

INNOVATION **IN TECHNICAL** **COMMUNICATION**

TCWORLD INDIA 2015

Created by Tom Johnson / @tomjohnson

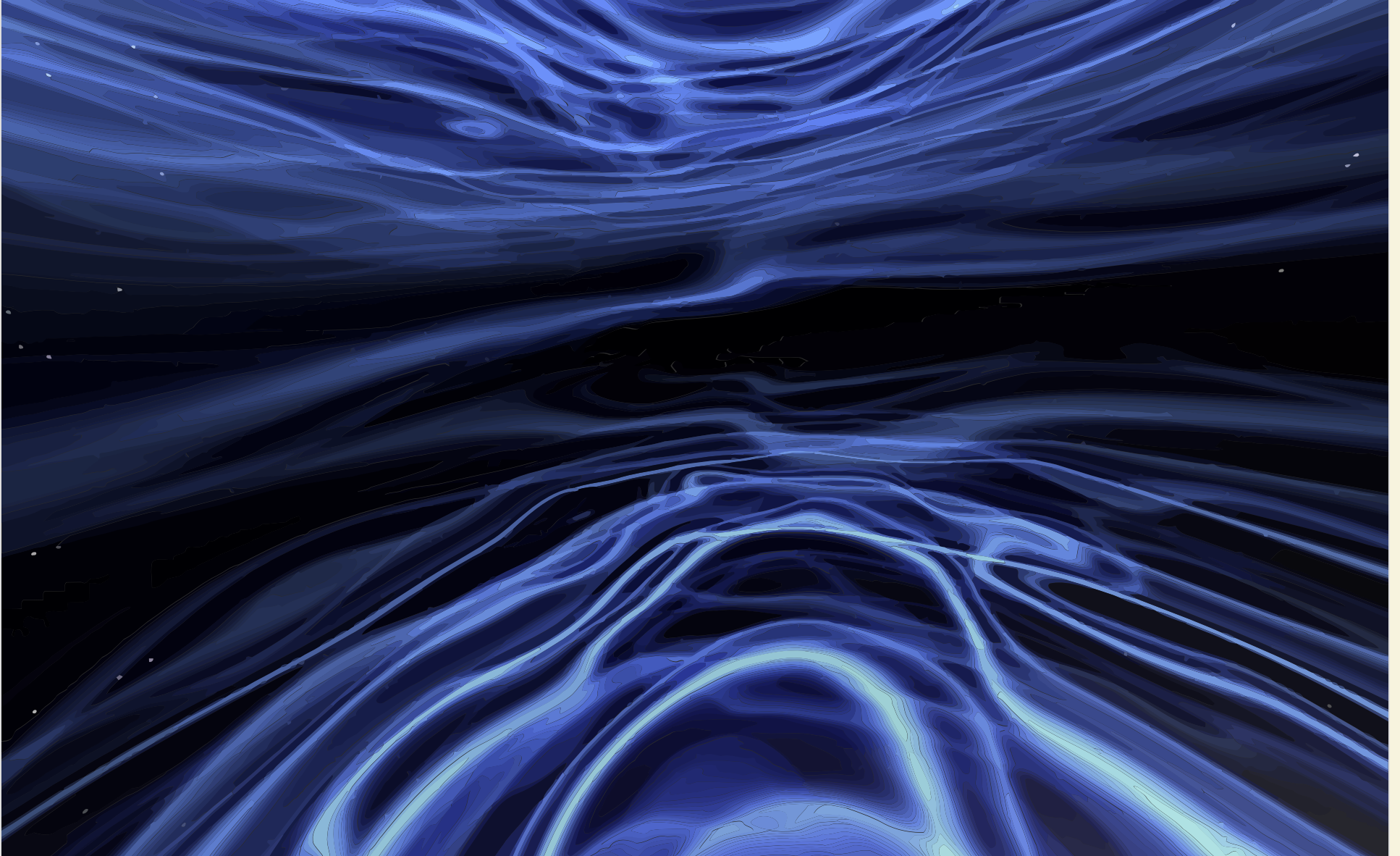
KEYBOARD SHORTCUTS

Full Screen	F
Next Slide	Space bar
Slide Notes	S
Thumbnail View	Esc

View online at <http://tomjohnson1492.github.io/innovation>

Note: Some slides move down instead of to the side, so use the space bar to advance slides.

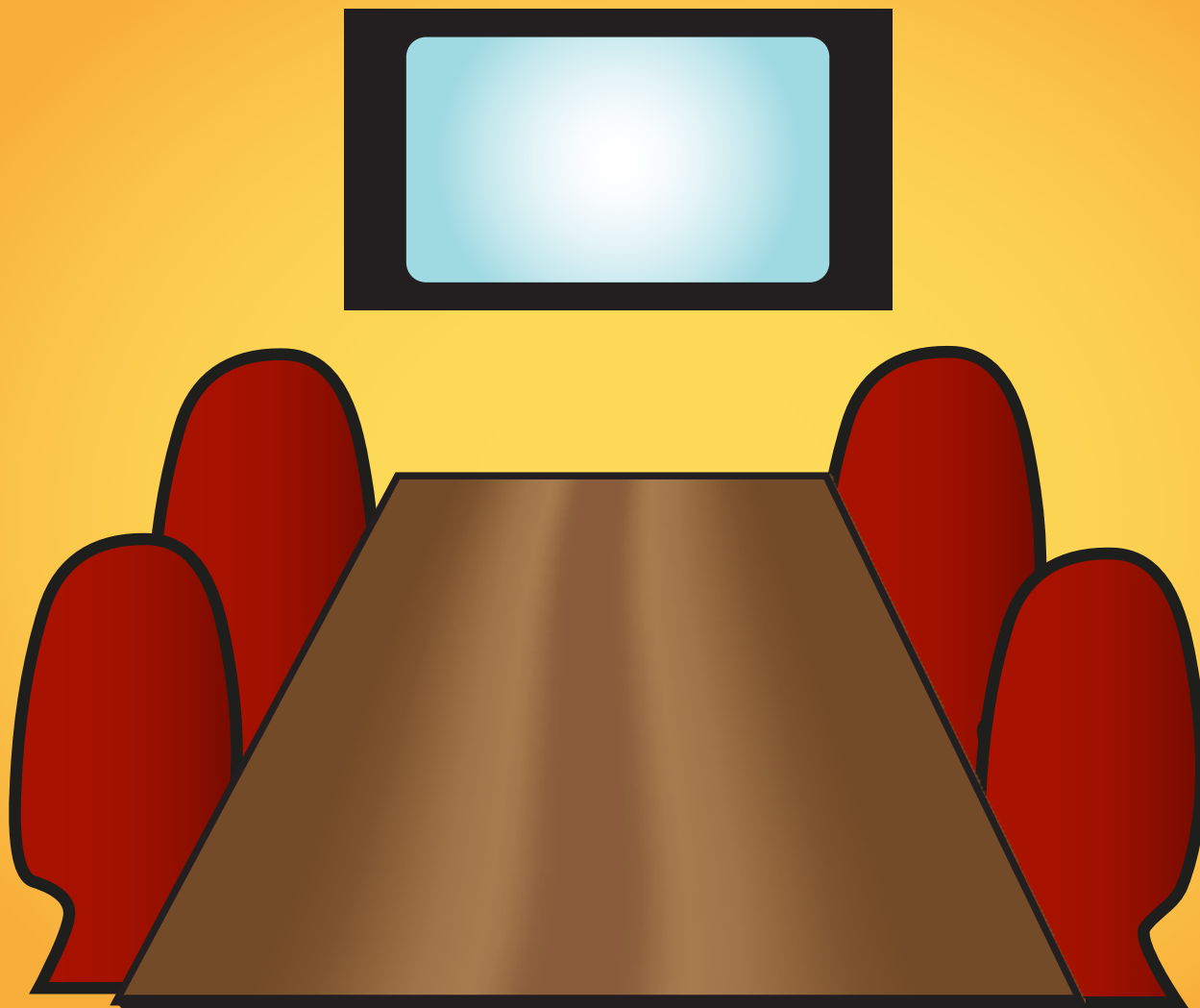
STARTUP CULTURES ENCOURAGE INNOVATION



*"As to what your journey says, I think it says
that all the current models of tech comm
development are deeply unsatisfactory in one
way or another."*

— Mark Baker, Every Page Is Page One

"THINK BIG THURSDAYS"

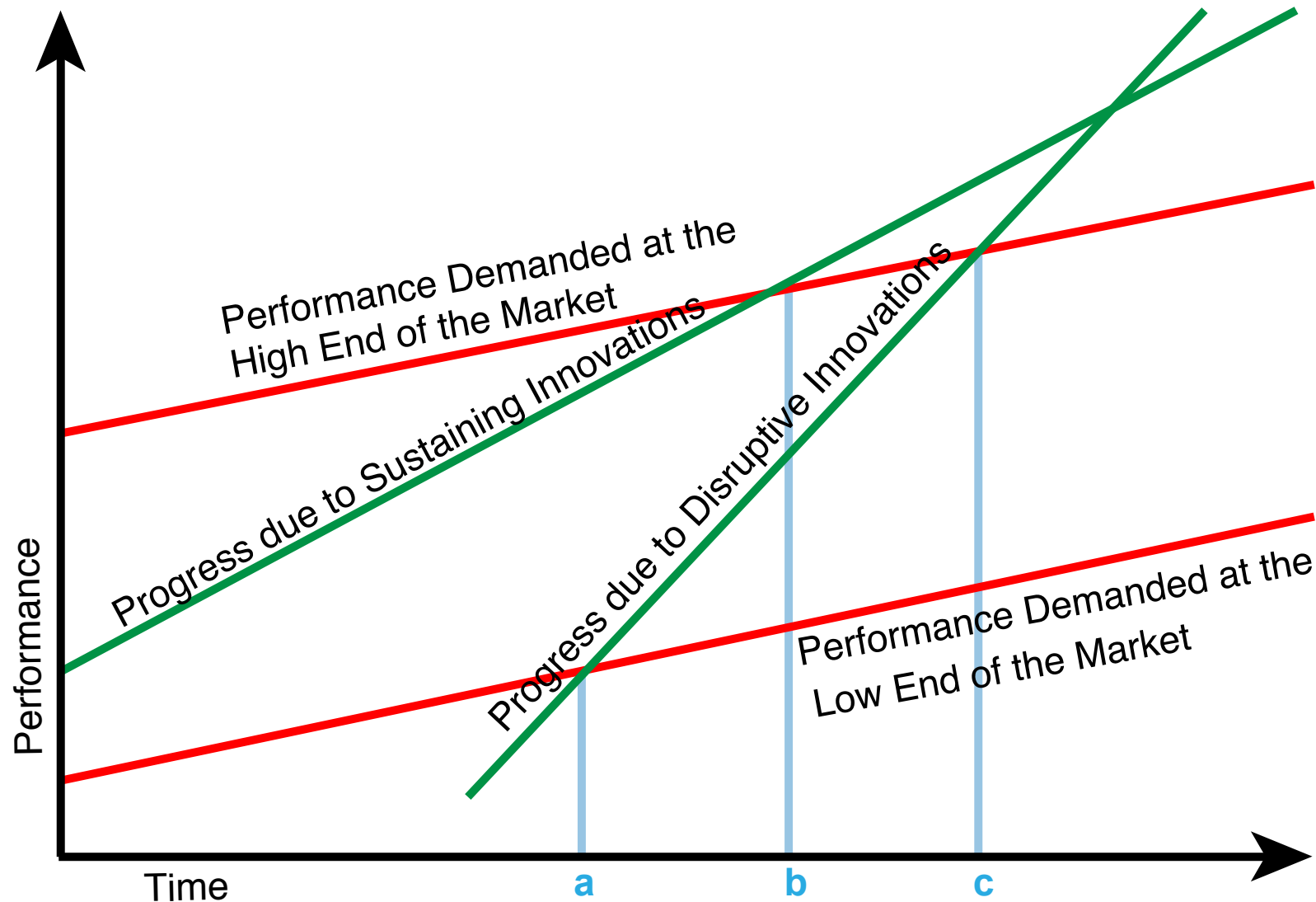


STORY OF TELEGRAPH AND TELEPHONE



Bell and an early model of the telephone

A FRAMEWORK FOR INNOVATION



SURVEY OF INNOVATIONS

INNOVATIONS WITH TECHNOLOGY

HTML5 • REST APIs • CSS media queries • OAuth
• AJAX • instant search • SVG • augmented reality
• Internet of Things • big data • social networks •
YouTube • Bootstrap • static site generators •
jQuery • YouTube • StackOverflow • Github •
continuous integration • LESS & Sass • wikis

