The ICT4me Curriculum

About ICT4me

ICT4me is an after school and summer curriculum for middle school youth to develop ICT fluency, interest in mathematics, and knowledge of information, communication, and technology (ICT) careers. This problem-based curriculum capitalizes on youth interest in design and communication technologies. ICT4me provides structured interactions with ICT professionals, including having youth participate in engineering design and development teams. ICT4me's promotes a train-the-trainer approach to building capacity in informal ICT learning.

Build IT vs. ICT4me
ICT4me is a derivative of the Build IT curriculum co-developed between SRI International and Girls Inc. of Alameda County. Questions about the Girls Inc. implementation of Build IT can be directed to them at http://www.girlsinc-alameda.org/about/contact.

SRI is no longer supporting the development of ICT4me, so the curriculum materials are offered as is.

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Electronic Versions of Materials

Electronic versions of all materials in this unit are available for download from the website at http://ict4me.sri.com/.

Contact Information

Please contact the SRI International Inquiry line for questions about ICT4me.
https://www.sri.com/contact/form

Technology Guide: Tutorials for Unit 2

Overview

This document contains a suite of tutorials on the Internet-based communication and collaboration technologies facilitators and youth will use in Unit 2. These tutorials are unique in that they strive to provide general descriptions and tips for using types of tools then offer detailed step-by-step examples, primarily from Ning.com. This approach serves to highlight that while categories of tools (communication types and communication mode) don't change quickly, new online technologies become available and old ones fade away.

The goal of these tutorials is to help facilitators become comfortable with existing technologies and able to see connections to new online technologies that may become available. Facilitators could incorporate new technologies into Unit 2 when (1) there is interest from youth; and/or (2) technology examples in the tutorial are not available.

Online communities and social networks

An online community or online social network is a group of individuals who interact over the Internet through communication and collaboration tools. The following Technology Tutorials provide an introduction to the online spaces used to support these communities and some of the most common synchronous (real time) and asynchronous (delayed) tools that people use to communicate, collaborate, and share information on the Internet.

Tool name	Communication type	Communication mode
Blog	Asynchronous	One to Many
Status message	Asynchronous	One to Many or Many to Many
Discussion forum	Asynchronous	Many to Many
Comment wall	Asynchronous, but close to synchronous	Many to many
Chat	Synchronous	Many to Many
Groups	Both (can contain any of the above tools)	Many to Many

The idea is to have youth become familiar with a range of communication tools and to create online spaces for others to interact— a common Internet activity that requires both technology familiarity and understanding of social interaction. Exploring these tools gives youth experience using them and an opportunity to understand what the tools allow them to do, as well as the similarities and differences between the various tools.

Ning (http://ning.com) is one example of an online service that allows people to create their own social network sites and participate in a variety of online

Tutorial 1: Creating and Using an Email Account

1.0 Overview

Facilitators and youth will need email accounts for ICT4me activities. An email address is required in order to create a blog, join an online collaboration space, and for many other activities. This overview covers:

- Setting Up an Email Account
- Viewing and Sending Email

1.1 Setting Up an Email Account

- Many online services, like Google and Yahoo!, offer free email accounts and a web interface for checking and sending email.
- When you create a new email account, record your username and password so you don't forget it.
- It is a good idea to use letters, numbers, and symbols to make the password hard to guess.
- Once the form is complete, you usually have to agree to "Terms of Service". This is a common feature when you sign up for something online—it's a legal agreement saying that you will not use the e-mail in inappropriate ways and that the service provider has the right to cancel your service.
- When you are logged in, click on "My Account" to change your password and other information associated with your email account.

Yahoo Example

☞ Go to http://mail.yahoo.com and click the "Sign up" link. Fill out the form that appears, and click "I Agree" to if you agree to the terms of service.

1.2 Viewing and Sending Email

- Once you have an email account, you can read emails in your inbox and compose email to others.
- Email messages are often just plain text, but when you create a new email message, you can use different colors and fonts, and even spell check what you have typed! You can also attach images or other files to your message.
- Remind the youth that they should not reply to any emails from strangers.

☞ Once you're registered, click "Continue to Yahoo! Mail" to view your inbox. It may be empty when you first create your account.
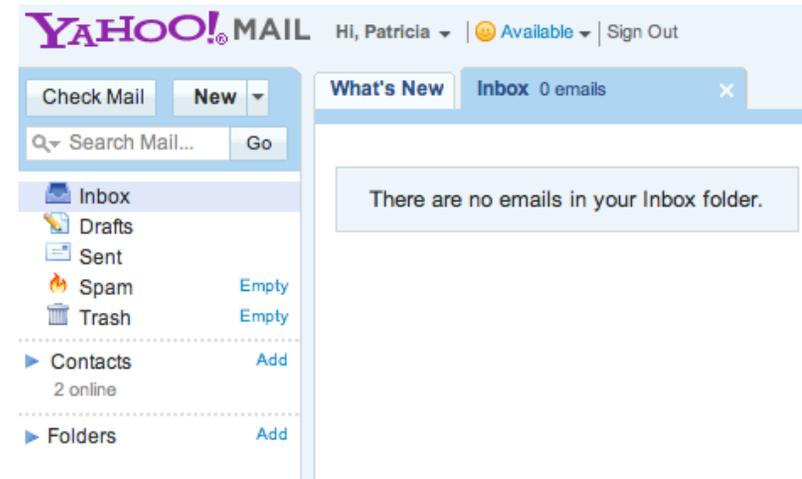
☞ Click "New" and select "Email message" to create a message to send to others.

