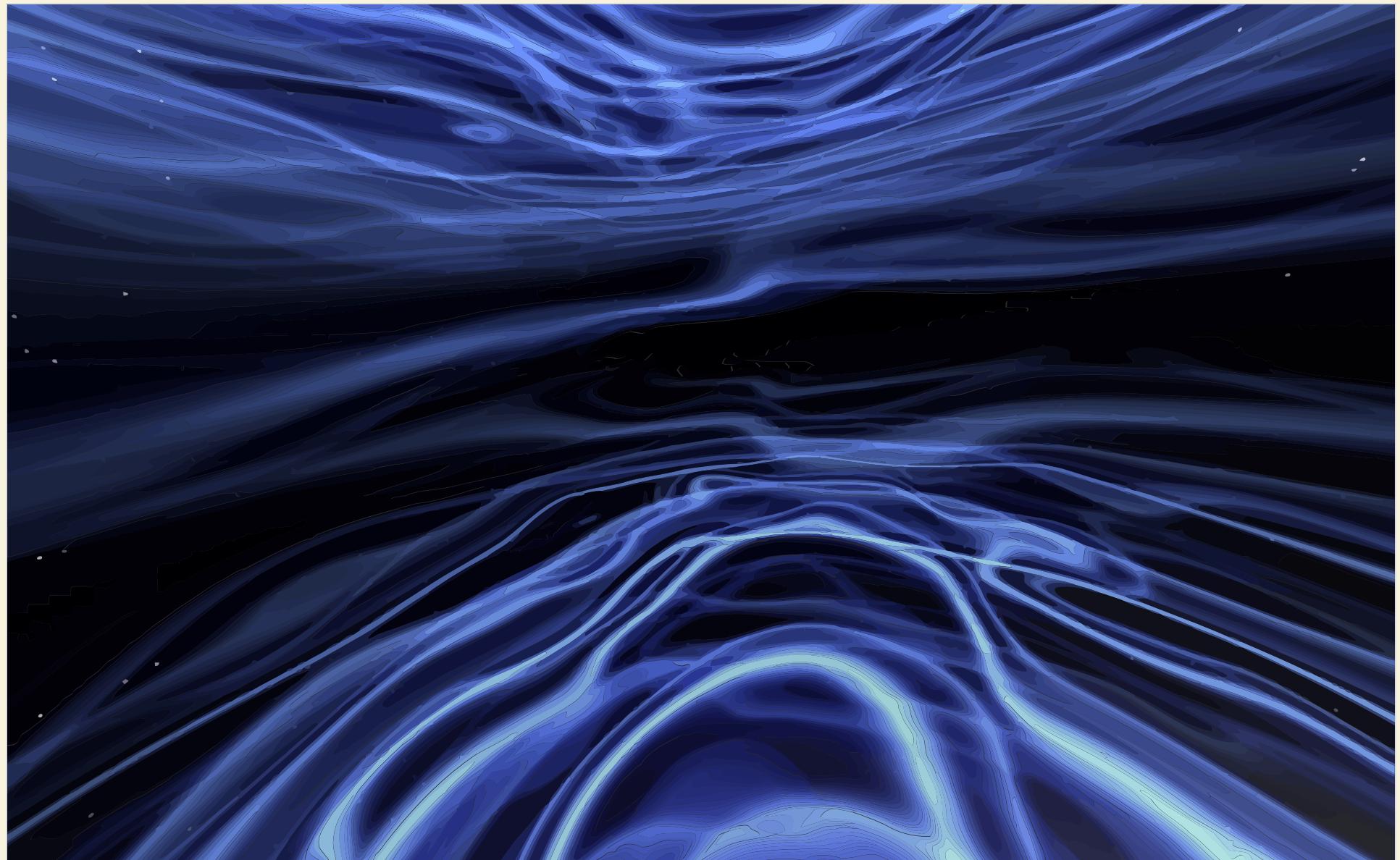


INNOVATION IN TECHNICAL COMMUNICATION

TCWORLD INDIA 2015

Created by Tom Johnson / [@tomjohnson](#)

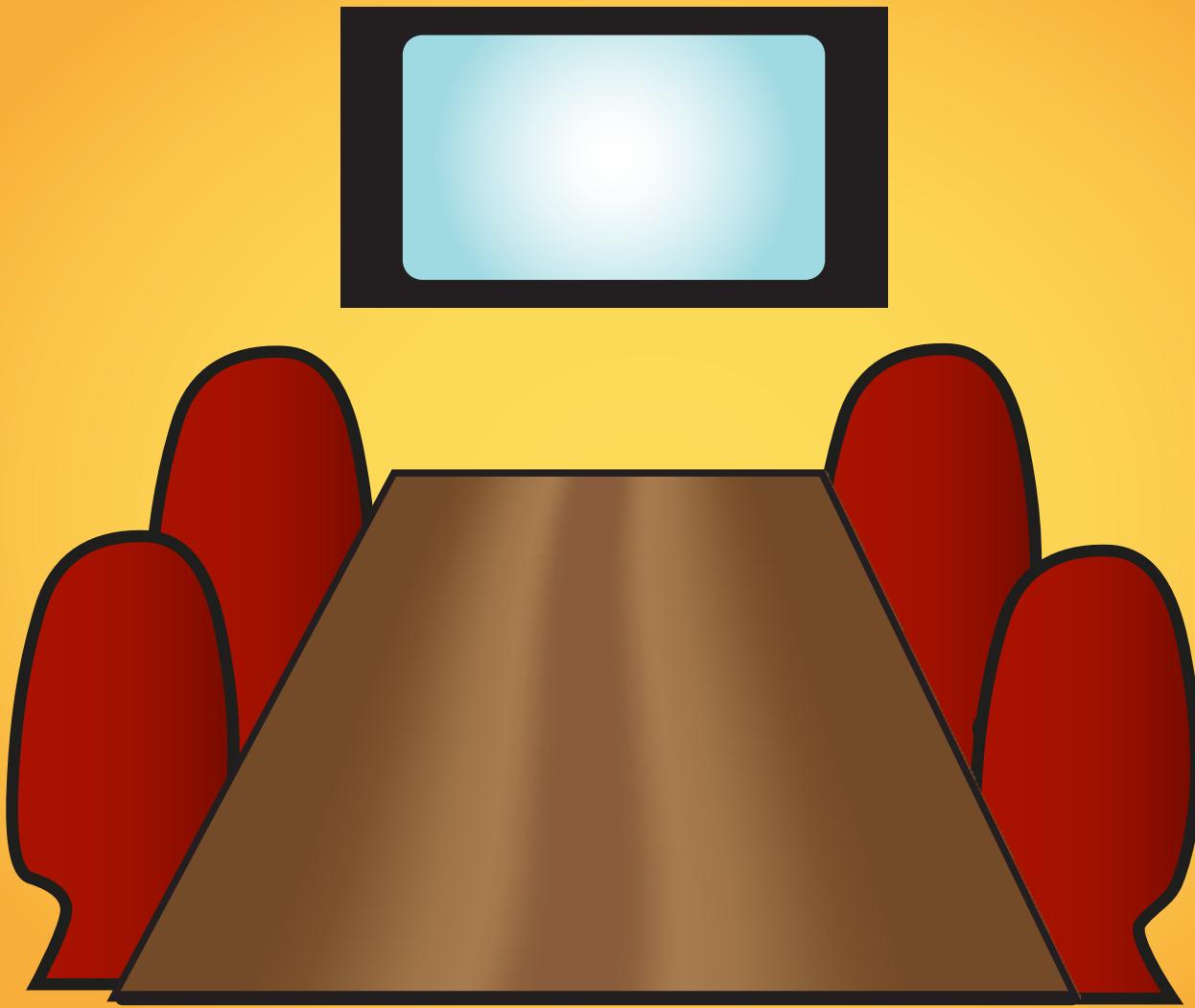
STARTUP CULTURES ENCOURAGE INNOVATION



*"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"

