

# Rakontu 2.0 Architecture

*revised April 2011 by Cynthia Kurtz (document version 1.0.1)*

This is a **TENTATIVE DRAFT** plan of the operating architecture for Rakontu 2.0. Rakontu is free, open source software whose goal is to help small groups of people share and work with their stories together to achieve common goals. For more information on Rakontu visit <http://www.rakontu.org>. Please send feedback/suggestions/help to **cfkurtz at cfkurtz dot com**.

This document has a sister called **Rakontu 2.0 visual design.pdf** which has visual designs that complement the dry textual descriptions here. You will probably find it somewhere near where you found this document.

## Basic data items

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A **Rakontu community** is simultaneously a story bank and a group of **members**.

### *Entries*

An **entry** is the central object in a **community**. An entry can be one of three types: **story**, **topic**, or **collage**. An entry has a **title** and a body of **text**, which may use a Wiki **markup** system (**TBD**) for rich text display. It can also have any number of **attachments** (though the community managers can set limits on the number and/or total size of attachments allowed).

A **story** (or the *type* of story Rakontu cares about) is a recounting of personal experience from a perspective. It might be entered during **everyday story exchange**, it might be gathered from an interview with an **off-line member** of the group, or it might be **drawn** from a **story-sharing** or **sense-making workshop**.

A **topic** is an entry that is not a story. It can come from many sources and be used for many purposes. One option when viewing any topic is "I'd like to respond to this topic with a story." A topic can be:

- a **subject** about which somebody wants people to tell stories
- a **memory jogger** to spur memories, like an old photograph
- an **interview** with an off-line member (which may point to stories extracted from the interview)
- a newspaper **article** about a subject of interest
- some catalyzing **observations** about stories in the collection (for use in sensemaking)
- a **report** on the outcome of a workshop
- a **record** of a workshop
- a **frequently-asked-questions** list
- some agreed **rules** of behavior
- a **project plan** with dates on which workshops will be held
- **ideas** for new projects or workshops

When a topic is created people can choose a topic **category** from a list to mark what sort of topic it is, or enter a new category. Like tags, these categories are used to sort through topics for use by members.

A **collage** is essentially an annotated group of entries. Collages may be created by one person acting alone or by two or more people inside or outside a structured sensemaking workshop. A collage contains:

1. A title and text, along with any attachments.
2. A list of **references** to topics, stories and other collages in the system. These are selected by people building the collage while looking at the activity timeline, content browser or visualizations (and probably dragging things into a list box).
3. A list of short text **elements** people thought of while looking at the entries referred to. These will be things like characters, themes, decisions, and other things people want to place into the space. People will type these into entry areas during collage construction.

In addition collages contain any number of 2D **canvases**. Each canvas contains:

1. An optional **background** image. This is imported and placed behind other things in order to help people follow some instructions for a workshop or method.
2. Any number of **shapes**, which are lines, ovals, polygons or just texts with locations and line and fill colors, as well as optional texts (with colors and fonts). Some shapes refer to **references** in the collage's list, and some refer to **elements**, and some don't refer to anything but are just to show things in the space.
3. Any number of **connectors** (lines between things).

## **Annotations**

An **annotation** is a piece of information attached to an **entry**. It can be either a **comment** or a **tag**.

A **comment** is some text submitted by a member to discuss an **entry**. Each entry has one set of comments, which can nest. (In this sense both stories and comments are similar to forum topics which form the starts of comment threads.) A comment can optionally be a **request** (if a box is checked on the comment) which makes it appear in a screen showing things people are asking other people to do.

A **tag** is a short text string that describes an **entry**. All the tags in the community form a **folksonomy** (emergent taxonomy) which people use to navigate and explore the space. When a member tags an entry, already input tags are shown so they can choose them again.

There is a critical difference between **entries**, which are like documents, and **annotations**, which are more like utterances. Anyone who **publishes** an entry can also remove it from view by changing it back to a **draft**. Entry creators can also edit their entries after publication (forever), though prior versions appear in a list of **versions**. (The reason for this is that telling stories is a more socially dangerous activity than simply talking, and people need some way to "take back" stories they later decide they did not want to divulge. If some person in authority has to be petitioned to remove a story someone has told in a moment of excitement, that will make it too risky to add things. In the case of a **redrafted** entry, all annotations will disappear with it (though they will reappear again if/when it is republished). Annotations, on the other hand, cannot be changed or taken back once they are published. (However, the user can flag them for deletion.)