INNOVATIONS WITH IDEAS

decentralization • agile • crowdsourcing •
gamification • Cluetrain Manifesto (user-to-user
communication) • "Everything Is Miscellaneous" •
The Long Tail • semantic web • information
architecture • content marketing • transparency •
simplicity of design • open source • social coding

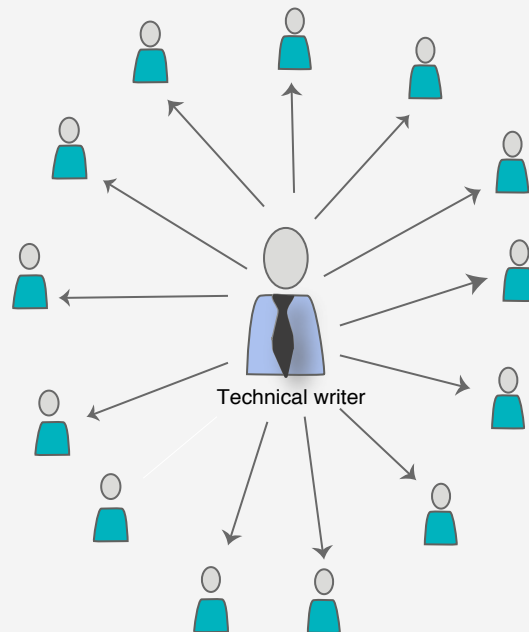
INNOVATIONS IN TECH COMM

information typing • minimalism • task-based documentation • topic-oriented documentation • DITA • DocOps • Every Page Is Page One • emotional language • personalization • interactive video • user-generated content • content strategy • single sourcing

MOST SIGNIFICANT INNOVATION FOR TC?

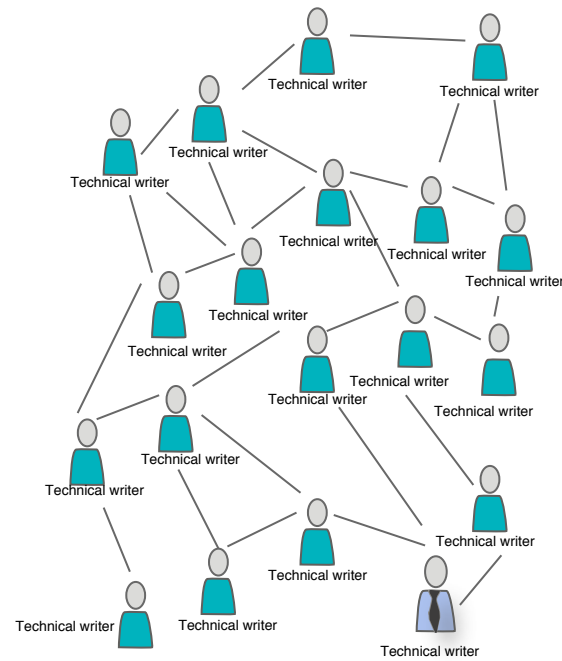
EVERYONE IS A TECHNICAL WRITER

Before the web



Information Distribution

After the web




UNOFFICIAL TECHNICAL WRITER

StackExchange

7


+5

 25

6


help


user:6884




QuestionsTagsUsersBadgesUnansweredAsk Question

Christian Specht [less info](#)

 [meta user](#)

 [network profile](#)



bio

website

location

age

visits

member for

seen

stats

profile views

[christianspecht.de](#)

Kerpen, Germany

34

6 years, 5 months

13 hours ago

1,475

17,797

reputation

64591

In-house developer (C#/T-SQL/VBA) and DBA at [weinor](#), a mid-sized manufacturing company in Cologne, Germany.

My hobby projects:

- [Bitbucket Backup](#) - backup your Bitbucket repositories
- [MissileSharp](#) - .NET library to control an USB Missile Launcher
- [Recordset.Net](#) - convert .NET POCOs to ADODB.Recordsets
- [RoboShell Backup](#) - simple personal backup tool (PC -> NAS -> USB disk, with optional TrueCrypt integration)
- [SimpleLeague](#) - minimalistic tool to display tabular league data in existing websites.
- [Tasko \(WORK IN PROGRESS!\)](#) - simple to-do list app for your own server (with Android client)
- [VBA Helpers](#) - a collection of useful VBA functions

summaryanswersquestionstagsbadgesfavoritesbountiesreputationactivities

632 [Answers](#)

votes

activity

newest

82


What NoSQL solutions are out there for .NET?

34

How to create jobs in SQL Server Express edition

17,797 [Reputation](#)

top 2% overall



+10

[Multi-row blog list in Jekyll](#)

JOB TRENDS FOR "TECHNICAL WRITER"

Job Trends

STC Salary Survey (USA)

2008: 47,460 employed technical writers

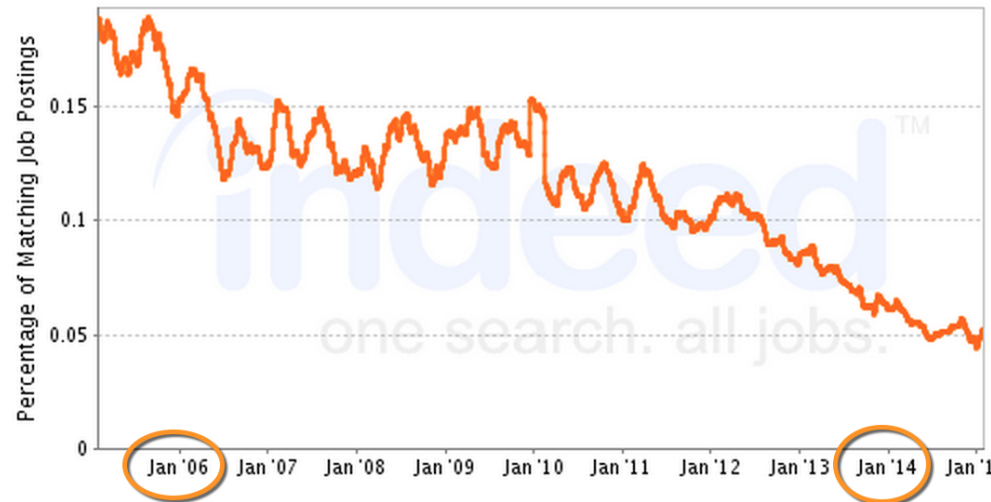
2013: 47,300 employed technical writers

"technical writer" Job Trends

Scale: **Absolute** - [Relative](#)

Job Trends from Indeed.com

— "technical writer"



Indeed.com searches millions of jobs from thousands of job sites.
This job trends graph shows the percentage of jobs we find that contain your search terms.

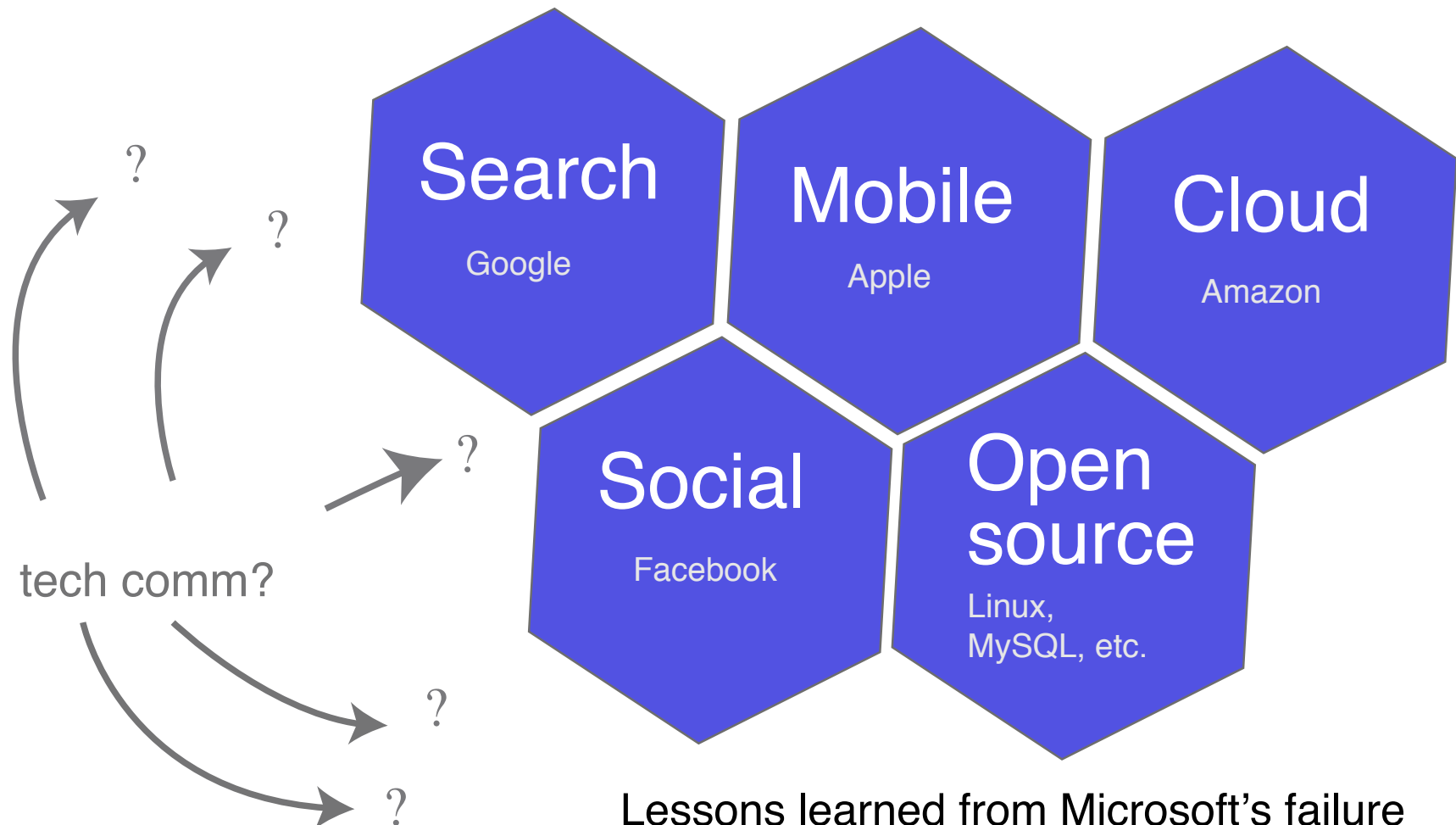
Find ["technical Writer" jobs](#)



Top Job Trends

1. [HTML5](#)
2. [MongoDB](#)
3. [iOS](#)
4. [Android](#)
5. [Mobile app](#)
6. [Puppet](#)
7. [Hadoop](#)
8. [jQuery](#)
9. [PaaS](#)
10. [Social Media](#)

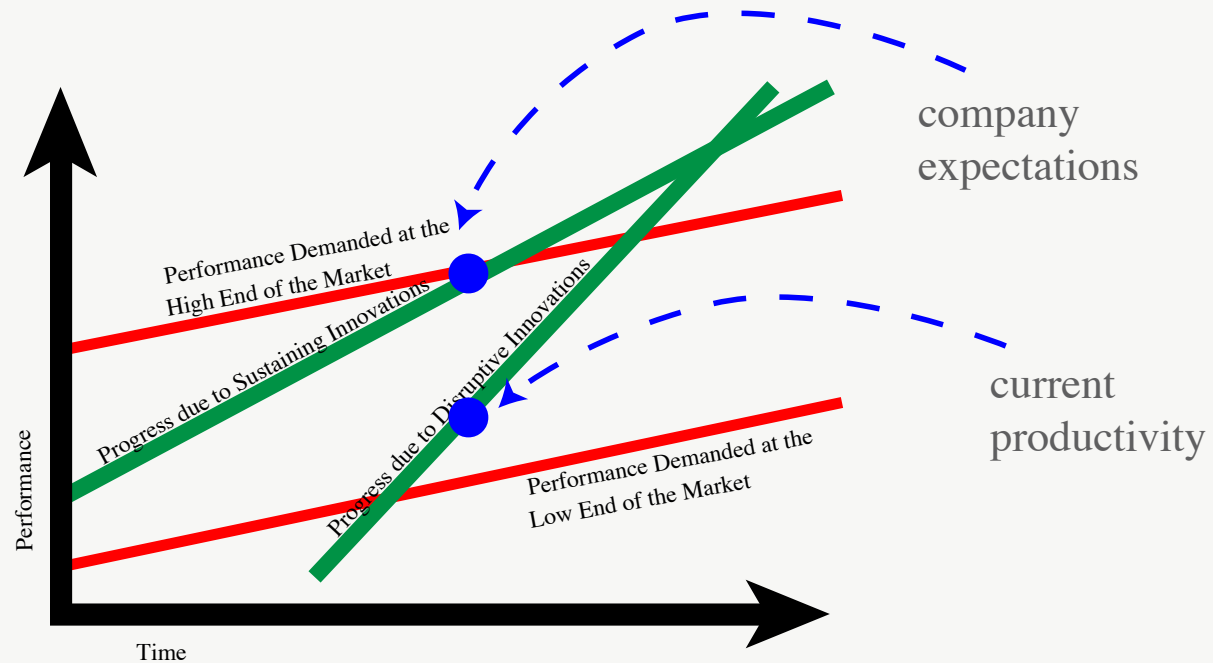
HOW TO STAY RELEVANT?



