

INTRODUCTION TO THE SCALABLE JAVASCRIPT APPLICATION FRAMEWORK

Eric Bréchemier, Legal-Box
legalbox@eric.brechemier.name

ParisJS, April 27, 2011



Introduction

In each **layer of responsibility**,
modules know each other and the layer below



In each **layer of responsibility**,
modules know each other and the layer below



Your Application Modules

Framework Core

Framework Base

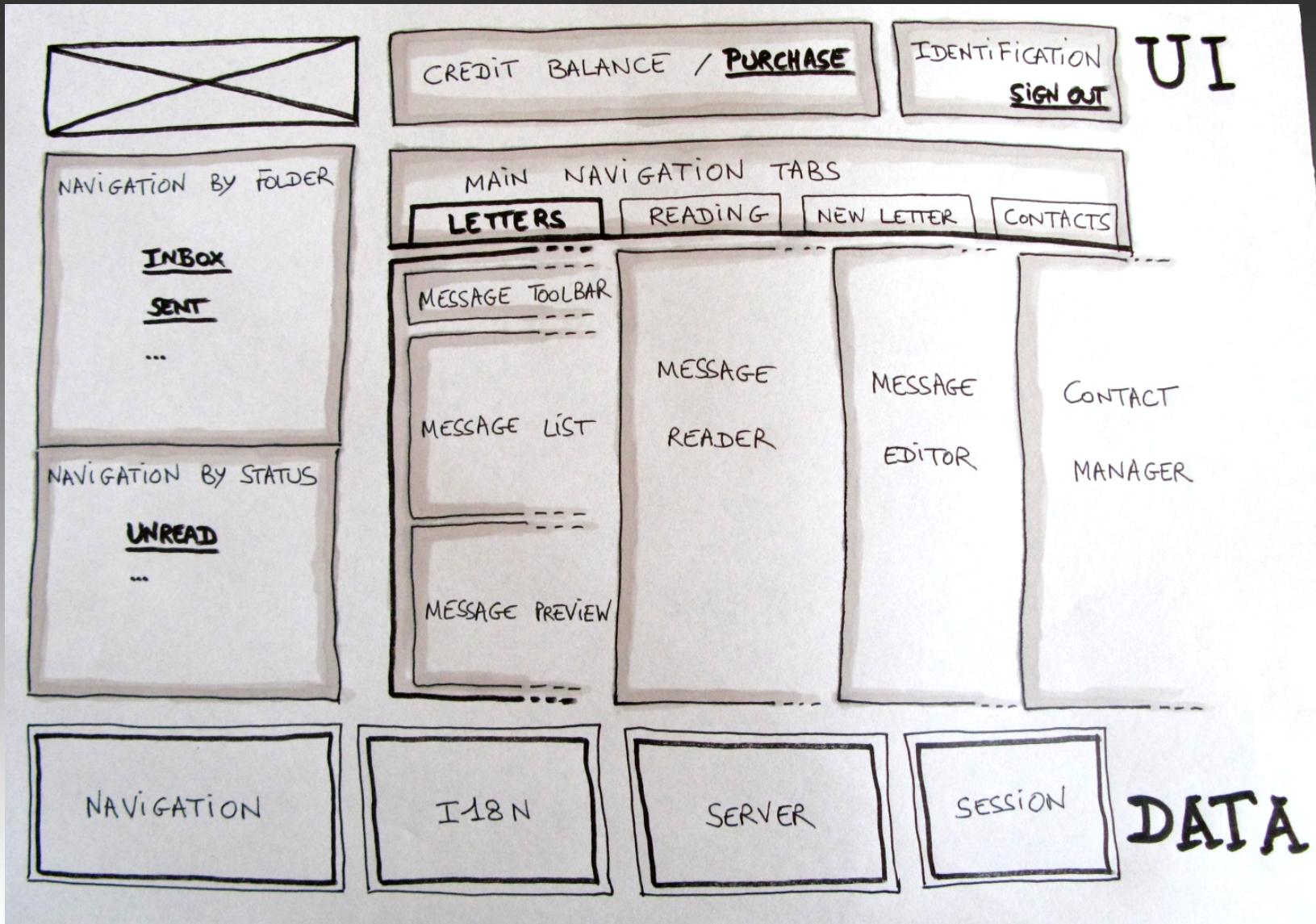
Cross-Browser Library



Browser JavaScript Engine



THIS
WAY



Application modules don't talk to each other.
They **publish and subscribe** to application events.

