Scratch-Ed Design

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Background

Scratch (http://scratch.mit.edu) is a new programming language that enables users to easily construct a wide variety of interactive projects. From community narratives to role-playing games to mathematical simulations to consciousness-raising presentations, the potential for creative production with Scratch is boundless. However, for those who are primarily concerned with assisting others' Scratch learning, there is a disconnect between what individuals want to be able to do and the tools that are presently available to them.

Since joining the Lifelong Kindergarten group (which developed Scratch), I have had the opportunity to meet some of these people. They occupy a range of roles as teachers, researchers, parents, and hobbyists. Their interests in supporting Scratch learning are similarly diverse: a teacher who wants to share stories about Scratch and cross-curricular integration; a researcher who wants feedback on materials developed for exploring Scratch as participatory literacy; a parent who wants advice on how to introduce Scratch at a local all-girls high school; a hobbyist who wants to connect with others who have started Scratch groups for adults. These examples, which represent only a subset of individuals or groups who are interested in supporting Scratch learning, are shown along a two-dimensional spectrum of participation (Fig. 1). One dimension represents the context in which the individual situates the participation, from formal learning environments (e.g. a university) to informal learning environments (e.g. someone's home). The other dimension represents the individual's mode of participation, from organizer (e.g. curriculum designer) to participant (e.g. grassroots club member).

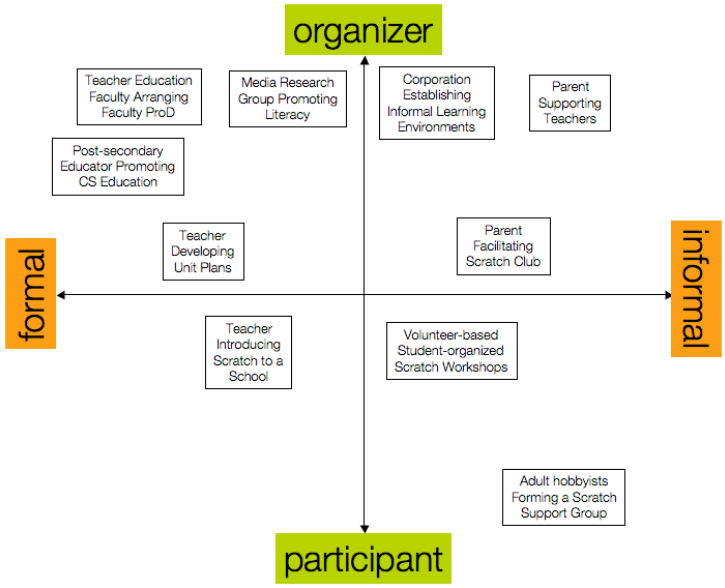

Figure 1: Spectrum of participation for individuals who want to support Scratch learning.

Currently, the Scratch website supports a subset of these interests and needs. The website offers: forums for questions, with a dedicated forum for educators; a page for educators, which has links to videos, reference materials, and writing; links for email-based support. These resources have demonstrated value, as they have (to varying extents) supported a community of more than 195,000 registered members, but they are insufficient to fulfill the needs of the individuals who are represented in Figure 1.

If we think about the Scratch group described above as a separate community of practice, we can see that it has a different domain or enterprise. The practice of the main Scratch site is producing Scratch projects. The practice of the group that supports Scratch learning is enabling the production of Scratch projects. While there is overlap between these two groups, they are not identical and members of each group may be deprived the opportunity to legitimately enter into fuller practice, as there is no obvious trajectory of participation between the groups. Thus, returning to the issue of separating from or extending the main Scratch site, a separate site would enable individuals who want to support Scratch learning to cultivate desired relationships, practices, and resources.

Here, we propose the design of Scratch-Ed (http://scratch-ed.org). Scratch-Ed enables users to organize a community of practice for Scratch around the processes of mutual engagement (community), joint enterprise (domain), and shared repertoire (resources) by sharing stories, resources, and discussions.

Actions

Users can interact with Scratch-Ed in five roles:

- *Non-member* – can view, but not contribute, content
- *Pending member* – waiting for member approval; can view, but not contribute, content (effectively non-member interaction)
- *Member* – can view and contribute content, as well as modify owned content
- *Moderator* – can view, contribute, modify, remove content
- *Administrator* – can access all parts of the framework

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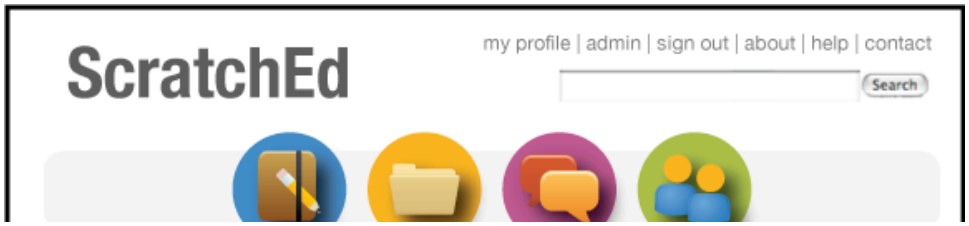
Basic Actions

View front page

A first-time visitor's experience of the site includes access to a site overview, as well as quick, summary access to all four main parts of the community:

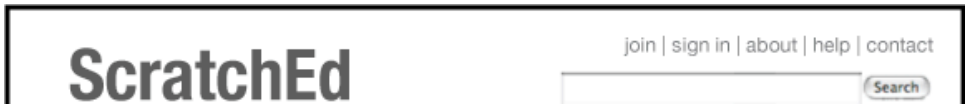
Once signed in, a member views the front page, with the option to view their profile and sign out:

Moderators and administrators view a similar front page, with “admin” added to the navigation bar:



Create an account

To create an account, the user clicks on the “join” link located at the top of the site front page:

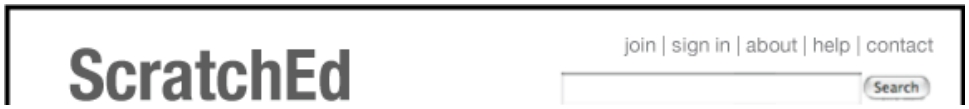


This leads the user to the account creation page, where s/he provides an email address, password, community name, and location. Each field is dynamically checked and can provide additional information about what and why the information is being collected:

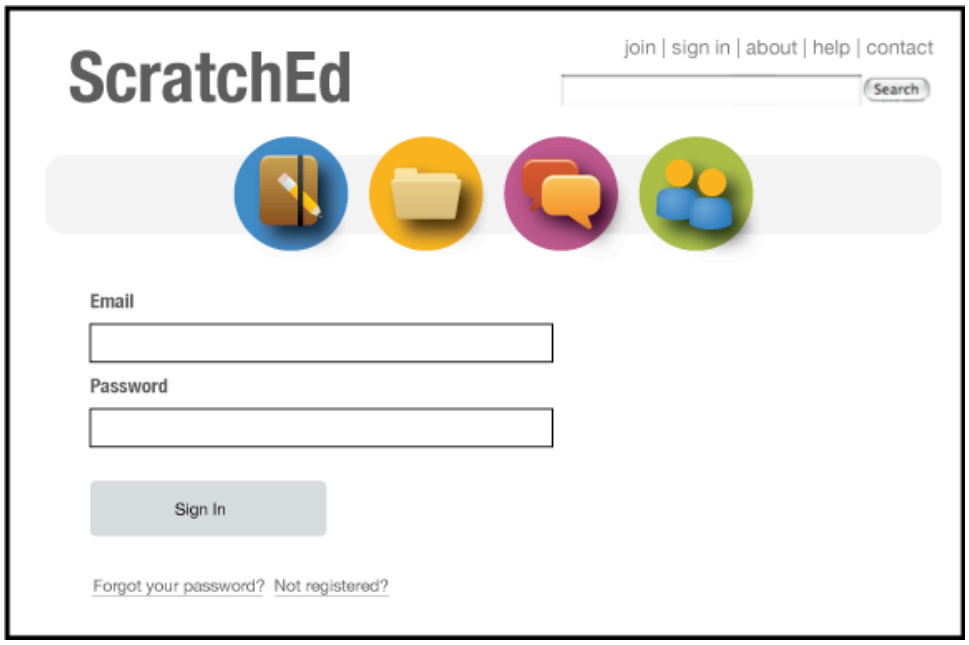
Once the information has been successfully validated and submitted, the user is redirected to an information page, which explains the account verification process. The account request will be sent to an administrator for approval. The user will be able to access the site once the join request has been reviewed.

Sign in

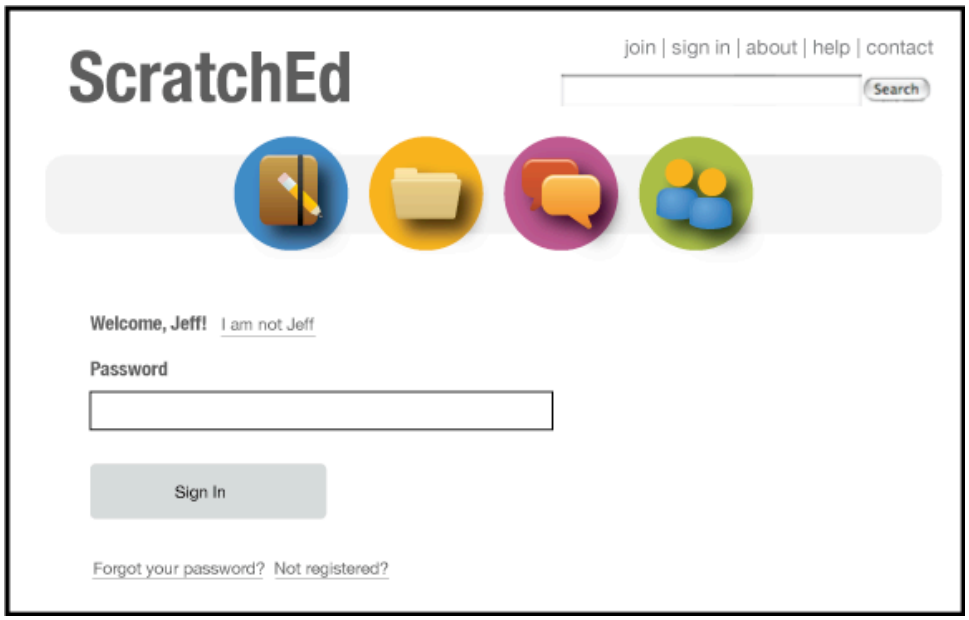
If a user has already obtained an account and are not presently signed in, the user can sign in by clicking on the "sign in" link located at the top of the site front page:



The first time a user signs in, they will be prompted for their registration email address and password. If the user cannot remember their password, it will be automatically sent to their registration email address after clicking on the "Forgot your password?" link. The screen will be updated with a message explaining this. If the user has not yet registered and clicks on the "Not registered?" link, it will redirect them to the login page.

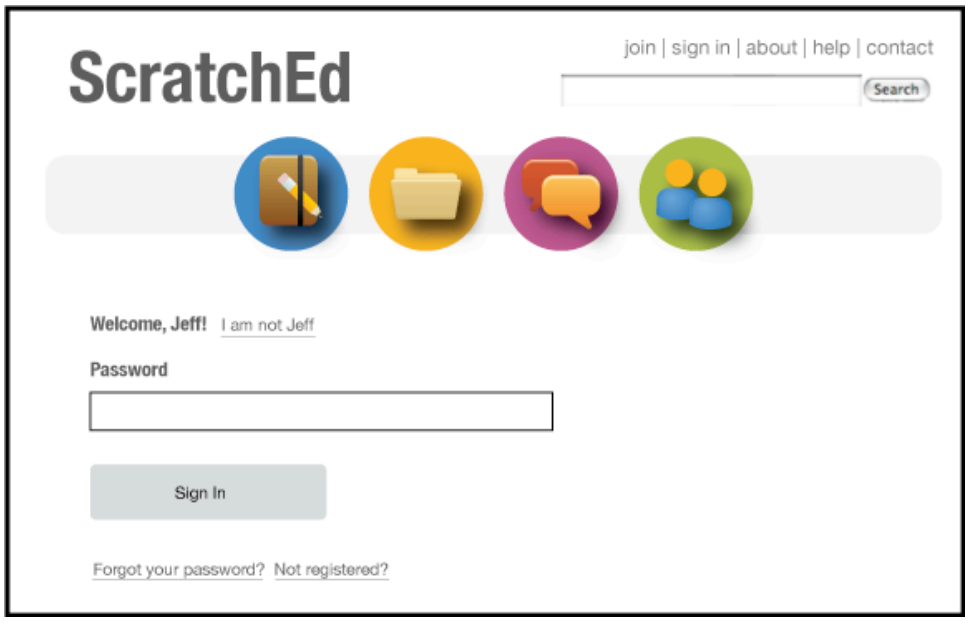


If the user has signed in before, the email address part of the sign in form will be replaced by a "Welcome, *CommunityName*" greeting, as well as a "I am not *CommunityName*" link. That link will redirect to the basic sign in page, where the user can provide their email address. As with the basic sign in, the user can retrieve their password or access the registration/account creation page.



Retrieve password

If a user has forgotten their password, they can retrieve it through the sign in page. By clicking on the "Forgot your password?" link, the site sends an email with the user's password to the user's registration email address.

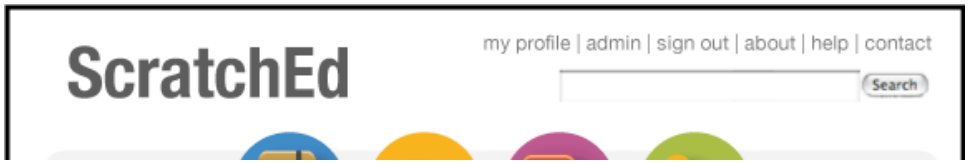


Change password

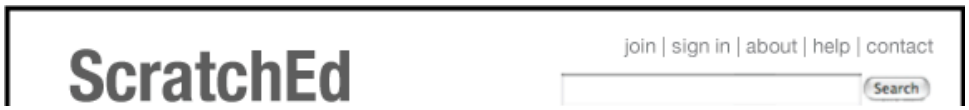
A user can change their password by editing their user profile. (See *Members Actions – Edit member profile.*)

Sign out

Once signed in, a user can sign out by clicking on the “sign out” link, located at the top of the page:



After signing out, the top navigation menu offers the options to “sign in” or “join”:



Learn more

A user can learn more about Scratch-Ed by clicking on the “about” link at the top of the page. This leads to a static page describing the purpose and structure of the site, as well as the short introductory video.

Get help

A user can learn more about the specific features of Scratch-Ed by clicking on the “help” link at the top of the page. This leads to a static page with a collection of short videos and text that describes how to interact with the site: adding stories, sharing resources, asking questions, finding people.

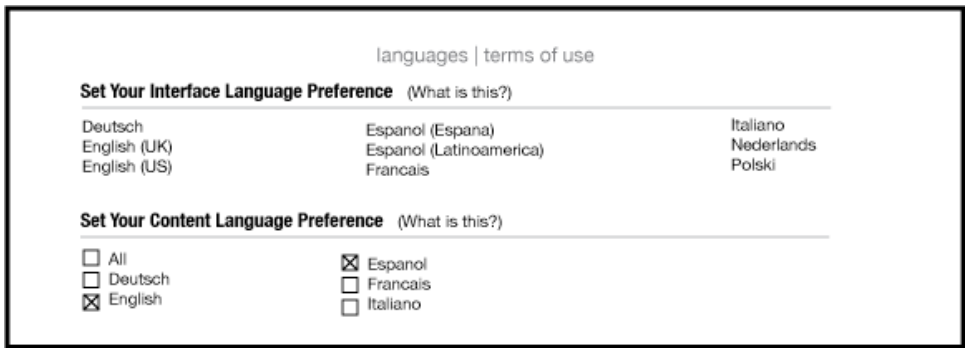
Contact administrator

A user can contact the site administrator with questions or concerns by clicking on the “contact” link at the top of the page. If the user is not signed in, this leads to a page with a form for name, email, subject, message, and captcha:

If the user is signed in, the name and email address are filled in automatically and there is no captcha.

