed and shared across the web and where little is stored on an actual computer. It's our duty to prepare members for this world.

Of course, each club will vary in its approach to engaging members in dialogue about the web and cloud.

• It is not BGCA's position that all members must create e-mail addresses and must store their files online. All My.Future programming is possible without this requirement.
- It is not BGCA’s position that members under 13 should create or manage online profiles. Members under the age of 13 should not be interacting with online profiles, social networks or other experiences in which personal information is accessed or engaged online.

<table>
<thead>
<tr>
<th>Online Storage platforms</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Microsoft Office 365 and Microsoft SkyDrive</td>
<td>Provides members with a full-service space through which to access long-standing favorite applications including Microsoft Word, Microsoft Excel and Microsoft PowerPoint, among others. Individual members may have a SkyDrive account within which they can store their personal documentation and creations. Absent the fully-featured Office 365 suite, SkyDrive also provides functionality for creating and editing Word, Excel and PowerPoint files.</td>
</tr>
<tr>
<td>Google Drive and related applications</td>
<td>Provides members with a full-service space through which to access a variety of web-based applications and storage solutions. Google Drive is similar to Office 365, but differs slightly in its integration to existing Microsoft-based internal systems and in the range of related products (like Google Earth) available for use.</td>
</tr>
<tr>
<td>DropBox</td>
<td>Only provides access to private or shared online storage. At this time, it does not provide additional functionality needed to create or modify documents, spreadsheets or to access other kinds of online applications or services.</td>
</tr>
</tbody>
</table>

Each platform provides opportunity, but comes with drawbacks. These opportunities and drawbacks evolve frequently, as the application software underlying each platform shifts quickly. However, each platform affords staff the opportunity to either:

- Create a unique profile for themselves, that their members can access to store files/member portfolios or
- Assist members 13 years old and older in creating their own account and profile for use to store files/their portfolios.

What should staff know about member portfolios:

- Helps outline what Instructional Coaches should know and understanding about 'the cloud';
- Helps Clubs make a determination about which Members might be encouraged to select and utilize a platform for storing their personal digital creations;
- Can benefit from use of digital, cloud-based portfolios as a means to store, collaboratively develop and share digital products constructed as part of the experience.
To Consider

- Members may or may not already have e-mail addresses. What is the effect of asking them to create online accounts, and what can you as instructional coach do to ensure that Members understand the practices related to having an e-mail account?

- Members' parents may or may not be ready for their children to use and access Microsoft or Google products online. Be sure to engage your community in the conversation to be sure that it's okay. If access to entire suites of products is an issue, consider using a storage-only solution like Dropbox.

- It's absolutely essential that Members select a unique, strong password to protect their online storage and services. If you have questions about what a strong password is, read this resource; also use this lesson plan with members.
**Related Lab Topics**

**Effective Facilitation**

Effective facilitation begins with management and control. Here are a few practices you can use to get everyone's attention:

- **Clap Once, Clap Twice:** This technique gets members' attention. Say: "If you can hear me, clap once!" [Clap] "If you can hear me, clap twice" [Clap] [Clap]. Sometimes you may have to clap three times before everyone is paying attention, but this does work well.

- **Eyes on me:** This technique works well for holding members' attention when you want them to watch something you're doing. Say: "Everyone's eyes on me. I want to see everyone's eyes on me". At that point, it's obvious if someone isn't looking at you; you can call them out by name.

Members don't always pay attention and, sometimes, break the rules. If a member does break rules, they should understand what they did and why they receive the correction that meted to them.

Clubs will vary in their rules, but several effective practices include:

- **Ask members to create the Computer Lab rules.** Write the rules on a sheet. Also ask members to develop the costs that must be paid when rules are broken. What happens when someone brings a drink to the room? What happens when someone becomes unruly? Developing rules with your members can help members follow and understand the rules more closely.

- **Do you have computer lab privilege levels?** What privileges can members lose if they misbehave?

- **Alternatively, what rewards do you have for members who "do the right thing"?**

**Computer-to-Youth Ratio Scenarios**

**How many members per computer?**

We recognize that Clubs have different computer-to-youth ratios. Some clubs, for example, have a large number of working, Internet-connected computers in the computer lab - enough for members to each use their own machine during most or all lab sessions. Other clubs have a limited number of computers; members may need to gather in groups of three to four, or even more, around a small number of working, Internet-connected machines.

My.Future is designed to fit a variety of contexts, although some modules require one computer per member. To support the variety of implementation contexts, this documentation presents thoughts for how the use-cases differ, and for how instructional experiences can be tailored to match the computer-to-youth ratio.

**Similarities between scenarios**

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Some aspects of instructional engagement do remain the same in all situations. For example, it is always important to know how to control your members' behavior. What will you do to gain the attention and respect of an unruly group in your computer lab?