☞ Enter an email address in the "To" field, a subject in the "Subject" field, type your message, and click "Send".
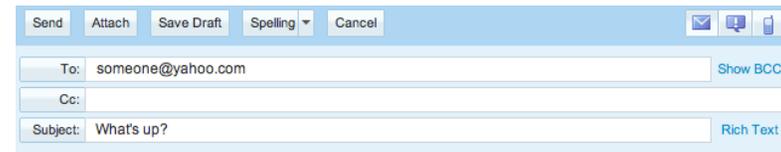
Tutorial 2: Introduction to the Online Collaboration Space

2.0 Overview and General Features

This is a step-by-step guide of how to access and navigate an online collaboration space. This introduction covers:
- Membership and signing in
- Creating your own network (optional)
- Site layout
- Site administration and customization
- Accessing user profiles
- Making someone your friend

2.1 Membership and Signing In
- Create online collaboration space.
- To ensure safety and privacy, administer and moderate site membership.
- Site administrators can invite new members by email. To join, click the link in the email invitation. If you expect an email invitation but don't see it, check your spam folder in case your email server thought the email invitation was spam.
- Alternately, you can fill in a form to request to join the site. A site administrator must approve such requests before membership becomes active.
- When your membership is approved, sign in with your username/email address and password.

Ning Example

☞ Sign up or sign into an online collaboration space

☞ Fill out the sign up form to request membership.

2.2 Creating a New Network

- We recommend that you use an existing collaboration space at http://smallcommunities.mixxt.org/ rather that creating your own network. By using the existing collaboration space, your youth can easily communicate with youth at other California afterschool locations through the space.
- However, you may decide that you want to set up a private collaboration space just for the youth at your location, or that you want your girls to create and customize their own collaboration space.
- If this applies to you, you can create your own collaboration space and customize it to your individual tastes.
- To ensure safety and privacy, your network should be configured to be private (not public).

☞ Go to http://ning.com and click on "Create a Ning Network". Enter a name for your network; it can be anything you want. The web address should not contain any spaces. It will be combined with "ning.com" to create a direct route to your social network. So, if you type in "MySocialNetwork," the full address will be "MySocialNetwork.ning.com".

CREATE YOUR OWN SOCIAL NETWORK

Let's get this show on the road!

Name Your Social Network

For example, Paris Cyclists

Pick a Web Address

.ning.com

For example, pariscyclists.ning.com

CREATE »

☞ At the prompt, fill in the basic information describing your network. This information includes a privacy setting, tagline, description, keywords, language, and an icon.

☞ Choosing to make your network site public allows others to search for it on the main Ning website. Making it private hides it from the main site. If youth will be joining your network site, make it private.

☞ That's it! Now explore and customize your space.

2.3 Site Layout

- One you log in to your network space, you will see a navigation area that highlights important features available to all members. Features available to all members are described in detail throughout this guide.
- Site administrators may see additional features, such as the ability to manage membership and privacy settings. Site administrator features are described next in section 2.4, Site Administration and Customization.

☞ In Ning, you'll see a list of available features listed across the top, such as "My Page", "Members", "Photos", "Forum", "Events", "Groups", and "Blogs". Only site administrators will see the "Invite" and "Manage" options.

☞ Below that is a three-column layout. Sections about "Members", "Events", "Groups", and "Forums" are in the left column. The "Latest Activity" (what members have been doing) is in the middle column. A section about you (with links to your inbox and personal settings) is in the third column. Ads may also appear in the third column.
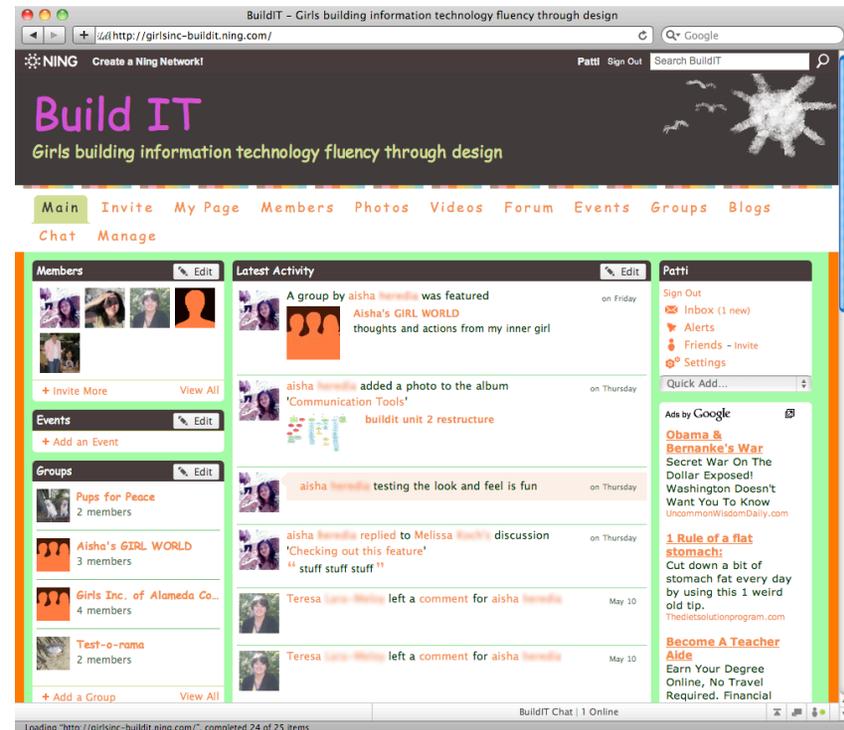
2.4 Site Administration and Customization

- There are typically two levels of membership in an online networking site: regular or administrator. The features described in this section (2.4) are only available to site administrators.
- Afterschool facilitators may be regular members of the collaboration space, or they may be promoted (by another site administrator) to become a site administrator.
- The youth should be regular members (not site administrators) of the collaboration space.
- Site administrators have access to settings to change the appearance and features available to site members and can manage memberships and privacy settings.
- Administrative features are often available in a "Settings" or "Manage" area.

