

MOBILE INFORMATION LITERACY CURRICULUM

Module 3 Guide: Basic Web Searching via Mobile Devices

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HENRY M. JACKSON SCHOOL OF INTERNATIONAL STUDIES (JSIS)

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KEYWORDS

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The Mobile Information Literacy curriculum is a growing collection of training materials designed to build information literacies for the millions of people worldwide coming online every month via a mobile phone.

Most information and digital literacy curricula were designed for a PC age, and public and private organizations around the world have used these curricula to help newcomers use computers and the internet effectively and safely. The better curricula address not only skills, but also concepts and attitudes. The central question for this project is: what are the relevant skills, concepts, and attitudes for people using mobiles, not PCs, to access the internet? As part of the [Information Strategies for Societies in Transition](#) project, we developed a six-module curriculum for mobile-first users. The project is situated in Myanmar, a country undergoing massive political, economic, and social changes, and where mobile penetration is expected to reach 80% by the end of 2015 from just 4% in 2014. Combined with the country's history of media censorship, Myanmar presents unique challenges for addressing the needs of people who need the ability to find and evaluate the quality and credibility of information obtained online, understand how to create and share online information effectively, and participate safely and securely.

About the Curriculum

As millions of people come online across the globe through mobile devices, mobile information literacy is vital for those who have leapfrogged from traditional media to digital devices that provide instant access to information. Mobile information literacy is necessary to help people learn how to find and evaluate the quality and credibility of information obtained online, understand how to create and share online information effectively, and participate safely and securely. Mobile information literacy is critical to help people better consume, generate, and disseminate trustworthy information through both digital and traditional media.

The curriculum focuses on critical thinking in a digital environment of smart phones, mobile phones, and tablets, filling a critical gap in digital information literacy curricula. Existing curricular models assume people learn on a personal computer (PC). While this has been the case historically, the next billion people coming online will most likely learn on a mobile device. This has huge implications for how people get online, how they access and experience the internet, how much they produce in addition to consume information, and even how they conceptualize the internet itself. For instance, research shows that in Myanmar (and many other countries) more people use Facebook than the internet. Mobile-specific practices, such as zero-rating, mean people are coming online much more frequently through a handful of "walled garden" applications without an understanding of and similar access to the broader internet. Also, some mobile applications and websites don't offer the full functionality of their PC counterparts. The curriculum aims to address these differences and empower mobile internet users to be equal participants in the online world.

The curriculum includes the following six modules:

- Module 1: Introduction to Mobile Information and Communication Technologies (ICTs)
- Module 2: A Mobile Lens on the Internet
- Module 3: Basic Web Searching via Mobile Devices
- Module 4: Working Online and Using Information via Mobile Devices
- Module 5: Putting It All Together
- Module 6: Module 5 Project Presentations

Curriculum Development

Our initial efforts sought to combine several frameworks in creating a comprehensive mobile information literacy curriculum: [EU DIGCOMP](#), [SCONUL](#), and [Empowering 8](#). At the time of our review there were none that explicitly addressed all of the skills, concepts and attitudes for mobile-centric users. The EU DIGCOMP framework explicitly acknowledges that no curriculum for the mobile environment has been developed. Nevertheless, once we identified our target group as beginner-level participants with no knowledge of the internet, World Wide Web, and mobile technology use, the EU DIGCOMP proved to be the most appropriate framework for designing a basic beginner-level curriculum. SCONUL and Empowering 8 were more appropriate for those with at least a minimum baseline digital information literacy.

How Others Can Implement the Curriculum

The curriculum and training guide were designed to be flexible and customizable, depending on the baseline skills of those being trained, and translated into other languages. In countries and contexts like Myanmar, where for many using a mobile phone marks their first experience with the internet and digital technology, these training materials can be used by various organizations, such as libraries and NGOs, to both train their staff and to build knowledge, skills, and mobile information literacy competencies within the populations they serve. In Myanmar the materials have been translated into Burmese, and master training sessions have been conducted to train library staff to further train their colleagues, as well as library patrons. Our partners in Myanmar have also conducted training sessions at the Ministry of Information.

The curriculum materials are offered here with a [Creative Commons Attribution-ShareAlike 3.0 license](#), so others are free to use, adapt, and share the materials with attribution. We are also available to help organizations create customized materials based on their particular country or regional contexts and literacy training needs.

If you have questions on the curriculum or would like more information on how we can help, please email us at tascha@uw.edu. We also encourage individuals and organizations that use and adapt this curriculum and training to provide us with any feedback, ideas, and adapted materials. There are many ways you can do this: email tascha@uw.edu, leave a comment and upload materials on the main Mobile Information Literacy curriculum webpage <http://tascha.uw.edu/mobile-information-literacy-curriculum>, and/or participate on our Facebook page <https://www.facebook.com/MobileInformationLiteracy>.

