

**Next up.**

Lightning Talks

#viewsource

# Thank you, Alex.

- Q: What do you say when a JavaScript interview went bad?
- A: Don't call us, we'll callback you. We promise!

#viewsource

**Next up.**

Preeti Wadhwani -  
Progressing Web through PWA



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# Web Application's Evolution

- Static Web Pages
- Interactive pages with Javascript
- Ajax....

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# Web Application's Evolution: What's Next?

## Progressive Web Apps

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# Why Should You Care?

- 8.05 billion devices are connected worldwide
- 55% (4.42 billion) connections are used on smartphones
- Chrome on mobile is having 1 billion monthly users

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# What is Perfect PWA?

- Fast
- Reliable
- Engaging

“The Best Dx for the best Ux”

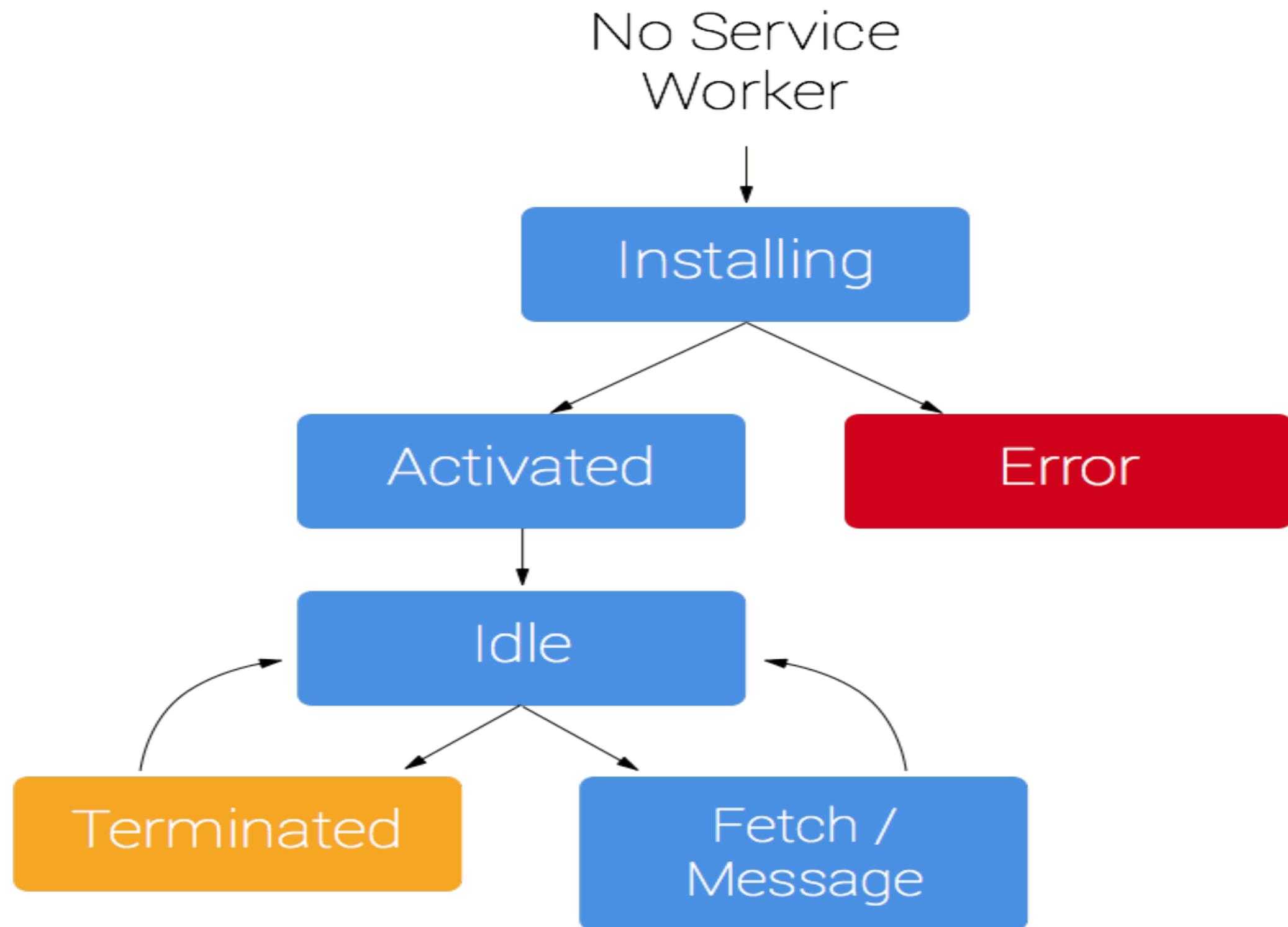
#viewsource

# The Basics: Service Workers

- a script that works on browser background without user interaction independently
- can track network traffic
- manage push notifications
- develop offline first

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# The Lifecycle: Very Important



# The Application Tab

A screenshot of the Chrome DevTools Application tab. The tab bar at the top shows tabs for Elements, Console, Sources, Application (which is selected), Network, Layers, and more. The main content area is titled "Service Workers". It displays a service worker entry for "https://cdn.rawgit.com/jake...". The "Source" is listed as "sw.js" and was "Received 28/09/2016, 13:01:04". The "Status" section shows two entries: "#1841 activated and is running" (green dot) and "#1842 waiting to activate" (orange dot). The "skipWaiting" link is under the second entry. The date "28/09/2016, 13:01:17" is also present. On the left sidebar, under the "Application" heading, the "Service Workers" option is selected, showing its manifest and storage details. Other sections like Storage, Cache, and Cache Storage are also listed.

Personal

earchibald/80368b84ac1ae8e229fc90b3fe826301/raw/ad55049bee9b11d47f1f7d... ☆ :

Elements Console Sources Application Network Layers » : X

.svg ias):

Application

- Manifest
- Service Workers**
- Clear storage

Storage

- Local Storage
- Session Storage
- IndexedDB
- Web SQL
- Cookies

Cache

- Cache Storage

Service Workers

Offline  Update on reload  Bypass for network  Show

<https://cdn.rawgit.com/jake...> [Update](#) [Push](#) [Sync](#) [Unregister](#)

Source [sw.js](#)  
Received 28/09/2016, 13:01:04

Status ● #1841 activated and is running [stop](#)  
● #1842 waiting to activate [skipWaiting](#)  
28/09/2016, 13:01:17

