

# Libraries and Technology



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# How to use this module

## Understand the Beyond Access approach

This module accompanies Beyond Access' core training guide: [Beyond Access Library Service Training Toolkit](#). Review the *Training Toolkit* guide thoroughly — it includes everything you need to prepare for and design your workshop. For this particular training, the *Training Toolkit* provides information that can help you with opening and closing activities.

This training manual was created with the expectation that you will share it with your training partners in advance and adapt it to fit your context and participants.

Our guiding principle is *user-centered design* — focus on creating the best training experience for your participants.

## Review learning outcomes and options

This module was created for librarians who already have basic Information Communication Technology (ICT) skills and wish to incorporate equipment and technology in their libraries to offer new library services to users. Training will cover the institutional changes that happen when a library obtains computers. The training therefore does not focus on training the librarian in the use of technology but rather on how to maximize the value of computers and internet in a library so that they can better serve their communities. More specifically, the objectives of this Libraries and Technology training module are:

- ➔ To provide librarians with the knowledge and skills to better apply technology in their libraries, specifically computers.
- ➔ To equip librarians with a basic understanding of the common issues that accompany public access computers arriving in the library, and the tools to manage these challenges.
- ➔ To build the capacity of librarians to sustainably manage their technology so that the computers are usable for a long time.

Share these high level goals with the participants before the training begins. The facilitator will need to make sure participants understand the intent of the program and what they are expected to learn. As the workshop program involves small groups of people working together, emphasis will be placed on collaborative learning activities.

Please note that this training includes material on some technical topics and ideally the facilitator should have a suitable background. If the facilitator is not comfortable leading some of the activities in the module, Beyond Access highly recommends delivering this training in partnership with an IT expert who can answer difficult technical questions.

The module consists of the following units:

- UNIT 1: Technology = change, approximate length **85-120 min**
- UNIT 2: Technology and library space, approximate length **105+ min**
- UNIT 3: Infrastructure and maintenance, approximate length **305 min**
- UNIT 4: Management of users' needs, approximate length **115 min**
- UNIT 5: Workflow change, approximate length **65 min**
- UNIT 6: Next steps, approximate length **40 min**

## Prepare materials and supplies

Make copies of all handouts in advance of the training. Either participants will need to bring their own computers, or you should hold the training at a facility with computers and internet connection. Gather the following stationery and supplies:

- Flipchart, with plenty of flipchart paper
- Colored markers, in a range of colors (at least 5 colors, including red, yellow, and green)
- Adhesive for attaching sheets of flipchart paper onto the wall
- Post-it notes
- Construction materials for designing libraries, such as legos, play dough, cardboard
- Arts and crafts supplies to create interactive user policies
- Name tags
- Provide a digital copy of all your slides to the participants either via email or with a memory stick
- A camera to take photos during the workshop

# Open the training

Review, select, and customize opening activities from the [Training Toolkit](#). The purpose of the opening activity is to welcome participants, make introductions, clarify expectations, and establish/review ground rules.

Day	Time	Duration	Topic	Content	Responsibility	Method
		10 min	Welcome!	Activity— Introduce training team and Beyond Access		Mini-lecture TOOLS: laptop, projector
		Depends on group size	Introductions & Expectations	Activity—Participant introductions and expectations		Discussion HANDOUTS: Questions, “I wish my library could _____” handout TOOLS: flipchart, markers, laptop/projector is optional
		10 or 15 minutes	Icebreaker	Select one activity: “Servicizing” or “List five favorite foods”		Group activity + discussion HANDOUTS: If using “Servicizing” icebreaker print copies of handout TOOLS: Varies depending on icebreaker, see <i>How-To Guide</i>

# Unit 1.

## Technology = change

Day	Time	Duration	Topic	Content	Responsibility	Method
		5 min		Review learning outcomes		Write Unit 1 learning outcomes out on a flipchart and read them out loud
		25 min	Libraries and technology – they why's and the what's	Activity to explore the importance of technology for the library		Discussion TOOLS: flipchart, markers, post-it notes, computer with audio, internet connection
		30 min	Technology = change	Explore the changes that technology could bring to the library		Flipchart, markers
		25-60 min	Different users, different needs	Introduction to personas		PREPRARE: Slide deck- Personas, persona decks TOOLS: flipchart, markers

NOTE: Each unit has a table like this at the beginning. You can cut and paste them together; fill in the day, time, and responsibility; and update the contents to create your final agenda.

# Unit 1 learning outcomes

*Read the learning outcomes aloud with participants.*

After completing this unit, participants should understand that:

- ➔ Libraries play an important role in providing access to technology and digital literacy skills to their communities.
- ➔ Technology brings change and librarians will need to adapt to the new workflow and learn how to efficiently manage it.
- ➔ Different users have different technology needs that libraries need to help meet.



# Libraries and technology - the why's and the what's

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## Activity – Relationship between library and technology?

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TIME 20 minutes

MATERIALS [Beyond Access Video](#)  
Laptop with audio speakers and internet connection  
Projector  
Flipchart and markers  
Post-it notes

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Start this unit by explaining the following points:

- ➔ Technology is evolving and changing constantly, and will continue evolving and being a central part of our daily activities such as the way we receive, process, and share information.
- ➔ Libraries need to be able to embrace these changes without losing their main role in society: providing people with information relevant to their lives. Libraries are working with more information in different shapes and forms and will be more successful if they are ready to adapt.
- ➔ In the past, information was primarily coming from books, newspapers, and other print sources. But now information is increasingly digital and accessible with various devices. Libraries need to adjust to this and continue providing access to information based on community demand.
- ➔ Access to the internet and related technologies is still unequal, as many people lack either the skills or infrastructure necessary to take advantage of them.

Libraries play an important role in ensuring that users are not left behind. In fact, libraries around the world have already adapted to new technologies and are at the forefront of taking advantage of them. Let's watch a video that shows examples from around the world of libraries that are doing this.

Note for facilitator: The [Beyond Access video](#) is in English. Subtitles can be added to the video to make its content and message more accessible to non-English speaking participants. However, if you are unable to add subtitles, you can also create a slide deck with the examples from the video for the facilitator to explain.

Once you have shown the video or shared the slide deck with examples, say the following:

*You have all attended computer training and have gained skills that will help you use technology in your library and share it with your users. This module is going to help you explore tools and mechanisms that can start preparing you as librarians to receive technology and to successfully manage it at your library. This module is not about HOW to use computers or specific software. It is about how to MANAGE a library that has technology and internet for public access.*



PREPARE AHEAD: Prepare a flipchart paper ahead of the training with the following table:

As a <b>user</b> technology gives me the possibility of...	My <b>library</b> with technology could ...	But what <b>scares me as a librarian</b> about incorporating technology in my library is...
[Insert post-its]	[Insert post-its]	[Insert post-its]

Ask participants to think about the three categories displayed on the flipchart and to write their answers on the post-it notes. Invite participants to place post-it notes with their answers on the flipchart under each category.

For the section “As a **user** technology gives me the possibility to...” please encourage participants to think about the benefits of technology in their everyday lives. The idea is for them to identify in which sense technology provides them with good opportunities as users. Remember, the more librarians relate to technology from their own experience, the more they will be able to transmit this to users and develop innovative services.

*Example:*

- *Communicate with my family who live far away/abroad*
- *Look up news from different sources*

For the section “My **library** with technology could ...” please encourage participants to think about user needs in terms of technology and what potential services the library could provide for them that use technology.

*Example:*

- *Provide tech training for community members*
- *Help users access information and learn how to look up information*

For the section “But what **scares me as a librarian** about incorporating technology in my library is...” please ask participants to reflect on those issues/aspects of incorporating technology at the library that create some anxiety. Try to go back to these “fears” as the training evolves.

*Example:*

- ➔ *Technology hardware, as I am afraid I will break it*
- ➔ *Not knowing how to answer user requests in regards to technology*

As participants start placing their answers on the flipchart, group repeat or similar answers together.

Debrief [10 minutes]

Read out loud the main answers and summarize the information for the group. Try to find similarities in the answers. Put the flipchart paper with the post-it notes on the wall and leave it there throughout the training as it can be useful. Explain:

- ➔ These answers all get at what we’re going to work on in this module.
- ➔ Technology opens up many possibilities for your users to accomplish their goals, and for the library to increase its value to its community.
- ➔ But these things can only happen if these risks are managed well.
- ➔ Many libraries have learned that just having computers available isn’t enough. If you just turn them on and leave them alone, you’re missing an opportunity to make them a new ‘service’ and there’s a chance they won’t even work in a few months.
- ➔ But you are lucky, because over the last decade many librarians in many countries have already gone through this process, and we can learn from their experiences.
- ➔ In this module, you’ll learn how to help your users accomplish what they want, help your libraries become service points that maximize technology, and manage this huge change in your libraries so that these services can be dependable for many years.
- ➔ As we progress in this module, we’ll come back to this list of scary things to check if we’re addressing them sufficiently and if you feel comfortable that you can manage these risks.

# Technology = change

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## Activity – What change will technology bring to the library?

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TIME 30 minutes

MATERIALS Flipchart and markers, post-it notes

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Divide participants into groups of 3-4 people. Give each group a sheet of flipchart paper and markers and explain the following:

*For the next fifteen minute in your groups, think about the following questions and come up with a group answer:*

*Imagine the following - **Your library received ten new computers with internet connection. What do you think is going to happen?***

[The statement can be adapted appropriately to the particular program, for example, using “4 computers” or “10 tablets”.]

Encourage groups to think about the following during the brainstorming:

- ➔ *What your users would want to do with the computers?*
- ➔ *What type of request do you think you might start getting from users?*
- ➔ *What would you want to personally do with the computers to improve your work?*

While the participants are brainstorming, quietly go from group to group and listen to the conversation.

If one group appears to be on track, then move to the next group. If the group does not seem to understand the assignment, offer assistance and clarify the assignment. Try to avoid giving them the answer.

[15 min]

When the time is up, ask each group to present one at a time and hang their flipchart pages on the wall so that all the answers are visible to everyone. Make sure you check the time as participants present their different ideas. Some examples of ideas might include:

- Users will want to use computers
- We will get requests to help users access technology
- Users will need help solving tech issues they are facing
- Children will want to play games
- Adults will not know what to do with the equipment
- We will need to offer a new service related to technology

[10 minutes]

After presentations are complete, summarize answers by gearing the conversation towards the fact that technology is going to bring change to libraries and librarians need to be able to:

- Understand and accept the change, and manage the new workflow
- Efficiently manage technology in the library
- Identify users needs in relation to technology and provide services
- Effectively deliver traditional and new services

Explain that the next units are designed to help them think through all the changes and gain skills and tools that will help them efficiently manage the work. Emphasize that it is important for the participants to keep in mind the changes that were discussed during the exercise in order to ensure that they are prepared for the change. Leave each group's flipchart presentation on the wall as you might want to refer to them during the next units.

# Different users, different needs

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## Activity – Introducing personas

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TIME 25 - 60 minutes  
MATERIALS [Slide deck – Unit 1 Personas](#) (update depending on the persona method selected)  
Persona packs (from slide deck, one for each participant)  
Laptop + Projector

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PREPARE AHEAD: Review the [Training Toolkit](#) section on personas and [review the persona template »](#)

Have sample personas prepared ahead of time, using the template in the [Unit 1 Persona](#) slide deck. Aim to ensure that each persona has a specific need that can be addressed via technology. Update the slide deck so that personas match local context and have relevant background.

SPARK PARTICIPATION: This activity will work best if you involve participants in creating the personas. If you have enough time, create the personas from scratch. Alternatively, you can sketch out basic information and have participants fill in the details.

Some background and useful information for the facilitator:

We will be using personas to distill knowledge, build empathy, and maintain user focus. We want the participants to guide and learn to empathize with the personas and, in doing so, become better librarians.