Because **comments** are under (hang off of) topics and stories but might *contain* a topic or story, people may want to **copy** a comment into a story or topic in order to bring it up into a new space for stronger discussion. This is similar to people renaming a comment thread to highlight a new discussion that has emerged.

## Polls

Polls ask members to **interpret** and **reflect** on stories so **patterns** of interpretation can **emerge**. All stories and storytellers have polls associated with them. For stories poll questions are things like:

- How do you feel about this story?
- Why was it told?
- How long will you remember it?
- Who should hear it?

There is one poll for all stories (so the answers can be compared). Polls can be taken by every member (once) for each story. Some stories might only have poll results entered by their tellers, while others might gather many poll results. Within a poll, all answers are optional and cannot be required (because having to answer questions to participate might reduce contribution).

In addition, each **member** fills out a poll about themselves (age group, gender, location, profession, family size, opinions on issues of common interest, etc), and any fictional **characters** have answers to questions about them (filled in by **researchers** or **facilitators**). By looking at counts of answers to questions about stories and their tellers, members and researchers can discover insights about the community and about issues of concern. For example, it might become apparent that only people over 60 with dogs told stories in which they were adversely affected by changes to footpaths in the village.

Polls can be changed only by **researchers** (see below). People in this role can copy **sample questions**, or they can **import** questions from CSV files. In this way people can trade questions for use in different communities. Answers to questions can be edited after they have been asked when necessary to keep the data set clean and making good sense. It is expected that people will make such changes carefully (which is why they have to be approved to take on those roles).

Poll questions can be of three types:

1. **Choices**: Available answers are in a list given in the order specified. Choice questions can be single or multiple choice; if multiple choice the number of allowed choices is specified (e.g., allow up to three choices, up to the number of available choices).
2. **Scales**: The answers are in the form of a slider bar with points labeled along it. The scale is always from zero to 100 so that questions can be considered together, but any points can be specified for label placement.
3. **Text**: Any short text can be entered up to a specified number of characters.

Note that there is no option to create a "if none of these fit enter you own value" choice question, because answers like that are hard to count. Such questions can be handled by adding a text-answer question just after the choice question.

## Links

A **link** is a connection between entries. Links are created when a member connects two things. Link creation is *always* intentional, and annotation of links is strongly encouraged to build a more meaningful set of links.

There are five types of link:

|                       |                    |             |                                     |                  |            |
|-----------------------|--------------------|-------------|-------------------------------------|------------------|------------|
| <i>A link of type</i> | <i>goes from a</i> | <i>to a</i> | <i>and is created when the user</i> | <i>clicks on</i> | <i>and</i> |
|-----------------------|--------------------|-------------|-------------------------------------|------------------|------------|

|                  |                         |                         |                                 |  |   |
|------------------|-------------------------|-------------------------|---------------------------------|--|---|
| <i>responded</i> | topic                   | story                   | views a topic                   | I'd like respond to this topic with a story                | enters a story                                    |
| <i>retold</i>    | story                   | story                   | views a story                   | I'd like tell <i>my</i> version of what happened           | enters a story                                    |
| <i>reminded</i>  | story                   | story                   | views a story                   | I'd like to tell a story this story reminds me of          | enters a story                                    |
| <i>included</i>  | collage                 | story                   | edits a collage                 | choose stories to include                                  | chooses a story to include                        |
| <i>related</i>   | topic, story or collage | topic, story or collage | views a topic, story or collage | I'd like to relate this topic, story or collage to another | chooses the topic, story or collage to link it to |

Related links between items in the system can be referred to (but not created because there needs to be a place to annotate the link) in the text of a story, topic or collage using a Wiki-style connection method.

## **Flagging items**

Entries, annotations, links and poll results (about stories) can be given a **flag** by any member. The flag marks the item as possibly requiring deletion (usually because it is offensive, but it could just be because of a mistake or redundancy). Items that receive flags can be deleted by managers. Non-managers cannot delete the items.

## **Searching**

Simple search is plain text; **advanced searches** can be on tags, poll results and any other metadata on entries, links and annotations. Searches (simple or advanced) can be **saved** and kept **private** or **shared**.

## **People**

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All community **members** are asked to choose a **nickname** to be shown in the **community**. Each member has a profile area where they can place a picture and description of themselves as well as optional answers to the member poll.

