Modern Web

How the EAST Was Won

Akira Matsuda

Hello, Modern Web!

I'm very much honored to be here!

Here.

Modern Web 2015 | 講師陣 ×

Akira

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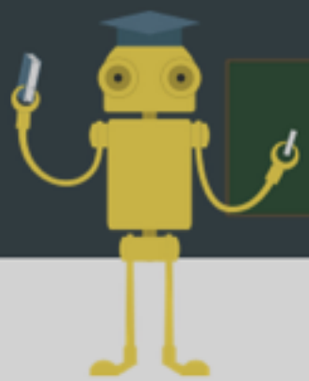

講師陣容

Keynote Speaker

Brendan Eich

JavaScript之父

Rasmus Lerdorf

PHP之父

松田明

Ruby 和 Rails 核心開發者

唐鳳

Haskell 與Perl 6 核心貢獻者

! ?

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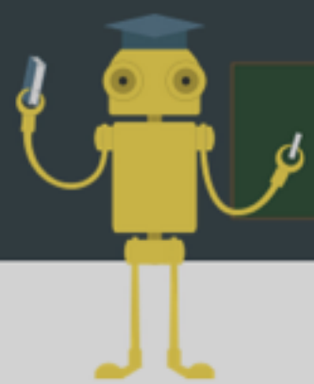

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I’m Sorry, I’m Not a 言語之父

Today I'm Going to Talk About Ruby

Ruby之父

Ruby之父

Matz

Ruby之父

Yukihiro Matsumoto

@yukihiro_matz FOLLOWS YOU

Rubyのパパ

島根県Matz江市

rubyist.net/~matz/

Joined February 2009

松?

- Matz: 松本 (Matsumoto)
- Me:　松田 (Matsuda)

Even an Airport in Taipei Is Matz

I'm Not a Ruby之父

- But I'm rather a Ruby之子

me

- Akira Matsuda (松田 明)

@a_matsuda

amatsuda

amatsuda

https://github.com/amatsuda

GitHub

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amatsuda

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ronnie@dio.jp
https://twitter.com/a_matsuda
Joined on May 26, 2008

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- **traceroute** — A Rake task gem that helps you find the dead … — 367
- **i18n_generators** — A pack of Rails generators gem plugin that ge… — 196

Public contributions

May Jun Jul Aug Sep Oct

Summary of Pull Requests, issues opened, and commits. Learn more.

Contributions in the last year
701 total
May 15, 2014 – May 15, 2015

Long
13
August 25

Contribution activity

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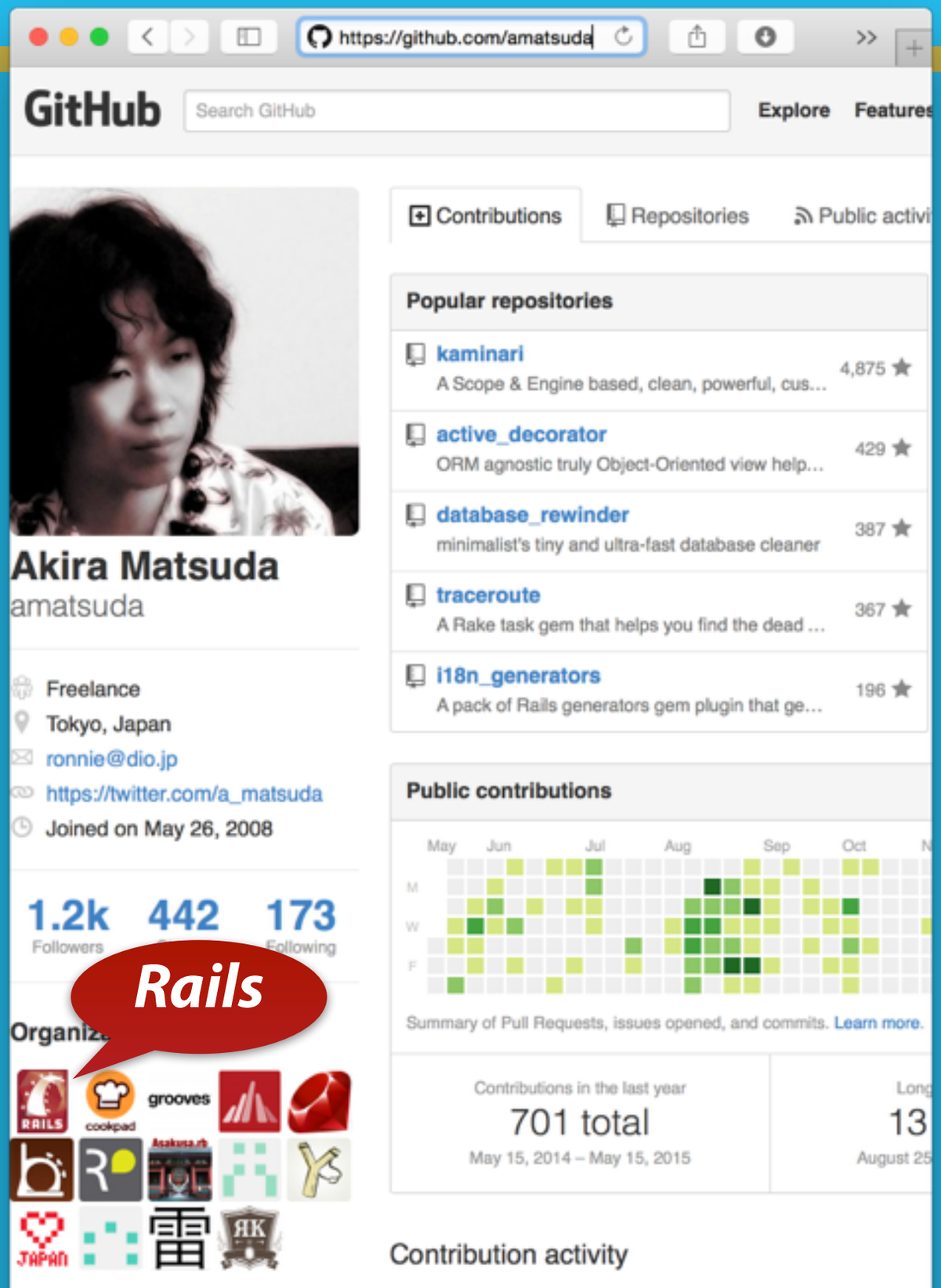
Ruby