Application modules don't talk to each other.
They **publish and subscribe** to application events.

MESSAGE LIST

Date	Sender	Title	Recipients	Status	Type	Folder
27 A	J-D	Re: —	L-F., F-C	<input checked="" type="checkbox"/> X	S E	Sent
27 A	M-S	[Ur-] —	Z-H., M-C	<input type="checkbox"/>	S E	Inbox
26 A	B-G	— ?	C-D., A-P	<input checked="" type="checkbox"/>	R E	Inbox
22 A	S-J	RE: —	L-F.	<input checked="" type="checkbox"/>	S E	Sent
17 A	J-D	— —	E-M., D-H	<input type="checkbox"/> 1	R E	Sent
3 A	L-A	— —	M-N —	<input checked="" type="checkbox"/>	S E	Inbox
31 M	L-F-C	— —	3-N —	<input type="checkbox"/> 1	S E	Inbox
28 M	C-C	— —	H —	<input checked="" type="checkbox"/> 1	S E	Inbox

CLICK

DOUBLE-CLICK

- MESSAGE
SELECTED -

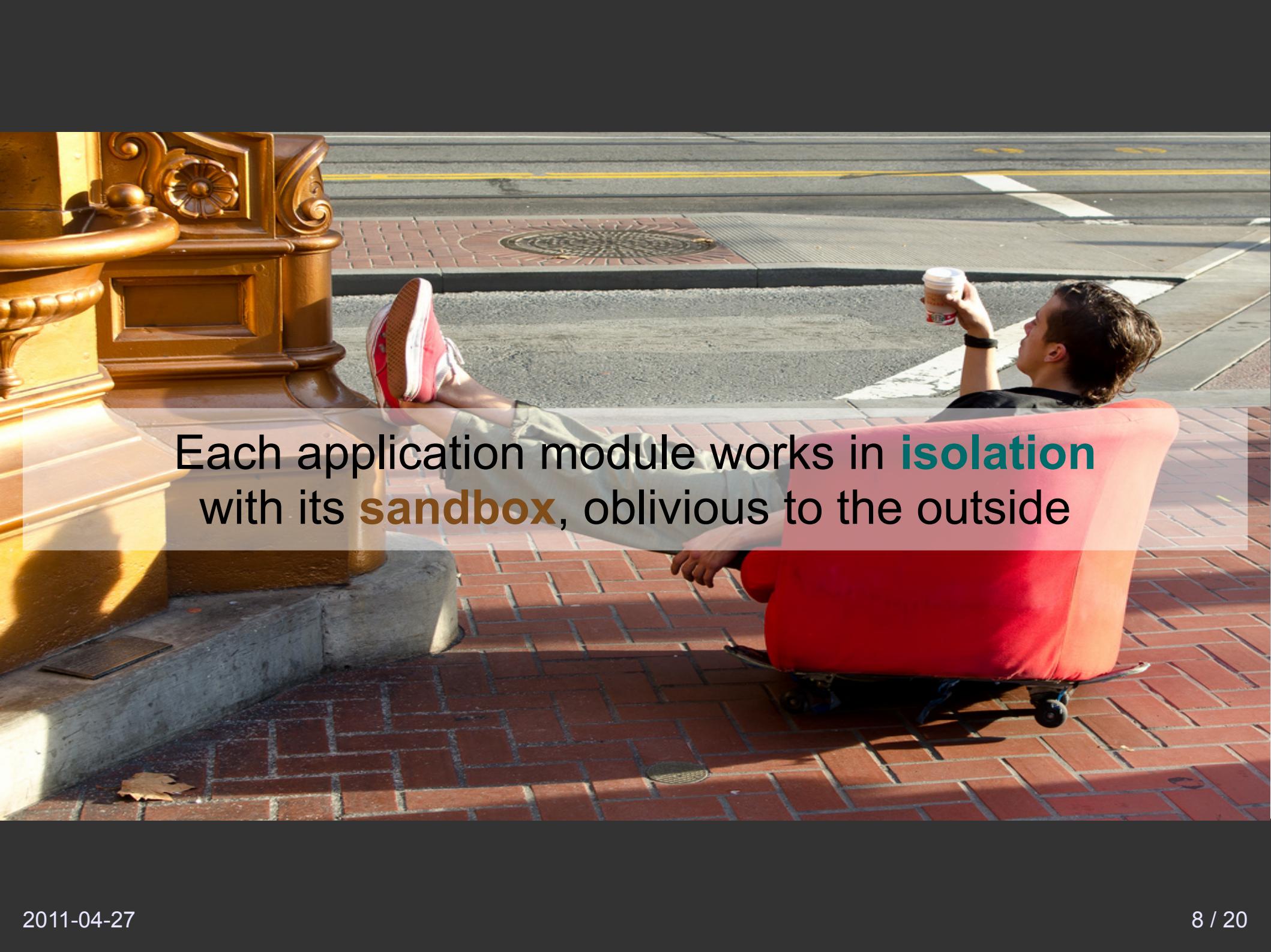
- OPEN
MESSAGE -

SANDBOX

- NEW MESSAGE LIST -

- NEW MESSAGE -

- NAVIGATION CHANGE -

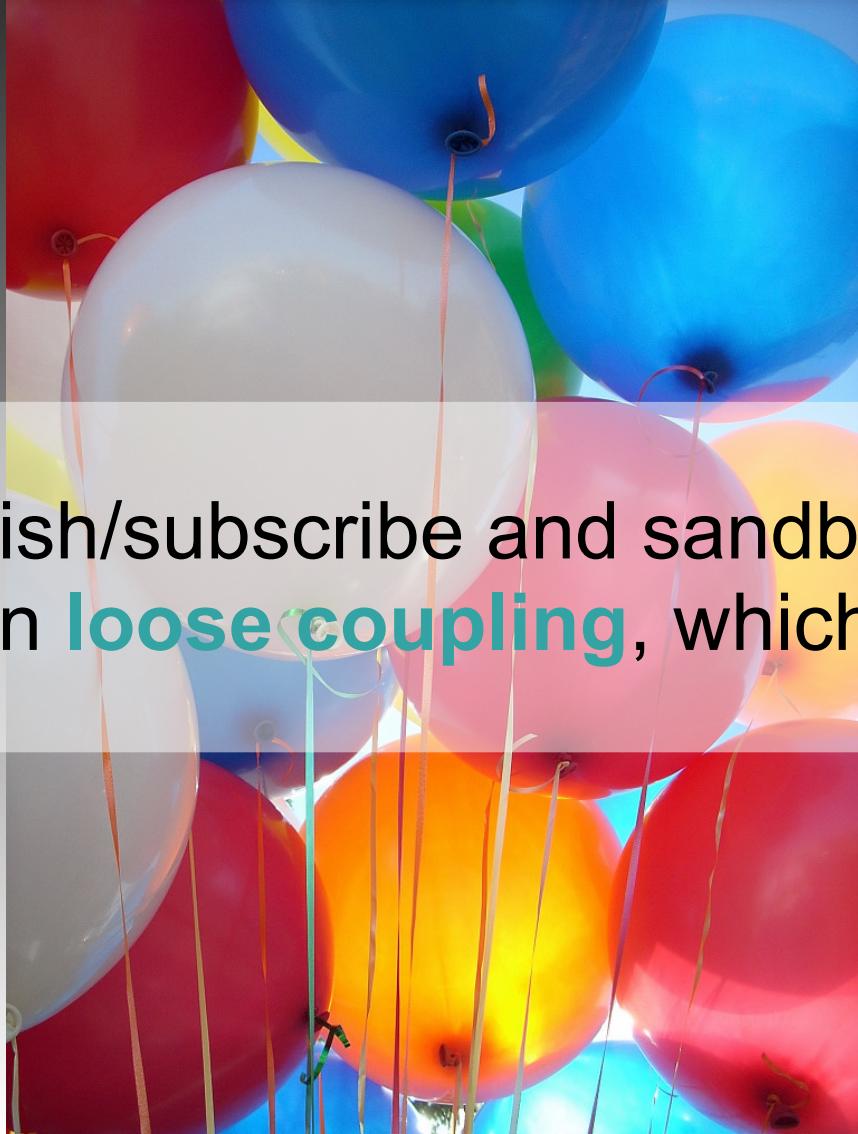


Each application module works in **isolation**
with its **sandbox**, oblivious to the outside

Each application module works in **isolation** with its **sandbox**, oblivious to the outside