## **Governance**

There are two **governance roles** in a community: **manager** and **owner**. The only difference between a manager and an owner is that only an owner can inactivate the community. Otherwise owners can do everything managers can do and vice versa. Typically there will be one or two owners and several managers in a community. Managers (and owners) mainly handle community-wide governance-type **settings** for the community, like whether anonymous entries are allowed, and **memberships**. Managers can decide whether every member can **invite** new members or whether only managers (or other roles) can do so.

## **Roles**

There are six non-managing **helping roles** in a community. The purpose of the helping roles is to spread out the tasks involved in making the community work to people who are interested in some but

not all responsibilities. Some involve more effort and responsibility than others.

1. A **guide** pays attention to the community's on-line human **community**. Guides answer questions, write tutorials, encourage people to tell and use stories, write and respond to **request-type** comments, and in general maintain the **vitality** of the on-line member community. They also keep **watch** over the human aspects of the system to see if there are any issues (flame wars, spamming, etc) that require attention. When people look at the main **help** page for the community, they see a list of guides there to which members can send **messages** asking for information about the community and its goals and rules.
2. A **curator** pays attention to the community's accumulated **data**. Curators add information, check for problems, create links, and in general maintain **order** in the story bank.
3. A **liaison** manages a **boundary** between on-line and **off-line** worlds. Liaisons conduct external interviews and add the stories people tell in them, read stories to people and gather comments and other annotations, and in general make the system work for both on-line and off-line community members.
4. A **facilitator** plans, starts, runs and finishes workshops. A facilitator can create planned workshops and add or change characters.
5. A **researcher** looks for patterns in the community's accumulated **data** and reports on those patterns to people in the group by building **catalytic topics**. A researcher can add or change polls.
6. A **technician** handles technical issues. As with guides, technicians are listed on the help page, but technicians answer questions of the technical kind, about the Rakontu software and about computers.

Each helping role has a special screen that is available when the role is taken on. This gives them a visual signal of their role and a special place to go when they are doing activities related to it.

1. The **guide** screen shows **messages** asking for help and comments with the "request" box checked.
2. The **curator** screen shows **tags**, **gaps** (things missing), **links**, and **attachments**.
3. The **liaison** screen shows **off-line** members the guide represents and their stories.
1. The **facilitator** screen shows **workshops**.
2. The **researcher** screen shows **graphs** and **statistics**.
3. The **technician** screen shows technical things like communications and delays.

The managers of the community can choose from three options for each role.

1. **Moderated**: A member must **apply** to take on the role and a manager must **approve** the application before the role can be taken on. The manager stands at the gate and lets only some through. By default facilitators, researchers and technicians are moderated roles (the first two because they get access to the polls and characters, the last because they can see details that would allow them to hack things).
2. **Agreed**: Any member can take on the role, but they must read some agreement text and check a box that says "I agree to these terms" before they can take on the role. The agreement is a social one that keeps people from taking on the roles without thinking. Also, if someone takes on an agreed role they must agree to take it on for a specified length of time (which the manager chooses). So you can only become a curator (if it is set up as an agreed role) for a month, not for a half hour. The barrier is lower than moderated but the gate is not missing.
3. **Open**: Any member can take on the role without checking any agreement box. They just have to switch the role on (still by checking a box, but not implying any agreement to have taken place). Here the gate is just a line anyone can step over and back again anytime.

If the community is among people who know each other well and do not expect any misbehavior, they may want to set all roles to "open" - even including the manager role. In a community among people who do not know each other well, the managers are likely to select only a few roles people can take on without approval, or even set them all to approval-only status.

## ***Off-line members***

One of the goals of Rakontu is to bring together people who use computers with those who don't. People who want to tell and hear stories but can't (or don't want to) use the Rakontu software are called **off-line members** and interact with the system through **liaisons**. A liaison collects stories (and other things) from off-line members and enters them into the system, and prints lists of stories and other outputs for people to read or have read to them. Entries and annotations entered by a liaison show this and link to an off-line member's **nickname**, which is the off-line member's only identification in the system (though member questions also apply to off-line members). People who send messages to off-line members send them through the liaison's email.