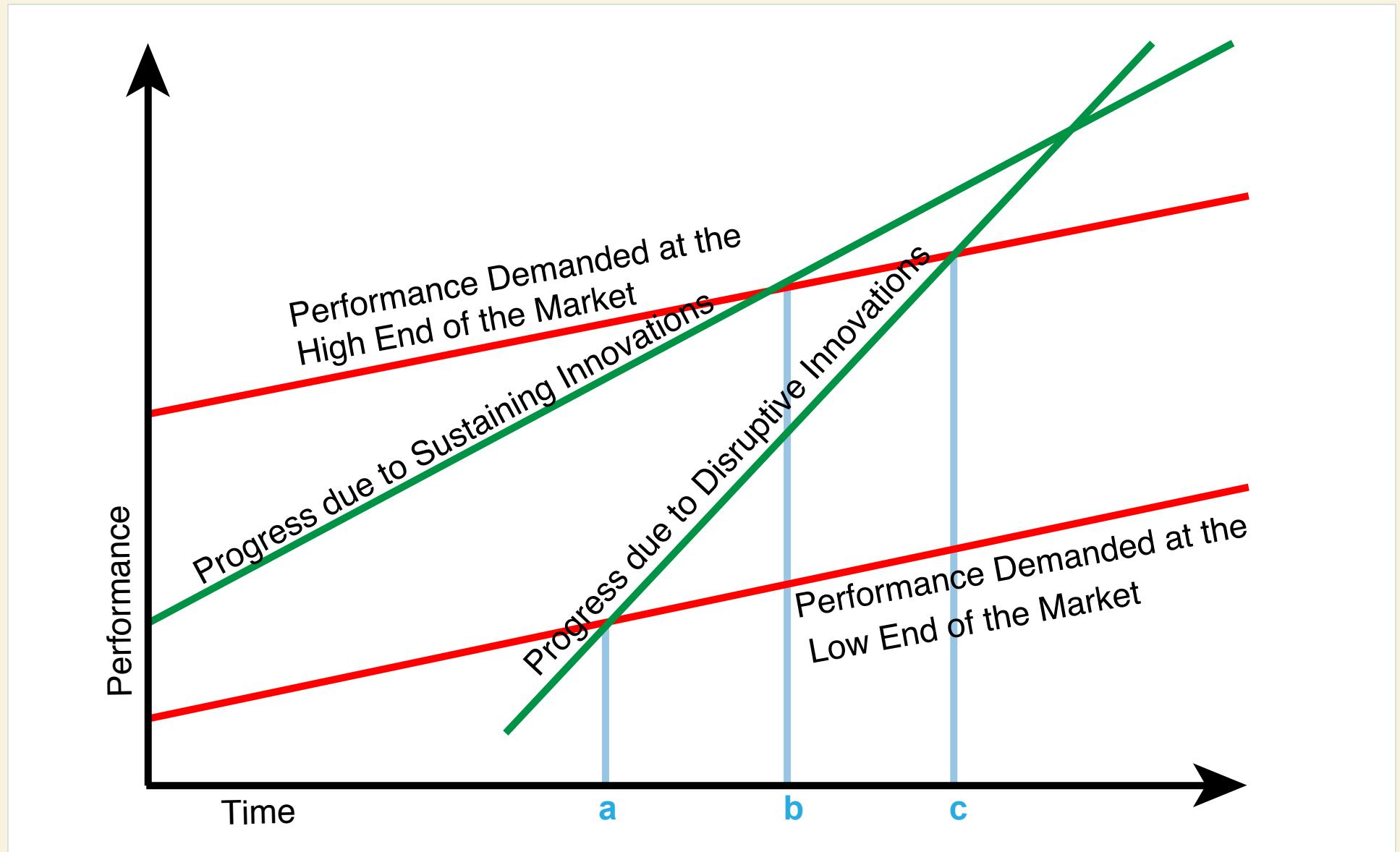


STORY OF TELEGRAPH AND TELEPHONE



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

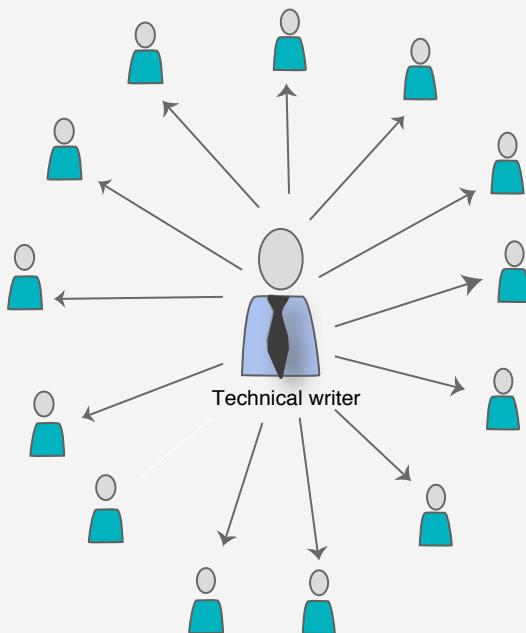
INNOVATIONS IN TECH COMM

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

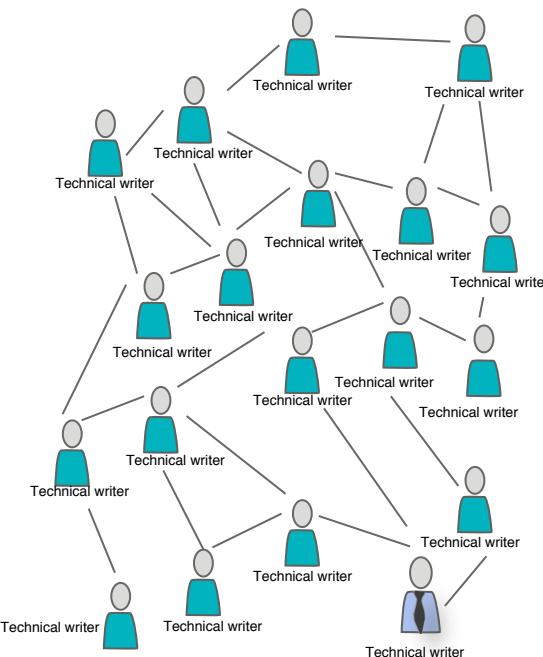
MOST SIGNIFICANT INNOVATION FOR TC?

EVERYONE IS A TECHNICAL WRITER

Before the web



After the web



Information Distribution

UNOFFICIAL TECHNICAL WRITER

StackExchange ▾ 7 +5 user:6884

Questions Tags Users Badges Unanswered Ask Question

Christian Specht less info meta user network profile

 bio website christianspecht.de
location Kerpen, Germany
age 34

visits member for 6 years, 5 months
seen 13 hours ago

17,797 stats profile views 1,475
reputation 6 45 91

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

summary answers questions tags badges favorites bounties reputation activities

632 Answers votes activity newest 17,797 Reputation top 2% overall

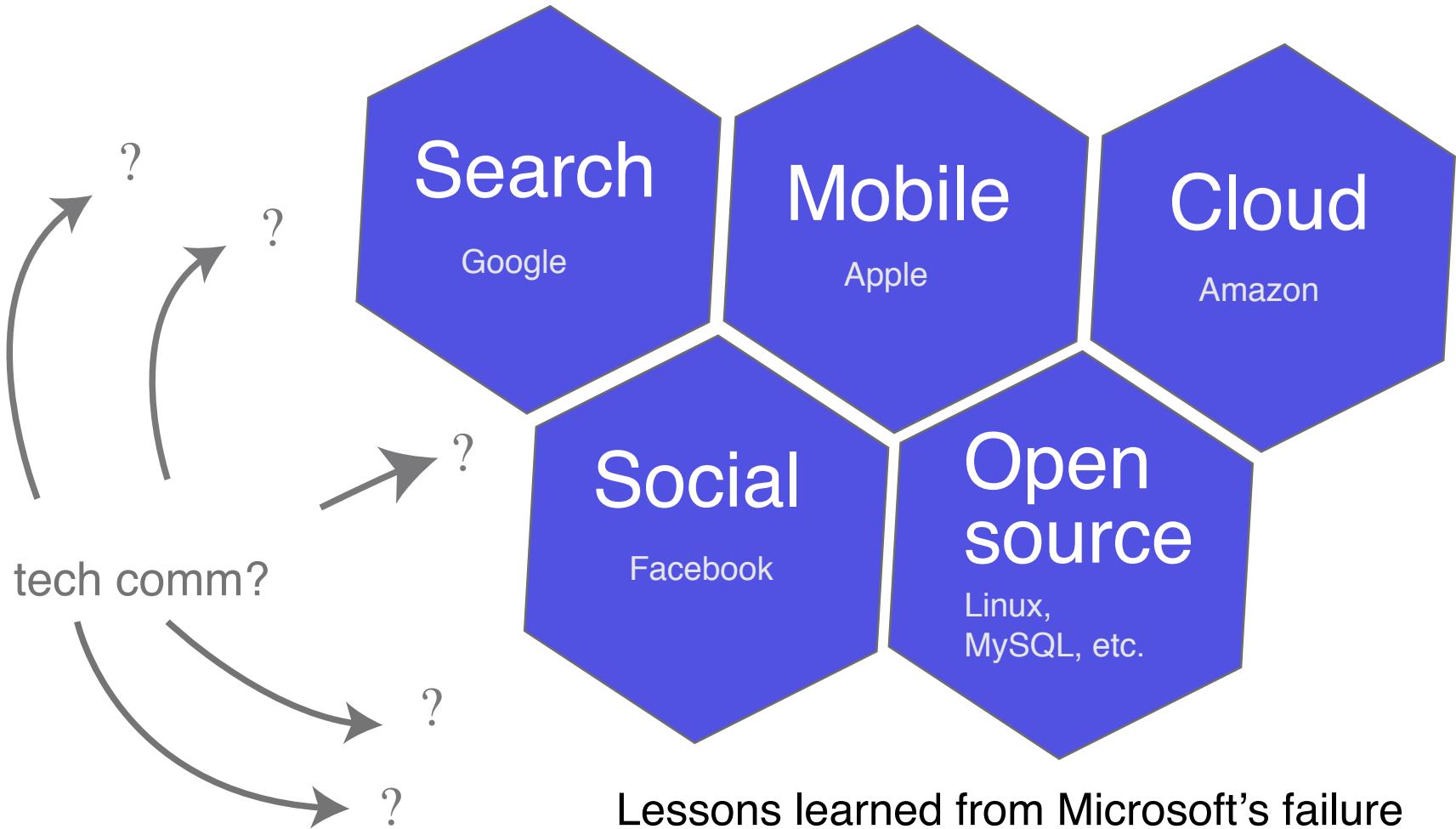
82 What NoSQL solutions are out there for .NET?
34 How to create jobs in SQL Server Express edition +10 Multi-row blog list in Jekyll

Page 1 of 1

JOB TRENDS FOR "TECHNICAL WRITER"

