FARATA

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NASHORN – NATIVE JAVASCRIPT IN JAVA 8

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SENIOR SOFTWARE ENGINEER, FARATA SYSTEMS

QCON NEW YORK 2014

WHY YOU’RE HERE

★YOU'RE EXCITED ABOUT JDK8 FEATURES

WHY YOU’RE HERE

★YOU'RE EXCITED ABOUT JDK8 FEATURES

★JAVASCRIPT ENTHUSIAST

★JUST NEED TO KILL TIME BEFORE RECEPTION

WHO IS TALKING?

★SOFTWARE ENGINEER AND CONSULTANT

FARATA

WE BUILD APPLICATIONS.
WE CREATE IT. YOU OWN IT.

WHO IS TALKING?

- ★SOFTWARE ENGINEER AND CONSULTANT
- ★CO-AUTHOR AND JUG CO-LEAD

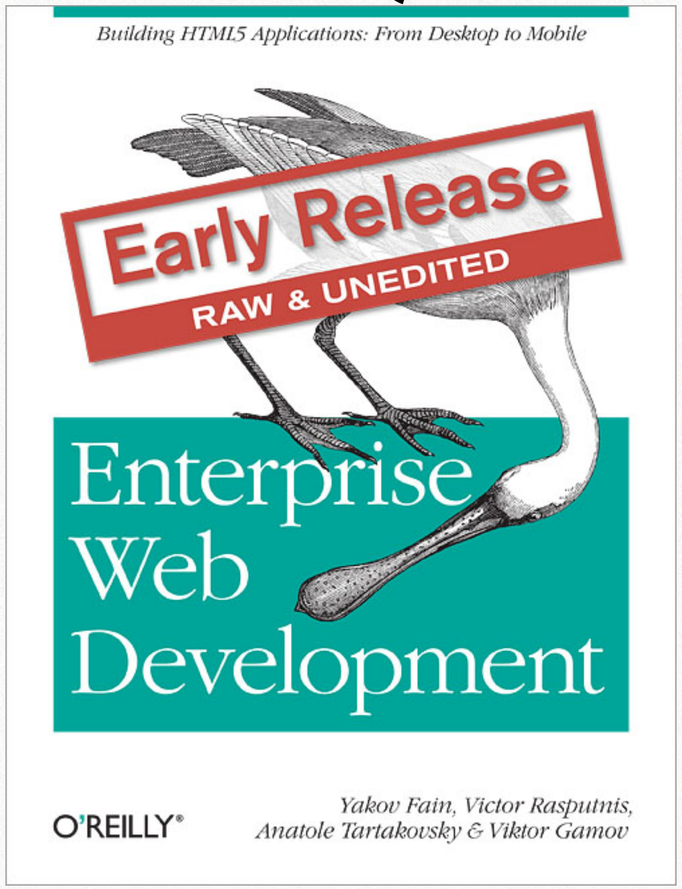
Building HTML5 Applications: From Desktop to Mobile

Enterprise Web Development

O'REILLY®

Yakov Fain, Victor Rasputnis,
Anatole Tartakovsky & Viktor Gamov

COMING TO THE STORES THIS SUMMER (HOPEFULLY)



