

Look at all these toys!



Help – it's Ruby!



All alone





Is Ruby dying?





Where do Rubyists go?



# Where do Rubyists go?

Tobias Pfeiffer

@PragTob

pragtob.info



L I E F E R Y



# Where do Rubyists go?

This questionnaire aims to identify which programming languages Ruby programmers are interested in and the reasons why these other languages are appealing to them. This is done out of interest and as part of the preparation for my talk "Where do Rubyists go?" that also wants to take a look at the most popular languages.

Please only answer this questionnaire if you did Ruby in the past or are currently doing Ruby. If you didn't learn any new languages that's also great and a very valuable answer :)

Results will also be published in blog form (probably early 2018). Free text field answers will not be published in full. They're safe with me (Tobi / @PragTob). I might quote extracts of answers but only if there's no personally identifying information.

For the free form text fields please aim to be concise, I want to read and categorize all of them so half a blog post might be interesting but quite challenging for me to go through everything then.

\*Required

When did you start learning Programming? (Please specify the year) \*

Your answer

When did you start learning Ruby? (Please specify the year) \*

Your answer

Why did you get into/learn Ruby in the first place? \*

Your answer

Are you currently doing Ruby in your free time? \*

☐ Yes

☐ No



## Where do Rubyists go?

673 Responses

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\*Required

When did you start learning Programming? (Please specify the year) \*

Your answer

When did you start learning Ruby? (Please specify the year) \*

Your answer

Why did you get into/learn Ruby in the first place? \*

Your answer

Are you currently doing Ruby in your free time? \*

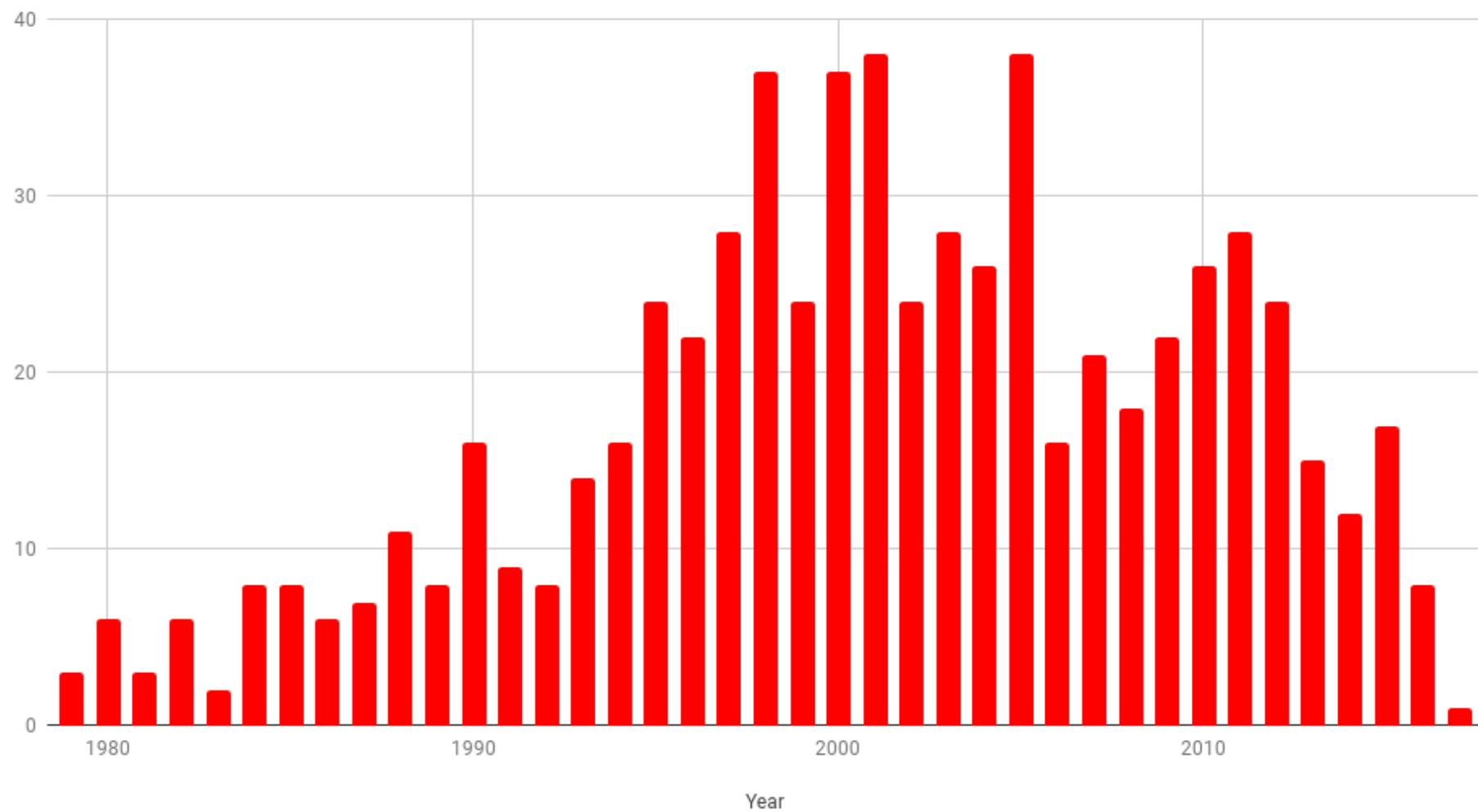
☐ Yes

☐ No

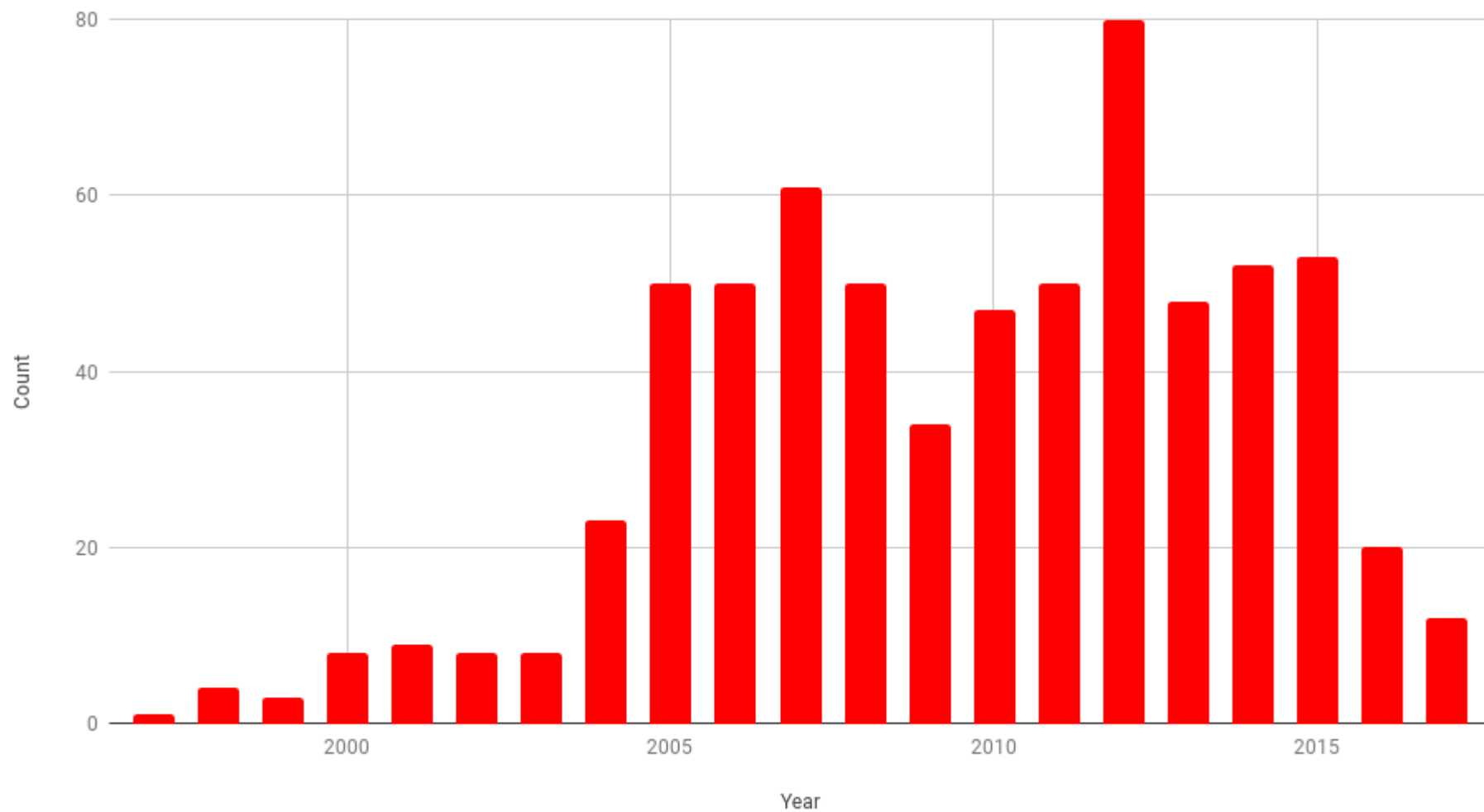




## When did you start learning Programming?



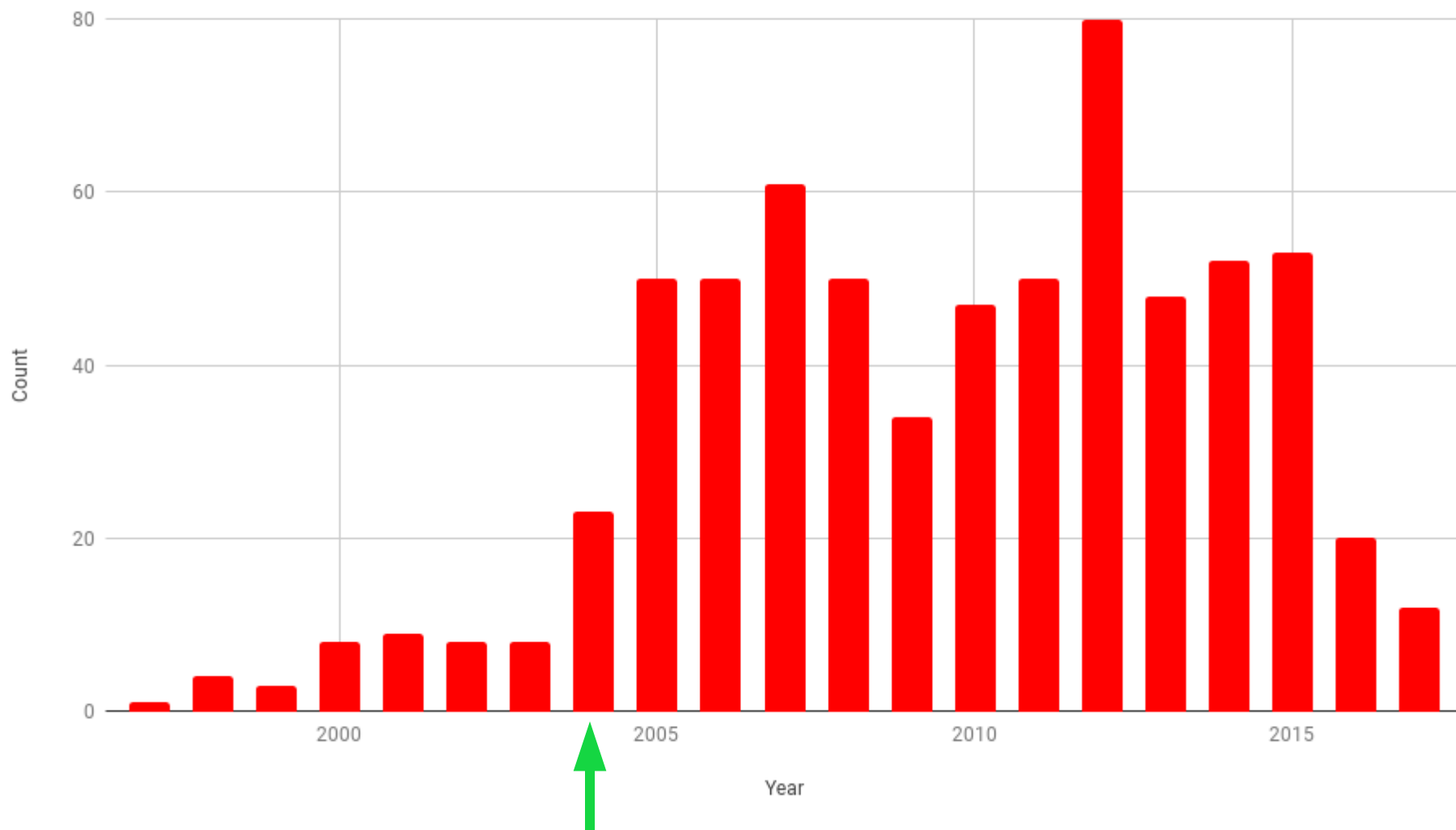
## When did you start learning Ruby?