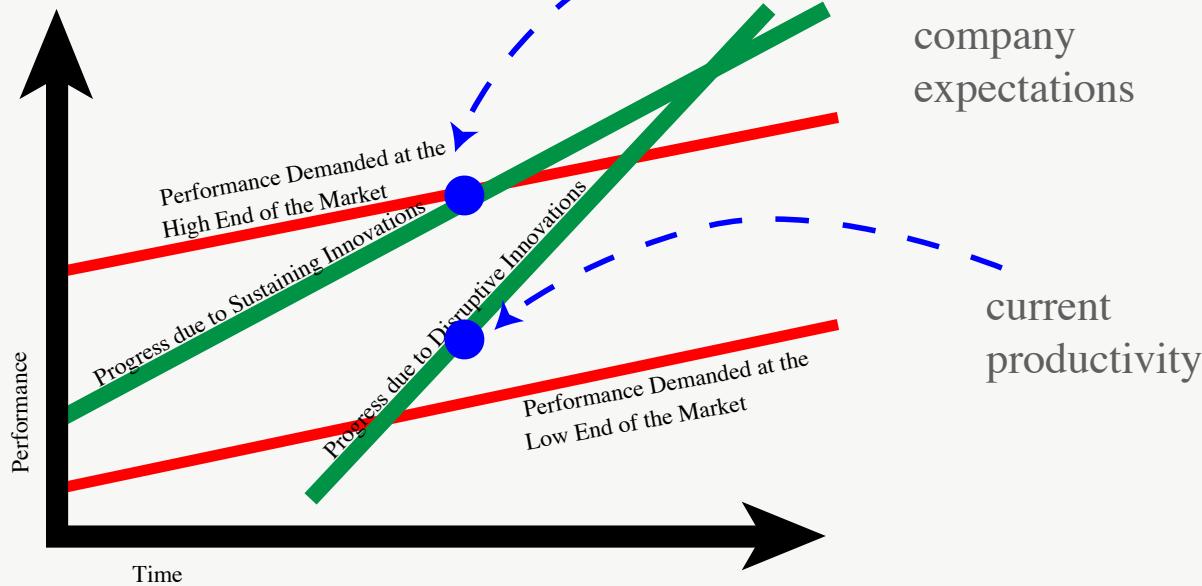


HOW TO STAY RELEVANT?



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?



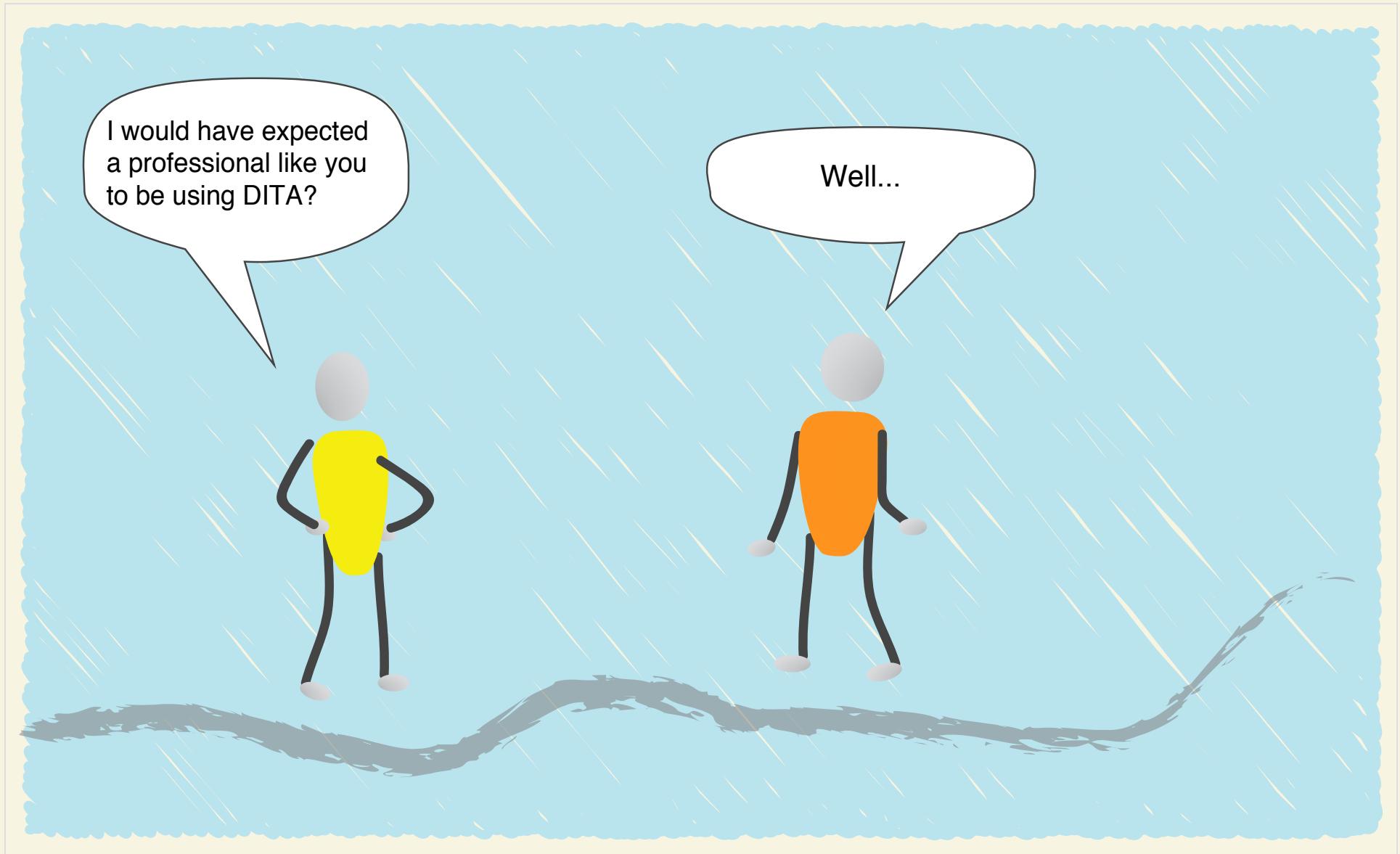
HOW CAN YOU BUILD ANYTHING IF YOU'RE NOT REALLY AN ENGINEER?