It's also always essential that members know the rules of your computer lab, and what the consequences for breaking the rules are. What are the expectations you've set for the rules of your computer lab? What happens, for example, if food or drinks are brought inside? If a device is broken?

**Differences between scenarios**

One member per computer scenario is the ideal we strive to achieve. It's optimal in that the largest number of members can gain the most individual experience with the technologies they may seek to develop. In this case, members are also afforded the most individualization, as they may pursue a My.Future Essentials project of the greatest personal interest. On the other hand, as an instructional staff:

- Close monitoring is important and more challenging, given that there are more computers in use at a single time. Monitor tabs and windows to be sure members are doing what they have been asked to accomplish.

- Activities can be used as-is and do not require significant tailoring to fit the context or situation.

A common scenario is one in which a small group of members shares a single machine. This is optimal in that it's easiest to reach a larger number of members with technology program, but sub-optimal in that individual learning and individualized, interest-based learning is less likely to occur. Instead, we typically observe that one member of the group is most likely to hog most of the keyboard time, and/or direct the activity as he or she sees fit. Therefore, in the small-group case:

- In this scenario, seek activities that emphasize group collaboration. For example, identify activities in which multiple members may play a role.

- Some facilitators assign roles to members. For example, members participating in a web research project might be assigned a role as primary researcher, synthesizer and presenter. A researcher might have to conduct the research; the synthesizer might have to make sense of the information and the presenter would then be responsible for writing and/or verbally presenting the results back to the session.

- Monitoring is important, but the large number of members-per-machine requires more attention to facilitating effective and fair collaboration, rather than on-task monitoring/guidance. Small groups typically have a harder time hiding illicit or unexpected activity taken by a single member.

Finally, a scenario that you may encounter is one in which a single computer exists to serve all members of a session. If this is you, all is not lost! But you will benefit from having a smartboard or projector to allow a large number of members to view what might be happening on the screen at any one time. Clearly, this is the suboptimal scenario from a member-experience point of view. Members have little individual or even small-group access to devices. Yet it also presents an opportunity to focus on
dialogue, and some activities (like a caption contest) provide a fine opportunity for members to work together without the distraction of a computer to intervene. In this scenario:

- Creativity is key. Be ready to adapt Essentials modules to fit a situation in which members can work together, offline, using something projected on the screen;
- Be ready to let members take turns driving. Situate the projector and projected computer in an accessible location so that members can take turns taking action on the screen, and be sure to ask them to talk aloud as they do so, so as to share their thinking and learning with others.

**Inappropriate Content**

It is essentially unavoidable that, at some point, a member will unintentionally or intentionally discover, read or share inappropriate content at your club. There is no single definition for what inappropriate content is, and to some small degree, this may vary Club to Club. However, there are some best practices that can reduce the severity and number of experiences that you or your Club encounter.

**Use NetSmartz**

NetSmartz is designed to teach and reinforce skills, knowledge and attitudes supporting the safe and ethical use of the Internet to Boys & Girls Club members ages 6 to 18.

Employing computer-based tutorials with state-of-the-art animation, the program delivers games to younger participants and interactive quizzes to teens. Lessons learned through these multimedia materials are reinforced through interaction with and guidance from Club professionals.

Online skills Members learn include how to more safely communicate, play games, conduct research and, for older members, make e-purchases. In a study by an independent evaluator, members showed a marked increase in Internet safety knowledge after completing NetSmartz. In fact, most participants reported what they learned changed how they thought about and behaved on the Internet.

- Router’s Birthday Surprise- ages 6 to 10
- NSTeens, geared to members ages 11 to 15, covers topics including cyberbullying, digital literacy and Internet security

BGCA recommends Clubs require completion of the NetSmartz program as a prerequisite to using the technology center and the Internet in the Club.

**WEBSITES:**

- Router’s Birthday Surprise:  [www.netsmartz.org/NetSmartzKids/RBS](http://www.netsmartz.org/NetSmartzKids/RBS)
- i-360 and NSTeens: [www.nsteens.org](http://www.nsteens.org)
- Other resources: [www.netsmartz.org](http://www.netsmartz.org)
Constructive Gaming

Overview of gaming in the Computer Lab

BGCA staff have visited a large number of Club computer labs, and it's clear that members love to play computer games. This is hardly a surprise, and it's even less of a surprise that many games aren't explicitly educational or instructional in nature. It's also evident that members aren't "jumping at the bit" to play math learning games. So what's a Club staff to do?

The great news is that there are a number of options, limited only by creativity. Here are some of the great options we've seen in clubs:

Start a leaderboard and ladder: It's one thing when members play games; it's another when they play games competitively. Have members pick one of their favorite games to play against one another, and track members on a leaderboard. Set prizes for first through third place, and develop a twist: anyone who comes in first, second or third place has to teach other members some of the secrets they've discovered to rank so well.