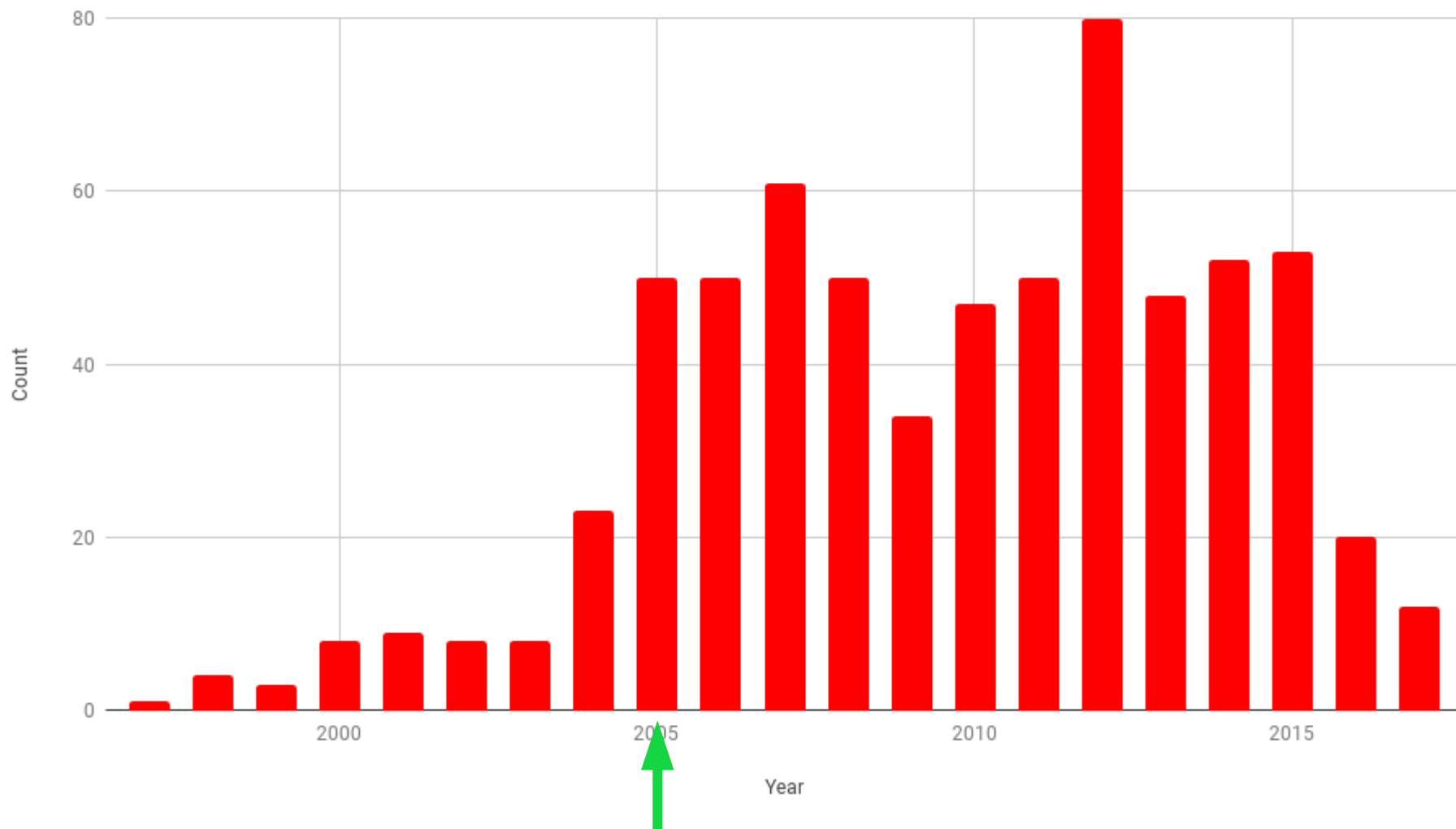
When did you start learning Ruby?

First Rails Release



When did you start learning Ruby?

Rails 1.0



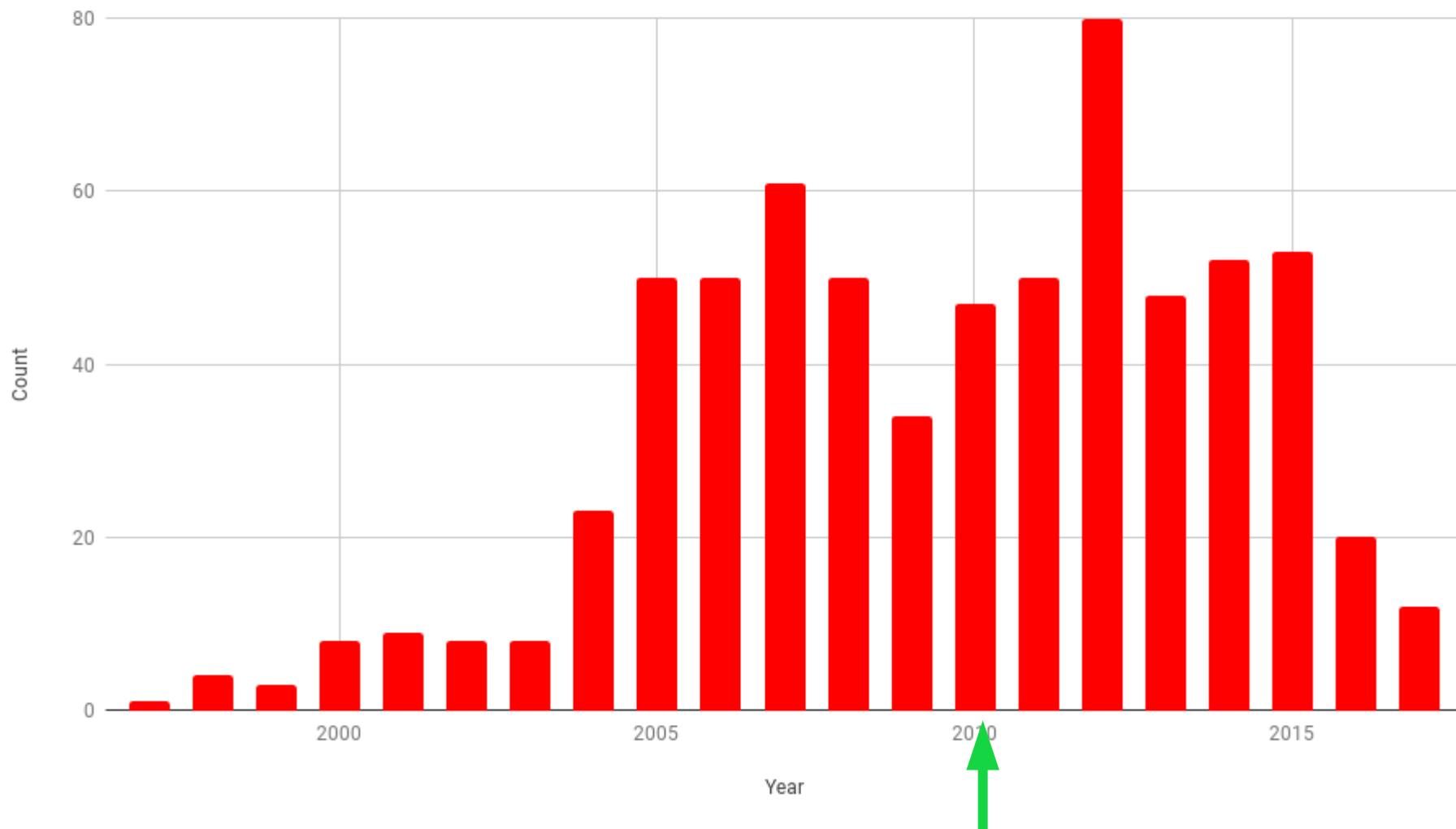


Why did you learn Ruby?

