

Easy Real-Time Online Collaboration Using TogetherJS

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[◀ PREVIOUS SLIDE](#)[▶ NEXT SLIDE](#)[TABLE OF CONTENTS](#)

Table of Contents

1. [Why Real-Time Collaboration?](#)
2. [Real-Time Collaboration Options Overview](#)
3. [TogetherJS](#)

Why Real-Time Collaboration?

- ▶ Creates a more intimate sense of a class community.
 - ▶ Brings students and instructors together in a more immediate way than discussion groups or email.
- ▶ Creates a more personal connection between instructors and students.
 - ▶ Students want (need) to feel that instructors care about them.
 - ▶ Real-time responses enhance that feeling.
- ▶ Flexibility
- ▶ Real-time issue resolution.
 - ▶ The most important reason for real-time collaboration.

Real-Time Collaboration Options Overview

There are four basic technologies that are used for real-time collaboration.

- ▶ Text chatting
- ▶ Audio communication
- ▶ Video
- ▶ Desktop/application sharing

[◀ PREVIOUS SLIDE](#)[▶ NEXT SLIDE](#)[TABLE OF CONTENTS](#)

There are dozens of software applications that may be used for real-time collaboration.

- ▶ Internet Relay Chat and instant messaging applications
- ▶ VoIP applications (Skype, etc.)
- ▶ Web conferencing systems (WebEx, etc.)
- ▶ Google
- ▶ Learning management systems

[◀ PREVIOUS SLIDE](#)[▶ NEXT SLIDE](#)[TABLE OF CONTENTS](#)

Instructors need to make wise choices when deciding how to implement real-time collaboration in an online course.

- ▶ Ease of use is paramount.
- ▶ Reliability
- ▶ Cost
- ▶ Bandwidth requirements
- ▶ Operating system compatibility
 - ▶ Browser-based with no plugins or Java is best.
- ▶ Freedom
- ▶ Less is better (features)

TogetherJS

- ▶ <https://togetherjs.com/>
- ▶ Add text chat and audio (experimental) to **any** web page.
- ▶ Collaborate using interactive JavaScript applications.
- ▶ Free software (open source) JavaScript library by *Mozilla*.
- ▶ Simple to implement.
 - ▶ Self host or use Mozilla's servers.
- ▶ Simple to use.
- ▶ TogetherJS documentation: <https://togetherjs.com/docs/>

[◀ PREVIOUS SLIDE](#)[▶ NEXT SLIDE](#)[TABLE OF CONTENTS](#)

```
<!doctype html>
<html>
<head>
</head>
<body>
<script src="https://togetherjs.com/togetherjs-min.js">
</script>
<a onclick="TogetherJS(this); return false;">

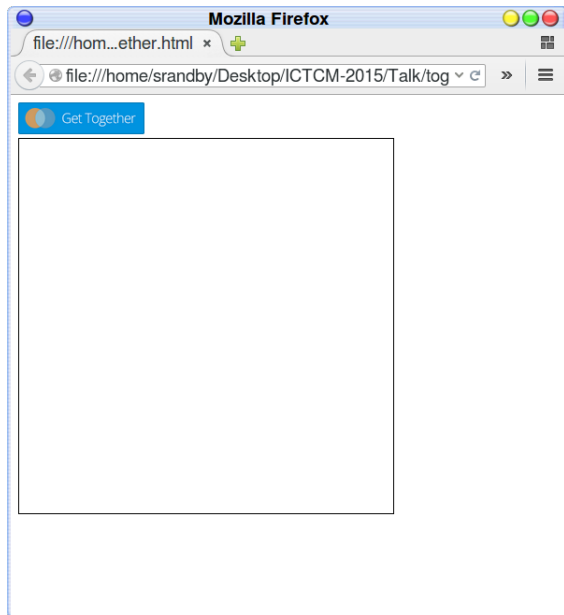
</a>
</body>
</html>
```

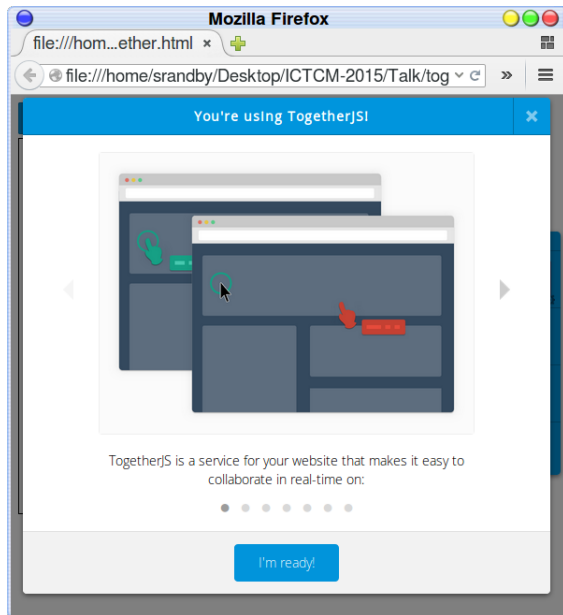

[◀ PREVIOUS SLIDE](#)[▶ NEXT SLIDE](#)[TABLE OF CONTENTS](#)

My Goals

- ▶ Text chat with link support.
- ▶ Collaborative whiteboard.

