

Intro to Digital Storytelling with Knight Lab Timeline

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Digital Integration Teaching Initiative (DITI)

HUSV3300 Principles and Practices of Trauma Informed Care

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Workshop Agenda

- Learn about timelines as a mode of conveying data and content
- Questions to consider before building
- Steps for using KnightLab TimelineJS
- Best practices and accessibility concerns
- Considerations for community engagement
- Start building!

Slides and handout available at: bit.ly/sp26-collin-timeline

Timelines as a Tool

What is a “timeline”?

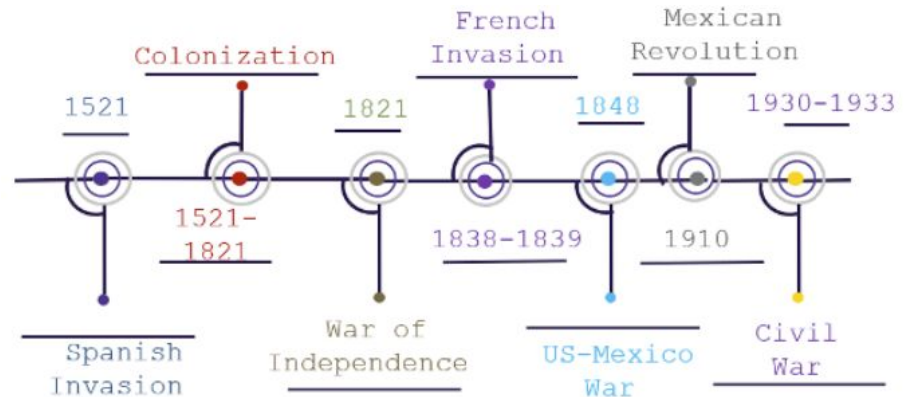
Timelines are useful when you want to situate various points of a process, narrative, or history chronologically. Timelines can help you visualize or represent the progression of time in an ordered and easily understandable way.

- **Where have you seen a timeline used before? (In person or digitally)**
- **How did you interact with it?**
- **How might it have influenced your experience?**

Timeline Example

Below is a timeline of historical traumatic events in the lifetime of Individuals of Mexican Ancestry in the United States (Orozco-Figueroa, 2021).

- As you view the timeline, here are some questions to consider: **Who is the audience?** **How is the timeline presented?** **What is included and what is missing?** **What would you change?**



Trauma storytelling with timelines

Timelines can be used to tell a variety of stories, supported with chronological data to create a narrative:

- Life stories of a marginalized person
- Chronology of historical events
- Tracking developments of a policy
- Examining impacts of intervention



“[Maya Angelou's Autobiographies: A Timeline](#)” by
DITI Fellow, Claire Lavarreda

Example Projects Using Timelines to Tell Stories

- [Whitney Houston 1963-2012](#): Tells the life of Whitney Houston through key dates and events
- [Patrick Flanagan & WWI: Part I - Going to War](#): A multimedia story chronicling the World War I (WWI) through life of a soldier
- [NCCIH History](#): An Interactive Timeline 2015-2020 of history of the National Collaborating Center of Indigenous Health.
- [Stories of Care and Control](#): A Timeline of the Medical Industrial Complex.

Components of an Effective Timeline

- Engaging content (not just a list!)
- A clear series of events and periods (pick stories with a strong chronological narrative!)
- A general theme relating the events to each other
- Media elements

What might a timeline not be effective for? What should we consider about presenting information in clear chronological order?

Questions to Consider Before Building

- Who is my audience?
 - How can I write for this audience?
- What story am I trying to tell? What is the message I want to convey?
- What are the key events and processes?
- Which items will require additional detail or context?
- What kinds of media will I need? (photographs, text, maps, videos, etc.)
- Am I omitting context or events intentionally? If so, why?

Navigating TimelineJs

Begin Creating a Timeline

Go to timeline.knightlab.com

Click **Make a Timeline**



You don't need a KnightLab account to create a timeline

1: Create Your Spreadsheet

Build a new Google Spreadsheet using [the template \(Link to copy of Google spreadsheet\)](#). You'll need to copy the template to your own Google Drive account by clicking **Make a Copy**.