Clients <https://cdn.rawgit.com/jakearchibald/80368b84a>

# Web App Manifest

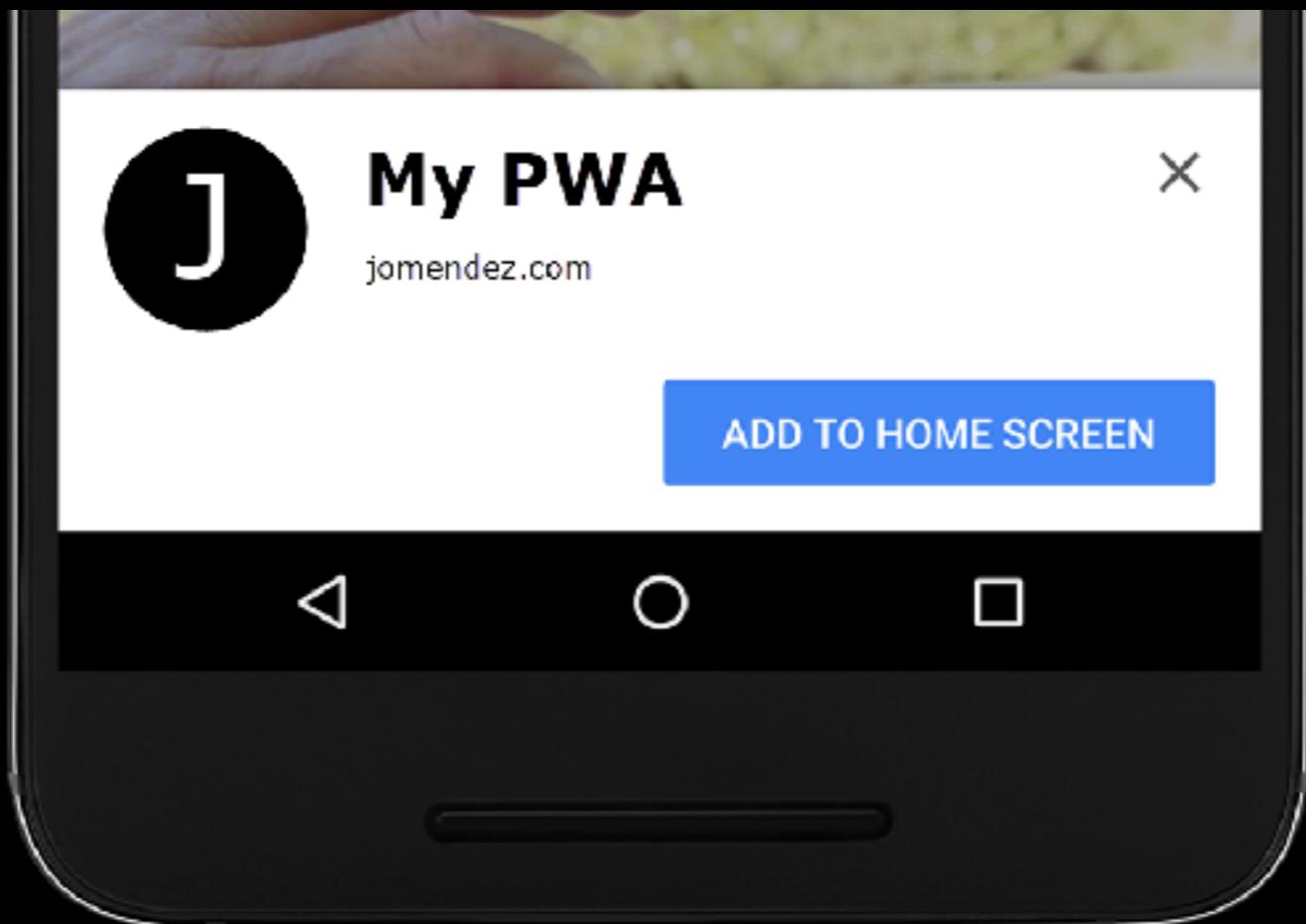
- simple JSON file
- Turn your site into an “application”

```
{  
  "dir": "ltr",  
  "lang": "en",  
  "name": "Nutrifacts",  
  "scope": "/",  
  "display": "standalone",  
  "start_url": "/index.html",  
  "short_name": "NF",  
  "icons": [  
    {  
      "src": "/assets/logo.png",  
      "sizes": "256x256",  
      "type": "image/png"  
    },  
    {  
      "src": "/assets/logo-512.png",  
      "sizes": "512x512",  
      "type": "image/png"  
    }  
,  
    "theme_color": "#f27b00",  
    "description": "",  
    "orientation": "any",  
    "background_color": "#3a1c8d",  
    "related_applications": [],  
    "prefer_related_applications": false  
}
```

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# Web App Manifest

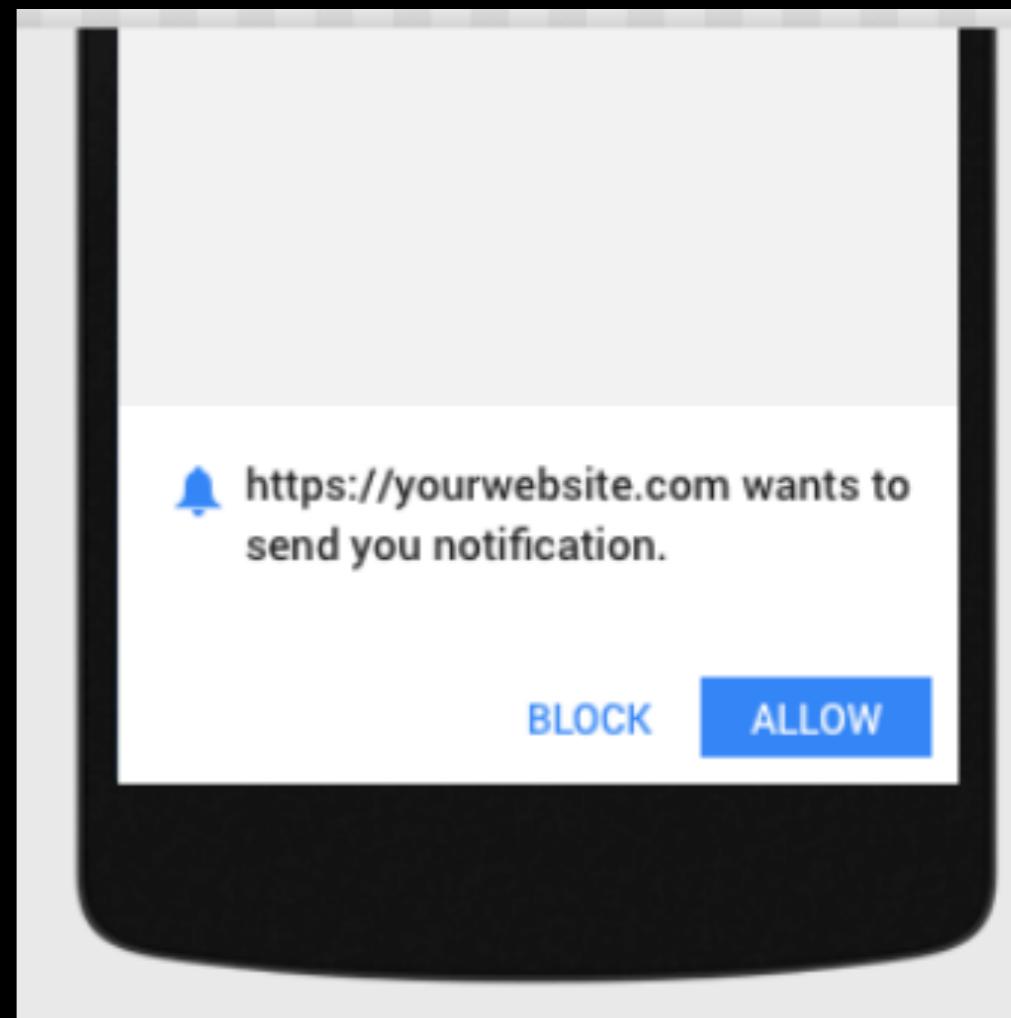
- Use <https://app-manifest.firebaseio.com/>



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# Push Notifications: The Push API

- Asks the user to subscribe to the notifications
- Firebase Cloud Messaging APIs or a similar service
- Service Worker's push manager



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# PWA Tools

Giving you the code you need to get the work done faster

- Simplify mental model
- Handle edge cases
- Save Time

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# Generic Tools

Service workers offer great power but  
with it comes complexity :(



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# Why Workbox?