amatsuda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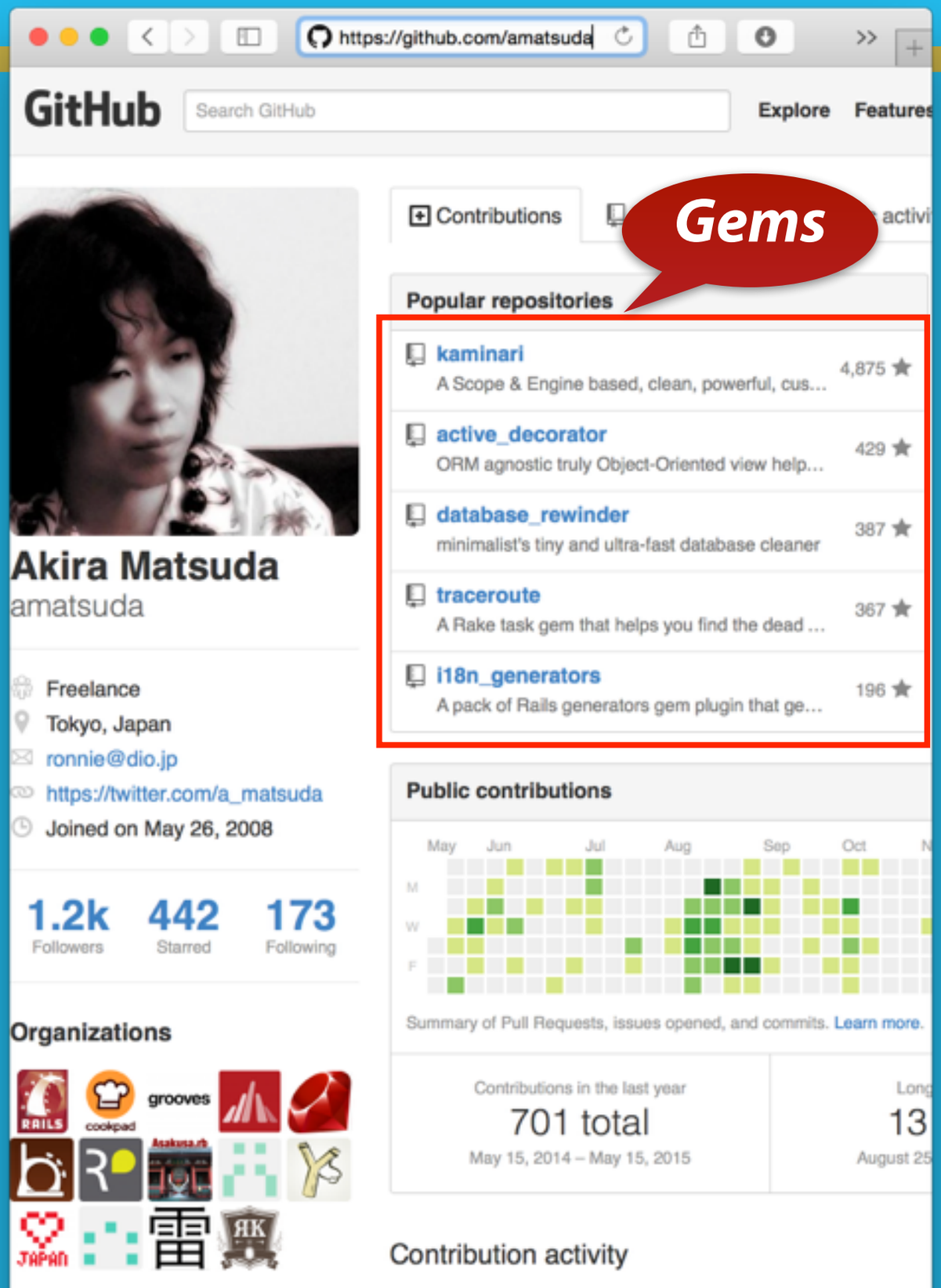
RubyKaigi