Pros and Cons

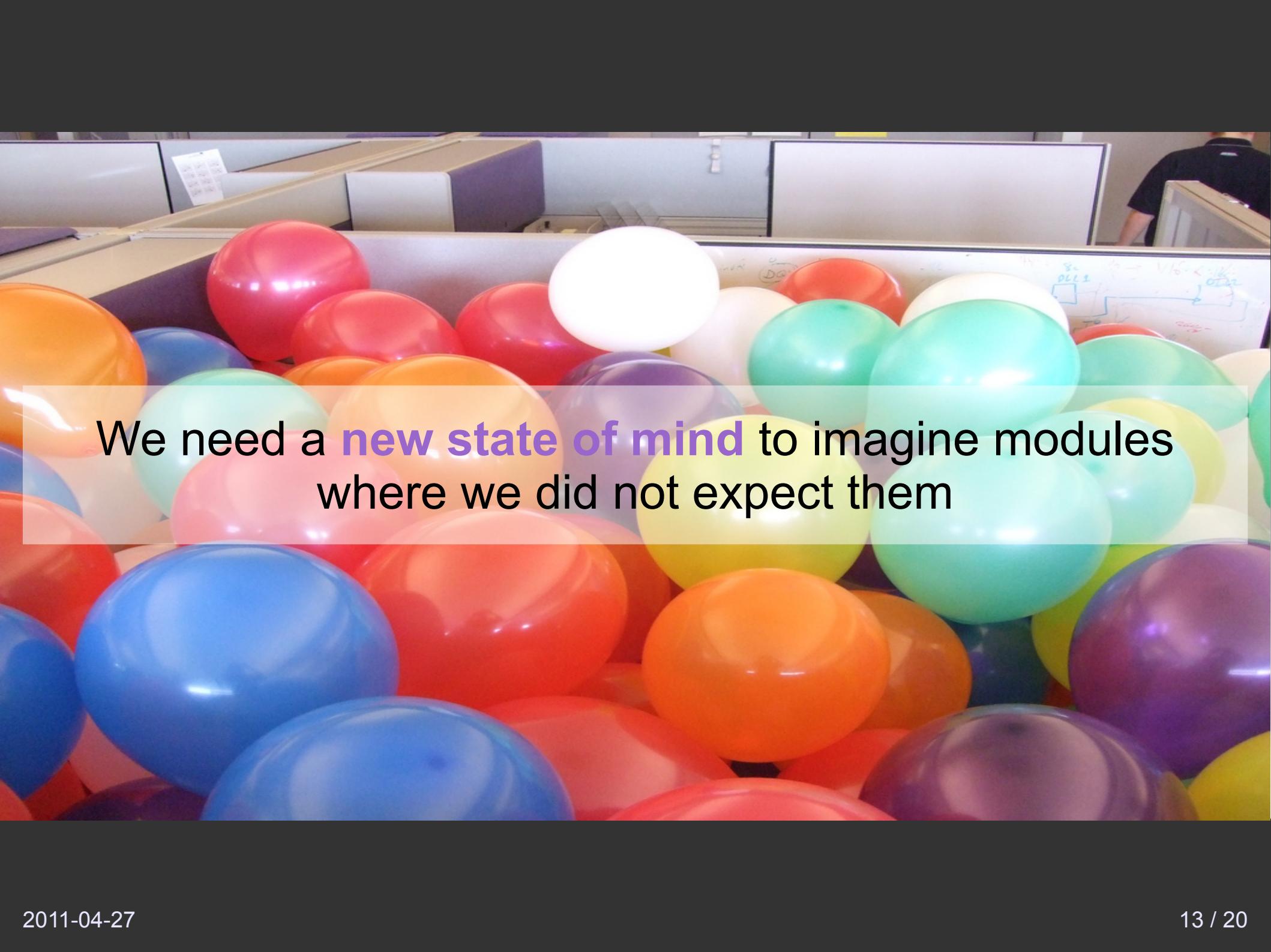


Publish/subscribe and sandboxing
result in **loose coupling**, which is nice

lb.ui.fileUploader.js + (~/www/lb_js_fileUploader/src) - VIM

```
function onNewSession(event){$  
    // Function: onNewSession(event)$  
    // Callback for new session event.$  
    // $  
    // Store the user login and session identifier, needed to send queries to$  
    // the remote server.$  
    // $  
    // Parameter:$  
    //   event - object, the event properties$  
    // Event format:$  
    //   | topic: 'session'$  
    //   | type: 'new'$  
    //   | userId: '...', // user identifier, e.g. 'first.lastname'$  
    //   | sessionId: '...', // session identifier, e.g. 'WByLDysaTvjzwqXVt'$  
    //   | }$  
    setId(event.userId);$  
    setSessionId(event.sessionId);$  
}$  
lb.ui.fileUploader.js [+] 645,1 79%  
// Module Creation$  
subscribe({topic:'session',type:'new'},onNewSession);$  
lb.ui.fileUploader.js [+] 795,42 95%
```

Application modules subscribed to the same events
often end up with **duplicate code** for local
state and accessors, which is sad.

A photograph of a large pile of colorful balloons (red, orange, yellow, green, blue) in an office environment. In the background, there are office cubicles and a whiteboard with some writing on it.

We need a **new state of mind** to imagine modules where we did not expect them

How to Contribute?