Change language

There are two ways in which users interact with language selection on the site: through the site user interface and through site content. To change these languages, the user clicks on the “languages” link located at the bottom of the screen. This ~~displays a panel of possible languages in which to view the interface~~ redirects the user to a new page:

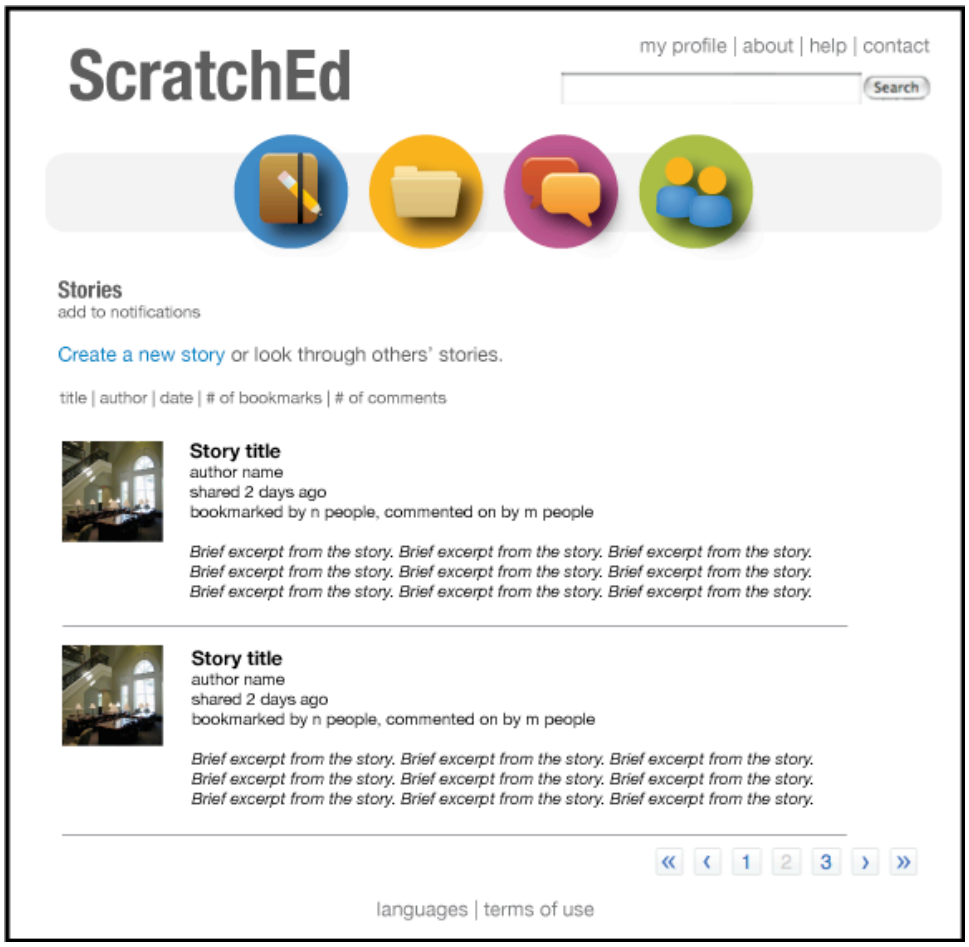


A registered user's interface and content preferences will be stored in their profile, and the interface preference will be the default choice of the language type of their content submissions.

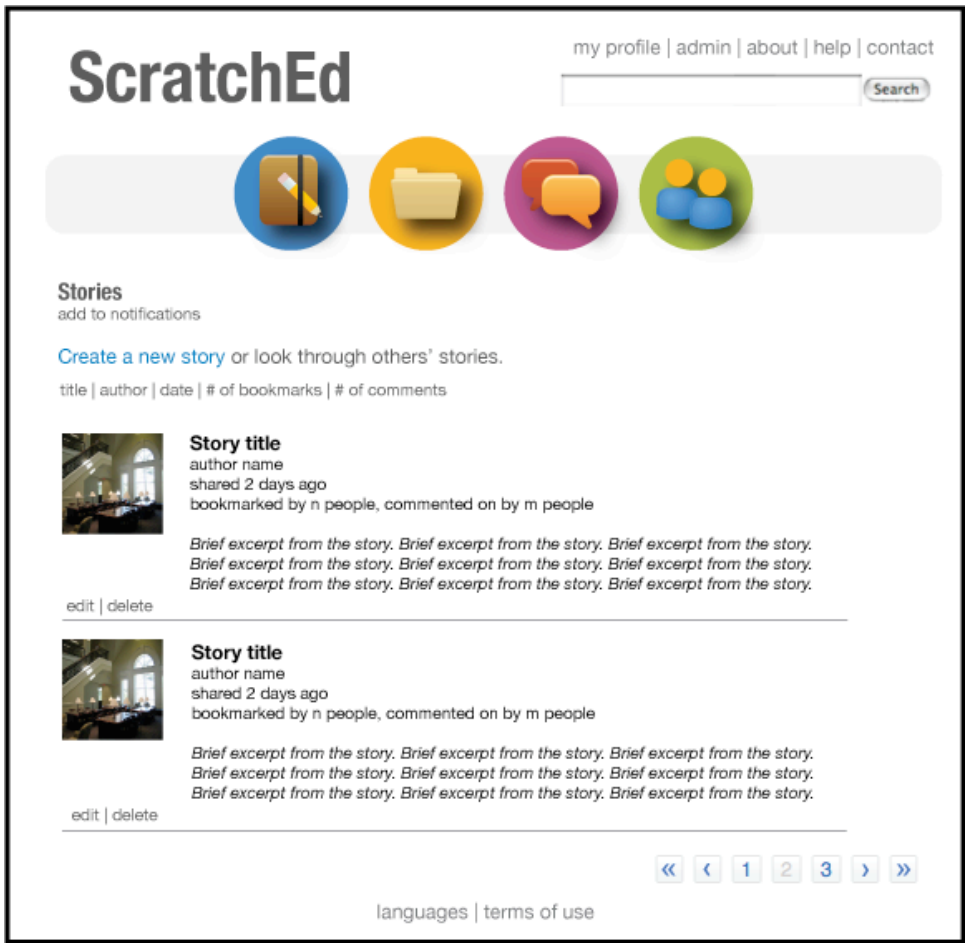
Stories Actions

View stories

By clicking on the Story icon in the main navigation bar, users are brought to the story page. On this page, the user has the option to create a new story or navigate through the stories list. The stories list can be sorted by title (A-Z and Z-A), author (A-Z and Z-A), date (most recent and least recent), number of bookmarks (most and least), and number of comments (most and least).



Users are able to edit and delete their own stories, and administrators are able to edit and delete stories. The following is an administrator's view of the story page:



A user would only see the "edit" and "delete" links on stories in the list that they had created.

View story

A story page contains text and related media (images, audio, video, PDFs, Scratch projects). Users can add a bookmark or add a comment. Administrators can edit or delete comments. Story authors can delete comments left by other users.

ScratchEd

my profile | about | help | contact

Search

Game Development at TCNJ

add bookmark | add comment
add to notifications
Posted by Lana Hall 1 month ago

Duis tortor justo, vehicula quis, ultricies ac, rhoncus in, urna. Donec laoreet porttitor velit. Quisque vitae lectus. Morbi adipiscing. Integer viverra molestie lectus. Pellentesque turpis dui, rutrum et, posuere vel, dapibus quis, libero. Mauris quis ipsum facilisis orci ornare eleifend. Quisque mollis luctus massa. Mauris non justo vel orci consectetuer fermentum ortor justo, vehicula quis, ultricies ac, rhoncus in, urna. Donec laoreet porttitor velit. Quisque vitae v lectus. Morbi adipiscing. Integer viverra molestie lectus. Pellentesque turpis dui, rutrum et, posuere vel, dapibus quis, libero. Mauris quis ipsum facilisis orci ornare eleifend. Quisque mollis luctus massa. Mauris non justo vel orci consectetuer fermentum. ortor justo, vehicula quis, ultricies ac, rhoncus in, urna. Donec laoreet porttitor velit. Quisque vitae lectus. Morbi adipiscing. Integer viverra molestie lectus. Pellente turpis dui, rutrum et, posuere vel, dapibus quis, libero. Mauris quis ipsum facilisis.

Related Media

Members who bookmarked this

add/remove bookmark

Lauren Trey | Dai Hara | Dai Hara

Comments

Communityname here
Administrator
Posted 2 weeks ago

Here is the post text. It may be a question. Here is the post text. It may be a question. Here is the post text. It may be a question. Here is the post text. It may be a question.

Otherpersonnamehere
Member
Posted 14 minutes ago

Here is the post text. It may be a question. Here is the post text. It may be a question. Here is the post text. It may be a question. Here is the post text. It may be a question.

Add comment

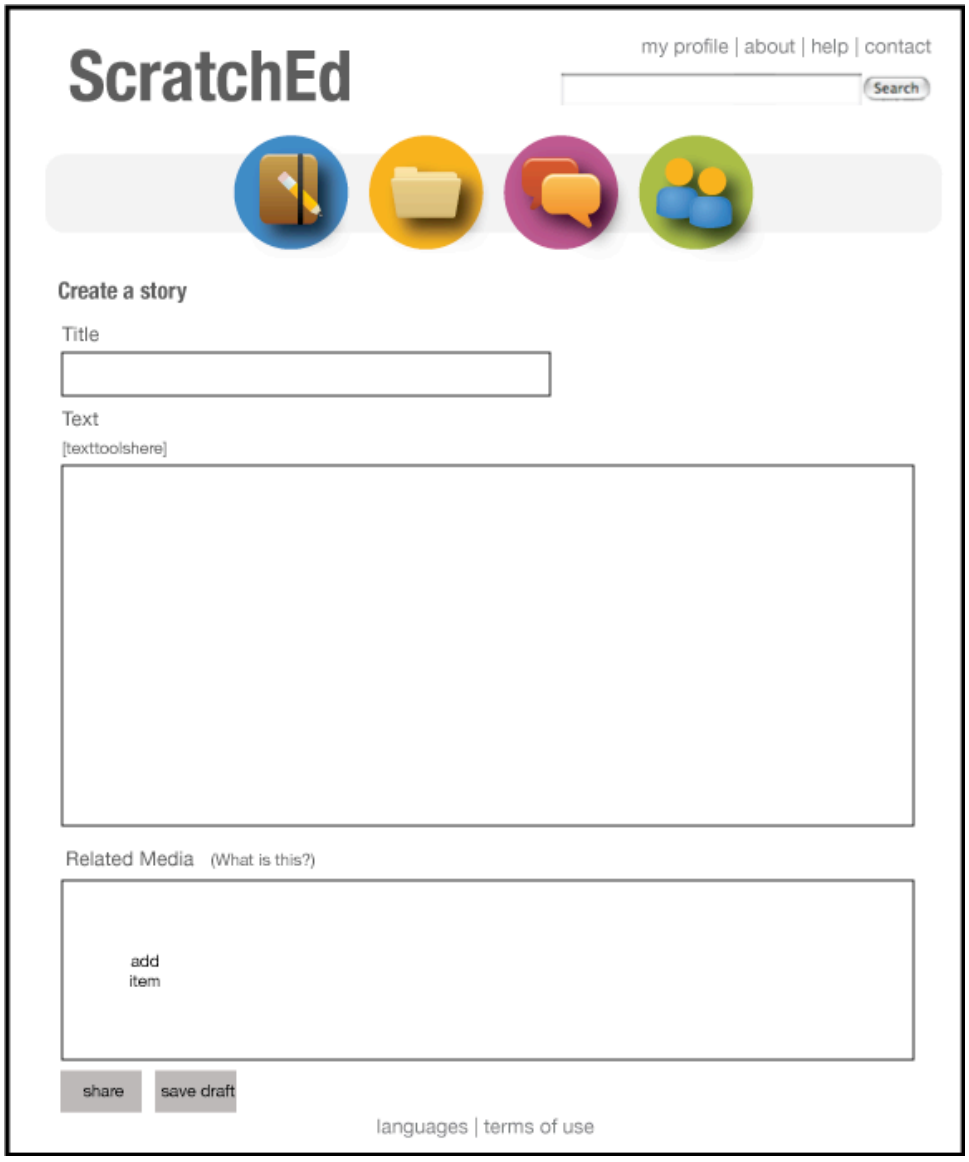
[editing tools here]

add comment

languages | terms of use

Add story

To add a story, a user is brought to the story creation form, where they can add text and related media. The user enters a title and some text:



A user can also upload media (pictures, Scratch projects, PDFs) and link to URLs:

A user can share their story (make it publicly readable) or they can save a draft of the work to be shared later. Once shared, only the "share" link will be visible. [***Should there be a "cancel" or "delete" link on the page with "share" and "save draft"?***]

Edit story

Authors and administrators can edit stories by clicking on the "edit" link beneath a story title:

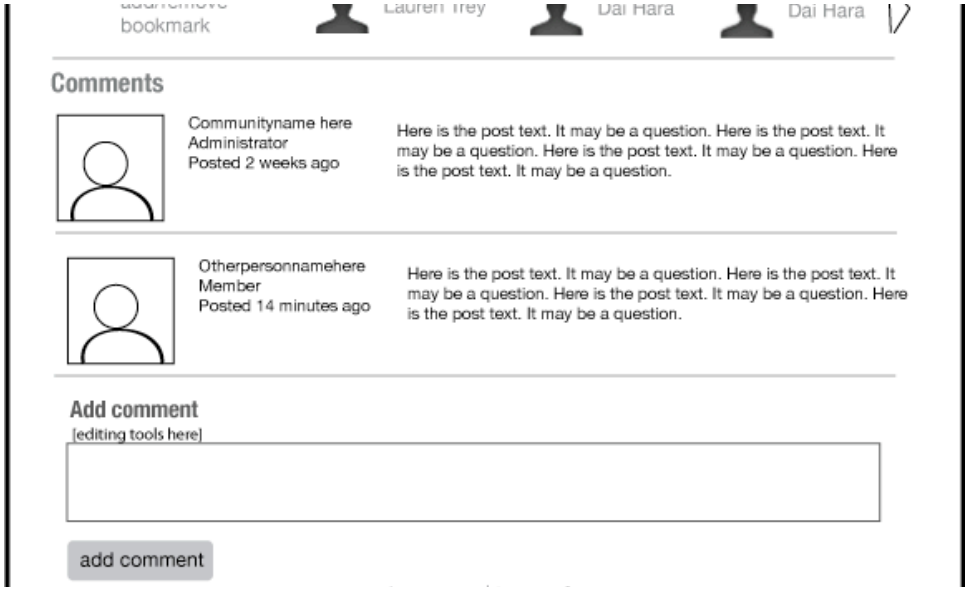
This leads back to the *Create story* page, with the content areas filled in.

Delete story

Authors and administrators can delete stories, which deletes all text, related media, comments, and bookmarks. This can be done from the *View Stories* page or from an individual story page:

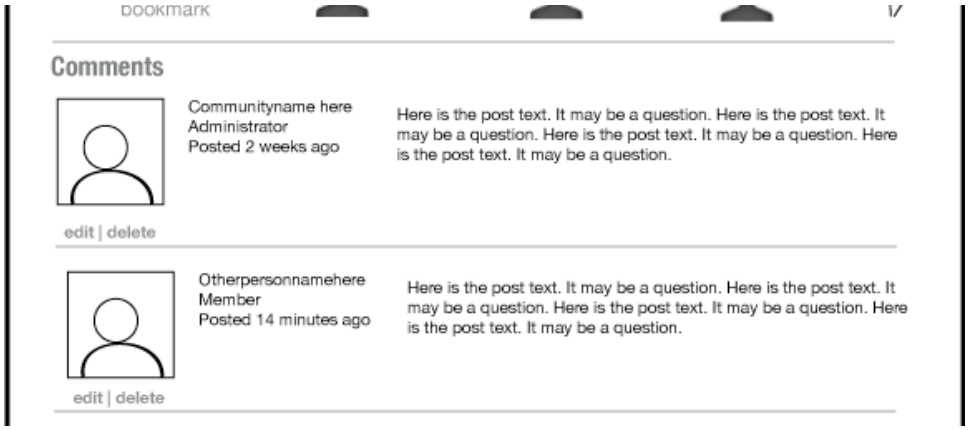
Add comment

Any registered user can leave a comment on a story.



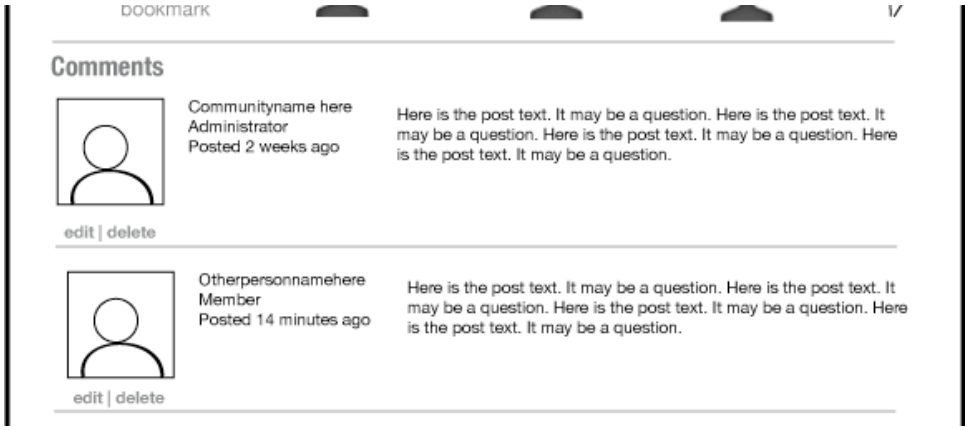
Edit comment

Administrators can edit comments left on a story. By clicking on the “edit” link, an administrator can then modify the text of the comment.



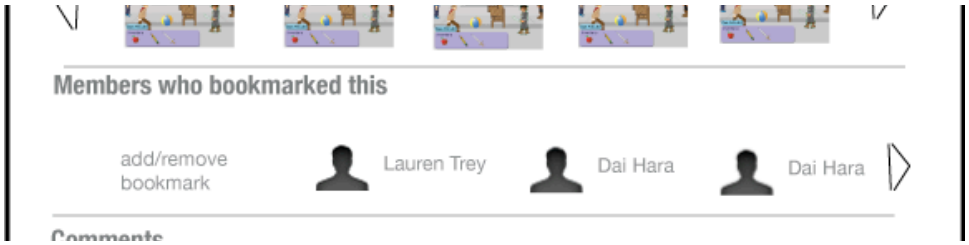
Delete comment

Authors and administrators can delete comments left on a project by clicking on the “delete” link associated with a particular comment.