☞ If you are a site administrator, click on "Manage" in the navigation area at the top of the page. If you don't see a "Manage" option and think that you should be a site administrator, ask someone who is a site administrator to make you an administrator too.

☞ You'll see a page with many options for configuring your site, including managing your members, adding features, changing the appearance, and more.

2.4.1 Themes

- Many collaboration sites will let you choose from a variety of themes or templates, which offer a variety of layouts and colors for your site.

☞ Click on "Appearance".

☞ You'll see a page where you can choose from over 50 different themes and many color combinations for your network.

☞ Note that if you change the colors and themes here, your changes will apply to the entire Ning site. Since all members of the network will see the results of your changes, explore with care!
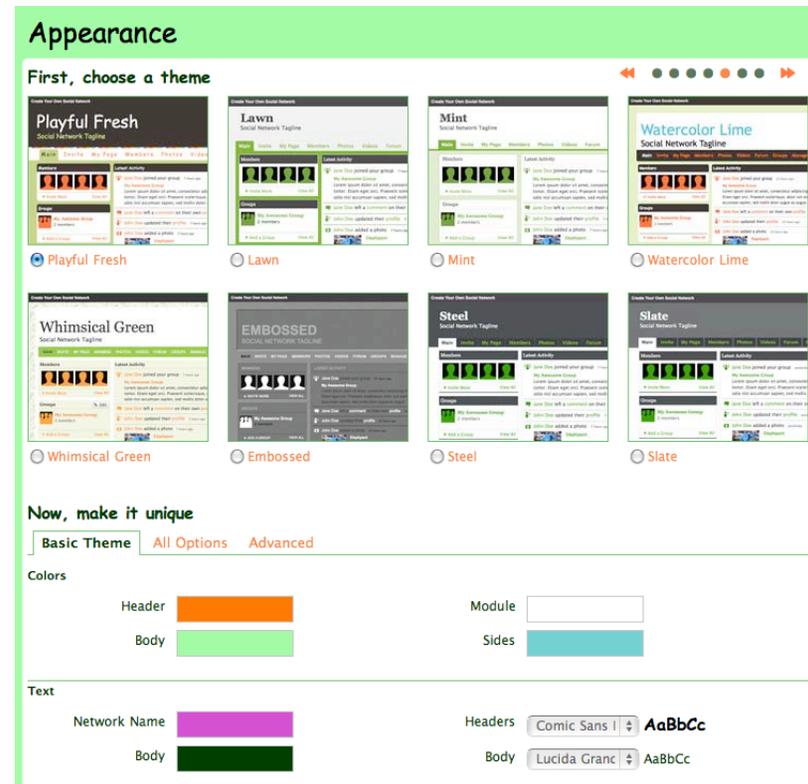
2.4.2 Features

- Some (though not many) collaboration sites will also let site administrators add or remove features from your collaboration space.

☞ Click on "Manage" again, and then on "Features".

☞ You'll see a page where you can add or remove features from the network by dragging the features into or out of the layout on the right. Remember, only site administrators have access to these functions. **Be careful**: if you add or remove features here, your changes will apply to the entire Ning site.
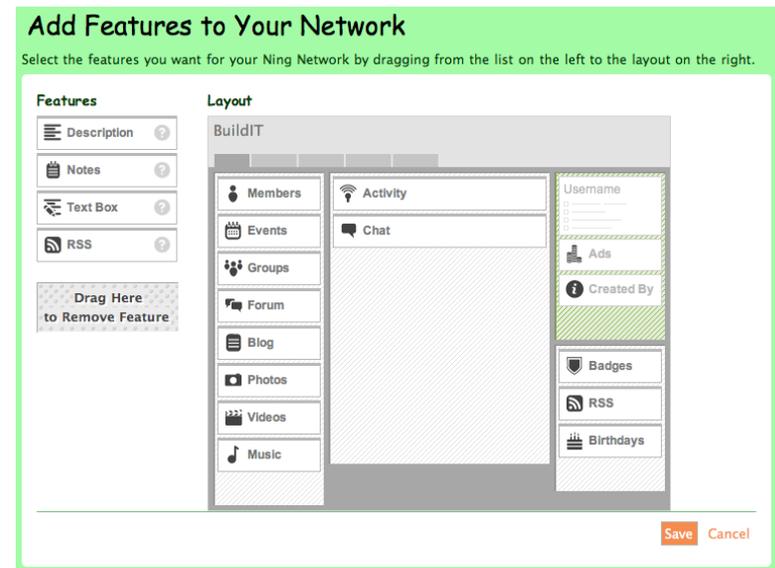
2.4.3 Members

- Site administrators can invite new members to the network space, promote members to be site administrators, or ban (suspend) members if they are acting inappropriately.

☞ Click on "Manage" again, and then "Members".

☞ You'll see a page where you can invite and manage new members.

☞ To invite new members, click on "+ Invite More People" in the upper right. You can import email addresses from a web address book or type them in. Note that you can also get to this page by clicking on the "Invite" tab in the top navigation bar.