Get the Spreadsheet Template 

Drop dates, text and links to media into the appropriate columns.

Note: Don't change the column headers, don't remove any columns, and don't leave any blank rows in your spreadsheet.

Using the TimelineJS Google Sheet

[Link to copy Official TimelineJS template](#)

Enter data and information into the appropriate cells

Do not change any of the column headers (Timeline needs these to function)

TIP: Hovering over the header of a column tells you if the data is optional and what types of information can be entered

Timeline functions

Display info

Media data & descriptions

Customizations

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
1	Year	Month	Day	Time	End Year	End Month	End Day	End Time	Display Date	Headline	Text	Media	Media Credit	Media Caption	Media Thumbnail	Type	Group	Background
2																		
3																		
4																		
5																		
6																		
7																		
8																		

Slides

- Each row in the spreadsheet is one slide in the Timeline
- Each slide can contain:
 - **Date** (a single point or range in time)
 - **Headline** and **Text**
 - **Media** (images, videos, sound files, maps, etc.)
 - Only **one** media file can be uploaded per slide.
 - Special columns in the spreadsheet are dedicated to incorporating the media onto the slide.
 - **Type/Group** (type of slide/options for grouping related events)
 - **Background** (a link to an image or a six-digit color code)

The end result we're aiming for



Bob Burchette/The Washington Post

Former IRS Commissioner Randolph Thrower

1971

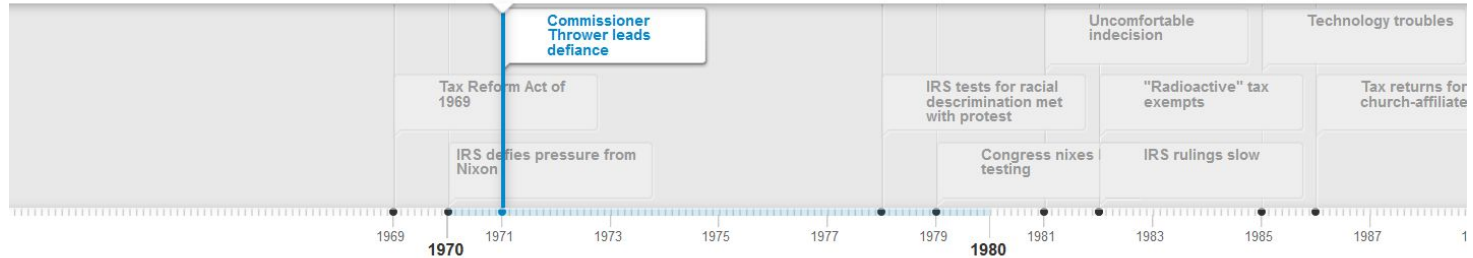
Commissioner Thrower leads defiance

Nixon [fires](#) one of the commissioners, Randolph Thrower. [As the story goes](#), he returns a few years later for a visit to the agency. Employees hear that he's in the building and they stream into the hallways to greet him with applause.

