UI AS A SERVICE

DAN GLEGG

RIOT GAMES

@RIOTJULESFERN

TALES
OF
INTEREST

TEAM
ORIENTED
LEAGUE OF LEGENDS

100+
CHAMPIONS
LEAGUE OF LEGENDS

MODERN FANTASY

LEAGUE OF LEGENDS STATS

MORE THAN
67MILLION
MONTHLY ACTIVE PLAYERS

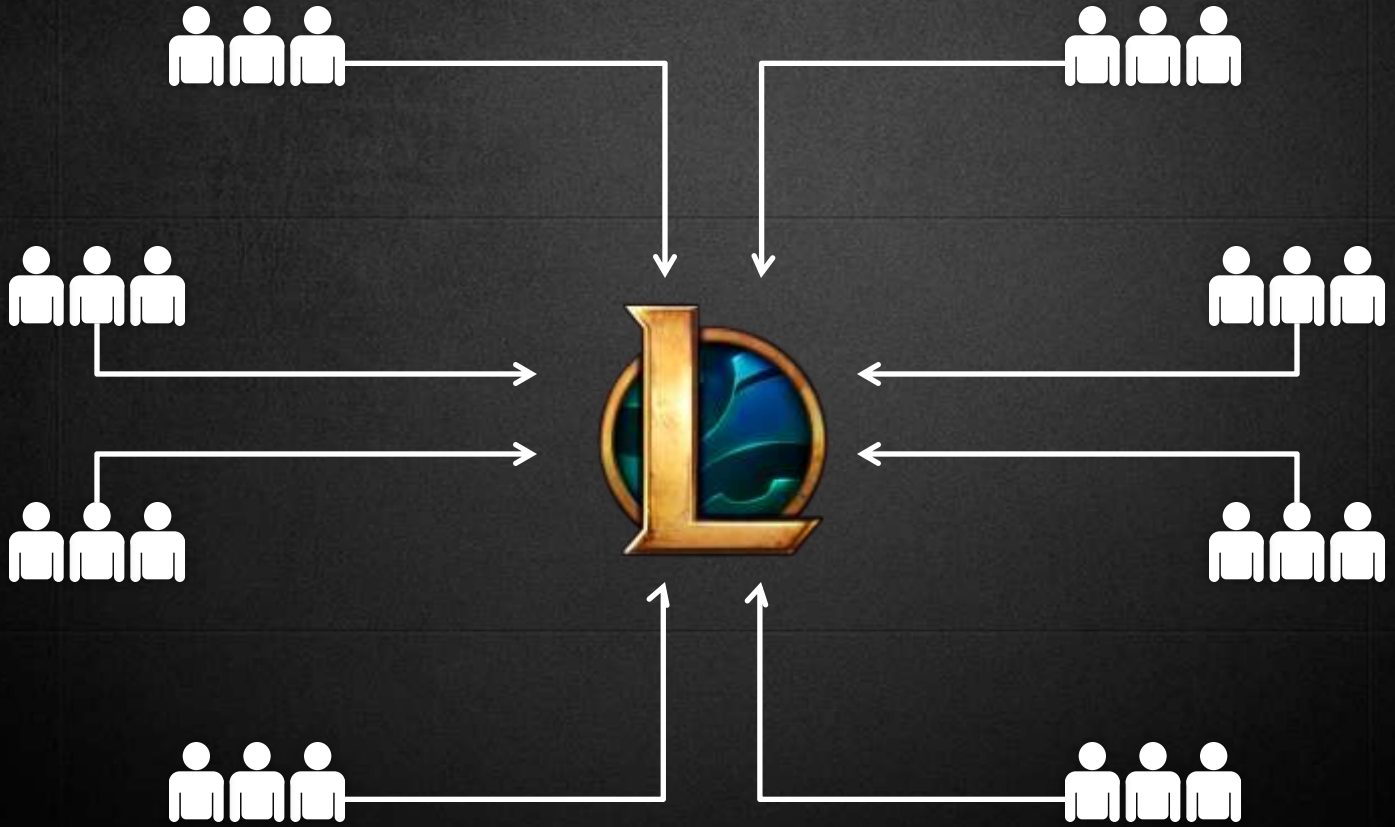
MORE THAN
27MILLION
DAILY ACTIVE PLAYERS