☞ To suspend a member, click on the checkbox beside a member on the list, and choose "Suspend from network" from the "Actions…" menu.

2.4.4 Privacy Options
- Site administrators can control the privacy of the social network.
- It's important that youth's creations be kept private from people outside of the CalSAC. network. The site should always be configured to maintain highest levels of privacy for their safety.

☞ Click on "Manage" again, and then "Privacy".

☞ Make sure that the network is "Private" and available to members only. If set to "Anyone", then anyone in the world can ask to join the network. You probably want to make the network available by invitation only.

☞ If the youth create their own networks later, youth leaders should administer their networks and check the privacy levels often to make sure the youth don't make their networks public.

2.5 Accessing User Pages

- Every member in the network typically has a "user profile" page with information about them that other members can see.
- Members can customize their profile pages with their own design, photos, widgets, and other profile applications.

2.6 Making Someone Your Friend

- In many networking sites, you can indicate that certain members are your friends.
- You can see all of your friends in a special "Friends" list that is personalized for you.
- Your friends in an online network can often see more information about you than other members can. In some networking sites, the only way you can see information about another person (like their status, photos, or blog) is if you are their friend.
- To make someone your friend, view his or her user profile page and look for a link to "add as friend". If you click that link, a friend request will be sent to the person. If the person approves your friend request, you will become friends on the site.

☞ Click on "Members" in the top navigation area.

Main   Invite   My Page   Members   Photos   Videos   Forum   Ev
Chat   Manage

☞ You'll see lists of featured members all members.
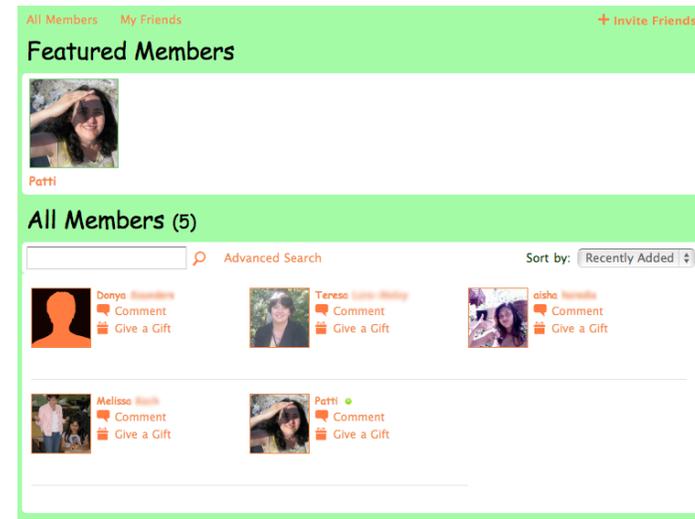
☞ Click on "My Friends" to see all of the members who you have added as friends.

☞ Click on the name of a member to see that member's profile page. Below their photo on the left, you will see a link called "Add as friend". To request that this member be your friend, click this link.

Tutorial 3: Asynchronous Communication Tools

3.0 Overview and General Features

This is an overview of different asynchronous communication tools in an online space and how to use them. The following asynchronous communication tools are covered below:
- Blog
- Status message
- Comment wall
- Discussion Forum

3.1 Blog
- A blog is an online journal where you can post about your personal experiences or hobbies.
- Others can read your blog entries and comment on your blog if your settings allow that.
- Your blog is usually available from your user page.
- To add a new blog entry, navigate to your blog, and you should see an option to add a new post. Enter a blog title and type in your entry.
- You can use the formatting toolbar to change the colors, fonts, and style of the text in your blog.

Ning Example

☞ Click on "My Page" in the top navigation area.

Main   Invite   My Page   Members   Photos   Videos   Forum   Events   Groups   Blogs
Chat   Manage

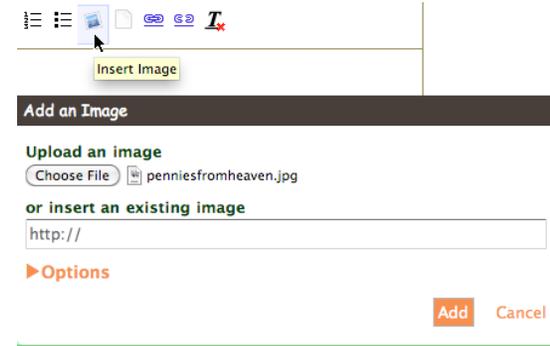☞ Click on "Blog Posts" in the left area of your page.