Contribution activity

amatsuda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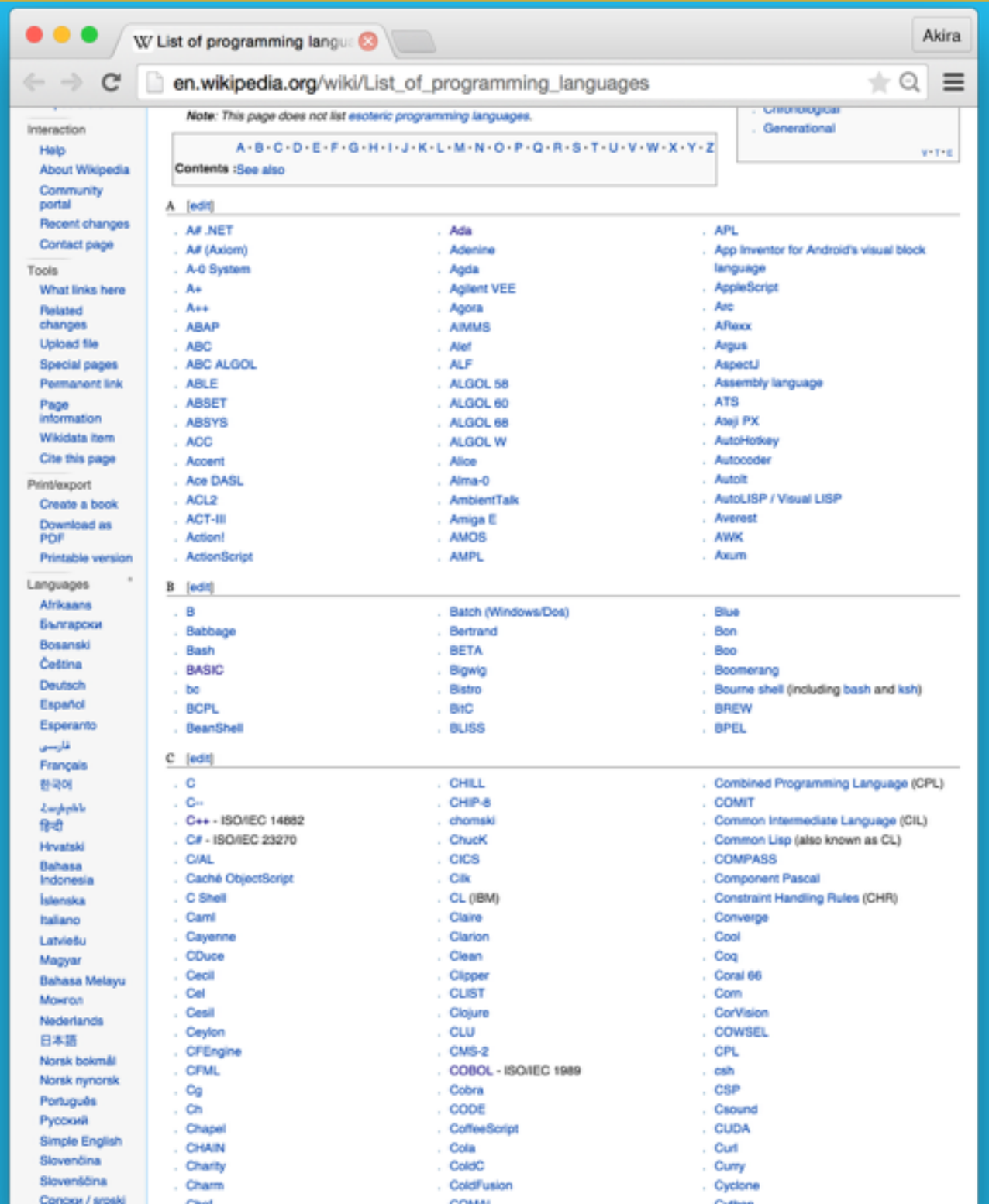
Q. Are You a Ruby Programmer?