Lessons learned from Microsoft's failure

DILEMMAS WITH INNOVATION

HOW LONG CAN YOU OPERATE AT A SUB-PERFORMING LEVEL WHILE YOU DO RESEARCH AND DEVELOPMENT?



HOW CAN YOU SWITCH MODELS WHEN YOU'RE MIRED IN LEGACY CONTENT AND SYSTEMS?



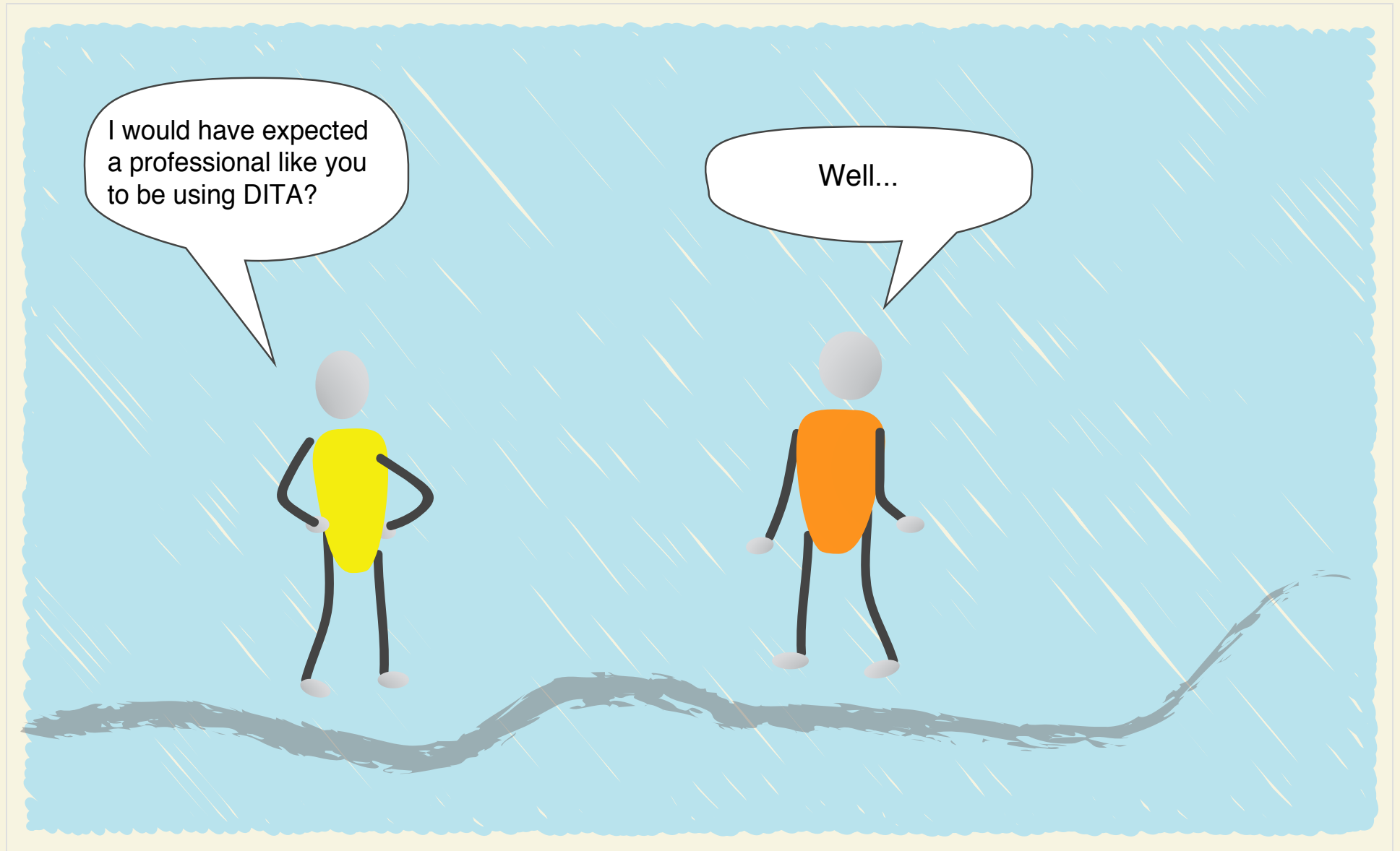
HOW CAN YOU BUILD ANYTHING IF YOU'RE NOT REALLY AN ENGINEER?



WHAT HAPPENS TO YOUR CAREER SKILLSET WHEN YOU INVEST IN AN OBSCURE TECHNOLOGY?



PRESSURE TO CONFORM TO MAINSTREAM



SO MANY LIMITATIONS

HTTP GET

Returns the single Call resource identified by {CallSid}.

Example

JSON

XML

PHP

Python

C#

Java

Ruby

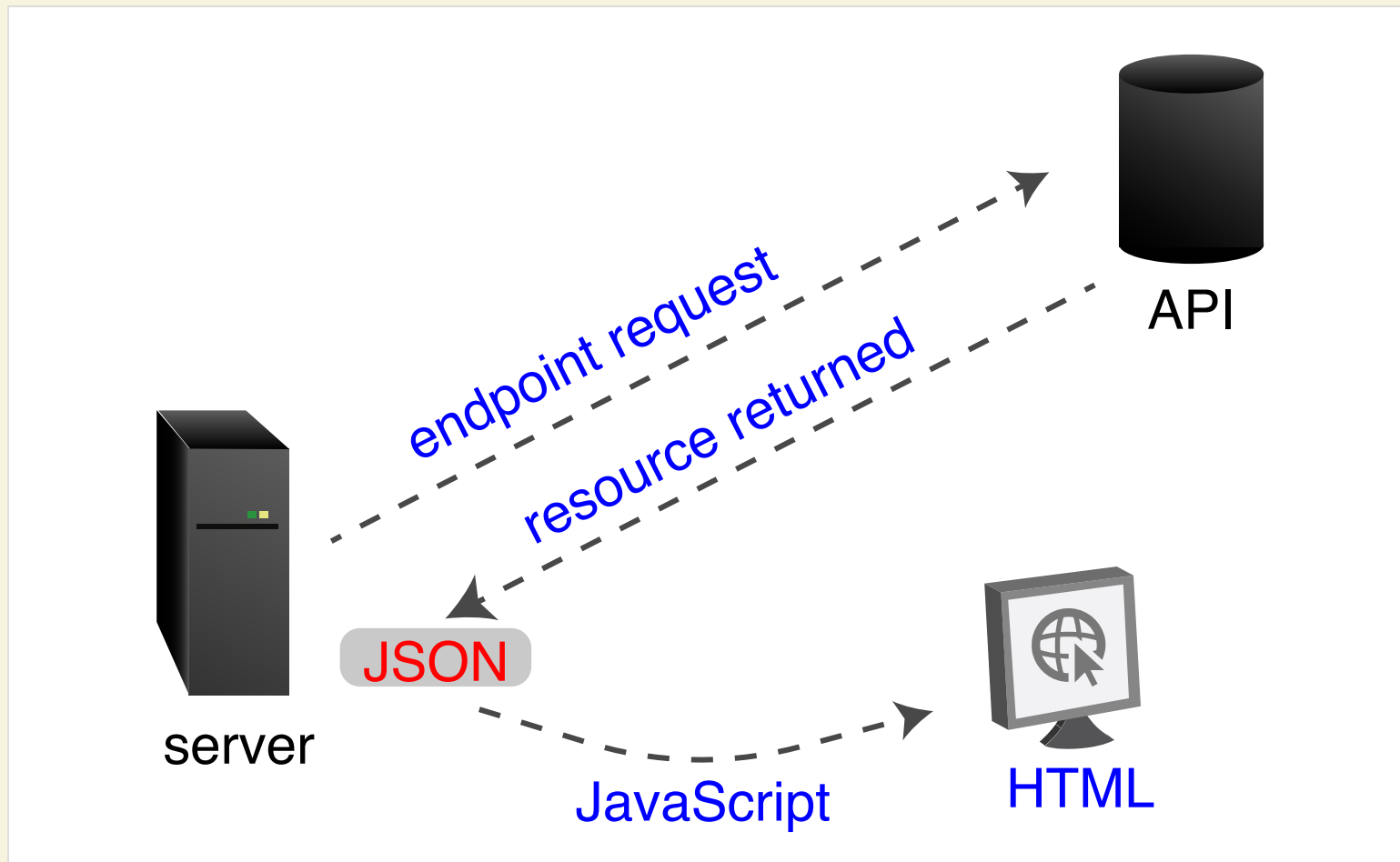
Node.js

```
1 <?php
2 // Get the PHP helper Library from twilio.com/docs/php/install
3 require_once('/path/to/twilio-php/Services/Twilio.php'); // Loads the Library
4
5 // Your Account Sid and Auth Token from twilio.com/user/account
6 $sid = "AC5ef8732a3c49700934481add5ce1659";
7 $token = "{{ auth_token }}";
8 $client = new Services_Twilio($sid, $token);
9
10 // Get an object from its sid. If you do not have a sid,
11 // check out the List resource examples on this page
12 $call = $client->account->calls->get("CA42ed11f93dc08b952027ffbc406d0868");
13 echo $call->to;
```

HTTP POST

XML AND THE WEB: DRIFTING APART?

JSON IS STANDARD



TECHNOLOGIES USED BY WEB DEVELOPERS



THE TURNING POINT

The web is where innovation is happening. To keep up, tech comm needs to ride the wave of innovation of the web.



THE GENIUS OF GITHUB AND OPEN SOURCE

COLLABORATE, VERSION, DISTRIBUTE

The screenshot shows the GitHub homepage for user **tomjohnson1492**. At the top, there's a search bar and navigation links for Explore, Gist, Blog, and Help. Below the header, the user's profile is shown with tabs for News Feed, Pull Requests, and Issues. The main content area features the **GitHub Bootcamp** guide, which consists of four steps:

- 1 Set up Git**: A quick guide to help you get started with Git.
- 2 Create repositories**: Repositories are where you'll work and collaborate on projects.
- 3 Fork repositories**: Forking creates a new, unique project from an existing one.
- 4 Work together**: Send pull requests, follow friends. Star and watch projects.

Below the bootcamp guide, the news feed shows recent activity:

- 27 minutes ago: **elizar** edited the **jeekyll/jeekyll** wiki. Edited Sites. [View the diff »](#)
- 5 hours ago: **tamouse** commented on issue **jeekyll/jeekyll#3409**. **@FooBarWidget** -- I think using Traveling Ruby is probably the best way to make Jekyll good for non-programmers. I have a lot of problems trying to ...