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

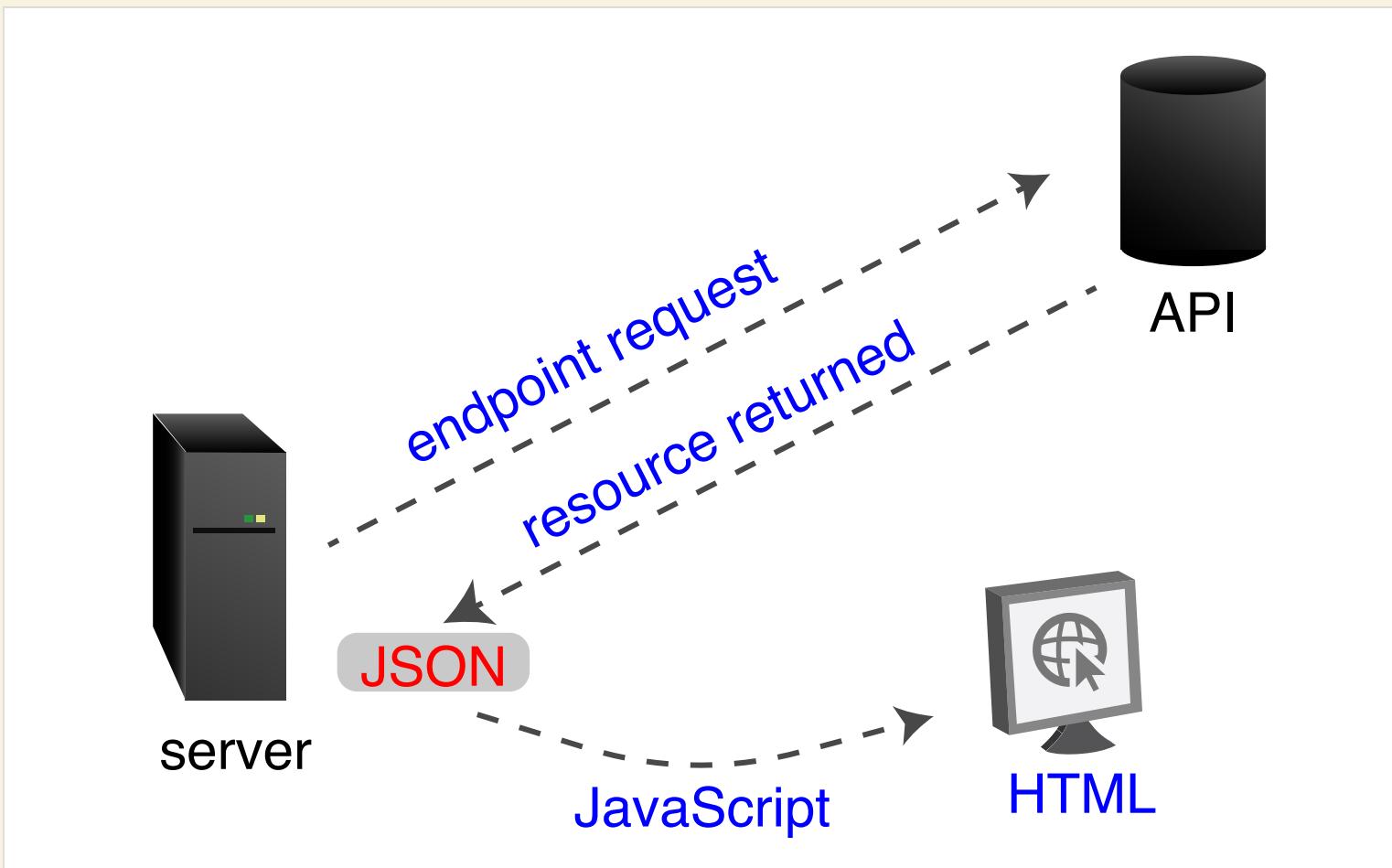
Node.js

```
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 = "AC5ef8732a3c49700934481addd5ce1659";
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 with the following elements:

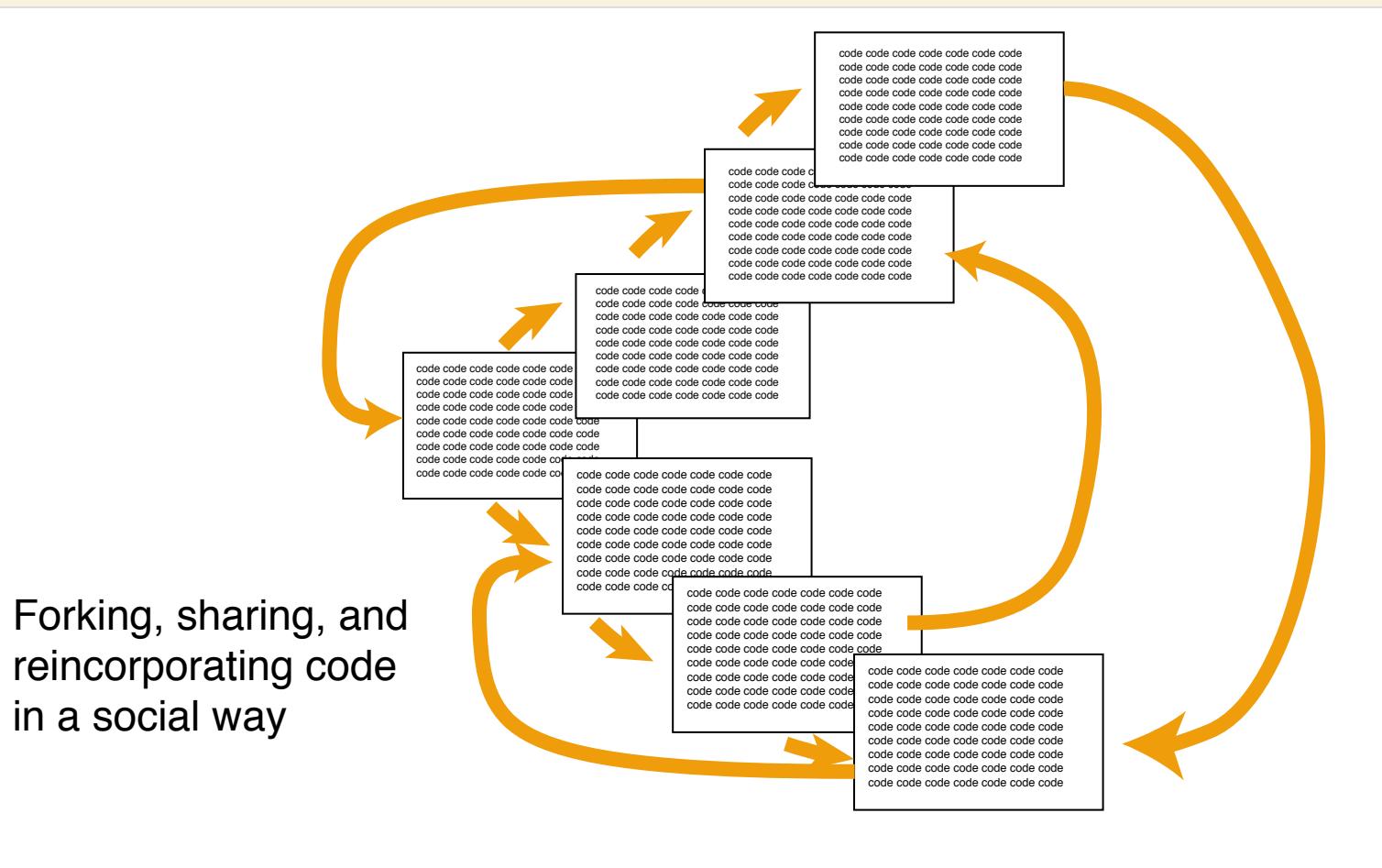
- Header:** Search GitHub, Explore, Gist, Blog, Help, User profile (tomjohnson1492), and various navigation icons.
- User Profile:** tomjohnson1492, News Feed (selected), Pull Requests, Issues.
- GitHub Bootcamp Guide:** A modal window titled "GitHub Bootcamp" with four steps:
 - Set up Git:** A quick guide to help you get started with Git.
 - Create repositories:** Repositories are where you'll work and collaborate on projects.
 - Fork repositories:** Forking creates a new, unique project from an existing one.
 - Work together:** Send pull requests, follow friends. Star and watch projects.
- Recent Activity:**
 - 27 minutes ago: elizar edited the [jekyll/jekyll wiki](#). Edited [Sites](#). View the diff »
 - 5 hours ago: tamouse commented on issue [jekyll/jekyll#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 ...
- News Card:** "The new face of committing in GitHub for Mac". We've just redesigned GitHub for Mac's Changes tab to make it even easier to review and commit. View 44 new broadcasts.
- Repositories you contribute to:** [jekyll/jekyll-help](#) (154 stars).

REVOLUTIONARY FOR SOFTWARE DEVELOPMENT

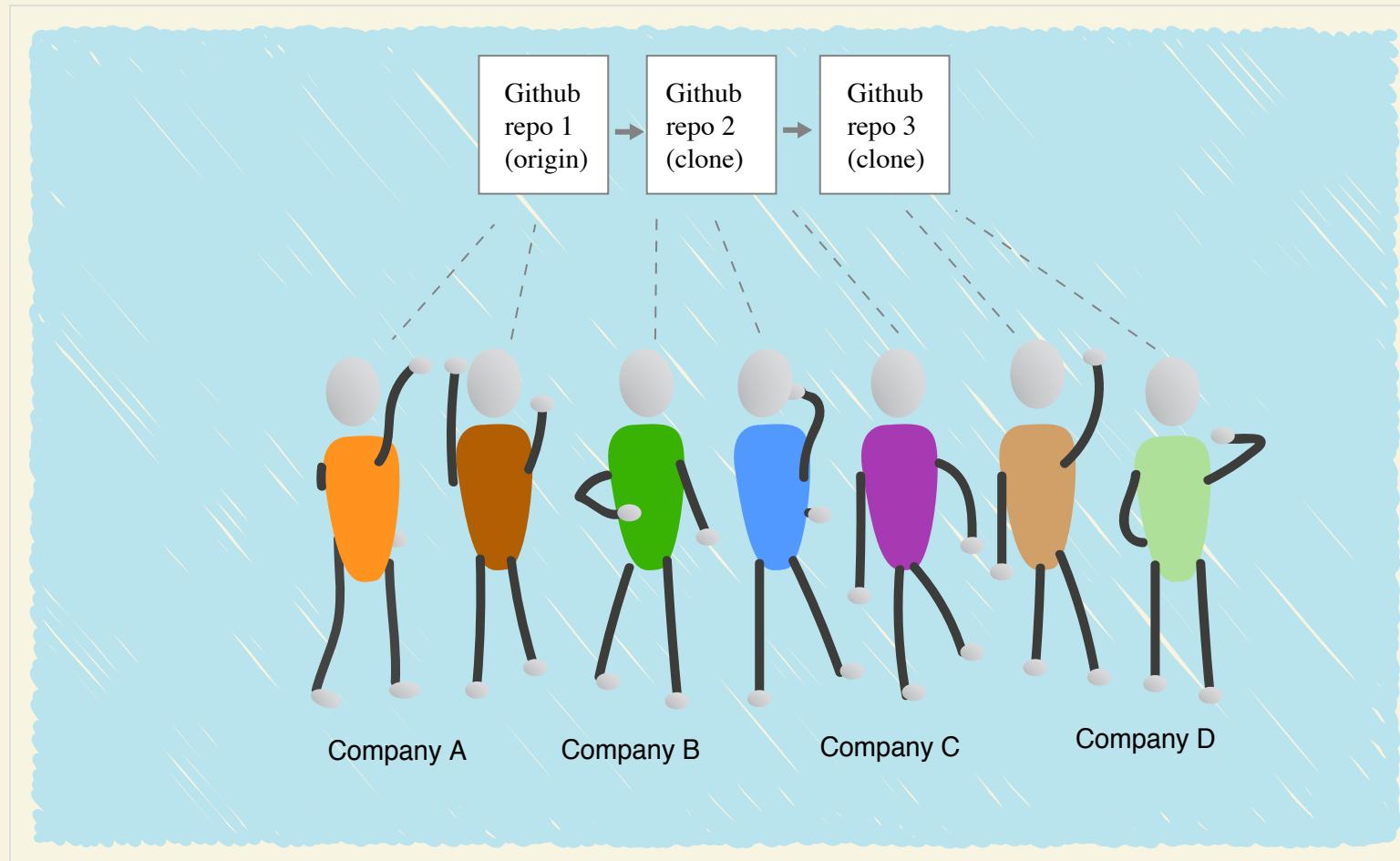
"Github, in my humble opinion, is one of the most revolutionary things that has happened to software in 20 years."

— 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/tomjohnson1492/innovation/">https://github.com/tomjohnson1492/innovation/</a></p>
    <p><i>So much more satisfying to work in text<br/>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 homepage of the StaticGen website, which lists the top open-source static site generators. The page has a dark purple header with the title "StaticGen" and a subtitle "Top Open-Source Static Site Generators". Below the header is a "SHARE" button and navigation links for "About StaticGen" and "The Rules". The main content area features a grid of eight cards, each representing a different static site generator:

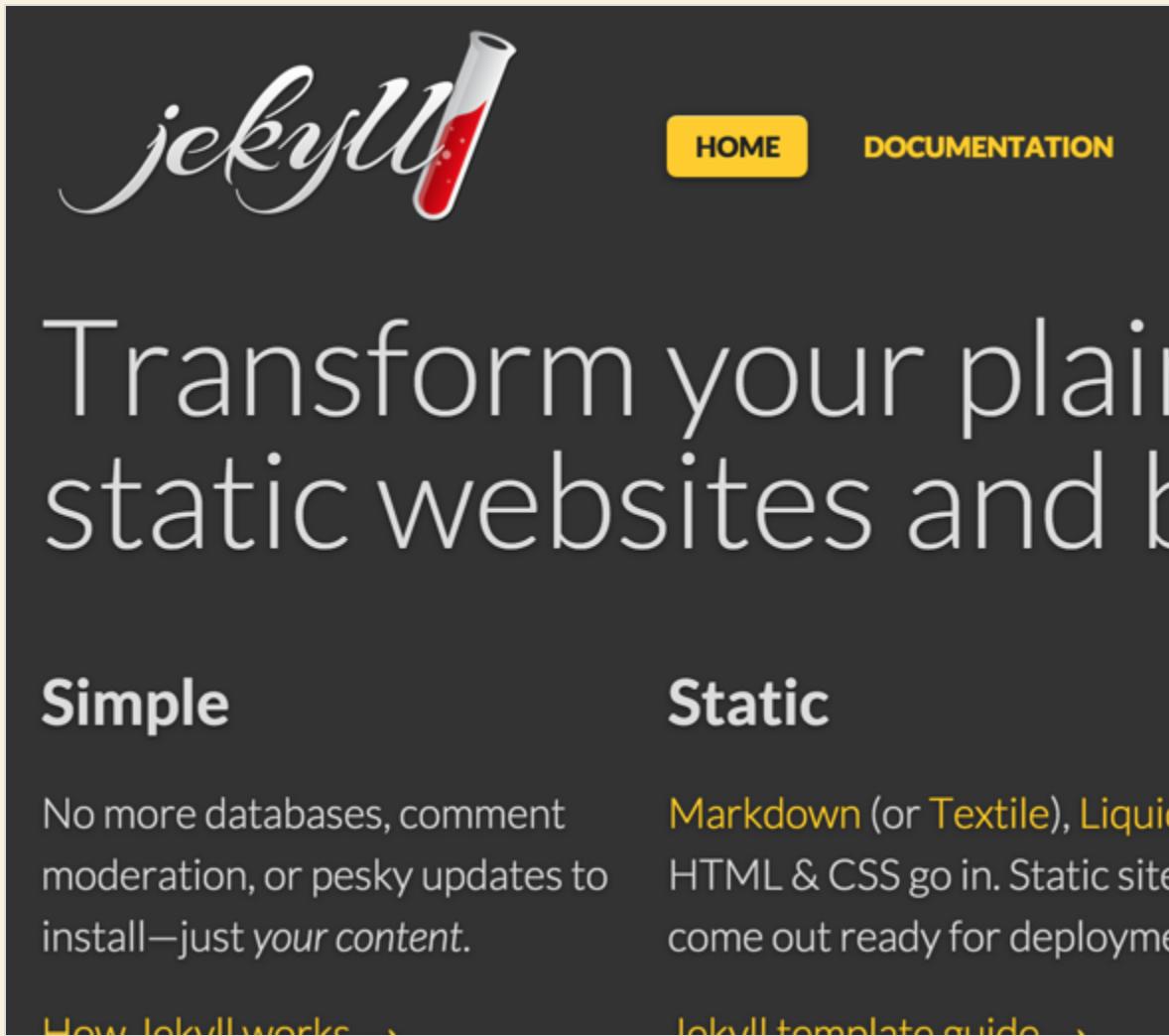
- Jekyll**: jekyllrb.com. Stats: 18834 stars, 3874 forks, 113 issues. Language: Ruby, Templates: Liquid, License: MIT.
- Octopress**: octopress.org. Stats: 8781 stars, 3180 forks, 258 issues. Language: Ruby, Templates: Liquid, License: MIT.
- Pelican**: blog.getpelican.com/. Stats: 4364 stars, 1023 forks, 159 issues. Language: Python, Templates: Jinja2, License: GPL.
- Hexo**: hexo.io/. Stats: 4175 stars, 626 forks, 170 issues. Language: JavaScript, Templates: EJS, Swig, License: MIT.
- Middleman**: middlemanapp.com. Stats: 3957 stars, 387 forks, 48 issues. Language: Ruby, Templates: Middleman, License: MIT.
- Brunch**: brunch.io/. Stats: 3930 stars, 270 forks, 35 issues. Language: JavaScript, Templates: Brunch, License: MIT.
- Hugo**: gohugo.io/. Stats: 3468 stars, 488 forks, 152 issues. Language: Go, Templates: Hugo, License: MIT.
- Metalsmith**: www.metalsmith.io/. Stats: 3075 stars, 238 forks, 9 issues. Language: JavaScript, Templates: Metalsmith, License: MIT.

A "Fork me on GitHub" button is located in the top right corner of the page.

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.

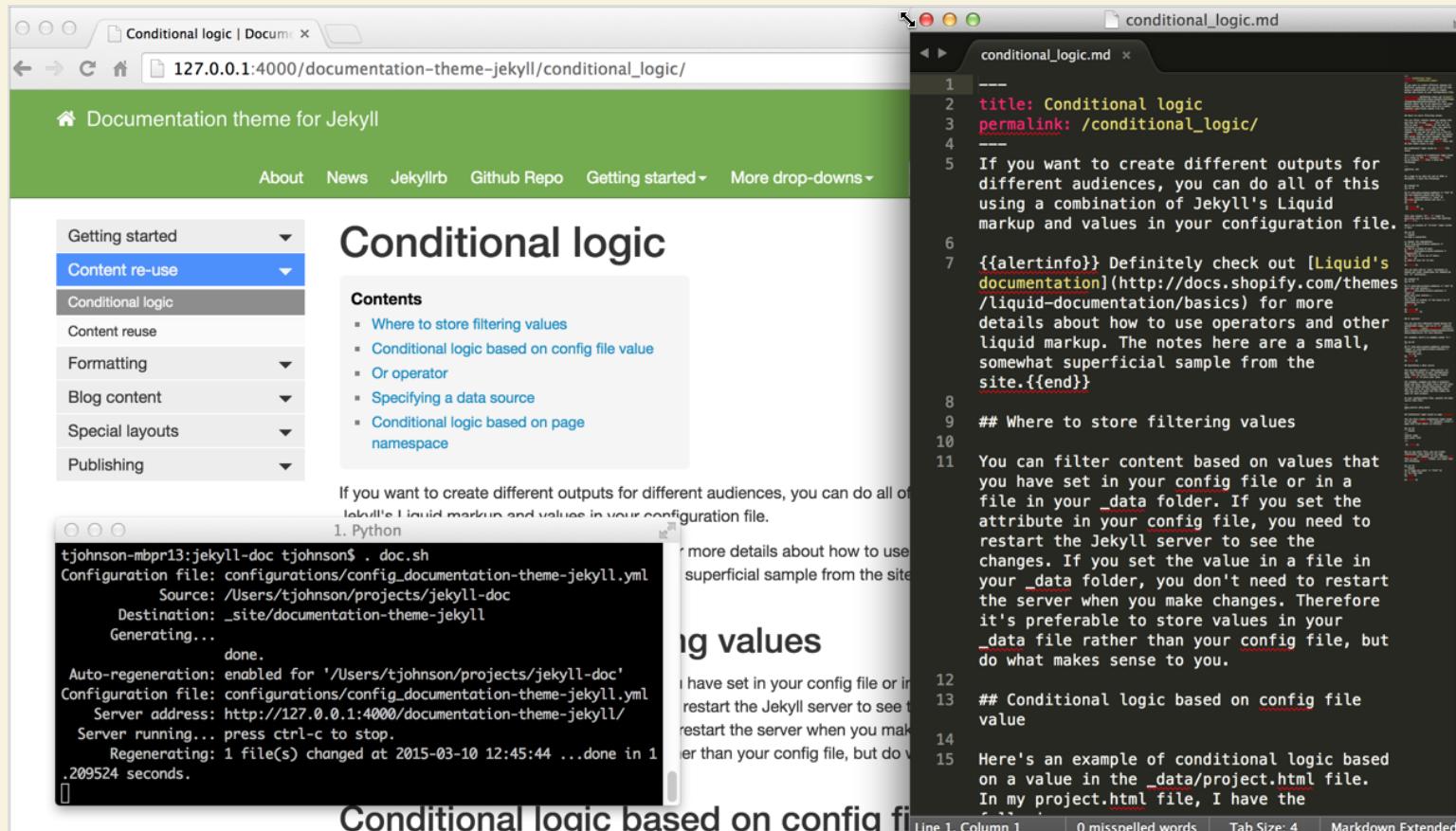
JEKYLL IS MOST POPULAR



The screenshot shows the official Jekyll website. At the top left is the Jekyll logo, which consists of the word "jekyll" in a white, cursive, handwritten-style font next to a test tube containing red liquid. To the right of the logo are two buttons: a yellow one labeled "HOME" and a white one labeled "DOCUMENTATION". The main title "Transform your plain static websites and b" is displayed in large, light gray letters. Below this, there are two sections: "Simple" and "Static". Each section has a brief description and a link at the bottom.