*“I had written half of Rails in PHP. Then Rails was announced and it was like **a cheat code to a working framework.**”*

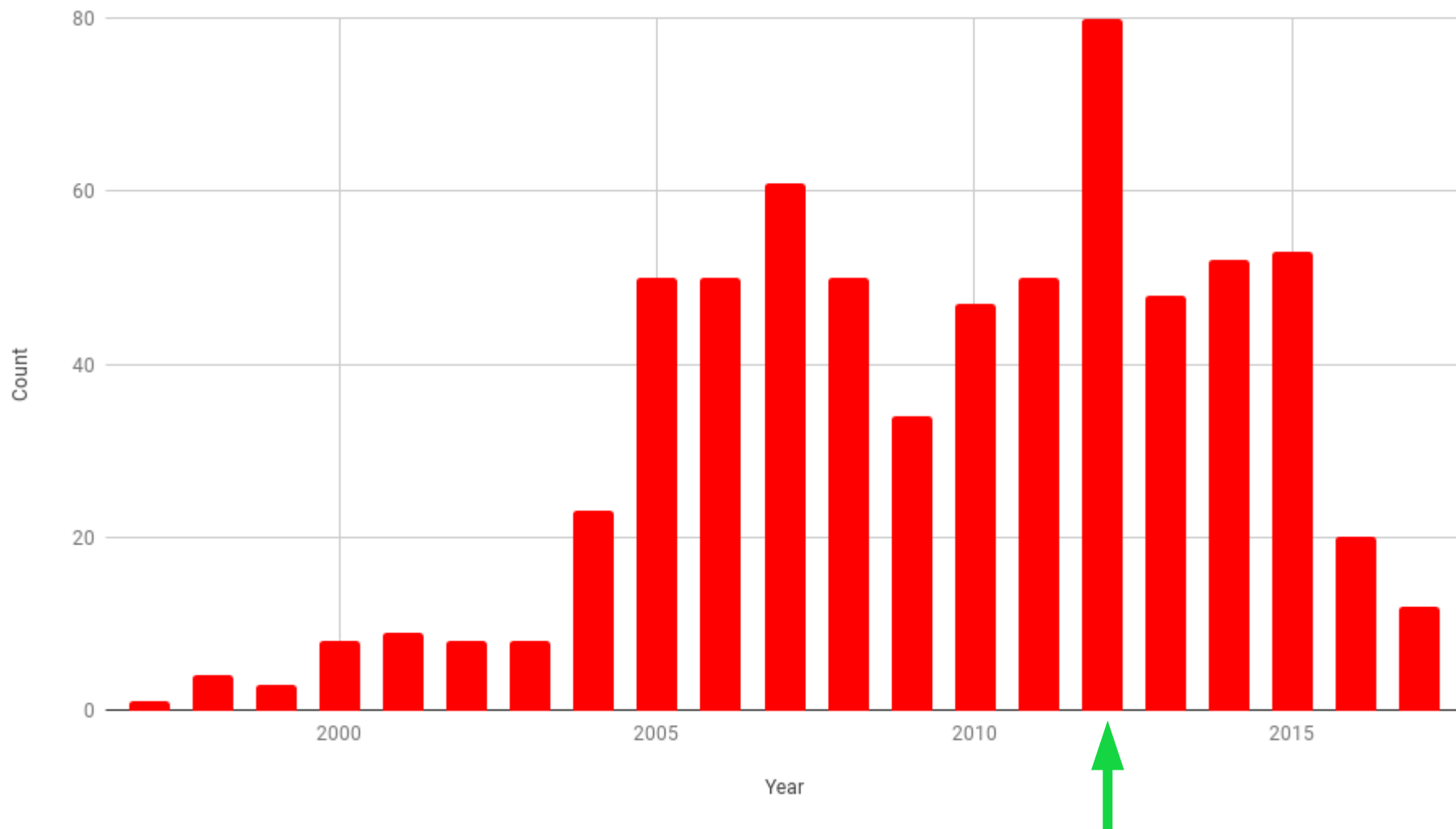
# First Rails Girls Workshop

When did you start learning Ruby?



# First Rails Girls Berlin Workshop

When did you start learning Ruby?





# Surveys and Bias

Like some bias?

▲ **Simplistic programming is underrated** programming lemire.me

18 via calvin 6 hours ago | suggest | flag | hide | save | cached | 11 comments

▲ **The Rise of Rust in Dev/Ops** devops rust mesosphere.com

13 via calvin 6 hours ago | suggest | flag | hide | save | cached | 2 comments

▲ **The anatomy of tee program on OpenBSD** c linux openbsd unix nanxiao.me

9 authored by nanxiao 9 hours ago | suggest | flag | hide | save | cached | no comments

▲ **Where do Rubyists go? (Survey about programming languages Ruby programmers are interested in)** ruby goo.gl

25 authored by PragTob 25 hours ago | flag | hide | save | cached | 17 comments

▲ **Bloom Filter Sort (bfsort)** compsci ml blog.stermon.com

5 via calvin 6 hours ago | suggest | flag | hide | save | cached | 3 comments

▲ **alphazero, deep mind AI, crush chess and shogi** pdf ai arxiv.org

9 via xcombelle 10 hours ago | suggest | flag | hide | save | cached | 2 comments

▲ **Metasepi Report: Writing NetBSD Sound Drivers in Haskell (2014)** audio pdf haskell netbsd programming metasepi.org

2 via nickpsecurity 29 minutes ago | suggest | flag | hide | save | cached | 1 comment

▲ **Book review: "Programming in Haskell" by Graham Hutton (2nd ed.)** book haskell eli.thegreenplace.net