☞ To create a post, click "+ Add a Blog Post". Type in a title and your entry. Use the formatting toolbar above the text area to change the colors, fonts, or style of your text.
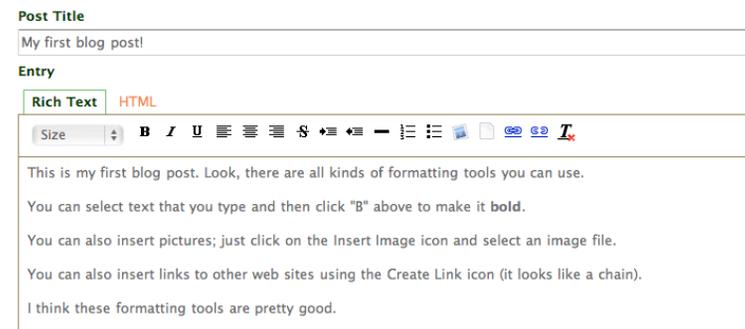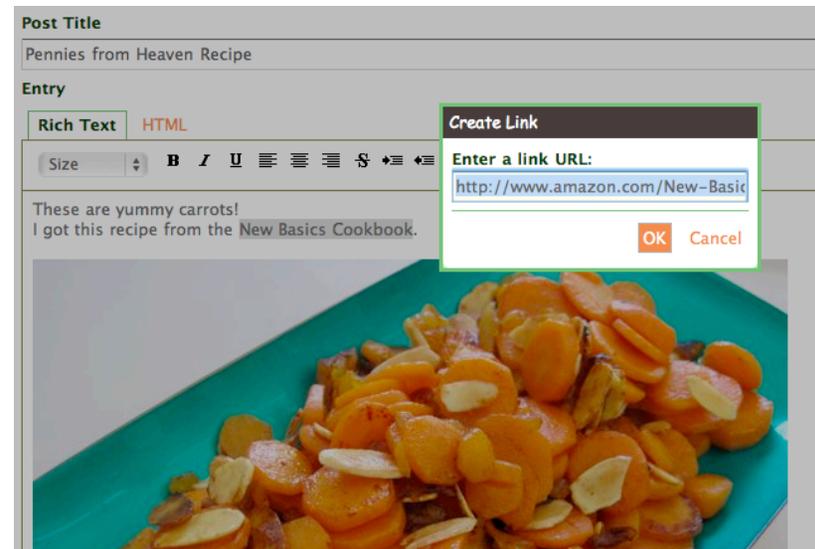
- You can also insert images and web links in your blog entries.
- Images can be uploaded from your computer, or you can type or paste in a URL to an image that exists somewhere on the web.
- Note that other communication tools let you insert images and web links, too. You can insert images in discussions posts and comment walls, and associate an image and web link with a group.

☞ To insert an image, click the Insert Image (picture) icon in the formatting toolbar, browse for an image on your computer or type in a URL to an image, and click "Add".

Insert Image

Add an Image

Upload an image
Choose File   penniesfromheaven.jpg

or insert an existing image
http://

▶Options

Add   Cancel

☞ To insert a link, select text in your blog, click on the "Create Link" (chain link) icon, and type or paste in a URL.

Post Title
Pennies from Heaven Recipe

Entry
Rich Text   HTML

Size   B I U ≡ ≡ ≡ S •≡ •≡

These are yummy carrots!
I got this recipe from the New Basics Cookbook.

Create Link
Enter a link URL:
http://www.amazon.com/New-Basic

OK   Cancel

- You can also tag each blog entry with keywords that are related to the post (like "science" or "music" or "recipes"), and turn on or off the ability for others to comment on your blog.
- When you're done typing in a new blog entry, you can save your blog entry as a draft, preview it to see how your blog entry looks, or publish it to make it available to others in your online social network.
- When your blog entry is published, others can see and comment on your blog entry if you set your blog to allow commenting.

☞ Complete the form at the bottom of your blog post to tag your post with keywords, specify when to publish your post (now or later), and specify who can see and comment on your entry (anyone, or just your friends, or just you).
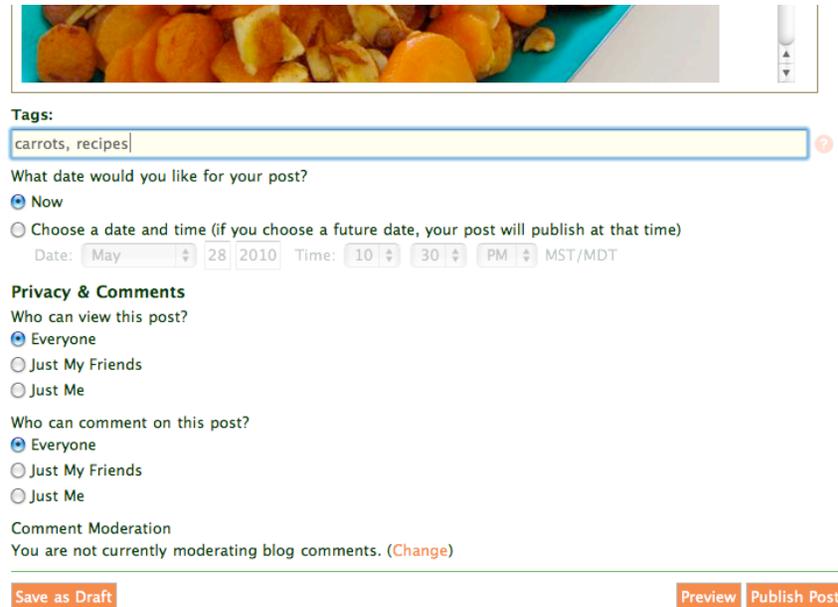
☞ When you're done, click "Preview" to see how your blog looks, and then "Publish" to post it!

☞ When you are viewing someone else's blog post, if you have permission to comment on it, you'll see a Comment field at the bottom of the blog post. If you have something to say, type your comment and click "Add Comment".

3.2 Status Message

- A status message is a very short post often used to tell others about what you are doing at the moment. They appear in activity feeds that others can see.
- You can usually update your status message from your user profile page.
- To update your status, you typically type in a small input field and either hit the return key or click a button called "Update".
- Status messages can function as one to many tools or many to many tools; how you view the messages can affect how you use them and perceive them. For example, if you view someone's status message on their profile page, you only see content from one person but many people can view it (like a tiny blog). If you read status messages in the activity feed, you can see multiple people's messages at the same time, so the tool can seem more like a comment wall or a discussion forum.