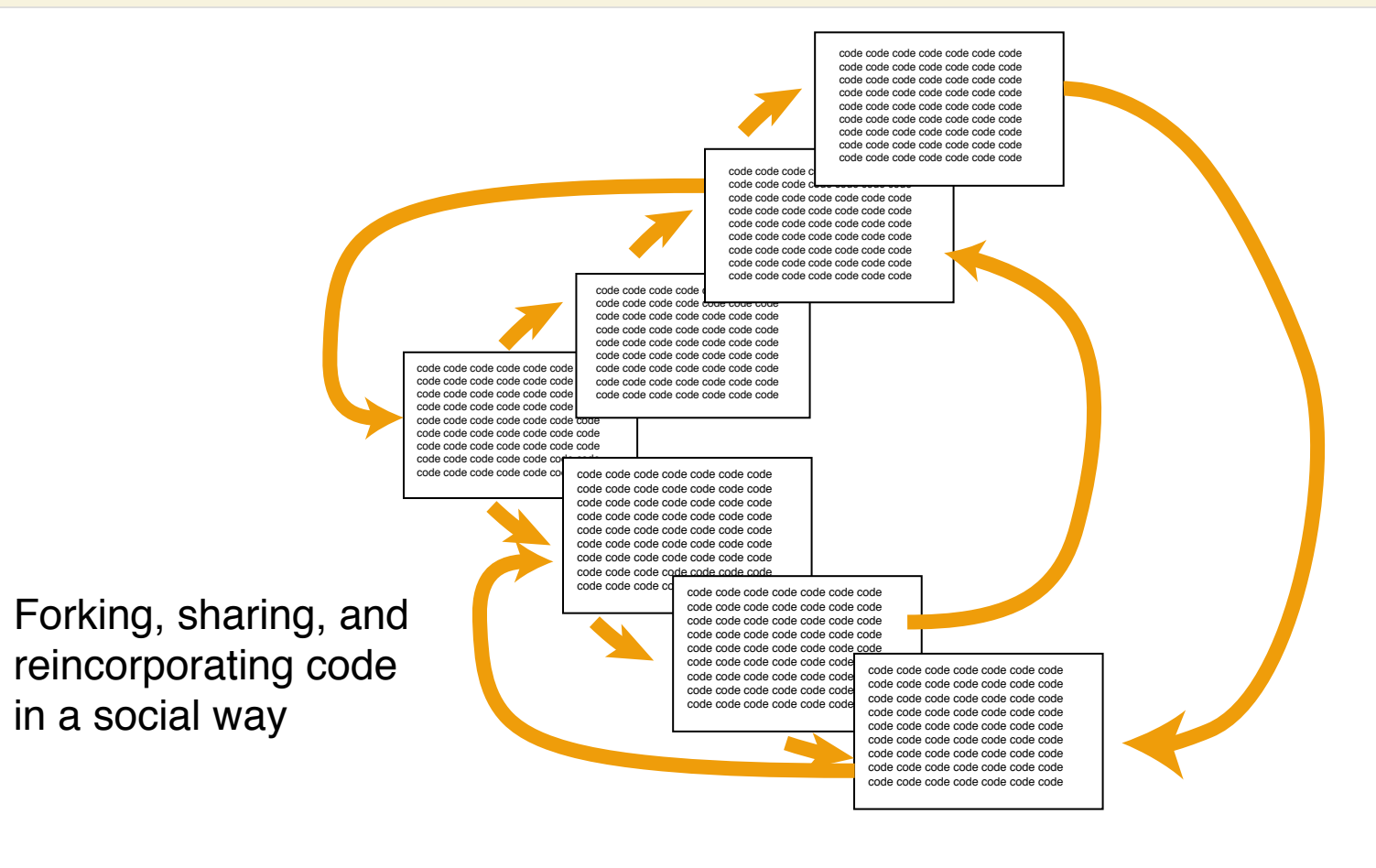
On the right side, there's a notification for **The new face of committing in GitHub for Mac**, stating: "We've just redesigned GitHub for Mac's Changes tab to make it even easier to review and commit." Below this, a section titled **Repositories you contribute to** shows **jeekyll/jeekyll-help** with 154 stars.

REVOLUTIONARY FOR SOFTWARE DEVELOPMENT

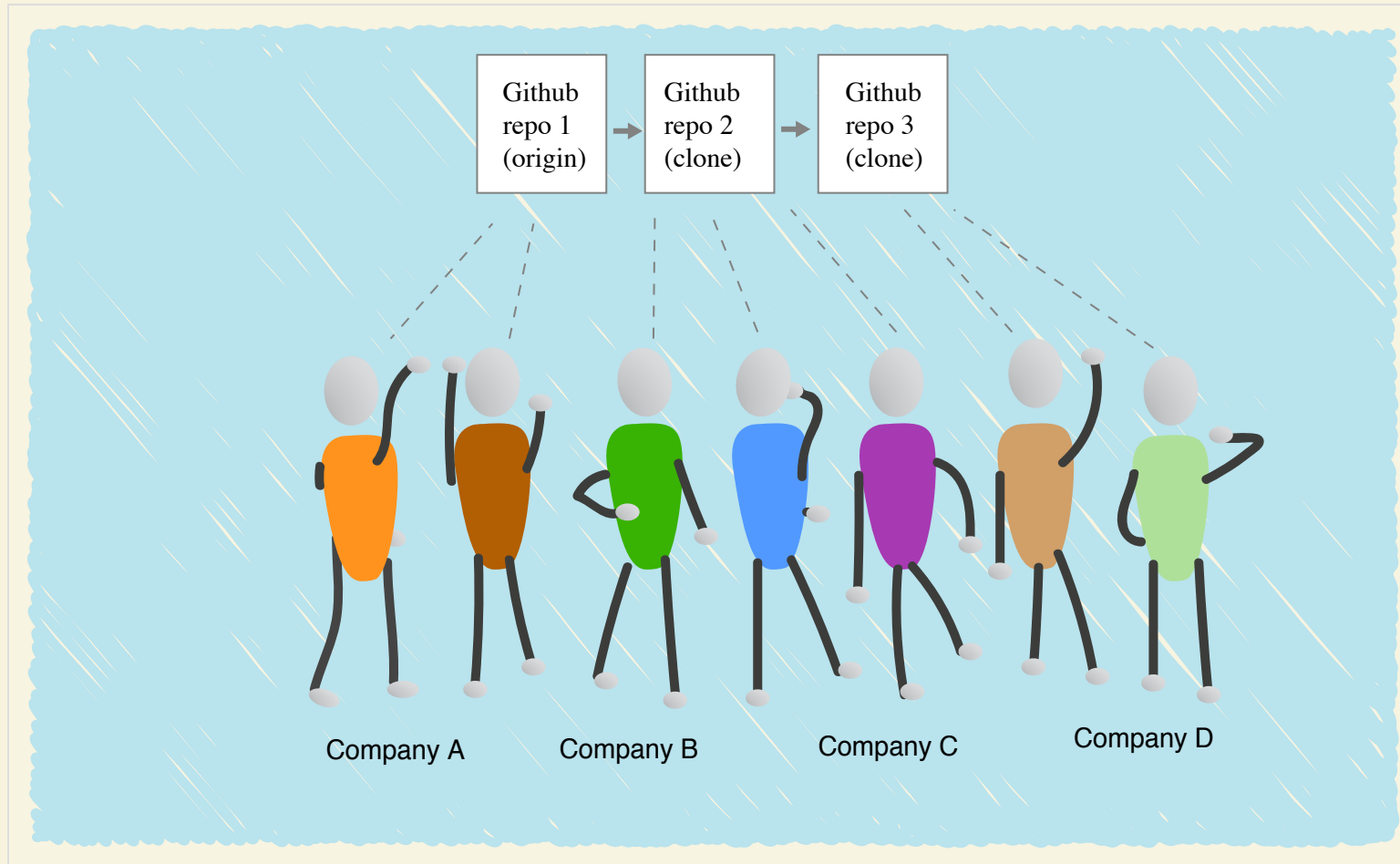
"Github, in my humble opinion, is one of the most revolutionary things that has happened to software in 20 years."

— Joe Malin

"SOCIAL CODING"



WHAT IF EVERYONE'S HELP WERE IN AN OPEN GITHUB REPO?



TREATING DOCUMENTATION AS CODE

WRITING DOCUMENTATION LIKE A DEVELOPER

File format:	Text files
Authoring:	Text editor
Building:	Continuous build scripts
Collaborating:	Source control
Versioning:	Source control
Pushing live:	Terminal commands

THIS SLIDEDECK IS JUST HTML5.

Here's the code for this slide:

```
<section>
  <h3>This slidedeck is just HTML5.</h3>
  <p>Here's the code for this slide:</p>
  <p>Github repo: <a target="_blank" href="https://github.com/
    https://github.com/tomjohnson1492/innovation/</a></p>
  <p><i>So much more satisfying to work in text
    file formats.</i></p>
</section>
```

Github: <https://github.com/tomjohnson1492/innovation/>

So much more satisfying to work in text-file formats.

DISRUPTIVE TECH: STATIC SITE GENERATORS

LIGHTWEIGHT, FLEXIBLE, NO DATABASE

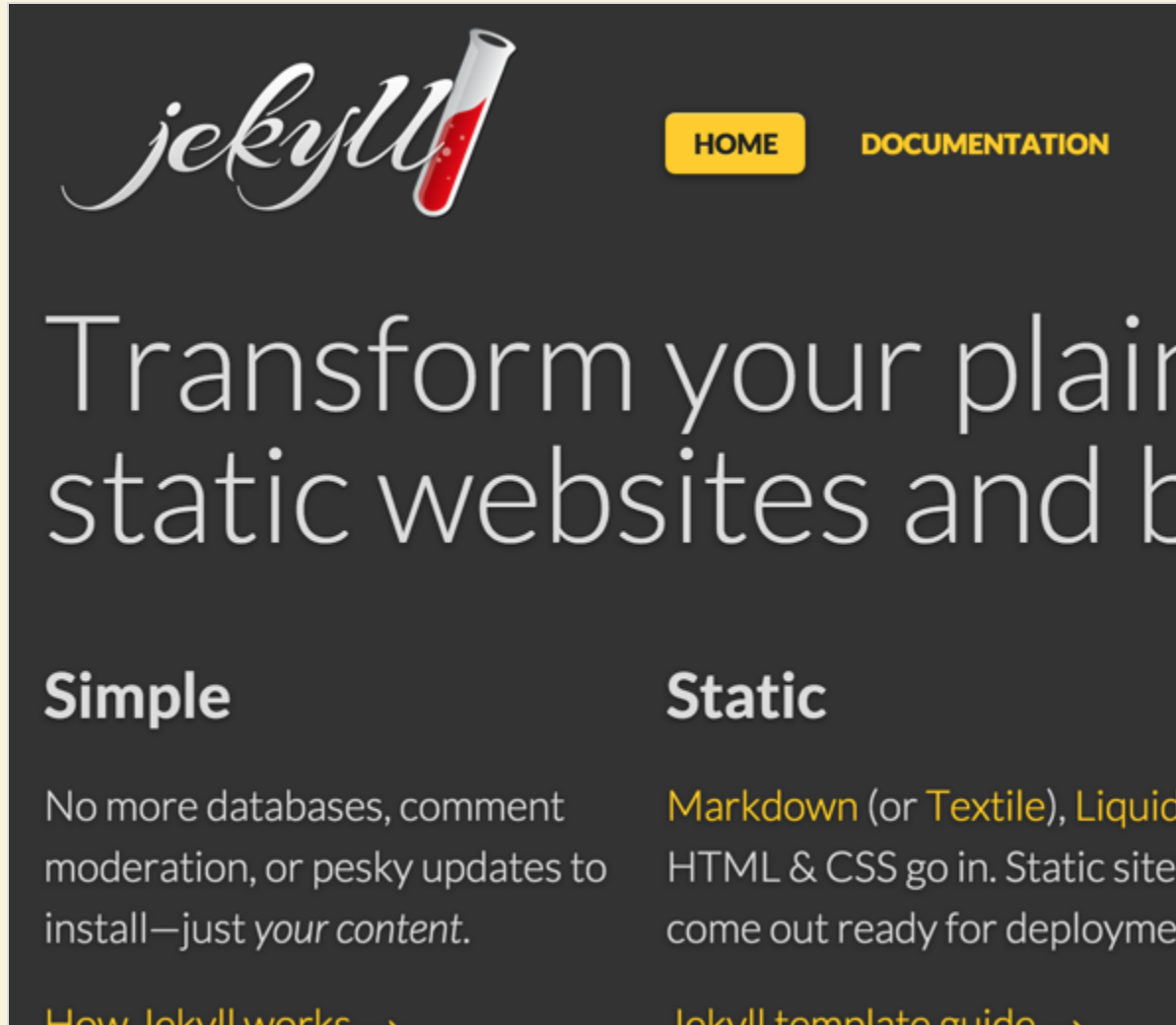
The screenshot shows the StaticGen website, which lists top open-source static site generators. The page has a dark purple header with the title 'StaticGen' and the subtitle 'Top Open-Source Static Site Generators'. A 'Fork me on GitHub' button is in the top right corner. Below the header is a navigation bar with 'All languages', 'Sorted by stars', 'About StaticGen', and 'The Rules'. The main content area displays a grid of generator cards for Jekyll, Octopress, Pelican, Hexo, Middleman, Brunch, Hugo, and Metalsmith. Each card includes the generator's name, website URL, star count, pull request count, issue count, a brief description, and supported languages, templates, and licenses.