5 via calvin 6 hours ago | suggest | flag | hide | save | cached | no comments

▲ **Make SSL boring again** browsers crypto security blog.cloudflare.com

4 via mpdehnel 4 hours ago | suggest | flag | hide | save | cached | no comments

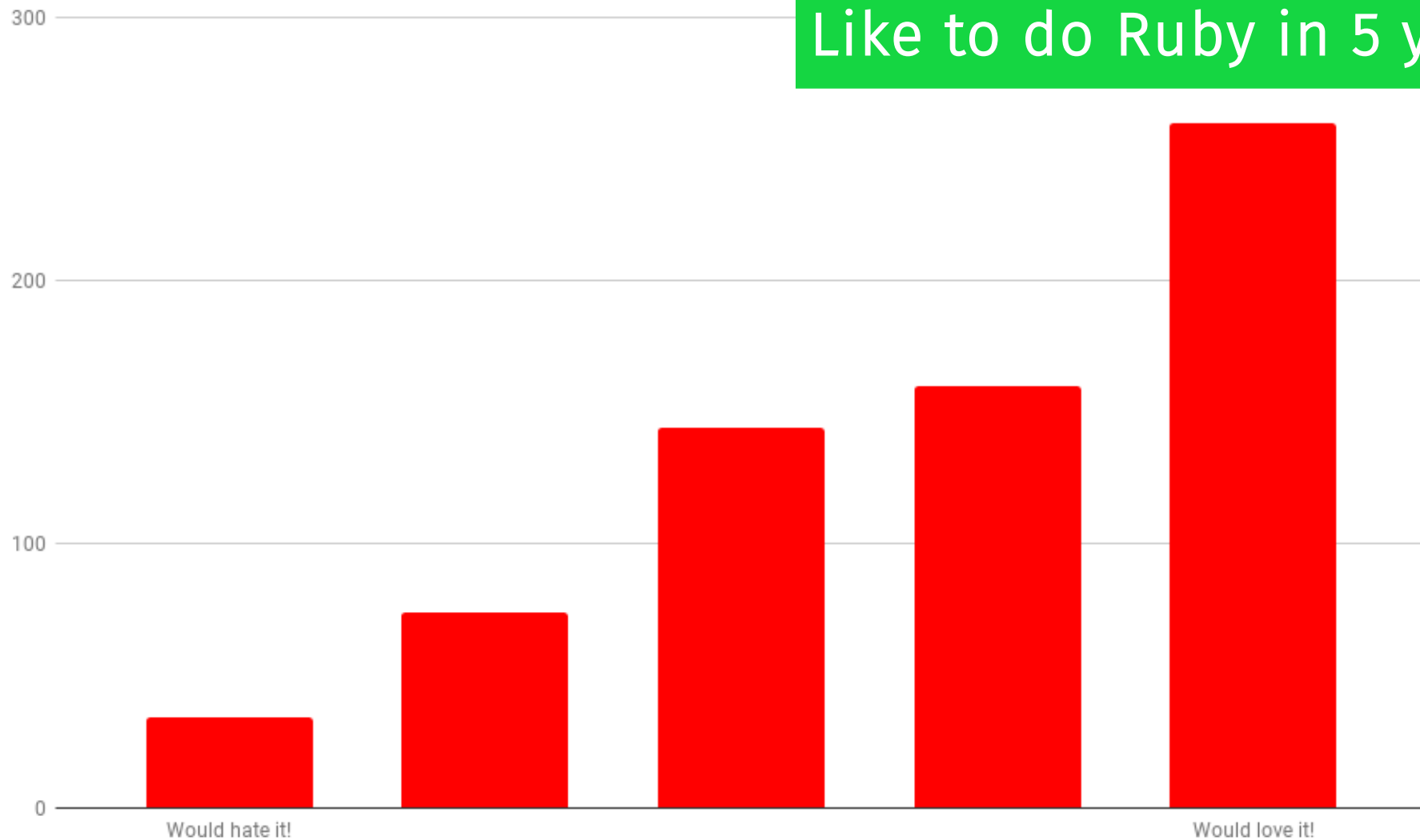
▲ **Ziria - A Wireless DSL for Systems Programming** pdf networking programming oucsace.cs.ohiou.edu

3 via nickpsecurity 2 hours ago | suggest | flag | hide | save | cached | no comments

▲ **Microsoft Launches Windows 10 On ARM: Always Connected PCs** hardware windows anandtech.com

11 via calvin 19 hours ago | suggest | flag | hide | save | cached | 8 comments

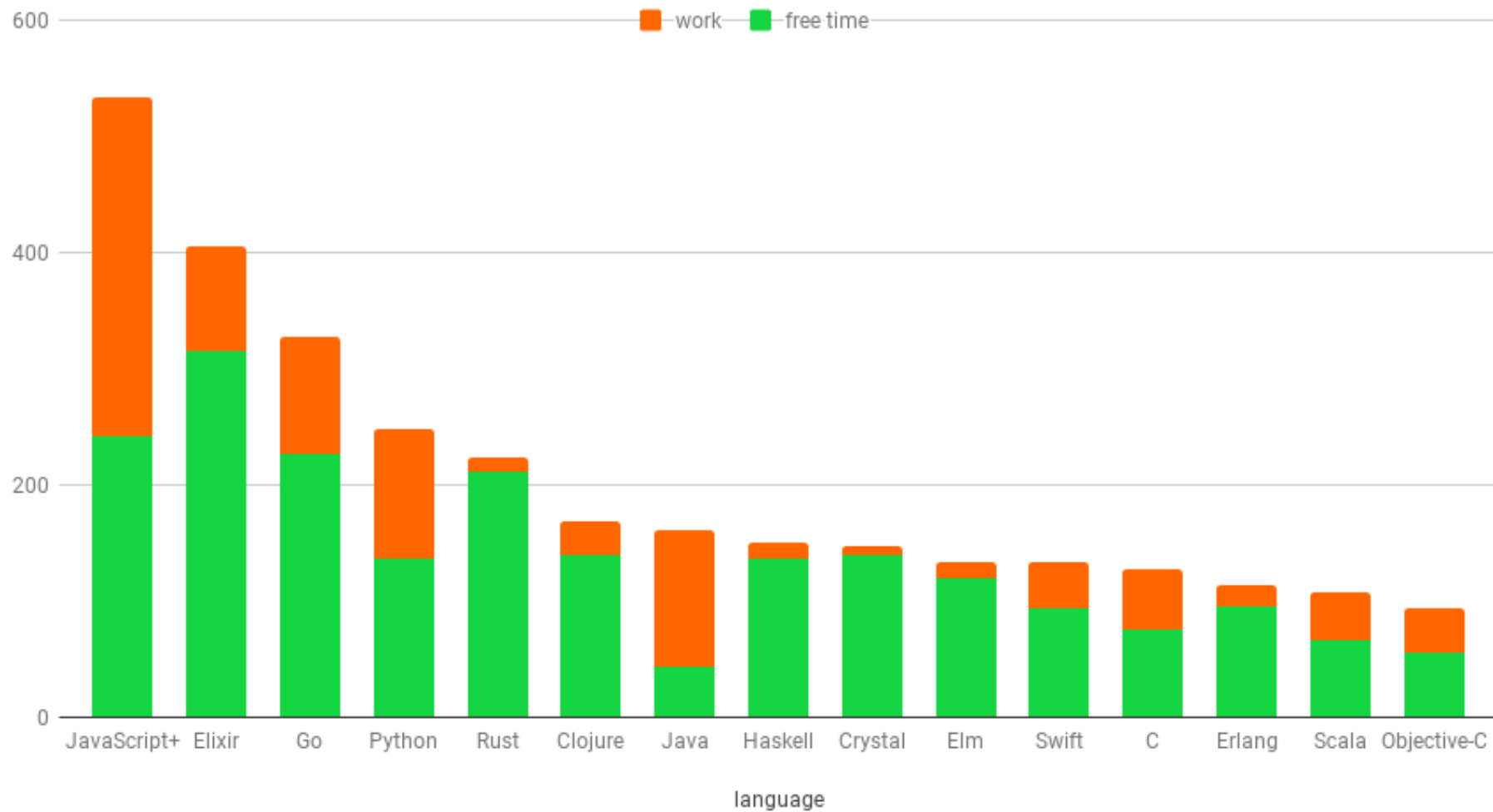
Like to do Ruby in 5 years?







## Languages learned



# Languages learned



Languages learned





Tools



Disclaimer



Meet & Greet





**Name:**

Ruby

**Popular Rubyists:**

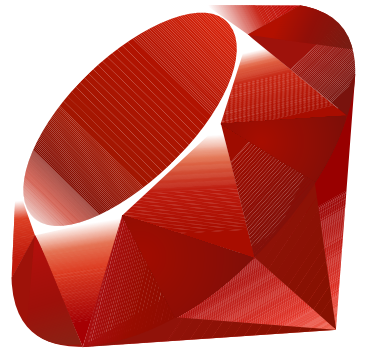
All of them

**Known for:**

Metaprogramming, dynamic,  
Scripting, web

**Self-assessment:**

*A dynamic, open source  
programming language with a  
focus on simplicity and  
productivity.*





FizzBuzz!