Empathy — the understanding of what others see, feel, and experience — is fundamental to good design. Ideally, personas are based on first-hand observation or research — but it's okay to start with assumptions and update as you learn. Developing personas is a way to distill what we know or assume about a key audience or stakeholder group into a composite profile. They also:

**Create a framework to make decisions and justify them to others** — By articulating each personas' characteristics and aspirations, we can make better decisions, and explain to others how our activities meet user needs.

**Provide a common language and understanding** — Personas are like real people. Referring to them makes it easier to discuss and consider more nuanced behaviors and to share these with other stakeholders.

**Produces product/service designs with better usability** — We can test if a design or a way of organizing information is actually suitable for a persona, much like with a real person.

**Document learning** — We can compare assumptions with what we learn as we implement and get feedback, and document new findings by updating personas.

On a practical level, personas also help improve communication between teams and facilitate more constructive and user-focused discussions. Personas should be specific, credible, and based on reality. Include personal details, the broader context, and motivations, fears, and ambitions. Think of them as a lead character in a movie — they need to work in different scenes. There are several ways you could introduce personas during the training:

Option 1: You can prepare personas ahead of a time and introduce them during the training. This option is best when you don't have much time in your training.

Option 2: You can partially create personas and leave out some of the details for participants to fill out. This saves time while still allowing participants to be involved in the process of creating personas.

Option 3. You can showcase examples of personas as a template and then ask participants to create their own personas from scratch. This



requires more time, but gives participants greater ownership of and connection to the personas.

NOTE: If you have elected to have participants create personas ahead of time, or if you have left out some of the details so that they can fill them in, you will need to adjust this activity and add more time. If participants co-create the personas, you may ask them to introduce them.

**Start by explaining the following:**

*When introducing technology in your library, it's important to understand the needs and motivations of the librarians who will be in charge of helping users use technology and the internet. At the end of the day, it is important that the library addresses users' needs by identifying new and innovative services with technology. In this unit, we'll discuss the personas that characterize those types of librarians and potential or current users in order to be able to create and design services that are user-centered and meet the needs of individual users.*

Explain further instructions by choosing one of the options below.

**OPTION 1: IF YOU HAVE PREPARED PERSONAS AHEAD OF TIME** then follow these steps, using the slide deck:



*“OK everybody, let's meet Piotr and Tania!”* — In a light manner, introduce the personas (using the names that you have selected) to get everyone comfortable with them.

Distribute a persona pack (set of printed personas from the slide deck) to each participant. Use the notes to explain what personas are and how they help librarians design services.

Introduce the personas you have prepared and explain how you will use them during the rest of the training. Respond to any questions that come up regarding how to use personas or about the personas you have created.

Leave the personas on a wall with their needs clearly identified. You will come back to these later in the training.

OPTION 2 & 3: IF YOU WILL HAVE PARTICIPANTS CREATE THE PERSONAS OR COMPLETE THE PERSONAS AT THE TRAINING, then follow these steps, using the slide deck:

Prior to the training, complete the “Backstory” section for each persona, to give some parameters for the teams to work with. Make sure that there is one persona for each type of stakeholder you want to work with (e.g. tech savvy student, librarian without tech knowledge, etc.)

*“OK everybody, this is an example of a persona. This is Tania!”*— In a light manner, introduce the personas (using the names that you have selected) to get everyone comfortable with them.

Divide the group into smaller groups. Each group will have to develop one of the personas, using as a starting point the brief description and background provided for each. (Follow the types of personas available in the slide deck: [Unit 1- Personas.](#))

Ask participants to develop the rest of the characteristics of the personas using the format you have distributed. Each group will then introduce the personas they have prepared.

Explain that these personas will be used throughout the training. Respond to any questions that come up regarding how to use personas, or about the personas the participants have created.

Leave the personas visible on a wall with their needs clearly identified. You will come back to these later in the training.

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Slide Number	Facilitation Guide
1	Title

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# Libraries and IT

Knowing who your users are and different librarian profiles



## Guide to using the slide deck

- 2 [Introduce the concept of personas and how each persona represents a key stakeholder group.]

Ideally, personas distil what you've learned from researching community needs and assets. But an excellent first step is to create them based on your experiences and knowledge of your community. (At a minimum, you'll be documenting your assumptions and you can check if they are true later). Typically, you'll create personas for key stakeholders involved in a library or library service. Stakeholders are the people who can make or break the success of your service, such as:

- Target audience/s — usually groups of people who live in the community, united by some common characteristics (youth, job seekers, entrepreneurs, elderly people, etc.)
- Government official or other sponsor/donor
- NGO program officer (potential partner)
- Librarian, library director, etc.

## Who are our main stakeholders?



## Guide to using the slide deck

- 3 For this particular training, it will also be key to reflect on different types of librarians and how they would react to the incorporation of technology into their everyday lives.



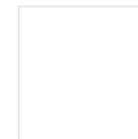
- 4 Persona template. See examples of other templates that you might want to use instead »

### What is a persona?

Personas are fictional, composite profiles — characters that represent a community or stakeholder group. Think of them as a character in a movie that appears in different scenes. In this case, the scene where the action takes place is your community and your library.

### Why use personas?

Personas distill what we know or assume about a group, providing team members with a common language and understanding. By focusing on one individual and laying out details about them — their dreams, struggles, experiences — we build empathy and are able to think more deeply about their needs, emotions, and day-to-day life. Team members can refer to them by name and discuss more nuanced interactions. Using personas will help you



“Insert short quote that sums up their experience or relationship to your service”

BACKSTORY: Tell us a bit about this person and their life. What is this person like? What are they known for? What do they want to accomplish?

NAME:  
AGE:  
LOCATION:  
OCCUPATION:  
TYPE: (Type of librarian)

MOTIVATIONS  
– What concerns do they have?  
– Why do they need this service?

TRUSTED SOURCES  
– Where do they go for information?  
– Who do they trust?

MOTIVATIONS  
– What concerns do they have?  
– Why do they need this service?

BARRIERS  
– What might prevent them from using or supporting your service?

EXPERIENCE/ROLE IN PROJECT DESIGN, RESOURCE ALLOCATION, AND/OR PARTNERSHIP?  
– Have they developed an innovative service at the library or elsewhere?  
– Skills as project manager?

EXPERIENCE WITH LIBRARIES/PERCEPTION  
– What experience he/she has working with libraries and what does he/she think about their work?

## Guide to using the slide deck

come up with innovative service and engagement ideas, and they will make it easier to explain to others the reasoning behind your decisions.

### How do I make a persona?

To make a persona, collect and combine insights about a community or stakeholder group into a character. (Remember to also make personas for people who don't already use your library, as well as for potential partners and supporters.) Details are key to creating a successful persona — you should be able to put them into different scenarios and imagine how they would react. Use visuals and anecdotes to bring your character to life. Insights can come from your own experiences and observations, or from more structured research methods, such as one-on-one interviews or focus groups. The process of creating each persona provides surprising insights and surfaces issues or barriers you may not have considered previously. Expect to have a few “Aha!” moments as you see the world through your persona's eyes.

- 5 This should be your template to explain how to develop a persona if you are going to make participants develop personas during the training. If you are going to just introduce personas that you've developed ahead of time, you should use this as the first persona you introduce.



NAME: Pema  
AGE: 28  
LOCATION: City (regional capital)  
OCCUPATION: Librarian  
TYPE: Tech Savvy

“Insert short quote that sums up their experience or relationship your service”

**BACKSTORY** (include characteristics and goals)  
Pema is a relative new librarian. He's tech savvy, really into social media, and knows about all the new computers. He is mostly shy but interested in bringing more young people, especially young girls, to the library to use the technology to improve their academic skills as well as employment opportunities.  
**THIS IS AN EXAMPLE OF A TECH SAVVY LIBRARIAN.  
FILL IN THE DETAILS TO FIT YOUR CONTEXT**

**MOTIVATIONS**  
Pema is obsessed with technology. He would rather play games on his computer than talk to people.  
**TRUSTED SOURCES**  
Gets information from blogs, Twitter, and Facebook. He doesn't really like getting information in traditional ways.

**BARRIERS**  
Pema gets tired of fighting all the time for the library to have resources and innovative services. He's constantly confronted by a lack of resources and outdated perceptions of librarians. He struggles to back up his vision with compelling examples.  
Pema lacks a support network. He's isolated and feels like he's the only one doing this work. Being an agent of change is exhausting — sometimes he feels like giving up.  
Pema is bad at understanding and communicating with people — He is happy sitting on his computer all day.

**EXPERIENCE/ROLE IN PROJECT DESIGN, RESOURCE ALLOCATION, AND/OR PARTNERSHIPS!**  
Pema has designed some projects and has ideas for others. He has also managed some small grants, but is not very experienced or comfortable with this type of work.  
**EXPERIENCE WITH LIBRARIES/PERCEPTION**  
Pema is very experienced. He thinks libraries are critically important and understands how they can provide better access to technology. He understands that librarians serve as important intermediaries.

## Guide to using the slide deck

6 – The rest of the examples These are the personas, or just templates for completing personas.



NAME: Gertrude  
AGE: 54  
LOCATION: Rural  
OCCUPATION: Librarian  
TYPE: Traditional

“Insert short quote that sums up their experience or relationship your service”

BACKSTORY (include characteristics and goals)  
Gertrude is a librarian in a developing country. She is incessantly shushing library patrons. She became a librarian because she likes books and really doesn't understand much about computers or e-readers. She is very quiet.  
**THIS IS AN EXAMPLE OF A TRADITIONAL MODEL OF LIBRARIAN. FILL IN THE DETAILS TO FIT YOUR CONTEXT**

**MOTIVATIONS**  
She would like her community to be proud of her, and for them to recognize her contributions. She wants better infrastructure and resources.

**TRUSTED SOURCES**  
Mostly colleagues from the traditional library community. She has internet access but doesn't use it to search for resources or opportunities. She rarely uses email.

**BARRIERS**  
Gertrude struggles with a lack of resources (staffing, money, IT). Her library is small and the physical infrastructure is crumbling. She feels isolated, unsupported, and powerless. She has few opportunities to advance skills or develop professionally, and no time to do community outreach and get new users.

**EXPERIENCE/ROLE IN PROJECT DESIGN, RESOURCE ALLOCATION, AND/OR PARTNERSHIPS**  
Gertrude has no control over resources and doesn't know how to advocate or apply for more. She has limited (and not so positive) experience developing projects and only considers educational partners.

**EXPERIENCE WITH LIBRARIES/PERCEPTION**  
Old-school view of libraries. She sees herself as a curator of books, as well as an educator. Low expectations. Limited vision of libraries as a community resource.

Next, once personas are created [and/or introduced], ask each group to answer the following questions and then to nominate one presenter from the group to report back:

- ➔ **How would [persona] benefit from technology?**
- ➔ **How can a library meet [persona]'s need?**

[10 min]

Once groups present, find similarities and differences between the needs of particular personas and highlight the following:

- ➔ As we can see from this activity, each persona has a need that the library can help meet.
- ➔ With smart and efficient tech services, the library can become an integral part in the development of each persona and help them navigate new technology and information.

- ➔ The needs of different personas need to be taken into consideration when, as a librarian, you are coming up with programming, policies, and rules for how technology will be managed at the library.
- ➔ Technology might remain the same, but the way it is explained and used will need to be changed based on a persona's needs. For example, internet browsing for teachers could be taught with the example of looking for teaching information online, but pensioners might want to learn different tasks, like learning how to look up do-it-yourself projects.
- ➔ Understanding the needs of individual personas' will help you design useful technology programming at your library and help you understand how to assign the right people to the right programs.
- ➔ The personas that you have on the wall will be an integral part of this training, and we will come back to them throughout different activities.