MORE THAN
7.5MILLION
PEAK CONCURRENT PLAYERS

STATS RELEASED JANUARY 2014

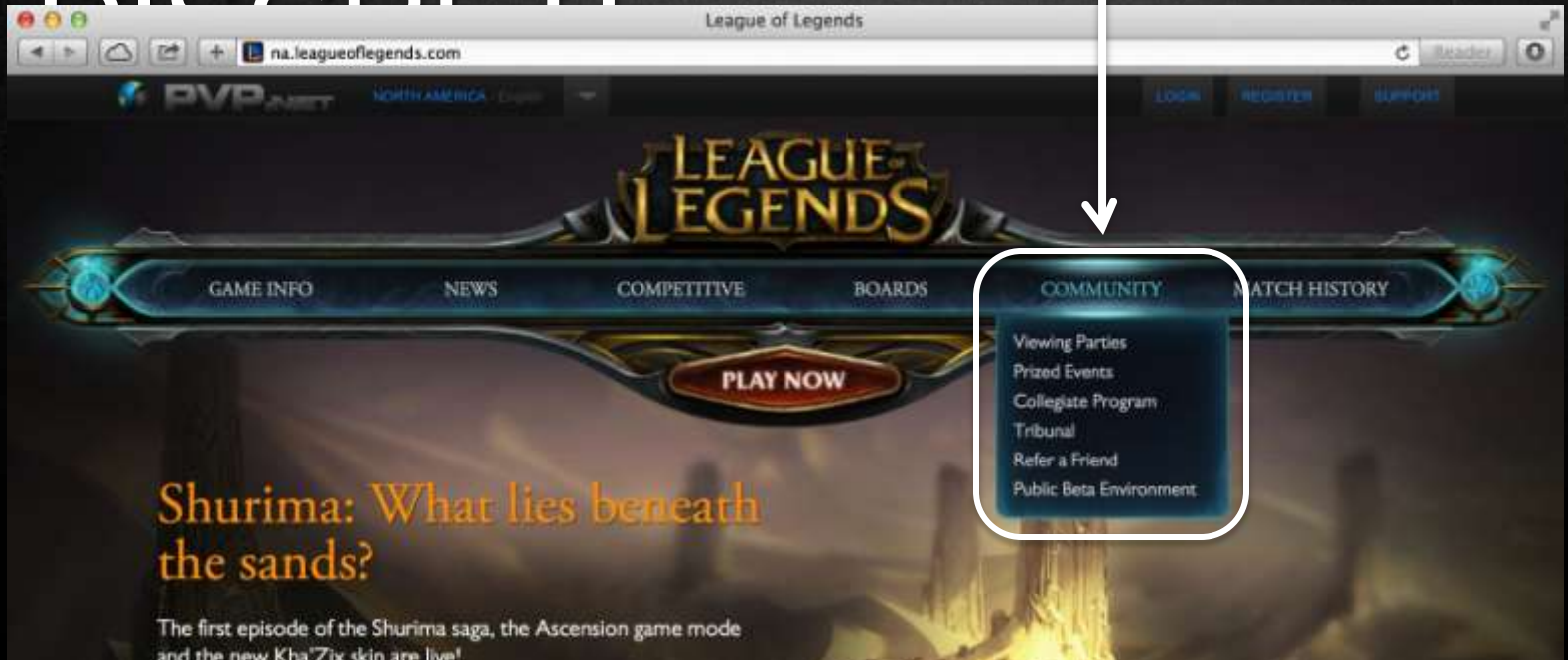
OUR MISSION

WE ASPIRE TO BE THE MOST PLAYER FOCUSED GAME COMPANY IN THE WORLD

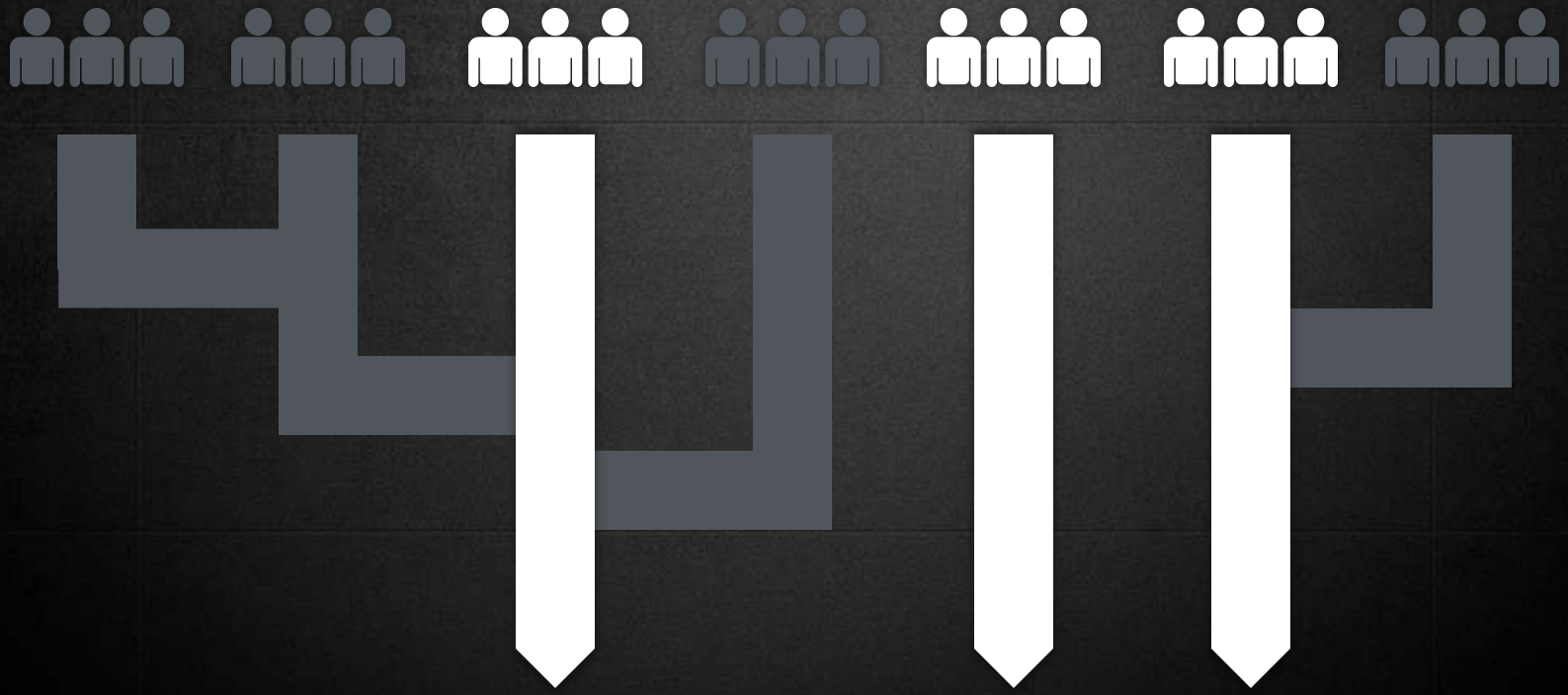


BUNCH O’ VERTICALS

DISCRETE APPLICATIONS DISCRETE



ARCHITECTURE DEFINES PLAYER EXPERIENCE

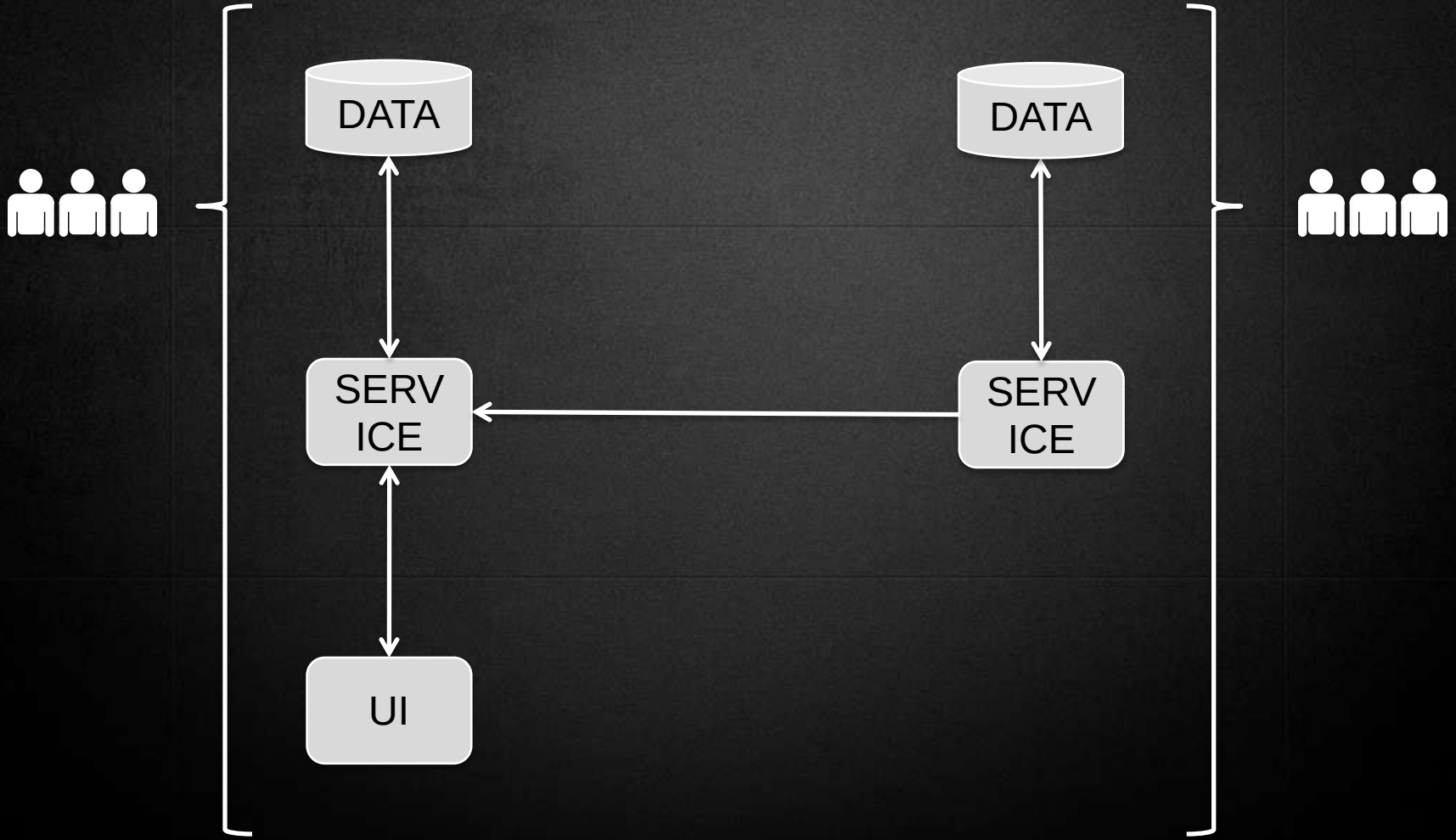


WHOA

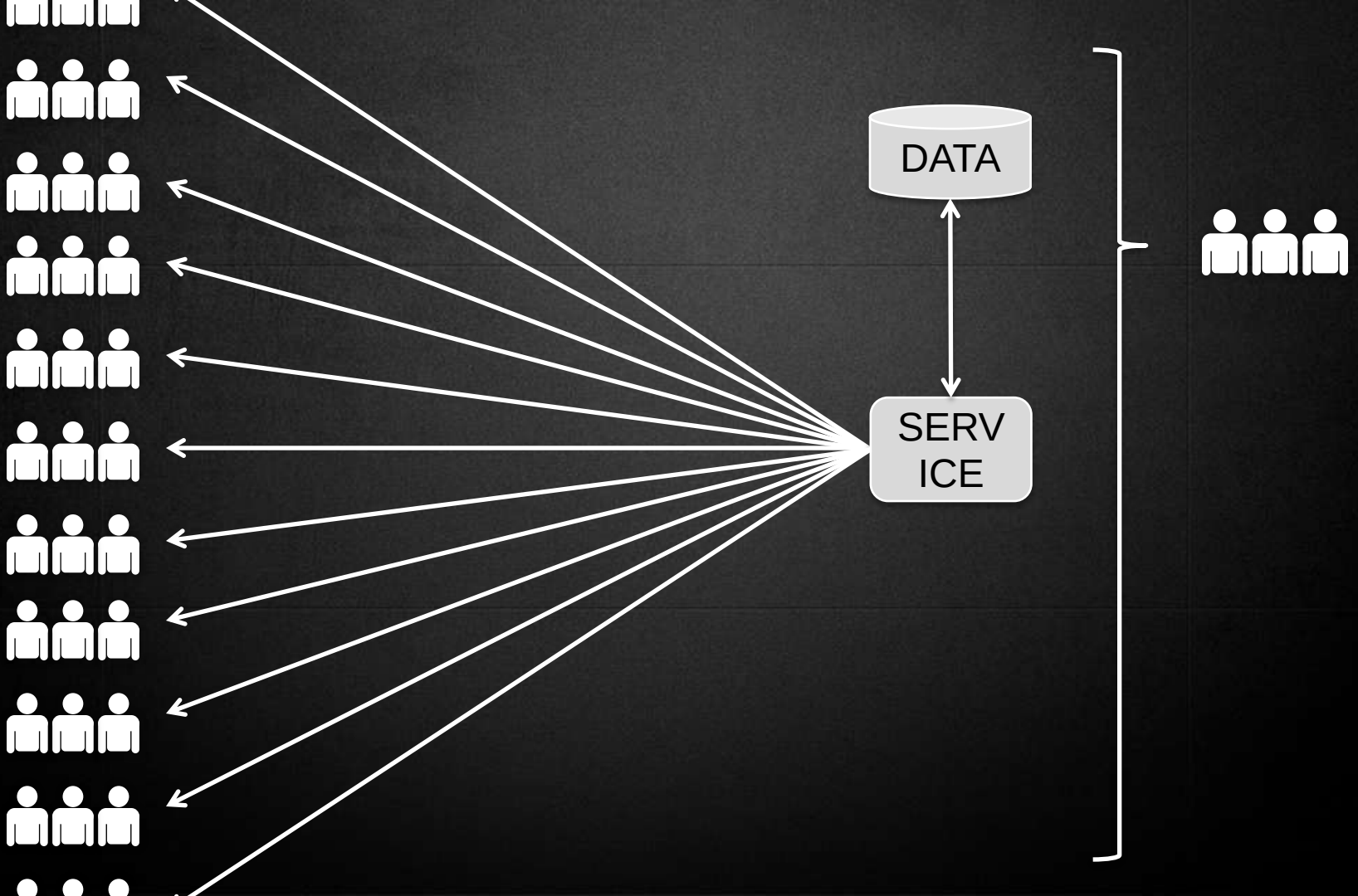
TL;DR

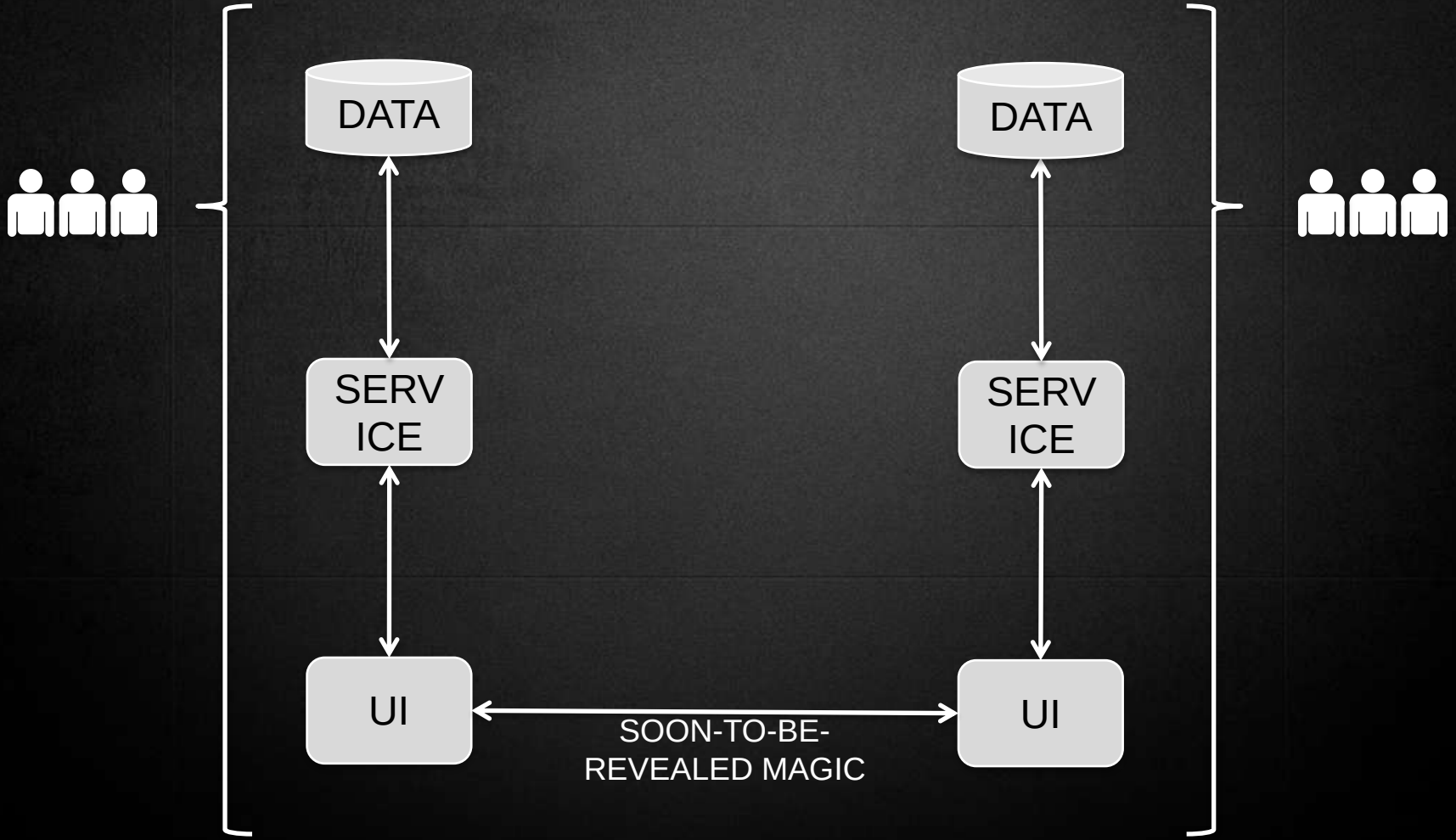
NOPE

PLAYER FOCUS • TOTAL OWNERSHIP • MOVE FAST • CONTINUOUS IMPROVEMENT
RIOTENGINEERING


DATA
DATA
SERV
ICE
SERV
ICE
UI

OBJECTS OVER THE WIRE


DATA
SERV
ICE


DATA
DATA
SERV
ICE