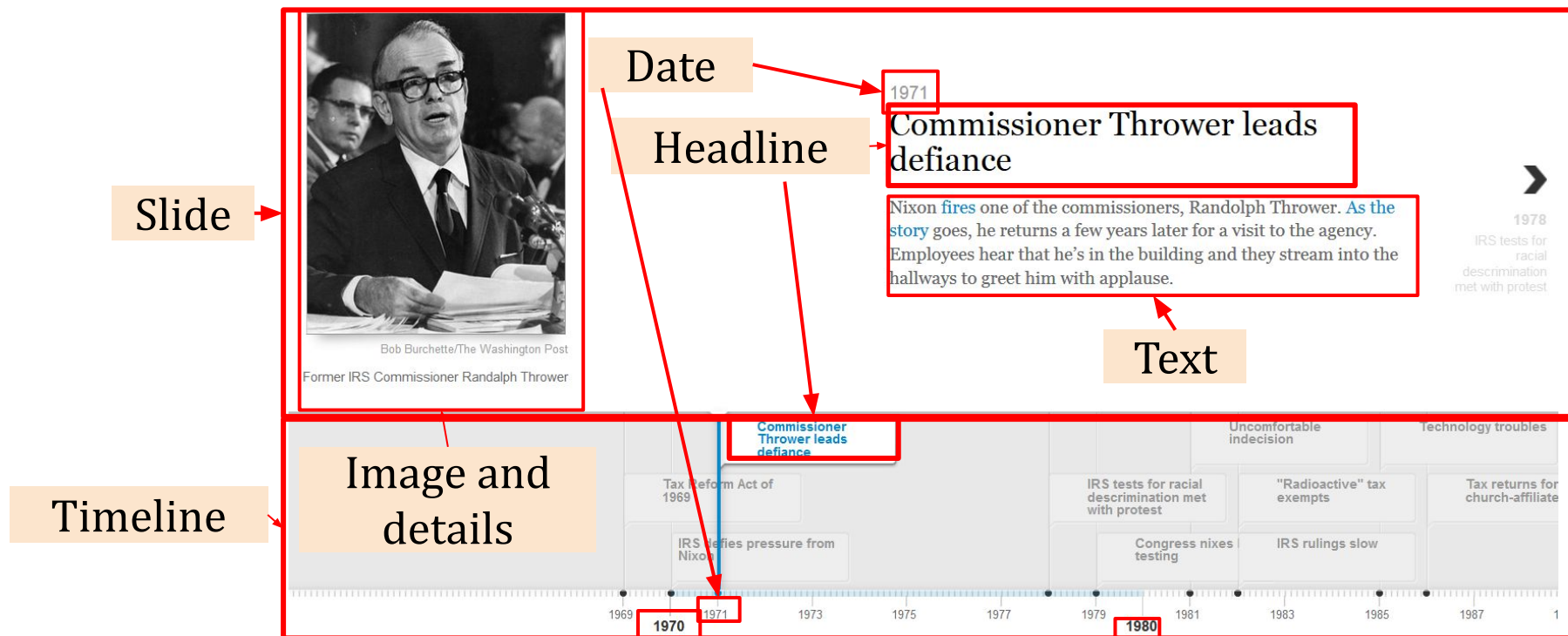


1978

IRS tests for racial discrimination met with protest



The end result components



Dates

Slides in the final timeline follow the *order of the dates* (not the order of your spreadsheet rows)

- You can choose how specific you want to make your dates
- Entering the end date is optional
- The **Display Date** is useful when the exact date is unknown to you or unknowable

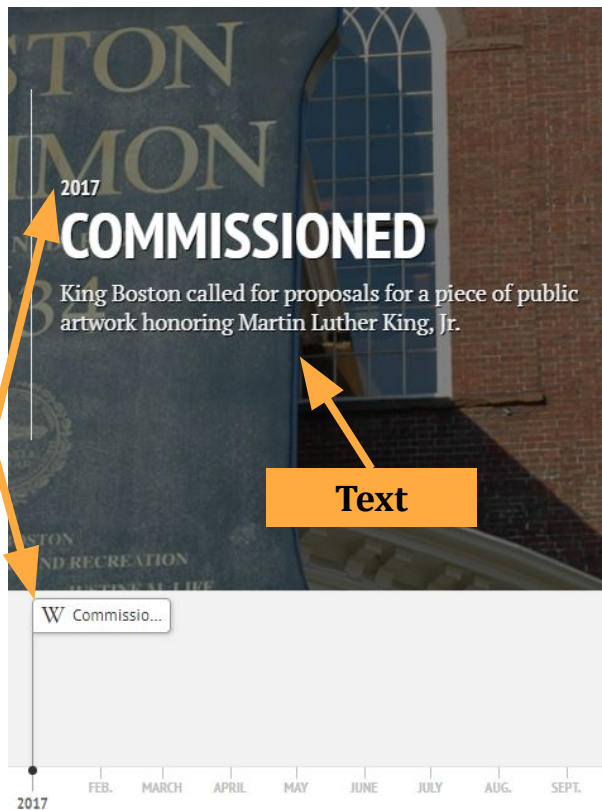
The diagram shows a spreadsheet table with columns for Year, Month, Day, Time, End Year, End Month, End Day, End Time, and Display Date. An orange box labeled 'Required' points to the Year column. Another orange box labeled 'Optional (if you have an end month, you need a start month, etc.)' points to the End Year, End Month, End Day, and End Time columns. Orange brackets group the Year and Month columns, and the End Year, End Month, End Day, and End Time columns.