Q. Who here have never used Ruby before?

There are so many programming languages

http://en.wikipedia.org/wiki/List_of_programming_languages



@languages.map

https://www.google.com/maps/d/u/0/viewer?mid=zfjBCRa8NxJ0.kxDspZZkaW2s

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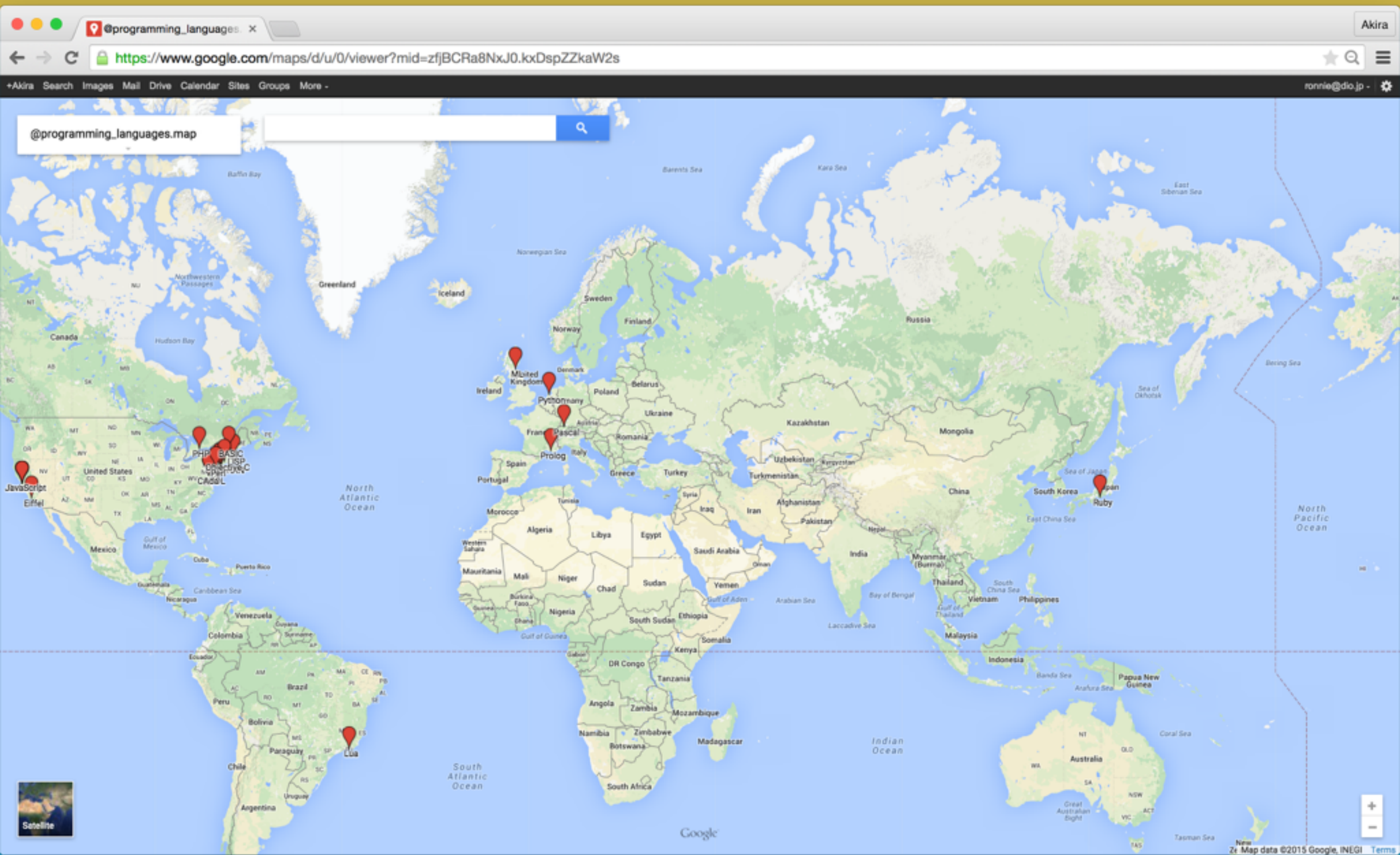

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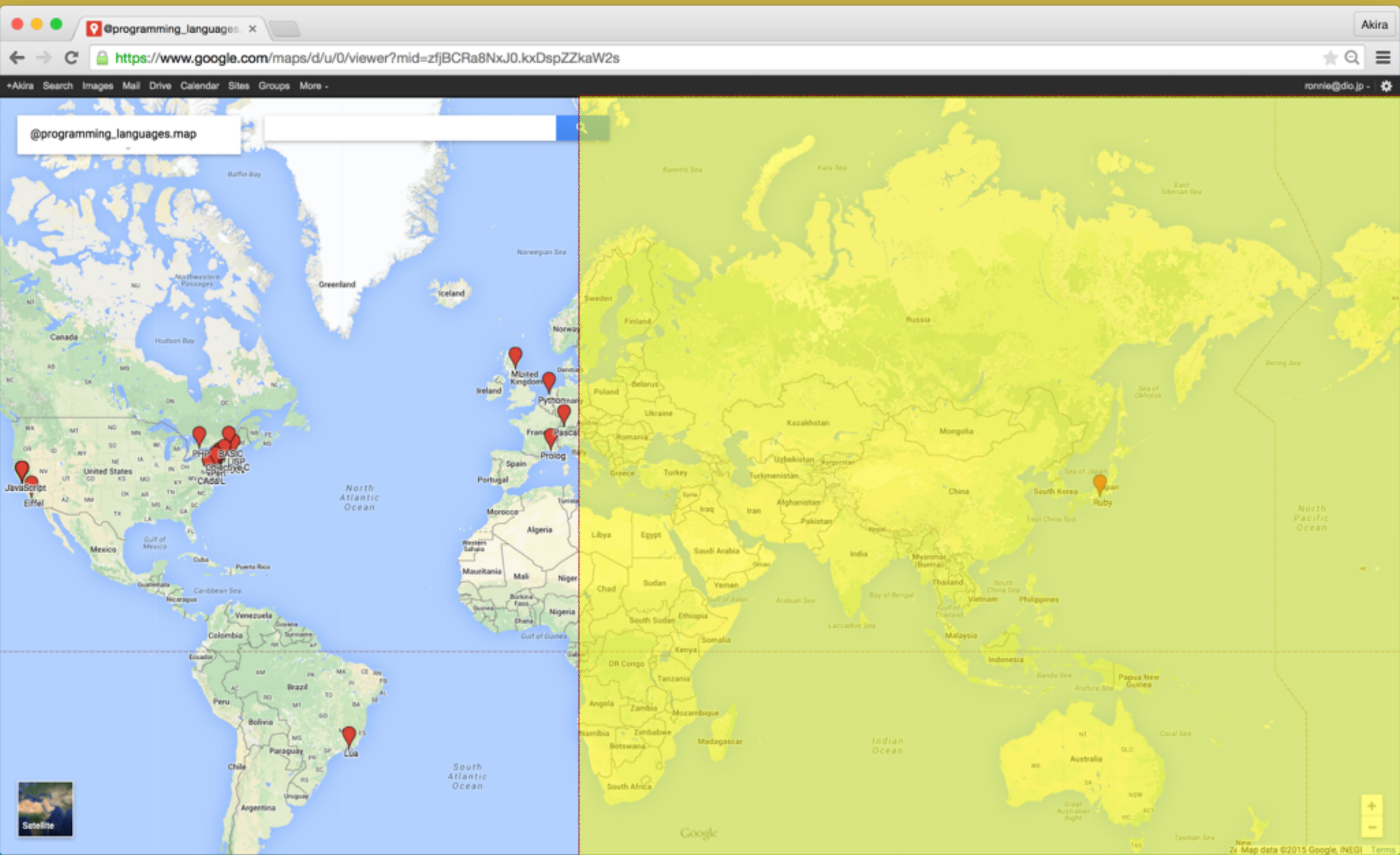