**1**

**2**

**1**

**2**

**Fizz**

1

2

Fizz

4

Buzz



1

2

Fizz

4

Buzz

Fizz

1

2

Fizz

4

Buzz

Fizz

7

8

Fizz

Buzz

11

Fizz

13

14

1

2

Fizz

4

Buzz

Fizz

7

8

Fizz

Buzz

11

Fizz

13

14

FizzBuzz

1

2

Fizz

4

Buzz

Fizz

7

8

Fizz

Buzz

11

Fizz

13

14

FizzBuzz

16

...

```
def fizzbuzz(n)  
  if (n % 15).zero?  
    "FizzBuzz"  
  elsif (n % 5).zero?  
    "Buzz"  
  elsif (n % 3).zero?  
    "Fizz"  
  else  
    n  
  end  
end
```

```
(1..100).each {|n| puts fizzbuzz(n)}
```

```
def fizzbuzz(n)  
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```
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(1..100).each {|n| puts fizzbuzz(n)}
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  elsif (n % 5).zero?  
    "Buzz"  
  elsif (n % 3).zero?  
    "Fizz"  
  else  
    n  
  end  
end
```

```
(1..100).each {|n| puts fizzbuzz(n)}
```



<b>Name:</b>	Crystal
<b>Popular Rubyists:</b>	Erik Berlin, Piotr Szotkowski, Fabio Akita
<b>Known for:</b>	Ruby-like, Performance, Type Inference
<b>Self-assessment:</b>	<i>Fast as C, slick as Ruby</i>

```
def fizzbuzz(n)  
  if (n % 15).zero?  
    "FizzBuzz"  
  elsif (n % 5).zero?  
    "Buzz"  
  elsif (n % 3).zero?  
    "Fizz"  
  else  
    n  
  end  
end
```

```
(1..100).each {|n| puts fizzbuzz(n)}
```

```
cp fizzbuzz.rb fizzbuzz.cr
```

```
def fizzbuzz(n)  
  if (n % 15).zero?  
    "FizzBuzz"  
  elsif (n % 5).zero?  
    "Buzz"  
  elsif (n % 3).zero?  
    "Fizz"  
  else  
    n  
  end  
end  
  
(1..100).each {|n| puts fizzbuzz(n)}
```





**Name:**

Elixir

**Popular Rubyists:**

José Valim, Dave Thomas,  
Xavier Noria

**Known for:**

Erlang VM, Actors, Functional,  
Phoenix

**Self-assessment:**

*dynamic, functional language  
designed for building scalable  
and maintainable applications.*

```
defmodule FizzBuzz do
  def fizzbuzz(n) when rem(n, 15) == 0, do: "FizzBuzz"
  def fizzbuzz(n) when rem(n, 5) == 0, do: "Buzz"
  def fizzbuzz(n) when rem(n, 3) == 0, do: "Fizz"
  def fizzbuzz(n), do: n
end

Enum.each(1..100, fn i -> IO.puts(FizzBuzz.fizzbuzz(i)) end)
```

```
defmodule FizzBuzz do
  def fizzbuzz(n) when rem(n, 15) == 0, do: "FizzBuzz"
  def fizzbuzz(n) when rem(n, 5) == 0, do: "Buzz"
  def fizzbuzz(n) when rem(n, 3) == 0, do: "Fizz"
  def fizzbuzz(n), do: n
end

Enum.each(1..100, fn i -> IO.puts(FizzBuzz.fizzbuzz(i)) end)
```



**Name:**

Haskell

**Popular Rubyists:**

Chad Fowler

**Known for:**

Type System, Monads, Pure

**Self-assessment:**

*An advanced, purely functional programming language.*

```
main = mapM_ (putStrLn . fizzbuzz) [1..100]
```

```
fizzbuzz x  
  | x `mod` 15 == 0 = "FizzBuzz"  
  | x `mod`  3 == 0 = "Fizz"  
  | x `mod`  5 == 0 = "Buzz"  
  | otherwise = show x
```

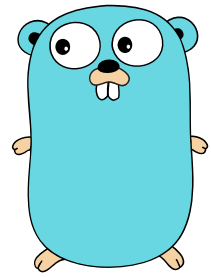
```
main = mapM_ (putStrLn . fizzbuzz) [1..100]
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fizzbuzz x  
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fizzbuzz x  
  | x `mod` 15 == 0 = "FizzBuzz"  
  | x `mod`  3 == 0 = "Fizz"  
  | x `mod`  5 == 0 = "Buzz"  
  | otherwise = show x
```





**Name:**

Go

**Popular Rubyists:**

Katrina Owen, Evan Phoenix

**Known for:**

Goroutines, Simple, No  
Exceptions, No Generics

**Self-assessment:**

*open source programming  
language that makes it easy to  
build simple, reliable, and  
efficient software.*

```
package main

import "fmt"
import "strconv"

func FizzBuzz(i int) string {
    switch {
    case i%15 == 0:
        return "FizzBuzz"
    case i%3 == 0:
        return "Fizz"
    case i%5 == 0:
        return "Buzz"
    default:
        return strconv.Itoa(i)
    }
}

func main() {
    for i := 1; i <= 100; i++ {
        fmt.Println(FizzBuzz(i))
    }
}
```

```
package main

import "fmt"
import "strconv"

func FizzBuzz(i int) string {
    switch {
    case i%15 == 0:
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    case i%3 == 0:
        return "Fizz"
    case i%5 == 0:
        return "Buzz"
    default:
        return strconv.Itoa(i)
    }
}

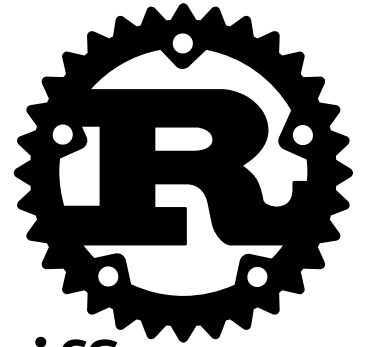
func main() {
    for i := 1; i <= 100; i++ {
        fmt.Println(FizzBuzz(i))
    }
}
```

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package main

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func FizzBuzz(i int) string {
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        return "Buzz"
    default:
        return strconv.Itoa(i)
    }
}

func main() {
    for i := 1; i <= 100; i++ {
        fmt.Println(FizzBuzz(i))
    }
}
```



**Name:**

Rust

**Popular Rubyists:**

Steve Klabnik,  
Yehuda Katz, Sean Griffin

**Known for:**

Memory Management,  
Compiler, Firefox Quantum

**Self-assessment:**

*a systems programming  
language that runs blazingly  
fast, prevents segfaults, and  
guarantees thread safety.*

```
fn main() {  
    (1..101).for_each(|n| println!("{}", fizzbuzz(n)))  
}  
  
fn fizzbuzz(n: i32) -> String {  
    match (n % 3, n % 5) {  
        (0, 0) => "FizzBuzz".to_string(),  
        (0, _) => "Fizz".to_string(),  
        (_, 0) => "Buzz".to_string(),  
        _ => n.to_string(),  
    }  
}
```