## ***Characters***

When a community member enters a story (or any other entry) into the system, they can choose whether they want to **attribute** it to their **nickname** or to a fictional **character**. Characters can be created and controlled only by **facilitators**. Characters might be culturally useful wisdom personifications or trickster personifications like "Brer Rabbit" or "Anansi" or "Coyote" or "Monkey King" or they might be contextually appropriate constructs derived during startup sensemaking workshops. Managers can also choose to turn off this option so that no anonymous posting is available. Anonymity using characters is partial. Administrators can view which member told a fictionally entered story (but only by querying the database directly, so it is not easy). The main reason to retain identifying information (even if it is not easy to access) is in case of systemic abuse.

## ***Messages***

Members can **send messages** to each other inside the community. These function like internal email. People have **inboxes** and can **reply** to messages. The functionality is simple and does not include attachments or HTML messages.

There is no ongoing chat activity available, and there is no indication of whether other members are on-line. This is because (a) it is more onerous to make this work; (b) it makes the software have to continually check (poll) on-line states, which might not suit some people who don't want to be online all the time; and (c) it reduces the "talking about nothing" aspect of what might turn into just a chat client. People can do that elsewhere. If people want to start a workshop (which can take place with only two people at any time) they can talk about when to have it in Skype or in some other way.

It may or may not be possible for Rakontu to send email notification messages. This is a technical detail that may or may not be available (and may or may not be advisable) anytime soon.

## ***Bulletin board***

The **bulletin board** is a common message space where members can **broadcast** messages to call attention to upcoming events, ask questions of everyone, announce changes, and so on. Because everyone can see the bulletin board, social pressure will apply to keep people from posting inappropriate or trivial items. (Like many other things these items can be flagged for deletion.)

# Workshops

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A **workshop** is a group session. A workshop can be started by any member and can include any number of members, including one. Workshops can be **ad-hoc** or **planned**. Ad-hoc workshops simply take place when they are created.

Only **facilitators** can create planned workshops. The workshop's facilitator is listed along with its date and time on a list of **upcoming workshops** which appears in the main window. Members can **sign up** for workshops in advance, and they appear on the list of **participants** to the workshop. The facilitator can send messages to everyone who has signed up. The facilitator of a planned workshop can see a screen where they can see their workshop's signed-up participants and change its **title**, **date** and **time**, **notes**, and **to-do list** items.

Workshops can take place in any of three ways:

1. In an **on-line workshop**, chat and white-board capacities are used within the Rakontu software. Voice communication is not supported by Rakontu so it is done via phone or voice-over-IP.
2. In a **guided off-line workshop**, the facilitator/group follows steps as outlined in **topics** set up to support this. Data might be entered during each step or might be entered at the end of the workshops.
3. In a **print-instruction off-line workshop**, the facilitator prints instructions from Rakontu (or elsewhere) and enters the data afterward.

**Storytelling elements** of workshops involve these steps:

1. generating or choosing story eliciting questions or topics
2. telling stories
3. answering questions about stories told
4. possibly choosing some stories to highlight and discuss

The end product of a storytelling workshop is a set of stories, topics and annotations.

**Sensemaking elements** of workshops involve these steps:

1. choosing some stories to use (or *telling* some stories to use)
2. assembling graphical representations of the stories into a space while talking about it:
  - sensemaking **landscape** (define meaning of X and Y, place items)
  - factual/fictional **history** (define meaning of line ends, including branches, place items)
  - archetypal **clusters** (place items randomly, move into clusters, name clusters, possibly repeat)
  - **composite story** (place items onto graphical story template, move around, practice telling, store built story as collage part)
3. talking about what has been created (possibly telling more stories as a result)
4. finishing the collage

The end product of a sensemaking workshop is one or more **collages** as well as possibly some stories, topics and annotations.

A workshop can involve *both* storytelling and sensemaking elements; so there are not two separate types of workshop but rather two types of activity that can take place.

An **instruction** is a document used during a workshop. It gives detailed instructions for how to fill the

canvases of a collage during the workshop, including where to create and place shapes and labels.

A **publication** is a packaged document, probably in PDF or word processor format, prepared from one or more entries and/or annotations and exported from the community. It can be partially generated from information inside the community and partly edited outside it. After a publication is created it will sometimes be re-entered into the community as a **topic**. It is not strictly speaking a part of the community's data but an exported file.

## Interface

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The interface has several essential elements.