# Unit 2.

## Technology and library space

Day	Time	Duration	Topic	Content	Responsibility	Method
		5 min		Review learning outcomes		Write Unit 1 learning outcomes out on a flipchart and read them out loud
		20 min	Use of space at libraries with technology	Presentation to demonstrate different library spaces for technology		Slide deck: Use of Space at Libraries with Tech, Computer Placement Checklist TOOLS: flipchart, markers, post-it notes, computer with audio, internet connection
		80 min+	Preparing library for technology	Activity re-designing existing library space to accommodate technology		TOOLS Construction Boxes

## Unit 2 learning outcomes

*Read learning outcomes aloud with participants.*

After completing this unit, participants should:

- ➔ Understand what our country/city/region understands by e-government and e-government strategy.
- ➔ Be comfortable using three to five e-government services.
- ➔ Understand how personas represent different groups of people in a community, and help us better understand and respond to their needs.
- ➔ Identify services that might benefit each persona.

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## Activity – Mini lecture – Use of space in libraries with technology

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TIME 10 minutes

MATERIALS [Slide deck – Unit 2 Technology in Modern Library Spaces](#)  
Laptop + Projector  
Post-it notes, pens, flipchart, markers

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### PRESENTATION:



Use the premade slide deck with examples of how different libraries around the world use technology. The slide deck is meant to help participants visualize technology at the library and spark ideas on how it could be incorporated into existing library spaces. Ensure and note different elements that accommodate different user needs and activities in relation to technology at the library.

### PREPARE AHEAD:



You are welcome to update and modify the slide deck and include more and different examples that may be more relevant to the region in which you are working. Some of the elements in this section are also connected with the topics we will be seeing in more depth in the following activity.

Note: Some of the examples used in this slide deck are the same as the ones at the Beyond Access Vision Forum. If the participants of this workshop attended a Beyond Access Vision Forum in the past, you may want to mention this or change examples as needed.

- 1 **Title.** This presentation is designed to show you some examples of library design spaces that accommodate technology. It should help you visualize and borrow ideas for helping you place equipment at your libraries.

## Technology in Modern Library Spaces

around the world



- 2 The first challenge we will face is, of course, where to place computers at the library. The second one is how do we ensure that the needs of all of our users are met? Different users have different needs. Some would like to have a cozy and quiet place where they can read books and study, while others would like to work in a more open space where books and technology are available. There are several recommendations to consider in order to ensure that you meet the needs of different users.

The first consideration is computer placement. **Computers should be placed with the rest of the library resources.** Here is a great example from a library in South Africa that shows the computers in the same space as children's books and learning toys. In this way, while parents and guardians check the information they need on the computers, toddlers can play and read under their supervision. This is an ideal situation for a general information access library. For a library that expects to host many trainings, a traditional computer lab setup is much better. Having different means for learning and reading is the best way to bolster curiosity. It also teaches children that not all important resources are accessible via computers, and that they should be complemented with other tools.

### Place computers with the rest of the resources



- 3 Having technology at the library presents an excellent opportunity to improve the technological skills of users and the community in general. The library can be an ideal place for this, where people can learn new skills, interact with other users, and use computers for free. Therefore, when placing technology at the library, ensure that you **have the ability/space to create a comfortable training environment**. This could be as simple as bringing screens and projectors to the room where the equipment is kept, such as this example from Romania. Another example is from Nepal, where users are receiving technology training at the library. As you can see, the trainer has enough space to give individual attention to the users and walk them through the training.

### Prepare the space for training



- 4 **Computers are not just desktops.** More and more libraries have to be ready to provide users with the space and services to allow them to bring their own devices (tablets, computers) by providing wi-fi, power outlets, furniture, and space. This is another example from Romania, where a training for the visually impaired is taking place.

### Computers are not just desktops



- 5 **Experiment with different types of technology.** Having access to computers at your library can be just the first step to including a variety of other technology and equipment to promote users' innovation and exploration. In this example, we see a famous Romanian musician at the inauguration of a modernized library in Romania, making use of some electronic music instruments available to users as part of the library's services. Once librarians and the community feel comfortable with the introduction of basic technology, you can explore including different types of technology in the library.

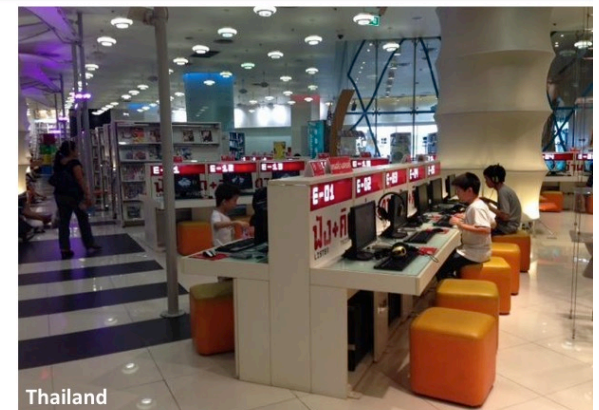
The second example is from the Philippines, which shows how libraries can also provide creative and inviting space for using technology for children. Take a look at the comfortable seating arrangement that matches the dimensions of children.

- 6 **Humanize technology.** Finally, we need to think about how we make technology friendly and accessible. In this library in Thailand, computers are at a child's height, similar to the example we saw from the Philippines. Computers are dispersed throughout the library, supporting the message that information technology is not a special or different category from information in printed form. They all fit together seamlessly.

## Experiment with different types of technology



## Humanizing technology

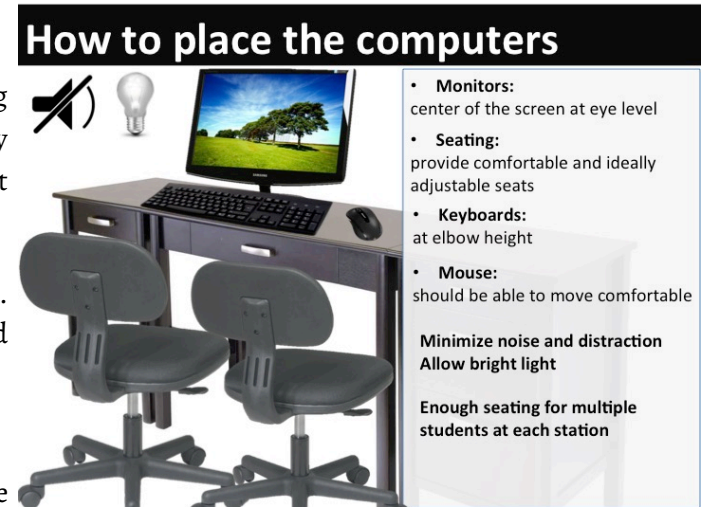


7

Let's now focus on how to actually place the computers in a library.

These are some important elements to take into consideration when placing computers. Of course, not every library has the space or resources to comply with these recommendations, but there are also alternative ways to get creative!

- Position monitors so that the center of the screen is at eye level. Don't position monitors opposite to the windows in order to avoid sun reflection.
- Keyboards should be positioned at elbow height.
- Provide comfortable and, ideally, adjustable seats.
- The cable length of mice should be adequate to comfortably move mice to the right and left side of the keyboards, to accommodate both right- and left-handed users.
- Consider setting aside an area for small groups to meet.
- Allow enough seating for multiple users to share each station.
- Minimize the noise level and other distractions.
- The class leader's desk should be placed so that it is clearly visible and accessible from any point in the room.
- Keep aisles clear of clutter. Coats, bags and other items should be placed under desks or on coat racks.
- Provide adequate lighting.





Remember:

- Mix technology with books and other library resources
- Consider security, availability of power outlets and electrical boxes
- Physical security needs for equipment

**Ask participants if they think that there are additional considerations that should be taken into account. Solicit a couple of answers and explain that, in the next activity, we will go into more detail about the recommendations and things to consider when placing equipment at the library.**

## Where to place the computers



Mix them in with books, tables, etc.

Consider security, power outlets, and electrical boxes



Physical security needs for computers

Note: Some of the examples used in this slide deck are the same as the ones at the Beyond Access Vision Forum. If the participants of this workshop attended a Beyond Access Vision Forum in the past, you may want to mention this or change examples as needed.



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## Activity – Preparing Library for Technology

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TIME 80 minutes

MATERIALS [Slide deck – Unit 2 Technology in Modern Library Spaces \(slides 9 through 11\)](#)

Laptop + Projector

Post-it notes, pens, flipchart, markers

Building Supplies: laminated floor plans of different libraries, legos, play dough, sticks, different sized cut-out cardboard boxes (representing different sized libraries), signs, miniature beanbag chairs (or small different colored balls)

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### PREPARE AHEAD:

Put together a Construction Box for each group with materials described/suggested above.

The goal of this activity is to help librarians think about the space in their own libraries and come up with a plan for placing equipment in it.

Divide participants into small groups (3-7 people in a group). If possible, group librarians by their libraries so that they work together. Provide each group with a Construction Box. If librarians are from different libraries, then ask the group to choose one library within the group for which they would like to be advisors. Ask participants to work in the group as before when they developed the personas. Please note: if the group is too heterogeneous and it's impossible to group them in terms of the libraries they represent, as a first step ask the librarian in the group to which the rest are advisors to provide a short background about her/his community. This will give each team at least a clear perspective of whether the library is urban or rural, primarily for children or not, or if it's in a place that needs extra security, for example.

Explain the following to each group:

**Step 1:** *We have been talking about users, technology, and space. Now we are going to recreate your library and place equipment in it. In your small groups, you need to choose one library you want to work on. The rest of the participants become advisors to the library that is chosen. The librarian whose library is being redesigned needs to give background to the rest of the group about his/her community and library so that everyone in the group has a clear picture of whether the library is in an urban or rural area, if it is primarily for children or adults as well, etc.*

**Step 2:** *Once you decide on the library you are going to work on, you need to start by preparing a floor plan of the library using the laminated plans that are in your Construction Box. You can decide what certain things represent such as books or chairs or computers. Your job is to first lay out the library the way it is currently. Then you need to take a photo of that (maybe with your cellphones, or ask one of us to do it) and save it.*

**Step 3:** *Then imagine that your library has received 10 new computers with Internet connection that are for public access and use. Your job is to decide how/where you are going to place the equipment. I would suggest that as a group you first discuss what type of facility would make your users feel welcome and comfortable, and what type of setup you will need in order to serve the needs of users. You have a total of 40 minutes for this exercise.*

[This statement can be adapted appropriately to the particular program, for example, using “4 computers” or “10 laptops”.]

Once all the buildings are designed, ask each group to present their work one at a time. Ask groups to first explain where the library is located. Then ask them to show a picture of the existing layout of the library that they have worked on. Then ask groups to share and present the new layout of the library and explain where they have placed technology and why to rest of the group. Another way to do this is to conduct a ‘gallery tour’ – have one group member stay with each

## Plan your own library space!

Step 1: Layout the library the way it is currently. Take a picture!



## Plan your own library space!

Step 2: Your library has received 10 new computers + 5 laptops + 5 ipads with internet connection that are for public access and use. Your job is to decide how/where you are planning to place all the equipment.

- How will the physical library change with IT equipment?
- Where should you place computers in the library? What are the considerations?



## Plan your own library space!

Step 3: Prepare description of the community and the library that you have worked on and nominate a presenter for the group.



library display and everyone else circulate, learning about the other libraries and how they have placed equipment.

Once presentations and/or the gallery tour is over, ask everyone to take a seat and start a discussion using the following questions:

- What are some of the considerations you took into account when deciding where to place the equipment?
- Let's go back to our personas on the wall. Do you think (choose any persona) would like the arrangements you have made as much as (choose another persona)?

Identify some common themes and lead a discussion asking participants why they decided to include or not include those elements. Ensure that the following themes are incorporated into the discussion:

- *Comfort*
- *A welcoming space*
- *Easy access to equipment*
- *Flexibility to use equipment for different things such as free access or training*
- *Security of equipment*
- *Availability of power plugs*

Summarize the discussion by highlighting all the common considerations that came out of this exercise.

Emphasize that it is important to think through where you will place technology in the library and what kind of overall impact that will have in the way your library is currently designed. Most changes don't take significant financial resources, only some new thinking about the purpose of the library and how best to meet it. Wrap up this activity by ranking the top 3 considerations common among the participants. Depending on time available, you can do this by summarizing what's already been discussed or having participants vote with stickers on a flipchart.