Simple	Static
No more databases, comment moderation, or pesky updates to install—just <i>your content</i> .	Markdown (or Textile), Liquid HTML & CSS go in. Static site come out ready for deployment.
How Jekyll works →	Jekyll template guide →

LIVE PREVIEW REBUILDS WITH EACH SAVE



DOCUMENTATION THEME I BUILT ON JEKYLL

The screenshot shows a web browser displaying a Jekyll documentation theme. The URL in the address bar is tomjohnson1492.github.io/documentation-theme-jekyll/. The page has a green header bar with the title "Documentation theme for Jekyll" and navigation links for About, News, Jekyllrb, Github Repo, Getting started, More drop-downs, and a search bar. A sidebar on the left contains a "Getting started" dropdown menu with options like "Getting started with the theme", "Content reuse", "General info", "Supported features", and several collapsed sections for "Formatting", "Blog content", "Special layouts", "Conditional filtering", and "Publishing Content". The main content area features a large heading "Documentation theme for Jekyll". Below it is a paragraph explaining the theme's purpose: "This is a Jekyll theme intended for documentation projects. What makes this theme unique is the approach in using Jekyll for single sourcing, that is, producing multiple outputs from the same theme. For example, you might have 3 different help systems that you're generating from the same Jekyll files. More than anything, this Jekyll theme shows you how to use Jekyll for documentation projects from the perspective of a technical writer." A blue callout box contains a note: "I'm using this theme for my own technical writing projects, replacing my previous OxygenXML DITA workflow, so this is an evolving project. I'm still in the pilot phase of the experiment." Below this is a section titled "Intended audience" with a paragraph about the target audience being technical writers. At the bottom, there's a section titled "Supported tech comm features with Jekyll" with a note about Jekyll supporting most features needed for technical writing.

Getting started

- Getting started with the theme
- Content reuse
- General info
- Supported features

Formatting

- Blog content
- Special layouts
- Conditional filtering
- Publishing Content

Documentation theme for Jekyll

This is a Jekyll theme intended for documentation projects. What makes this theme unique is the approach in using Jekyll for single sourcing, that is, producing multiple outputs from the same theme. For example, you might have 3 different help systems that you're generating from the same Jekyll files. More than anything, this Jekyll theme shows you how to use Jekyll for documentation projects from the perspective of a technical writer.

I'm using this theme for my own technical writing projects, replacing my previous OxygenXML DITA workflow, so this is an evolving project. I'm still in the pilot phase of the experiment.

Intended audience

Although this theme could be used for any website, I'm assuming that my main audience involves technical writers. Very few technical writers are even aware of Jekyll as a platform, let alone how to use it for tech comm scenarios. The instructions for this theme, therefore, are extensive because they discuss a lot of Jekyll basics as well. I'm not going to assume that you're already familiar with Jekyll, or that you're a UX guru, or that you know how to do backflips in Liquid. I'll try to hold your hand as much as possible.

Supported tech comm features with Jekyll

As far as I can tell, Jekyll supports most of the features a technical writer needs to author and publish content. See [Supported features](#) for an extensive list. Most importantly, using Jekyll allows you to take full advantage of a modern web development platform.

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