SERV
ICE
UI
UI
SOON-TO-BE-
REVEALED MAGIC

EXPERIENCE THE WIRE

A

RECOGNIZED FOR

STANDARD

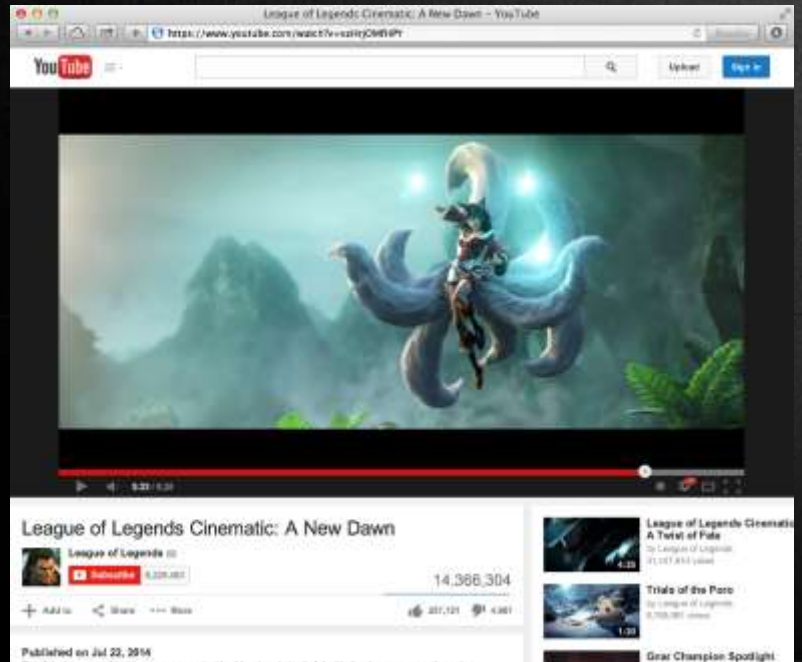
IN THE FIELD OF RENDERING

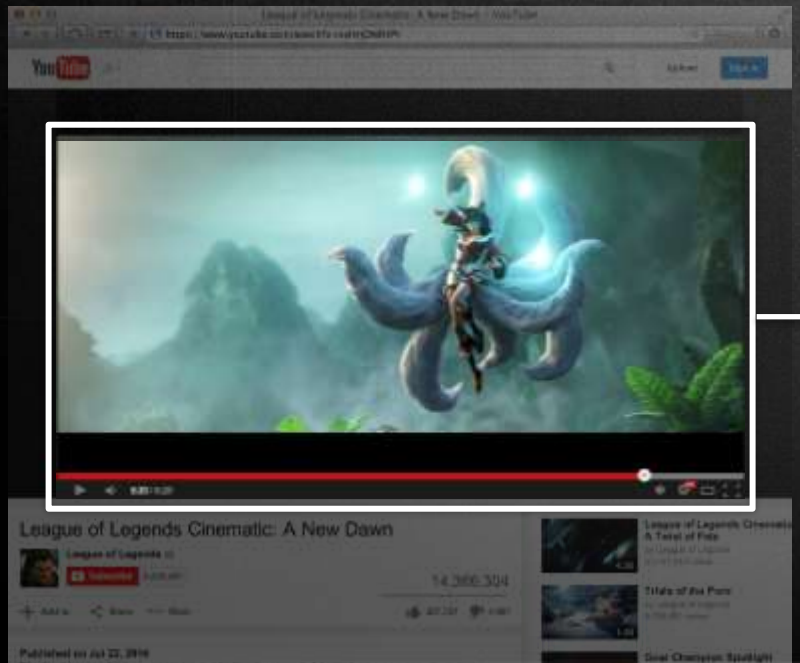
WITHOUT NECESSARILY KNOWING OR

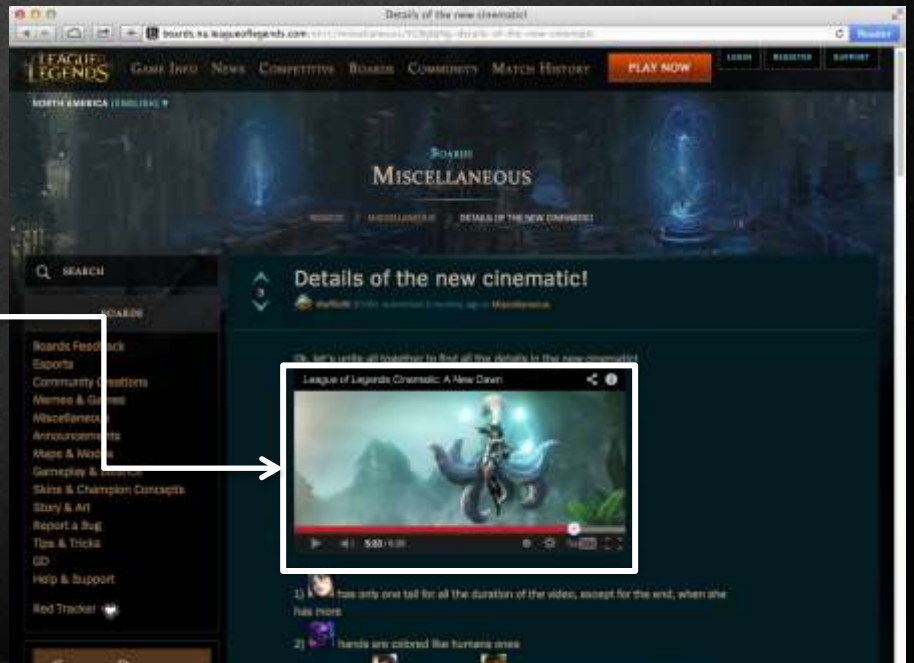
CARING WHAT THAT STUFF IS

OR HOW IT SHOULD LOOK OR ANYTHING LIKE THAT

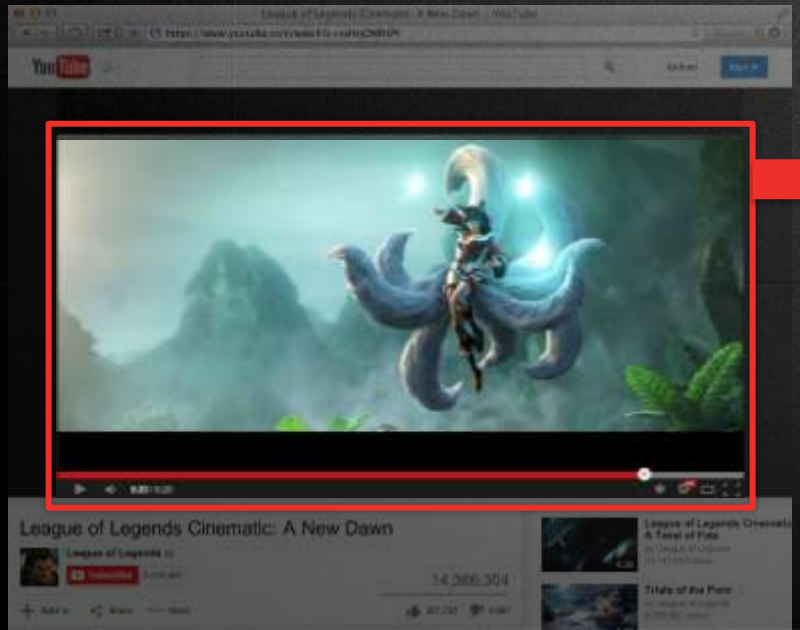
OEMBED IS BEST EMBED


League of Legends Cinematic: A New Dawn - YouTube
YouTube
League of Legends Cinematic: A New Dawn
League of Legends
14,366,304
Published on Jul 22, 2014
League of Legends Cinematic
A Twist of Fate
Trials of the Poro
Gnar Champion Spotlight