1. A **community sidebar** contains information about the community and its members, a common **bulletin board** where people can post notices and questions, and any **messages** sent to the member.
2. The **cafe timeline** shows a time-based view of "what is happening" in the community. The main visualization here is a "swim lane" diagram where time on the horizontal axis is contrasted with a number of selections of information in rows. The main items in the display are entries - stories, topics and collages. Clicking on these shows information about them in the same window (not in a popup, which distracts). The timeline is a navigation device to the content with time as the most important index.
3. The **library browser** shows a content-based view of what is in the community's story museum. This is a simple Smalltalk-like browser where the user can "drill down" into the content in every possible way. As with the timeline the browser is a navigation aid and appears alongside the detail view of entries. Complementing the browser are a number of **visualization plug-ins** that provide an array of other views on the data. The basic system provides an API for access to the data which plug-ins use.
4. **Role screens** for each role pull together expected views and activities people will need to take on each role.
5. **Entry screens** help people enter new information of every type.
6. **Workshop screens** guide members through structured workshop exercises.

## Things users might say

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### *Member*

- What is this community about?
- How many stories does it have?
- How many comments, etc?
- What kinds of questions are being asked here?
  
- What roles can I take on?
- I'm ready to take on a role.
  
- I have no idea what is going on here. How can I get help?
- What is THIS button for?
  
- Who else is in this community?
- Who is THIS person? What have they done? What are they like?
- How should I describe myself to people?



- What is MY history here?
- What is happening lately?
- Are there any topics I might want to tell stories about?
- Who wants to do things together?
- What is going to be happening soon?
- Are there any workshops coming up I might want to go to?
- I'm ready to tell a story.
- I know about THAT topic, where do I put my story?
- I want to write a story but I'm not ready to publish it yet.
- I want to work on a story with my friend.
- HEY! That's not what happened. Where do I put MY version of events?
- That's a useful story. How do I say that?
- I COULD tell a story about this ... but I'd better not admit to it. How can I tell it anonymously?
- Did anybody respond to my story?
- Is anybody reading the stories I wrote? Using them?
- I'd like to find out what sorts of stories people are telling.
- I wonder if anybody else told stories about dogs.
- Are there any stories that mention my road?
- I said I'd come to a workshop, and here I am, let's start.

### ***Anyone with a role***

- What was it I was supposed to do again?
- What should I and shouldn't I do in this role?
- What should I do right now?
- Who else has this role?
- What have they been doing?

### ***Curator***

- Any new stories today that need tags?
- Any gaps I can plug? Stories without titles? Etc?
- Okay, I'm ready to fix all these junky tags up now.
- Anything offensive I need to flag?
- That's rude, I'll flag it.
- These have been flagged as offensive? I'll review them.
- Any requests I can handle?

## **Guide**

- What's the activity lately?
- Any new members?
- Anybody need help?
- Any requests I can handle?
  
- I want to get people talking about something. I'll make a topic.
- Is anybody responding to the topic I posted?
  
- I thought of a new question for the FAQ, I think I'll add it.
- Let me look over these resources. Are they redundant?
  
- What might help people tell stories?

## **Liaison**

- I have some stories from the nursing home and I'm ready to put them in.
- Any new stories I should read to my offline members?
  
- Has anybody annotated any of the stories I put in for offline members?
  
- Are there any new liaisons? Who are they representing?

## **Researcher**

- I want to research a subject.
- I want to answer a question.
- I want to give people some ideas.
  
- I'll save this search. - People might want to use it so I'll make it available.
  
- These questions need some cleaning up.
- Nobody is answering this question. Is it worded badly?

## **Facilitator**

- I want to schedule a workshop and ask people to come to it.
- It is time for my workshop and I want to run it.
- The workshop is done! Now where to put the results?
  
- Nobody is telling stories about this. Maybe we need a character they can hide behind.
- Nobody is using this character, I wonder why?

## **Technician**

- Time to back up.
- Oops! What's that bug?
  
- Anybody need help with technical things?
- Nobody seems to understand the browser. I wonder if a better tutorial would help.

## ***Manager***

- How many people do we have now?
- What's the activity today?
- Any disagreements?
- Any offensive material flagged?
  
- Three new people want to join, I need to help them join.
- Who is this person? What have they been doing?
  
- I will add a description for the group. What should it say?
- These seem like good etiquette rules.
  
- I think this person should not be allowed to be a curator. I'd better ban them from that.
  
- I want to tell people about our monthly meetings before they become facilitators.
- Nobody should be a facilitator unless they have been to at least six monthly meetings. I'll check on that before I approve them taking on that role.