Workbox lets you trade complexity for flexibility

- Precaching and Runtime caching
- Request routing
- Background sync
- Helpful debugging

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# Specific tools/framework/lib

- React
- Preact
- Vue
- Polymer
- Angular

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# Some Useful Resources



HN PWA

Hacker News readers as Progressive Web Apps

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# Lighthouse



- Open-source, automated tool for improving the quality
- In Chrome DevTools, from the command line, or as a Node module
- Performance, accessibility, progressive web apps, seo and more

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Home - SHOP

Secure | https://shop.polymer-project.org

# SHOP



Men's Outerwear

SHOP NOW

Elements Console Sources Audits ▲ 1

shop.polymer-project.org 9/26/2017, 4:59:10 P

100 88 100 85

Progressive Web App Performance Accessibility Best Practices

**Progressive Web App**

These audits validate the aspects of a Progressive Web App, as specified by the baseline [PWA Checklist](#).

100

0 failed audits

▶ 11 Passed Audits

▶ Manual checks to verify

**Performance**

These encapsulate your app's performance.

88

**Metrics**

These metrics encapsulate your app's performance across a number of dimensions.

0.77 1.11 0.93 0.73 0.61 1.11 1.00

Web Fundamentals | Google

Secure | https://developers.google.com/web/fundamentals/codelabs/

Web Fundamentals Tools Case Studies

Search ALL PRODUCTS

GUIDES CODE LABS SAMPLES

### Your First Progressive Web App

In this codelab, you'll build a Progressive Web App, which loads quickly, even on flaky networks, has an icon on the homescreen, and loads as a top-level, full screen experience.

[START](#)

### Debugging Service Workers

In this codelab, you'll learn how to debug a service worker using the new DevTools Application panel. You'll also learn how to simulate a Push notification to verify your subscription is properly setup.

[START](#)

### Your First Offline Web App

Learn how to Integrate a service worker into an existing application to make the application work offline.

[START](#)

### Adding Web Push Notifications

In this codelab, you will learn how to enable push messaging and notifications for web apps and sites.

[START](#)

### Find and Fix Web App Performance Issues

This codelab will help you learn to identify and fix web app performance bottlenecks.

[START](#)

### Your First Multi-Device Site

The web is accessible on a huge range of devices, from small-screen phones to big-screen televisions. Each device presents its own benefits and constraints. As a web developer, you are expected to support a full ranges of devices.

[START](#)

# My Experience 😊

#viewsource

# References

- <https://medium.com/dev-channel/a-pinterest-progressive-web-app-performance-case-study-3bd6ed2e6154>
- <https://developers.google.com/web/tools/workbox>
- <https://medium.com/google-developer-experts/a-5-minute-intro-to-workbox-3-0-156803952b3e>
- <https://blog.sessionstack.com/how-javascript-works-service-workers-their-life-cycle-and-use-cases-52b19ad98b58>

#viewsource

# Thank you, Preeti.

- Q: How do you find a spider on the internet?
- A: Check out his web site!