# Unit 3. Infrastructure and maintenance

Day	Time	Duration	Topic	Content	Responsibility	Method
		5 min		Review learning outcomes		Write Unit 2 learning outcomes out on a flipchart and read them out loud
		20 min	Risks and problems when managing tech	Activity in a group brainstorming potential issues and problems that librarians will face with managing tech at the library		TOOLS: Flipchart, markers
		280 min	Computer setup for public usage	Presentation with hands-on training and demonstration of software		TOOLS Laptop per person, flipchart, projector, markers  PREPARE:  2-3 flash drives with all the installation packages, Slide deck Computer Set Up for Public Usage

## Unit 3 learning outcomes

*Read learning outcomes aloud with participants.*

After completing this unit, participants should understand:

- Main infrastructure considerations to take into account when placing computers for public access.
- Security risks and ways to protect hardware and software.
- Types of maintenance and protection required for computers and users.

### PREPARE AHEAD



Much of the content of this module will be based on the [Guidelines: Beyond Access Equipment Set up and Maintenance](#). Print one copy of the guide per participant.

Participants either need to bring their own laptops or have access to computers so that they can learn the main functionalities of different software used during this training.

There are different types of free software that can help protect hardware and software along with protecting users' privacy. As a facilitator, it is important for you to look through the recommended software and be comfortable with using and teaching others how to use it. Please note: not all of the software is localized and therefore it is important to do an assessment prior to the training in order to figure out whether there is a way to replace some of the recommended software with something locally available. If software language is going to cause barriers and there is no replacement for the software, keep this unit as simple as possible by selecting a couple of essential tools and creating step-by-step guides with a demonstration on how to set them up and use them

at the library. Modify this unit to provide necessary knowledge and skills to librarians in order for them to be able to protect computers and users at their libraries.

Once software has been chosen for the training, prepare 2-3 flash drives with all the software installation packages preloaded. This will allow you to quickly help install all the software on participants' computers. Note that all of the software needs to be demonstrated and participants should walk through each software at least once. Those who are more advanced can help the facilitator during the training and be paired with participants that are less familiar and comfortable with technology.

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## Activity – Finding potential risks and issues

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Time: 20 minutes

Materials: Flipchart and markers

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Explain the following:

- ➔ There are certain risks and issues that come with the placement of technology at the library. For example, equipment could be damaged, stolen, or misplaced, especially if it is not a desktop computer.
- ➔ Often, libraries get technology, but, if it breaks, it is hard for the libraries to fix or replace it. As a result, less equipment is available for use.
- ➔ That said, that is of course not a reason to keep technology locked away. The goal of this unit is for us to think through steps we can take to avoid potential threats and to find ways to keep equipment working for a long time.
- ➔ Our task is to figure out how we can most reasonably protect your technology while making sure it is serving its purpose.

Next, ask participants to get into groups of 3-4 people. Give each group a flipchart page and markers and ask them to complete the following exercise. Ask each group to brainstorm the following question and list their answers on the flipchart:

As a librarian, what type of issues do you think you will face while managing technology at the library?

[10 min]

Once time is up, ask one representative from one group to present and hang their flipchart page on the wall. Lead the discussion in order to find similarities and differences in the answers of each group. Ask the rest of the groups to add whatever hasn't been included in the first group's presentation. Make sure that the following issues come out in the discussion and, if the participants haven't thought about them, ask why they haven't considered them:

- Equipment can be stolen
- Equipment can break
- Maintaining it so that everything is working on all the workstations
- Ensure fair usage of equipment
- Managing additional workload and keeping an eye on equipment and users
- Teaching and helping others how to use technology
- Providing easy and welcoming access to technology
- Making sure all the users are happy
- Users mishandling technology
- Users being afraid to use technology for the fear of breaking it and being responsible for it
- Meeting different needs of different users
- Cleaning equipment
- Maintaining privacy of users
- Not allowing access to porn and other similar content
- Users adding/deleting software and programs from computers

Go over the flipchart one more time and hang it somewhere visible so that you can refer to it throughout this unit. Explain that next you will share some tools and tips to help librarians avoid the risks and issues that they have identified.

[10 min]



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## Activity – Mini lecture – Computer setup for public usage

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Time: 280 minutes

Materials:

[Slide deck: Computer Set up for Public Usage](#)

[Guidelines: Beyond Access Equipment Set up and Maintenance](#)

[Computer Maintenance Housekeeping – handout](#)

[Online Safety and Security Tips handout](#)

["What speed do I need for...?" handout](#)

Laptop/computer per participant

2-3 Flash drives with pre-loaded installation packages of recommended software

Flipchart, markers

Internet connection

Projector

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### PREPARE AHEAD



Slide deck: Computer set up for public usage needs to be updated based on the final software that best fits the local context and needs of your participants.

Highlight the following:

- With the right plan and policies you can minimize the issues and risks associated with technology that you all outlined in the previous activity [point to the wall where the flipchart with the list of problems is hanging]. I am going to walk you through a presentation and explain different steps your library needs to take in order to protect technology. We will also explore some of the recommended software so that you can get comfortable using it.
- We have put together guidelines for you [distribute one copy per person] on equipment set up and maintenance. All of the information we will cover in this presentation is also outlined in this document.

Slide number	Facilitation guide
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1 Title

## Computer setup for public usage

Presenter Name  
Contact Info



2 In this presentation we will talk about:

1. Infrastructure
2. Hardware, software, user privacy protection
3. Computer maintenance
4. Online safety

These are the things that will help you successfully manage public access computers.

## What This Includes

1. Infrastructure
2. Hardware, software, user privacy protection
3. Computer maintenance
4. Online safety/protecting children

3 **INFRASTRUCTURE** - First, let's start with recommendations for when you are setting up computers at your libraries. On the slide you can see a list of things you should consider and think about when placing computers for public access:

1. Physical arrangement of computers – Where are they placed?
2. Electrical setup – Are there sockets and power lines available?
3. Heating, cooling and humidity – Should this be a concern?
4. Internet connection and bandwidth requirements – How much internet is enough? What type of internet?
5. Wi-fi access – Who will access it and how?

We will now go through each item in more detail in the next slides.

## 1 - Infrastructure, things to consider...



Physical arrangement  
of computers

Electrical Setup



Heating, Cooling  
and Humidity

Internet Connection  
Bandwidth Requirements



WiFi Access

4 We are starting with Electrical Set Up because we had an entire unit earlier that was devoted to a discussion on computer placement. If you still have additional questions about this, there are more guidelines and information available in your handout.

Technology requires a certain amount of power in order to work and not get damaged. There are three things you need to be aware of:

1. Electricity consumed and required for all of your equipment - It might be a bit overwhelming to think about how to calculate this on your own and therefore the handout has a detailed description of how to do this. You can use this information to even calculate the cost of electricity per year.
2. Blackouts – This is when power fails for a period of time. When power is restored, there is generally a large surge through the power lines that can cause damage to components of the computers and monitors.
3. Brownouts – This is when unstable power causes random fluctuations that may result in lights dimming. Occasionally this degrades the lifespan, performance, and stability of computers and monitors.

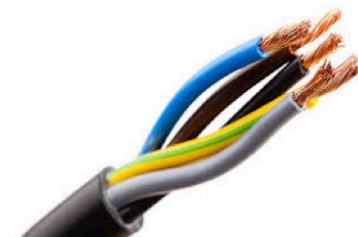
## 2 - Electricity - things to keep in mind...

**Electricity consumed by equipment  
and how much of it is needed**

**Blackouts**

**Brownouts**

**Electrical lines**



- 
4. Power lines – Familiarize yourself with the ones at your library and whether they are able to support the electricity that is needed to power computers.
  5. Computers should not be all plugged into the same outlet. You can't just daisy chain extension cords and splitters together as it will blow the circuit. Only 2-3 computers can be plugged into a single outlet safely.

These four points are important to keep in mind, but only a qualified electrician should assess if a building's wiring system is capable of supporting computers and, if not, only a qualified electrician should help you prepare the wiring. Before you decide where computers go, ensure that there are sockets and power lines available in that space.

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5 Heating, cooling and humidity. Here are some recommendations:

- Have adequate airflow and maintain a room temperature between 15-23 degrees Celsius.
- Keep the humidity level below 95%.

Note: As a facilitator you should decide how much time to spend on this based on the country where the training is taking place. For example, if it is in a country that typically has high humidity, spend more time on helping libraries find solutions and discussing potential threats and issues in more detail.

### 3 - Heating, Cooling and Humidity: recommendations

- Have adequate airflow and maintain a room temperature between 15 to 23 degrees Celsius or 60 to 75 degrees Fahrenheit.
- Keep the humidity level below 95%

- 6 Internet connection and bandwidth requirements. Try to ensure that the library has a proper internet connection. Around 20-30 kbp per user is needed in order to allow them to surf the web and watch normal resolution videos. So, for example, if you have 10 computers, a good approximation of internet bandwidth needed is around 200 kbps.

You can test the speed of internet for free at [www.speedtest.net](http://www.speedtest.net).

Next, ask participants to go to the website and test the internet speed that they are using. Then ask them to answer the following questions:

- How much speed do you need in order to watch a movie?
- How much speed do you need to do a Skype call?
- How much speed do you need to upload a video to YouTube?

After that, give a copy of [“What speed do I need for...?” handout](#) and go over different requirements for different activities.

## 4 - Internet Connection Bandwidth Requirements



20-30 kbps per user for basic usage such as surf the web, watch normal resolution videos.

Connection can be tested for free at: [www.speedtest.net](http://www.speedtest.net)

- 7 It is recommended that, as a library staff member, you keep records of the following:

- Connection provider
- Provider’s contact name and information
- Connection type
- Connection speed
- Monthly rate
- Library contact person details

Ask: Who should have access to this information?

Solicit a couple of responses and response that it is important that this type of information is kept away from those who don’t need to know it. Only librarians who are responsible for managing and maintaining computers at the library should have access to this information.

## 1 - Internet Connection: keep records of

Connection Provider
Provider Contact Name
Provider Contact Phone
Provider Contact Email
Connection Type
Connection Speed (mb/s)
Monthly Rate (\$/month)
LIBRARY Contact Name
LIBRARY Contact Phone
LIBRARY Contact Email



- 8 Wi-fi at the library. There are different ways you can manage wi-fi at your library:
- Voucher system – Issued by library staff and contains a unique code that allows access to the library network and internet connection. Users can log in by entering their unique code on the start page. Each code has an expiration time or date.
  - SMS system – The user requests a username and password from the library staff or the library SMS Hotline. The information is then sent to the user's mobile phone via SMS message. The user can then log in on the start page. Each username and password have an expiration (set by library staff) so users will be logged off automatically after a specified time or amount of data use.
  - Basic - When users connect to the library wi-fi network, they are redirected automatically to your library start page. On this page the user must click on the login button after accepting the Terms of Usage agreement. Users are logged in automatically and do not have to enter a username or password. Alternatively, if you are a small library, you can just post wi-fi passwords available throughout the library and change it weekly/monthly.

[10 min]

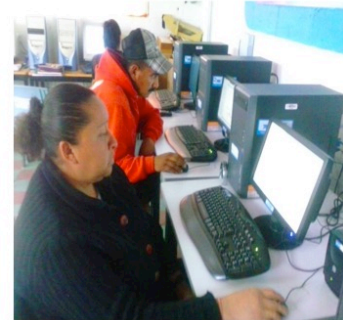
- 9 Explain that we are going to concentrate on how to set up a basic wi-fi system.

Note for the facilitator: [Tp-link Emulator](#) and [Dlink Emulator](#) are the most commonly used routers. Both sites have online simulations that show how to set up routers. Choose the site that is most relevant to the country where you are training and ask all the participants to open the link. Things you need to cover:

### Wi-fi router installation

Explain: It is necessary to install routers in the correct position in the room.