HTTP://ENTERPRISEWEBBOOK.COM

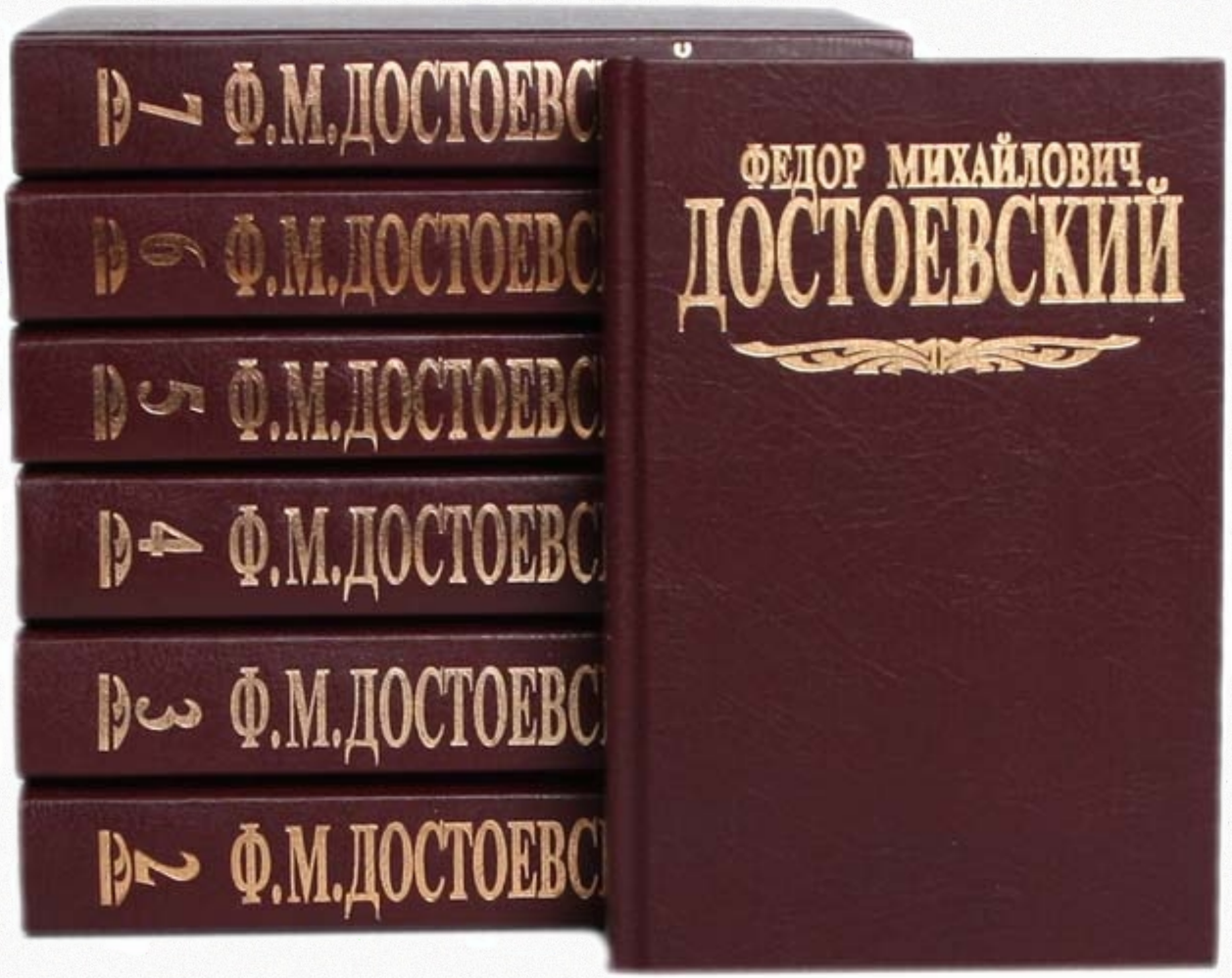
DRAFT AVAILABLE FOR FREE

HTTP://ENTERPRISEWEBBOOK.COM

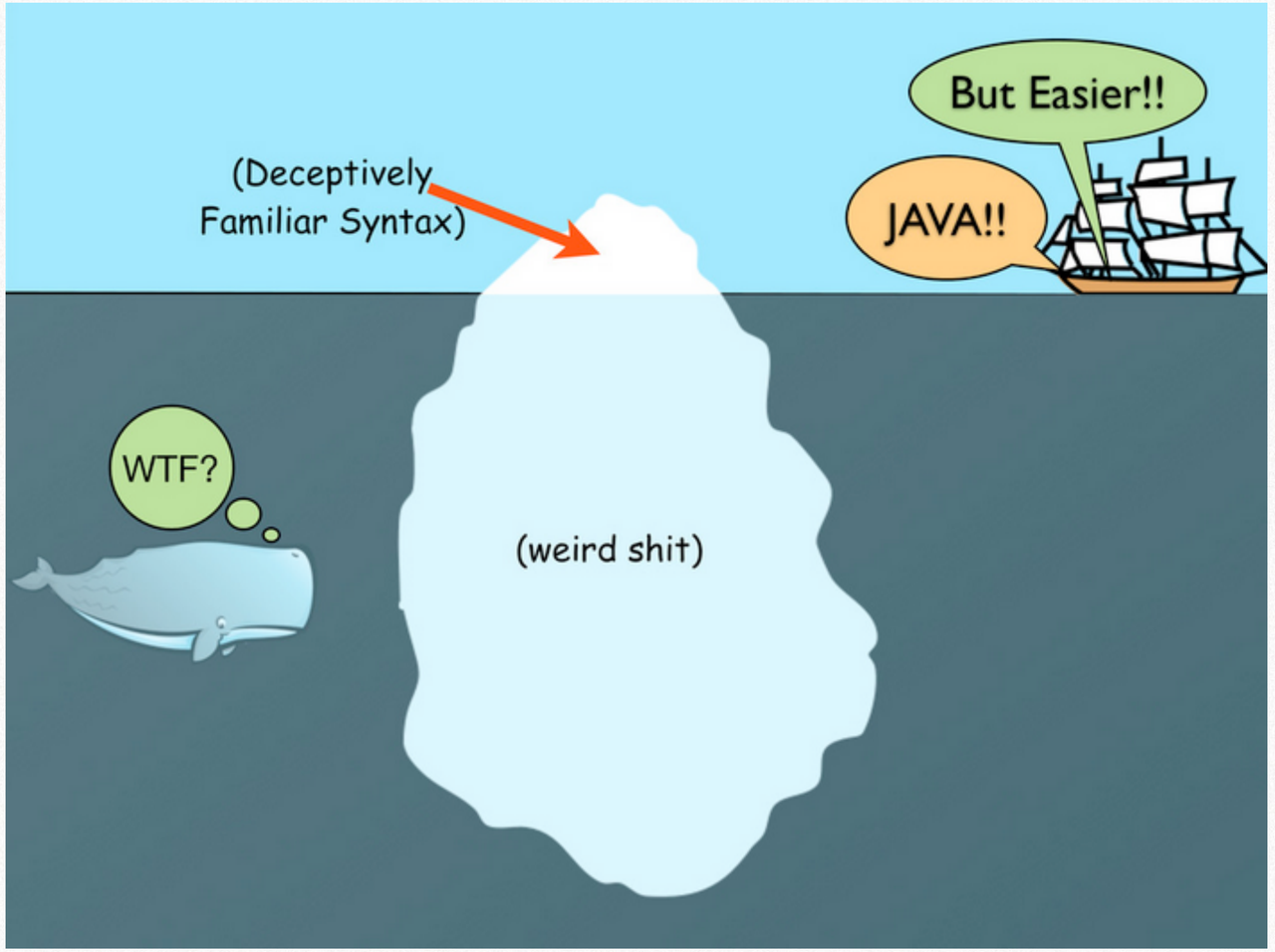
WHO IS TALKING?

- ★SOFTWARE ENGINEER AND CONSULTANT
