Realtime
See also: Push notifications
New in Tiki12: PluginTogether
See dev notes at TogetherJS

Tiki has historically been mostly an asynchronous collaborative tool, except for Live Support and Chat. Since Tiki5, for real-time collaboration, Tiki offers an integration with BigBlueButton (Audio/Video/Screensharing/WhiteBoard/Chat).

This page is to discuss options to make several features realtime:

- Docs (ODF documents via WebODF)
- Wiki
- Drawing (SVG-edit)
- Spreadsheet (jQuery.sheet)

Will be useful along with BigBlueButton collaborative sessions. Ideally for Tiki, it would be the same approach (ex.: library) for all four (and any future) features. And we could take this opportunity to revamp Live Support and Chat (which work OK but are not the most recent technology)

Options
BigBlueButton
One possibility is to go the BigBlueButton route.
Benefits:
- Already integrates with Tiki
- it would be via Shared Notes which is part of Mconf

Drawbacks:
- Add BigBlueButton as a requirement
- Flash (HTML5 interface has replaced Flash.)
- Likely less general interest than a JavaScript solution

Etherpad Lite
Another possibility is integrating with Etherpad Lite

Which uses NodeJS, more info at
- http://www.nodecloud.org
- https://www.ohloh.net/p/node_js

Benefits:
- Already active project

Drawbacks:
- Adds Etherpad Lite as a requirement
- Overlap with some of Tiki's wiki functionality
- Will it be easy to port to Spreadsheet, Drawing and Docs?

A JavaScript library

Infinote & Jinfinote

- https://github.com/sveith/jinfinote

Benefits:

Drawbacks:

**WebRTC**

- WebRTC
  - http://www.tokbox.com/blog/collaborative-editor/

Potential libraries and approaches

- https://marijnhaverbeke.nl/blog/collaborative-editing-cm.html
- http://blog.karlitschek.de/2013/10/welcome-owncloud-documents.html
- http://codiad.com/
  - http://www.fluidbyte.net/post/44301667947/codiad-now-has-collaborative-editing
  - https://github.com/Codiad/Codiad/tree/master/components/collaborative
- http://opencoweb.org/
- http://sharejs.org/
- http://nowjs.com/
- https://github.com/Imaginea/matisse#readme
- http://code.google.com/p/google-mobwrite/
  - https://code.google.com/p/google-mobwrite/wiki/Theory
  - https://code.google.com/p/google-diff-match-patch/
  - PHP implementation
- https://github.com/MouMou/jquery-webrtc
- http://groups.google.com/group/codemirror/browse_thread/thread/b9cc198657fb758f

**Synchroedit**: SynchroEdit is a browser-based simultaneous multiuser editor, a form of same-time, different-place groupware. It allows multiple users to edit a single web-based document at the same time, and it continuously synchronizes all changes so that users always have the same version.

http://www.synchroedit.com (LGPL & MPL)

- http://cooffice.ntu.edu.sg/ckeditor/
- http://kolab.org/blog/seigo/2015/12/28/collaborative-editing-manticore
- https://research.linagora.com/blog/?p=211
- https://github.com/hhxsv5/php-sse

Projects similar to BigBlueButton

- Dimdidm (open source version abandoned)
- http://code.google.com/p/openmeetings/ (moved to Apache Foundation)
- https://www.webhuddle.com/
- http://www.jabber.org/
Why

- For realtime note taking (business, classroom, etc.)
- For realtime brainstorming (business, classroom, etc.)
- For realtime document revision (articles, minutes of meeting, protocols, etc.)
- your ideas?

Who

- Marc Laporte
- Régis Barondeau
- you?

When

No set date, but as soon as possible. 2013-08 looked into WebRTC, still moving a bit too much for me - one of those "wait a few months and try again"

Features to be made realtime

Realtime Collaborative Wiki

This is to plan the addition of multiple concurrent editors to the wiki.

Realtime Collaborative Drawing

Same thing for the Draw feature, which is with SVG-edit

http://code.google.com/p/svg-edit/issues/detail?id=947
http://thenextweb.com/2009/06/05/experience-worlds-google-wave-svg-editor-gadget/
http://noosfero.org/Development/ActionItem2240

Realtime Collaborative Spreadsheet

This is to plan the addition of multiple concurrent editors to the spreadsheet, which is powered by (jQuery.sheet)

Realtime Collaborative Docs

Tiki bundles WebODF as Tiki Docs.

"pilot project to add real-time collaborative editing to WebODF":
http://webodf.org/blog/2012-04-05.html

Related links

- CRDT: https://youtu.be/Exr0iY_D-vw
- https://github.com/y-js/yjs
  - https://syncedstore.org/docs/vue
- React: Event-driven, non-blocking I/O with PHP
- Ratchet: WebSockets for PHP
- https://docs.yjs.dev/ecosystem/connection-provider/y-websocket
- Screencast
- http://en.wikipedia.org/wiki/Collaborative_real-time_editor#Other_real-time_collaborative_editing_software
ware

- http://webodf.org/blog/2012-04-05.html
- https://github.com/substack/dnode
- https://code.google.com/p/jquery-graceful-websocket/
- https://code.google.com/p/diagram-editor-for-google-plus/
- https://github.com/igniterealt ime/Pade/issues/73
- http://www.slideshare.net/spoutserver/realtime-communication-techniques-with-php
- http://www.firepad.io/
- http://blog.rizzoma.com/2012/11/20/node-js-and-coffeescript-for-online-collaborative-editing/
- http://we-love-php.blogspot.de/2012/10/how-to-implement-chat-server-php-server-sent-events.html.html
- http://www.emacswiki.org/emacs/CollaborativeEditing
- http://doc.owncloud.org/server/7.0/user_manual/documents.html
- http://operational-transformation.github.io/
- http://infinote.org/
  - https://github.com/sveith/jinfinote
- http://www.leggetter.co.uk/real-time-web-technologies-guide/#_ratchet
- https://we.riseup.net/cgdev/collaborative-editor
- https://anarc.at/blog/2018-06-26-collaborative-editors-history/

OpenHub badges

Not Open source

- Connected to CKEditor5: https://ckeditor.com/collaborative-editing/letters/

Alias

- Live
- Realtime Collaborative Wiki
- Realtime Collaborative Drawing
- Realtime Collaborative Spreadsheet
- Realtime Collaborative Docs
- RTC
- Realtime Collaboration