## 2 - We have Wi-Fi, now what? Management alternatives



VOUCHER

SMS

BASIC

## Basic Router Setup

**TP-LINK** 300M Wireless N Gigabit Router  
Model No. TL-WR1043ND

**WAN**

WAN Connection Type:  Dynamic IP  Static IP

IP Address: 192.168.3.11  
Subnet Mask: 255.255.255.0  
Default Gateway: 192.168.3.3

MTU Size (in bytes): 1500 (The default is 1500, do not change unless necessary.)

Primary DNS: 0.0.0.0  
Secondary DNS: 0.0.0.0 (Optional)

Host Name: TL-WR1043

Use These DNS Servers

Get IP with Unicast DHCP (It is usually not required.)

**WAN Help**

**WAN Connection Type:**  
If your ISP is running a DHCP server, select the Dynamic IP option.  
If your ISP provides a static or fixed IP Address, Subnet Mask, Gateway and DNS setting, select the Static IP option.  
If your ISP provides a PPPoE connection, select PPPoE/Russia PPPoE option.  
If your ISP provides BigFiber Cable (or Heart Beat Signal) connection, please select BigFiber Cable option.  
If your ISP provides L2TP connection, please select L2TP/Russia L2TP option.  
If your ISP provides PPTP connection, please select PPTP/Russia PPTP option.  
If you don't know how to choose the appropriate connection type, click the Detect button to allow the Router to automatically search your internet connection for servers and protocols. The connection type will be reported when an active internet service is successfully detected by the Router. This report is for your reference only. To make sure the connection type your ISP provides, please refer to the ISP. The various types of internet connections that the Router can detect are as follows:  
• PPPoE/Russia PPPoE - Connections which use

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The wi-fi signal must cover the entire room. It is a good idea to place the router in the middle of the room and point the aerial towards the computers because the wi-fi signal is emitted from the aerial.

### **Basic Settings - Internet Setup**

Show the section on Router Basic Setup of any router setup emulator (the links are given above) and describe all the steps of initial setup – use imaginary data typical of a library and insert it in each cell accordingly.

### **Advanced Settings - Mac Clone**

Go to the Advanced section and describe advanced privacy protection like MAC Clone if necessary. Some ISPs (mostly cable ISP) only allow customers to have one active internet connection at any time. To do this they check for the MAC address, i.e. they remember the MAC address which accessed the line through the modem and lock the connection to this MAC address. Check if this applies to your ISP. If it does, trainer should explain to librarians what they need to do in order to be able to share a single router on multiple computers.

Show the participants

- What MAC looks like: eg. 10:FE:ED:58:BC:8B
- How to know the MAC of your PC
  - o Open CMD (Command Line) and type: *ipconfig /all*, press enter – all network information will be presented below in the terminal window.

### **Wi-fi Settings - Basic: Local Channel Settings, SSID Broadcast**

Say, now that our router is connected to the internet service provider, let's extend the internet to the rest of the workstations, laptops or tablets via wi-fi.

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Go to the Basic Wi-Fi Settings Section and create a name (SSID) of an imaginary library. Use router online simulation described above.

- Fill in a name of your network.
  - o Say that the name (SSID) of your wireless network can be either visible or hidden. If it is visible, the users will be able to choose it from the list of networks. A hidden SSID will need to be inserted manually onto the users' devices.
- Show the participants the wi-fi networks and show them how to connect to the networks. When it comes to inserting passwords for the networks, go to the section below.

### **Wi-Fi Settings - Advanced: Wi-Fi protection, IP & MAC Bindings**

Tell the participants about the privacy and security issues that can occur if the wireless network is not protected. Go to the Wireless Advanced Section of the router emulator.

Show the participants security modes:

- **None** – your network is not protected at all. Anybody can access it. People with cell phones, tablets, or computers with the mode “automatically connect to free wi-fi spots:” will connect to the network the moment the device identifies it.
- **WPA – WPA2 PSK** – the most sophisticated mode of encryption today. Insert a word or any combination of numbers and symbols for protection.

Encourage participants to use an encrypted wi-fi mode – show them how to set it up.

### **General - Settings Backup and Restore. Router Firmware Update and Troubleshooting**

Say: It is possible to freeze the settings of your router in case of malfunction by saving the configuration data on any local computer with the help of the

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“save configuration” option. Demonstrate the process of saving a backup configuration and restoring it with the help of the emulator.

Explain: The majority of router problems are fixed by developers when they release new router firmware. It is very important to know how to upgrade the router with new firmware. This process is very similar to restoring the settings; the only difference is that we have to find a new firmware file: filename.bin in a special router section, find the file with explorer and install it on the router, then reboot it.

IMPORTANT: Explain that in order to backup or restore settings and update firmware, the computer must be connected via LAN cable rather than wi-fi.

Say: After completing the settings, we must protect the router from unauthorized access by creating a password through the browser address line.

Demonstrate the process of changing the router address and password in the emulator. Change the factory 192.168.1.1 address into 192.168.2.100 – save settings.

Make sure to ask the participants follow and repeat everything you are doing on the screen. Answer any questions that participants might have.

[60 min]

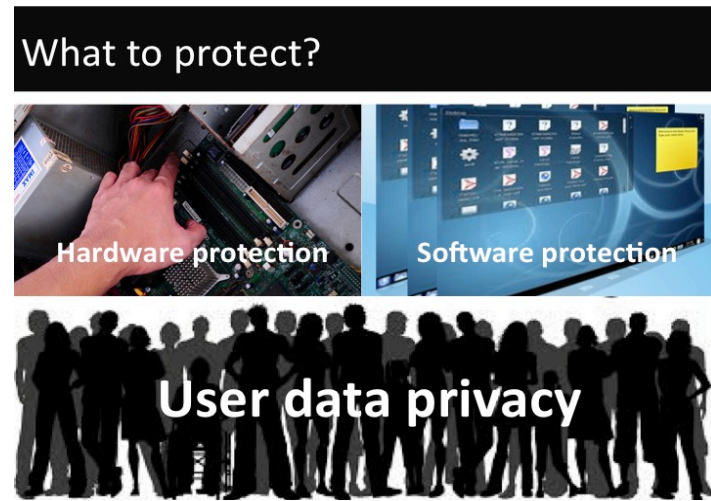
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10 **PROTECTION** - Now that we have covered the basics of what you should keep in mind in regards to infrastructure needed for public access computers, let's move on to the second point, which is protection.

Ask: What do you think needs to be protected?

Answer: What you as a librarian need to protect is the hardware, software, and user data.

It is not expected that you become an expert system administrator in order to manage computers. We are here today to try to simplify this process by giving you simple tools and to walk you through each one. If you understand the basics of what you need to protect your computers, you can try and find experts that will help you with some of these things.



11 What is hardware? It is a physical part of a computer system. It is what you can touch such as the computer case, monitor, keyboard, etc. as well as everything that is inside the computer such as the hard drive, motherboard, etc.

Ask: What do you think can harm the hardware?

Solicit a couple of answers and then summarize, ensuring that the following is highlighted:

- It can be stolen.
- Water can be spilled on the hardware.
- It can be misused.
- It can be dropped.

What are some ways in which you could ensure that this will not happen?

Solicit answers and then summarize:

- Make sure that your users are educated and that they understand the library policy and rules which we will discuss a bit later.
- Usage of the equipment needs to be booked/signed up for.

Encourage and empower your users to report any damage or problems and ask them not to troubleshoot anything themselves.



12 - 13 Ask: What is software? It is different programs on the computer itself. You need to protect computers from viruses, illegal software, users deleting and installing different programs, users saving their data on public computers, etc.

It is recommended that you have a three-pronged approach to software security: Steady State, antivirus/anti-malware software, web-filtering software.

Steady State type of software creates a snapshot of a workstation's desired configuration, settings, appearance, etc. All changes are removed after you reboot/restart the computer and the computer is restored to its clean state. Software:

- Deep Freeze
- Returnil
- Windows Mandatory Profile
- Windows Assigned Access

Say: It is very important to respect users' privacy and protect their private data or content from others' eyes. Don't forget that each time you close the browser the history of your visited page is preserved. In addition, passwords can occasionally be saved and stored and later used by someone else. To protect the users there are several solutions:

- Steady State Solutions or so-called Sandboxes. These are the programs that can drop all data on reboot. The purpose of this is because in public access settings users may install undesirable software or accidentally remove software and you need to be able to reset computers to the desired configurations.
  - [Returnil System Safe](#): is not a free application – it comes with a 30-day trial period. Returnil takes control over the Public user account by deleting everything on log out. The application is flexible and is equipped with a virtual drive

## Software protection



It is a set of instructions for a computer to perform specific operations.

## To protect from...



## Software Protection

Steady-State Software



Free Antivirus Tools



Web-filtering Software



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option – a dedicated space on the hard drive that can be used as a virtual flash drive for storing user data. The computers are completely protected unless the user knows the Administrator password. Another software is [Faronics Deep Freeze](#) which comes with a 30-day trial period.

- Windows 7 Mandatory Profile: this solution is free and is performed by means of Windows 7 tools. This solution is for advanced users but may be implemented according to this manual. [Windows 7 Mandatory Profile Creation – Windows Cookbook](#).
- Windows 8.1 Assigned Access: this solution creates a Kiosk mode for assigned accounts with possibility to use just one application from Windows Store. [Windows 8.1 Assigned Access](#).

Say: Every solution can fit the needs of the libraries, but to choose the correct one you have to try using it. Let's create a safe public environment on a typical library computer with the help of Returnil System Safe.

- Reboot to the Administrator account
- Create a public account if it had not been created before
- Download [rvs-lite-2011.exe](#)
- Run the downloaded file as the Administrator.
  - **Installation options:** use default settings. Language: English

During installation use the following options:

Use cache info for virtual system engine **5GB change to 20GB**

**Check** Install Returnil Virtual System Lite 2011

**Check** Restrict program access

**Check** Disable System Protection while in Windows Safe-mode

**Clear** Allow this client access to remote control

**Skip** Create your virtual disk

Check the checkboxes in Settings:

**Check** Do not allow Virtual Mode while in Windows Safe-mode

**Check** Automatically start Virtual Mode for public/standard account login

**Check** Automatically reboot the system for public/standard account log off

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- 
- Check** Show program tray icon in the System Tray
  - Check** Restrict program access (change password to one desired)
  - Reboot to Public.**

Now you can ask the participants to help you change the settings in the public account. Open the browser, visit some pages, change the desktop wallpaper, create some folders on the desktop, put some files in the folders. Reboot to public again. You will see that everything you just changed went back to factory settings.

Talk about the necessity of such system configuration. Promote a small discussion. Ask the participants to share their thoughts on where such settings and options can be used. Let them think and help them realize how much time and effort are saved by using this type of software.

Let's look at the flipchart with the potential issues and risks that you outlined during the activity focused on finding potential risks and issues. What could Steady State/Sandbox solutions help you avoid? Summarize by pointing to issues that could be prevented and putting a star next to the issues that you have found solution for.

[60 min]

Antivirus/anti-malware tools prevent infection and catch harmful files.

Software:

- Microsoft Security Essentials
- Avast Antivirus, Malwarebytes
- Spybot Search and Destroy

Go over basic setting of the antivirus software recommended above. Ask participants to select one of the recommended software and install it on their computer. Help participants if they are struggling. Ensure that you have walked around and discussed the main settings and functionality of antivirus software.

[30 min]

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**ONLINE SAFETY** - The internet offers an incredibly wide range of information that greatly adds to the resources available at the library. However, it also enables access to some material that may be offensive, illegal, inaccurate, or improperly cited. Each library staff member should be willing to help guide a user in the evaluation of online resources and help new users to determine if a site is a reliable source of information. It is also important to protect children's computers so that they are not accessing harmful materials. One way to do this is through OpenDNS.

Ask: Is it important to filter web content in the libraries? Discuss several points of view and write the pros and cons of web-filtering on a flipchart.

Ask the participants to vote on who supports the idea of filtering content and who doesn't. Separate them into two groups.

Ask the participants to introduce solutions on how to protect the computers and users from bad content. Consider that the group supporting filtering should think of protection with IT filtering solutions, and the second group should think of protection via administrative means (agreements, rules, etc.).