- ★CO-AUTHOR AND JUG CO-LEAD
- ★GUY BETWEEN YOU AND BEER

POLYGLOT?



EVERYBODY KNOWS HOW TO JAVASCRIPT



JAVASCRIPT, WAT?

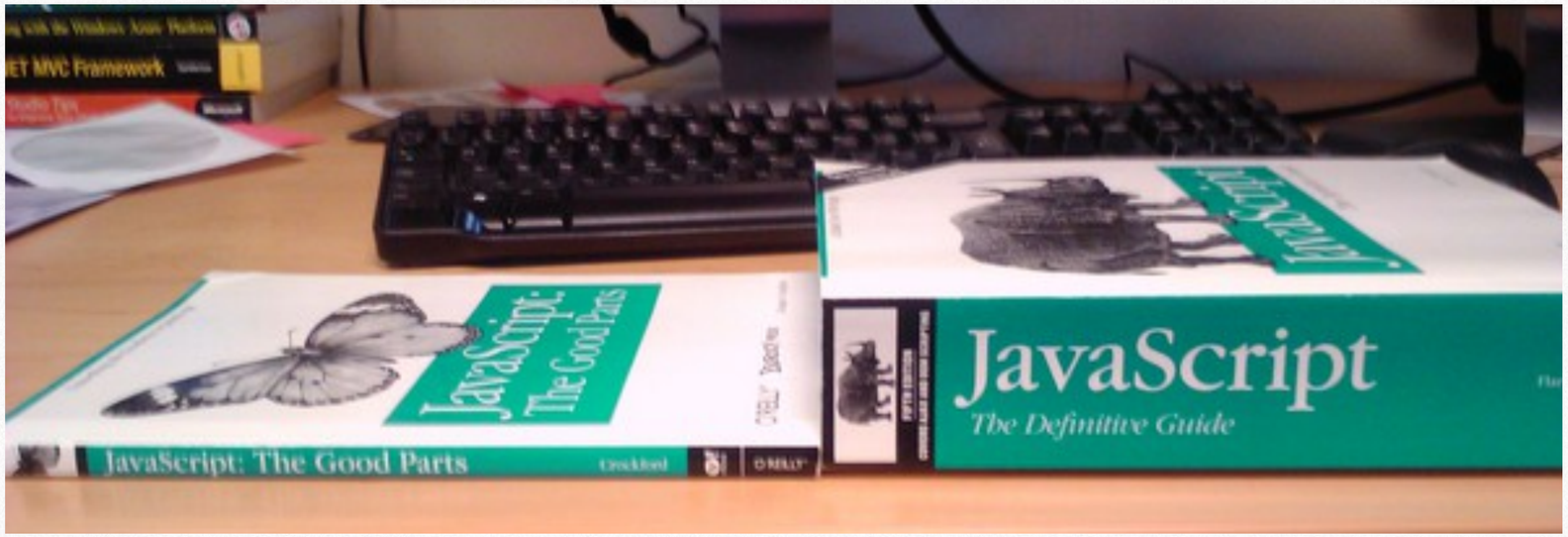
WWW.DESTROYALLSOFTWARE.COM/TALKS/WAT

```
print(3[3]);
```

