ChronoView Timeline Software

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Abstract

Purpose

ChronoView is a web-based timeline creation software system designed to meet the needs of students and educators. This system was created in order to solve the problems of existing timeline creation software including cluttered user interfaces, abundance of impractical features, and lack of team collaboration tools.

ChronoView addresses these problems by providing a simple interface and powerful toolset to facilitate the creation of timelines. This software was created as a web-based application, allowing users to store their created timelines online and to edit them directly within their browser.

Method

The team met with sponsor Dr. Cole Mitchell, a philosophy professor here at NAU. Based on requirements provided by Dr. Mitchell, the team set out to create a solution.

Many different technologies were researched and evaluated in order to pick the best combination of tools applicable for the web-based timeline creation software. We then divided the various development tasks into database creation, user interface design, and backend functionality between our team members.

Problem

The team sponsor, being an instructor here at Northern Arizona University, desired an efficient timeline creation system. Creating visually appealing timeline displays would aid in his and other's teaching process. Our sponsor searched for software to suit his needs. His goal was to find free, user friendly, and feature filled software. However, existing software failed to offer necessary features, especially at a reasonable cost.

This spring, team ChronoView set out to develop free, robust web-based timeline creation software to suit the needs of our sponsor. With the software being web-based, it offers ultimate flexibility, and easy sharing among peers. Users do not have to download proprietary software to view timelines. The ChronoView software provides a portable, user-friendly interface to create and share visually stunning, interactive timelines.

Competitor Analysis

Competing Software Companies

The following companies offer timeline creation software that offers features that are similar to those of the new ChronoView system:

- TikiToki (http://www.tikitoki.com)
- SmartDraw (http://www.smartdraw.com)
- TimeToast (http://www.timetoast.com)
- Timeline Maker (http://www.timelinemaker.com)
- TimeGlider (http://www.timeglider.com)