	Year	Month	Day	Time	End Year	End Month	End Day	End Time	Display Date
1									
8	2023	1	13						2023
9									
10	2023	1	16	14:16					2023
11	2023	1	16	00:00					2023
12	2023	1	18						2023
13									
14									
15									
16									
17									

Headlines and Text

These are the most basic way to communicate information to your viewers.

- **Headline:** a brief title (typically 1–4 words)
- **Text:** explains the significance or context of the event on the timeline
- The **Text** column reads basic HTML (which supports creating links to other webpages/resources)
- Wrap text in `<p></p>` HTML tags to create line breaks and add sources underneath the main text.



Media

TimelineJS lets you add a variety of media to your project (see the types at [Media Types on Knightlab.com](https://knightlab.com/docs/timelinejs/media-types/))

- **Add with URL:** copy the web address from your browser (this works for most media types)
- **Add via iframe:** use when the media does not work with a URL (follow this

NOTE: you cannot upload media directly to a Timeline project (it has to already be online)

URL

iframe

L	M	
Media	Media Credit	
https://bloximages.r	The Observer	
https://www.google.	Google	
<pre><iframe width="100%" height="124" scrolling="no" frameborder="no" src="https://player. wbur.org/news/202 3/01/12/a-represen tation-of-vulnerabili ty-and-security-me morial-honoring-th e-kings-opens-on- boston-common"> </iframe></pre>		WBUR

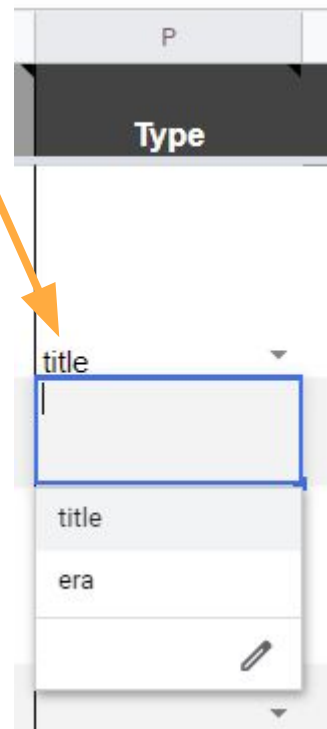
Type

Use **Type** to designate a row to add organizational elements to your timeline

- **Title**: always comes first in the timeline *and* contains no date information
- **Era**: contains *only* date information and a **Headline** (isn't shown as a slide)
 - Must include a start and end **Year**, **Month**, and **Day**

Title or **Era**: this cell should be blank for most slides

NOTE: **Title** and **Era** type slides are optional and not required for TimelineJS to work



Groups

- **Group:** text entered in this column acts as a subheading for moments that you want grouped together
- Moments in the same group will appear in their corresponding row at the bottom of the timeline

The screenshot illustrates the 'Groups' functionality in the Timeline application. At the top, a dropdown menu is open, showing options for 'contemporary' and 'historical'. A red box highlights the 'contemporary' and 'historical' options, with a red arrow pointing from the 'Groups' label to the 'contemporary' option. Below the dropdown, the 'Timeline' interface is shown, featuring a 'Make a Timeline' button and a video player. The video player displays a timeline with two rows: 'CONTEMPORARY' and 'HISTORICAL'. A red box highlights the 'CONTEMPORARY' row, with a red arrow pointing from the 'Groups' label to it. The timeline itself shows a sequence of moments, with 'NOV. 1' and 'NOV. 2' marked. A red box highlights the 'CONTEMPORARY' row in the timeline, with a red arrow pointing from the 'Groups' label to it.

