JavaScript The World's Best Programming Language

(观赏本 slide 请使用 Chrome 45+ 等支持 ES6、Fetch API 等新特性的浏览器)

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实践第一

案例为主

时间: 2015年12月18-19日 / 地点: 北京·国际会议中心

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by Hax

嗯,slide的第一页内容有了 => //@DefconZhou: 看到the best的要么是眼界太窄,要么就 是有病 //@_Franky:这个标题...... //@寒冬winter:我不禁想去拉架了! //@孢子响马: 哈哈



6月12日 00:59 来自 微博 weibo.com

看到the best的 要么是眼界太窄 要么就是有病

有场

Who said "The best" either Ignorant or SICK

SICK

To be Honest

不发達

Controversial subject

我就是认真

it's not about victory, it's all about attitude

最好 ≠ 适用所有场景

不设限 打开思路

欢迎激烈争论

搜事实 讲道理

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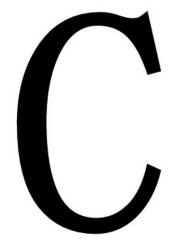
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Takahashi Method 高橋流簡報法

The options of "Best PL"



C++

Java CH

Lisp Scheme Haskell



Perl Python Ruby

Erlang



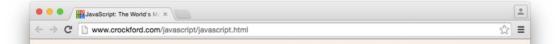
(jO Swift Rust



Thousands of languages... So I may miss someone you think the best...

Long long ago...

15 Years ago



JavaScript:

The World's Most Misunderstood Programming Language

Douglas Crockford

JavaScript, aka Mocha, aka LiveScript, aka JScript, aka ECMAScript, is one of the world's most popular programming languages. Virtually every personal computer in the world has at least one JavaScript interpreter installed on it and in active use. JavaScript's popularity is due entirely to its role as the scripting language of the WWW.

Despite its popularity, few know that JavaScript is a very nice dynamic object-oriented general-purpose programming language. How can this be a secret? Why is this language so misunderstood?

The Name

The Java- prefix suggests that JavaScript is somehow related to Java, that it is a subset or less capable version of Java. It seems that the name was intentionally selected to create confusion, and from confusion comes misunderstanding. JavaScript is not interpreted Java. Java is interpreted Java. JavaScript is a different language.

JavaScript has a syntactic similarity to Java, much as Java has to C. But it is no more a subset of Java than Java is a subset of C. It is better than Java in the applications that Java (fka Oak) was originally intended for.

JavaScript was not developed at Sun Microsystems, the home of Java. JavaScript was developed at Netscape. It was originally called LiveScript, but that name wasn't confusing enough.

The -Script suffix suggests that it is not a real programming language, that a scripting language is less than a programming language. But it is really a matter of specialization. Compared to C, JavaScript trades performance for expressive power and dynamism.

Lisp in C's Clothing

JavaScript's C-like syntax, including curly braces and the clunky for statement, makes it appear to be an ordinary procedural



By Douglas Crockford I don't like him...

What DC's "most misunderstood" really mean?



JavaScript is ALREADY a BEST language in 2001 If you as smart as DC

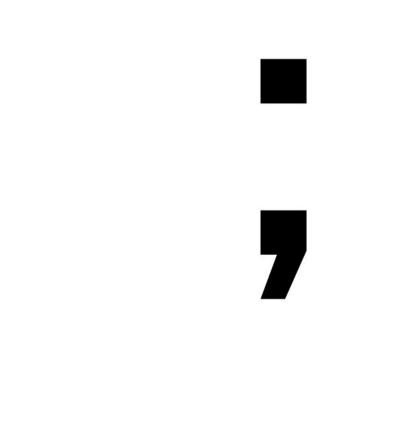
DC wrote a book taught you

GOOD Part and BAD part

He is right

though I don't like him

And except his opinion about



```
;; Semicolon-itis style ;;
```

Semicolon-less style

yyx990803/semi or hax/semicolon-less.js

Other opinions of DC which I against JS do not need Class JS do not need Module JS do not need this keyword JS do not need Object.create() (Object. create is invented by DC) JS do not need XXX

DC: JS is GOOD enough

I do NOT agree



My real feeling (before 2008):
JS is world's worst
programming language
... except PHP

And you have no choice

If you r a web front-end engineer

For Example: No module ->

each framework invent own wheel ->
community is break ->
unfair competition ->
the Matthew Effect ->
only jQuery win

jQuery is great but should not ONLY jQuery

DC replyed me in QconBeijing 2010: You could write module proposal yourself and send it to TC39: But DC and I both don't know there is already some great thing happen...

Node. js

164, 234 packages

183,668 packages

195, 117 packages

With Common JS

— a not very perfect module system JS has changed the world

Other keypoints

Async

Event driven

NO standard library NO burden

Even better ES6 module now

Language features Fix many problems

Class

fix 00 in JS

Arrow function fix this binding

Map, Set ... fix data structure

for...of fix for...in

async/await fix callback hell

More new features...

Language features is $\frac{Important}{for\ productivity}$

Sorry

Abstraction has COST

Example

Monad

How many people understand Monad?

A monad is just a monoid in the category of endofunctors 一个单子说白了不过就是自函 子范畴上的一个幺半群而已 what's the problem? 这有什么难以理解的?

Does JavaScript have Monad?

Yes

Eg. Promise

But Promise is provided as a core feature

You do NOT need to know Monad

aka monoid in the category of endofunctors

to use Promise

JavaScript community find a good BALANCE between practice and theory

Sorry 过于高冷的 Haskell

Sorry 被诅咒的 Lisp

Lisp是如此强大,以至于 在其他编程语言中的技术问题, 到了Lisp中变成了社会问题



Compatibility

JS should be the worst case



You can NOT

upgrade your language until ALL users upgrade their browsers

Babel

and many compilers/transpilers



Babel makes the language

Modular!

Means you can enable language features incrementally



Never happened in the past

With Babel

Most hard to upgrade ->
Always use
latest feature!

SOITY Python...



Performance

JavaScript is the

fastest

dynamic language!

Competition

within largest companies

Competition Cooperation

Optional strong type

Angular (Google) use TypeScript (MS)

Web Assembly

Google, Mozilla, Apple, Microsoft

ES2016: struct 'use stricter'

JavaScript will be

faster

in the future

My expectation: JavaScript will be as FAST as Java

Sorry Ruby...

JS as a Platform

"Everything that *can* be written in JavaScript *will* eventually be written in JavaScript". — Atwood's law

The birth & death of JavaScript

WebAssembly

Sorry

C#

Java

All of above is NOT important

Ecosystem

JavaScript have:



The most ubiquitous platform:

Browser



The most active platform:

Node. js

The most largest companies:

Google Microsoft Apple

The most experienced experts in the language committee

The most largest developers

Community

JavaScript The World's Best Programming Language

Thank you!

http://johnhax.net/2015/js-the-best