Ruby

- Very Unique Language
- Made in Japan!
  - The creator “Matz” is a Japanese
- The Only Language in this Map that was Made in Asia

Ruby Was Made in Asia

- But that's not the reason why Ruby became popular
  - Even in Japan, Ruby wasn't very popular before "Ruby on Rails"
  - Became popular in US, then reverse-imported to Japan

So Why Ruby Became Popular?

- Because people liked Ruby's philosophy

Ruby's Design Philosophy

"Ruby is designed to make programmers happy."

–Matz

I'm not saying that,

- Ruby is the only language that can make you happy
- I promise that Ruby will make you happy

Happy?

- What does “happy” mean?
- How can a programming language make us happy?

History of Ruby

In the Beginning,

- 1993年02月14日:

Matz thought,
“Let there be a language,”
and Keiju named it “Ruby”.

Design Concept

- Pure Object Oriented
- Scripting Language

Nothing New

- No new paradigm
- A curation of existing good parts of other languages

Ingredients of Ruby

“Ruby = Lisp + Smalltalk + Perl + C”

–Matz, at RubyKaigi 2013

Ruby's Design Philosophy

"Designed to Make Programmers Happy"

–Matz, 2000

Ruby Is Optimized for Developers

Where almost every other language is optimized for computers

Ruby Focuses on Productivity

Where almost every other language focuses on execution efficiency

Ruby's Syntax

- Concise, succinct syntax
  - => Feels natural to humans

Feels Natural

- Feels like our natural language
  - English

Ruby < English

Ruby = Lisp + Smalltalk + Perl + C

+ English

Natural

- Write what you think, then it should work
- And so the code reads very natural to other people

Ruby Feels Natural

🌏 => Productivity ↗↗ UP! ✨

🌏 => Maintainability ↗↗ UP! 🎉

Ruby Is Flexible

- Everything is an Object
- You can monkey-patch anything!

You Can Even Change the Way 1 + 1 Works! (but please don't do this)

- % ruby -e "p 1 + 1"
  #=> 2
- % ruby -e "Fixnum.class_eval { def +(n) self - n; end }; p 1 + 1"
  #=> 0

Isn't This Flexibility Dangerous?

- Yes, it is
- Users can easily shoot your own legs in Ruby
- But who does such a stupid thing?

Ruby Trusts the Users

- Ruby gives you powerful tools (e.g. meta programming)
- Which helps users a lot
- Gives users almightiness and universal feeling

The First Public Release

- 1995年12月21日:

The First Public Release

- 20 years ago!

And Matz said,

“Let there be communities”

Communities

Ruby Communities == Mailing Lists

Mailing Lists

- 1995年: ruby-list (Japanese, for users)

ruby-list ML

- As soon as he published his first release, he created a mailing list

Mailing Lists

- 1995年: ruby-list (Japanese, for users)
- 1997年: ruby-dev (Japanese, for core developers)

ruby-dev ML

- “Let the core developers be gathered to one place”
- Matz called the ML “ruby-dev”

Mailing Lists

- 1995年: ruby-list (Japanese, for users)
- 1997年: ruby-dev (Japanese, for core developers)
- 1998年: ruby-talk (English)

ruby-talk ML

- “Be fruitful and increase in number and fill the computers on the earth”
- And there were non-Japanese users

Matz's Community Design

- He created some mailing lists, and called them "communities"
- He separated users and core developers
- He created English speaking community as well

And Matz said,

“Let there be books”