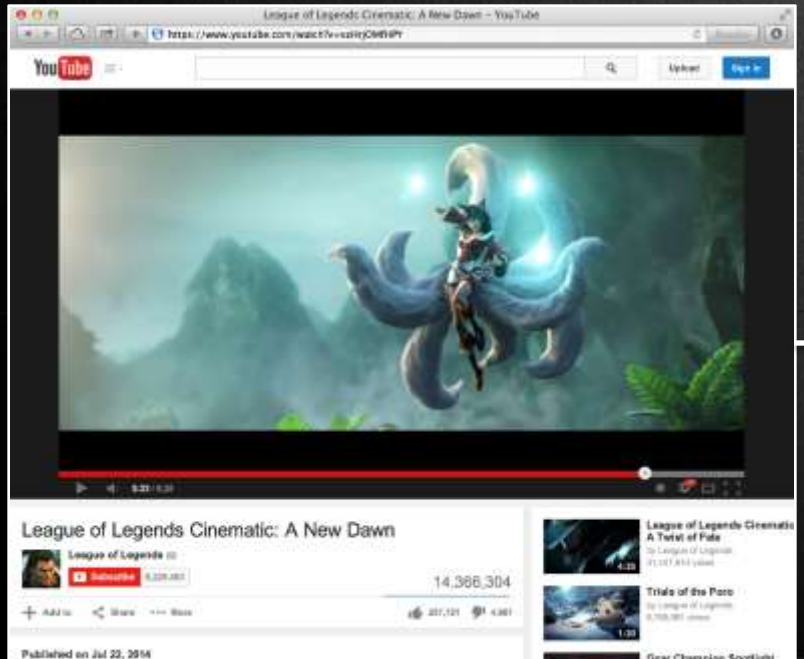

League of Legends Cinematic: A New Dawn


MISCELLANEOUS
Details of the new cinematic!
League of Legends Cinematic: A New Dawn

*IT IS NOT QUITE THIS SIMPLE (SORRY)



PUBLISH CO




```
<!DOCTYPE HTML>
<html>
 <head>
   …

   <link
    rel="alternate"
    type="application/json+oembed"
    href="/path/to/oembed.json" />

   …
 </head>
 …
```

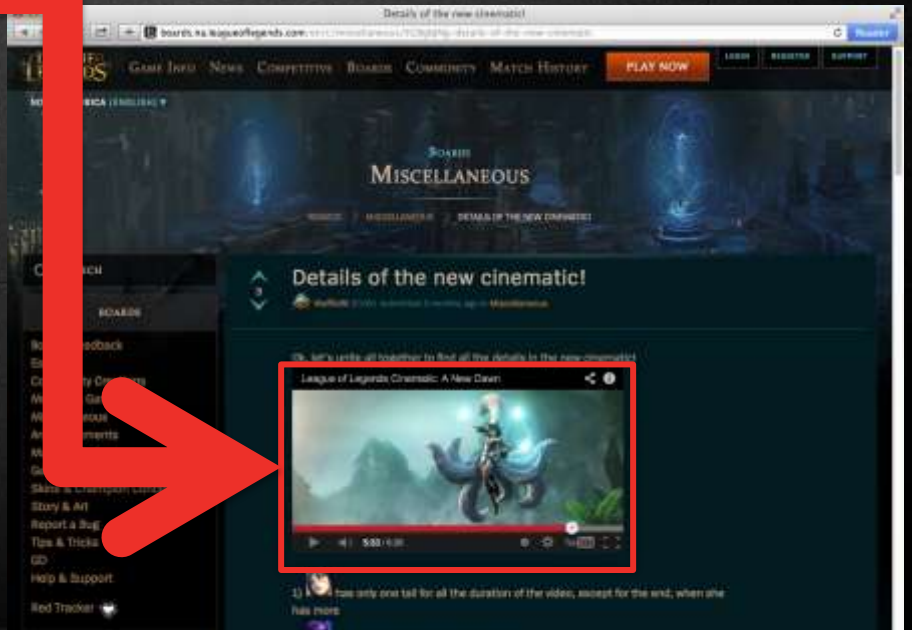
1ST PARTY CODE

```
<!DOCTYPE HTML>
<html>
 <head>
  <title>League of Legends…</title>

  <link
   rel="alternate"
   type="application/json+oembed"
   href="/path/to/oembed.json" />

  …
 </head>
 …
```

3RD PARTY CODE

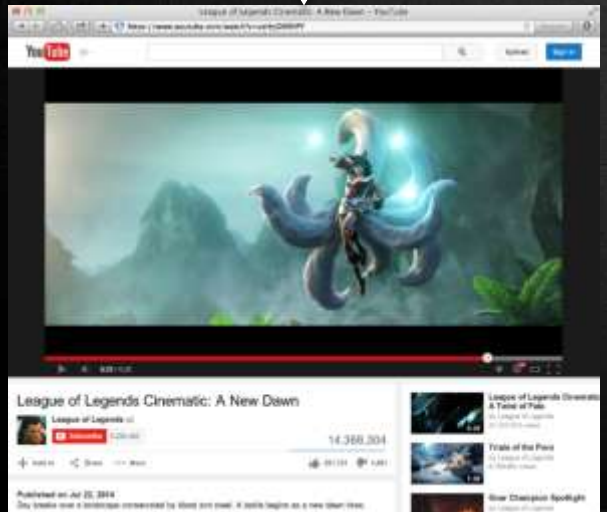
```
{
 "title": "League of Legends…",
 "type": "rich",
 "thumbnail_url": "https://…",
 "width": 1920,
 "height": 1080,
 "html":
  "<div …>
        OMG STUFF
  </div>"
}
```

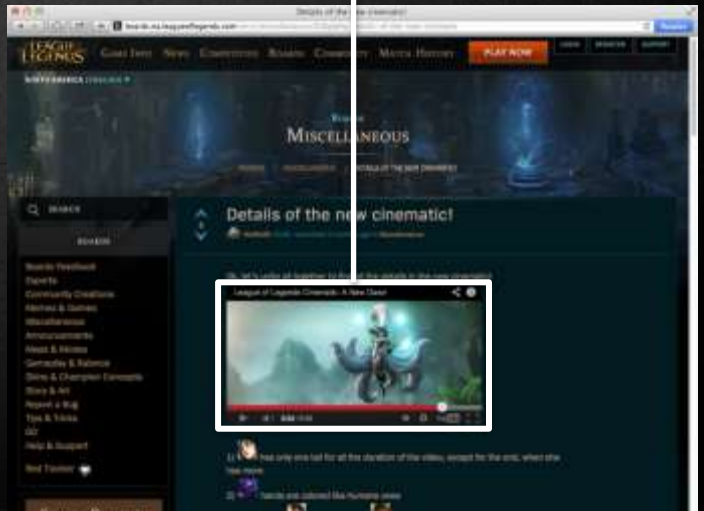
CONSUME CONTENT



OEMBE
BROVI
DER

PROVI
DER


League of Legends Cinematic: A New Dawn
14,388,304


MISCELLANEOUS
Details of the new cinematic!

HEY

I HAVE THIS URL FOR SOMETHING, NOT JUST A LINK

I WANT TO SHOW A THUMBNAIL

I HAVE THIS MUCH SPACE, TELL ME HOW TO DISPLAY IT

PROVIDER

HTTP://$PRO
VIDER

GET /OEMBED

?URL=$FULL_URL_OF_THING_I
WANT&MAXWIDTH=$WIDTH&MAXHEIGHT=$H
EIGHT&FORMAT=JSON

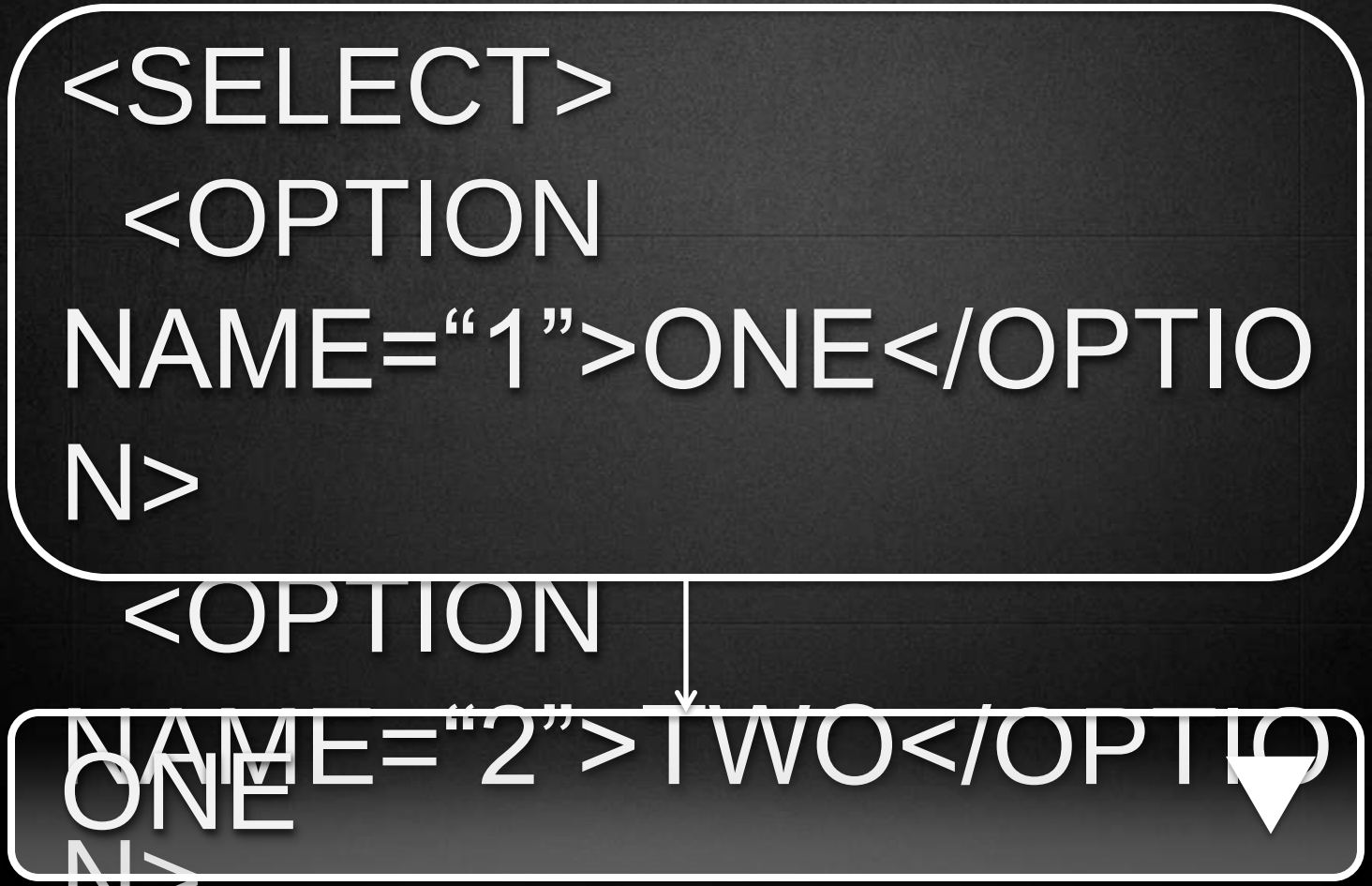
RESPONSE FOLLOWS

THE WEB IS POROUS

MAKE IT AWESOME

WEB COMPONENTS

AND OTHER HOT CONFERENCE TOPICS


<SELECT>
<OPTION
NAME="1">ONE</OPTIO
N>
<OPTION
NAME="2">TWO</OPTIO
N>
ONE

“MAKE IT POP”

