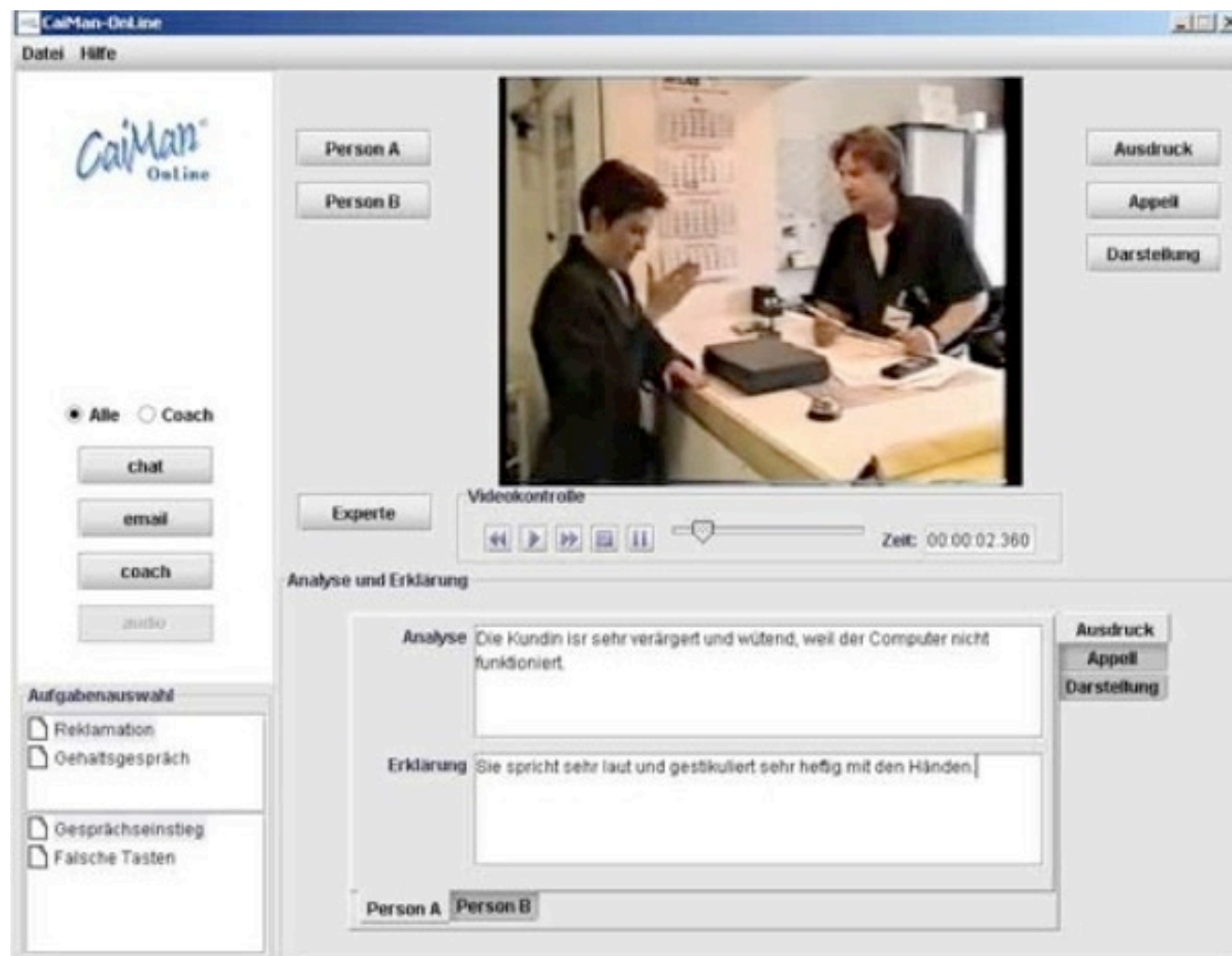


Experiences building a hypervideo-based webapp with Ember.js, Popcorn.js and HTML5