Books

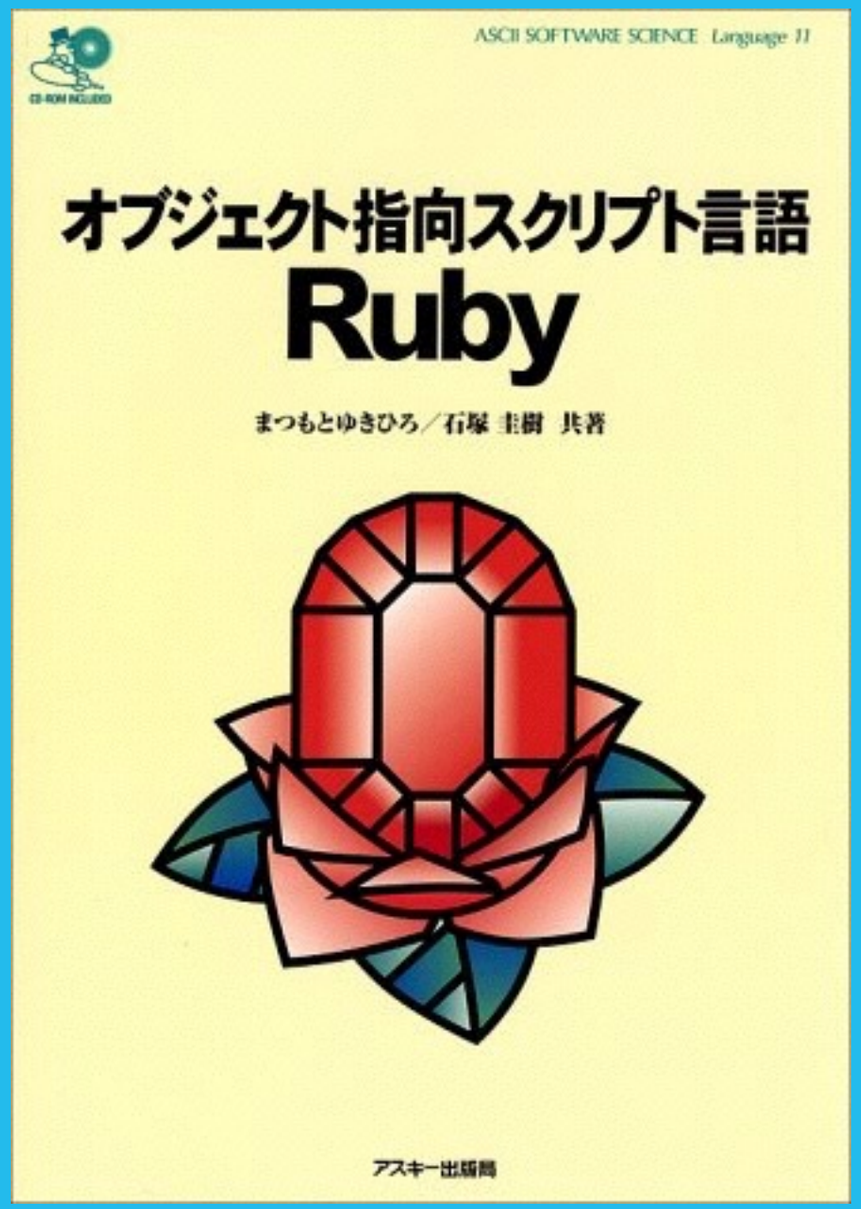
- 1999年:

  オブジェクト指向スクリプト言語Ruby

  (Object Oriented Scripting Language Ruby

  - Written by Matz himself, and Keiju the godfather of Ruby
  - Written in Japanese