Generator	Website	Stars	Pull Requests	Issues	Description	Language	Templates	License
Jekyll	jekyllrb.com	18834	3874	113	A simple, blog-aware, static site generator.	Ruby	Liquid	MIT
Octopress	octopress.org	8781	3180	258	A blogging framework for hackers based on Jekyll.	Ruby	Liquid	MIT
Pelican	blog.getpelican.com/	4364	1023	159	A static site generator, imports from Wordpress, multi-lang publishing.	Python	Jinja2	GPL
Hexo	hexo.io/	4175	626	170	Hexo is a fast, simple and powerful blog framework.	JavaScript	EJS, Swig	MIT
Middleman	middlemanapp.com	3957	387	48				
Brunch	brunch.io/	3930	270	35				
Hugo	gohugo.io/	3468	488	152				
Metalsmith	www.metalsmith.io/	3075	238	9				

STATIC SITE GENERATOR CHARACTERISTICS

- **Lightweight.** No database — output is just static files.
- **Fast.** As static, pre-built files, pages load < 1 second.
- **Usability.** Write in Markdown. Add HTML or JS as needed.
- **Flexibility.** Complete control to define entire site.
- **Secure.** As static files, very secure.
- **Suitable for hackers.** Treat content just like code.

JEKYLL IS MOST POPULAR



The image shows the Jekyll website homepage. At the top left is the Jekyll logo, which features the word "jekyll" in a white, cursive script, followed by a red test tube containing a red liquid with white bubbles. To the right of the logo are two yellow buttons: "HOME" and "DOCUMENTATION". Below the navigation bar, the main heading reads "Transform your plain static websites and b". Underneath this, there are two columns. The left column is titled "Simple" and contains the text "No more databases, comment moderation, or pesky updates to install—just *your content*." Below this text is a link "How Jekyll works" with a right-pointing arrow. The right column is titled "Static" and contains the text "Markdown (or Textile), Liquid HTML & CSS go in. Static sites come out ready for deployment." Below this text is a link "Jekyll template guide" with a right-pointing arrow.

jekyll

[HOME](#) [DOCUMENTATION](#)

Transform your plain static websites and b

Simple

No more databases, comment moderation, or pesky updates to install—just *your content*.

[How Jekyll works](#) >

Static

Markdown (or Textile), Liquid HTML & CSS go in. Static sites come out ready for deployment.

[Jekyll template guide](#) >

LIVE PREVIEW REBUILDS WITH EACH SAVE

The screenshot displays a live preview of a Jekyll documentation theme. The browser window shows the URL `127.0.0.1:4000/documentation-theme-jekyll/conditional_logic/`. The page features a green header with the title "Documentation theme for Jekyll" and navigation links: "About", "News", "Jekyllrb", "Github Repo", "Getting started", and "More drop-downs". A sidebar on the left contains a "Contents" section with links to "Where to store filtering values", "Conditional logic based on config file value", "Or operator", "Specifying a data source", and "Conditional logic based on page namespace". The main content area is titled "Conditional logic" and contains text explaining how to create different outputs for different audiences using Jekyll's Liquid markup and values in the configuration file. A terminal window at the bottom shows the command `tjohnson-mbpr13:jekyll-doc tjohnson$. doc.sh` and the output of the script, including the configuration file path, source, destination, and server address. The terminal also shows the command `1. Python` and the output of the script, including the configuration file path, source, destination, and server address.

Conditional logic

Contents

- Where to store filtering values
- Conditional logic based on config file value
- Or operator
- Specifying a data source
- Conditional logic based on page namespace

If you want to create different outputs for different audiences, you can do all of this using a combination of Jekyll's Liquid markup and values in your configuration file.

1. Python

```
tjohnson-mbpr13:jekyll-doc tjohnson$ . doc.sh
Configuration file: configurations/config_documentation-theme-jekyll.yml
Source: /Users/tjohnson/projects/jekyll-doc
Destination: _site/documentation-theme-jekyll
Generating... done.
Auto-regeneration: enabled for '/Users/tjohnson/projects/jekyll-doc'
Configuration file: configurations/config_documentation-theme-jekyll.yml
Server address: http://127.0.0.1:4000/documentation-theme-jekyll/
Server running... press ctrl-c to stop.
Regenerating: 1 file(s) changed at 2015-03-10 12:45:44 ...done in 1.209524 seconds.
```

Conditional logic based on config file

conditional_logic.md

```
1 title: Conditional logic
2 permalink: /conditional_logic/
3
4
5 If you want to create different outputs for
6 different audiences, you can do all of this
7 using a combination of Jekyll's Liquid
8 markup and values in your configuration file.
9
10 {{alertinfo}} Definitely check out [Liquid's
11 documentation](http://docs.shopify.com/themes/
12 liquid-documentation/basics) for more
13 details about how to use operators and other
14 liquid markup. The notes here are a small,
15 somewhat superficial sample from the
16 site.{{end}}
```

Where to store filtering values

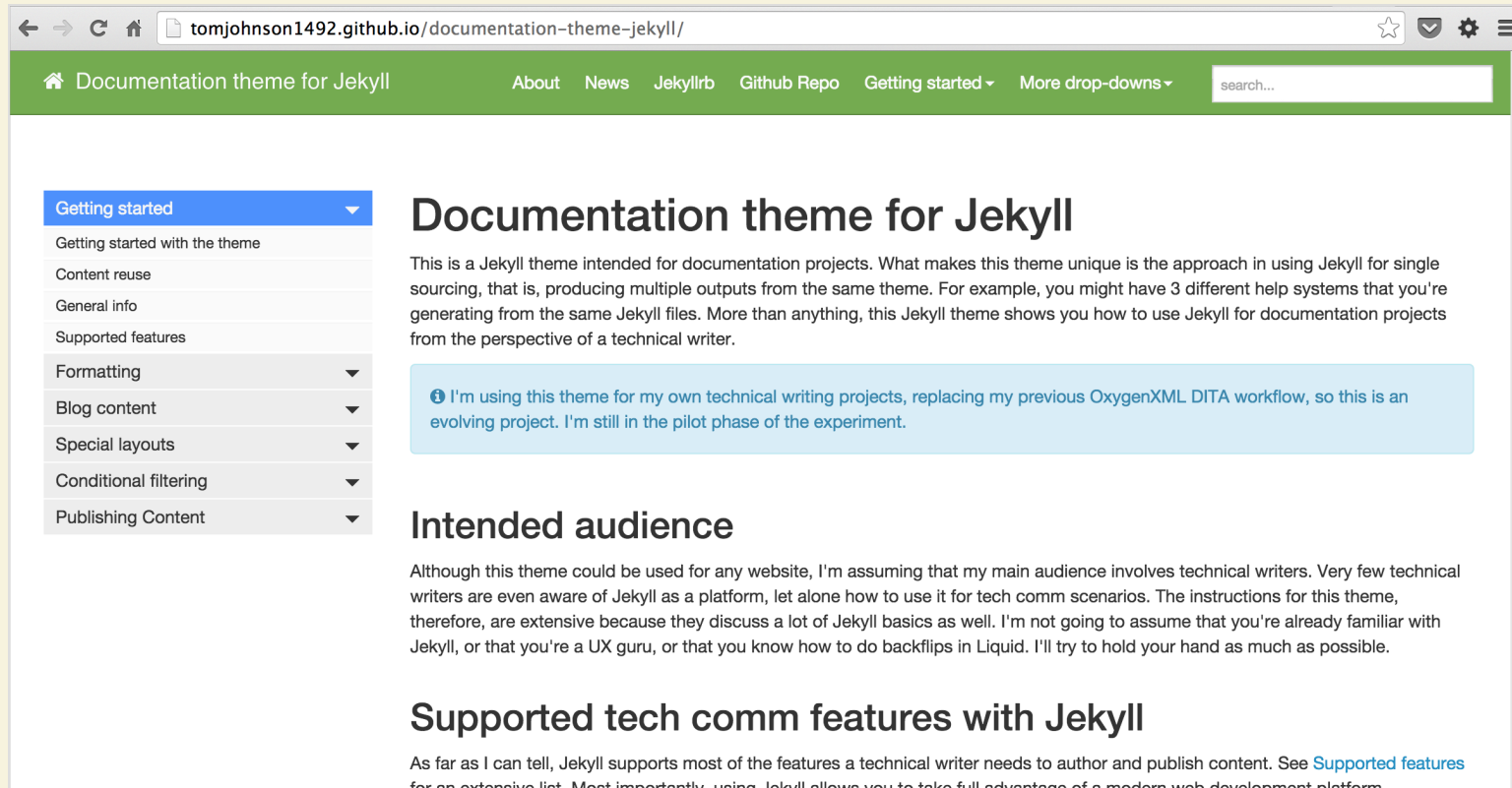
You can filter content based on values that you have set in your config file or in a file in your `_data` folder. If you set the attribute in your config file, you need to restart the Jekyll server to see the changes. If you set the value in a file in your `_data` folder, you don't need to restart the server when you make changes. Therefore it's preferable to store values in your `_data` file rather than your `config` file, but do what makes sense to you.

Conditional logic based on config file value

Here's an example of conditional logic based on a value in the `_data/project.html` file. In my `project.html` file, I have the

Line 1, Column 1 0 misspelled words Tab Size: 4 Markdown Extended

DOCUMENTATION THEME I BUILT ON JEKYLL



Clone me here: <http://tomjohnson1492.github.io/documentation-theme-jekyll/>

5 REASONS WHY STATIC SITE GENERATORS CAN BE A DISRUPTIVE TECHNOLOGY

1

2

3

4

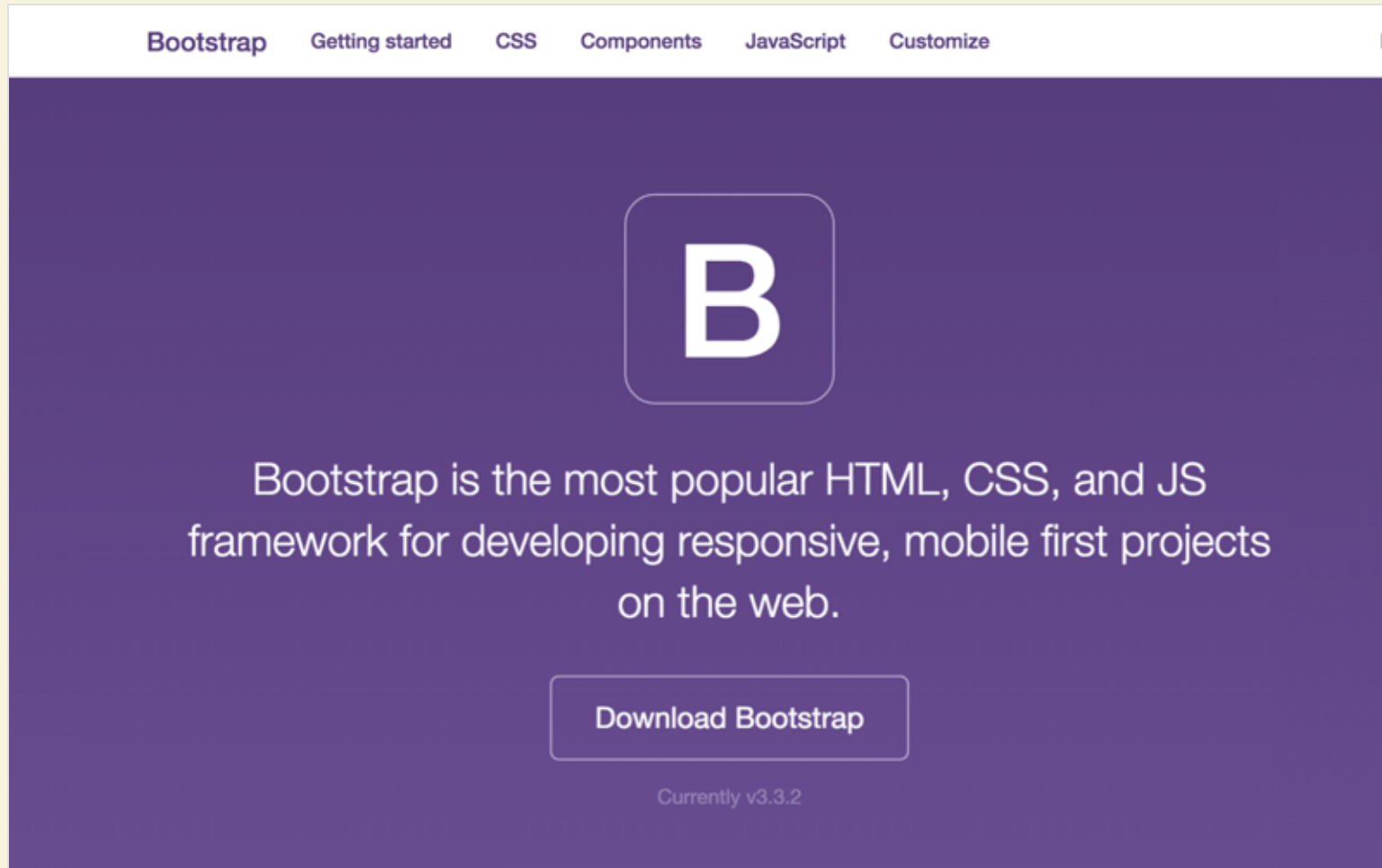
5

REASON 1: SNUG FIT INTO WEB TECHNOLOGIES


HTML, JS, CSS




BOOTSTRAP



JQUERY




jQuery
write less, do more.