#viewsource

**Next up.**

Matt Rose - Code Narratology

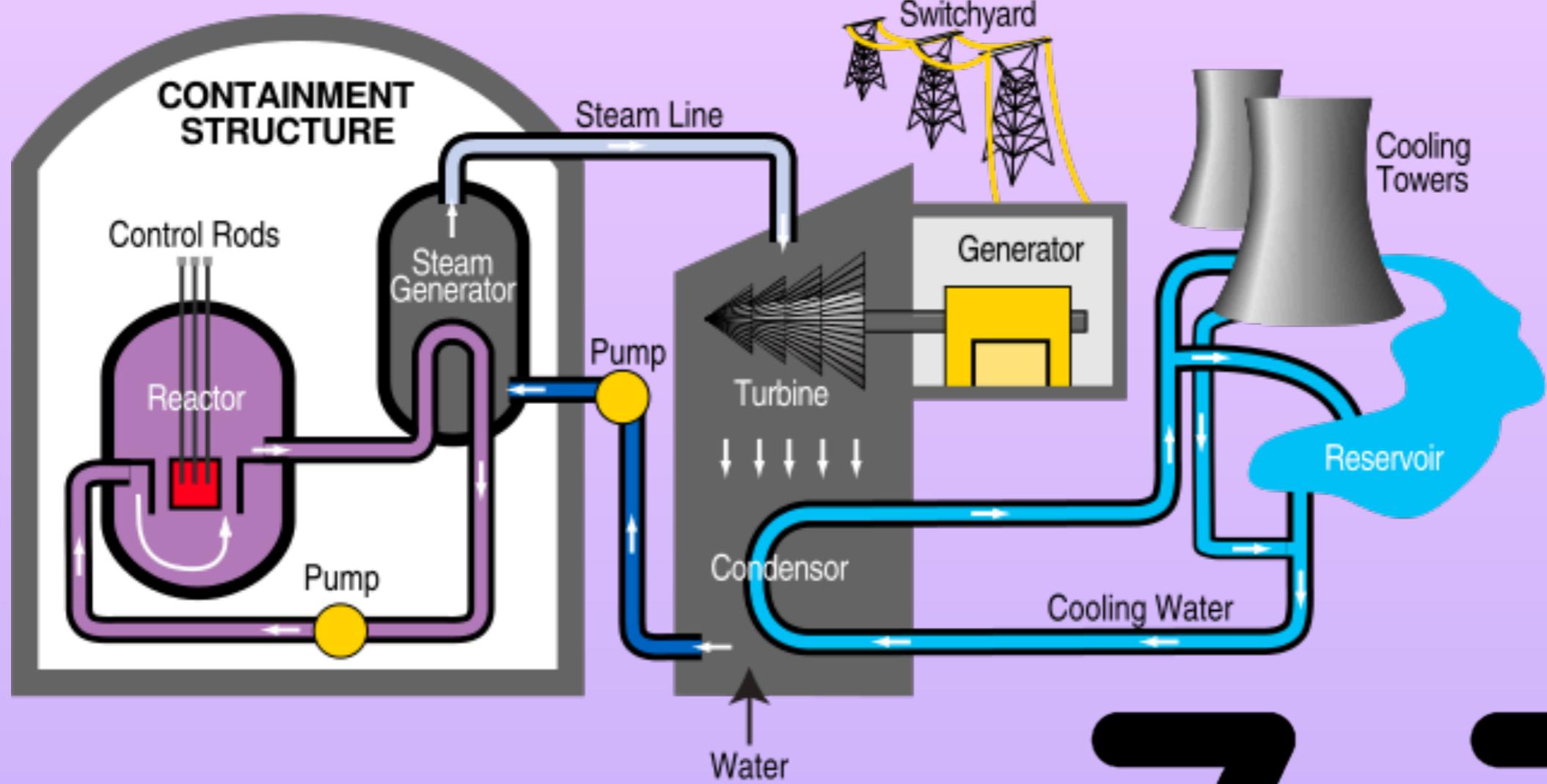


#viewsource

# Code Narratology

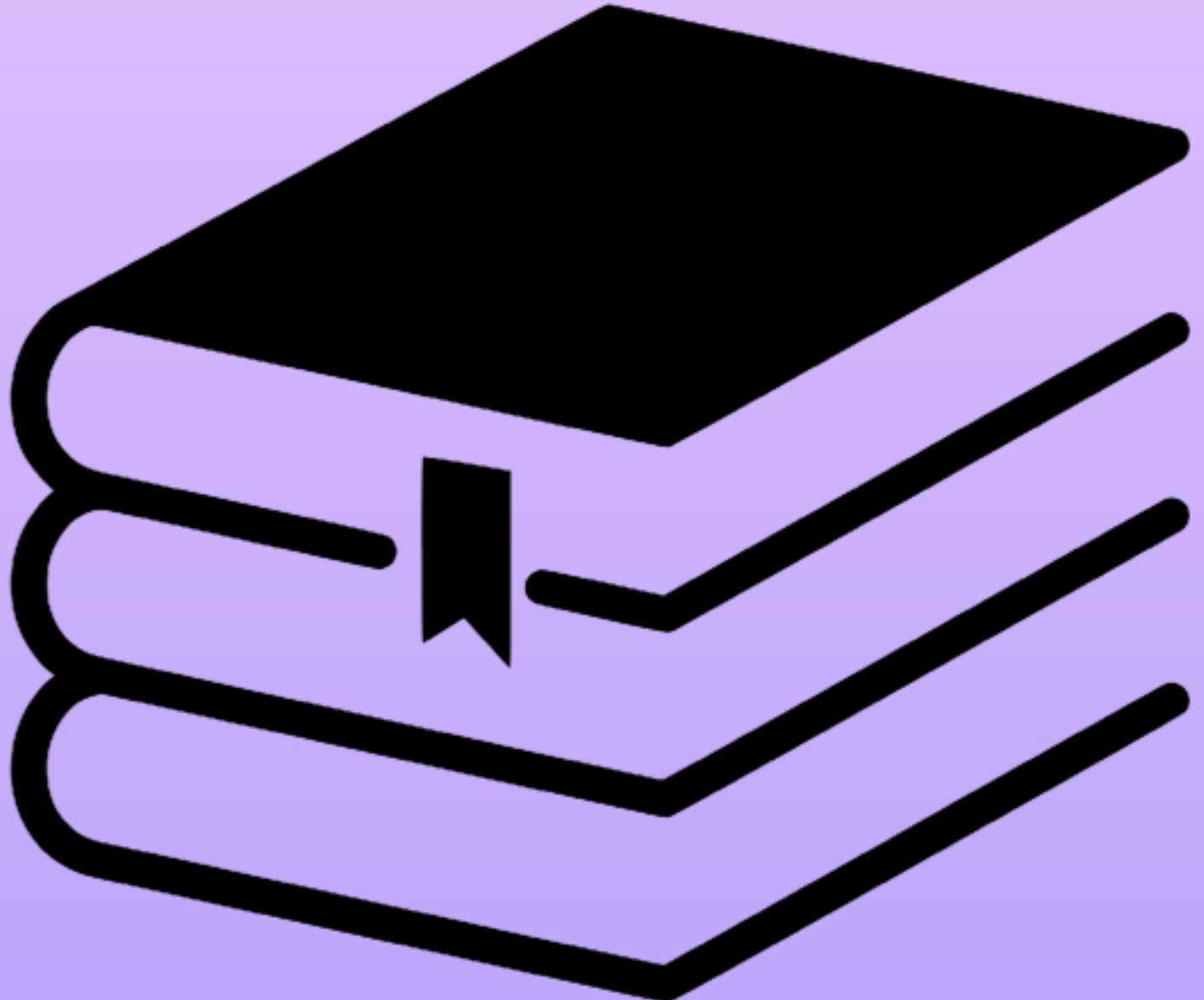
or

## How I Learned to Stop Bikeshedding and Love the Linter



This sounds familiar...