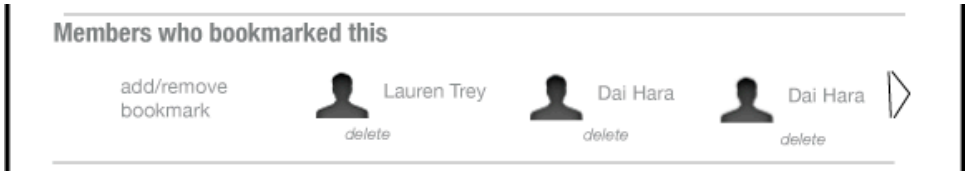
Add bookmark

Any registered user can add a bookmark to a story. If the viewer has added a bookmark, that user's name will appear first in the list, with a link to remove beneath. If the view has not added a bookmark, a link will appear first in the list.



Delete bookmark

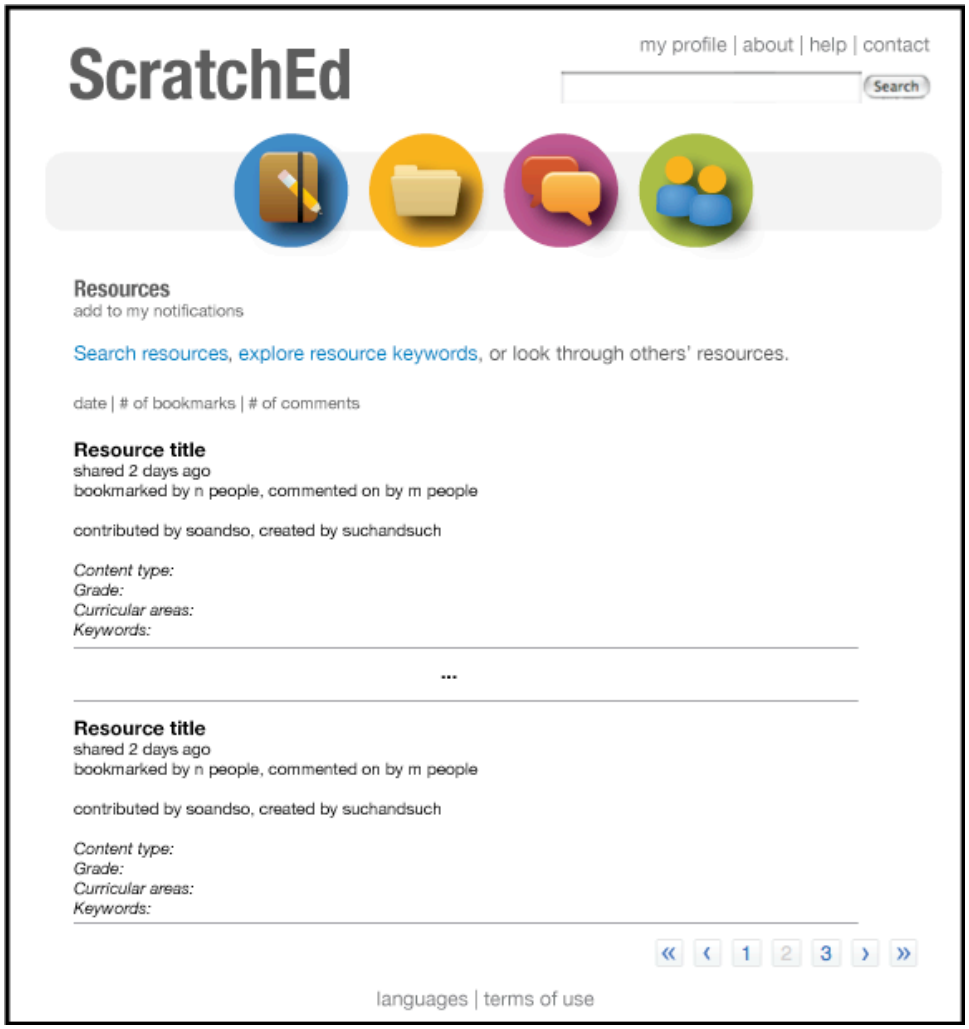
A user who has bookmarked and administrators can remove a bookmark. If the viewer has added a bookmark, that user's name will appear first in the list, with a link to remove beneath. Administrators will see a link to remove bookmarks beneath each profile:



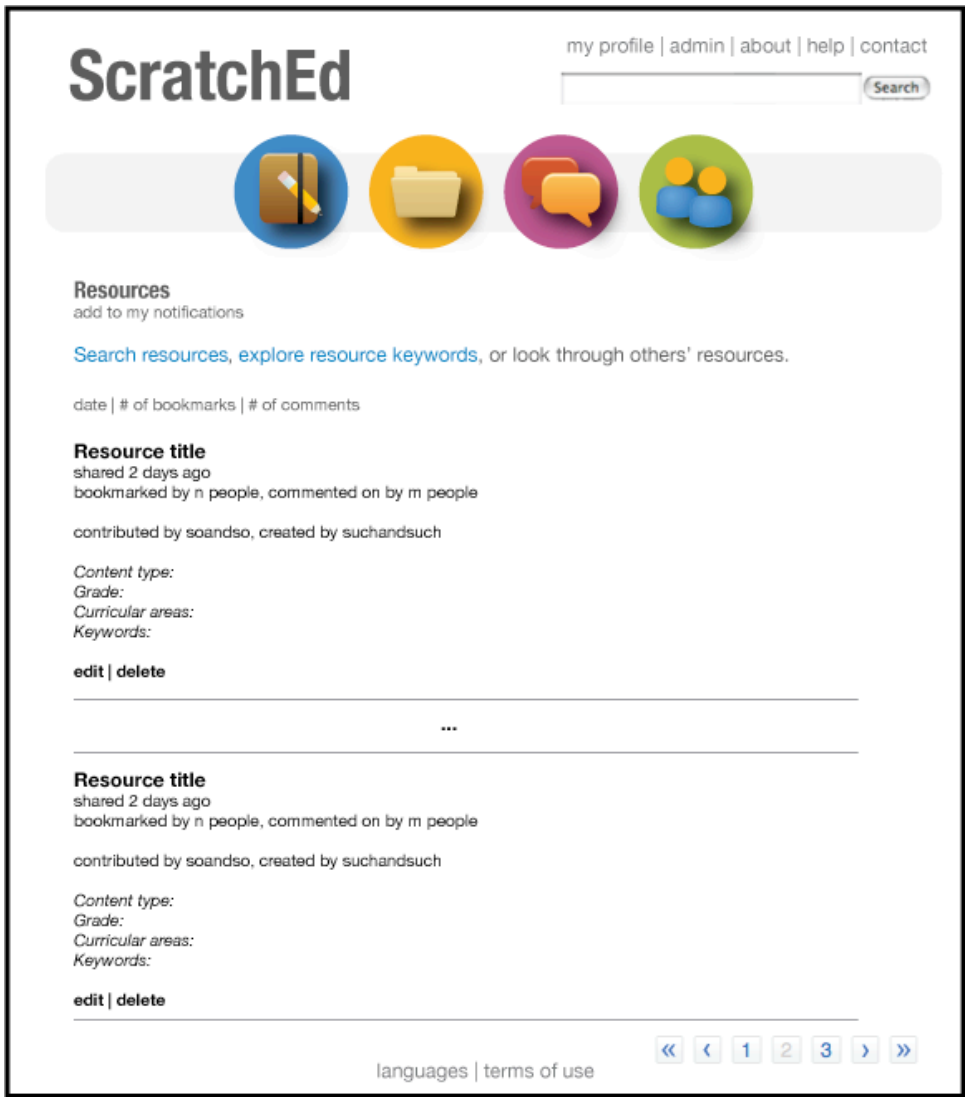
Resources Actions

View resources

By clicking on the Resources icon in the main navigation bar, users are brought to the resources page. On this page, the user has the option to create a new resource or navigate through the stories list. The stories list can be sorted by date (most recent and least recent), number of bookmarks (most and least), and number of comments (most and least).



Users are able to edit and delete their own resources, and administrators are able to edit and delete stories. The following is an administrator's view of the resources page:

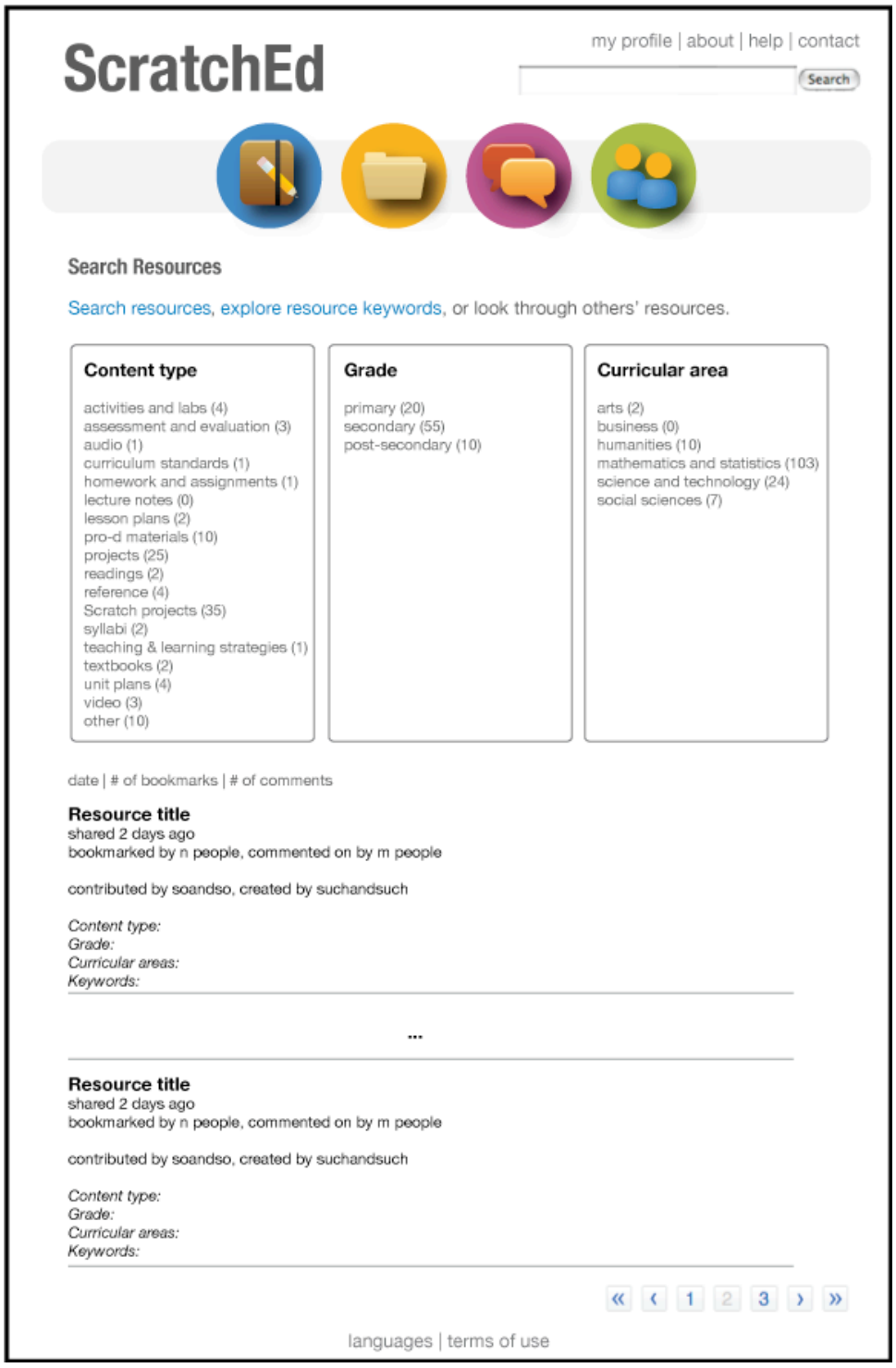


A user would only see the “edit” and “delete” links on stories in the list that they had created.

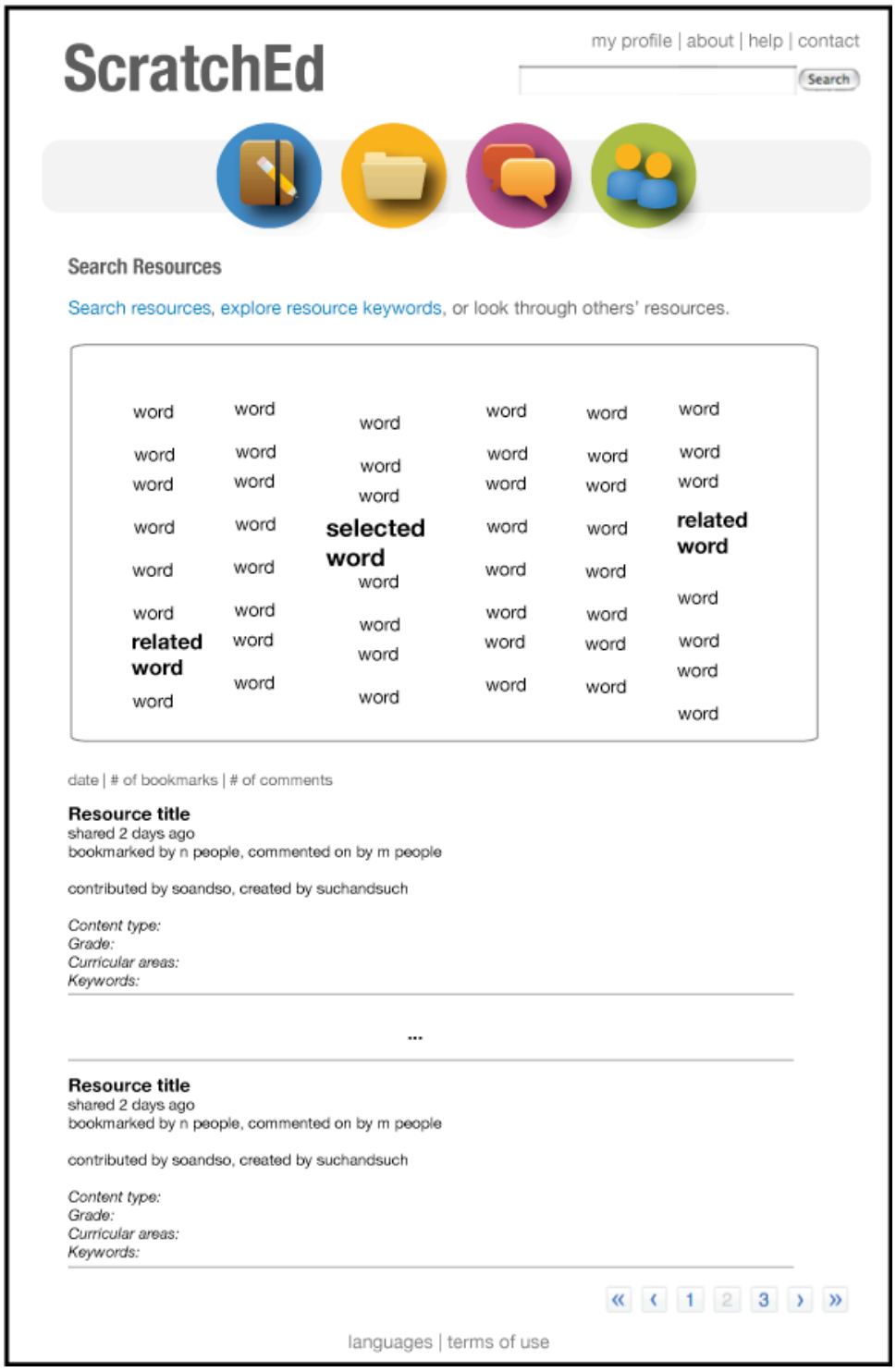
Search resources

Resources can be explored in two ways: by searching across the resources taxonomy (the fixed system-supplied categories) and by exploring the resource folksonomy (the user-generated descriptive keywords.

The taxonomy specifies three areas of the resources: content type, age/grade, and curricular area. The number of resources in each sub-area are listed. By selecting one of the sub-areas in any of the three areas, that sub-area functions as a constraint, thereby possibly limiting the selections available from the other areas. (I.e. the selections are AND, not OR).