[10 minutes]

Ask the participants to introduce their protection plans.

Note: They may not know the names of specific software but may think in the right direction – help them to name it correctly and sum it up with a mini-lecture on the means available for web-filtering.

Web-filtering approaches may be represented by:

- Router Parental Control
- DNS Filtering

Router Parental Control – very primitive but an easy filtering option that comes with the router when purchased.

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## DNS Filtering

DNS providers filter your traffic on their own servers. One example is [OpenDNS](#). Some of the DNS filters are free and set up is easy.

Demonstrate to participants how to change the addresses and ask them to replicate what you are doing. Ask participants to find free DNS solutions online and demonstrate one at the end.

[40 min]

Once participants learn the main functionalities of the software, divide them into small groups and ask them to complete the activity below.

Now that you have learned about three tools you could use to protect software and manage users, in your groups, pretend that you were hired by a library to help them set up computers for public use. You need to decide :

- What type of Steady State software you will install and the desired configurations. What will users be able to access, do, and not do?
- What type of antivirus software will you install.
- What type of filters (if any) will you use?

[15 min]

When time is up, ask each group to present. Continue the discussion by asking them the following questions:

- *How did you decide what you need and why?*
- *Have you taken into account your personas and their needs?*
- *Would they be happy about the plan you have?*
- *Was there a debate in your group or a disagreement over what is allowed to be accessed?*

[10 min]

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14 - 16 There is not a right or wrong way to do this as it depends on the individual library capacity and the needs of its users. However, there are key things to keep in mind when you are setting up computers for public usage such as: whether this is going to prevent your users from using the computers, are you allowing free access and use of the computers while ensuring safety, will you be able to manage the computers the way you are setting them up, etc. In the end, everything we do is for our users and it is important that they have a good experience at the library. Remember that, as a user, you go to the library in order to access certain services or get certain things done. If for some reason these services are not available or if they are complicated to access, you probably won't be coming back and in some way lose the "trust" between you and your library.

Here are sample scenarios and our recommendation for software protection. You can use these plans as a starting point when you return to your library.

Summarize what they have covered so far:

- Infrastructure
- Hardware, software, user protection

Go back to the list and identify issues/problems that they have found a solution for through the new tools that were introduced.

## Software Protection Scenario - 1

I have 10 computers with Windows 7 – how to protect them?

Steady-State Software



Free Antivirus Tools



Web-filtering Software





Software cannot block out all objectionable sites or may inadvertently block useful material. The best way to protect users is by educating them. You could do this by creating an online safety and security tips handout and putting it in visible locations at the workstations. Let's review some of the online safety and security tips on the slide.

- **Log out/log off**– always make sure that you log out of your accounts when you have finished. This includes logging off from a public computer once you are finished using it. When the internet browser prompts you to save your password you should decline.
- **Keep it private** – check the privacy settings on all of your social media accounts so that you can decide how much information about yourself you want to share with others
- **Think before posting** – what goes online stays online even if you think you have deleted it. Ask yourself if what you are posting could, in any way, hurt, anger or endanger you or someone else
- **Look for the padlock** – when shopping, banking online or using any website that requires you to input your personal data and information, always check for a padlock symbol in the web browser and ensure that the web address begins with 'https://'.
- **Know who your messages are from** – never open or forward any suspicious email or respond to a social media message from someone you don't know. Do not click on or open the links, images, or files that are sent in suspicious emails, texts and messages.
- **Stay safe** – be careful with whom you share your personal information such as your name, address, phone number, etc. Don't meet with someone you have only been in touch with online.
- **Check your sources** – information you find on the internet may not be true or someone might be deliberately misguiding or lying about who they are. Check the information against additional sources before you believe something from a single source.
- **Report it** – tell your parent, caregiver or a librarian if something makes you uncomfortable or concerned, or if someone is threatening you or someone you know online.

## Online Safety and Security Tips

- Log out– always make sure that you log out of your accounts when you have finished, when browsers prompt you to save passwords decline
- Log off – you are using public computers, when you are finished using it make sure you log off
- Keep it private – check the privacy settings on all of your social media accounts so that you can decide how much information about yourself you want to share with others
- Think before posting – what goes online stays online even if you think you have deleted it, think twice before posting and ask yourself if what you posting in anyways could hurt, anger or endanger you or someone else
- Look for the padlock – when shopping, banking online or using any website that requires you to input your personal data and information always check for a padlock symbol in the web browser and ensure that the web address begins with 'https://'.
- Know who your messages are from – never open or forward any suspicious email or respond to a social media message from someone you don't know. Do not click on the links, images, open files that are sent in suspicious emails, texts and messages.
- Stay safe – be careful about who you share your personal information such as your name, address phone number is. Don't meet with someone you have only been in touch with online.
- Check your sources – information you find on the internet may not be true or someone might be deliberately misguiding or lying who they are. Check the information before you believe it.
- Report it – tell you parent, care giver or a librarian if something makes you uncomfortable or worried or if someone is bullying you or someone you know online.

Distribute a copy of the [Online Safety and Security Tips](#) handout - [15 min]

18 **MAINTENANCE** – Computers in your library are like plants or flowers in a garden. You need to attend to them in order to have them work properly. There are many tools to help you which we discussed earlier, but you will also need to integrate maintenance into your daily work tasks. We have developed a [Computer Maintenance Housekeeping](#) handout for you which describes the following in more detail and should help you with the upkeep of your equipment.

- Beginning of the day procedures
- Daily walk-through
- Tasks to be completed once per day
- Tasks to be completed once every two hours
- End of the day procedures

[5 min]

Next, ask participants to get into the groups that they were in when they were re-designing the library and placing equipment. Then explain the following:

- *Let's go back to the library that you worked on as a group. Now that you have learned about recommended maintenance procedures, in your opinion, what type of maintenance will your library require, how often, and who will be responsible for it?*

[15 min]

When the time is up, ask one group to present and ask the rest of the groups to add anything that was different.

Summarize by explaining that it is important that the library has an internal policy and a person responsible for performing the tasks outlined in the policy. The handout that I have provided can be the first step and could easily be turned into formal policies that work for your library.

[10 min]

## Updates/maintenance: key elements

Start of the Day Procedures

Start of the Day Walkthrough

Tasks to be completed every two hours

Tasks to be completed once a day

Close of the day procedures

- ➔ We have put together guidelines for you [distribute one copy per person] on equipment set up and maintenance. All of the information we will cover in this presentation is also outlined in this document.

End this presentation by saying the following:

*Now, let's go back to the flipchart with all the issues and problems that you identified that you might face when managing technology at the library.*

*Which of the issues/problems will you be able to avoid with the new tools that you learned about earlier?*

Lead a 5 minute discussion and move on to the next unit.

# Unit 4. Management of users' needs

Day	Time	Duration	Topic	Content	Responsibility	Method
		5 min		Review learning outcomes		Write Unit 3 learning outcomes out on a flipchart and read them out loud
		20 min	Library policy on internet and computer usage	Presentation to demonstrate different library policies		Slide deck: Library and user responsibilities
		45 min	Creating a policy	Activity for groups to design their own policies for their library		TOOLS Flipchart, markers, colored pens, magazines, glue, scissors
		45 min	User scenarios	Activity asking librarians to solve issues described in user scenarios		TOOLS: flipchart, markers, index cards with scenarios

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## Activity – Mini lecture on library and user responsibilities

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Time: 45 minutes

Materials: [Slide deck – Agreement with Users](#)

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### PREPARE AHEAD



The slide deck provided with this activity has examples of different policies/rules that libraries have employed. Please note that they are in English and therefore might need to be replaced with examples in a local language. If you are struggling to find examples from local libraries, you can create your own using examples in the slide deck as templates.

It is important for librarians to understand open access to the internet and what shouldn't be blocked. Open access to the internet means respecting users' freedom to express their opinion and to seek and receive information they want and need. There are times when librarians have decided, for example, that social networks such as Facebook should be blocked and not accessible at the library because they considered it to be a "fun" activity and not something that is useful. This policy is not necessarily constructive as many people use Facebook to connect professionally with others or to join different interest groups and communicate online. This mini-lecture is designed to explain to the participants what their responsibilities are regarding users' rights.

1 Title.

## Agreements with users

Presenter Name

Contact Info



2-3 Having public access to the internet at the library comes with responsibility for librarians who need to facilitate and promote public access to quality information and communication. Users should be assisted with necessary skills and internet access. The International Federation of Library Associations and Institutions (IFLA) suggests adhering to the Internet Usage Policy set forth in the IFLA Internet Manifesto. The relevant section is provided here for reference:

- ➔ Allow the right of every individual to express an opinion, seek and receive information that they want and need
- ➔ Provide access to information, regardless of medium and frontier
- ➔ Remove any barriers to the flow of information
- ➔ Ensure that users feel free to seek, receive and impart information and ideas through any media and regardless of frontiers
- ➔ Ensure that access is not subject to any form of ideological, political or religious censorship, nor economic barriers
- ➔ Serve all community members

## A Library to Community

**ALLOW** the right of every individual to express opinion, seek and receive information that they want and need.

**PROVIDE** access to information, regardless of medium and frontiers.

**ENSURE** that patrons feel free to seek, receive and impart information and ideas through any media and regardless of frontiers.

that access is not subject to any form of ideological, political or religious censorship, nor economic barriers.

- ➔ Support the right of users to seek information of their choosing
- ➔ Respect the privacy of users and recognize that the resources they use should remain confidential

Library staff can monitor network traffic in the usual performance of their duties to ensure that the network remains operating at optimal performance. This monitoring, however, should only identify usage by device, not by individual.

The library should not maintain a history of users' computer use and should not retrieve any information, including websites visited, passwords, or any other information regarding a specific user. Otherwise, users will lose trust and thus will refuse to use the computers offered at the library. It is highly recommended that, at the end of each day, the library resets all computers to their original boot image and erases all usage history by either using Steady State software or by using Windows built-in settings.

4 Libraries around the world have been dealing with different types of issues for years such as:

- ➔ Users leaving their personal information online
- ➔ Users not logging out from online accounts that they have used
- ➔ Users visiting gambling and pornographic websites
- ➔ Users downloading illegal software or pirated movies

Here are some ways other libraries have established policies, but only you and your community can decide what makes sense for your library. Some of the libraries have included the following in their policies and have educated their users about it:

## Community to

- UNDERSTAND** that internet is not secure and that those that require confidentiality such as financial transactions do so at their own risk.
- that the LIBRARY may not engage in any activity that is harassing or defamatory.
- any activities that disrupt other LIBRARY patrons, employees, equipment, or services are prohibited.
- RESPECT** national and International copyright laws and all consequences of copyright infringement lie with the patron. LIBRARY is not any liable for any issues related to copyrights resulting from patron Internet use.

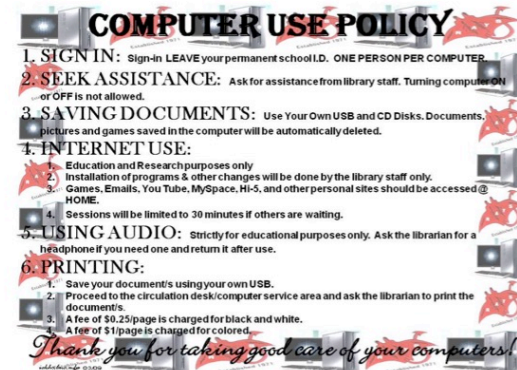
- ➔ Understanding that the Internet is not secure and that users who require confidentiality, such as those doing financial transactions, do so at their own risk.
- ➔ It is a responsibility of the user to ensure that online communications are secure and protected.
- ➔ Internet users at the library may not engage in any activity that is harassing or defamatory. The viewing or accessing of obscene materials (such as pornography) is prohibited.
- ➔ Illegal activities or any activities that disrupt other library users, employees, equipment, or services are prohibited.
- ➔ The user is responsible for compliance with national and international copyright laws and all consequences of copyright infringement. The library is not liable for any copyright related issues resulting from user internet use.