EmberFest 2013
Thomas Herrmann
Teleteach GmbH / 42ways UG

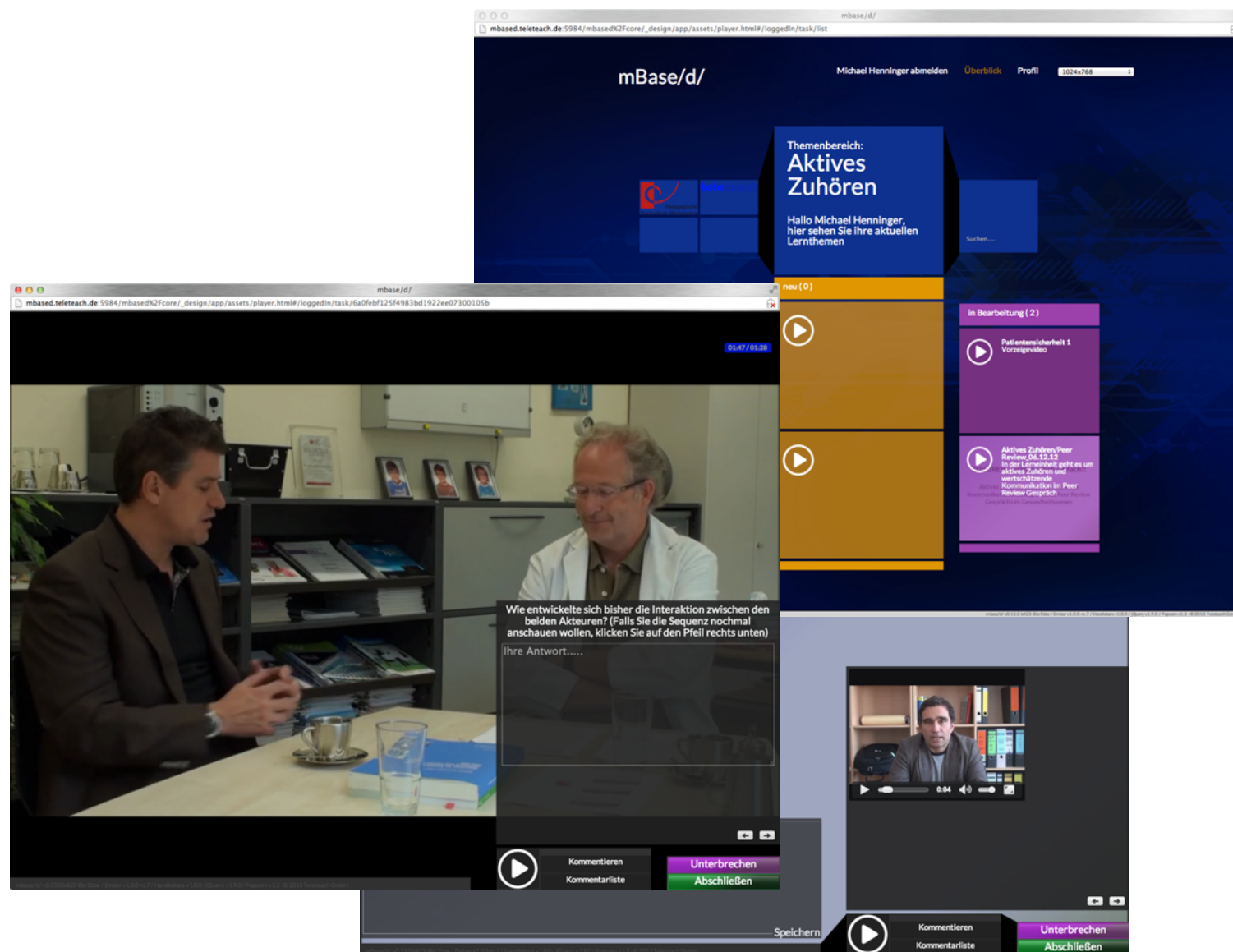
12 years ago - CaiMan

Communication training



- Java
- JFC/Swing
- Java Media Framework
- RDB-Backend (MySQL)
- Local Installation
- Fileserver / CD-Distribution

Today - mbase/d/



- JavaScript
- Ember.js
- Popcorn.js
- HTML5 video
- NoSQL-Backend (couchDB)
- No Installation
- 100% Browser based