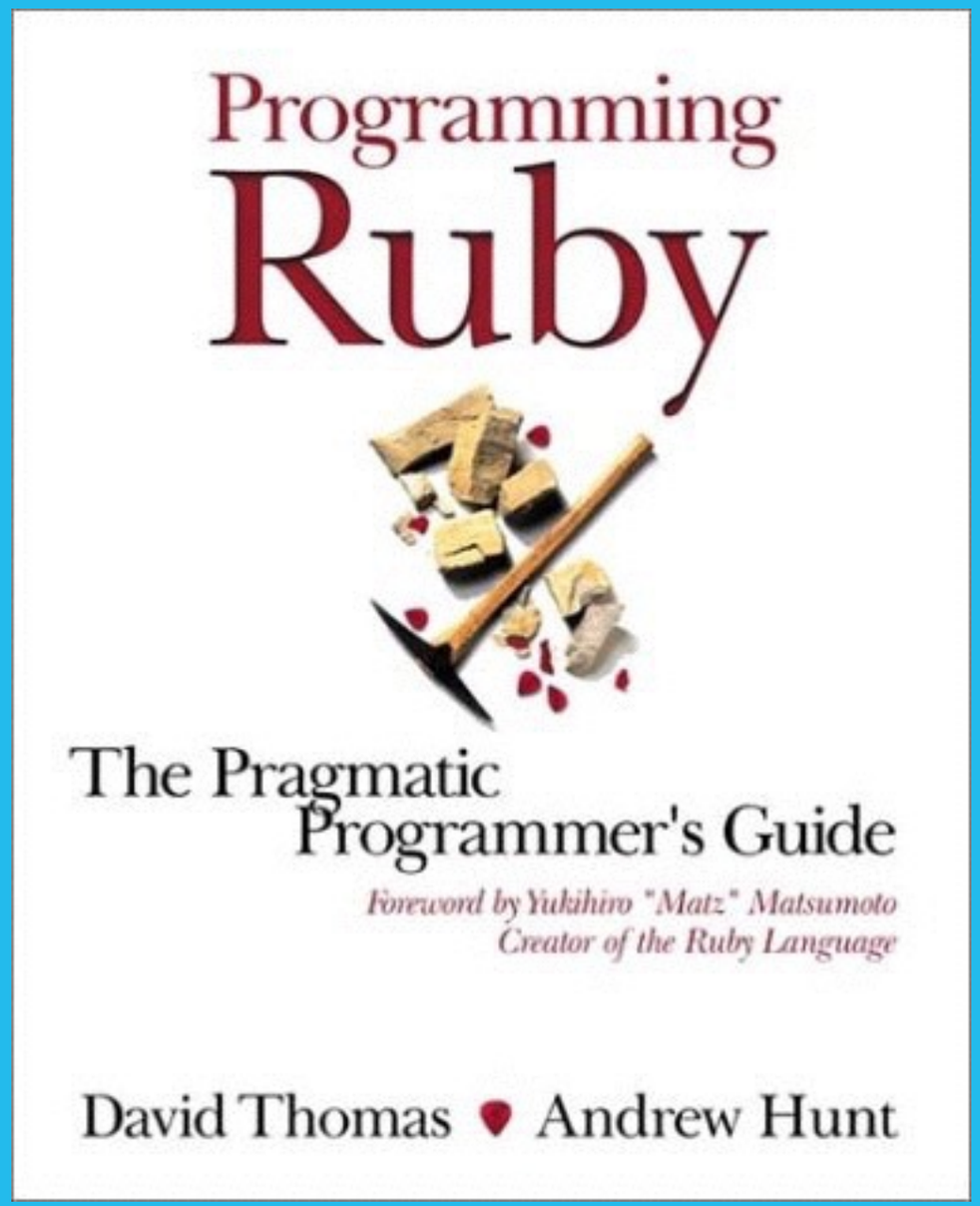
The “mustard coloured” book



Books

- 2000年: Programming Ruby
- Written by Dave Thomas & Andrew Hunt
- Written in English

The pick-axe book



The Language Spread Rapidly

- Because the book was great
- Because Ruby < English

And Matz said?

“Let there be conferences”

Did he?

No, this is not true.

And Matz said?

“Let there be conferences”

Ruby Conferences

- 2001年: The 1st RubyConf (US)
- 2003年: The 1st EuRuKo (Europe)
- 2006年: The 1st RubyKaigi (Japan)

Ruby Conferences

✓ Ruby conferences were kicked off by the English-speaking community

And Matz said?

“Let there be packaging system”

And Matz said?

“Let there be packaging system”

Packaging System

- 2003年: RubyGems
  - at RubyConf in US

Ruby Packaging System

✓The Ruby packaging system called “RubyGems” was created by the community in a conference

And Matz said?

“Let there be web framework”

And Matz said?

“Let there be web framework”

The Web Framework

The Web Framework

Ruby on Rails

- Created by DHH (David Heinemeier Hansson)
- 2004年: First Release

Ruby on Rails in 2015

- DHH still rules
- 10-20 Core members
- 4000 Contributors

Ruby Web Framework

- ✓The Ruby web framework called “Ruby on Rails” was created by DHH, and being maintained by the community

Ruby on Rails

- Convention over Configuration
- Don’t Repeat Yourself
- Code Generator

Ruby on Rails

- Aggressively focuses on productivity

Rails' Philosophy

"Write Less Code"

–DHH

Rails 💖 Ruby

- DHH's philosophy perfectly matches Ruby's philosophy
- Rails became possible because DHH found Ruby

Rails Is a Framework that Extends "the Ruby Way"

- And so, it's named "Ruby on Rails", not "Rails on Ruby"

Sophisticated & Powerful Plugin System

- Based on Ruby's flexibility
- Sometimes Monkey-Patchability

For Example

Adding #like Query Method to Model Classes

```
module ActiveRecord
  module ChainRelation
    module LikeBuilder
      def build_where(opts, other = [])
        super.map {|r| Arel::Nodes::Matches.new r.left, r.right}
      end
    end

    def like(opts, *rest)
      extend(LikeBuilder).where(opts, *rest).dup
    end
  end

  module QueryMethods
    def where_with_like(opts = nil, *rest)
      if opts.nil?
        spawn.extend(ChainRelation)
      else
        where_without_like(opts, *rest)
      end
    end
    alias_method_chain :where, :like
  end
end
```

Adding #like Method to Model Classes (Result)

```
Developer.like(name: 'Mat%').to_sql
#=> "SELECT * FROM developers WHERE name like 'Mat%'"
```

Enabling Controller Actions to Take Method Parameters

```
module ActionController
  class Base
    def send_action(method_name, *args)
      return send method_name, *args unless args.blank?

      values = method(method_name).parameters.map(&:last).map {|k| params[k]}
      send method_name, *values
    end
  end
end
```

Enabling Controller Actions to Take Method Parameters (Result)

```
class UsersController < ApplicationController
 def show(id)
    @user = User.find(id)
  end
end
```

 # try “action_args” gem if you liked this!

Because Ruby Is Such a Flexible Language

Rails has so many powerful plugins

Because Rails Has the Plugin System

- The Framework doesn't have to do everything
- Rails provides the core features, and delagates other features to plugins

Rails Plugins

- Authorization / authentication
- File Upload
- Pagination
- Alternative ORMs
- Template Engines
- Testing
- …

Because Rails Has the Plugin System

- Rails encourages people to write their own plugins
- Rails trusts the users, just as Ruby trusts the users

Because Users Can Create Powerful Plugins

- The community has got so many talented plugin creators

Standing on Shoulders of Giants

- The community helps your app development!

Don’t Repeat Yourself

- If you want to develop a typical feature for your app, you may find a plugin for that on the web
  - Don’t Repeat Someone’s Hack
- If you find a bug on the language, framework, or a plugin, just fix it and send a patch
  - Don’t Let Others Repeat Your Bug

The Whole Community Can Be DRY

- That's the Ecosystem

Don’t Repeat Yourself

Matz Just Created the Language and the Communities

- Then the community created everything else

“How the East Was Won”

- Ruby was created in Japan
- And raised in the community

“How the East Was Won”

- “East” alone didn’t win
- But the whole “community” won the current status of Ruby

The Community

What “the Community” is like today?

The Mailing Lists?

The Ruby Core?

The Rails Core?

The Ruby Community

“A group of Rubyists Communicating over the Internet”

–Me, 2015

We Programmers Can Communicate in Programming Language!