5 REASONS WHY STATIC SITE GENERATORS CAN BE A DISRUPTIVE TECHNOLOGY



REASON 1: SNUG FIT INTO WEB TECHNOLOGIES

HTML, JS, CSS



BOOTSTRAP

Bootstrap Getting started CSS Components JavaScript Customize



Bootstrap is the most popular HTML, CSS, and JS framework for developing responsive, mobile first projects on the web.

[Download Bootstrap](#)

Currently v3.3.2

JQUERY

The screenshot shows the official jQuery website. At the top, there's a dark header bar with several small icons (Twitter, GitHub, etc.) on the left and navigation links (Plugins, Contribute, Events, Support) on the right. Below the header is a large blue banner featuring the jQuery logo ('jQuery write less, do more.') on the left and a download section on the right. The download section includes a 'DOWNLOAD FREE' button, a preview image of a computer monitor, and a 'moder...' link. The main content area has a dark background with three white circular icons representing 'Lightweight Footprint', 'CSS3 Compliant', and 'Cross-Browser'. Below these icons are descriptive text blocks. To the right, there's a large orange 'Download' button for version v1.11.2 or v2.1, along with links to 'View Source on GitHub' and 'How jQuery Works'. At the bottom, there's a grey footer bar with a 'What is jQuery?' button on the left and a 'Resources' section on the right, which includes a link to 'jQuery Core API'.

Plugins Contribute Events Support

jQuery
write less, do more.

Download API Documentation Blog Plugins Browser Support Search

 **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

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

What is jQuery?

Resources

[jQuery Core API](#)

MARKDOWN



UX TALENT WILL HELP WHEN PLATFORM IS WEB

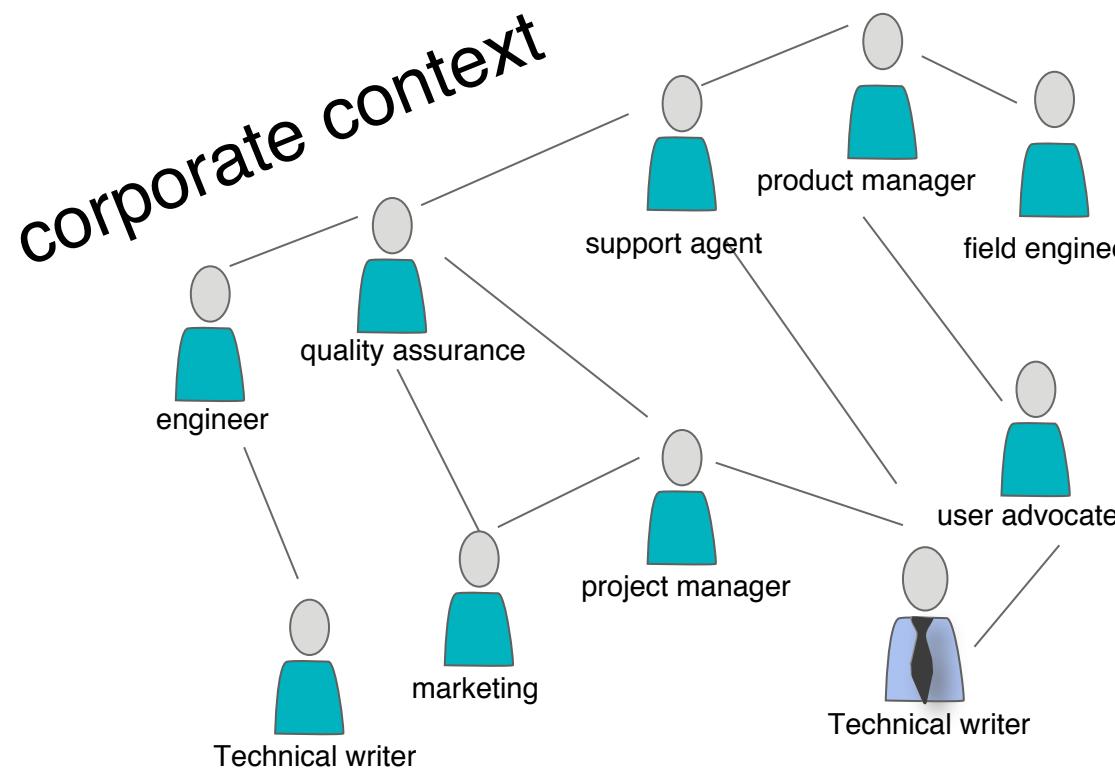


REASON #2: SCALE INFINITELY

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.

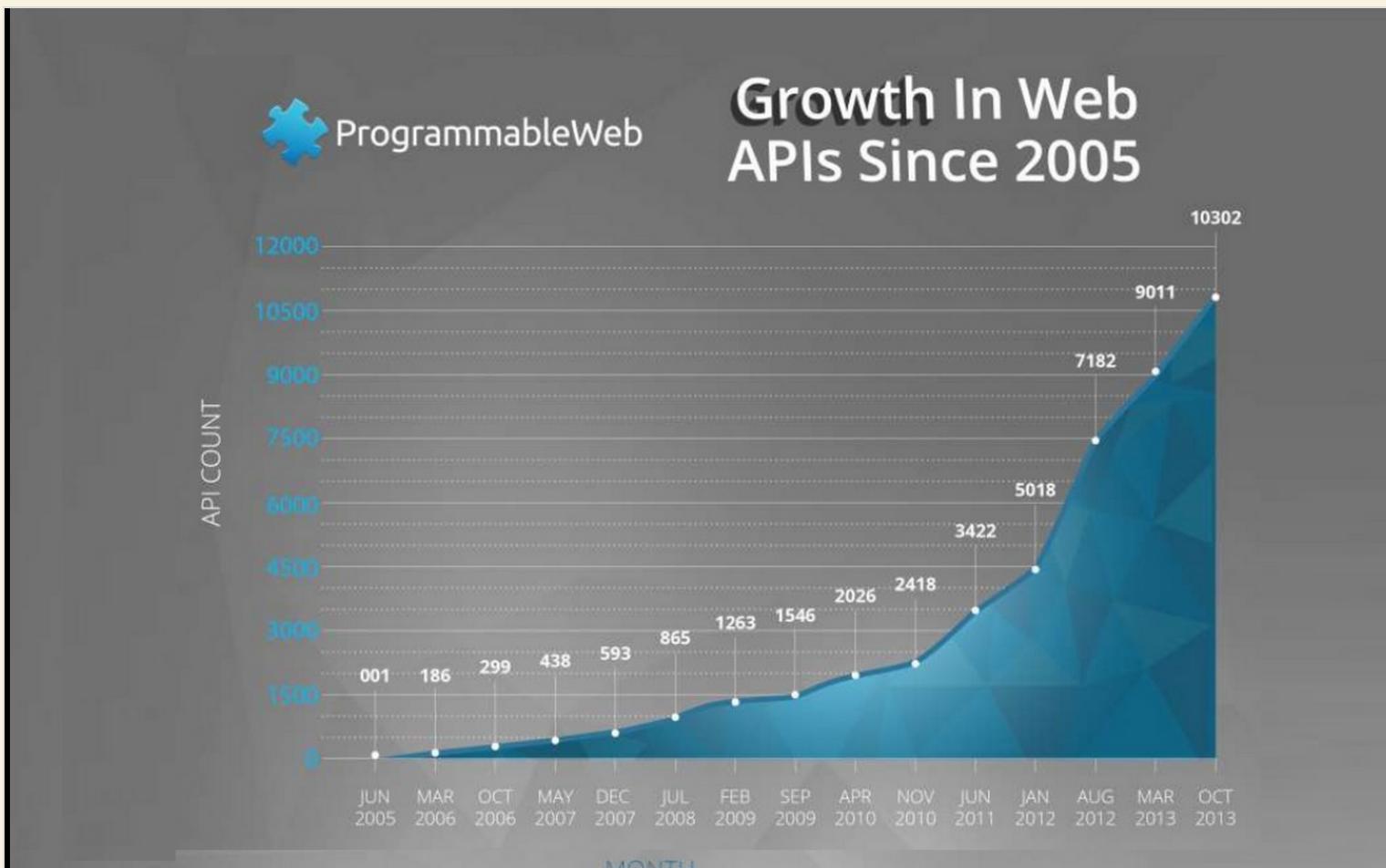
ALLOWS EVERYONE TO BE A TECH WRITER



*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

The screenshot shows the top navigation bar of the HealthCare.gov website. It features a white header with the "HealthCare.gov" logo in blue and orange. Below this is a dark blue navigation bar with several links: "Individuals & Families", "Small Businesses", "Log in", and "Español". Underneath the dark blue bar is another row of links: "Get Coverage", "Change or Update Your Plan", "Get Answers", a search bar with the word "Search", and a "SEARCH" button.

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.

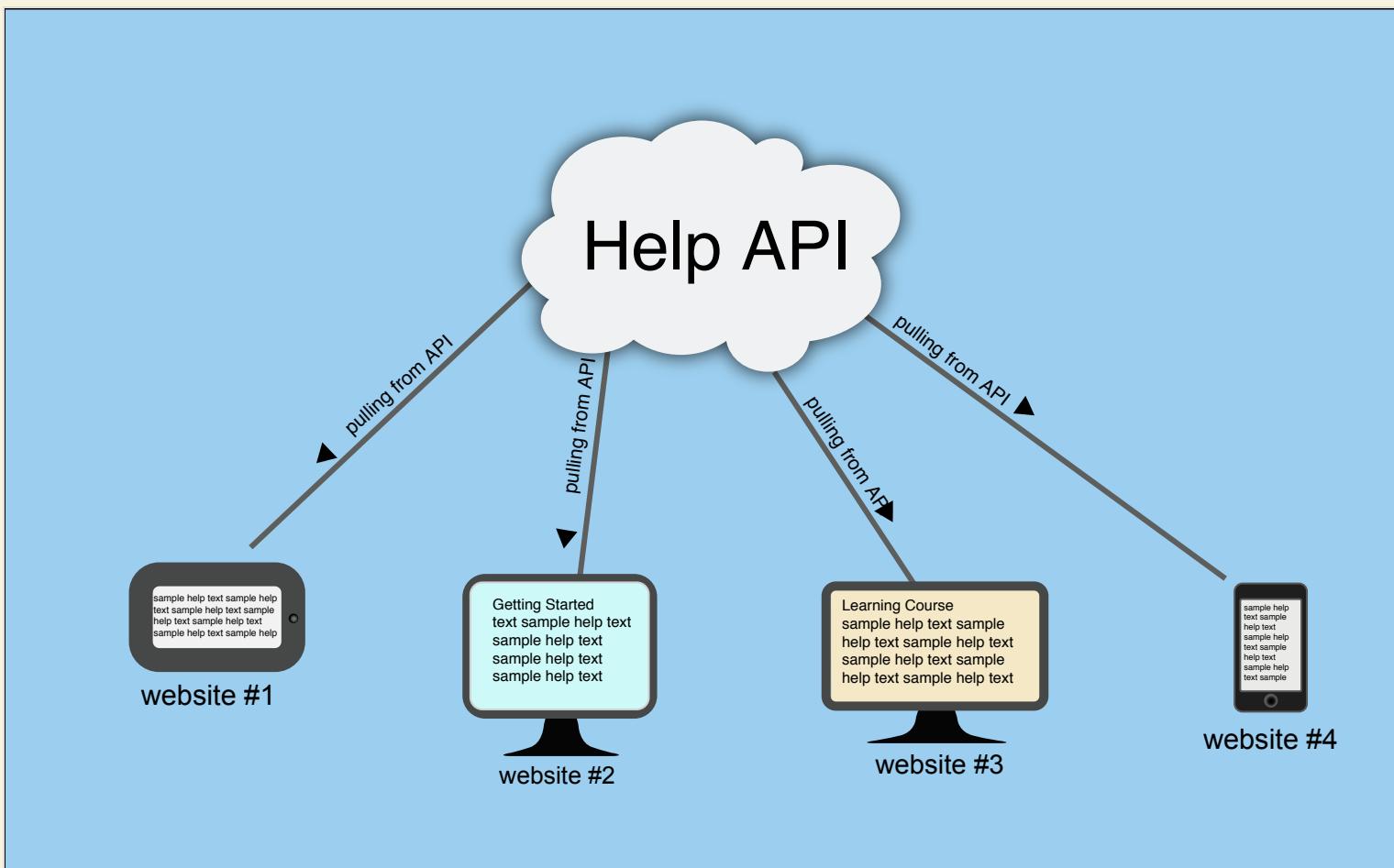
From day one, we embraced the principles of open data, universal access, and accessibility through simplicity. We produce standards compliant code to make our content [accessible](#) to people with disabilities.

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 illustrates a tooltip demo where UI text is populated dynamically from an API. On the left, a browser window shows a page titled "Tooltip Demo". The page content includes a heading, a paragraph, and a list of sports with corresponding tooltipped details. An orange arrow points from the "Basketball" tooltip content to the right-hand screenshot, which displays the JSON file "apidemos/tooltips.json" containing the data for the tooltipped entries.

Tooltip Demo

This page is purposely separated out from the rest of the theme so you can see the bare minimum.

Content in the tooltips (actually "popovers" according to Bootstrap lingo) is pulled in dynamically from [content/apidemos/tooltips.json](#).

Note: Make

Basketball

Baseball

Football

Soccer

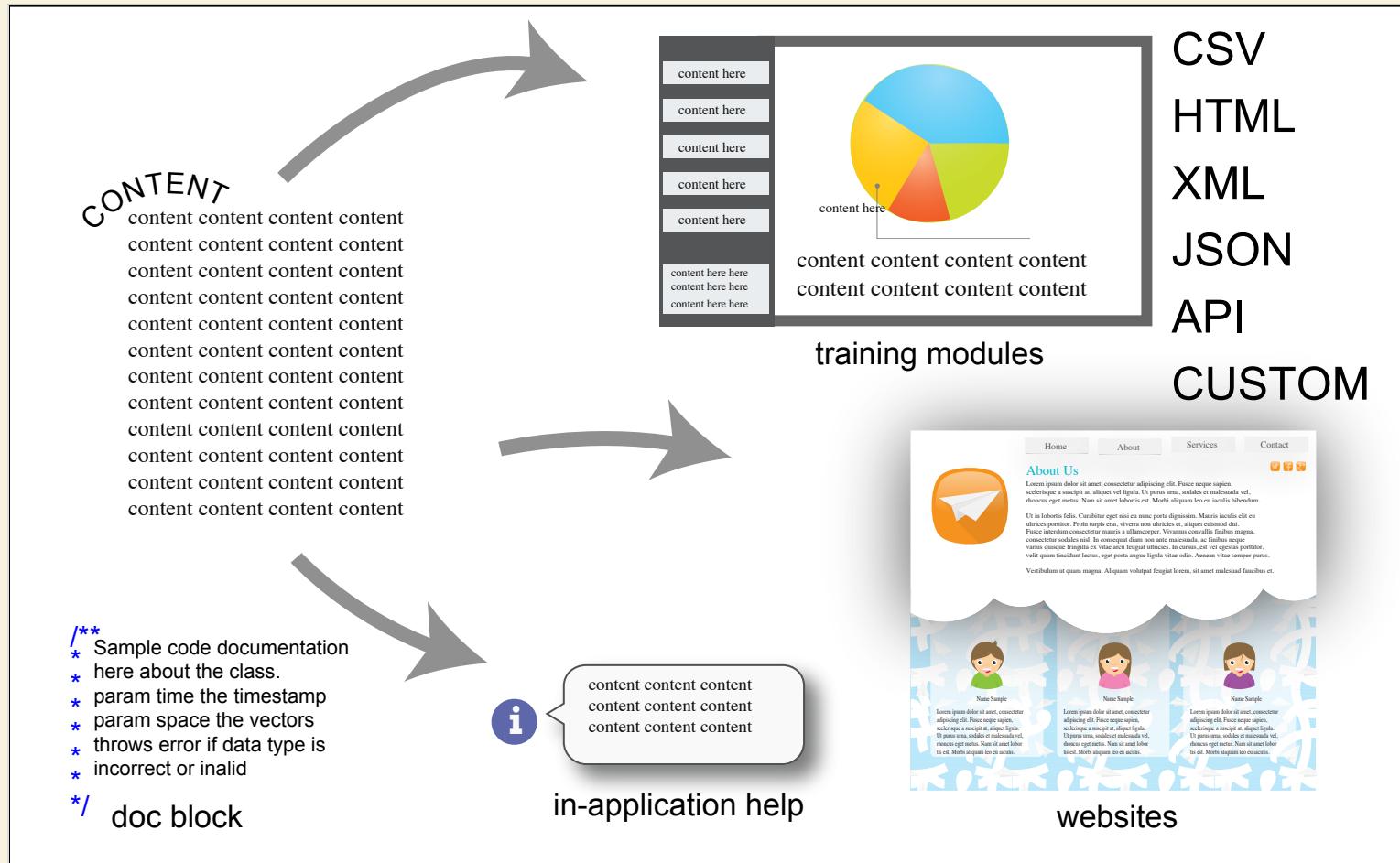
Basketball is a sport involving two teams of five players each competing to put a ball through a small circular rim 10 feet above the ground. Basketball requires players to be in top physical condition, since they spend most of the game running back and forth along a 94-foot-long floor.

idratherbewriting.com/wp-content/apidemos/tooltips.json