Competitor Shortcomings

Many competing software packages offer a feature set very similar to that of ChronoView, but most are system software that must be downloaded and installed, or charge considerable fees for the use of the software.
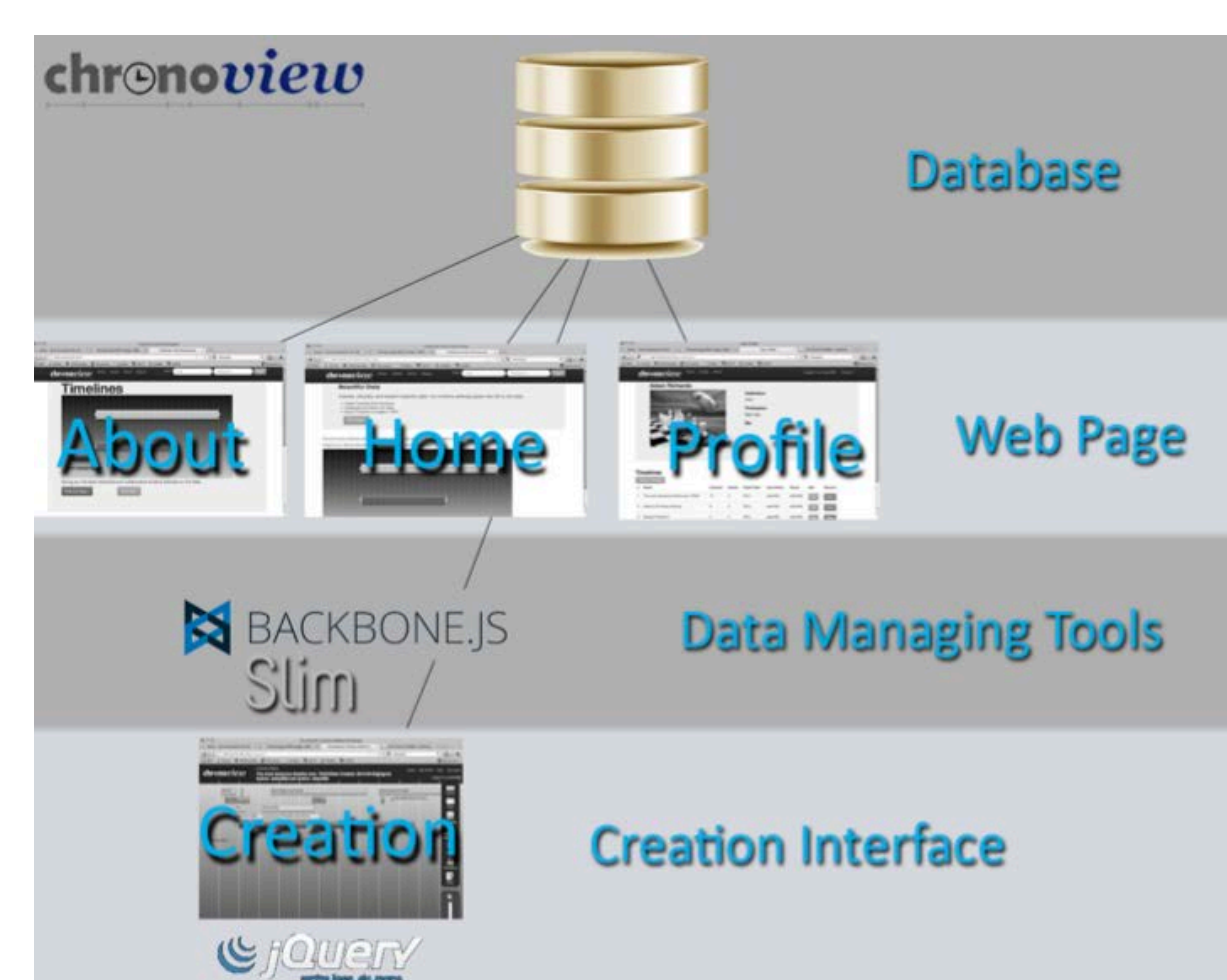
Also, very few competitors offer the ability to upload large amounts of timeline data from existing files and then automatically generate a visual timeline display from that data.
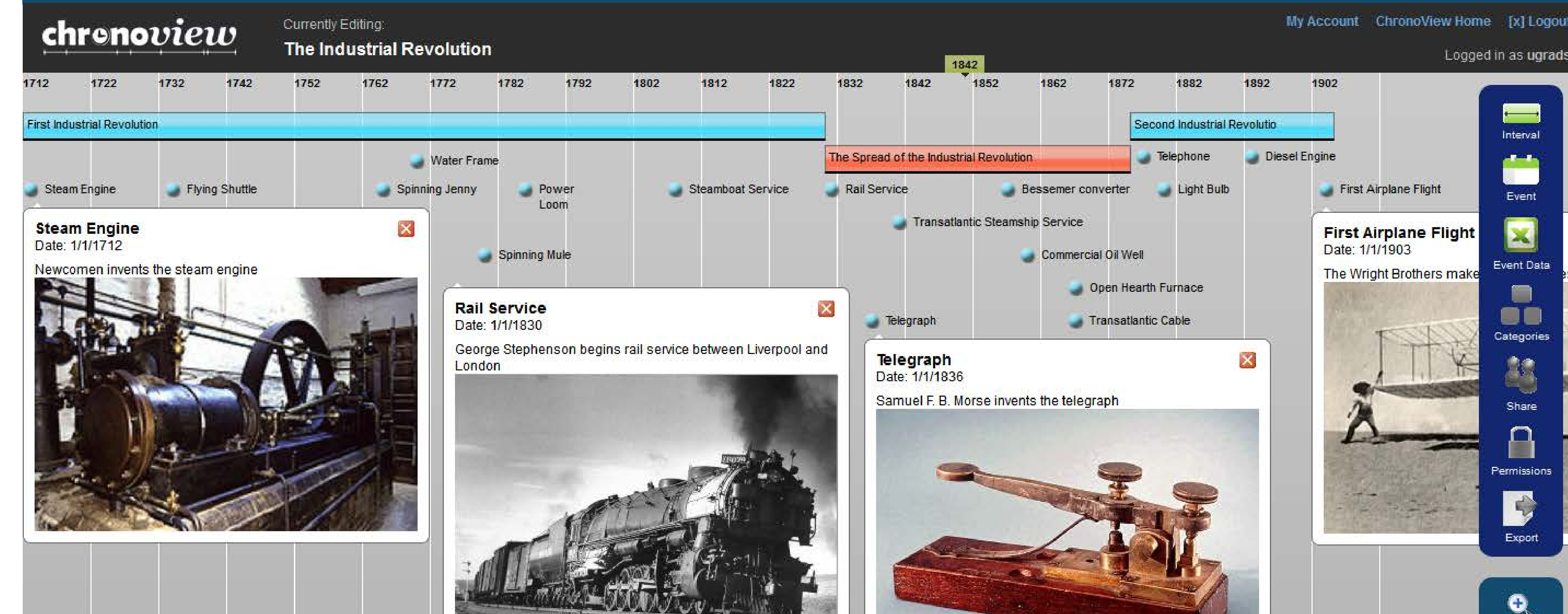
Comparison Table