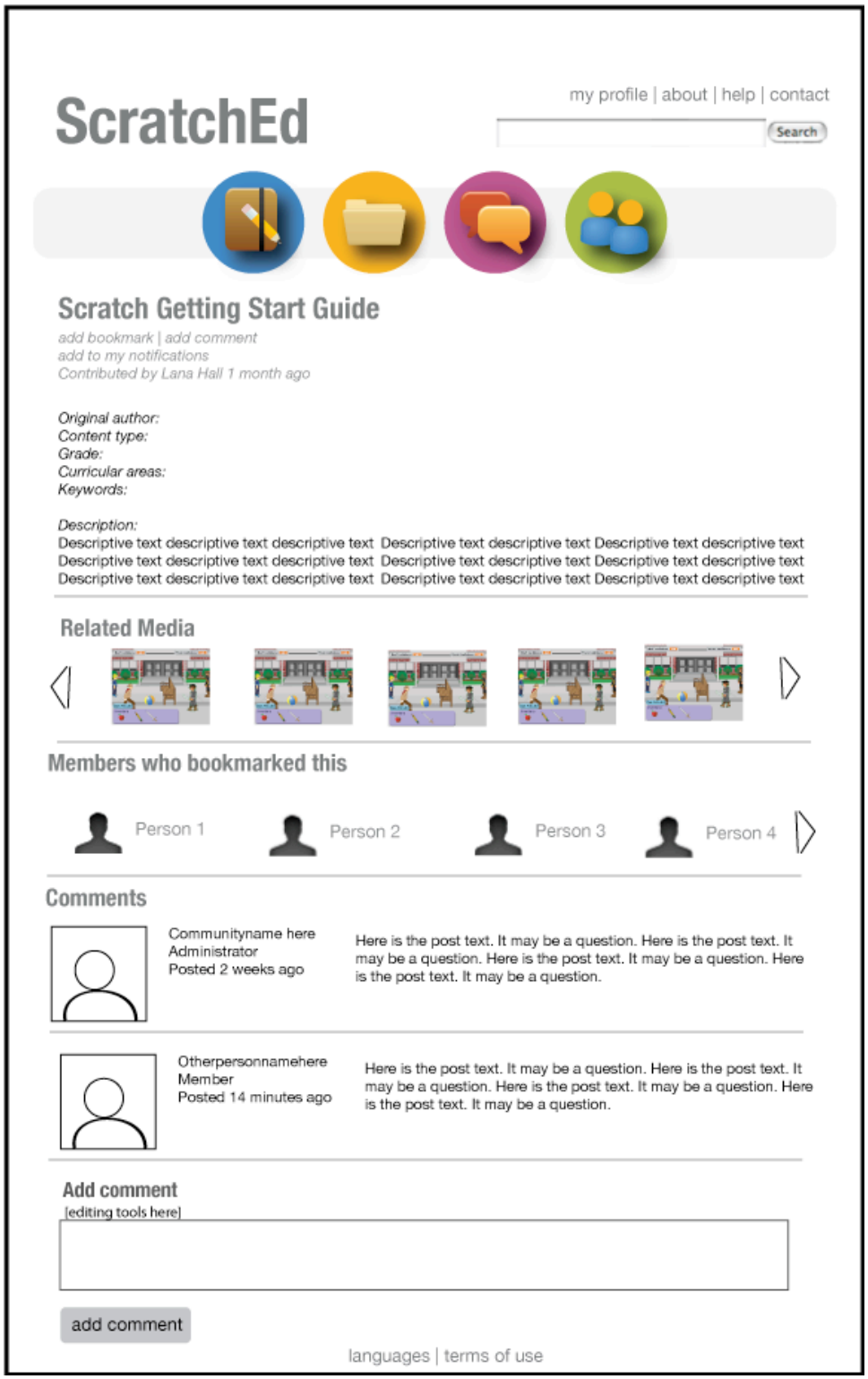
With the user-generated descriptors (the keywords), a list of all keywords is displayed. Once a keyword is selected, any other keyword that is used to also describe one of the selected-keyword resources is highlighted in the keyword description. A list of all resources with the selected keyword are displayed.



View resource

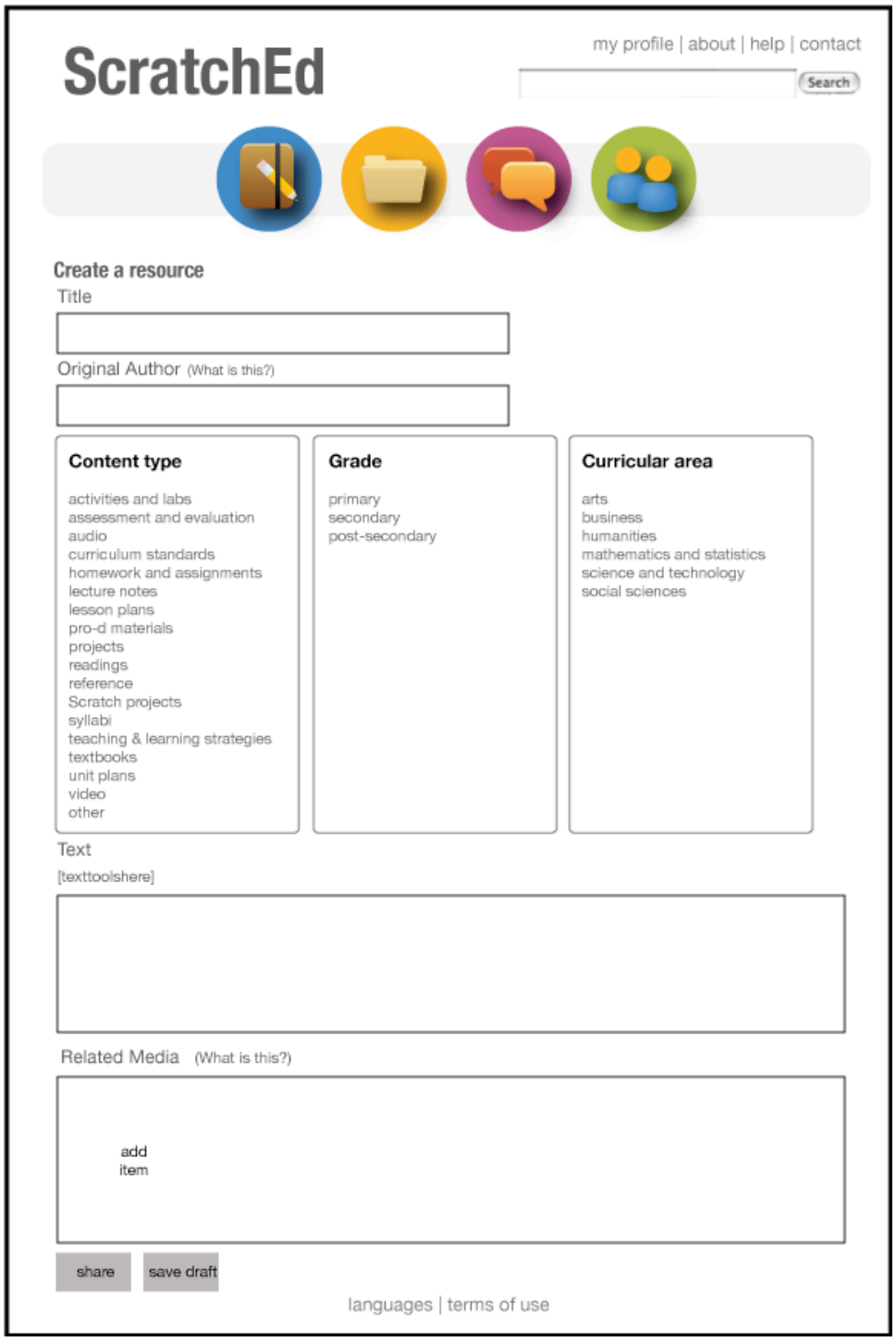
A resource page contains a description (using the system-taxonomy and the user-taxonomy) and related media (images, video, audio, PDFs, Scratch projects). Users can

add a bookmark or add a comment. Administrators can edit or delete comments. Resource contributors can delete comments left by other users.



Add resource

To add a resource, a user is brought to the resource creation form, where they can add text and related media. The user enters a title, original author (if other than the contributor), specifies the content type, grade, and curricular area, and provides keywords and description. **[*Following image is missing keywords field*]**



A user can also upload media (pictures, Scratch projects, PDFs) and link to URLs:

A user can share their resource (make it publicly readable) or they can save a draft of the work to be shared later. Once shared, only the "share" link will be visible. [***Should there be a "cancel" or "delete" link on the page with "share" and "save draft"?***]

Edit resource

Authors and administrators can edit resources by clicking on the "edit" link beneath a resource title. This leads back to the *Create resource* page, with the content areas filled in.

Delete resource

Authors and administrators can delete resources, which deletes all text, related media, comments, and bookmarks. This can be done from the *View Resources* page or from an individual resource page:

Add comment

Refer to *Stories Actions – Add comment* for behavior.

Edit comment

Refer to *Stories Actions – Edit comment* for behavior.

Delete comment

Refer to *Stories Actions – Delete comment* for behavior.

Add bookmark

Refer to *Stories Actions – Add bookmark* for behavior.

Delete bookmark

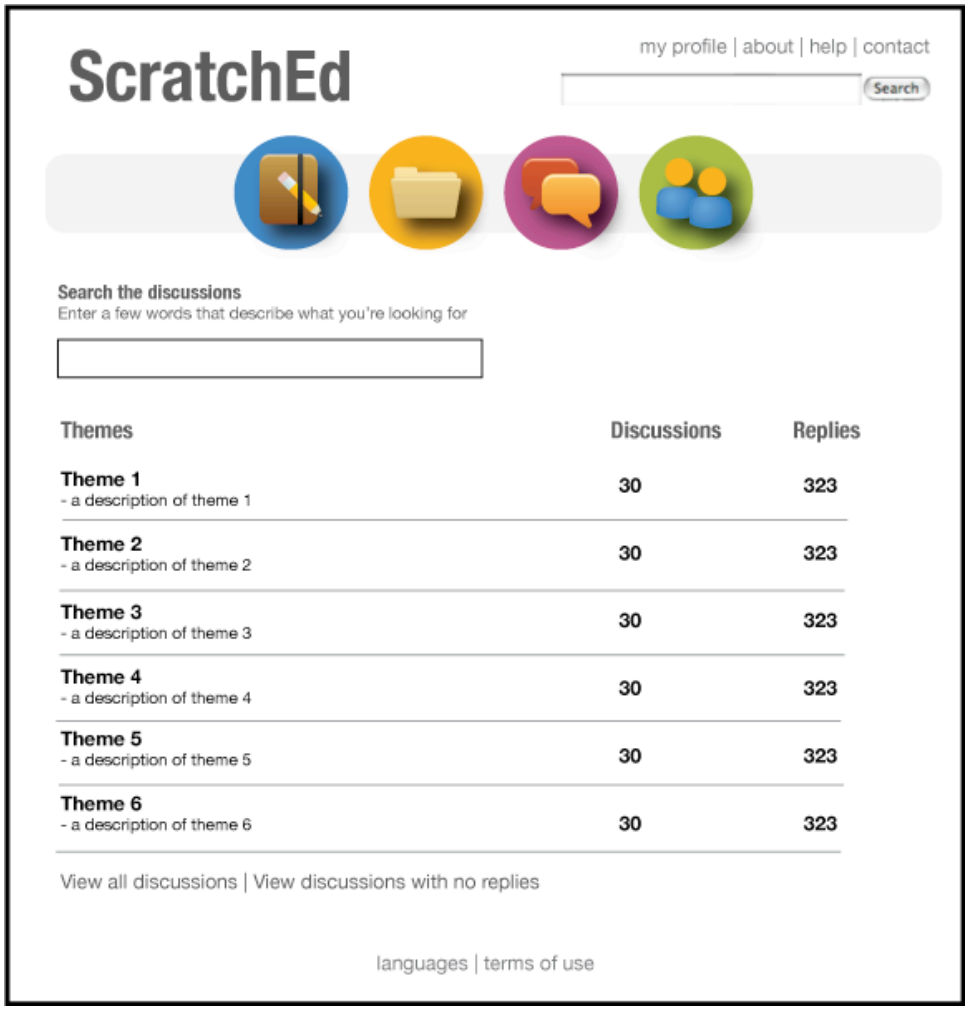
Refer to *Stories Actions – Delete bookmark* for behavior.

Discussions Actions

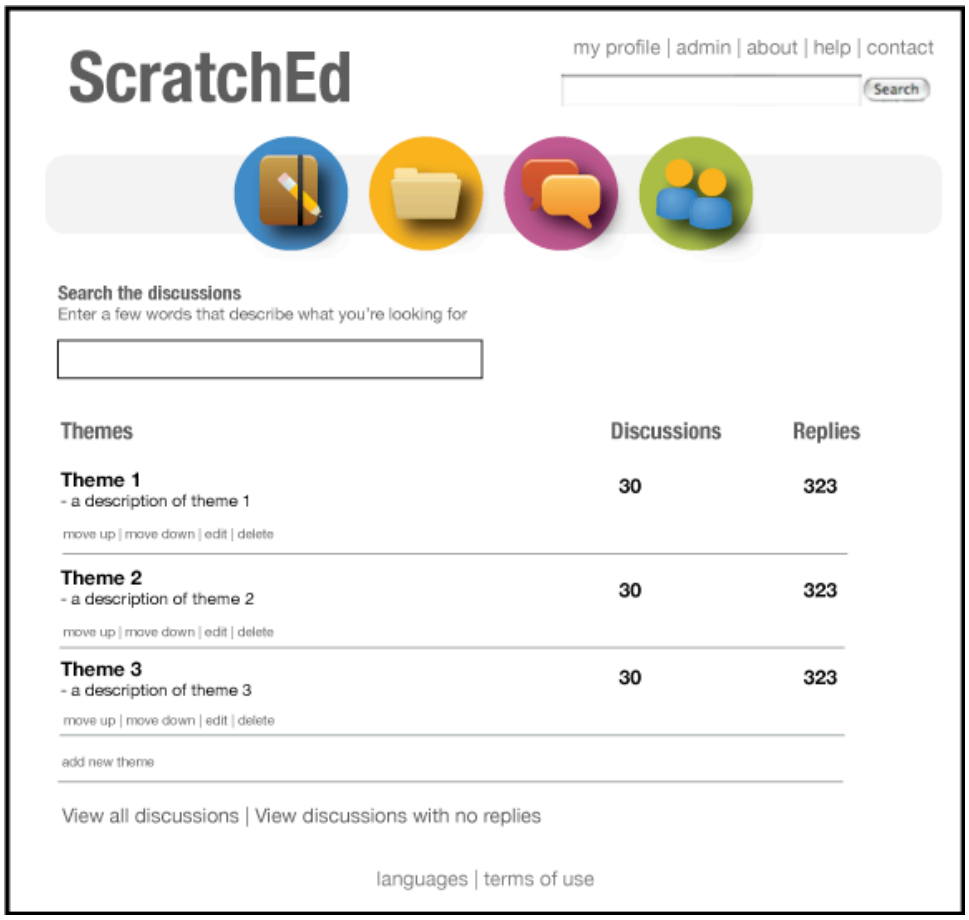
Discussions enable users to ask questions and share information in a familiar, bulletin board/forums format. This section is organized by themes, which are composed of discussions. Discussions are composed of individual replies.

View themes

The front page of the discussions area allows a user to search the discussions area and view the complete list of themes. The theme names are listed, as well as a brief description, and the number of discussions and posts contained within each. There are options to view a listing of all discussions, sorted by recency, and a list of all discussions that have no reply.

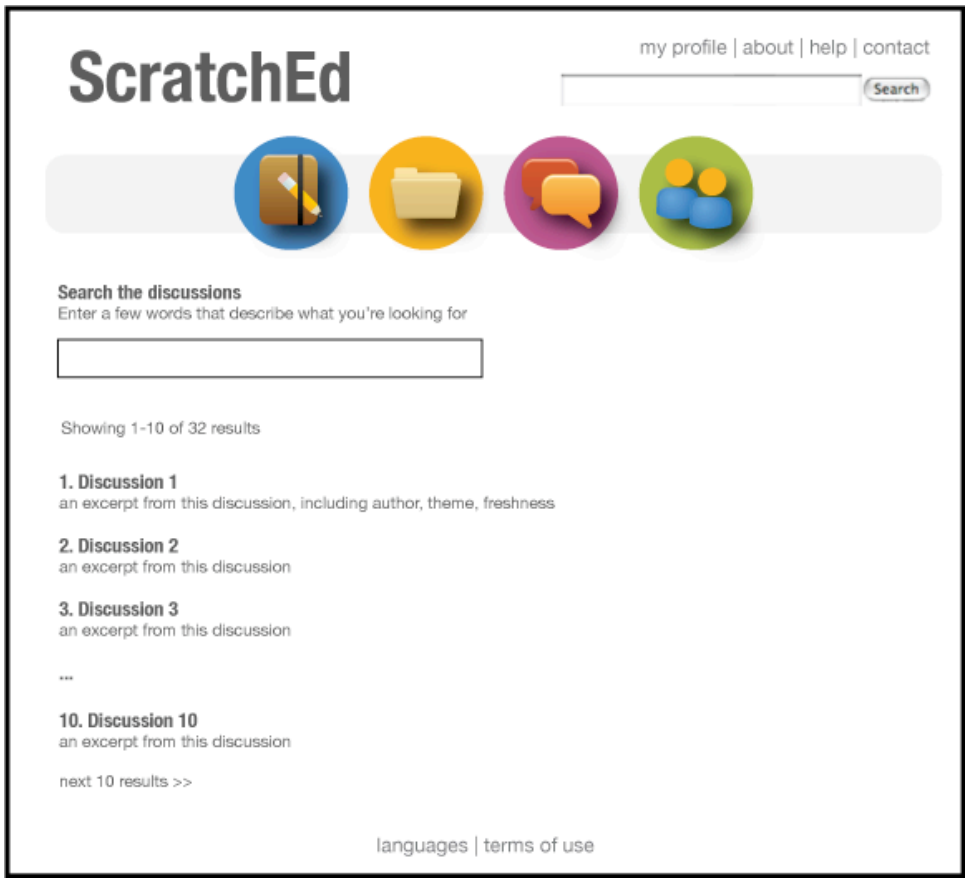


Administrators have a different view of the discussions section front page, which includes the ability to re-order the discussion areas, edit the discussion area titles, and delete a discussion area:



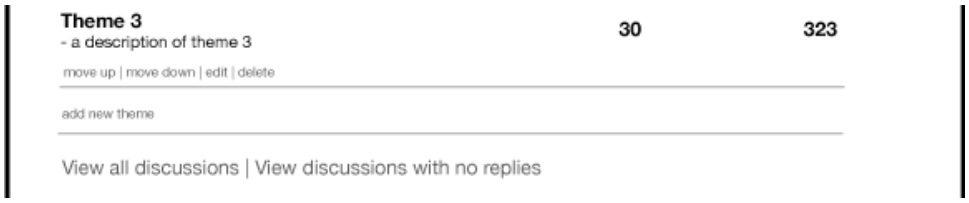
Search discussions

Users can search for keywords using the search box on the discussions front page. This returns a list of discussions related to the keyword, organized by (freshness? post count?).