...literary critical theory

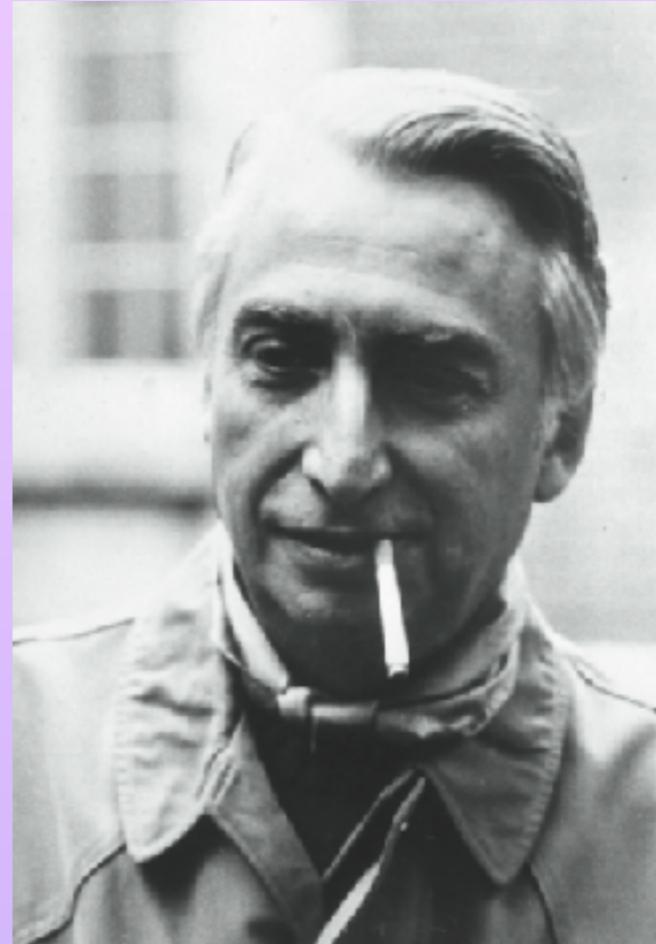




Vladimir  
Propp



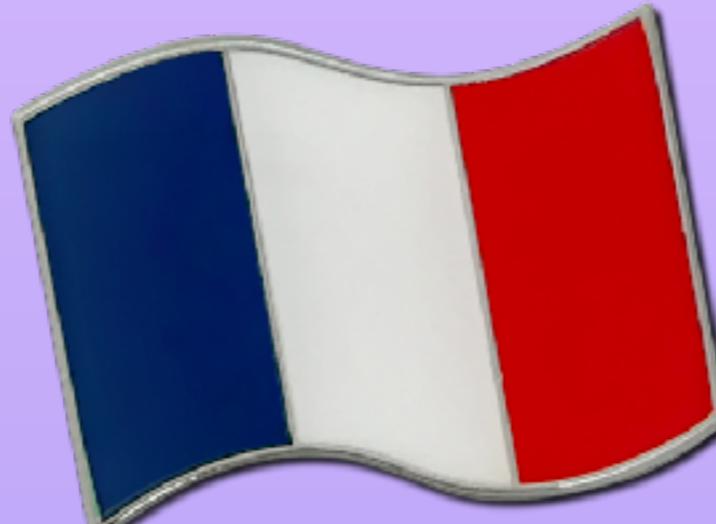
Mikhail  
Bakhtin



Roland  
Barthes

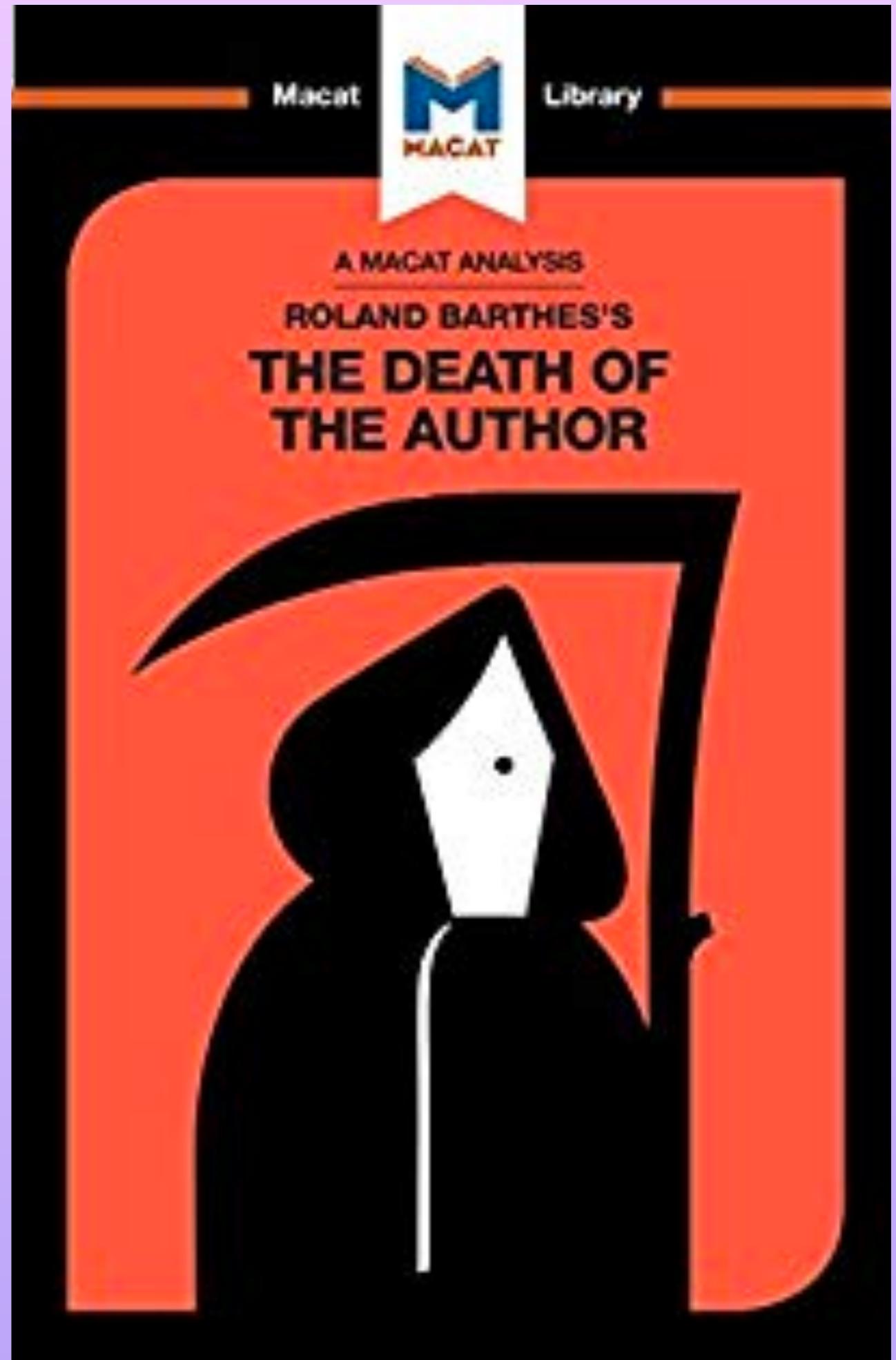


Gérard  
Genette

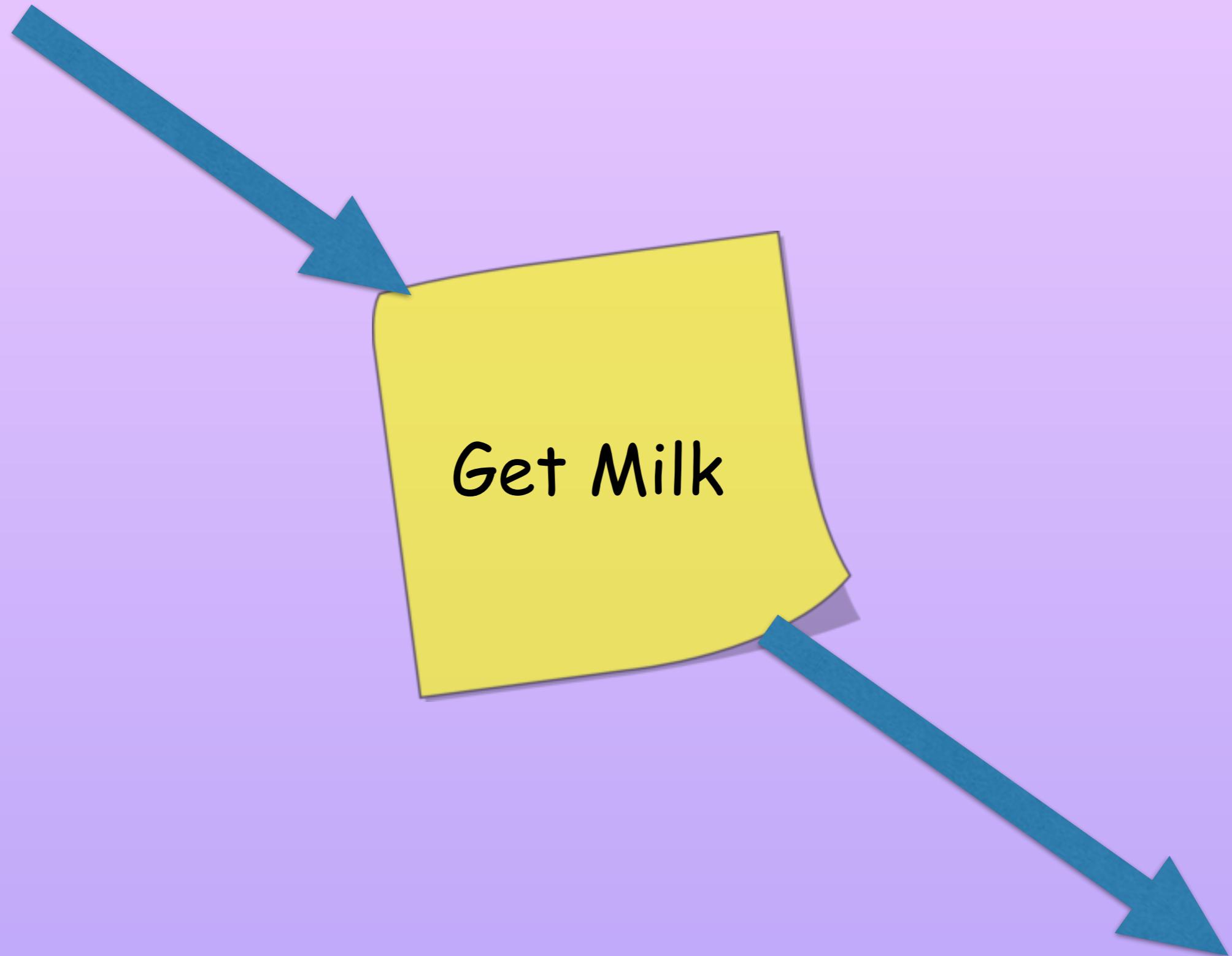


# The Formalists





**Author**



**Reader**

Author