AND OTHER SCOPE-ENLARGING INCANTATIONS

```
<SELECT
CLASS="CUSTOM-
SELECT">
  <OPTION
NAME="1">ONE</LI>
  <OPTION
```

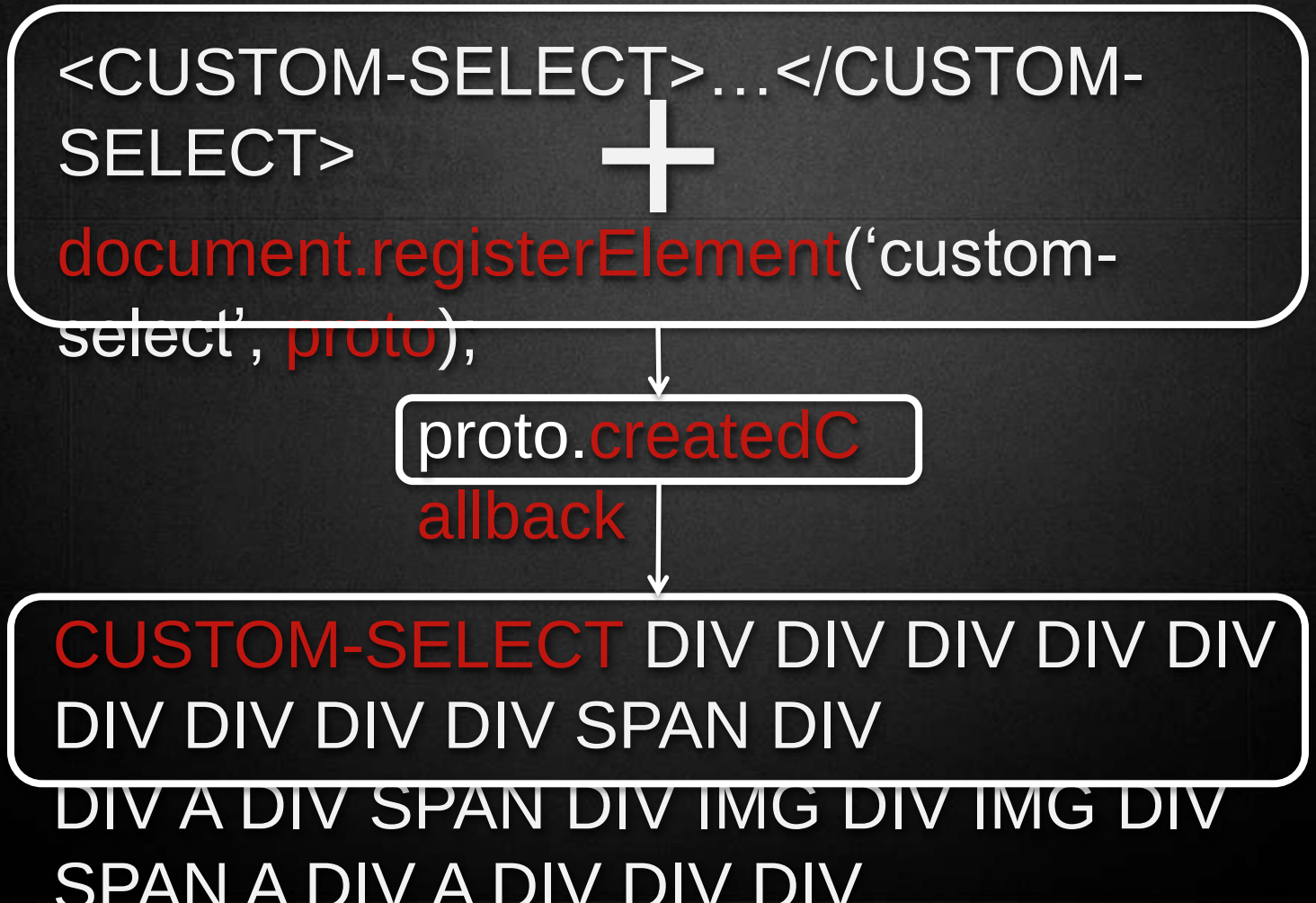
<SELECT CLASS="CUSTOM-SELECT">…</SELECT>

+

document.querySelectorAll('.custom-select').forEach(…);

DIV DIV DIV DIV DIV DIV DIV DIV DIV DIV
DIV DIV DIV DIV SPAN DIV
DIV A DIV SPAN DIV IMG DIV IMG DIV
SPAN A DIV A DIV DIV DIV
DIV DIV SPAN DIV DIV SPAN IMG A DIV

BOON #1
LIFECYCLE MANAGEMENT


<CUSTOM-SELECT>…</CUSTOM-SELECT>
+
document.registerElement('custom-select', proto);
proto.createdCallback
CUSTOM-SELECT DIV DIV DIV DIV DIV DIV DIV DIV DIV DIV SPAN DIV
DIV A DIV SPAN DIV IMG DIV IMG DIV SPAN A DIV A DIV DIV DIV