Not only in natural language such as English

We Programmers Can Communicate in Programming Language!

Such activity is called “Social Coding”

Social Coding

- Open-source
- Communication with code
- GitHub

  - Built with Ruby

Ruby < English

- Concise, succinct
- Reads natural

Ruby 💖 Social Coding

- Works great as a "Social Coding" protocol
- A true "Modern Web" Language

You Can Join!

- The community is there in your computer!
- Don’t be afraid!

You Can Join!

- Language Barrier?
- No! We're all speakers of Ruby!

The Ruby Community

"A group of Rubyists Communicating over the Internet"

–Me, 2015

Q. Who Here Thinks You Are a Rubyist?

- Or who here wants to be a Rubyist?
- How can you be a Rubyist?

What is Rubyist?
How Can You be a Rubyist?

- **The word "Rubyist" was created by Matz himself in May 1997**

http://blade.nagaokaut.ac.jp/cgi-bin/scat.rb/ruby/ruby-list/2908

Definition of "Rubyist"

- People whoever have some positive feeling toward Ruby.
- Not defined by Ruby programming skill
  - A skilled Ruby programmer shall be called "a ruby hacker"

For example,

- Who promote Ruby to other people
- Who answer others' questions
- Who organize local or online communities
- Who write Ruby books
- Who encourage the author of Ruby
- The author of Ruby ^^;;;

It's so easy to become a Rubyist

- If you like Ruby
- Just tweet "I like Ruby!"
- Then you're a Rubyist!

Just tweet “I like Ruby!”

- You can easily do it with Ruby!

- % gem install t
- % t authorize
- % t update “I like Ruby!”

Maybe not the happiest language for computers

- It's true that Ruby might not be the fastest language for computers
- But fast enough to run web apps
- And it's improving!

The Community is Not Just a Virtual Thing

- I said, it's a group of people.

Meet the Community!

- Conferences
- *.rb

Asakusa.rb

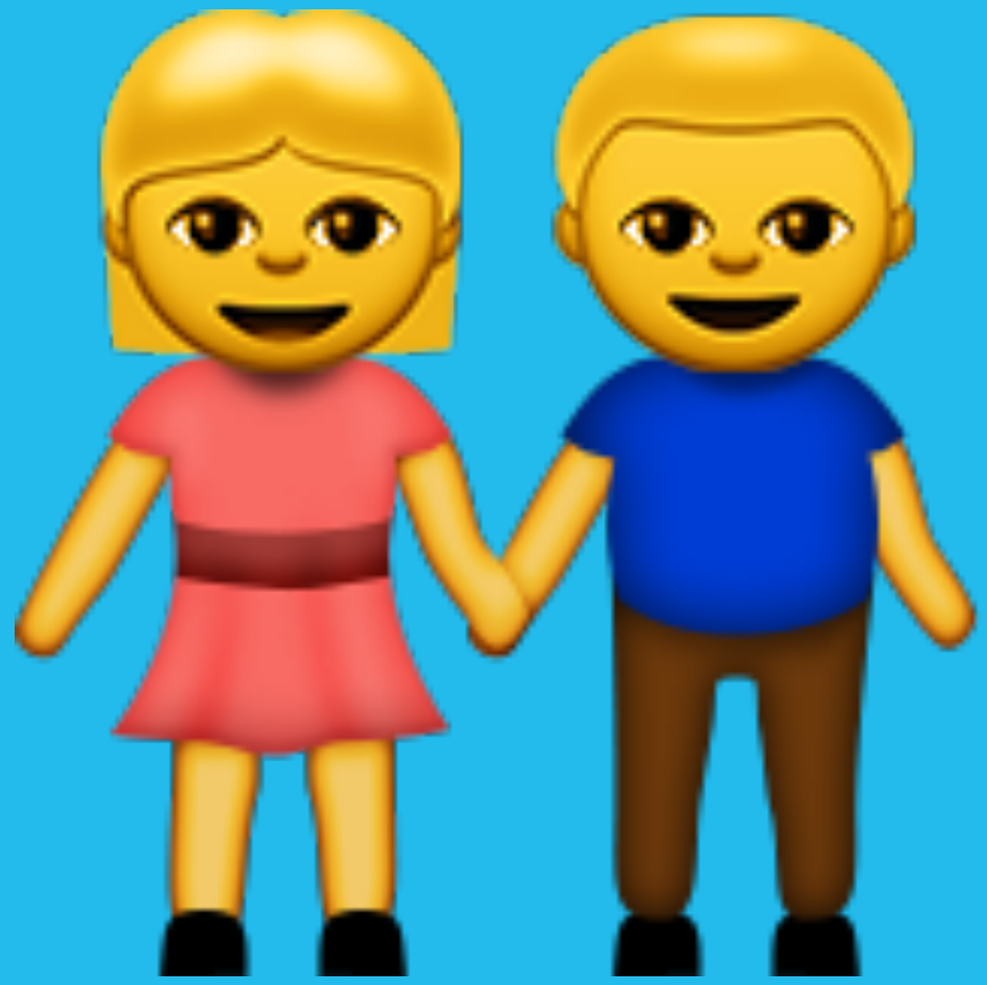
http://www.flickr.com/photos/takkanm/3978417669

Asakusa.rb.map

- Local community
- Friends from all over the world
- #rubyfriends

Welcome to Ruby!

Be Nice to Each Other



Enjoy Hacking

May RUBY be with YOU!