The <track> JavaScript API

INTRODUCTION

The <track> element comes with a powerful API that is used to develop many interesting features such as:

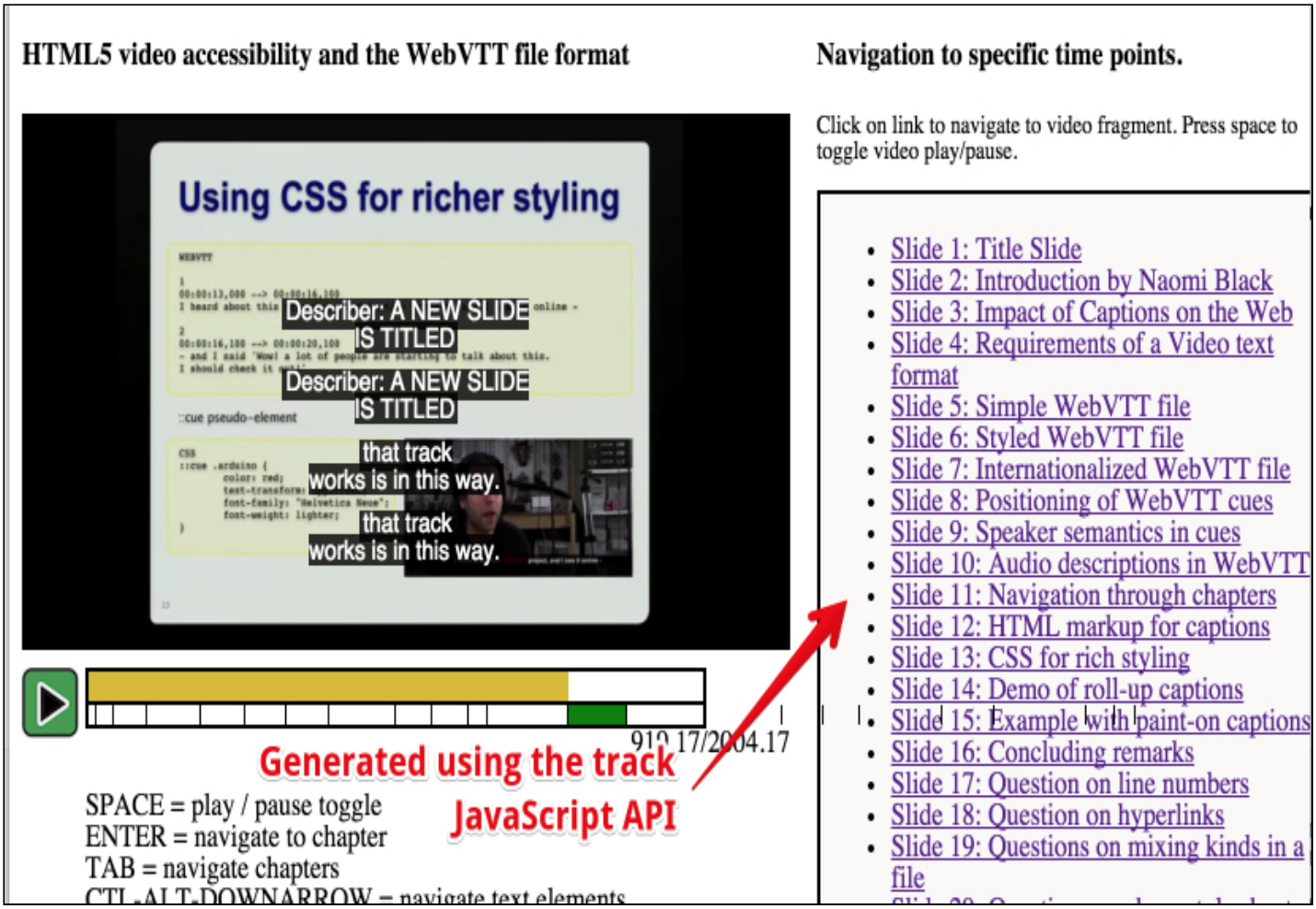
- Dynamically building a navigation menu that shows the different chapters of the video,
- Synchronizing page content with timestamps in the WebVTT file (for example: show a map next to the video, that shows the location corresponding to the video content),
- Displaying all the subtitles/captions at once as HTML in the page,
- Making an app for creating on the fly subtitles/captions,
- Etc.

How to do this will be taught in the "advanced HTML5" course, soon on W3Cx.