Type	Group	Background
title		
title	contemporary	#333333
era	contemporary	https://upload.wikim
	historical	

Timeline
Easy-to-make, beautiful timelines.

Make a Timeline

Vimeo Example
Timeline with photos, vid

Groups

CONTEMPORARY

HISTORICAL

NOV. 1

NOV. 2

Background

Timeline's default background is white. You can replace this with static images or different colors

- **Colors:** use hexadecimal color codes, generate them at [HTML Color Codes website](#) preceded by a #
- **Images:** paste a URL into the cell

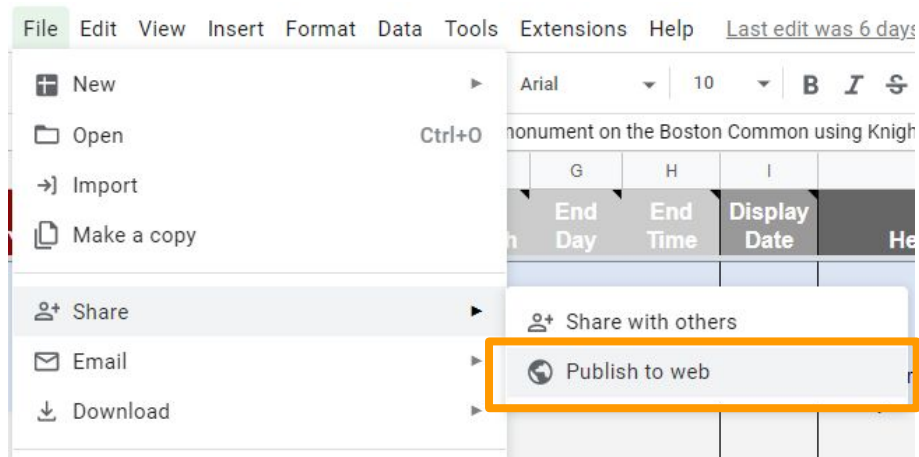


2.1: Publish to the Web

In your spreadsheet go to:

File > Share > Publish to web

Tip: Only adjust the sharing settings if working in a group.



2.2: Publish to the Web

In the new window click **Publish**

In the dropdown menu, make sure **Automatically republish when changes are made** is checked

Publish to the web

This document is published to the web.

Make your content visible to anyone by publishing it to the web. You can link to or embed your document. [Learn more](#)

Link Embed

Entire Document Web page

<https://docs.google.com/spreadsheets/d/e/2PACX-1vS6mNEUqilDmykt8t0VC>

Or share this link using:

Note: Viewers may be able to access the underlying data for published charts. [Learn more](#)