5 As you can see, there are many things that the library and users need to understand and agree on. The best way to avoid any confusion and to ensure that users understand their rights is to have a policy that is accessible and available to all users.

Let's look at some policy examples and go through them.

As the facilitator, ask the following questions when going over the examples:

## An agreement with the users



<http://images.pcmac.org/555files/Schools/vi/StThomasStJohn/wannakean/uploads/Documents/Categories/Documents/EXHS%20computer%20use%20policy.jpg>



- 
- What do you feel when you read and see this policy?
  - Would this work in your library?
  - What do you like/dislike about this or that?

---

6 - 8      Review sample user agreements and discuss.

## An agreement with the users

- \*You **must** have a personal account created to use the GPN computers
- \*Do not share your account information with others
- \*Computer use is limited to research and educational purposes ONLY
- \*Please listen to music using headphones
- \*Do not install software without the administrators consent
- \*You must log your computer use in the log located in the computer lab
- \*You are only permitted to use the computer lab during regular hours when staff are available to assist you (8:00 am to 5:00 pm)
- \*You are not permitted to access GNP computers remotely
- \*You must work in the workspace assigned to you, do not save work to the desktop
- \*Remember to log off of the computer you were using, we are not responsible for what happens to your account if you do not
- \*If you are the last person out of the lab, please close the door

[http://www.gpn.pitt.edu/Computer\\_lab\\_files/shapimage\\_1.png](http://www.gpn.pitt.edu/Computer_lab_files/shapimage_1.png)

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## Activity – Creating a library policy

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Time: 45 minutes

Materials: Flipchart, markers, colored markers, magazines, glue, scissors – for creating a policy

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Ask participants to get back into the groups they were in when they designed a library.

Explain the following:

*Here is a list of potential issues that you might face:*

- **Users could install viruses**
- **Users could share sensitive information online**
- **Users could access illegal sites (insert “gambling, political issues, pornography” as appropriate for country)**
- **Users could tamper with computers**
- **Users could want to use a computer longer than the time that is assigned for them**
- **Users could show up later than the time slot they have booked and demand a computer**
- **Users could save information on the computers and then try to hold the library responsible if it is lost**

In your groups, come up with one policy statement that responds to each potential issue. You can only write one sentence for each. Otherwise, no one will understand or follow your policy. Have a discussion in your group about the best way to deal with the possibilities outlined above. If you think something important is missing from the list, please feel free to add that into your policy and share it with the rest of the group during your presentation. Make sure that your policy statements don't restrict users or make them afraid of using library computers.

Once you come up with policy statements, imagine that you are introducing this policy at your library. How will it look?

Walk around while the groups are working and help them if they are struggling. Be available to answer questions and throw out ideas to the group to spark their creativity while they are working.

[15 min]

When the time is up, ask each group to present and hang their policy on the wall. Continue the discussion by asking the following questions:

- How would your personas react to this policy?
- What would they like/dislike?
- Is there anything in any of the policies that made you uncomfortable?
- What are some of the similarities/differences?
- Any policy that stands out the most?
- Anything that is missing from the policy that you would want to add?
- Does the policy seem fair to the user and to the library?

*Let's assume your library now has a policy in place. Imagine situations below and list three pieces of advice you would provide to your colleagues on how to deal with each one.*

- You find that [name any persona] is trying to jam a disk in the wrong slot. What do you do?
- [Name any persona] is not leaving her computer, even though her time is up and there's a line. What do you do?
- [Name any persona] saved an important document on the computer and now it is not there anymore. [Same persona] is not happy and is complaining. What do you do?

[25 min]

SUMMARIZE

*What we have learned from this activity is that the library needs to have a fair policy and make it available to the users. When you come up with the policy you need to be flexible, as rules create disincentives. You need to consider all of your users and not make restrictions based on one small case. In the [Beyond Access Equipment Set up and Maintenance](#) guide you will find sample*

*library policies that we recommend you use and modify to fit your library and particular needs of your users. The best way to create a policy is by involving your community. Remember, too many restrictions will turn away and discourage your users and thus make you uncompetitive with other public access places.*

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## Activity – User scenarios

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Time: 45 minutes

Materials: Flipchart, markers, index cards with scenarios for each group

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### PREPARE AHEAD



Take a look at the sample scenarios provided in this unit. Use them as-is or create your own in order to match the country context where the training is being held. For example, you could replace the name of the communities and description of the community with the actual community in that particular country. Once you finalize all the scenarios, print several copies of each scenario.

Now that participants have learned about potential threats and ways to avoid them, along with the policies they need to put in place, it is important to explain to them that they will need to be flexible even with their own policies. This will be demonstrated through the scenarios which include problems that the participants will need to address and solve.

Start by dividing participants into five small groups. You are free to divide them as you wish and ensure that people are working with those they haven't worked with previously. Once groups are formed, explain the following:

*I am going to give each group a different scenario. In each scenario there is background information on a library and its community. Each scenario has an issue/problem that a library has encountered and as a group, your job is to help solve it. You have 15 minutes to find a solution.*

*Please nominate one speaker to present on behalf of your group.*

[15 min]

N	Scenario	Main Takeaways (Facilitator Notes)
<b>Scenario 1</b>	Urbana Community Library is in a rural town of 2,000 people. The majority of library users are unemployed youth. The library has three computers that are used for public access. However, the library keeps hitting its internet limit each month and therefore loses internet for two weeks at a time each month. You are tasked with the job of figuring out why the internet cap is not enough and then setting up policies that help the library to distribute internet to those who need it the most. What steps would you take and what type of policy would you put in place?	Main takeaway: In a situation like the Urbana Community Library, the first step would be to assess what takes up the most internet traffic and then figure out whether there is a way to limit that activity or a way to use less bandwidth. For example, if high resolution videos are being watched, consider restricting access to them. If the library can't increase its internet and doesn't want to restrict users, then, instead of giving a time limit for using computers, the library can look into bandwidth limit options
<b>Scenario 2</b>	Rundu Library is in a large city of 2 million people. Most of the population is poor and 70% are unemployed. The library has 15 computers connected to the internet. The library received a complaint from job-seeking users that they don't have enough time on the computers to search for jobs. You are tasked with finding a way to ensure that those who need to use the computers are given sufficient time without restricting other users' access. What steps would you take and what policies would you put in place?	One hour for computers isn't a catch-all rule that should apply to every library. It's worth creating special hours for special demands. For example, since 70% of Rundu Library users are unemployed, it might make sense to create special services for those who are seeking jobs or learning job-related skills, such as one computer designated for job seekers.
<b>Scenario 3</b>	Gibson Library is in a city of 30,000 people. The library has 10 laptops with internet connection. The majority of the library users are children under the age of 15. The library has noticed that children are accessing pornographic sites and adult content on the internet. You are tasked with solving this problem. What steps would you take and what policies would you put in place?	As a first step, it would be advisable to check the computer setup and settings. There are programs that the library can use to block adult sites so that children cannot access them. A second option is to set up two different user account types, with one for under age-children with parental controls. It is also important to educate children on what they should and shouldn't access online through public computers.
<b>Scenario 4</b>	Roseville Library is in a suburb of 8,000 people. Most of the population is unemployed and 70% of girls fail to reach the 10 <sup>th</sup> grade. Youth come to hang out at the library because they don't have anything else to do, and take up computer time to play games and	This presents a unique opportunity for the library to engage youth in a constructive activity that allows them to gain skills. Bringing youth to the library is often a difficult task and the fact that the youth themselves are already at the library is a chance for the library to start some youth

	<p>watch movies. Adults complain that they don't have enough access to the computers because the youth are wasting time on the computers. Your job is to mitigate this situation. What would you do and what policies would you put in place?</p>	<p>programming. For example, the library could talk to the youth and listen to what they are interested in and would like the library to offer. Then the library could set up educational activities such as a computer training program for youth. Another option is to allow 1 hour of games at certain times for every 2 books they borrow.</p>
<p><b>Scenario 5</b></p>	<p>Ura is a city library serving a population of 20,000 people. The majority of library users are retired. However, the library also has youth who come to use the internet and computers. 10 computers have been placed in the reading hall and pensioners are complaining that they get distracted when people talk loudly over Skype. Pensioners are also against having the computers in the library. They don't think there is a need for it or that they are too old for it. Your job is to mitigate this situation. What would you do?</p>	<p>First, you should assess available space at the library to see if there is a way to move some of the computers from the reading hall. You could leave half of the computers in the reading hall for quiet research and then move half of the computers to a space where interactive communication wouldn't disturb others. It is also important to understand who is complaining. Is it just one person who is not happy or is it the majority of the pensioners? Holding a meeting with both groups would help you understand the root of the conflict better before taking any action. The library is for all users and for different purposes, and it is important to accommodate those who would like quiet reading time as well as those who would like to talk over Skype.</p>
<p><b>Scenario 6</b></p>	<p>Sayat is a small city library serving a population of 10,000 people. The library is the only place in the city that offers free services to the community. There are only two librarians working in the library, which just received 15 new computers connected to the internet for public access. The librarians have basic IT skills but are now getting overwhelmed by requests from users to teach them how to use the technology. The librarians understand that they can't handle all the requests by themselves. You are tasked with advising these librarians on how to best handle this situation. What steps would you take? What type of advice would you give?</p>	<p>There are ways to get help from different members of the community or users of the library. Volunteers can help with tech services when no other IT help is available.</p>

When the time is up, ask each group to present (taking no more than 5 min each) and have a discussion with the larger group.

[25 min]

As a conclusion, select appropriate policies that libraries should add and/or consider in regards to their users. Go over the best recommendations and policies document and highlight the following:

- **Be flexible:** rules create disincentives, so make sure you're considering all of your users and not making restrictions based on one small case.
- **Involve your community in setting policies** - give everyone a stake in following them, so they don't seem dictatorial from the librarian.
- **Ask the community for help** – users at your library come with diverse backgrounds and skills. Ask them to help you lead some of the trainings and activities on a volunteer basis.
- **Give the community ownership** – involve the community in making the library a better place for all, empower community members to help out and volunteer, and be open to their suggestions and ask them to help implement them.
- **Always remember users** – before coming up with a rule or making changes in your library, ask yourself how different users will feel about the change, how will they react, and whether that will stop them from coming to the library.

*WRAP UP:* It is important to make sure that participants understand that they need to be flexible. Often librarians can be prone to making top-down all-encompassing rules, which can end up discouraging users. The participants must be reminded that too many restrictions will make their library less competitive with other public access places.

[5 min]



# Unit 5. Librarian workflow change

Day	Time	Duration	Topic	Content	Responsibility	Method
		5 min		Review learning outcomes		Write Unit 5 learning outcomes out on a flipchart and read them out loud
		40 min	Mapping out the current librarian workflow and going over workflow changes associated with the library getting public access computers	Presentation to demonstrate different library policies		Flipchart, markers, post-its
		20 min	Starting up tech training and deciding on library operating hours for internet access	Activity for groups to design their own policies for their library		Flipchart, markers, post-its

## Unit 5 learning outcomes

*Read learning outcomes aloud with participants.*

After completing this unit, participants should be able to:

- Identify differences in librarian workflow associated with the arrival of public access computers to libraries.
- Efficiently manage their time in order to accommodate activities related to public access computers.

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## Activity – User scenarios

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Time: 40 minutes

Materials: Flipchart, markers, post-its

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The goal of this activity is for the participants to understand that technology will change their day-to-day work. Explain that in this unit we are going to review the change in workflow of a library that received computers after previously not having them. Start this activity by introducing the concept of workflow by putting the following statement either on the flipchart or projecting it on the wall.