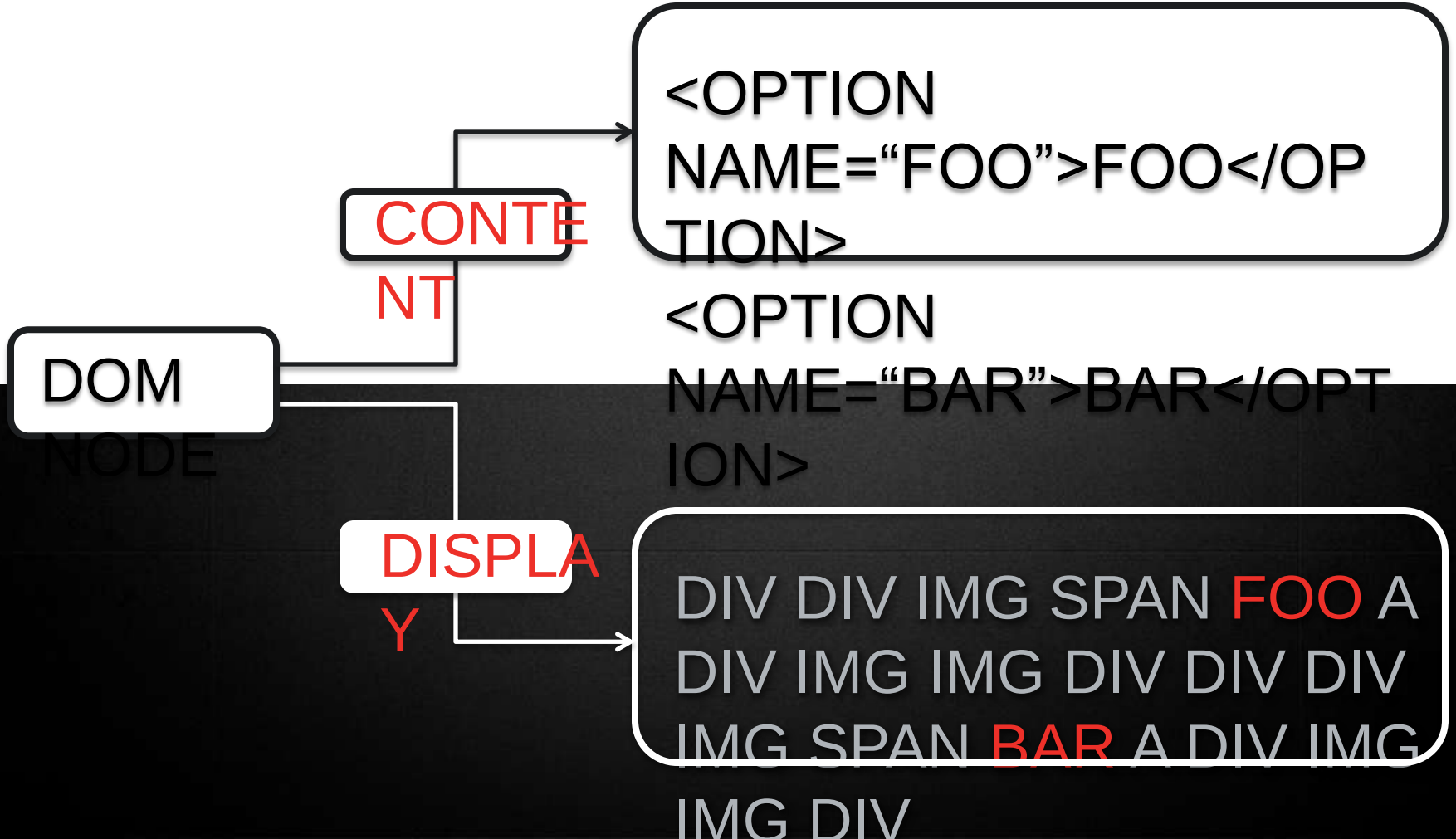
BOON #2

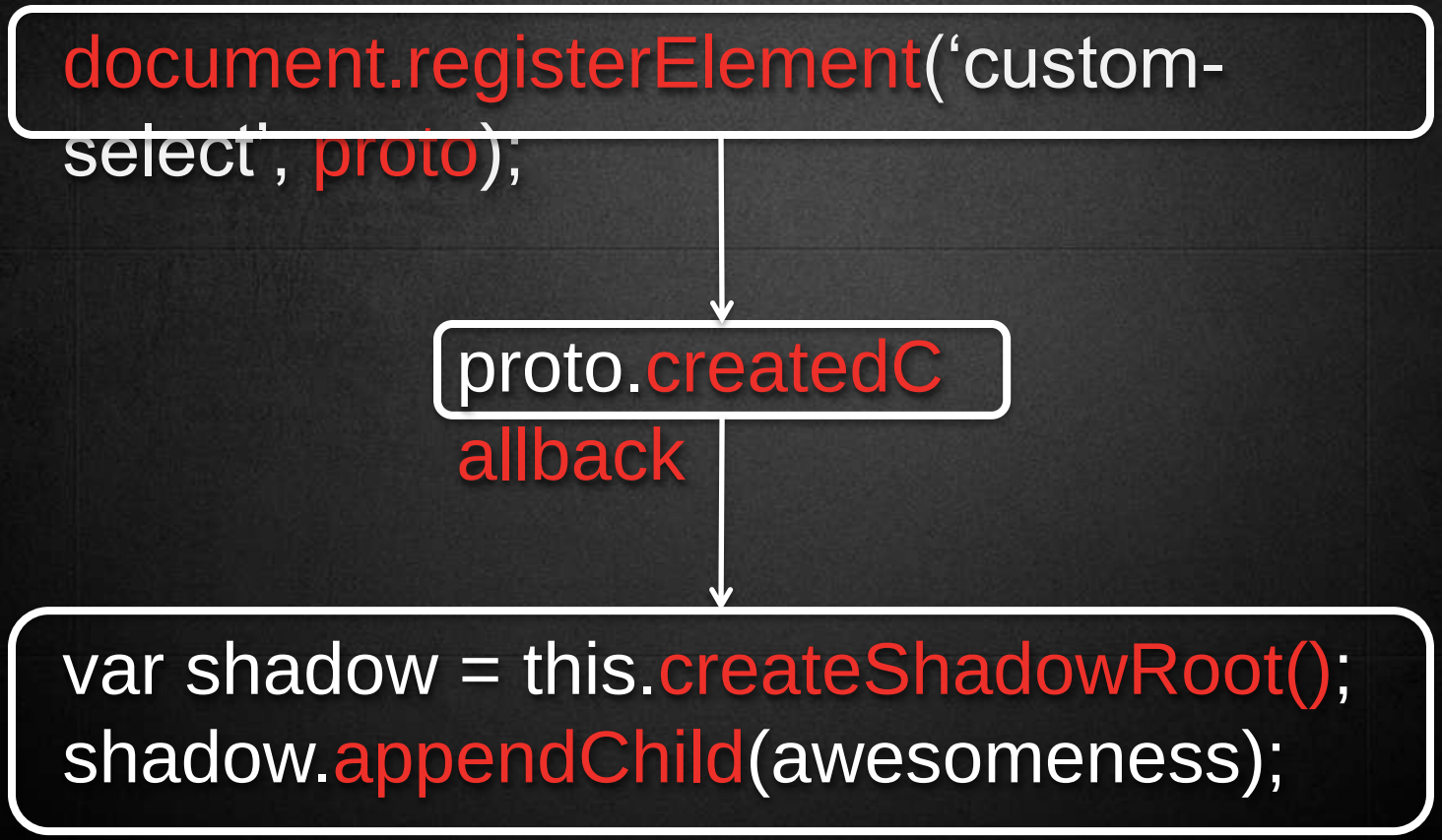
MODIFIABLE

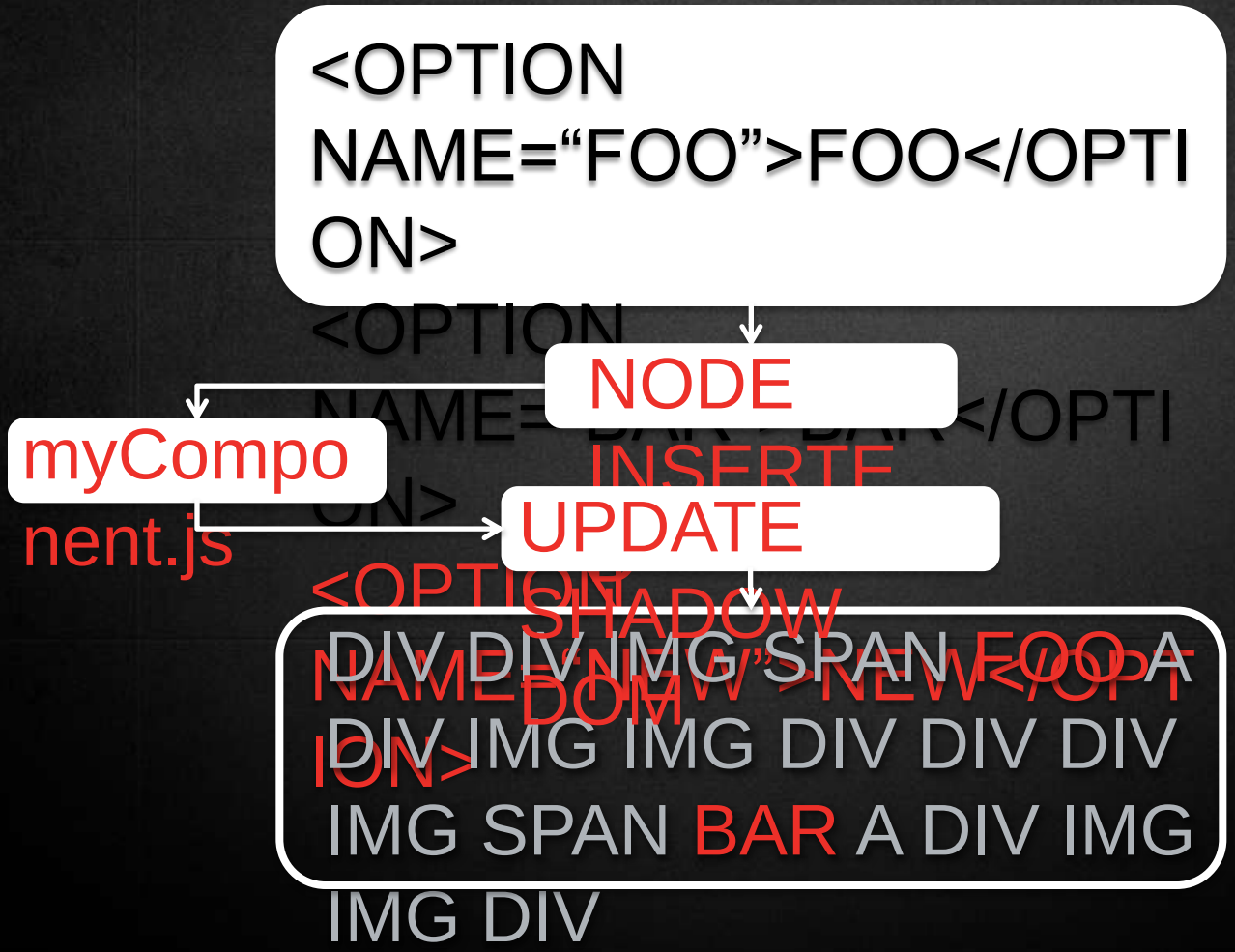
ONCE

RENDERED

DOM VS. SHADOW DOM


DOM NODE
CONTENT
DISPLAY
<OPTION NAME="FOO">FOO</OPTION>
<OPTION NAME="BAR">BAR</OPTION>
DIV DIV IMG SPAN FOO A DIV IMG IMG DIV DIV DIV IMG SPAN BAR A DIV IMG IMG DIV


document.registerElement('custom-select', proto);
proto.createdCallback
var shadow = this.createShadowRoot();
shadow.appendChild(awesomeness);


<OPTION NAME="FOO">FOO</OPTION>
NODE
myCompo
nent.js
UPDATE
SHADOW DOM
DIV DIV IMG SPAN FOO A DIV IMG IMG DIV DIV DIV IMG SPAN BAR A DIV IMG IMG DIV

WEB COMPONENTS

ADD BEHAVIOR TO (BUT NOT CONTENT)

BUT BRING YOUR OWN CONTENT

Polycell
MULTI PURPOSE
Polyfilla
ORIGINAL
No.1
& TRUSTED
Shrink & crack resistant filler
for all interior repairs