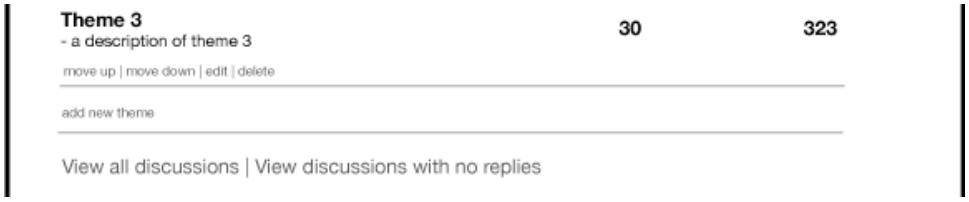
Add theme

An administrator can add a new theme by clicking on the “add new theme” link at the bottom of the discussion area list. This adds a new untitled discussion area to the discussion areas list, which can then be edited to change the default title and description.

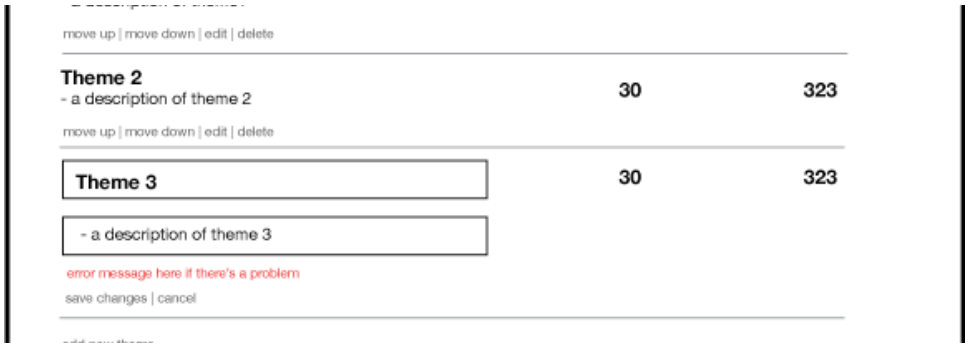


Edit theme information

An administrator can change the title or description of a theme by clicking on the “edit” link located below the theme:



This causes the title and description to change into editable text fields, as well as displaying a save changes or cancel links:



Move theme

An administrator can move a theme up or down in the list by clicking on the “move up” and “move down” links in the themes list.

The “move up” link will be inactive for the top-most discussion area, and the “move down” link will be inactive for the bottom-most discussion area.

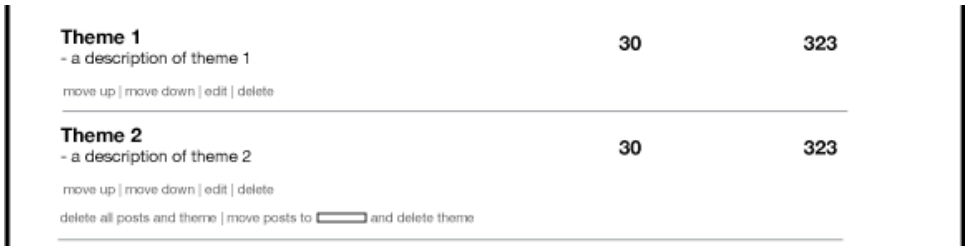
Merge themes

Refer to *Delete theme*.

Delete theme

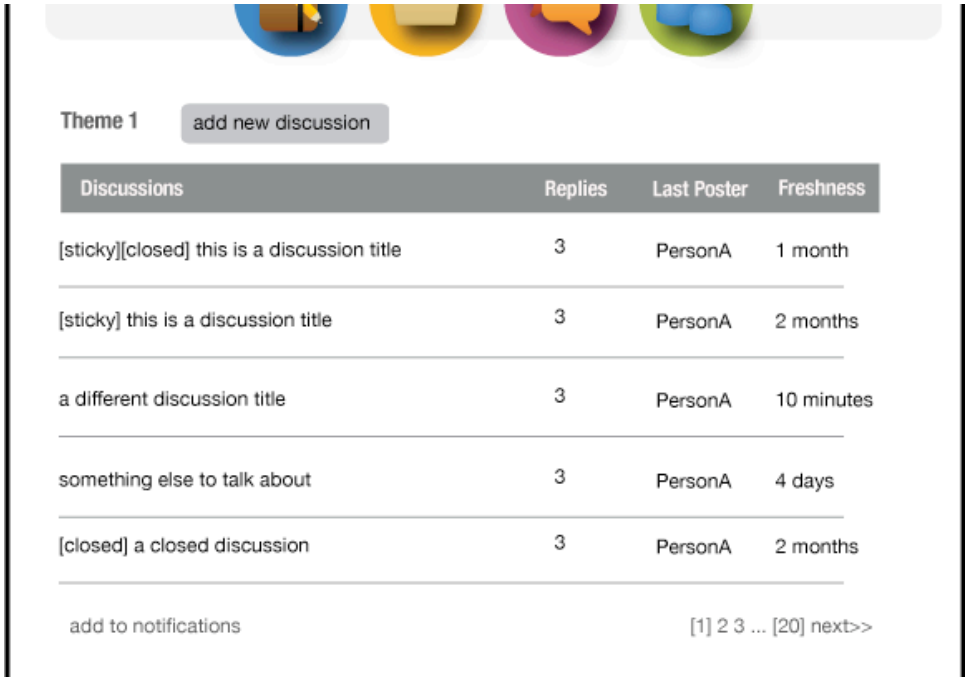
An administrator can delete a theme by clicking on the “delete” link in the theme list.

This displays two options: (1) the administrator can delete all discussions in the theme and the theme itself, and (2) the administrator can move all discussions in the theme to another theme (through dropdown list selection) and then delete the theme.



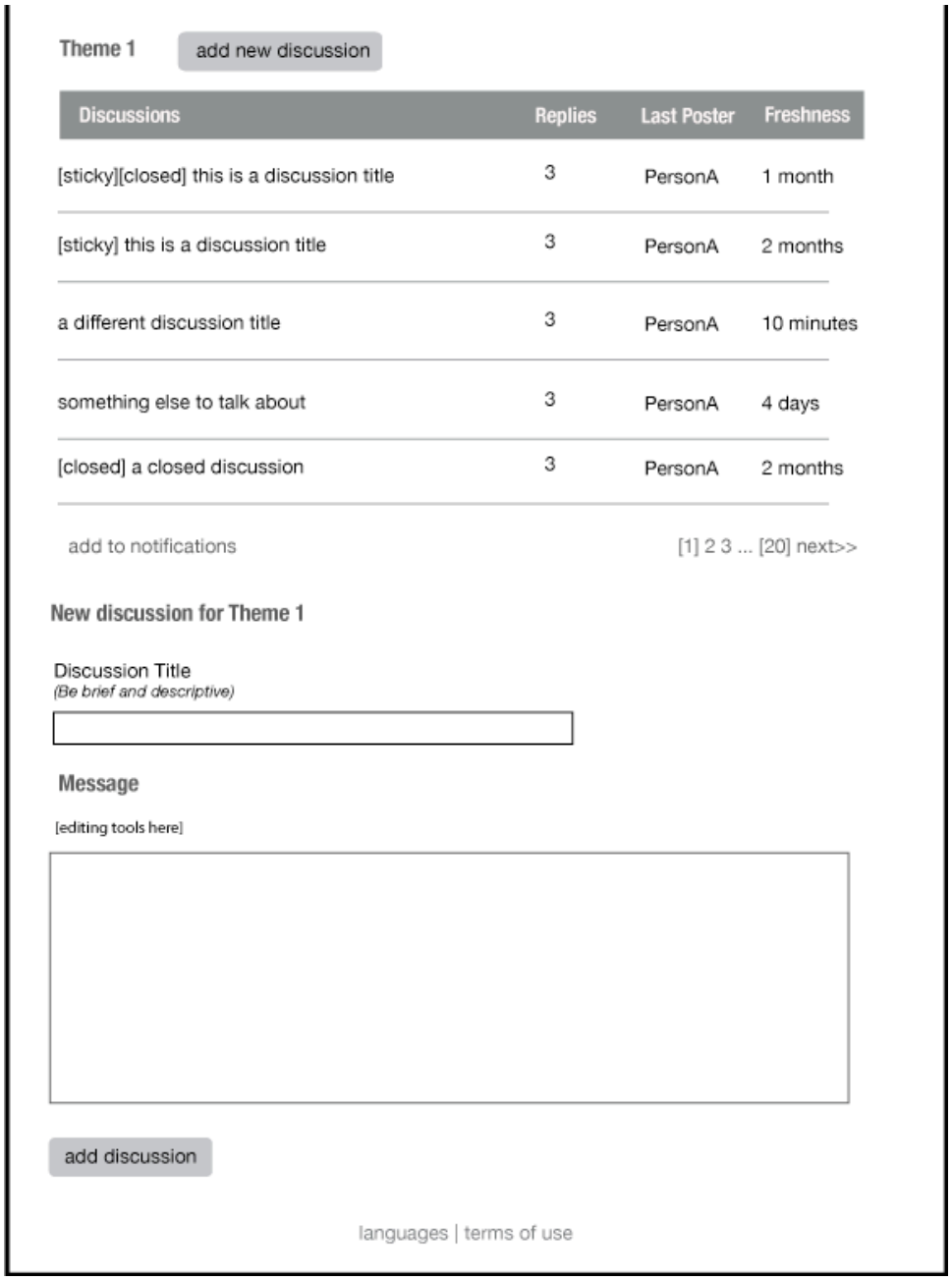
View theme (collection of related discussions)

After clicking on a theme, the user is brought the list of discussions for that theme. Sticky discussions are listed first (from most to least recent or "fresh"), followed by non-sticky discussions (also organized by freshness). Discussions can indicate two optional states: [sticky] and [closed]. The user can view any discussion by clicking on the particular discussion title. A user can subscribe to the topic via the notification system, and start a new discussion. If the user is logged in, they are redirected to the add discussion jump; if not, they are redirected to the *Create an account* page, with a message indicating that registration is required.



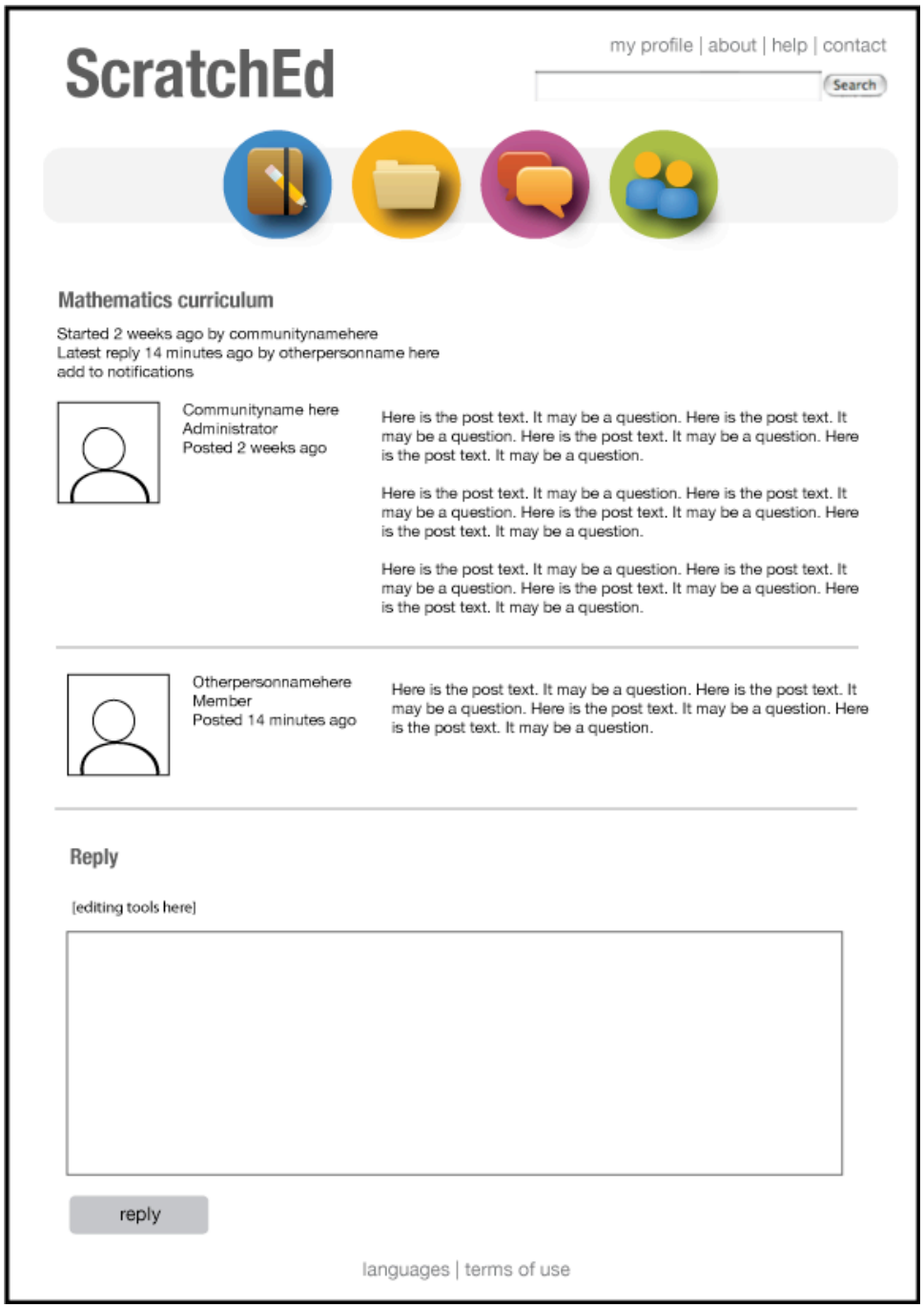
Add topic

If a user wants to add a new discussion to a theme, they can click on the "add new discussion" link. This jumps down to the new discussion form, where the user supplies a discussion title and a message:



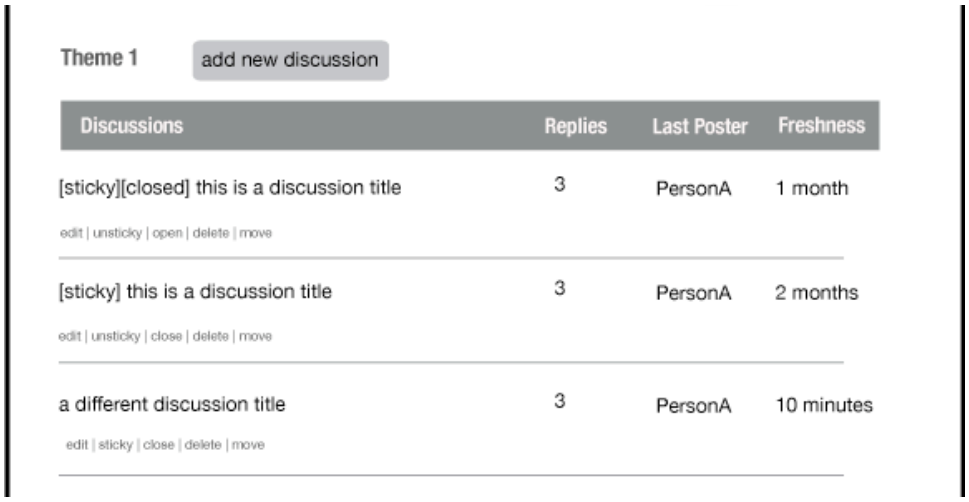
View discussion

By clicking on a particular discussion title, the user is brought to the discussion's page. All of the discussion posts are listed, as well as an option (for members who are signed in) to post a reply:

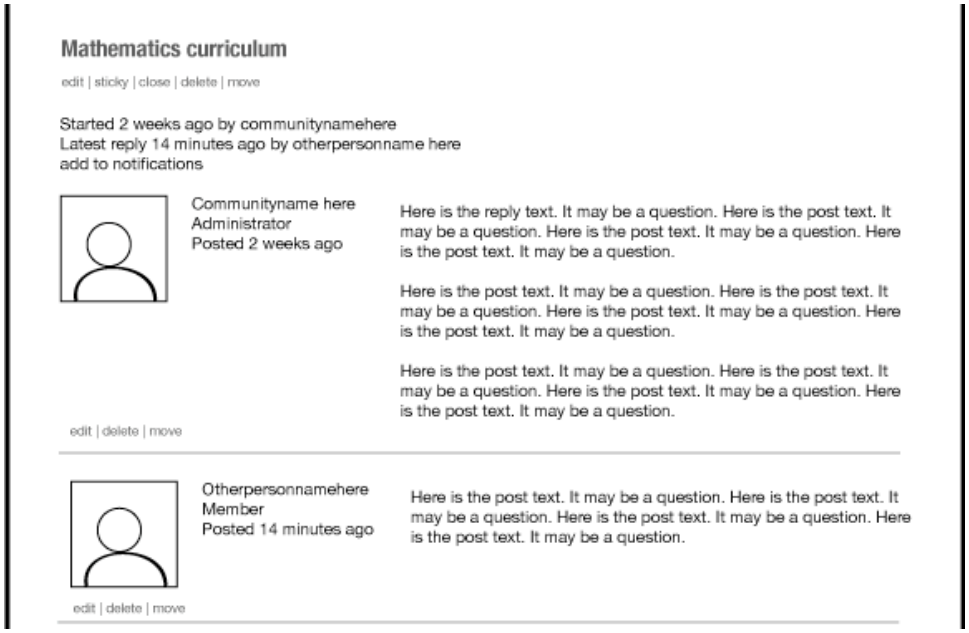


Edit discussion

Moderators and administrators can edit discussion titles, either from the theme page:



or from within the discussion itself:



Close discussion

A moderator or administrator can close a discussion, so that no new replies are added.