**“Workflow is the steps you take to deliver services and manage the library on a day-to-day basis.”**

Then say:

**The library will definitely go through a workflow change once computers arrive. But it is also important to note that the “essence” of the library—helping people access information for their social, cultural, and economic lives—is still the same. The librarian will need to adjust to these changes in “information format.” This will also have consequences for his/her role at the library and in his/her team. In this unit we will talk about these changes.**

Divide the participants into new groups and ensure that people are working with those they haven't had a chance to work with yet. Provide flipchart paper to each group and explain the following:

*You all have flipchart paper and you should first draw a librarian in the middle of the flipchart paper. Then write up daily tasks that as a librarian you **CURRENTLY** do at work, such as: checking books out for users, filling out reports, etc. Write each task on a separate post-it note and tape it around the librarian that you drew. Your job is to present the typical day of a librarian on the flipchart.*

[15 min]

Use the following questions if they are having a hard time coming up with a list:

- ➔ Think about what your users most commonly ask you to help them with.
- ➔ On a daily basis, how do you help users meet their needs?
- ➔ Do your users ask you to help them find specific books or information?
- ➔ Are there things people ask for sometimes that you can't help them with?

When 15 minutes are up, ask each group to present their work to the larger group. Once all the groups present their visuals, draw lines between similarities in the work of different groups—for example, registering new users, helping users find books, circulation of books, etc. Highlight tasks that librarians across all the groups have in common. Leave the flipcharts and post-its visible for everyone to see during the next activities and say:

*Even if we don't have fancy charts set up in our libraries, we all have day-to-day tasks and responsibilities at work, which is what we mean by "workflow." What you did through this small activity is put together the typical workflow of a librarian.*

Next explain the following:

*Now, imagine that your libraries have received 10 computers and you have already placed them in the library and set them up the way you wanted. Technology is ready to be used by your users, and you have policies and procedures in place. What are some additional tasks/work you will need to add to your day-to-day work? What are the most common workflow changes associated with your library getting 10 computers with internet connection? Discuss it with your group and come up with up to five (or less) tasks and write them on different colored post-it notes.*

Some potential answers may include:

- ➔ registering users to use the computer
- ➔ reserving computer time
- ➔ helping users use the computers
- ➔ conducting trainings for users

- helping users scan/print
- ensuring that the computers are not misused
- ensuring that the computers are safe and unharmed

[5 min]

When time is up, ask each group to go back to the flipchart from the earlier exercise and post additional tasks that they have written on the post-it notes. As you can see, technology is going to add additional work to your daily routine and it is important for you to decide what needs to be done more efficiently in order to manage all the work.

Let's go back to your old library without equipment and discuss what happens when the following situation arises:

***John comes to the library. He is not a library user, but he would like to become a library member and learn about what the library offers.***

**In your small groups, use the following chart to describe the series of steps you have to perform/have in place in order to address John's inquiries and meet his needs. Identify the people responsible for each activity and the sequence.**

Situation	Step 1	Step 2	Step 3	Step 4
<b>John comes to the library. He is not a library user but he would like to become a library member and learn about what the library offers.</b>				

Ask one group to present and ask the rest of the groups to share anything that might be different from the first group. Talk about similarities and differences in the workflow.

Ask participants to remain in the same groups and explain:

Now, let's imagine that your library received 10 computers connected to the internet and you are now offering them to your users. Let's go back to **John, who came to the library, is not a library user, but would like to become a library member and learn about what the library offers.** Please describe the series of steps you have to perform/have in place in order to address John's inquiries and meet his needs. Identify the people responsible for each activity and the sequence. Use the same chart/table as from the previous activity to describe each step.

Once time is up, ask each group to present (depending on time) and discuss the findings as a group. End this activity by going over key takeaways:

- ➔ Having technology at the library will definitely have an effect on librarians' day-to-day workflow. That is why it is important to think about traditional workflow and decide what is important and how you could get things done more efficiently in order to make time for providing technology to users.
- ➔ Setting up effective schedule and user registration sheets and having policies visible will be one way of saving your time so that it could be used for other things.
- ➔ There are different methods and tools you could use in order to efficiently manage new tasks associated with having computers at the library. For example, you can set open hours for public access to computers so that users can individually use them as needed. In order to manage the process more efficiently, you could create a reservation sheet so that users can book computers in advance. We are now going to discuss some of the examples that libraries have put in place in order to efficiently manage the users' expectations and meet their needs.

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## Activity – How much Internet and when?

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Time: 60 minutes

Materials: Flipchart, markers, post-its

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Ask participants to go back into the small groups that they were in when they worked on personas. Once groups are sitting together, say the following:

**Let's go back to your personas. Can a representative from each group remind us which persona is assigned to them?**

Ask participants to answer the following questions:

**Question A:** When is it best for your persona to have open access to computers and the internet?

**Question B:** When is it best for your persona to attend training sessions?

*Remember to take into consideration your persona's background and interests. For example, if your persona goes to school, take that into an account, since they are unlikely to be coming to the library during school hours. Once you have an answer, please write it on a post-it note. Please indicate the name of the persona on each post-it note.*

[10 min]

Ahead of time, the facilitator should prepare and hang flipchart paper on the wall divided into two columns: A – open access and B – training. When time is up, ask each group to put their post-it notes on the flipchart. Compare the results of the different groups. If results differ a lot, ask the groups the reason behind it. Ask groups to do the following next:

*Now, again in your small groups, you are going to work on one more assignment. Imagine that all the personas on the flipchart are all your users. You now have information on what time/day works best for them. Your job is to make a decision on when you are planning to provide open access to the internet at your library and when you plan to block out a time for computer training. You need to ensure that the decision you are making is fair and will accommodate the users the library is most trying to reach. Use your flipcharts to finish the following sentence:*

- ➔ The library provides open access to computers on [insert days of the week] from [insert time slots]
- ➔ The library conducts computer trainings on [insert days of the week] from [insert times slots]

[15 min]

When time is up, ask one representative from each group to present. Draw a line between either similarities or differences in schedules and encourage discussion by using the following questions as a prompt:

- ➔ What did you take into consideration when making the schedule?
- ➔ Were there any moments where you struggled to decide what to do?
- ➔ Was it difficult/easy to make a schedule? What was difficult?
- ➔ Do you think it is possible to accommodate most of the users' needs?
- ➔ Currently, how are the library working hours set? How do you decide when (what days, what times) to offer trainings/workshops? Is this the right approach?

[10 min]

Once questions have been answered and discussed, ask participants in their groups to answer the next two questions:

- How much time will each user receive during open access hours?
- How will each user reserve a time slot?
- How often can each user use the internet in one day?

[10 min]

When time is up, ask each group to present and ask the larger group the following question:

- What criteria have you used in order to determine how much computer/internet time to allow each user?

[10 min]

Summarize this activity by going over the key takeaways:

- ➔ When you are creating schedules—be it for the trainings, workshops, or open hours for the computers—the most important factor is the USERS. You need to choose the hours that best works for the majority of your users.
- ➔ If your users are in school/work during the hours when the library provides open hours to computer, then it is unlikely anyone will be able to use them.
- ➔ The best times for open access are the ones during which personas are able to come. Often, libraries make the mistake of not considering users needs when deciding on when things happen at the library. As a result no one uses resources at the library.

Libraries have been providing technology training and open access to the internet and there are best practices and recommendations that we can learn from. We are going to go over them next.



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## Mini lectures – User Management Best Practices

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Time: 60 minutes

Materials: Flipchart, markers, Post-its.  
[Slide deck - User Management Practices](#)  
[Training sign up - template](#)  
[Open access sign up - template](#)

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**Slide  
Number**

**Facilitation Guide**

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1 **Title.**

# User Management Practices

for Public Libraries

Presenter Name

Contact Info



2 Users are divided into two groups:

- New users
- Returning users

It is important for the library to understand what type of procedures you will have when it comes to allowing new and returning users to use computers at the library. Most of you probably already have a way to register new users or keep track of returning users. You need to figure out whether that system will continue to work for you efficiently or if you need to make any changes now that your libraries have computers. As we all know, user registration allows you to keep track of who comes to your library and is something that will help you lend users the materials they need. User registration is also part of data analysis which helps you know how many new users you have at any given time. So, the steps you need to take into account with new users are:

- Registration itself, which could be done through user cards, by providing QR codes for each user, etc. You need a system that allows you to easily register new users as returning users down the road.
- Rules and policies – Each new user should be introduced to the library's rules and policies and understand all their rights and liabilities. They should also know how to reserve computers and sign up for computer trainings.

Agreement – You don't necessarily have to make users sign agreements each time they use computers or attend a training. Instead at every workstation you could have a sign that says, "By having started to work at this computer, the user understands and accepts all the rules."

## Your Patrons

**NEW**  
users

**RETURNING**  
users

3 With returning users, you need to make sure that they understand how they can sign up for open access hours as well as for computer training. Let's start with open access hours. Based on other libraries' best practices, it is recommended that:

- Each library defines a weekly amount of time allotted to each user.
- The library can then print out timetables with available time slots and users can choose whichever slot is free and works for them.
- In order to efficiently manage this process, the library can select a day when sign-up for open access begins.
- The library could allow users to sign up via phone or SMS or by personally coming to the library.
  - For example, in Ukraine, in a small regional center in Kirovohrad, the timetable for open access was introduced each Sunday and was filled out by users throughout the week. The main limitation was that users could sign up only in person. The reason for this was because librarians noticed that some people were filling out slots for their friends and the library would run out of internet time. Then, often people would not be able to come to the library at the time when their friend signed them up. The librarians planned a sign-up start time on Sunday so that all the people who work during the week could make their reservation and people who did not work were able to reserve their time slot later during the week.

## New User Registration



Registration

\*Tickets, cards, codes

Rules

Agreement

- 4 The sample timetable that was used by Kriovohrad is demonstrated on the slide. As you can see, it has days/dates and one-hour time slots for users to sign up for.

## Sign-up Template

Day	Start Time	End Time	User	Signature
DAY/DATE	10-00	11-00		
	11-00	12-00		
	12-00	13-00		
	13-00	14-00		
	14-00	15-00		
	15-00	16-00		
	Training Time			

- 5 The next thing that users need to be able to do is sign up for trainings. Based on best practices it is recommended that:
- Each library defines the training they would like to offer their users such as computer basics, Power Point, etc.
  - Then, define the best time to hold the training so that open access hours and training sessions are not held at the same time.
  - Next, create an announcement to communicate when particular trainings are available to your users. Indicate dates and times and create a sign-up list. This will allow your users to choose the time slot that suits them the best.
  - Match the number of trainees to the number of computers you have available. Do not let users share computers as it hurts their ability to learn the new skills.

Always ask people to let you know if they can't attend the training they signed up for so that those who are waiting can take their spot.

## Returning Users Management

### Sign-up for open access



6 Here is a sample sign-up sheet for a training on “How to Make Great Presentations”

## Sign-up for Trainings

How to Make Great Presentations – Training Session – January 25, 16-00 – 18-00				
#	First Name	Last Name	Signature	Notes
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

Start by presenting a mini-lecture on best practices for user management at the library using the slide deck.

Next, answer any questions that participants might have and wrap up by providing sample registration templates for open access computer hours and trainings that the participants can use as a starting point for making their own when they get back to their libraries.

# Unit 6. Next steps

This unit will need to be prepared by the training's facilitator and country team. This unit is specific to the library program that is being implemented in a particular country and depends on the goals of the training. If you are preparing the librarians to receive new equipment, then it is recommended that you address administrative matters such as:

- ➔ What is expected from participants after the training
- ➔ If specific equipment is being given to libraries, then this is a good place to talk about:
  - type of equipment libraries are getting
  - specific tech setup required by the program
  - delivery and installation schedule of the equipment
  - responsibility of the library to prepare to accept the equipment such as security (metal bars/doors), required wiring, or an internet subscription
- ➔ Library responsibility for the equipment
- ➔ Types of issues that should be communicated to management team

If this training is being offered in order to help libraries manage equipment more efficiently, then this unit could be dedicated to coming up with the list of most common issues and going over what participants would now do differently and what they plan to introduce in their library as a result of this training.

# Close the workshop: Feedback and thanks

Insert activities from the [Training Toolkit](#). The closing activity will summarize what participants have learned and what is possible moving forward. This is also the time to collect feedback and/or administer a post-training survey.