<http://srandby.org/together.html>

[◀ PREVIOUS SLIDE](#)[▶ NEXT SLIDE](#)[TABLE OF CONTENTS](#)

[◀ PREVIOUS SLIDE](#)[▶ NEXT SLIDE](#)[TABLE OF CONTENTS](#)

The screenshot shows a Mozilla Firefox browser window with the title "Mozilla Firefox". The address bar contains the file path "file:///home/srandby/Desktop/ICTCM-2015/Talk/tog". The main content area displays a blue header with the text "You're using TogetherJS!" and a close button. Below the header is a large illustration of two overlapping browser windows. The foreground window shows a green hand cursor icon on the left and a red hand cursor icon pointing to a red button on the right. Below the illustration, the text reads "TogetherJS is a service for your website that makes it easy to collaborate in real-time on:". At the bottom of the page, there is a blue button labeled "I'm ready!".

file:///home...ether.html x +

file:///home/srandby/Desktop/ICTCM-2015/Talk/tog

You're using TogetherJS!

TogetherJS is a service for your website that makes it easy to collaborate in real-time on:

I'm ready!

◀ PREVIOUS SLIDE

▶ NEXT SLIDE

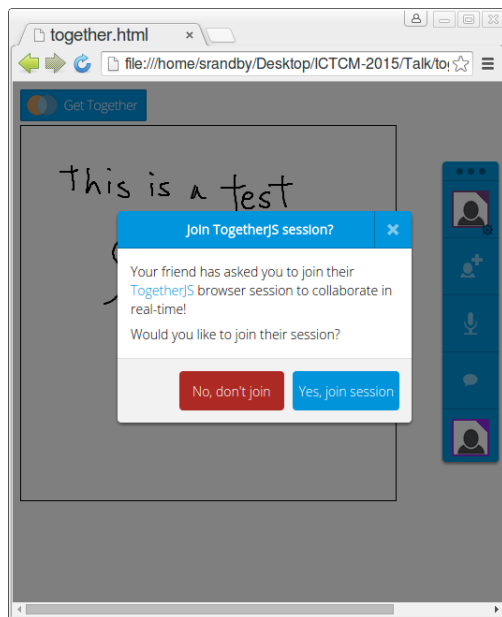
TABLE OF CONTENTS

The screenshot shows a Mozilla Firefox browser window. The title bar reads "Mozilla Firefox". The address bar contains the file path "file:///home/srandby/Desktop/ICTCM-2015/Talk/tog". The main content area features a blue header with the text "Get Together" and a large empty white box. On the right side, there is a vertical toolbar with icons for a profile picture, a plus sign, a microphone, and a speech bubble. A modal dialog box titled "Invite a friend" is open in the center, containing the text "Copy and paste this link over IM or email:" and a text input field with the URL "file:///home/srandby/Desktop/ICTCM-2015/f".

◀ PREVIOUS SLIDE

▶ NEXT SLIDE

TABLE OF CONTENTS



◀ PREVIOUS SLIDE

▶ NEXT SLIDE

TABLE OF CONTENTS

The image shows two side-by-side browser windows from Mozilla Firefox, illustrating a real-time collaboration session. Both windows display a whiteboard with a handwritten integral calculation:

$$\int_0^1 x^2 dx = \frac{x^3}{3} \Big|_0^1$$
$$= \frac{1}{3} - 0$$
$$= \frac{1}{3}$$

The left window shows a red cursor labeled "Friendly Fox" pointing at the bottom of the whiteboard. The right window shows a purple cursor labeled "Silent Seal" pointing at the bottom right of the whiteboard. Both windows feature a blue sidebar with user avatars and communication icons (microphone, chat, video).

[◀ PREVIOUS SLIDE](#)[▶ NEXT SLIDE](#)[TABLE OF CONTENTS](#)

The image displays two side-by-side browser windows illustrating a real-time collaborative whiteboard session using TogetherJS.

Left Window (Mozilla Firefox): The browser address bar shows the file path `file:///home/srandby/Desktop/ICTCM-2015/Talk/tog`. The whiteboard contains the text "this is a test" and the mathematical expression $\int_0^1 x^2 dx$. A chat window is open, showing a message from "Friendly Fox" stating "Friendly Fox joined the session." and a message from "me" saying "Hi" at 10:49 PM. A red arrow points to the chat input field with the placeholder text "Type your message here".

Right Window (together.html): The browser address bar shows the file path `file:///home/srandby/Desktop/ICTCM-2015/Talk/to`. The whiteboard contains the text "this is a test" and the mathematical expression $\int_0^1 x^2 dx = \frac{x^3}{3} + C$. A message bubble from "Silent Seal" is visible, containing the text "Hi".