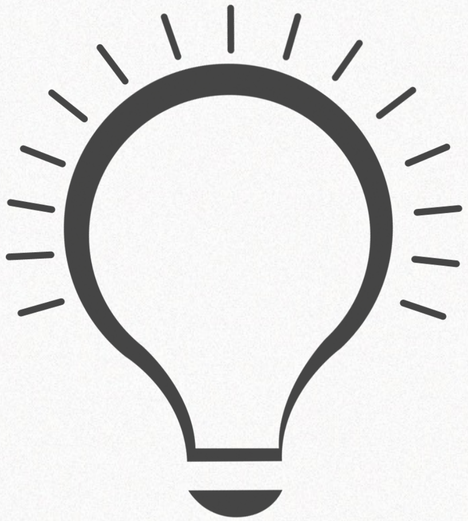
```
Number.prototype[3] = “qconnewqork";

print(3[3]);
```

MANY GOOD PARTS

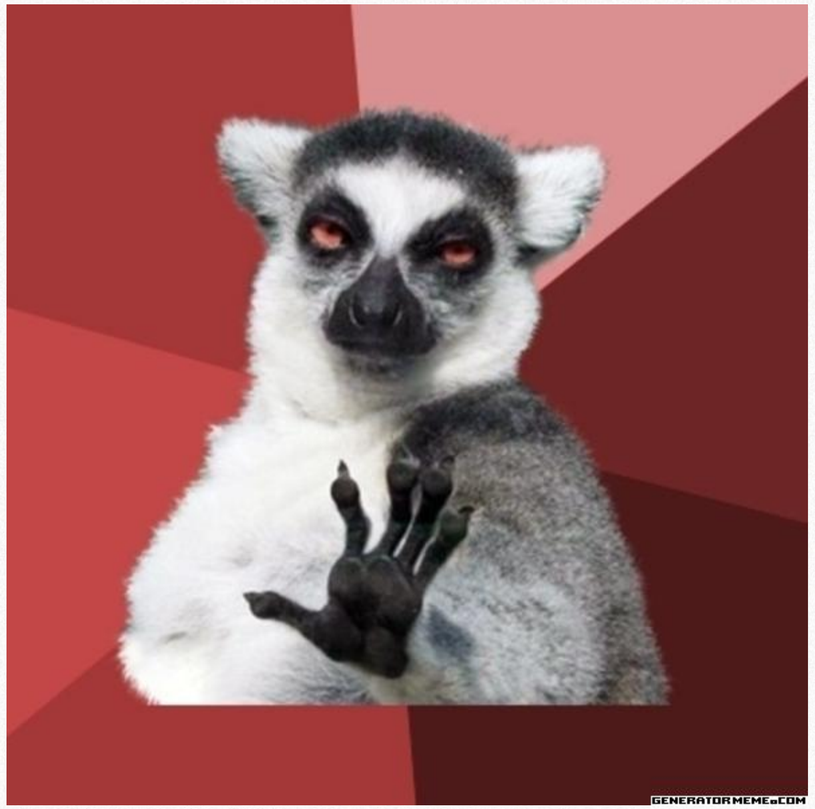


JAVASCRIPT ON JVM USE CASES



1. **SHELL SCRIPTING**
2. **EXTEND APP FUNCTIONALITY ON RUNTIME**
3. **PROVIDE EXTENSION POINTS FOR APPLICATION**
4. **WEB-CONTENT GENERATION**