DOWNLOAD FREE
to test your jQuery across
all modern browsers

[Plugins](#) [Contribute](#) [Events](#) [Support](#)


[Download](#) [API Documentation](#) [Blog](#) [Plugins](#) [Browser Support](#)




Lightweight Footprint
Only 32kB minified and gzipped. Can also be included as an AMD module



CSS3 Compliant
Supports CSS3 selectors to find elements as well as in style property manipulation



Cross-Browser
IE, Firefox, Safari, Opera, Chrome, and more



Download
v1.11.2 or v2.1.3

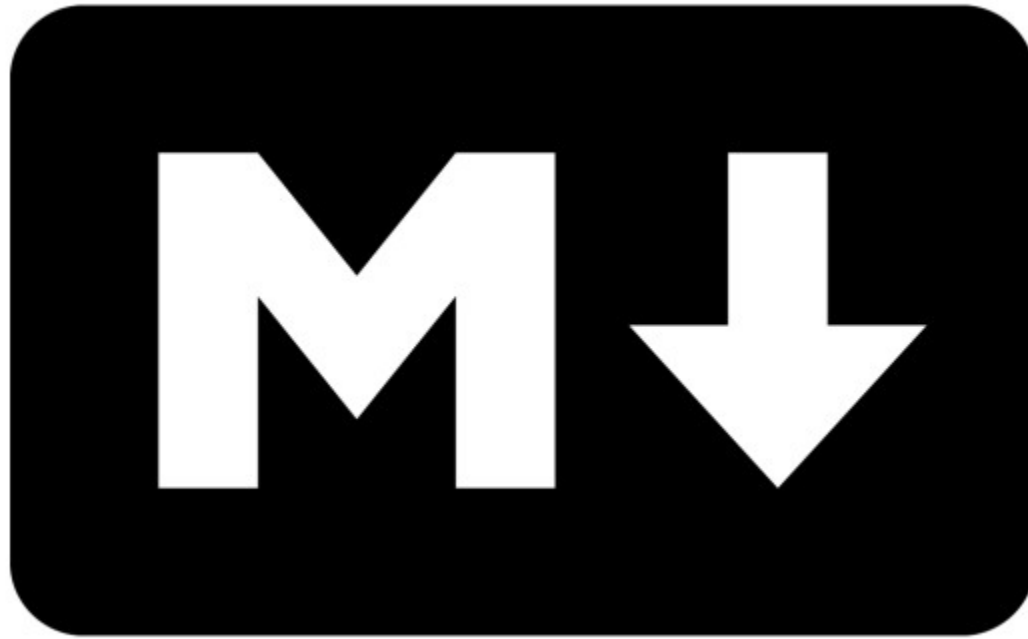
[View Source on GitHub →](#)
[How jQuery Works →](#)

What is jQuery?

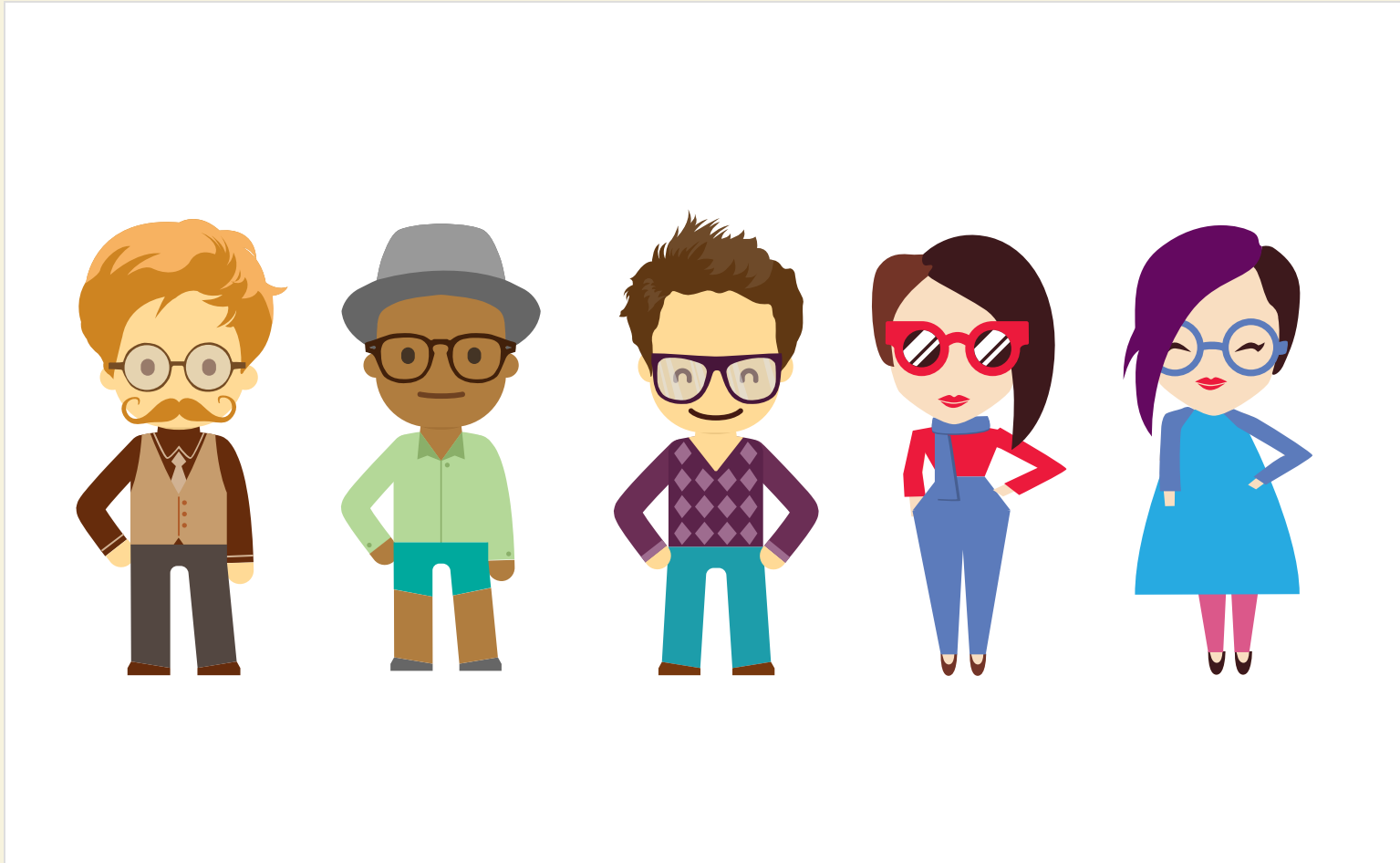
Resources

- jQuery Core API

MARKDOWN



UX TALENT WILL HELP WHEN PLATFORM IS WEB

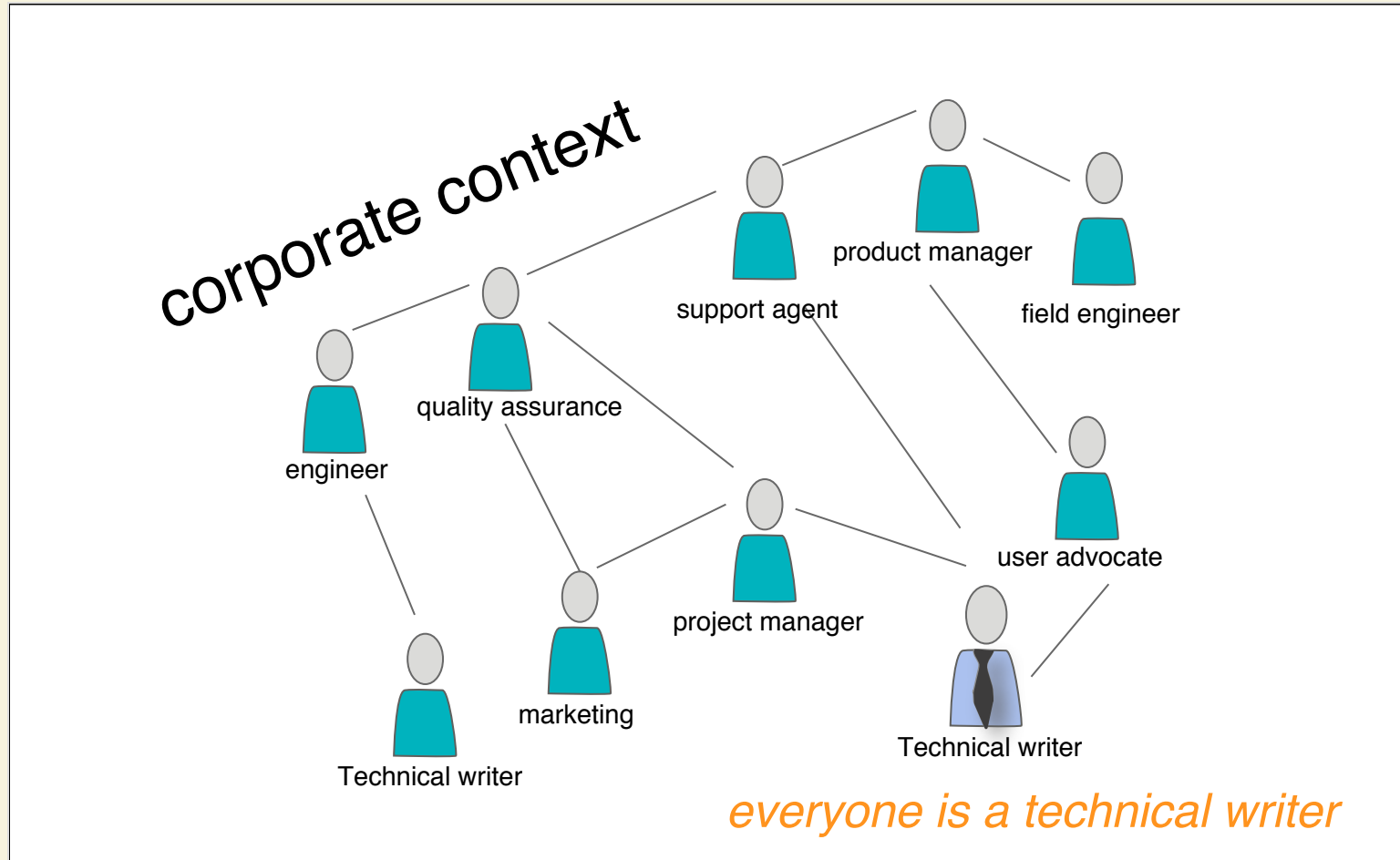


REASON #2: SCALE INFINITELY

GROW AS NEEDED WITHOUT BUDGET CONSTRAINTS

- Allow unlimited number of authors.
- No price per "seat."
- Avoid free-for-all content junkyard of wikis.
- Handle any type of content.