Publish

Published content & settings

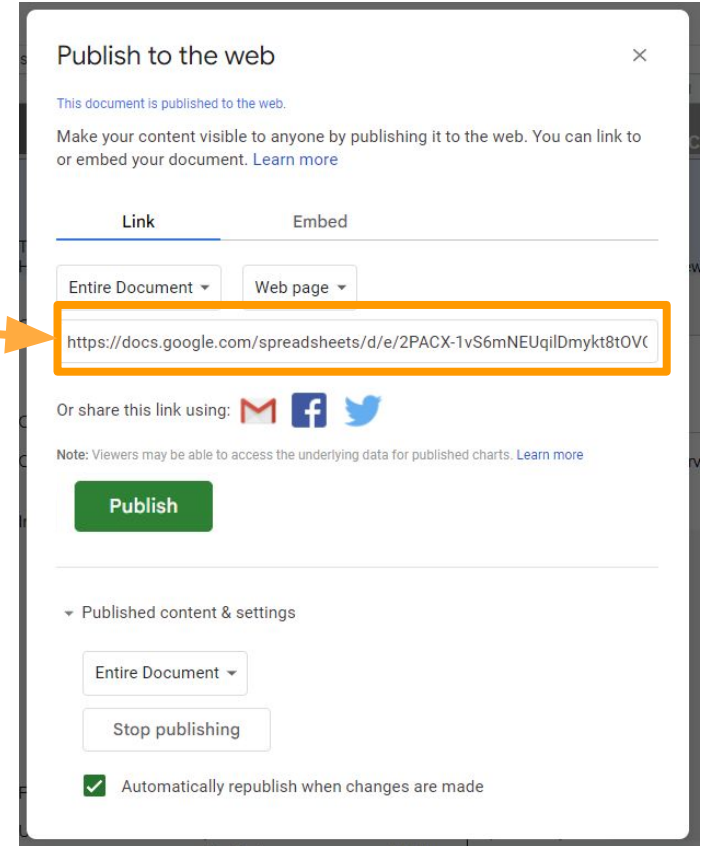
Entire Document

Stop publishing

☒ Automatically republish when changes are made

2.3: Publish to the Web

Copy this Publish link.



Publish to the web




This document is published to the web.

Make your content visible to anyone by publishing it to the web. You can link to or embed your document. [Learn more](#)

Link Embed

Entire Document Web page

<https://docs.google.com/spreadsheets/d/e/2PACX-1vS6mNEUqilDmykt8t0Vc>

Or share this link using:   

Note: Viewers may be able to access the underlying data for published charts. [Learn more](#)

Publish

Published content & settings

Entire Document

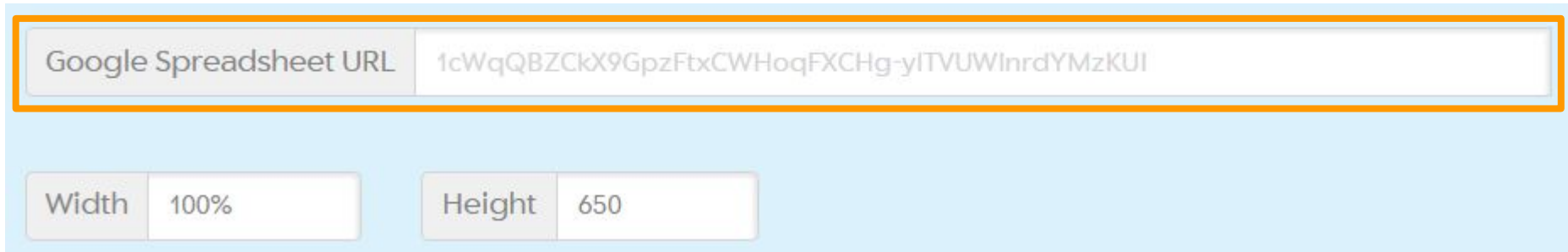
Stop publishing

☒ Automatically republish when changes are made

3.1: Generate your Timeline

Return to timeline.knightlab.com

Paste the URL you copied into the box



The screenshot shows a light blue interface for the Knight Lab Timeline. At the top, there is a white input field with a light blue border, containing the text "Google Spreadsheet URL" and a long alphanumeric string: "1cWqQBZCkX9GpzFtxCWHoqFXCHg-yITVUWlnrdYMzKUI". Below this, there are two white input fields with light blue borders. The first is labeled "Width" and contains "100%". The second is labeled "Height" and contains "650".

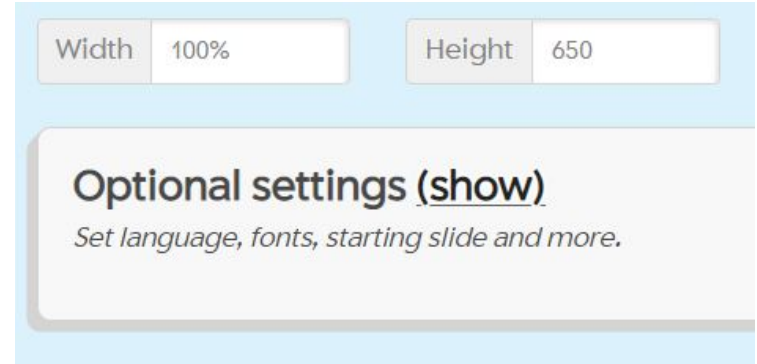
(Customize settings on the next slide)

3.2: Generate your Timeline

Width is a percent of total screen size

Height is measured in pixels

Use the **Optional settings** for high-level customizations



The screenshot shows a light blue interface. At the top, there are two input fields: 'Width' with the value '100%' and 'Height' with the value '650'. Below these is a grey box with the text 'Optional settings (show)' and a subtext 'Set language, fonts, starting slide and more.'.