Preparing for Conducting Trainings

By default, digital information literacy implies access to information on the internet. Technology often fails or can be difficult for many to use under time and pressure constraints. A good practice is to test run the presentation on the equipment in the facility well ahead of the actual training. This ensures that the presentation will go as intended and so trainers can determine and anticipate alternative options. Before conducting any presentation, trainers should be sure that:

- The training facility is equipped with the necessary materials and technology
- All equipment has been tested and is operational
- They are familiar with how to operate the equipment
- They have a backup plan for continuing the training should issues arise

About this Module

Basic Web Searching via Mobile Devices

In this module, we will cover different types of websites, how to use search engines to search the web, and compare finding information using search engines vs. Facebook.

Prerequisites:

- Module 1: Introduction to Mobile Information & Communication Technologies (ICTs)
- Module 2: A Mobile Lens on the Internet

Topics covered:

- Web browsers
- Basic web search

Questions you will be able to answer at the end of this module:

- What are some different types of websites?
- How do I use search engines to search the web?
- How do search engines compare to Facebook?

How long does this module take?

3 hours (180 minutes)

Module 3: Basic Web Searching via Mobile Devices

Estimated total time: 3 hours

Outline

1. Overview <1 min
2. Digital Information Literacy 10 mins
3. Websites and Search Engines 5 mins
4. Activities 150 mins
 - Activity 3.1: Web Browser Apps
 - Activity 3.2: Web Search Operators
5. Break 15 mins
6. Activities 45-110 mins
 - Activity 3.3: Search Engines vs. FB
 - Activity 3.4: Advanced Search

Assumptions

- All participants have mobile devices such as smartphones or tablets.
- Wi-Fi is available at the facility for participants to access.
- Participants have completed Module 2: A Mobile Lens on the Internet

Prepare ahead

Review the activities and ensure that you set up any necessary demo requirements on your device ahead of the module.

Background information

One of the most effective ways to learn about digital information literacy and to acquire new skills on the Internet is to apply knowledge and techniques to real-world applications. This module approaches digital information literacy through repetition of practical application to reinforce concepts. The exercises provided are examples. Trainers should use appropriate examples as necessary according to the needs and experience of their participants.

Overview

(<1 min)

Briefly introduce the title of this module, and what will be covered:

- *This is Module 3: Basic Web Searching via Mobile Devices. In this Module, we will cover different types of websites, how to use search engines to search the Web, and compare finding information using search engines vs. Facebook.*
- *As a reminder, the best way to learn digital information literacy is by learning new concepts and then applying what you've learned. This workshop is designed to be highly interactive to help you learn new concepts and retain what you've learned. Feel free to interrupt if something is unclear.*

Digital Information Literacy

(10 mins)

[Slide: Digital Information Literacy]

Set up the importance of digital information literacy so that participants have these concepts in mind as they go through the remaining activities:

- *The prevalence of ICTs means that more people can and will use the Internet as their primary resource for finding and sharing information, whether in a personal or professional capacity. Similar to oral and print information, however, Internet users should be aware of how the Internet works and should be critical of context and the sources of their information.*
- *In oral scenarios, for example, we understand that just because someone says something, that doesn't mean that the information is true or correct. [Provide a local example demonstrating how simply saying something does not make the information true such as, "the sky is falling."].*
- *In print scenarios, just because something is printed in a book or newspaper that also doesn't necessarily mean the information is true or correct. [Provide a local example of a printed book or newspaper that demonstrates incorrect information, such as history books claiming the earth is flat].*

[Slide: Giant Squid]

This image went viral last year depicting a squid that had supposedly mutated into gigantic proportions as a result of radiation from Fukushima. The original story appeared on a [website pretending to be reporting news](#). Digging further into the website reveals the following disclaimer: "ASSUME NO STORIES ARE TRUE."

- *In visual scenarios, just because something appears in a photograph, drawing, or video, that doesn't mean that the information is necessarily true or correct either.*
[Provide local examples, noting how images can be altered or misleading].
- *In all of these cases, context and source are important considerations in determining the intent and validity of the information.*

[Slide: Misinformation vs. Disinformation]

- *Information that is incorrect can be classified as "misinformation." Information that is intended to be deceptive can be classified as "disinformation." "Intention" is the key word. Misinformation is the result of poor information or lack of information, while disinformation is the result of an ulterior motive towards contradicting true or correct information.*
- *Can you think of cases that you know of that are examples of misinformation?*
- *What about disinformation?*
Take answers for both questions, and engage in brief discussions on what makes them misinformation vs. disinformation.
- *Can something be both misinformation and disinformation at the same time?*

[Slide: News Satire (video)]

- *Does anyone know what "satire" means? Around the world, satire is prevalent, but many Facebook users appear to be unaware of the distinction between satirical and authentic news sources. Facebook acknowledged this issue by recently proposing to create a "satire" tag. Currently, this tag is in testing. [Play video] Many websites are satirical news sites. They publish stories that appear to be authentic news, but are meant to be jokes, or satires. Oftentimes, the average Internet user cannot distinguish between satirical news and authentic news reports. This can be seen in*

Facebook posts of such stories and the strong reactions in Facebook feeds to these posts. The Onion is an example of a satirical news website in the U.S.