Implied Author

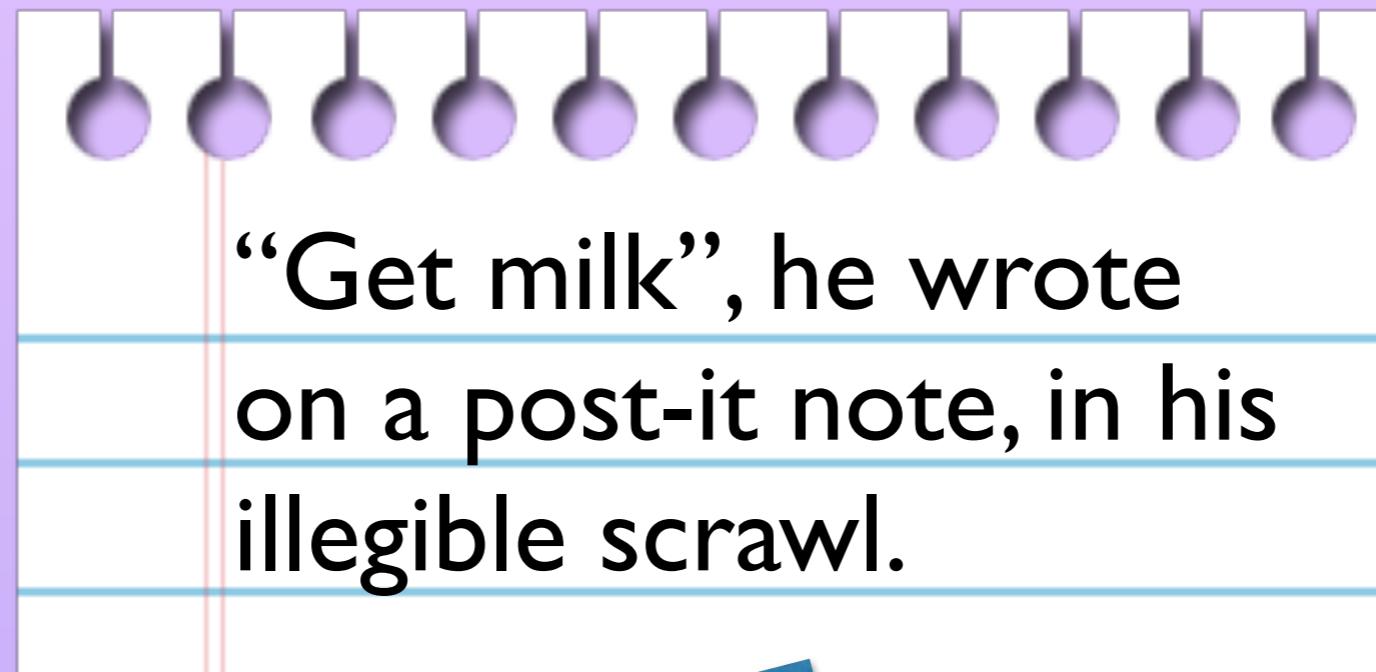


Implied Reader

Reader

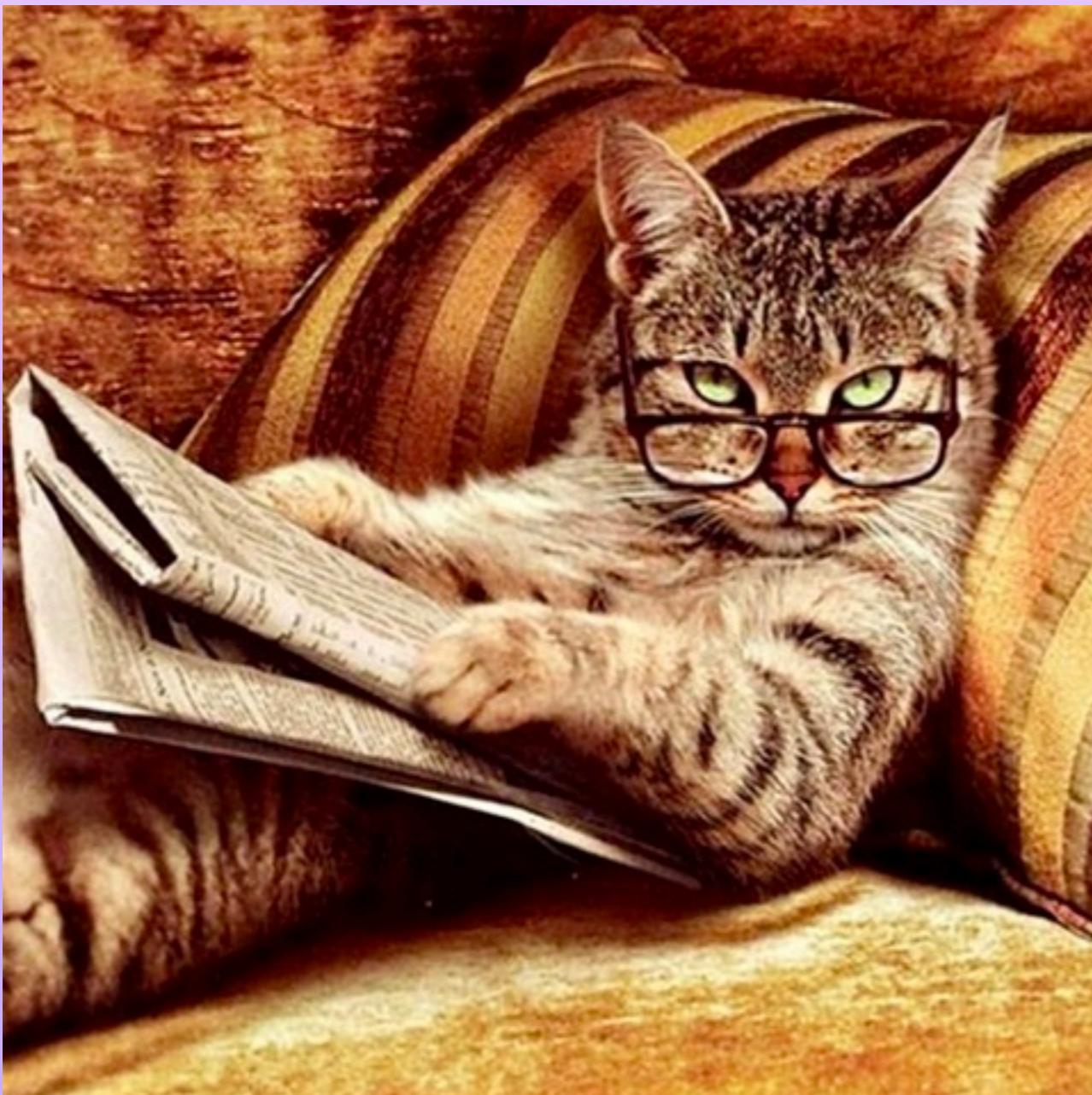
Author

Implied Author



Implied Reader

Reader



Implied Author

Actual Author

Author

Implied Author

Narrator

“Get milk”, he wrote  
on a post-it note, in his  
illegible scrawl.