WAIT, JAVASCRIPT?
IT’S ONLY FOR BROWSERS



JAVASCRIPT IS EVERYWHERE

- ★V8 AND NODEJS
- ★RHINO WAS HERE FOR YEARS
- ★HERE COMES NASHORN

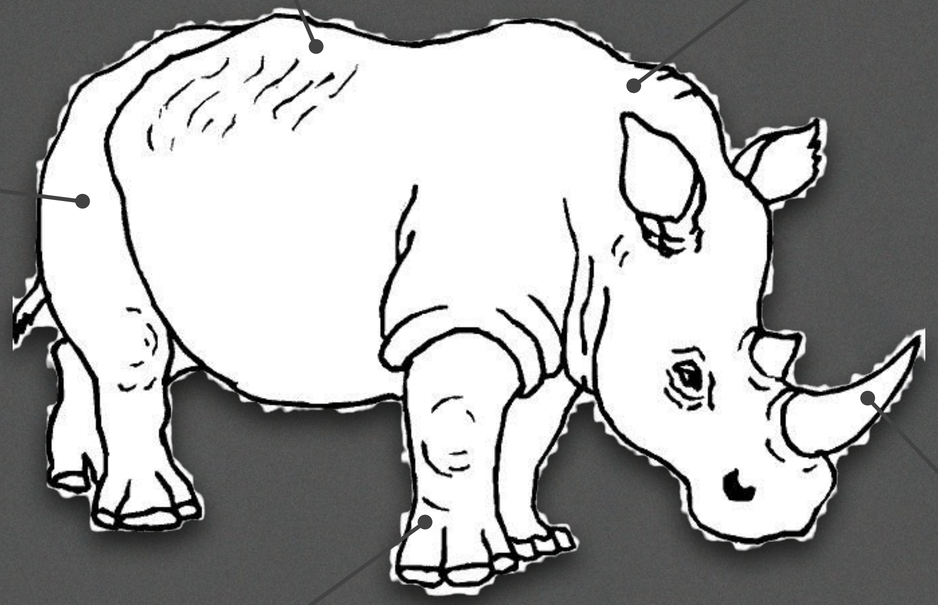
WHAT IS NASHORN?

WHAT IS NASHORN?

JAVASCRIPT ENGINE FOR JVM

100% PURE JAVA IMPLEMENTATION

ULTIMATE `invokedynamic` CONSUMER



100% COMPILED TO BYTECODE, NO INTERPRETER

100% ECMASCRIPT 5.1 COMPLIANT

http://www.1001ausmalbilder.de/ausmalbilder/gross/ausmalbild-nashorn-7.jpg

HOW TO USE NASHORN?

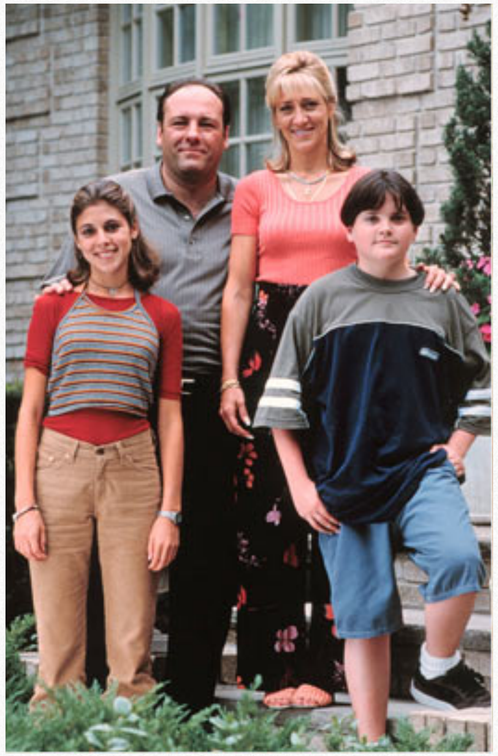
- ★ THE ONLY API IS JSR-223: `javax.scripting.*`
- ★ JAVA FROM JAVASCRIPT AND VICE VERSA
- ★ CREATE AND MANIPULATE JAVA/JAVASCRIPT OBJECTS
- ★ EXTEND JAVA CLASSES
- ★ IMPLEMENT JAVA INTERFACES

STORY ONE:
CURIOUS
SUPPORT ENGINEER

STORY ONE:
CURIOUS SUPPORT ENGINEER

STORY TWO:
FAMILY BUSINESS

STORY TWO:
FAMILY BUSINESS



STORY THREE:
NASHORN FOR BROWSER

NASHORN IN «WILD LIFE»

- ★ VERT.X NASHORN MODULE
- ★ PROJECT AVATAR (FORMER NODE.JAR)

DEMO

RESTRICTIONS

- THERE ARE NO BROWSER APIS:
  - HTML5 CANVAS
  - HTML5 AUDIO
  - WEBWORKERS
  - WEBSOCKETS
  - WEBGL

SHOW ME THE CODE

https://github.com/gamussa/java-scripting-experiments

Q&A

THANKS

FOR YOUR ATTENTION