EXAMPLES OF USE

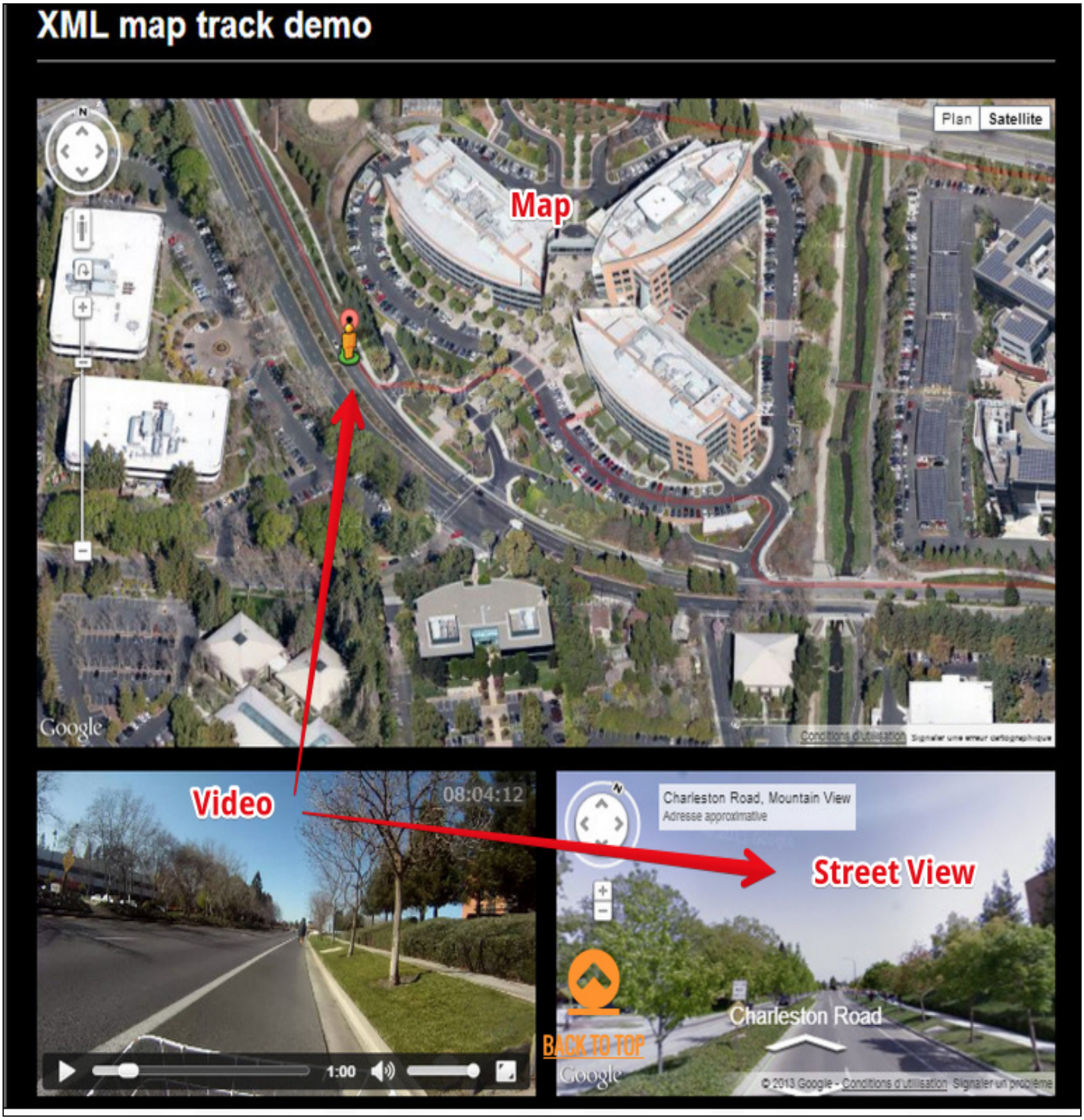
Add a navigation menu to start playing the video at given chapters

This example shows a video with an enhanced progress bar that displays the different chapters as small "clickable" squares. Furthermore, using the JavaScript API of the <track> element, this Web site builds a navigation menu (on the right of the video):



Sync video with Google Map and Google Street View

Check this demo by Sam Dutton: it shows a video that comes with a WebVTT file that contains longitudes and latitudes. When the video plays, JavaScript functions are called at given times and get the longitude and latitude. A Google Map and a Google Street views are updated in real time.



SYNC GUITAR TABLATURES AND MUSIC SCORE WITH A VIDEO

This example shows how we manage to render music scores in real time as the video plays.

Some JavaScript code listens to the `ontimeupdate` event while the video is

playing. We use the `currentTime` property of the video to know exactly where we are in the video. Finally, we also rely on an external library to render in an HTML5 canvas the bars corresponding to the current video explanations. We render in real time guitar pro tablatures using the alphatab.net library.