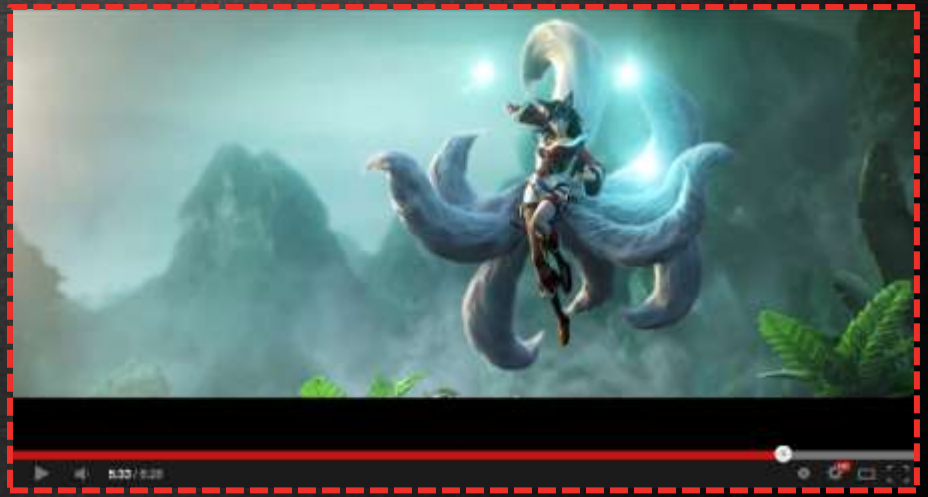
POLYMER

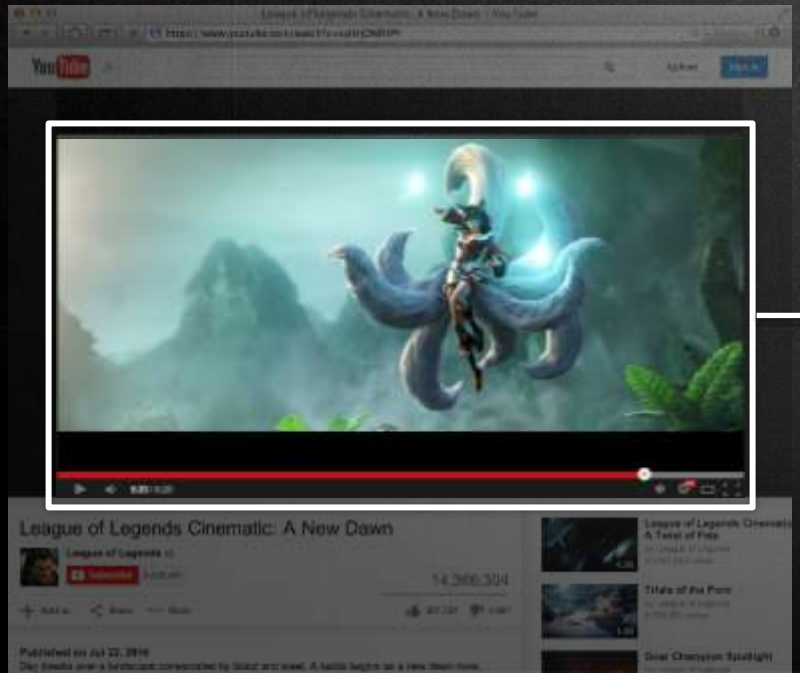
polymer-project.org

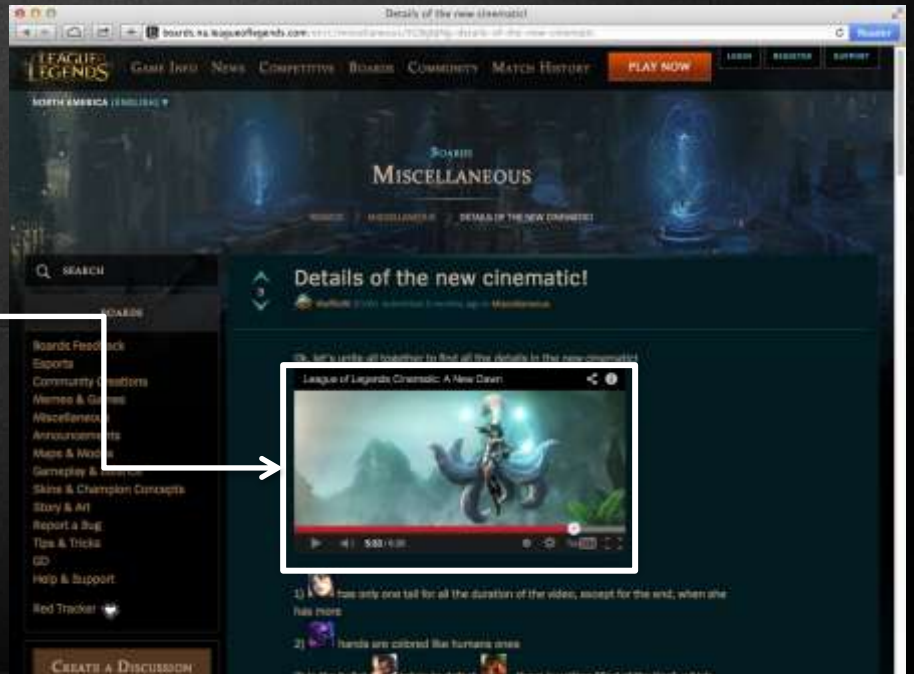
MAKE IT AWESOME

LASSO.JS

CLICK HERE




League of Legends Cinematic: A New Dawn


League of Legends
Game Info
News
Competitive
Boards
Community
Match History
PLAY NOW
Miscellaneous
Details of the new cinematic!
League of Legends Cinematic: A New Dawn

AS EASY AS THE HYPERLINK

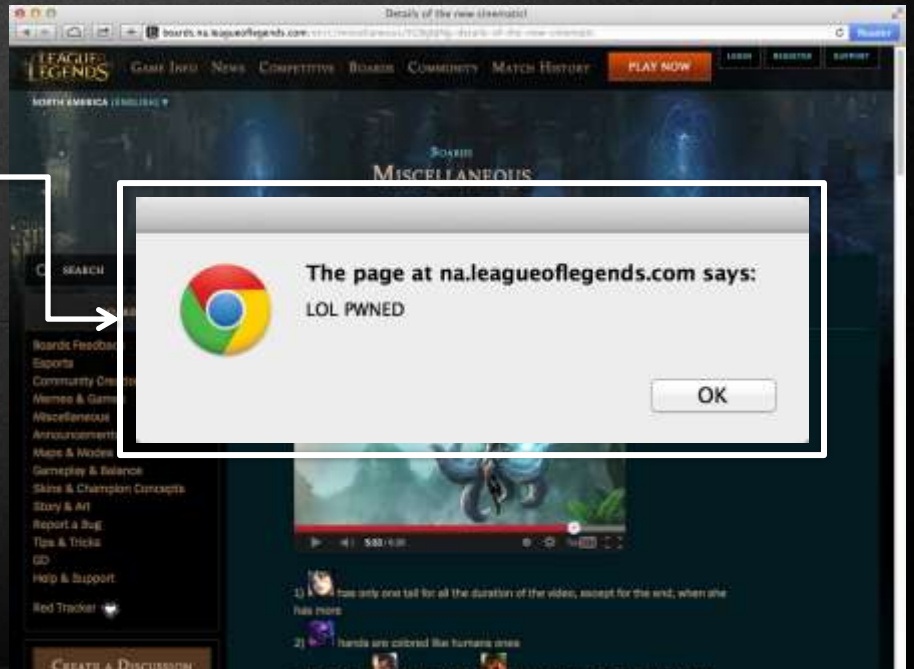
```
<a
href=“http://awesome.com”>
    Click here
</a>
```

```
<lasso-embed
url="http://awesome.com">
    Loading your stuff now…
</lasso-embed>
```

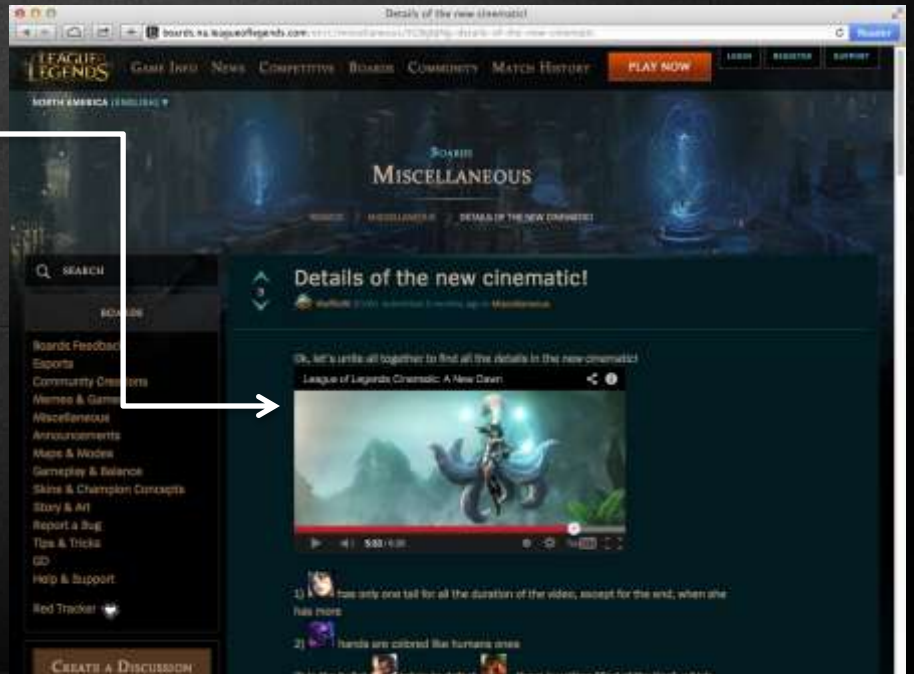
OEMBE
BROVI
DER

RODEO

“html”: “ <script type=“text/javascript”>
alert(‘LOL PWNED’);
</script>”



```
“html”: “ <script
type=“text/javascript”>
        $(‘#login-form’).submit(
            stealPlayerAccount
        );
            </script>”
```



TRUST THIS CONTENT?