☞ Click on "My Page" in the top navigation area.

Main   Invite   My Page   Members   Photos   Videos   Forum   Events   Group:
Chat   Manage

☞ Type something (e.g., about what you're doing right now) into your status field and click "Update".

Trying things out Apr 8 clear

Listening to some good jazz!   Update
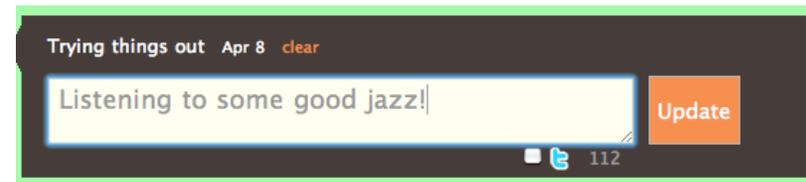
☞ Your status will appear on your profile page and at the top of the Activity Feed on the Main page of the network.

Latest Activity   ✎ Edit

Patti Listening to some good jazz!   ✕

A group by aisha ▓▓▓▓ was featured   on Friday
Aisha's GIRL WORLD
thoughts and actions from my inner girl

aisha ▓▓▓▓ added a photo to the album   on Thursday
'Communication Tools'
buildit unit 2 restructure
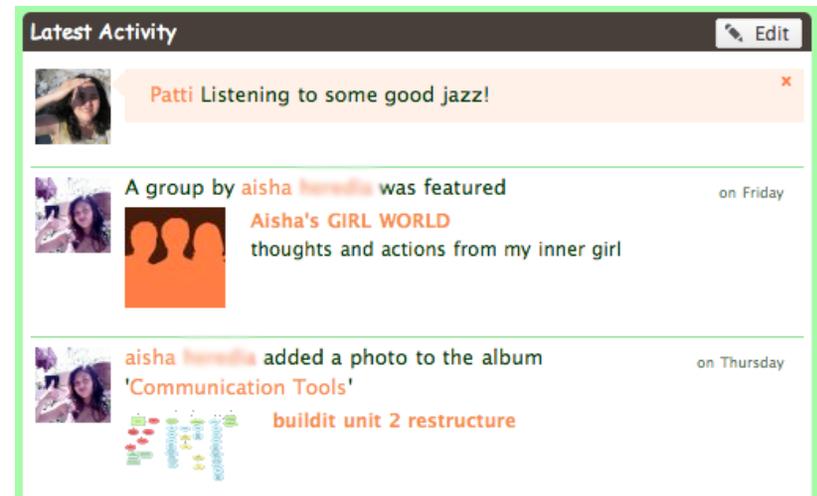
3.3 Comment Wall

- A comment wall is a space where people can write their thoughts in very short posts. New comments are usually added to the top, and older comments appear below in the order they were posted.
- Comment walls are often available on individual profile pages and in online groups.
- To add a comment, you typically type in a small input field and then click a button called "Add comment".
- You can also insert images and web links into your comments. Images can be uploaded from your computer or you can type in a URL to an image.

☞ In Ning, find a friend's profile page through the Members tab or from your profile page (scroll down to "My Friends" on the left, under your picture).

☞ Scroll down until you see the Comment Wall. Type your comment into the input field. To insert an image into your comment, click the camera icon in the toolbar. To insert a web link, click on the link icon.

☞ When you're ready to post your comment, press "Add Comment". Your comment will appear on the wall.
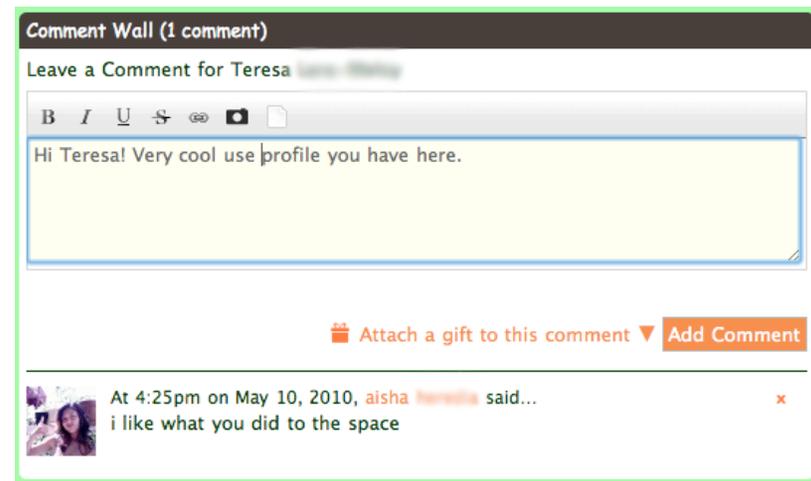
3.4 Discussion Forum

- A discussion forum is an online message area where you can post a question or statement and expect others to respond to messages you have posted. Discussion forums are often used to share and discuss information and opinions.
- Discussion posts can range from very short to very long. They often have both a subject and a body.
- When you are reading a discussion post, you typically click a "Reply" button to respond to the post, type in your reply, and post. Your post will be viewable to all members of the discussion and possibly all members of the social network.
- A discussion forum may be available to all members of a network, or it could belong within an online group, in which case it can only be seen by group members.
- Inside a discussion post, responses are usually sorted by date with the oldest comments first and the newest ones last.
- Most discussion forums make it possible to respond directly to a particular person's post by clicking a "Reply" link next to that person's post.
- When you click reply, sometimes the text input box for your response will already have some text in it that "quotes" the person you are responding to. You can type your comment after this quote.
- You can also insert images and web links in discussion posts. Images can be uploaded from your computer or you can type in a URL to an image.