```
fn main() {  
    (1..101).for_each(|n| println!("{}", fizzbuzz(n)))  
}  
  
fn fizzbuzz(n: i32) -> String {  
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        (_, 0) => "Buzz".to_string(),  
        _ => n.to_string(),  
    }  
}
```

```
fn main() {  
    (1..101).for_each(|n| println!("{}", fizzbuzz(n)))  
}  
  
fn fizzbuzz(n: i32) -> String {  
    match (n % 3, n % 5) {  
        (0, 0) => "FizzBuzz".to_string(),  
        (0, _) => "Fizz".to_string(),  
        (_, 0) => "Buzz".to_string(),  
        _ => n.to_string(),  
    }  
}
```



**Name:**

JavaScript

**Popular Rubyists:**

Yehuda Katz, Jeremy Ashkenas

**Known for:**

Quirks, Async, Compile to

**Self-assessment:**

*a lightweight interpreted or JIT-compiled programming language with first-class functions.*

```
const fizzBuzz = n => {  
  if (n % 15 === 0) {  
    return "FizzBuzz";  
  } else if (n % 3 === 0) {  
    return "Fizz";  
  } else if (n % 5 === 0) {  
    return "Buzz";  
  } else {  
    return n;  
  }  
};  
  
for (let n = 1; n <= 100; n += 1) {  
  console.log(fizzBuzz(n));  
}
```

```
const fizzBuzz = n => {  
  if (n % 15 === 0) {  
    return "FizzBuzz";  
  } else if (n % 3 === 0) {  
    return "Fizz";  
  } else if (n % 5 === 0) {  
    return "Buzz";  
  } else {  
    return n;  
  }  
};  
  
for (let n = 1; n <= 100; n += 1) {  
  console.log(fizzBuzz(n));  
}
```

```
const fizzBuzz = n => {  
  if (n % 15 === 0) {  
    return "FizzBuzz";  
  } else if (n % 3 === 0) {  
    return "Fizz";  
  } else if (n % 5 === 0) {  
    return "Buzz";  
  } else {  
    return n;  
  }  
};  
  
for (let n = 1; n <= 100; n += 1) {  
  console.log(fizzBuzz(n));  
}
```

**Name:**

Clojure

**Popular Rubyists:**

Russ Olsen, Bozhidar  
Batsov, Arne Brasseur

**Known for:**

*Rich Hickey, Lisp, JVM, ()*

**Self-assessment:**

*a robust, practical, and fast  
programming language with a  
set of useful features that  
together form a simple,  
coherent, and powerful tool.*



```
(defn fizzbuzz [n]
  (cond
    (zero? (mod n 15)) "FizzBuzz"
    (zero? (mod n 3))  "Fizz"
    (zero? (mod n 5))  "Buzz"
    :else n))

(run! println (map fizzbuzz (range 1 101)))
```



```
(defn fizzbuzz [n]
  (cond
    (zero? (mod n 15)) "FizzBuzz"
    (zero? (mod n 3))  "Fizz"
    (zero? (mod n 5))  "Buzz"
    :else n))

(run! println (map fizzbuzz (range 1 101)))
```

```
(defn fizzbuzz [n]
  (cond
    (zero? (mod n 15)) "FizzBuzz"
    (zero? (mod n 3))  "Fizz"
    (zero? (mod n 5))  "Buzz"
    :else n))