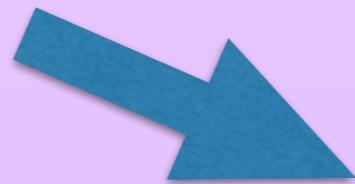
Narratee

Implied Reader

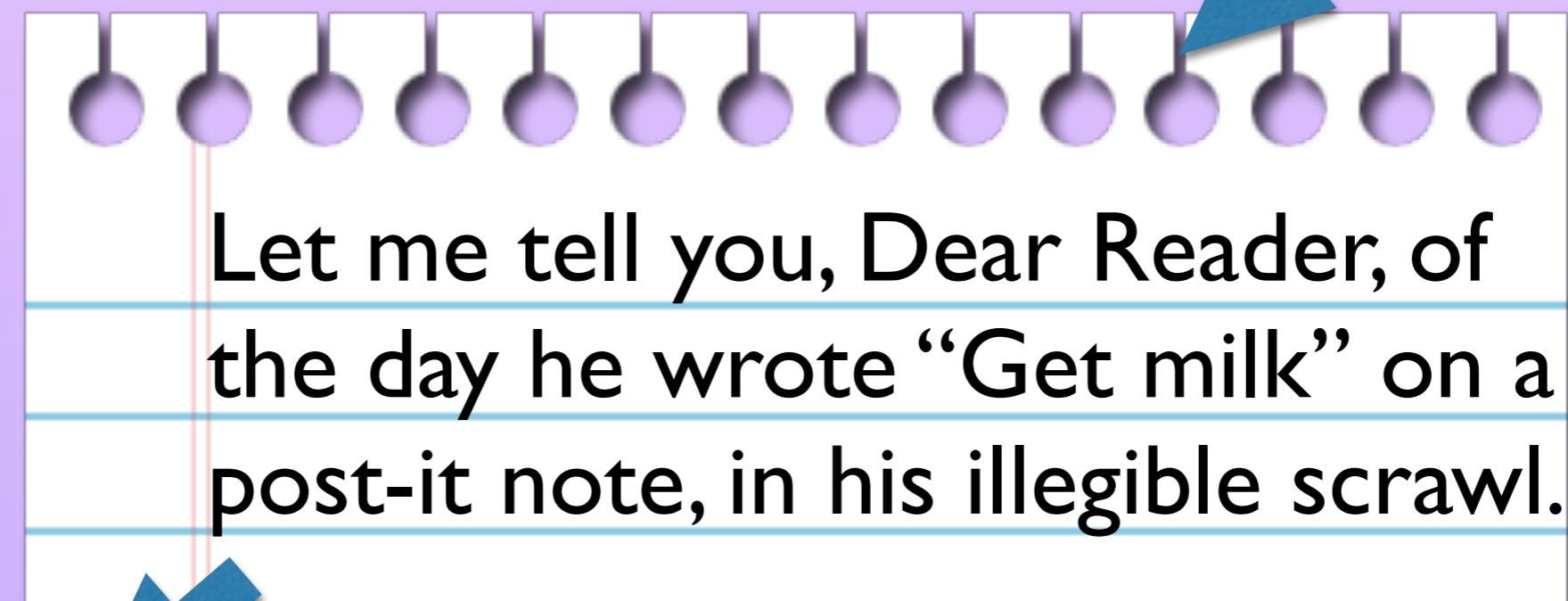
Reader

Author

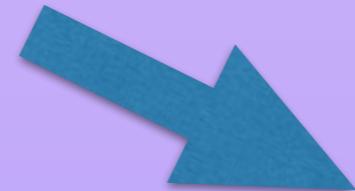