Sticky discussion

A moderator or administrator can make a discussion sticky, so that it appears before other discussions in a theme's discussion list.

Move discussion

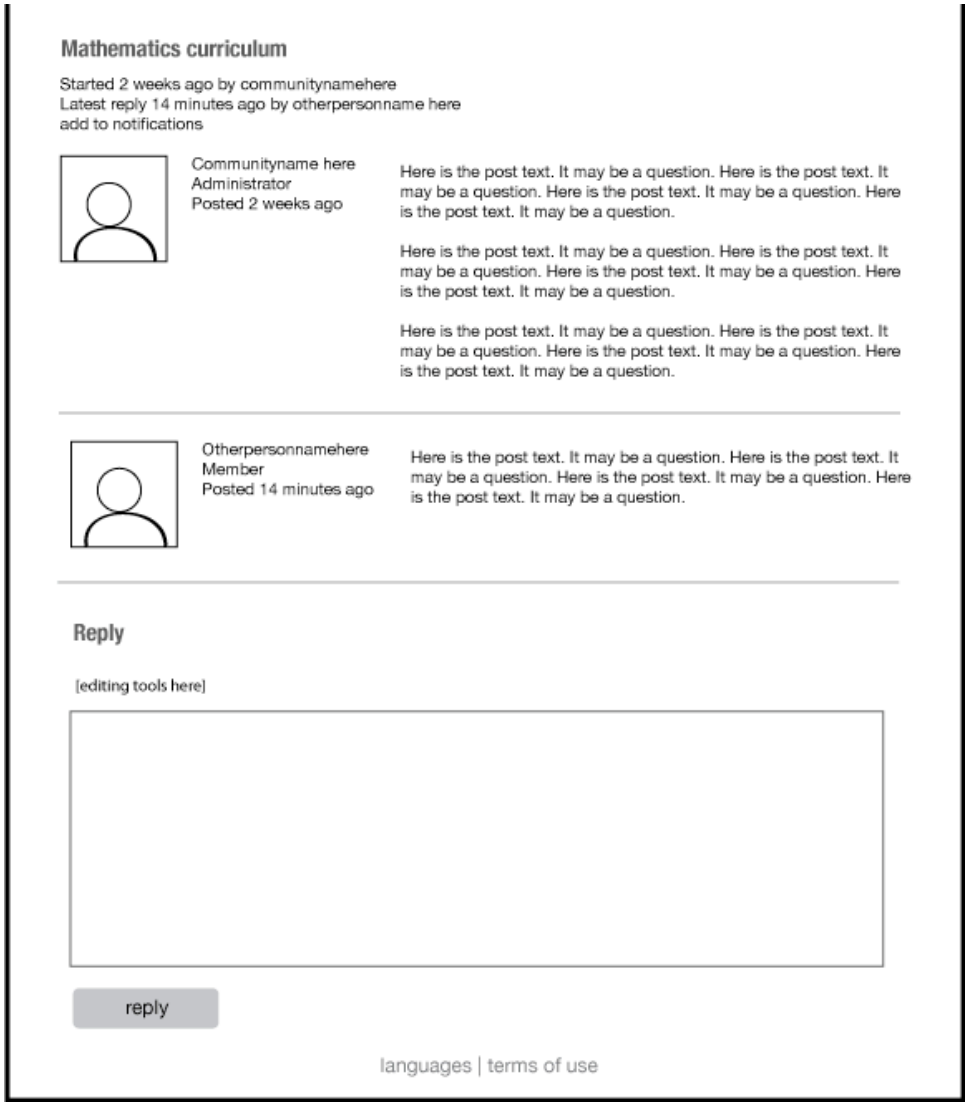
A moderator or administrator can move a discussion from one theme to another via a dropdown list.

Delete discussion

A moderator or administrator can delete a discussion from a theme by clicking on the "delete" link. This displays two options: (1) the moderator or administrator can delete all replies in the discussion and the discussion itself, and (2) the administrator can move all replies in the discussion to another discussion (through dropdown list selection) and then delete the original discussion.

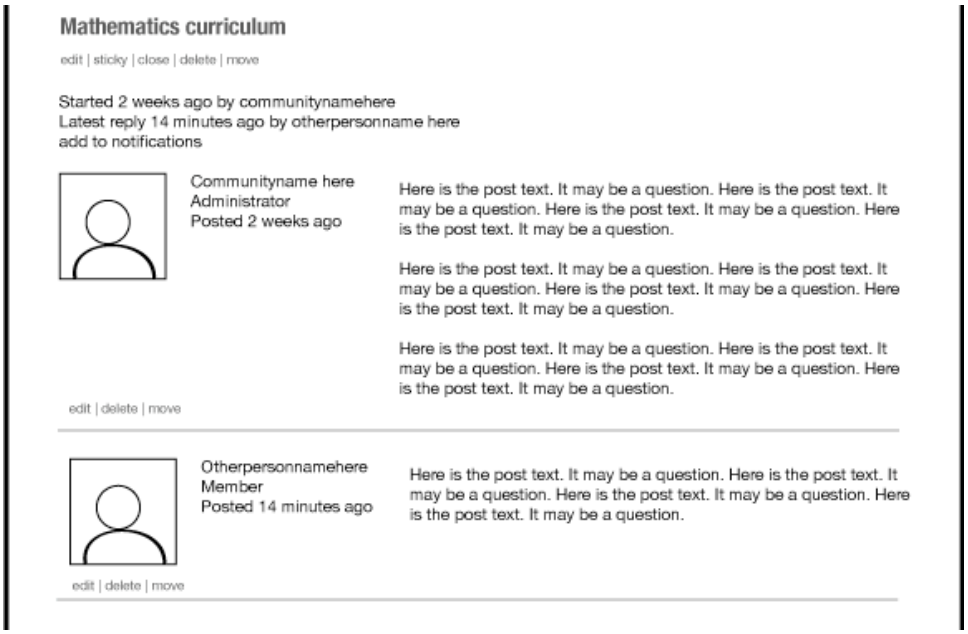
Add reply

A user can post a reply to a discussion by entering text in the reply text area and clicking the "reply" link:



Edit reply

A moderator or administrator can edit a reply by clicking on the “edit” link.



Move reply

A moderator or administrator can move a reply to an existing discussion or start a new discussion based on the reply.

Delete reply

A moderator or administrator can delete a reply.

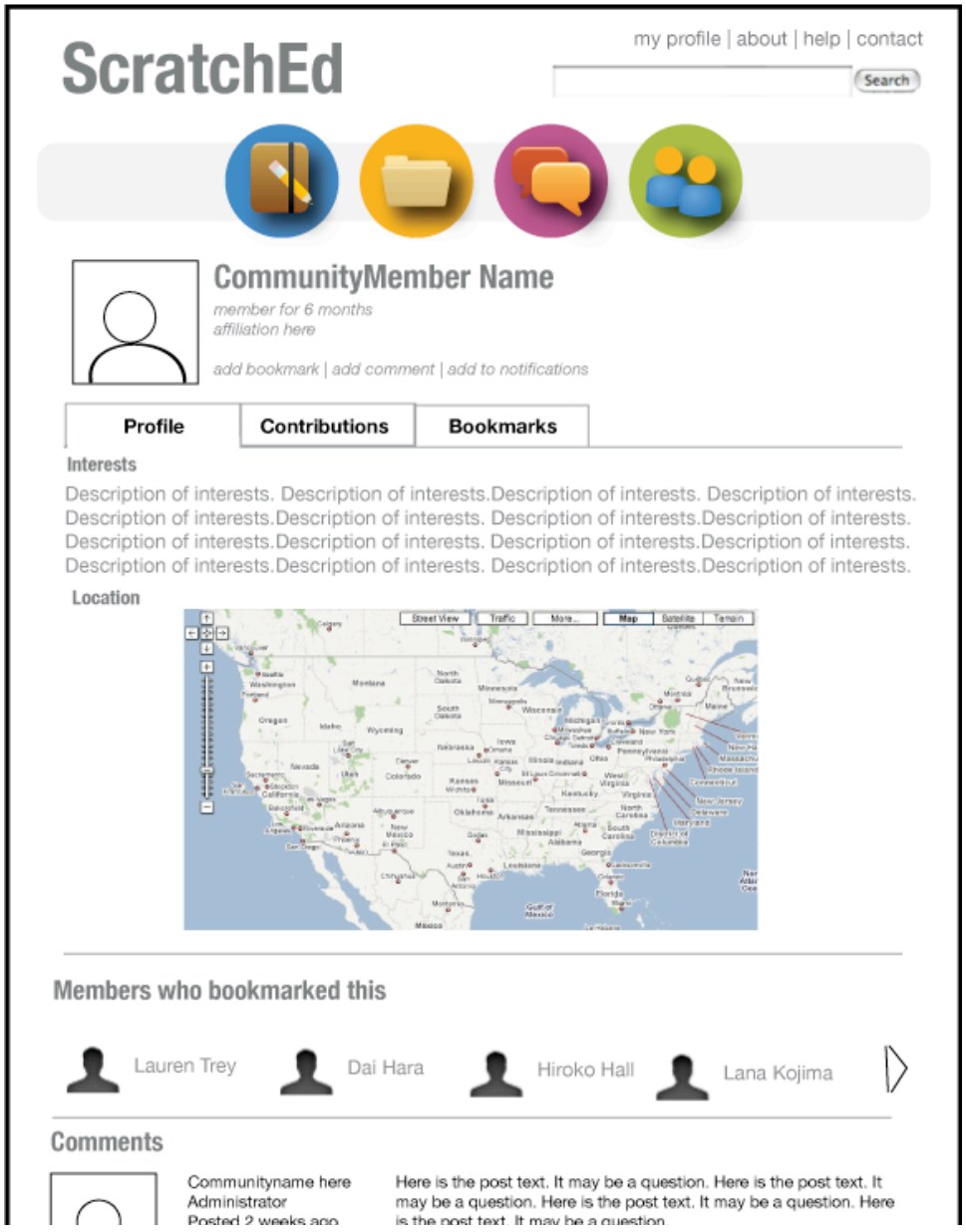
Members Actions

View members

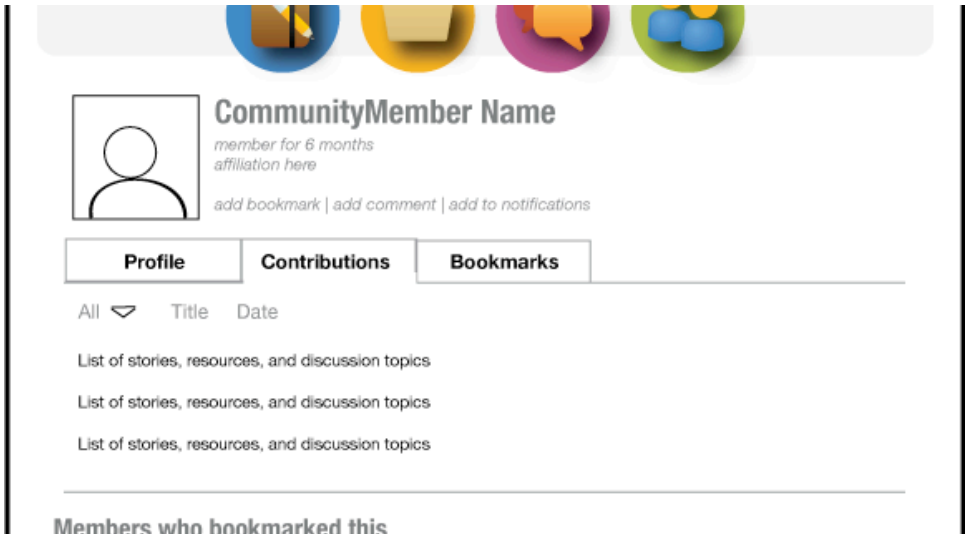
A user can find other users through the members area. A user can use a map to identify users, or navigate a sortable list. The list may be sorted by community name (A-Z and Z-A), and membership duration (from newest and from oldest).

View member profile

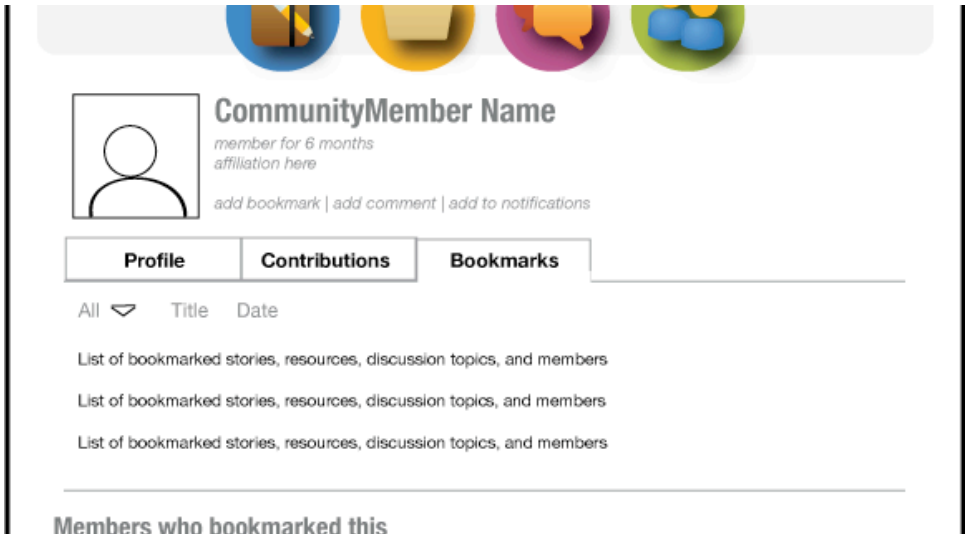
The view of an individual community member by another community member involves numerous components. There is a tabbed area. First, the member's personal profile is displayed: community name, profile picture, membership length, location, affiliation, and interests description.



Second, a list of the member's contributions – their shared/published stories and resources, as well as discussion topics that they started – is displayed.

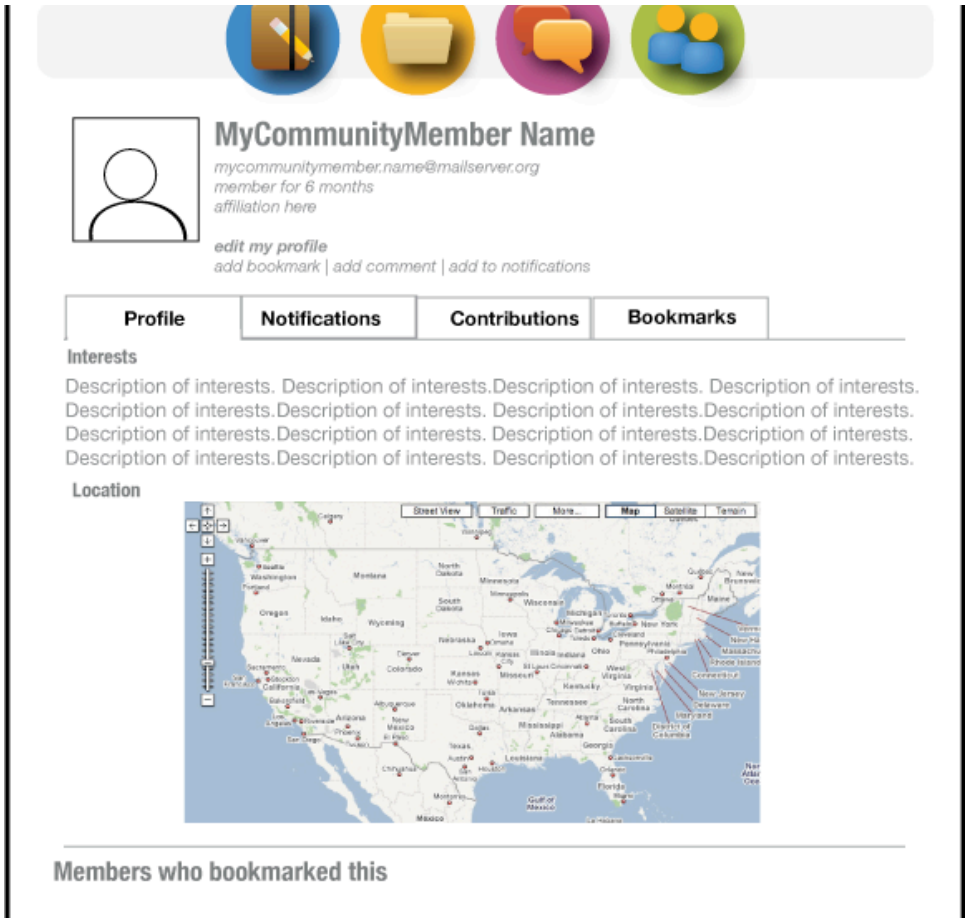


Third, a list of all of the user's bookmarked stories, resources, discussions, and members is shown.