Competitor	Cost	# Of Timelines	Embedding	Platform
TikiToki	Free/Subscription	1	No	Web
SmartDraw	$200 - $500	Unlimited	No	System
TimelineMaker	$200 / User	Unlimited	Yes	System
TimeGlider	Free/Subscription	3	Yes/1,000mo.	Web
ChronoView	Free	Unlimited	Yes	Web

Technology / Architecture

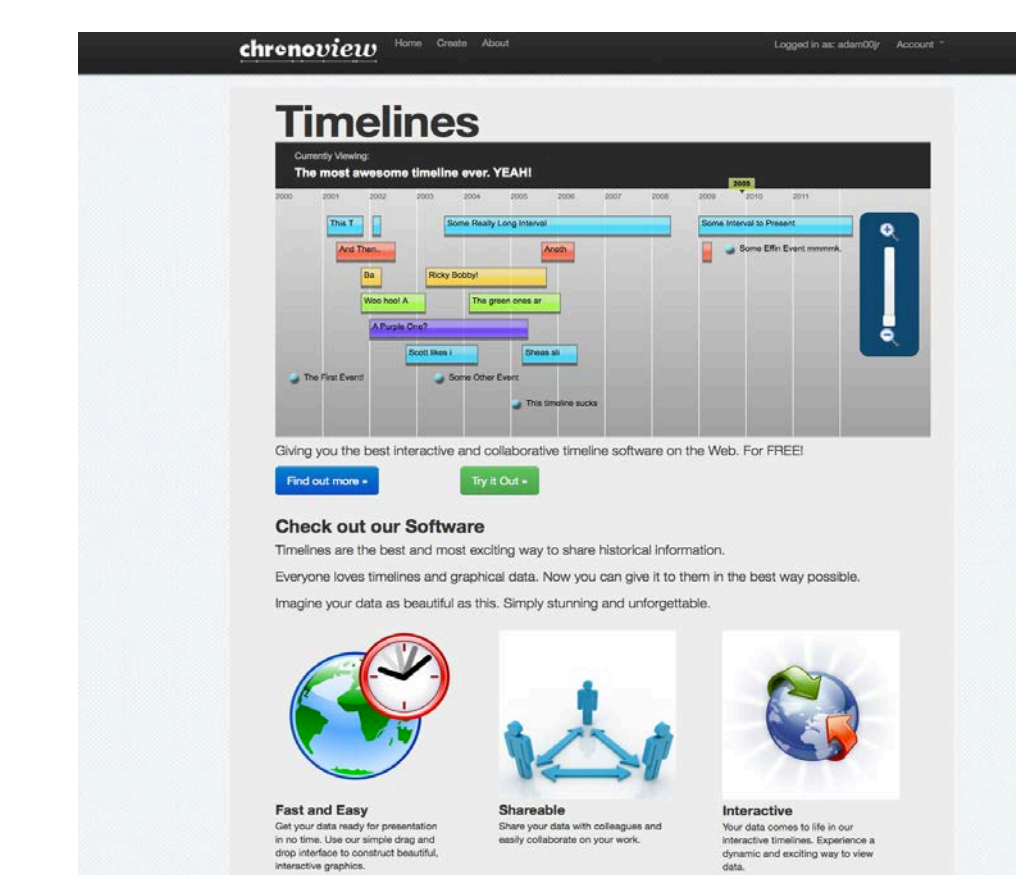### Software Architecture

Software

Features

Even being a strictly web-based software system, ChronoView offers many advances features related to creating visually appealing timeline displays:

- Secure user access to ChronoView website and user data.
- Create unlimited timelines for free
- Gantt chart functionality to plot out project dates
- Easily upload large data files containing timeline data
- Automatic generation of visual timeline from uploaded data
- Create timelines ranging from a few weeks to millions of years in length, in seconds
- Group similar events and intervals by category
- Easily change colors corresponding to each category
- Easily adjust data with intuitive drag and drop features
- Dynamically zoom in and out to view more or less detail
- Attach images and files to specific intervals or events
- Embed a timeline in any web page with the click of a button
- Export timelines to images and PDFs
- Share and collaborate with peers or colleagues

Website Screenshots

Public Website

Team Website

Team ChronoView created a team website, which contains information about the project, team members, schedule, related software, and documents. The software is also accessed via a public-facing website which allows visitors to register for an account, and create their own timelines.

Acknowledgements

Team ChronoView would like to thank our team members for their outstanding effort developing ChronoView. We would also like to thank the professors in the CS department for their feedback and support. Most importantly, we would like to thank Dr. Mitchell for supporting our team's efforts.