Things to Consider:

Which fonts might be appropriate for your audience?

What zoom level best shows your information?

Should your timeline's navigation be on top or at the bottom?

4: Share Link

After choosing the settings you want, the links below will update automatically.

Copy the top option to share your timeline on its own.

Use the bottom option only if embedding in a website.

Share Link

Use this to link directly to your timeline.

If you're embedding on Medium.com or other oembed-aware services, just paste this link on a line by itself where you want your timeline to appear.

```
https://cdn.knightlab.com/libs/timeline3/latest/embed/index.html?
source=1xuY4upIooEeszZ_lCmeNx24eSFwe0rHe9ZdqH2xqVnk&font=Default&lang=en&initial_zoom=2&height=100%
```

Embed

Copy this embed code and paste it on your site where you want your timeline to appear (just like a YouTube video).

```
<iframe src="https://cdn.knightlab.com/libs/timeline3/latest/embed/index.html?
source=1xuY4upIooEeszZ_lCmeNx24eSFwe0rHe9ZdqH2xqVnk&font=Default&lang=en&initial_zoom=2&height=100%"
width="100%" frameborder="0"></iframe>
```

Preview

Open Preview in a new window 

Best Practices and Accessibility

Best Practices

- Think carefully about the **audience** you are trying to reach with your timeline. This will impact your language and the media that you choose.
- Think also about the **tone of the timeline**: the visual style of TimelineJS can be seem very upbeat and informal, and that may not match the content you are sharing (think, for example, about changing colors or fonts)
- **Test your timeline** after you have created it, to make sure that all the narrative points flow and that the language is clear and concise

Consider accessibility concerns

Interactive multimedia is frequently effective, but not always accessible to all users. Take time to make your project as accessible as possible:

- Add rich textual descriptions which complement images/media
- Choose colors with high contrast for backgrounds and text
- Communicate information in ways beyond color differences
- Include transcripts of embedded audio
- Provide descriptive links ([more TimelineJS resources](#), NOT [click here](#))

[WAVE Accessibility Tool](#): shows the underlying structure of web pages

[Color Contrast Checker](#): clarifies accessible levels of color contrast

[DITI Handout on Accessibility](#): more info on accessible practices

Your Turn!

Think about a proceeding of policy or a series of historical/cultural events that impacts marginalized groups. Create a timeline which:

- Has at least 4 slides
- Includes 2 forms of media (start with [Wikimedia Commons](https://commons.wikimedia.org/) (wikimedia.com))
- Changes the background for at least 1 slide
- Uses the 'group' feature
- Optionally, create 1 'era' in your timeline
- You may use one of the following example timeline:
 - [Histories of Latino/a and Latinx Medicine in California:](#)
 - Table 1 from ["Roadmap for Trauma-Informed Medical Education: Introducing an Essential Competency Set"](#) by Berman et al. 2023.

For Further Exploration

[DITI Handout on Timeline](#)

[DITI Handout: Copyright and Fair Use](#)

[DITI Handout on Accessibility](#)

[DITI Handout on Data Ethics](#)

[DITI Handout on Data Privacy](#)

[DITI Handout on HTML](#)



Thank you!

—Developed by Zhen Guo, Dipa Desai, Emily Sullivan, Claire Lavarreda, Ana Abraham, Chris McNulty, and Benjamin Grey

- For more information on DITI, please see: <https://bit.ly/diti-about>
- Schedule an appointment with us! <https://bit.ly/diti-meeting>
- If you have any questions, contact us at: nulab.info@gmail.com