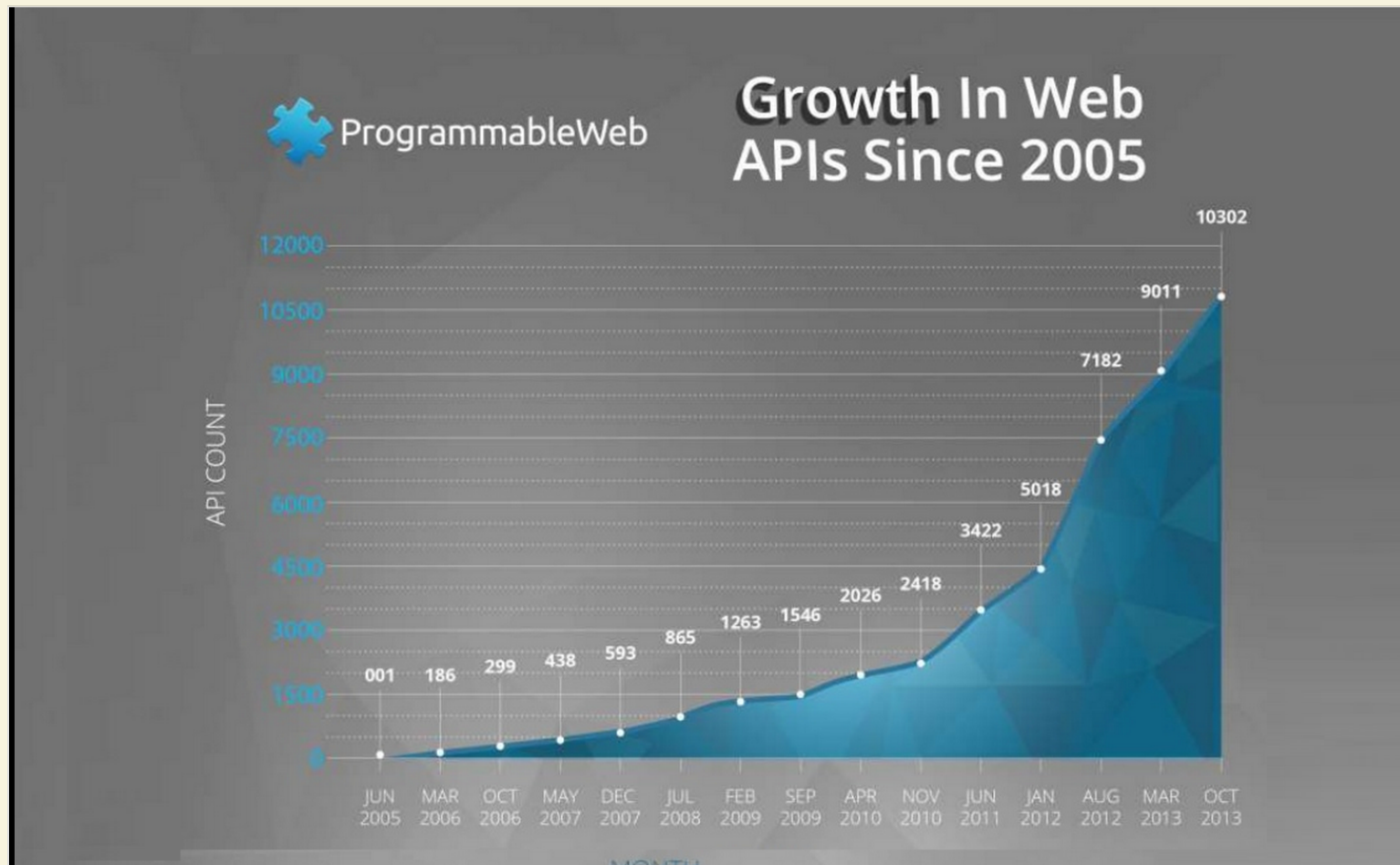
ALLOWS EVERYONE TO BE A TECH WRITER




One person writing from one perspective in one company, especially an outsider to the actual business context of the user, can't possibly cover all the information needs for every user.

REASON #3: CONTENT APIS

GROWTH IN REST APIS



HEALTHCARE.GOV SITE AS API

 **HealthCare.gov**

Individuals & Families

Small Businesses

Log in

Español

Get Coverage

Change or Update Your Plan

Get Answers ▾

Search

SEARCH

HealthCare.gov for Developers


We're making our source code freely available on GitHub. All of our educational content about the [Health Insurance Marketplace](#) is available in machine-readable formats so that innovators, entrepreneurs, and partners can turn it into new products and services.

Open Source and Accessible

All content is available through an API. Everyone can use the API to embed content from HealthCare.gov. As official content gets updated on HealthCare.gov, the new content will update automatically and appear on websites using the HealthCare.gov API.

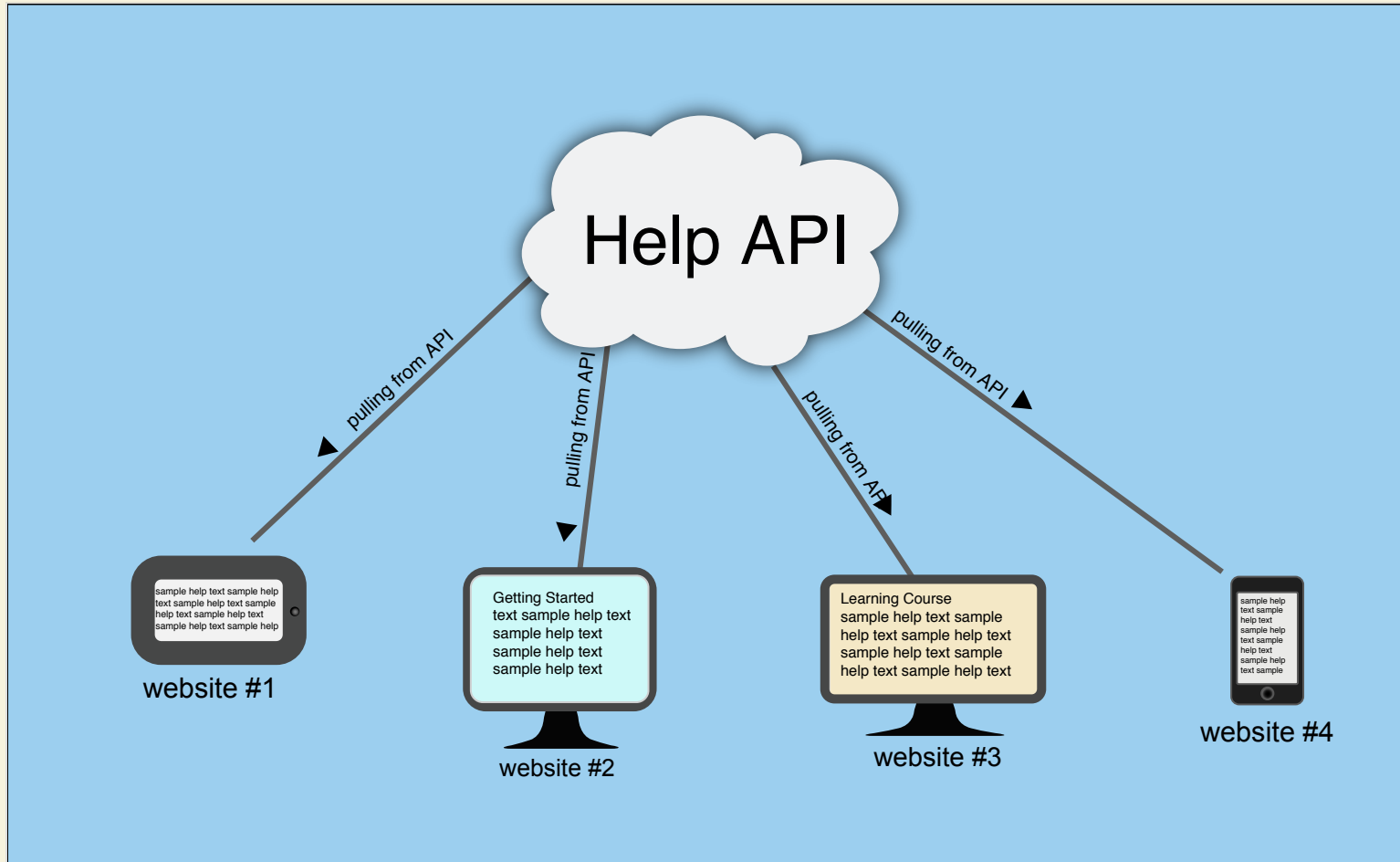
From day one, we embraced the principles of open data, universal access, and accessibility through simplicity. We produce standards compliant code to make our content [accessible](#) to people with disabilities.

HealthCare.gov Content API

Our web content is published as HTML pages and JSON data. JSON stands for [JavaScript Object Notation](#)  and it is a machine-readable data exchange format. Use our JSON API to build applications and websites that share the latest content from HealthCare.gov.

Snagit

WHY NOT CREATE HELP CONTENT APIS?



POPULATE UI TEXT DYNAMICALLY FROM API

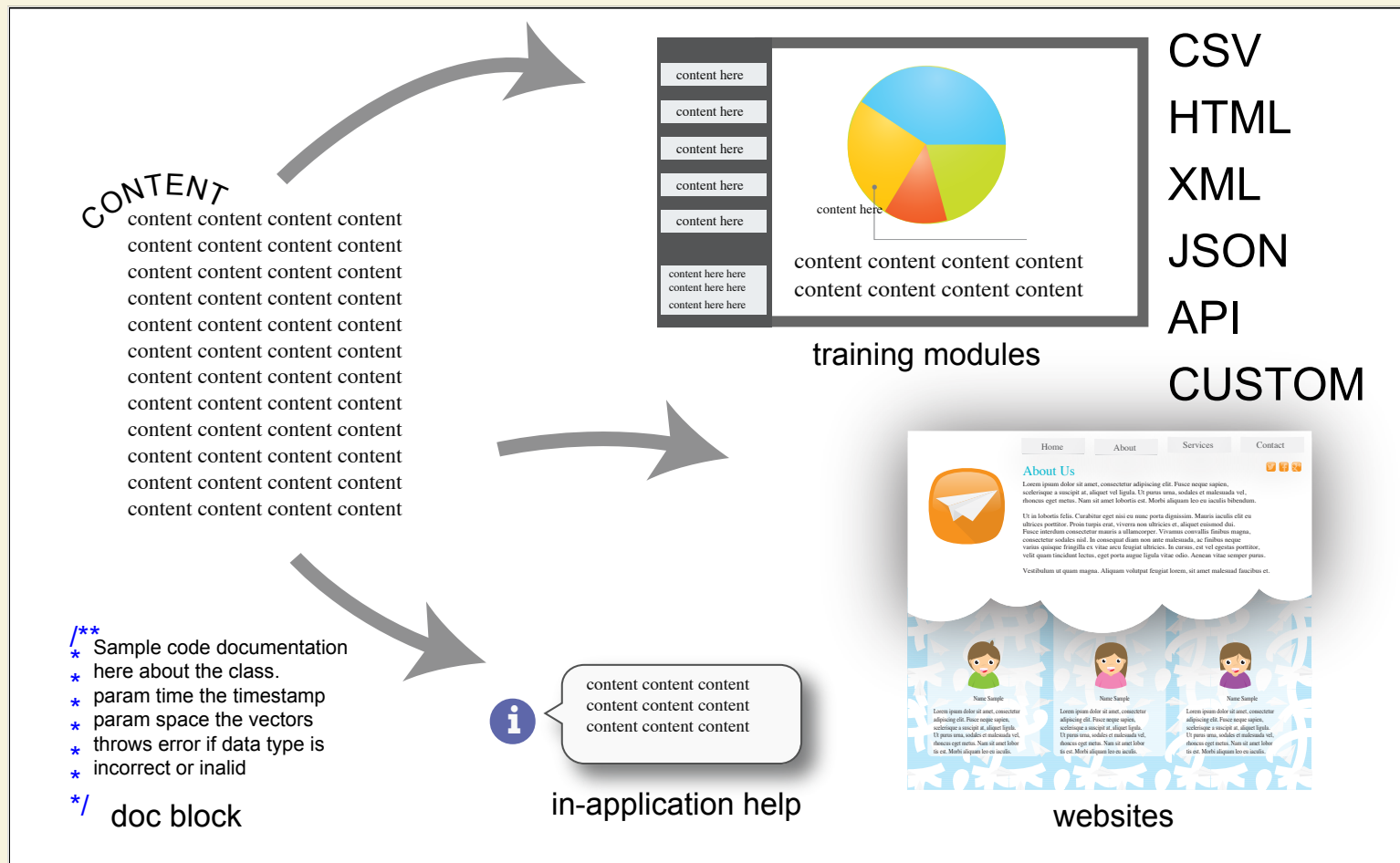
The screenshot displays a web application titled "Tooltip Demo" at the URL `tomjohnson1492.github.io/documentation-theme-jekyll/tooltip_demo`. The page content includes a paragraph explaining that the page is separated from the rest of the theme to demonstrate dynamic text population from an API. Below this, there is a list of sports: Basketball, Baseball, Football, and Soccer. Each sport has a tooltip that provides detailed information. An orange arrow points from the "Basketball" tooltip to a secondary window showing the JSON data source at `idratherbewriting.com/wp-content/apidemos/tooltips.json`. The JSON data is structured as follows:

```
{
  "entries": [
    {
      "id": "baseball",
      "body": "Baseball is considered America's pasttime sport, though that may be more excitement about football than baseball. A baseball game is somewhat of a..."
    },
    {
      "id": "basketball",
      "body": "Basketball is a sport involving two teams of five players each competing the ground. Basketball requires players to be in top physical condition, since 94-foot-long floor."
    },
    {
      "id": "football",
      "body": "No doubt the most fun sport to watch, football also manages to accrue blown knees, football players have short sport lives."
    }
  ]
}
```