Minecraft: Minecraft is a block and logic building game that can be used in a number of ways. For example, can members recreate a historical city, or build a better mousetrap? Use a little creativity to define challenges your members won't want to go home! Note: Minecraft is not free software.

SimCity: SimCity is an impressive city-building game that has been around for decades. Although the newest Sim City versions are not free and require a hefty computer to play, Maxis has released older versions of Sim City for download. These games are still fantastic, and can be used to drive a friendly Club competition. Who can built the biggest or richest city? Go find out!

Learn with Portals: Learn with Portals is a free-for-education-use portal gaming system that can be used with Clubs. Using Portal, members can learn how to create interactive puzzles and logic environments. What will your members build? Explore!
Additional Materials

Shortcuts, Tips and Tricks

Find text on a web page--or just about anywhere else

The keyboard shortcut Control-F is a best friend that you can have--indispensable in all situations. To find text on a web page, in a computer program or just about anywhere you can use a keyboard to interact with something, hold control (CTRL) and hit "F", for "Find". This works on PCs, Macs and even mobile devices. On a Mac, simply switch the CTRL key for the APPLE key. It's a universal FIND term. Try it!

Cut and Paste

The keyboard shortcuts associated with cut, copy and paste are also universal and universally important. This works in most programs; for example, in MS Word, Google Docs, Photoshop and even Illustrator. It will also work in programming software, in web browsers or in music editing software.

Of course, you can always search for the commands in the toolbar (typically under Edit). But why not use keyboard shortcuts? On a PC, use CTRL+X to cut, CTRL+C to copy and CTRL+V to paste. On a Mac, simply switch the CTRL command for the APPLE key.

How to create a screenshot (and save it online)

You can save the world with a screenshot! Perhaps not, but seriously, it's important to know. How to do you take a screenshot? This will differ by platform, but there's usually a shortcut for it. On Windows machines, it may be PRNTSCRN (yes, they key does to something). On a Mac, it may be Apple + Shift + 3. Whatever your platform is, be sure to learn how to take a screenshot and share it with friends... and you'll be one step closer to saving the world.

Open a new tab in a browser

Opening (and closing) browser tabs, and moving tabs into new windows, is really helpful. For example, you can work on two documents at the same time. Or browse many websites at the same time. Or play two games simultaneously. Whatever your idea, learn it: how do you create a new Browser tab? (Hint: try CTRL+T in most browsers).

View running processes, view system resources and/or reset your computer

On your PC, CTRL-ALT-DEL is one of the most important system management operations you can know. Give it a try - JUST push it once - and see what happens. What happens? You can log off, change users and, using the Task Manager, view what's running on your computer. Is a system process hogging all your resources? Maybe it's spyware? Here's the place to find out.
Don't get sued - use Creative Commons

Have you heard about the Creative Commons? Maybe you know about copyrights? Creative Commons is a kind of copyright that enables people to remix or reuse content for various purposes. Images, audio and other content are available through the Creative Commons license.

Beware the tag-alongs!

It's easy to find software online. Websites like Cnet and Download.com provide lots of stuff for free. But do you know what else comes along with that software? Spyware! When you download software online, be sure you read through the installer carefully. Don't just hit "next". If the option is given, choose Advanced to see and select precisely what you want installed. Otherwise, you might find your computer bogged down by extra baggage and all those toolbars you don't want.
References, Website Links and Additional information

BGCA Training References and Resources

- BGCA Spillett Leadership University: http://bgca.net

Educational Resources and Instructional Ideas

- George Lucas Education Foundation; http://www.edutopia.org/
- Digital Badge Alliance: http://badgealliance.org/
- Mozilla Webmaker: https://webmaker.org/
- Engineering the Net: http://www.engineeringthenet.org
- Commonsense Media: https://www.commonsensemedia.org/educators/curriculum

Software

- Graphic Editors:
  - Pixel Editor: https://pixlr.com/editor/
  - GIMP: http://www.gimp.org/
- Audio Editors:
  - Audacity: http://audacity.sourceforge.net/
  - ACID Express: http://www.acidplanet.com/downloads/xpress/
- Code and Programming:
  - Code.org: http://www.code.org
  - Scratch: http://www.scratch.org for web-based Scratch or optionally via downloaded software:
    - Scratch 1.4 install - http://scratch.mit.edu/scratch_1.4/
    - Scratch 2.x install – http://scratch.mit.edu/scratch2download/
  - KODU: http://www.kodugamelab.com/
  - Microsoft Small Basic: http://smallbasic.com/
  - Notepad++ : http://notepad-plus-plus.org/
- Filezilla: https://filezilla-project.org/

- Reference Software:
  - Google Earth: https://www.google.com/earth/

- Educational Experiences:
  - Khan Academy: https://www.khanacademy.org/
  - EdX: http://www.edx.org/
  - Coursera: http://www.coursera.org/