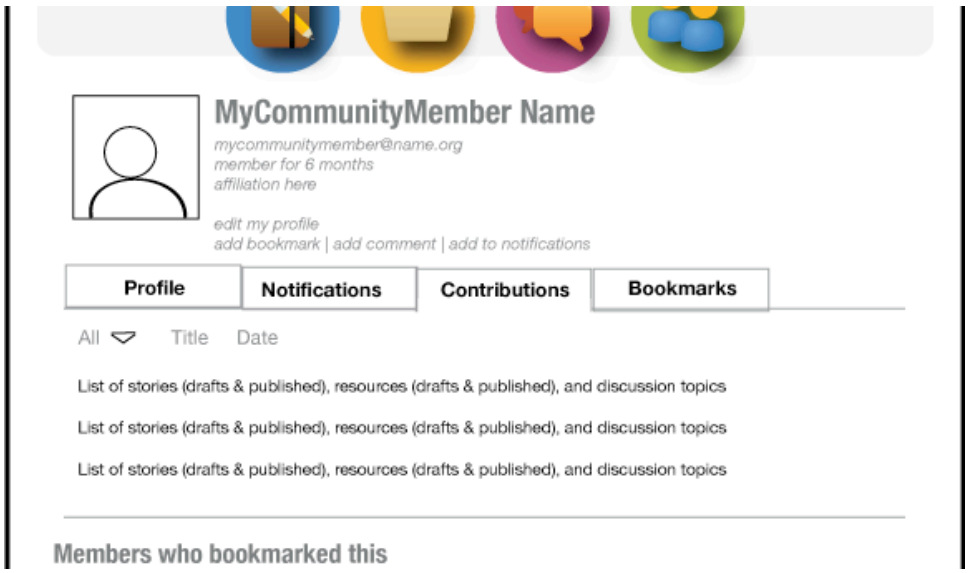


Following the tabbed area is a list of people who bookmarked this user and comments on this user's profile.

A member (on their own page) or administrator has a different view of the same page. The profile area includes email information.

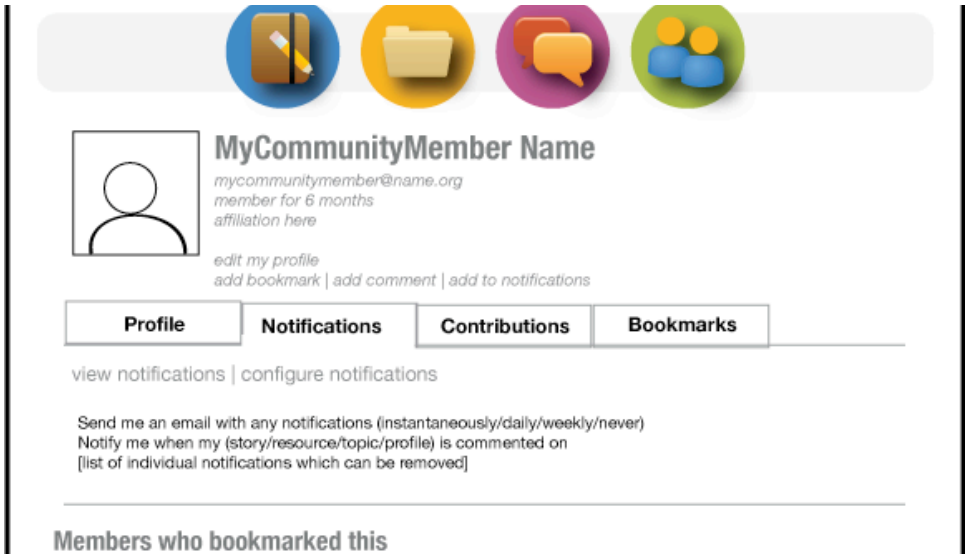


The creations list includes drafts, in addition to the already shared content. Each item can be view, deleted, or (in the case of stories and resources) edited. An administrator also views in the list items that have been deleted by the creator.



A member (or administrator) can also view their notifications:

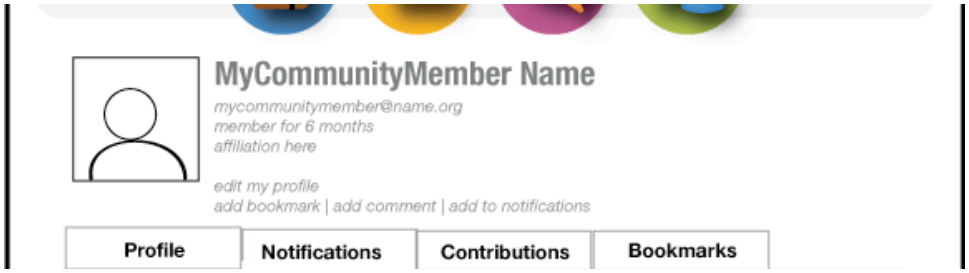
and configure their notifications. (Notify me when my (story, resource, topic, profile) is commented on; Control notifications email [Instantaneously/Daily/Weekly/None])



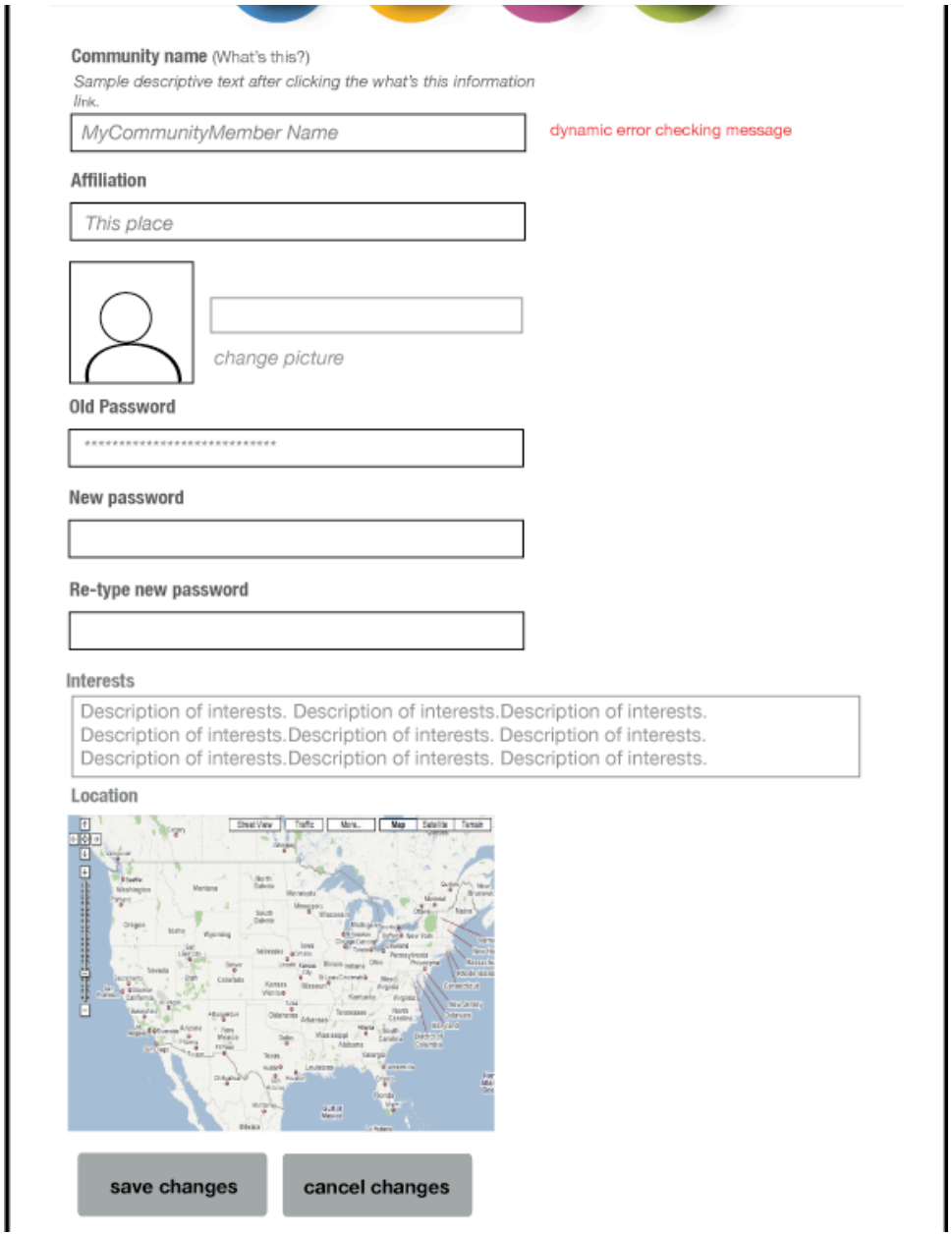
Edit member profile

A member (and administrator) can edit their profile. Many of the aspects of the profile can be changed without formally transitioning to an editing mode. (E.g. the lists of contributions has options to edit and delete.)

To add/change the profile picture or change the password, the user must move into editing mode, by clicking the “edit my profile” link.



From this editing mode, a user can change their profile picture, community name, password, affiliation, interests, and location. Once the changes are approved or cancelled, the user is returned to their profile page.



A user's contributions and bookmarks can be edited and removed inline, as can comments from other members.

Add comment

Refer to *Stories Actions – Add comment* for behavior.

Edit comment

Refer to *Stories Actions – Edit comment* for behavior.

Delete comment

Refer to *Stories Actions – Delete comment* for behavior.

Add bookmark

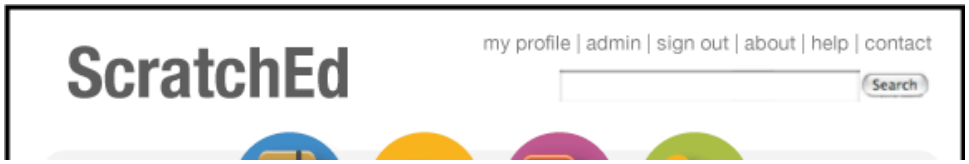
Refer to *Stories Actions – Add bookmark* for behavior.

Delete bookmark

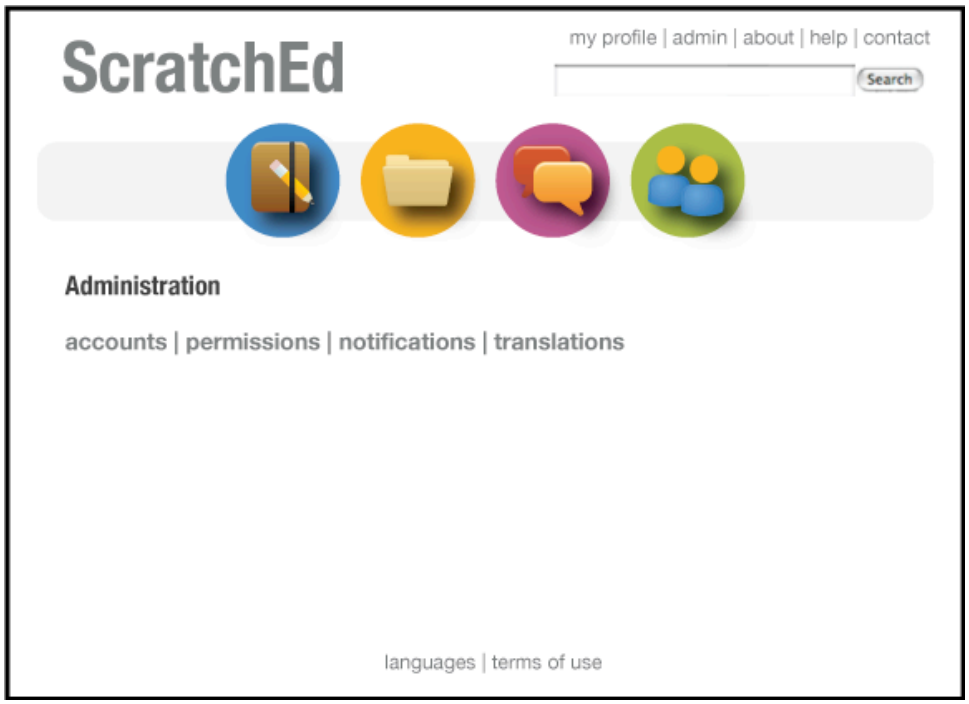
Refer to *Stories Actions – Delete bookmark* for behavior.

Administration Actions

In addition to the access available to members (and beyond the administrative access already described in the various subsections), administrators have access to a separate set of actions (manage accounts, modify permissions, send notifications, configure translations) through the “admin” link located at the top of the pages.

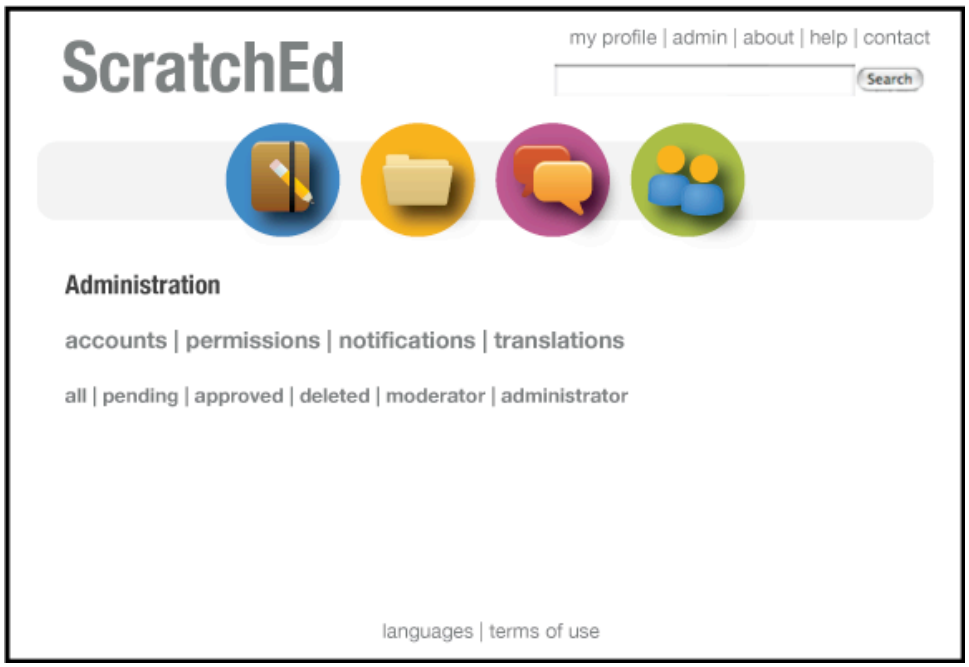


The administration page offers four options: accounts, permissions, notifications, and translations.

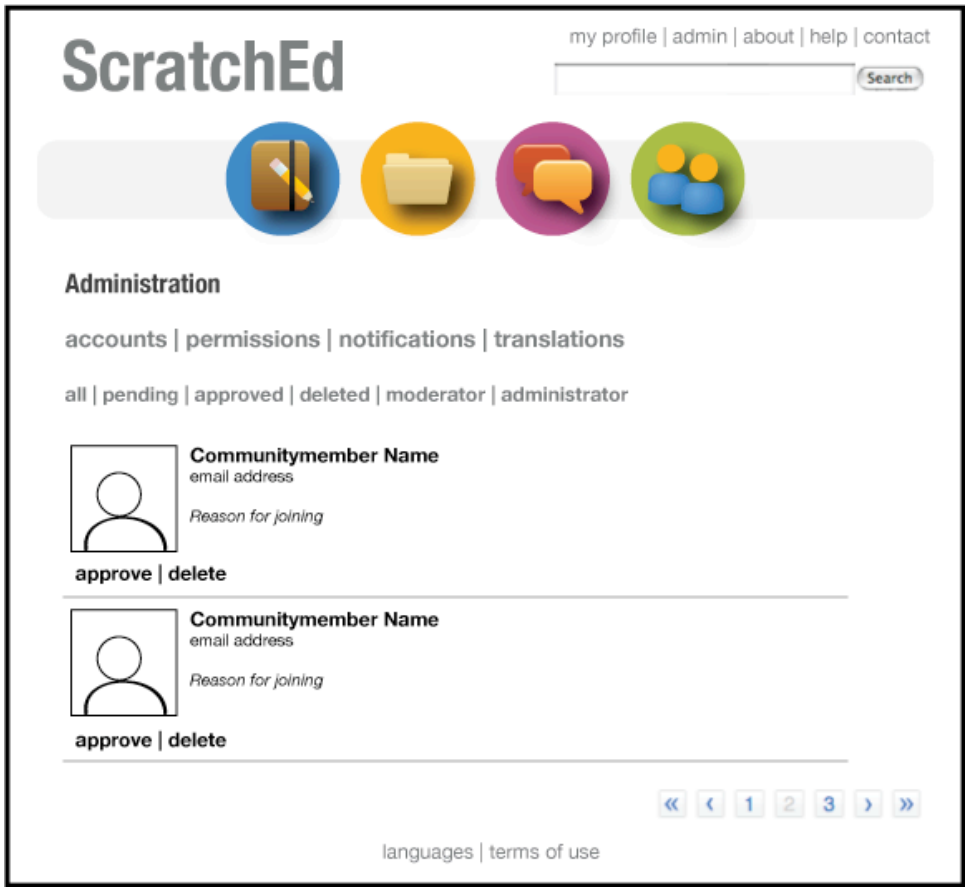


Manage accounts

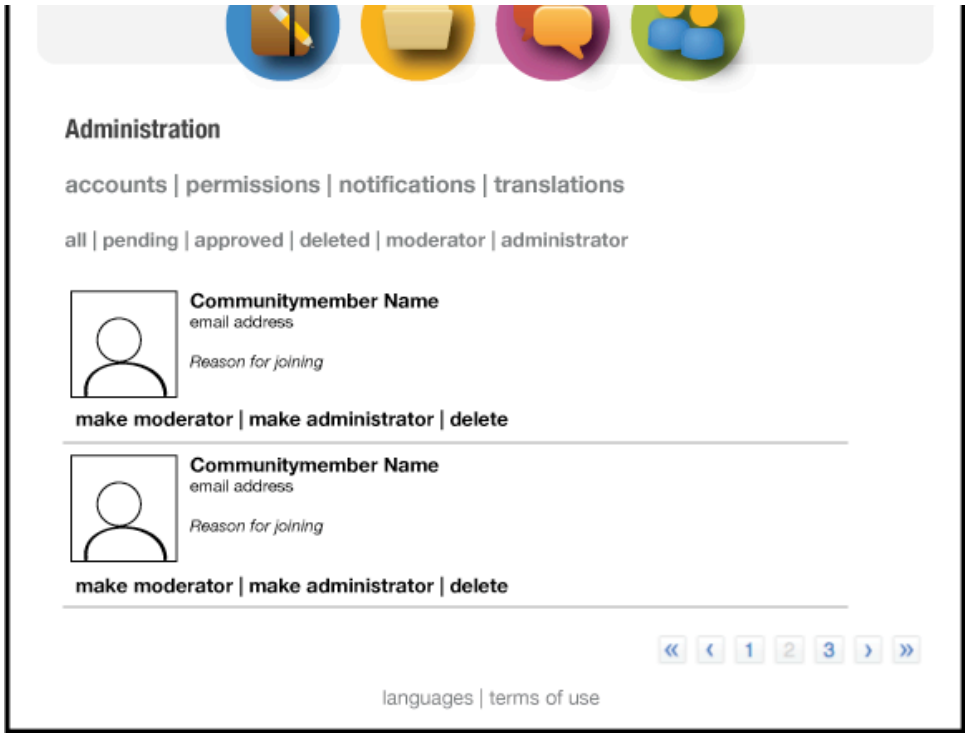
Administrators have control over all accounts in the system. The “accounts” view offers six options for viewing: all accounts, pending accounts, approved accounts, deleted accounts, moderator accounts, administrator accounts.