The "Basketball" tooltip text is: "Basketball is a sport involving two teams of five players each competing to put a ball through a small circular rim 10 feet above the ground. Basketball requires players to be in top physical condition, since they spend most of the game running back and forth along a 94-foot-long floor."

REASON #4: PUSH CONTENT INTO TEMPLATES

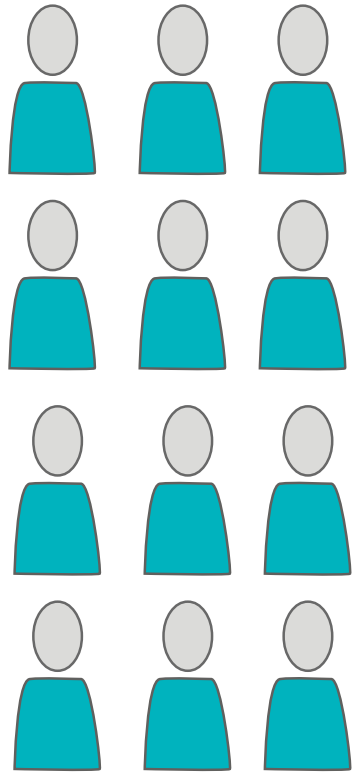
CUSTOM TEMPLATES FOR CUSTOM CONTENT TYPES



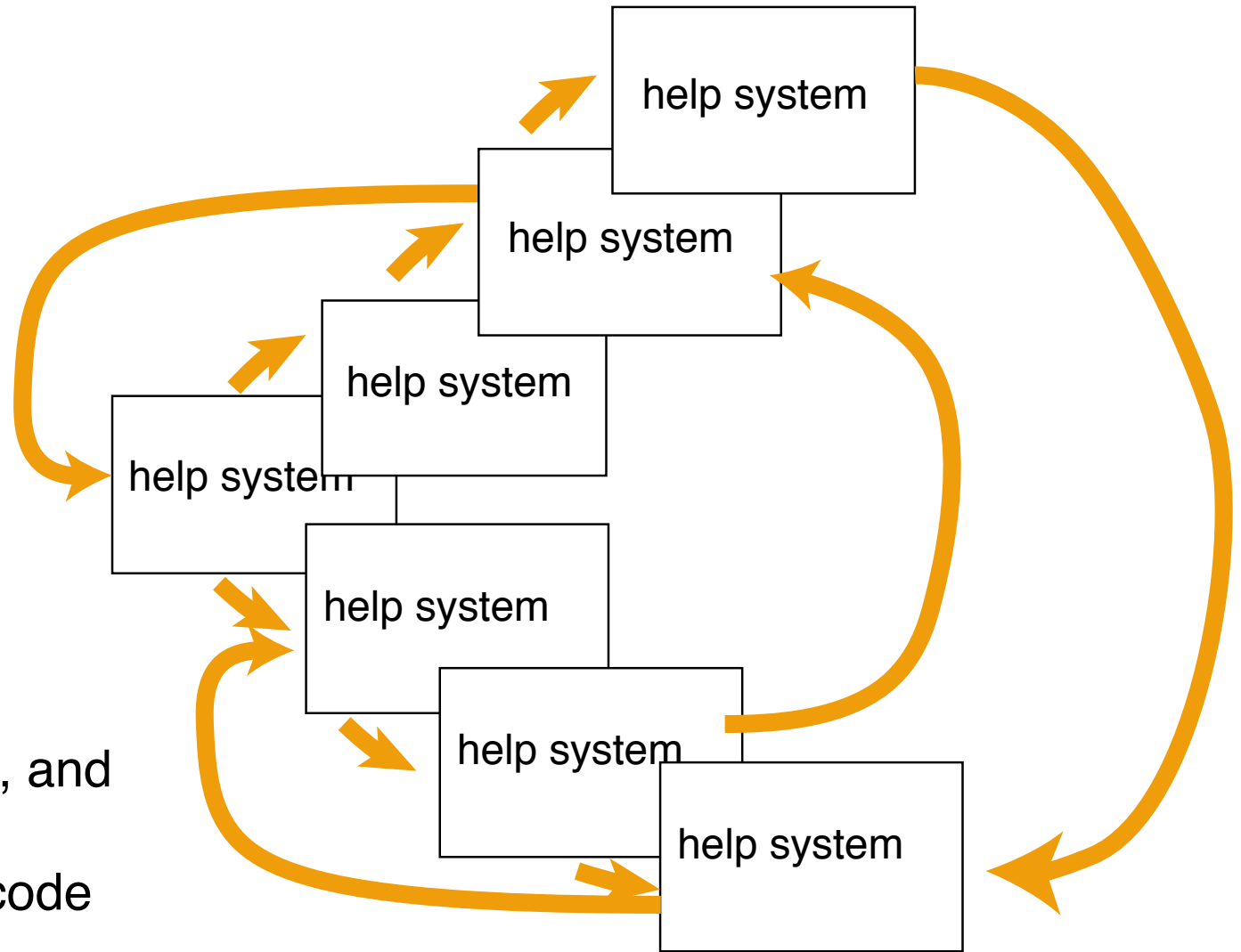
ITERATE THROUGH ITEMS

```
{
  "entries":
  [
    {% for page in site.tooltips %}
    {
      "id"      : "{{ page.id }}",
      "body": "{{ page.content | strip_newlines | replace: '\', '\\\\' |
                replace: '\"', '\\\"' }}"
    } {% unless forloop.last %},{% endunless %}
  {% endfor %}
  ]
}
```

REASON #5: LEVERAGE OPEN SOURCE MODEL




Forking, sharing, and
reincorporating
documentation code



MY LARGER POINT:

MAYBE NOT JEKYLL, BUT ...

LOOK OUTSIDE THE TECH COMM BUBBLE



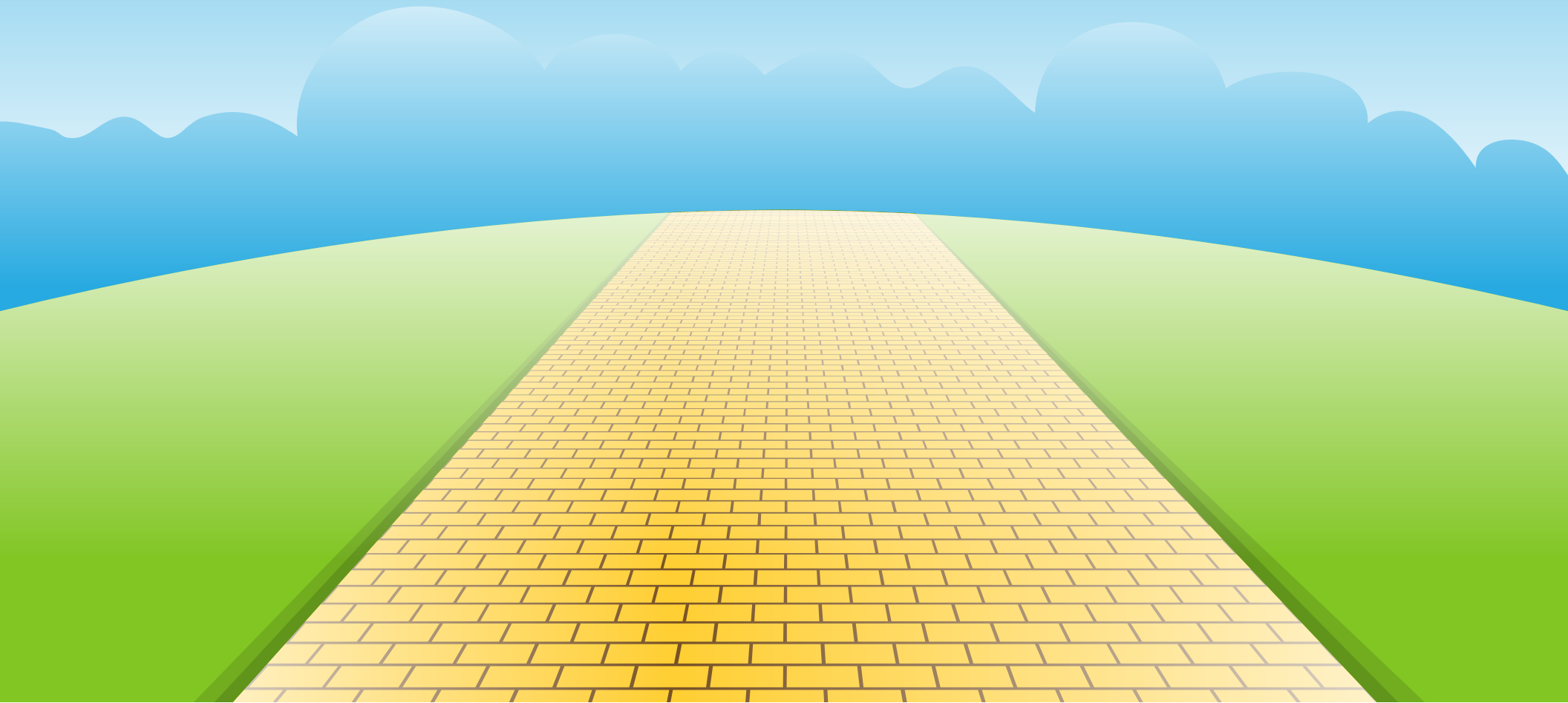
tech comm



web

3 STRATEGIES FOR INNOVATION

1. Look outside the tech comm bubble.
2. Ride the innovation of the web.
3. Share with the community around you.



THANKS!

CONTACT INFO

- Blog: idratherbewriting.com
- Twitter: [@tomjohnson](https://twitter.com/tomjohnson)
- GitHub for slides: github.com/tomjohnson1492/innovation
- Github for Jekyll documentation theme:
<http://tomjohnson1492.github.io/documentation-theme-jekyll/>
- Email: tomjohnson1492@gmail.com

CREDITS

- Read the innovation series on my blog, <http://idratherbewriting.com/series/innovation-in-tech-comm/>
- Slide framework from Reveal JS
- Some vectors come from Vecteezy.com
- Mark Baker quote, from comment thread at [The genius of Github and its ability to transform tech comm](#)
- Joe Malin quote, from [The genius of Github and its ability to transform tech comm](#)
- Theory of Disruptive Innovation, Clay Christiansen. *The Innovator's Dilemma*
- The graph of disruptive innovation. [Pocket-sized Graph of the Theory of Disruptive Innovation](#)
- Bell and an early model of the telephone, [Wikipedia](#)
- REST API Trends graph, [Programmableweb.com](#)
- Microsoft is very interesting again -- very, by Jason Calcanus. [Linkedin](#)