[Are there examples of local satirical websites that participants can discuss?]

Websites and Search Engines

(5 mins)

[Slide: Websites and Search Engines]

Although there are different types of websites, many of these categories overlap:

- *Remember from Module 2 that websites are simply a way to visualize information that is on the Internet. There are many different types of websites, such as social media websites like Facebook, news websites such as [use local example], web logs or "blogs" for short, reference websites such as merriam-webster.com, collaborative knowledge-based websites such as Wikipedia, and more.*
- *What other types of websites can you think of?*
- *One particular type of website is especially useful for simply searching the Internet for information: search engine websites.*
- *Search engines are code, or algorithms, that take your requests for information and comb through databases of information and websites that have been indexed to give you a list of websites and information resources that might be relevant. Can you name any search engines you might have used?*

[Take answers from several participants and then list some common search engines.]

- *It's important to realize that search engines do not index and have not indexed everything on the Internet. Google has indexed only a minute fraction of the Deep Web, the information that is hidden from general search engines. Facebook is an even tinier fraction of that information space. So, by only using Facebook as a primary source for information, we limit our ability to search the vast amounts of information on the Internet. In addition, not all search engines index information in the same way. For example, lawyers would use special search engines, such as LexisNexis, that provide legal information in a way that is useful for them. Physicians would use other search engines that provide medical information in a way that is useful for them.*

Activities

(150 mins)

Activity 3.1: Web Browser Apps

(10-20 mins)

[Slide: Activity 3.1]

Working in groups, instruct participants to download different browsers. Most mobile devices already come standard with a browser such as Google Chrome for Android devices; however, it is important for participants to understand that browsers are continually changing. New browsers with improved functionality are created, existing browsers are upgraded, and others are no longer supported over time and become obsolete. Have participants download browsers that they currently do not have on their devices:

- *In module 2, we learned that there are many different web browsers. Most of your devices already come with a standard browser, but it's important to understand that browsers are continuously changing. What browser(s) do you have on your devices?*

- *Download 1 or 2 other browsers on your device. If you have Google Chrome, for example, you may want to download Mozilla Firefox, Opera, or Dolphin. Remember to look for indicators that tell you if the app you are downloading is the right one, i.e. large number of downloads, credible company, large number of positive ratings, etc.*
- *Once you've downloaded your new browser apps, take a look at the settings for each one, and see what search engines they are using. Are there a variety of search engines that you can choose from? Which ones? See if you change the search engine to Google. Were you able to set this in all of your browsers?*

Note: some browser apps allow you to use the Google search engine, but don't offer a way to set that as the default search engine. This exercise should highlight how users can still use Google search in their browsers.

Activity 3.2: Web Search Operators

(30-80 mins)

[Slide: Activity 3.2]

While using search operators is important for finding information on the Web, search results are also affected by how content producers name, tag, and manage their content. A video will be difficult to find if the content producer uses a title that is obscure or unrelated to the actual content or how others might search for it. For example, a video about a local soccer match entitled "fun times" is not a good descriptor; however, there are other ways to tag content to provide pertinent details. A better title would be something like "fun times – local soccer match, Myanmar Stadium, May 5, 2015."

- *Search engines simplify what users have to do in order to find information on the Internet, but there are useful techniques that can help users refine their searches to find what they are really looking for. Let's go through some of the most useful techniques for searching the web using search engines.*

For the sake of ensuring participants can practice and be successful without being distracted by technical issues, keep things simple, and be sure that all participants are using the Google search engine in their different browsers. Once participants understand search basics, they can easily transfer their skills to other search engines later.

Note that in Google search, the Boolean operators of AND and NOT still exist, but are not generally used explicitly in this form. AND is implied.

For each demo below, use multiple tabs to run and compare searches so that you can easily switch between tabs to demonstrate how the results compare.

Demo (5-15 mins each):

1. ""

- *Quotation marks are used to find exact matches to the text within the quotation marks. [Ex: "zaw aung" finds instances that match exactly "zaw" before "aung" however, without the quotes, typing only **zaw aung** will also bring up pages with "aung" before "zaw"]*

Have participants practice their own searches using quotation marks. Remind them to use multiple tabs so that they can see how their results differ.

2. *

- *The wildcard symbol is used to find unknown text where the asterisk is positioned.*
[Ex: **zaw * aung** finds instances of “zaw” + “sometext” + “aung”]
Have participants practice their own searches using wildcards. Remind them to use multiple tabs so that they can see how their results differ.