☞ Click on the "Forum" tab in the top navigation area.

Main   Invite   My Page   Members   Photos   Videos   **Forum**   Events   Groups
Chat   Manage

☞ You'll see a list of all discussions. Click on one to read comments by the participants.
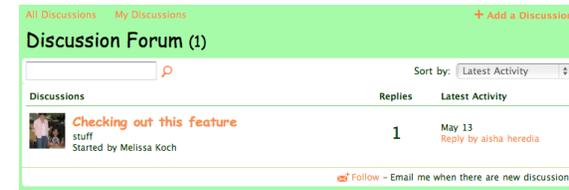
☞ To respond to a post, click the "Reply to this" link by the post, type your comments, and click "Add Reply".
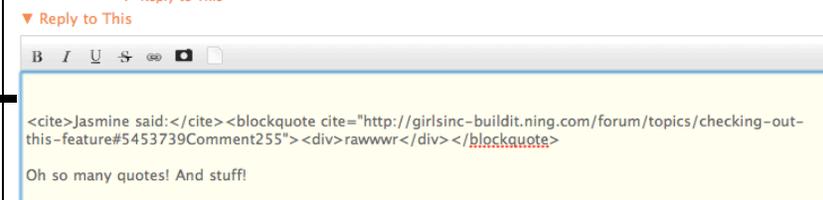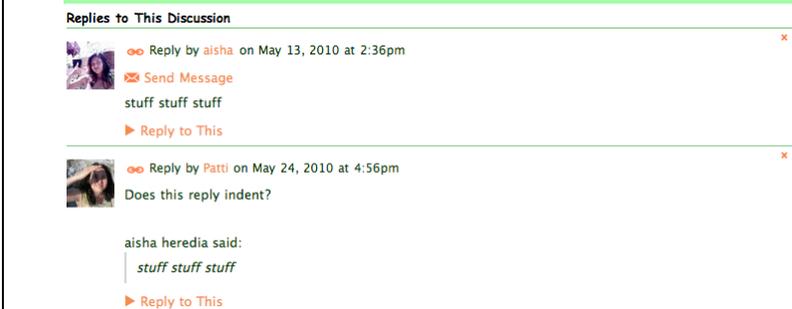
Tutorial 4: Synchronous Communication Tools in the Collaboration Space

4.0 Overview and General Features

This is an overview of synchronous communication tools in and how to use them. The following synchronous communication tools are covered below:
- Chat
- Comment wall, which is asynchronous but can approximate synchronous chat

4.1 Chat
- Chat allows you to be a part of a real-time conversation with others who are logged in at the same time that you are logged in. Anything you type will be immediate seen by those who have the chat window open, and vice versa.
- Chat typically shows a list of everyone who has chat open right now, an input window for you to type in brief messages (press return to send your message), and a scrolling output window where everyone's messages appear.
- Most chat tools let you "pop" chat out of the page into a second window so that you can chat "on the side" while you continue to explore the site.

Ning Example

☞ Click on "Chat" in the top navigation area.

Main   Invite   My Page   Members   Photos   Videos   Forum   Events
Chat   Manage

☞ On the right, you'll see a list of members who have chat open. Type a message in the bottom left and press return to send it. Messages appear in the top left.
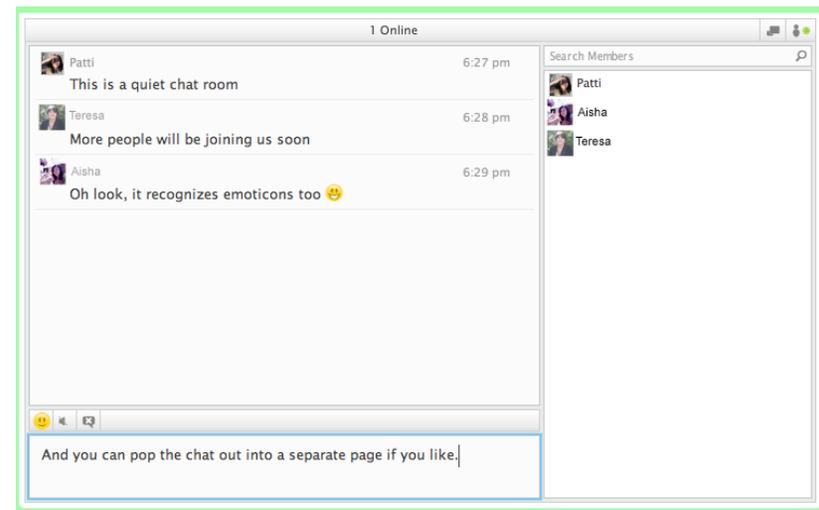
4.2 Comment Wall

- As mentioned above, a comment wall is a space where people can write their thoughts in very short posts. New comments are usually added to the top, and older comments appear below in the order they were posted.
- Sometimes you have to reload the page to see new posts, but in many newer websites the new comments will just show up while you're looking at the comment wall. If you're looking at the comment wall when someone is posting new updates, you'll see them instantly as will they if you respond so it feels synchronous. You can also use the wall in an asynchronous way and check back later to see what people have posted.
- Because comment wall posts can be updated almost immediately, they can be used as a kind of "pseudo chat" if a chat feature isn't available or if you want to confine a "chat" to a particular page like a user profile or group page.
- Note that a comment wall is still different than chat in that you don't see a list of people who are currently "in" (looking at) the comment wall.