CREDIT BALANCE / PURCHASE

IDENTIFICATION
SIGN OUT

UI

NAVIGATION BY FOLDER

INBOX
SENT
...

NAVIGATION BY STATUS

UNREAD
...

MAIN NAVIGATION TABS

LETTERS READING NEW LETTER CONTACTS

MESSAGE TOOLBAR

MESSAGE

RECIPIENT

MESSAGE PREVIEW

Let's FLIP!

page 1

page 2

How to contribute? Get the code,
write applications and share your experience

NAVIGATION

I18N

SERVER

SESSION

DATA

How to contribute? Fork the project on GitHub
and **suggest improvements**

https://github.com/legalbox/lb_js_scalableApp

Hint: JavaScript module loading

How to contribute? **Join Legal-Box.**
We're hiring!



contact@legal-box.com

THANK YOU!

References

- Scalable JavaScript Application Architecture
by Nicholas C. Zakas
 - [Video](#) on Yahoo! Developer Network
 - [Slides](#) on Slideshare
- The Scalable JavaScript Application Framework
by Legal-Box
 - [Home Page](#) on GitHub
 - [Code](#) on GitHub
- FLIP – Scalable Flip Application by Antoine Bernier
 - [Code](#) on GitHub

https://github.com/legalbox/introduction_to_lb_js_scalableApp



Credits

- Slide Template

- Adapted from "tokyo-midtown-1.otp"
CC-BY-SA Chih-Hao Tsai

- Pictures

- "Balloons" CC-BY befuddledsenses / Accretion Disc
 - "Make a wish..." CC-BY Theresa Thompson
 - "Skatechair" CC-BY-SA Max Braun
 - "Balloons make everything more fun"
CC-BY Waponi / Kathryn Decker-Krauth
 - "Office Prank" CC-BY-SA disterics

https://github.com/legalbox/introduction_to_lb_js_scalableApp