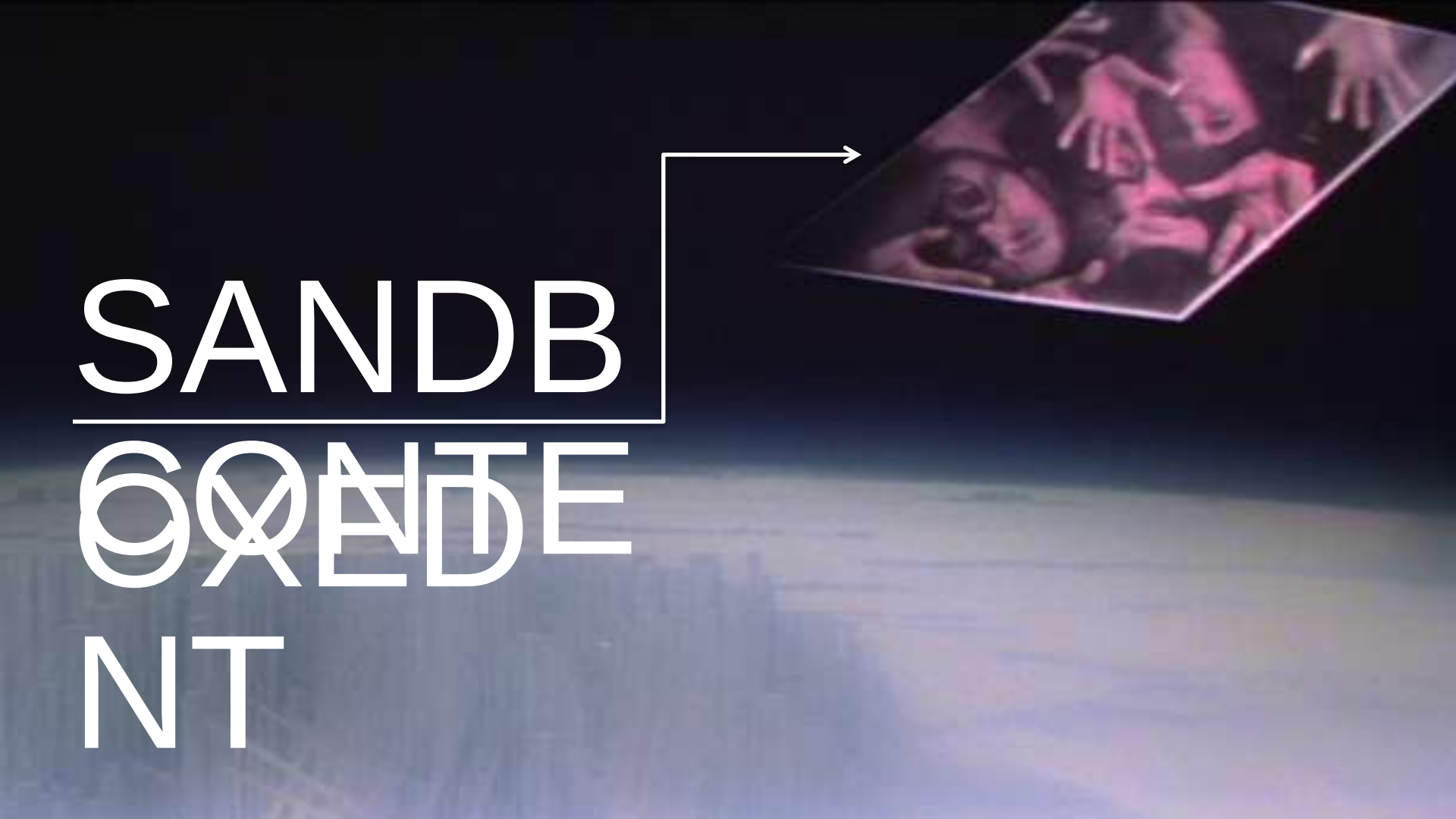
YES/NO/HELL NO

..HOSTNAME.MASK

/PATH/MASK/*.HTML

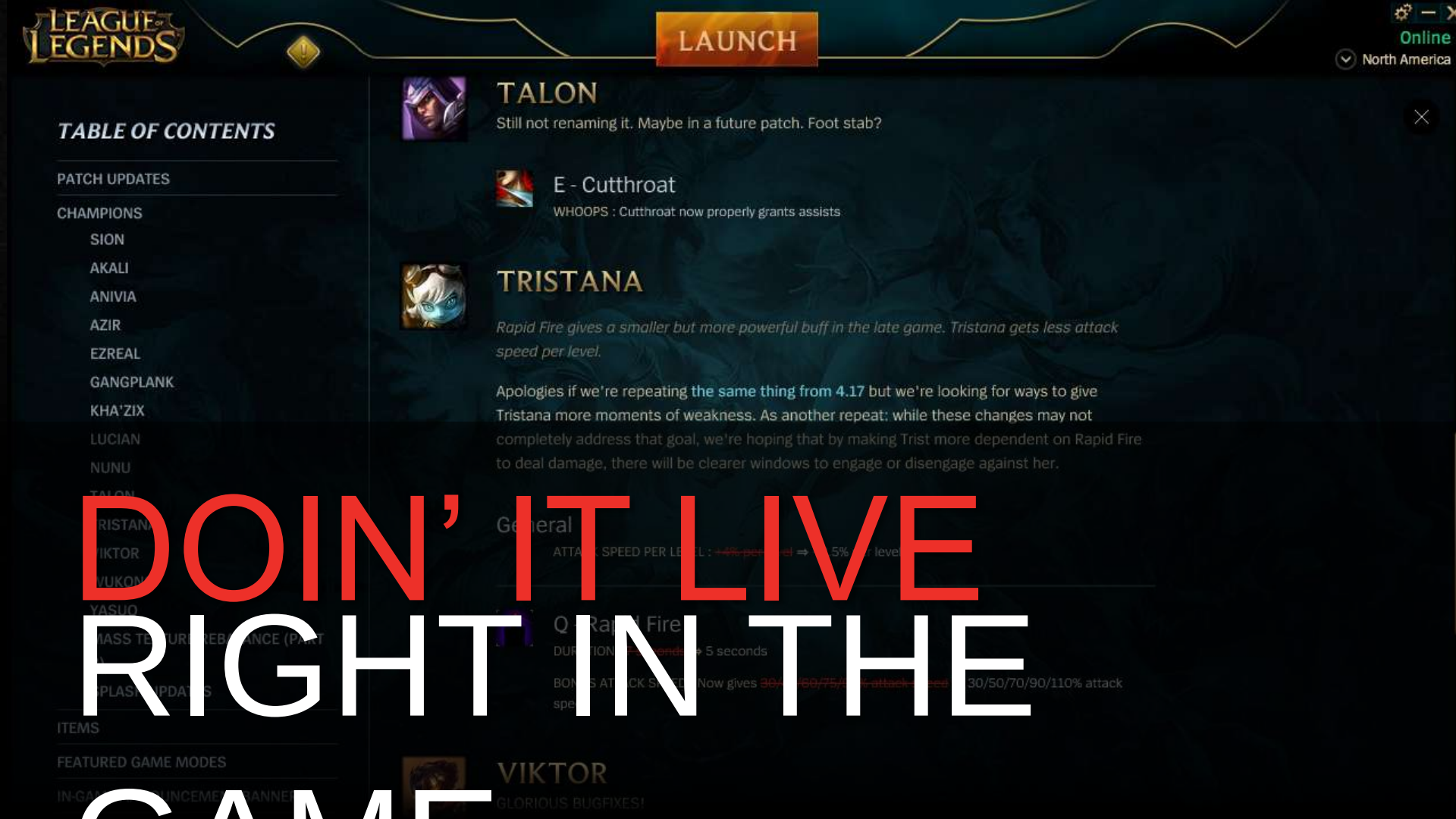
/REGEX(P)?$/

DENIED CONTENT

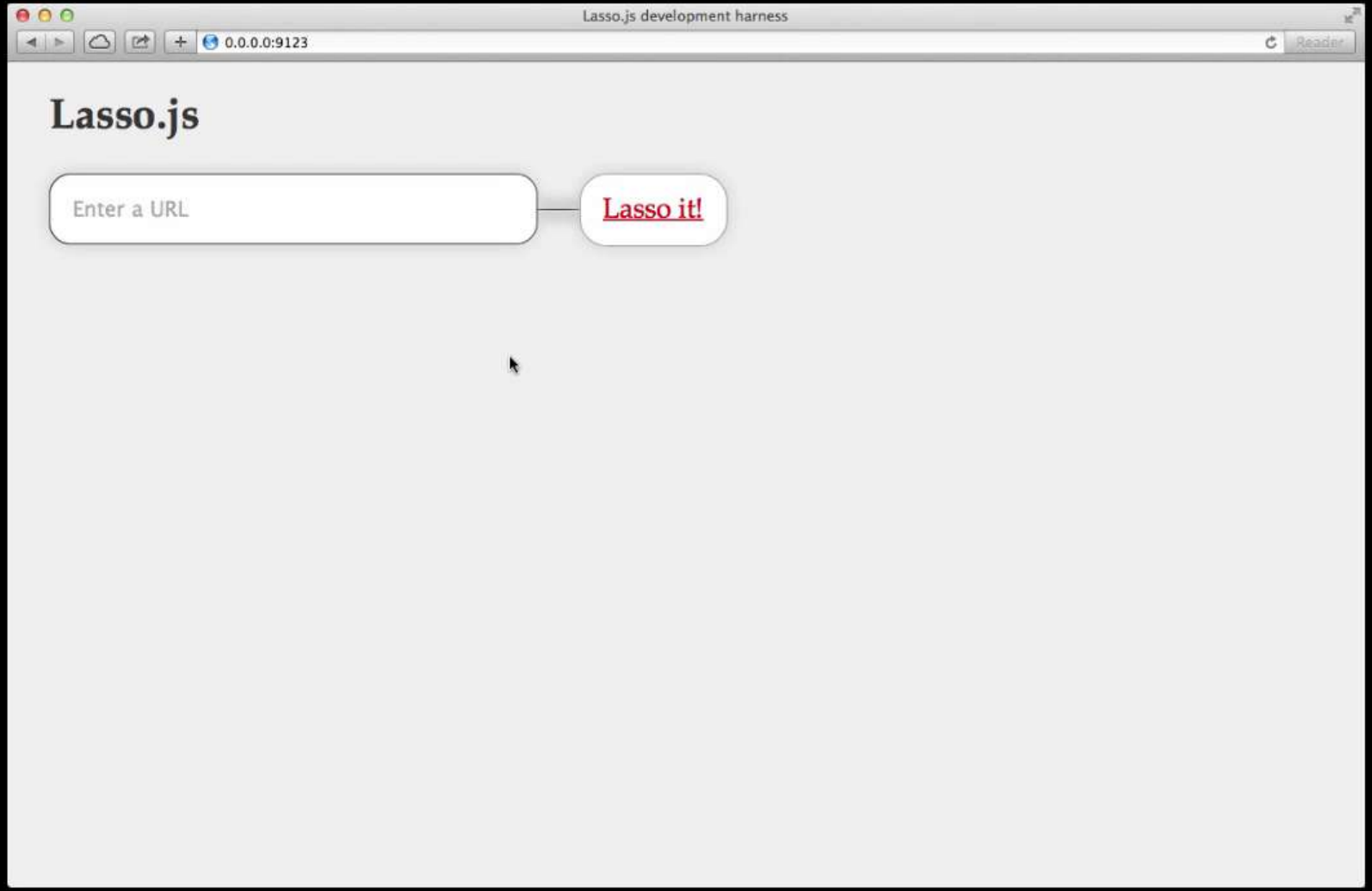

SANDB
OXED
CONTE
NT

TRUST CONTENT

GOING FAST
OR AT LEAST LOOKING
FAST


LEAGUE OF LEGENDS
LAUNCH
Online
North America
TABLE OF CONTENTS
PATCH UPDATES
CHAMPIONS
SION
AKALI
ANIVIA
AZIR
EZREAL
GANGPLANK
KHA'ZIX
LUCIAN
NUNU
ITEMS
FEATURED GAME MODES
TALON
Still not renaming it. Maybe in a future patch. Foot stab?
E - Cutthroat
WHOOPS : Cutthroat now properly grants assists
TRISTANA
Rapid Fire gives a smaller but more powerful buff in the late game. Tristana gets less attack speed per level.
Apologies if we're repeating the same thing from 4.17 but we're looking for ways to give Tristana more moments of weakness. As another repeat: while these changes may not completely address that goal, we're hoping that by making Trist more dependent on Rapid Fire to deal damage, there will be clearer windows to engage or disengage against her.
General
5 seconds
30/50/70/90/110% attack
VIKTOR
DOIN' IT LIVE
RIGHT IN THE
GAME

DEMO


Lasso.js development harness
0.0.0.0:9123
Reader
Lasso.js
Enter a URL
Lasso it!

DEMO

VIMEO
FLICKR
IMGUR
TWITTER
DEVIANTART
YOUR NEXT

SURVIV
THE
ING
WILD

“html”:

“ ”

IDIOMATIC

IS CO-OPERATIVE

HARMONIOUS AND

WHERE POSSIBLE

CONSIDERATE ALWAYS

WEB UI

<IFRAME
/>

WEB COMPONENTS

ADD BEHAVIOR TO (BUT NOT CONTENT)

BUT BRING YOUR OWN CONTENT

OEMBED

TELEPORTS CONTENT AND BEHAVIOR ACROSS THE WEB

NUTS
AND
GUM
TOGETHER
AT LAST!

CUSTOM TAG & CO-OP BOOTSTRAP

```
<custom-tag><including-content
/></custom-tag>
```

+

```
<script type="text/javascript">
    var ns = window.Riot || {};
    if(!ns.CustomTagDependency) {
        // inject compiled JS script
tag
    }
```

```
<div class="custom-thing">…</div>
```

+

```
<script type="text/javascript">
    var ns = window.Riot || {};
    if(!ns.CustomThingEnhancer) {
        // inject compiled JS script tag
    }
```

THE WEB IS REMIXABLE

PLAYER FOCUS • TOTAL OWNERSHIP • MOVE FAST • CONTINUOUS IMPROVEMENT
RIOTENGINEERING

DELICIOUS, DELICIOUS FEEDBACK

SOON™

GITHUB.COM/R
IOTGAMES

@RIOTJULESF

QUESTIONS AND FEEDBACK TO:

ERN