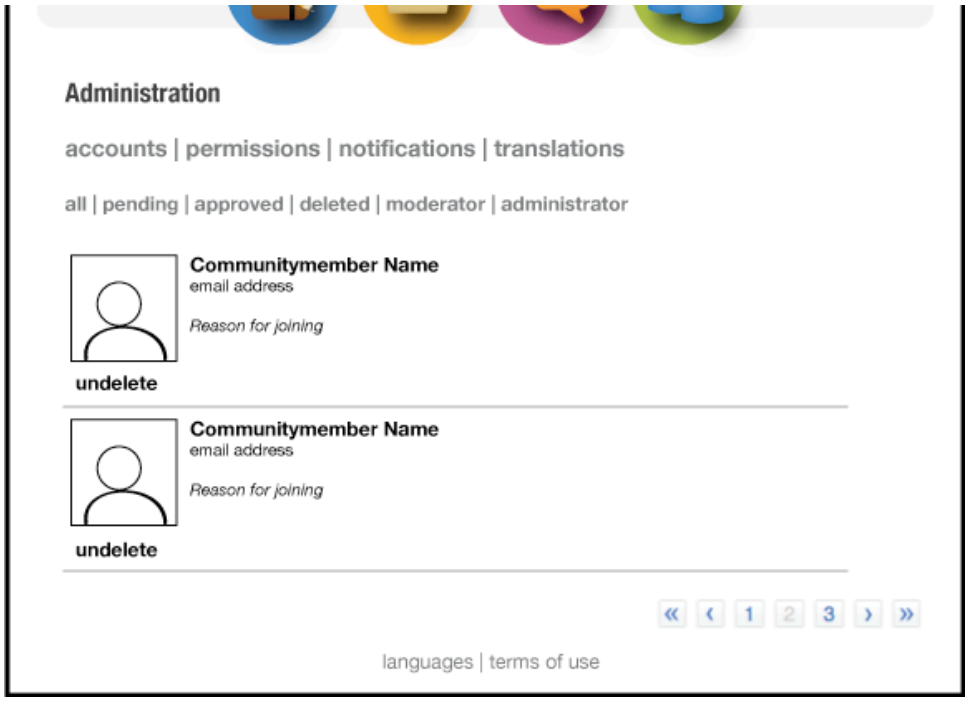
Pending accounts are listed with two options: approve and delete.



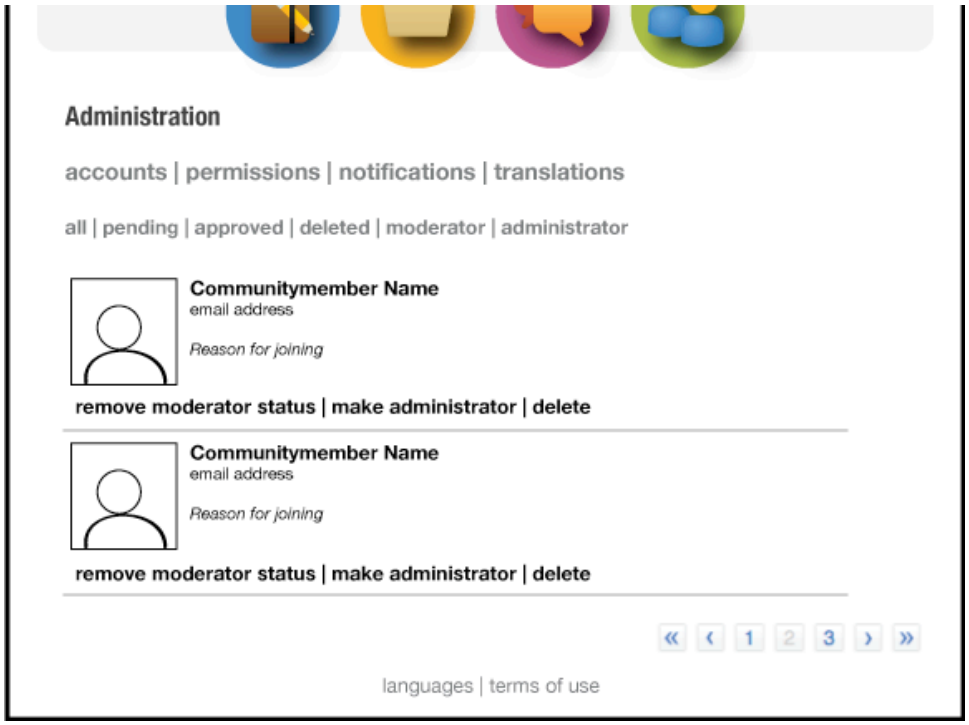
Approved accounts can be promoted to moderator or administrator status, or deleted.



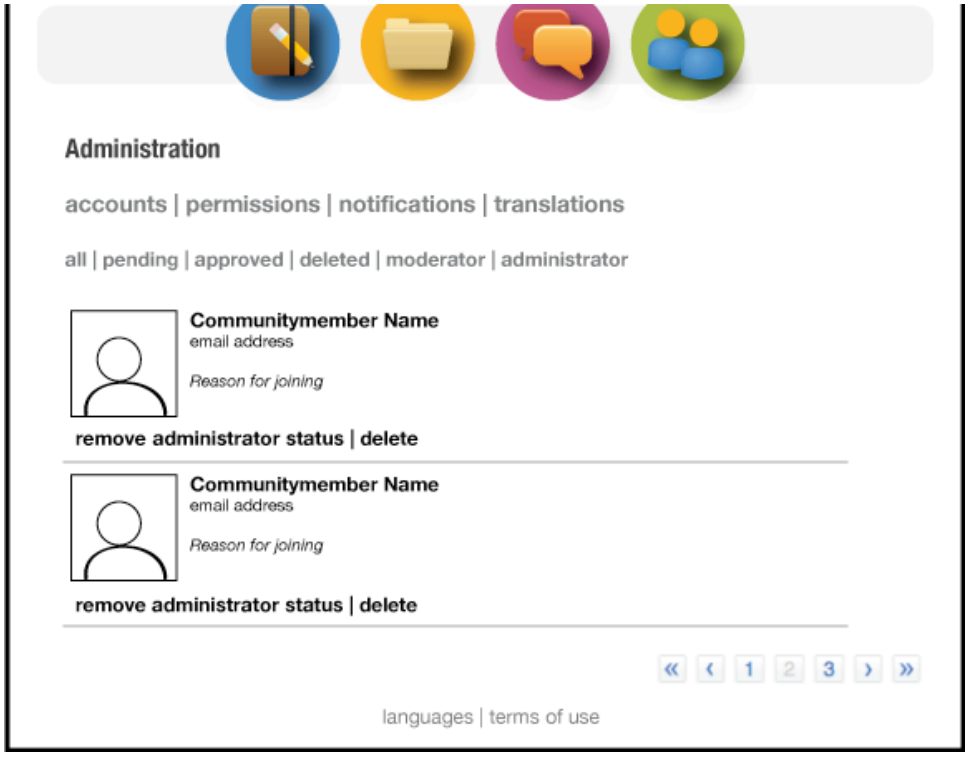
Deleted accounts can be undeleted.



Moderator accounts can be demoted to approved status, promoted to administrator status, or deleted.

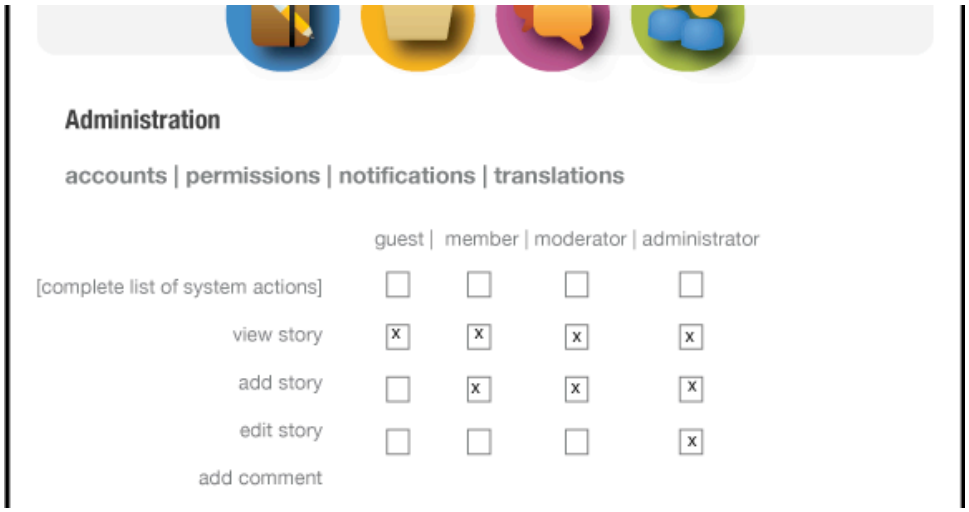


Administrator accounts can be demoted from administrator status or deleted:



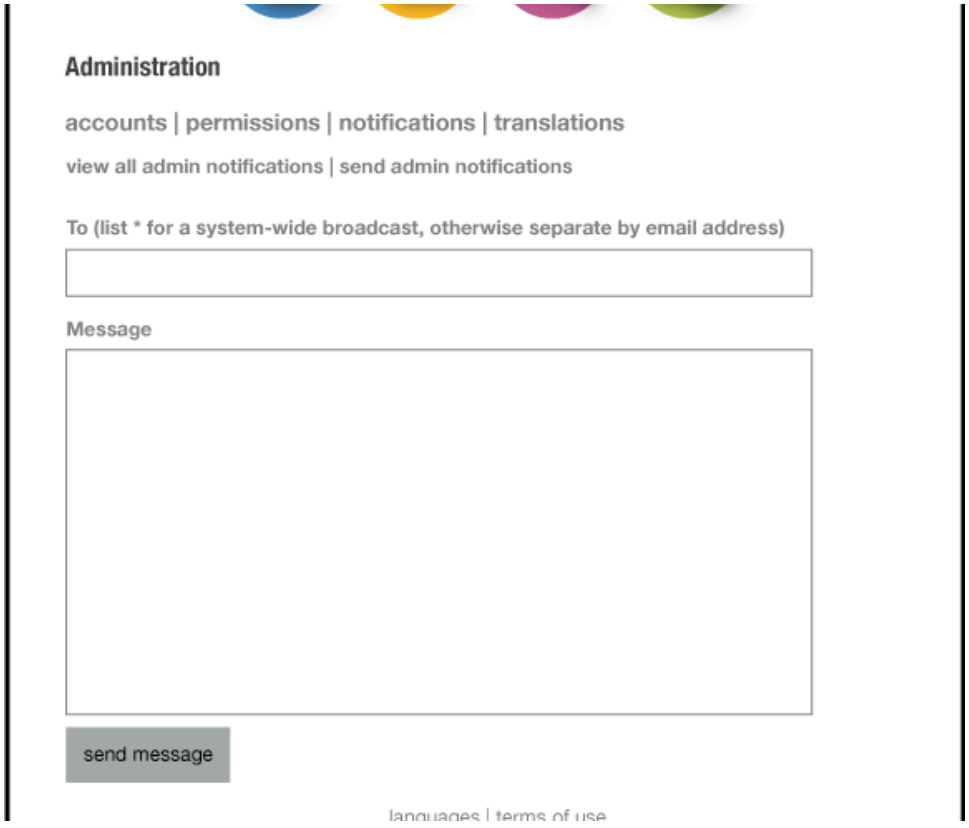
Modify permissions

Administrators can specify what actions can be taken in the system.



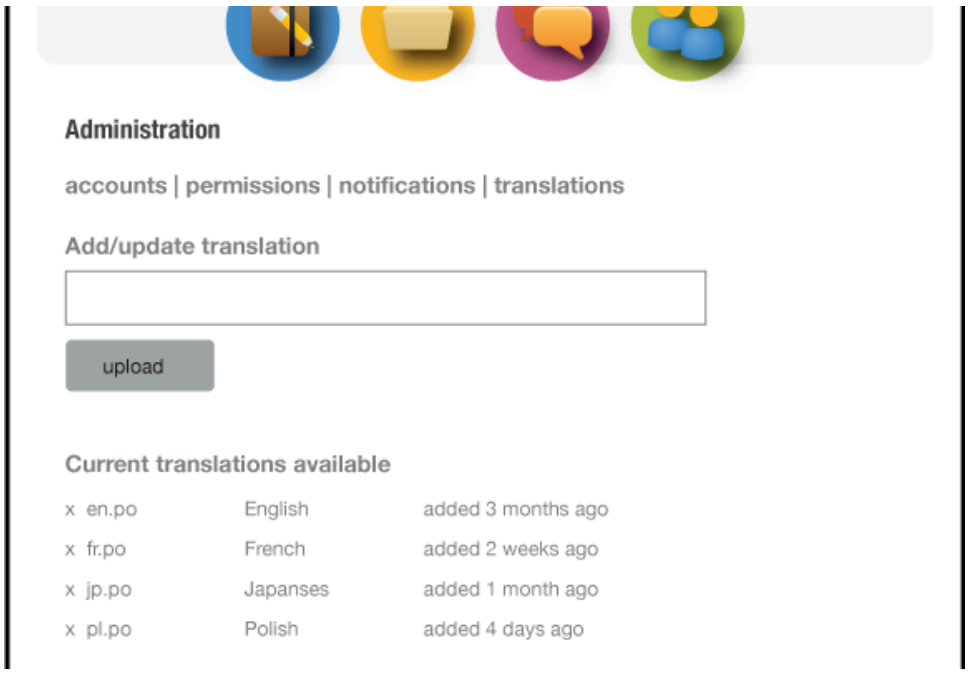
Send notifications

Administrators can send special messages that appear in a member's private notifications area. In the notifications interface, an administrator can view all messages sent and send a new message to everyone or to a subset of members (specified by their email address).



Configure translations

Administrators can add new, update, and remove translations through the administration web interface.



Edit content

Options for administrators to edit content are available at the content, rather than through the administration interface.

Delete content

Options for administrators to delete content are available at the content, rather than through the administration interface.

Appendix A: Permissions List

view pending story
view deleted story
add story
edit any story
delete own story
delete any story

view pending resource
view deleted resource
add resource
edit any resource
delete own resource
delete any resource

add discussion area
edit discussion area
move discussion area
delete discussion area
add topic
edit topic
close topic
sticky topic
move topic
delete topic
add reply
edit reply
move reply
delete reply

view any notifications
edit any member profile

add comment
edit own comment
edit comment on own content
edit any comment
delete own comment
delete comment on own content
delete any comment

manage accounts
send notifications
configure translations

Appendix B: Unaddressed Questions and Miscellaneous Notes

What content should appear on the front page?
If the front page is customizable, how should that be expressed?

Should resources be rated?

How is language submission expressed?
How is language manifested in the discussions area?

How might RSS be incorporated?

How frequently should (and can) notifications be sent via email?

Admins should be able to reset passwords.
Pending accounts should be able to be deleted.