```
{ "entries": [ { "id": "baseball", "body": "Baseball is considered America's pastime 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 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." }, { "id": "football", "body": "No doubt the most fun sport to watch, football also manages to accrue the most injuries. Football players have short sport lives." } ] }
```

REASON #4: PUSH CONTENT INTO TEMPLATES

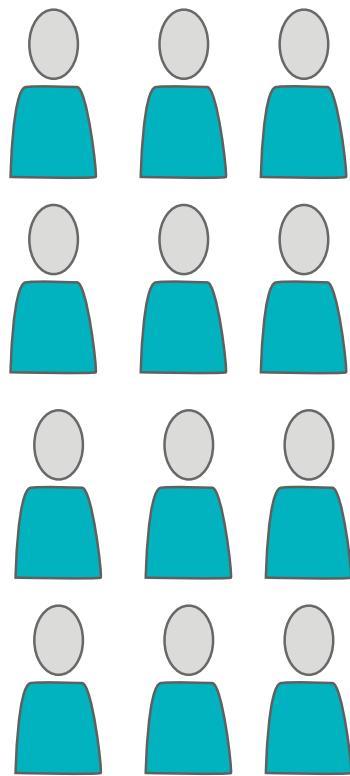
CUSTOM TEMPLATES FOR CUSTOM CONTENT TYPES



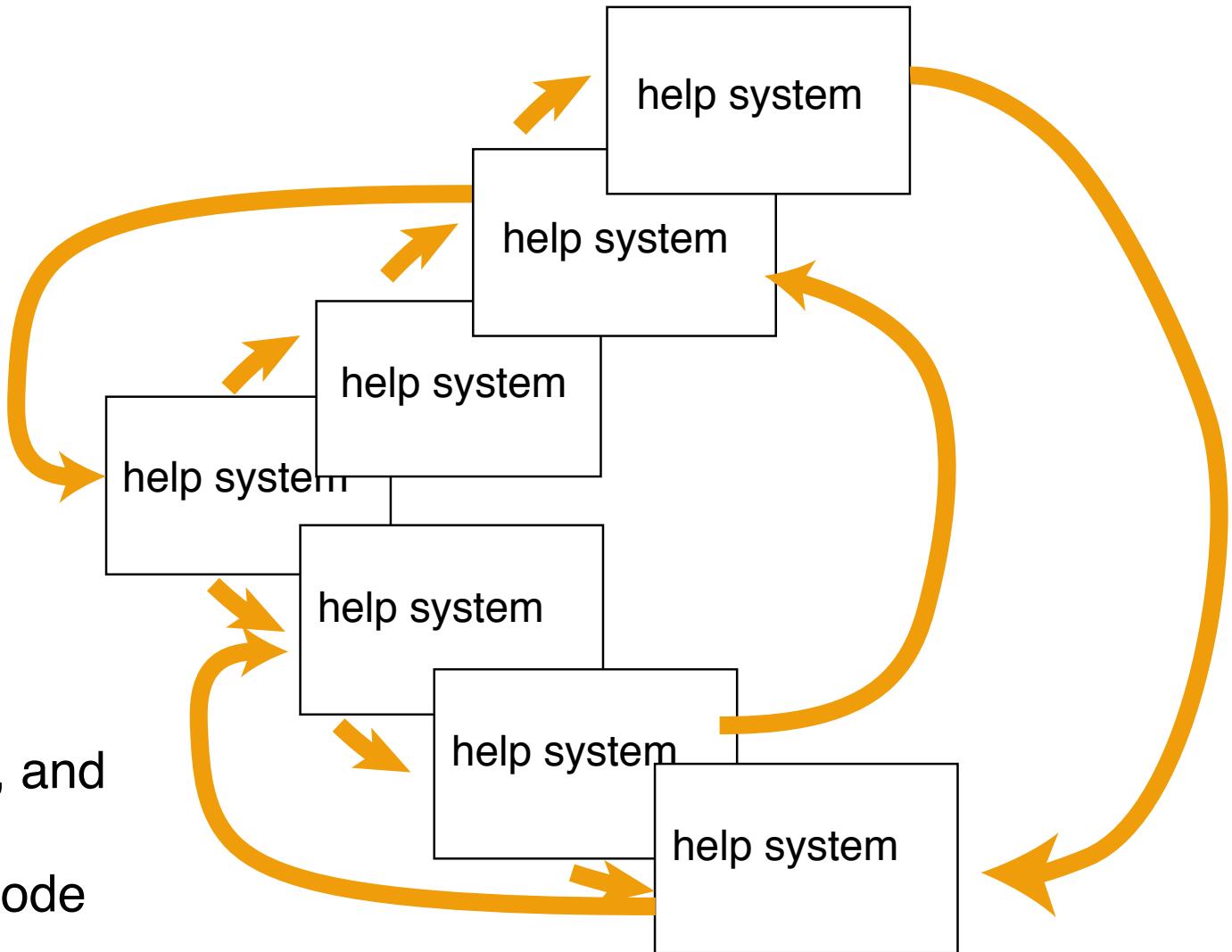
ITERATE THROUGH ITEMS