(run! println (map fizzbuzz (range 1 101)))
```



What you got?

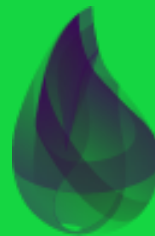
# Paradigm



**Object**



**Object**



**Functional**



**Functional**



**Procedural**



**Procedural  
Functional**



**Functional  
Procedural**



**Functional**

# Parallelism

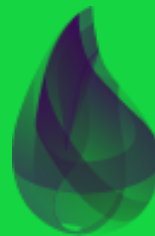
# Parallelism vs Concurrency



**Concurrent**



**Concurrent**



**Yes**  
**Actors**



**Yes**  
**Mvar, par,**  
**STM**



**Yes**  
**Goroutines +**  
**channels**



**Yes**  
**Agnostic**



**Yes/No**  
**Webworkers+**



**Yes**  
**STM, pmap,**  
**Transducers**



Performance!

# Type System



**Dynamic**



**Static  
Inferred++**



**Dynamic  
Optional  
Inferred++**



**Static  
Inferred++**



**Static  
Inferred**



**Static  
Inferred**



**Dynamic  
Optional  
Inferred++**



**Dynamic  
Optional  
Inferred++**

Compiled

vs

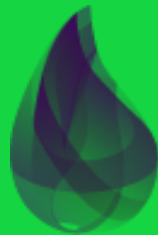
Interpreted



**Interpreted**



**Compiled**



**Compiled**



**Compiled**



**Compiled**



**Compiled**



**Interpreted**



**Compiled**

Self-hosted



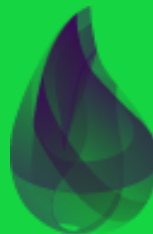
Show me your code



**No**



**Yes**



**Yes**



**Yes**



**Yes**



**Yes**



**No**



**No**



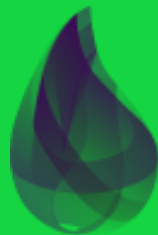
# Garbage- Collection



**Yes**



**Yes**



**Yes**



**Yes**



**Yes**



**No**



**Yes**



**Yes**

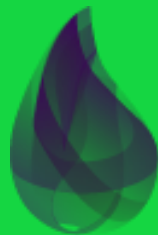
# Single File Distribution



**No**



**Yes**



**Yes**



**Yes**



**Yes**



**Yes**



**No**



**No**

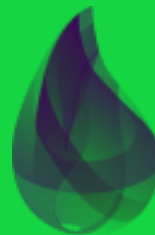
# Ruby-like Syntax



**Yes**



**Yes**



**Yes**



**No**



**No**



**No**



**No**



**No**





Parallel





Parallel

Typing





Parallel

Typing

Fast

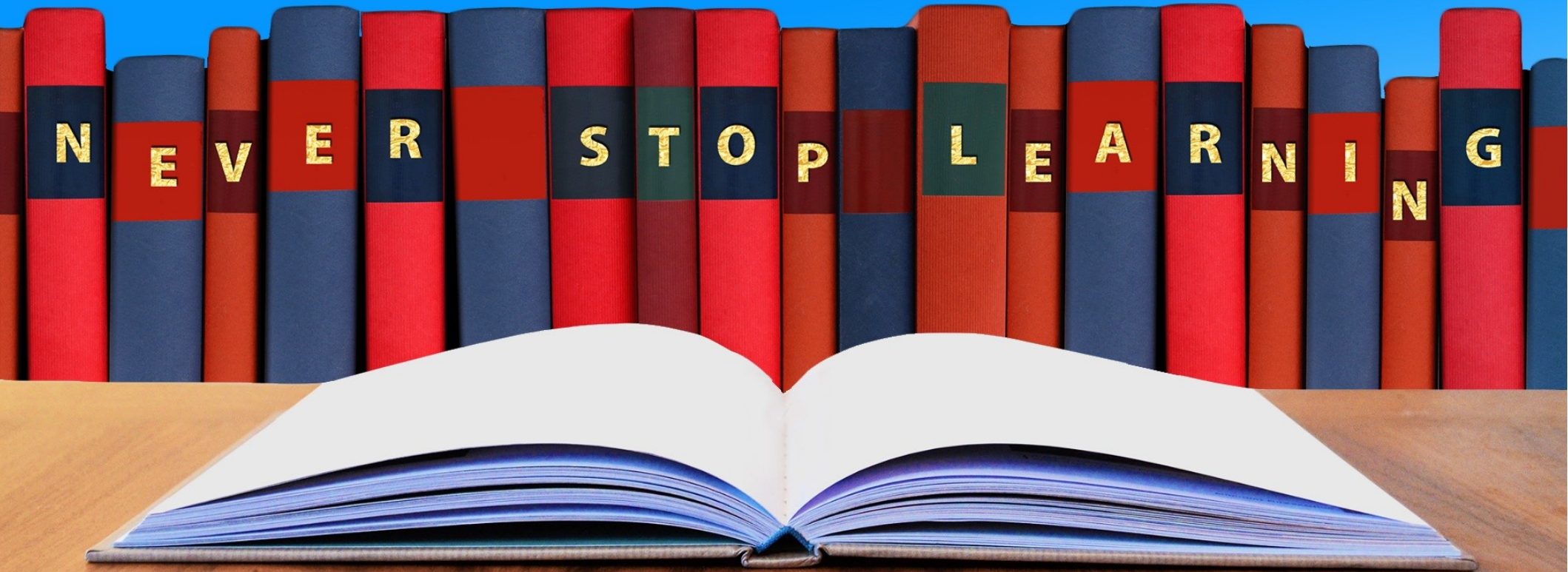




So, what?



Expand Your Mind



Why did you learn a new language?

*“Ruby's OO model was  
**brain-expanding**, and I was  
seeking more brain-expanding  
paradigms that would **let me  
think entirely new thoughts.**”*



A full-page photograph of two people jumping joyfully against a sunset sky. The sun is a large, bright, glowing orb on the right side of the frame, casting a warm orange and yellow light. The two figures are in mid-air, their bodies silhouetted against the bright background. They have their arms and legs outstretched in a carefree, celebratory manner. The bottom of the image shows the dark, choppy surface of the ocean. In the top right corner, there is a solid green rectangular box containing the word "Joy" in white, sans-serif font.

Joy



Domain





Tools





**Where does  
Ruby go?**

*“Rails is **strangling Ruby**. In the same way that you don't quit because of a bad company, you **quit because of a bad boss**.”*





**Where does  
Ruby go?**



Parallel

Typing

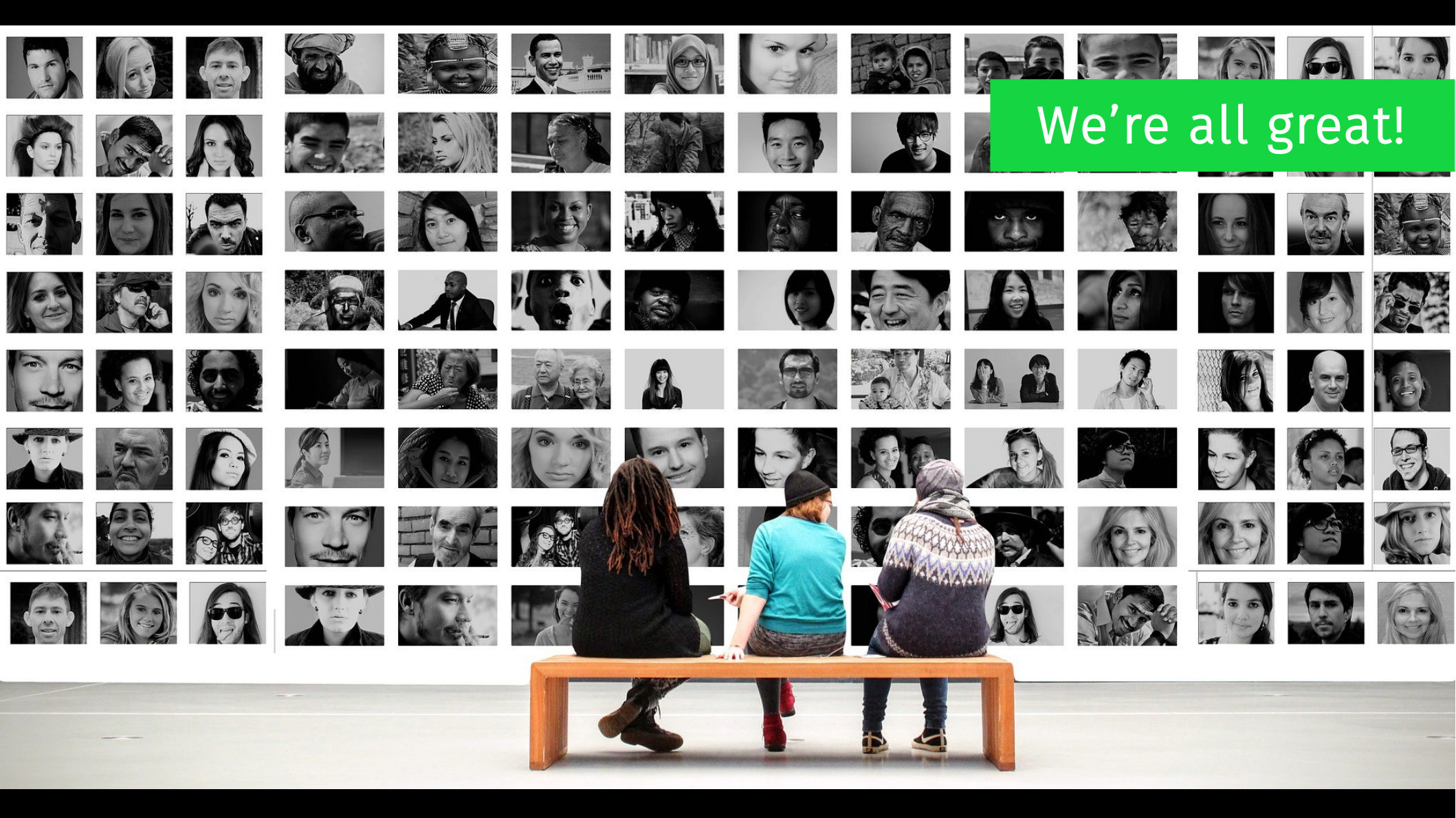
Fast



*“Ruby is the **best language** I have used over my 30 years programming. I hope Ruby 3 puts **an end to the Ruby is slow meme** once and for all.”*

*“I really like Ruby for **what it is**,  
and don't think 'adding a type  
system' or something is the best  
way to keep Ruby relevant. Don't  
**morph** Ruby **in to something**  
**it's not.**”*





We're all great!



Explore some new lands!





**Enjoy** Coding & **Learning** in whatever  
language...

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