☞ Click on "Groups" in the top navigation area.

Main   Invite   My Page   Members   Photos   Videos   Forum   Events   Group
Chat   Manage

☞ Select a group by clicking on it. At the bottom of the group page, there is a comment wall.
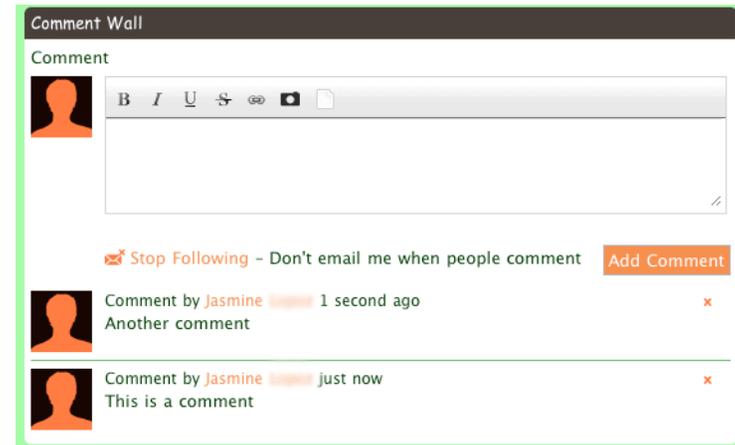
☞ In Ning, comment walls update automatically while you're looking at them. As a result, you can use the comment wall as if it was a pseudo chat tool if multiple people are looking at it at the same time. If you want chat with just a few people, using a group comment wall makes it possible to chat in a way that is not public or available to everyone, unlike the Ning chat tool, which everyone in the community can use at the same time.

Tutorial 5: Collaboration Tools

5.0 Overview and General Features

This is an overview of collaboration tools and how to use them. The following collaboration tools are covered below:
- Groups
- Events

5.1 Groups
- Many network sites allow members to create groups to collaborate with other members who share common interests or a common purpose.
- Groups provide multiple means of synchronous (real-time) and asynchronous (delayed) communication between members through communication tools such as discussion boards, file sharing, and chat.
- By default, any member of a network site can create and manage their own groups, but the site administrator can limit who can create groups.
- As a group creator, you can choose the features and privacy settings you'd like to have for your group.

Ning Example

☞ Click on "Groups" in the top navigation area.

Main   Invite   My Page   Members   Photos   Videos   Forum   Events   Groups   Blogs
Chat   Manage

☞ Click the "+Add A Group" link in the upper right. Fill out the group information form and click the "Add Group" button.

- As a group creator, you can invite members and configure settings for your group. You can also promote other group members to be group administrators to help you manage the group.

☞ Once you've created your group, click the "+Invite More People" link to invite people to the group. You can invite people with their email addresses or you can invite your friends in the Ning network.

☞ Once you've selected the people to invite to your group, you can add a message and click "Send Invitation".

- Notice that when you create a group, you can associate an image with your group. This image appears as a kind of "logo" for your group.
- When you click on a group that you have created or joined, you will see the group page.
- The group page contains information about the group, including your group name, description, logo, and number of members. The group page also contains communication tools like a discussion forum and comment wall.
- You can customize your group page after you have created it by (for example) adding images and web links to your group page.
- As with other tools (like blogs and discussions), images can be uploaded from your computer or you can type in a URL to an image.

☞ In Ning, click on the group that you have created or joined to see the group page.

☞ If you have a text box on your group page, click the Edit button to add more about your group. You can insert images or web sites related to your group in the text box.

5.2 Events

- Events are a way schedule upcoming activities, like parties, and let others know about it.
- You usually can invite anyone to join an event, including people who aren't members of your network yet.
- Events usually include a description, a list of invitees, and their RSVPs (if they can attend or not).
- You can also often broadcast messages to everyone you have invited to an event.

☞ Click on "Events" in the top navigation area.

Main   Invite   My Page   Members   Photos   Videos   Forum   **Events**   Groups   Blogs
Chat   Manage

☞ Click the "+ Add An Event" link in the upper right. Fill out the event information form and click the "Add Event" button.

☞ Once you've created the event, you can invite people to the event. You can invite people through their email addresses, you can invite all of the members of the online network, or you can invite some or all of your friends.

☞ Once you've selected the people to invite to your event, you add a message and click "Send Invitation".

communities. Ning is used as the primary example in the tutorials, but Ning's functions and interface are similar to other widely-known online social networking sites. Many of the Ning examples in the tutorials are similar to what you would see in other online networking spaces, such as Google Groups (groups.google.com); Mightybell (mightybell.com); Mixxt (smallcommunities.mixxt.org/); and Yuku (yuku.com).

Whichever collaboration space you choose, note that you will want to establish some ground rules about what youth say in the space. Youth may need a reminder to treat everyone with respect.

Below the tutorials are organized into five sections:
- Creating and Using an Email Account
- Introduction to Online Collaboration Space
- Asynchronous Communication Tools in the Online Collaboration Space
- Synchronous Communication Tools in the Online Collaboration Space
- Collaboration Tools

Vocabulary
- **Online groups.** Members of a club or organization who are connected to each other via a space on the Internet where they communicate and work together.
- **Online community/social network.** Multiple online groups and individuals who have related interests or a common purpose and interact online.
- **Social networking site.** A website that provides tools and technologies that make it possible for a community of people to interact and communicate online.
- **Ning.** An online service that allows people to create their own social networking sites and join other networking sites. See http://ning.com

Materials
- Computers with Internet access