3. -

- *the dash is used to exclude text that follows it.*
[Ex: **thant** pulls up all instances with “thant” but **thant -U** will exclude instances of “U Thant”]
Have participants try their own searches using the dash. Remind them to use multiple tabs so that they can see how their results differ.

4. OR

- *OR, in all capital letters, is used to include alternative text to search.*
[Ex: **basket OR ball** pulls up instances of “basket” and separate instances of “ball” but not instances where the words “basket” and “ball” occur together]
- *What happens when you don't use the OR and type in only **basket ball**?*
Have participants practice their own searches using **OR**.
- *What happens if you forget to capitalize OR and type **or** instead?*
Note, participants may not see any difference. Some search engines require capital letters for Boolean operators of AND, OR, NOT, etc., but it's good practice to use all caps to prevent any issues. Also note that Google search implies AND between words, and uses the dash in place of NOT.

5. site

- *site is used to search only within a specified site. Note, that there is no space between the operator, colon, and site to search.*
This is particularly useful if, for example, you consider certain sites to be credible sources for what you are looking for and only want to search within those sites. [Ex: **lahpet** pulls up instances any and all instances of “lahpet” but **lahpet site:Wikipedia.org** pulls up only those instances found only in Wikipedia]
- *Try typing in “lahpet” in Google search and see what comes up. Now try it with the **site** option.*
- *What happens when you combine the OR option above to add other sites?*
[Ex: **lahpet site:Wikipedia.org OR site:youtube.com?**]
Have participants practice searches using **site** alone and in combination with **OR**.
- *Is there a limit to the number of sites you might include?*
- *What advantages do you see in using the **site** option?*
- *Are there any disadvantages you can think of? If so, what are they, and when might these occur?*

6. inurl

- **inurl** is used to search for text only within urls . A URL is what you see in the address bar when visiting a website. For example, "http://www.facebook.com" points to the location of the Facebook website. URLs can be longer, such as https://www.facebook.com/7daynews that points to the Facebook page for 7 Day News.
URL stands for "Uniform Resource Locator" and refers to the location for a resource such as a website.
- What does **inurl : 7daynews** bring up?
- When might using this option be useful?
Have participants practice searches using **inurl**.
- Can you search for all Facebook pages that contain "Myanmar" in the URL? How is this kind of search different from just typing in "Myanmar" in Facebook search?

BREAK

(15 mins)

Activity 3.3: Search Engines vs. Facebook

(30-60 mins)

[Slide: Activity 3.3]

It will be important for participants to go through several examples to practice using and reinforce their new knowledge of search operators. Below is one example of how to do this. Trainers should prepare 2-3 more examples that are relevant to the interests of their participants.

- Now that we have learned some basics of using search engines, and given that most of you are very familiar with Facebook, let's compare the two. Do the following searches in Google search and Facebook:
 1. Let's say that you want to find sports websites in Myanmar. How would you do that?
 2. How can you limit your search results to getting only government websites in Myanmar?
 3. How can you refine your results to exclude government websites but include websites in Myanmar?
 4. How might you expand your search to include all Myanmar websites, YouTube, and all higher education websites?

Note: Top level domains are reserved for countries or special cases. The higher education top level domain is **.edu**; and Myanmar-based websites, use the top level country domain of **.mm**. If a Myanmar entity has a website that is hosted outside of Myanmar, then the website will have the Country Code Top Level Domain (ccTLD) of wherever it is being hosted. Moduleed States websites have a ccTLD of **.us** appended to domain names, but it is conventionally left off and assumed.

- So, the above search #2, for example, you might use: **sports site:.mm**
- To get Myanmar government-only websites, you would use **site:.gov.mm**
- To exclude Myanmar government-only websites, you would use **site:.mm -.gov**
- #4 could look something like:
Myanmar sports site:.mm OR site:youtube.com OR site:.edu

- What did you notice about your search results in Facebook?
- What did you notice about your search results in Google search?
- When might it be more advantageous to use Facebook to find information?
- When might it be more advantageous to use Google search to find information?

Activity 3.4: Advanced Search

(15-50 mins)

[Slide: Activity 3.4]

Time permitting, and if you have a more advanced group, encourage participants to experiment with additional search operators in the [online Google Guide](#).

You also may wish to compare with [Google's Reference: Advanced Operators for Web Search](#).

- *What does this search string do? **allintitle:chinlone myanmar site:facebook.com***
- *How does this method of searching Facebook compare with searching within Facebook?*
- *Can you think of ways in which using search operators in this manner might be useful?*

Wrap Up

[Slide: Review]

- *This concludes module 3. You know understand that there are different types of websites, the basics of searching for online information, and how using a browser search engine compares to searching in a website such as Facebook.*

Take any questions or comments if any.