```
{  
  "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 ...

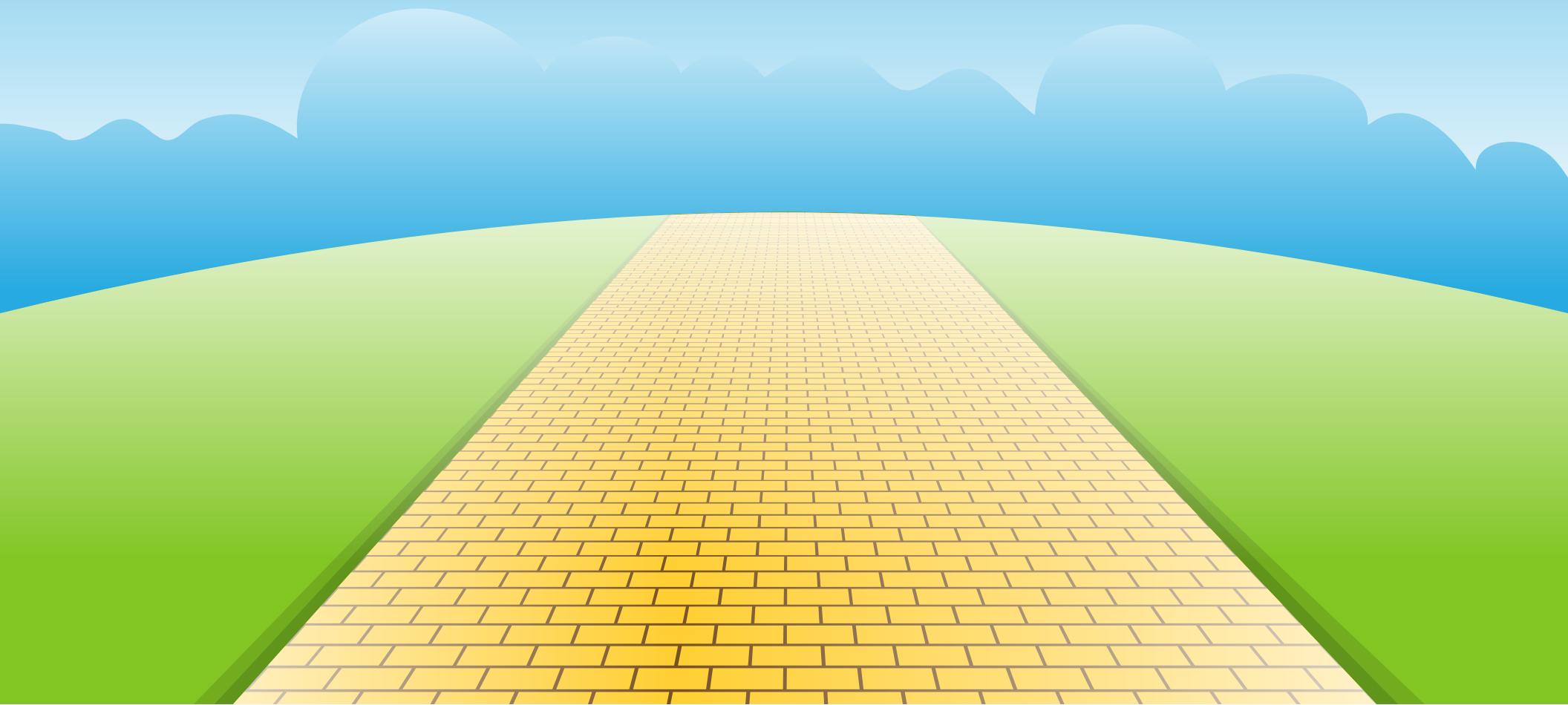
LOOK OUTSIDE THE TECH COMM BUBBLE

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 Calicanus. [Linkedin](#)