Train speech receptive skills

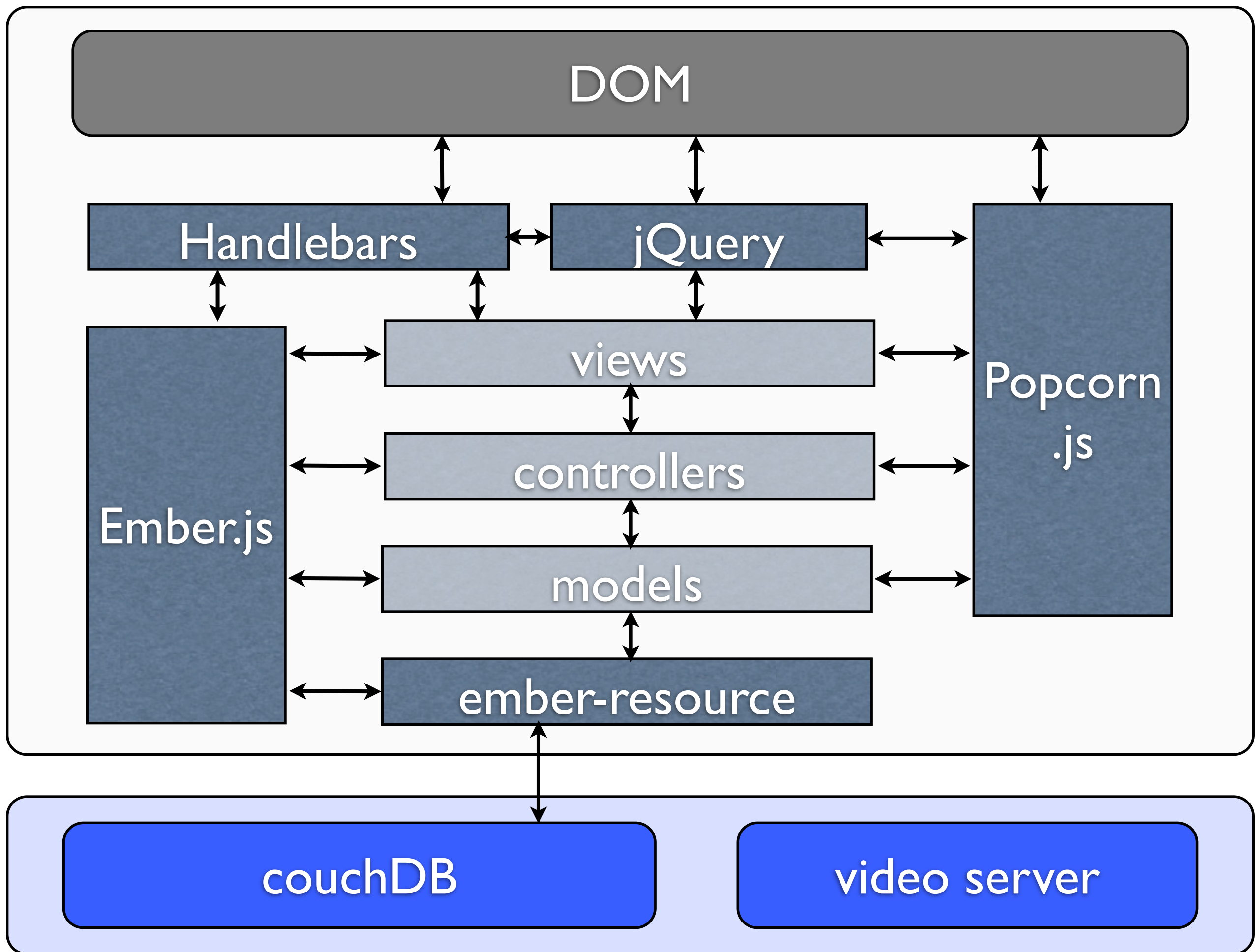
Popcorn.js?

"Popcorn.js is an HTML5 media framework written in JavaScript for filmmakers, web developers, and anyone who wants to create time-based interactive media on the web"

(popcornjs.org)

Ember.js - Popcorn.js

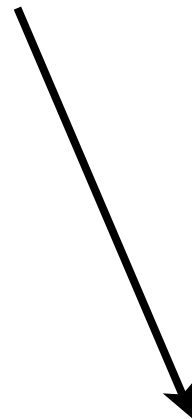
- Both do DOM-Manipulation
- Both track “App-State”
- State/Property handling vs.
Time-based video events



Short Demo

Popcorn event

```
pop.code({
  start: start,
  end: end,
  onStart: function(options) {
    self.pause();
    self.get('parentView').set('slideShowAnnotation', annotation);
  },
  onEnd: function(options) {
    var currentAnnotation = self.get('parentView').get('slideShowAnnotation');
    if (annotation === currentAnnotation) {
      self.get('parentView').set('slideShowAnnotation', null);
    }
  }
});
```



Handlebars template

```
{{#if view.slideShowAnnotation}}
  <div class="lightDarkenedBackground"></div>
  <div id="slideShow" class="userInteraction">
    <h4>{{view.slideShowAnnotation.textAsHtml}}</h4>
    <div>{{view.slideShowAnnotation.slideShow.currentSlideText}}</div>

    .....

  </div>
{{/if}}
```


ember-resource - couchdb

- “Relational” vs. document-oriented
- Nested resources
- Tricky details
 - `_id` vs. `id`
 - update of `_rev`

Ember.js challenges

- High pace of development
- Router-API v1 -> v2...
- Most important:
Understand concept of bindings and specify them correctly, avoid procedural thinking

Development

- Technologies allowed very early prototypes
 - Ember-skeleton as base structure
 - Schemaless DB
- Short turnaround cycles
 - Rails asset-pipeline / rackup

Lessons learned

- No one size fits it all
 - bootstrap vs. custom design
 - couchdb vs. video server
- Don't go too deep into HTML5/CSS3/jQuery
- Identify strengths and weaknesses of components and divide responsibilities according to them
- Don't work against the framework

Thank you!

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