Implied Author



Narrator

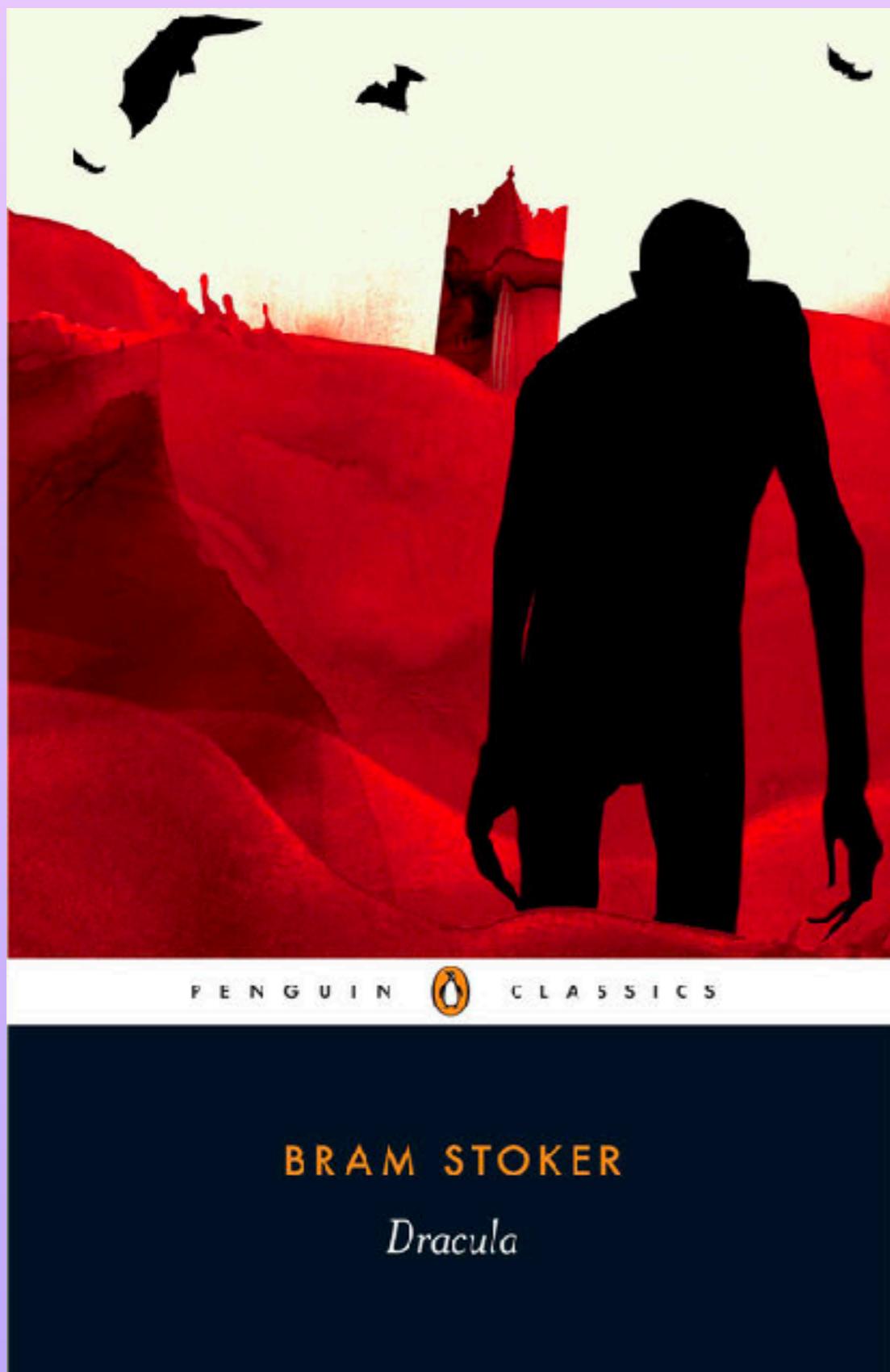


Narratee

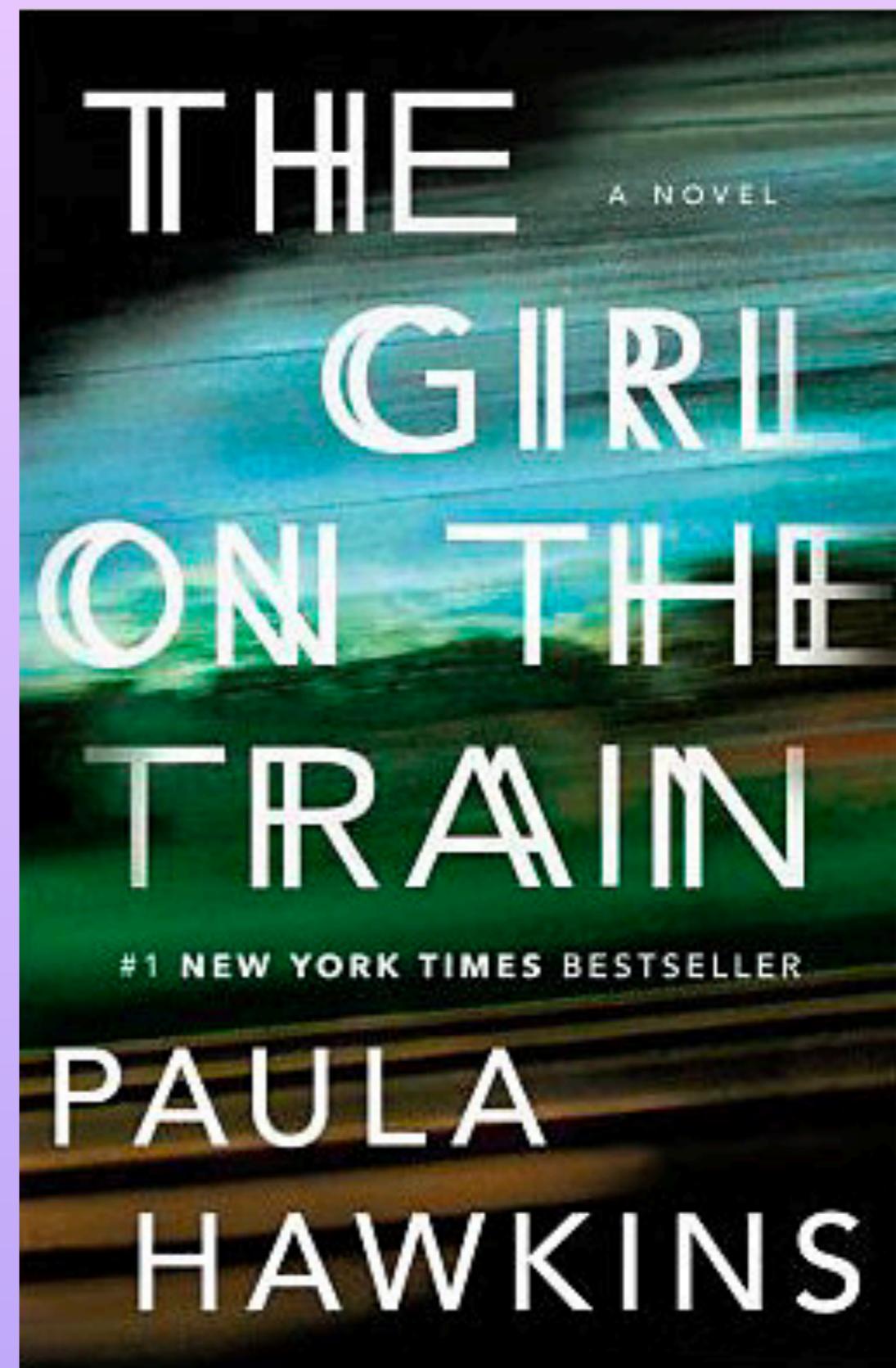


Implied Reader

Reader



BRAM STOKER  
*Dracula*



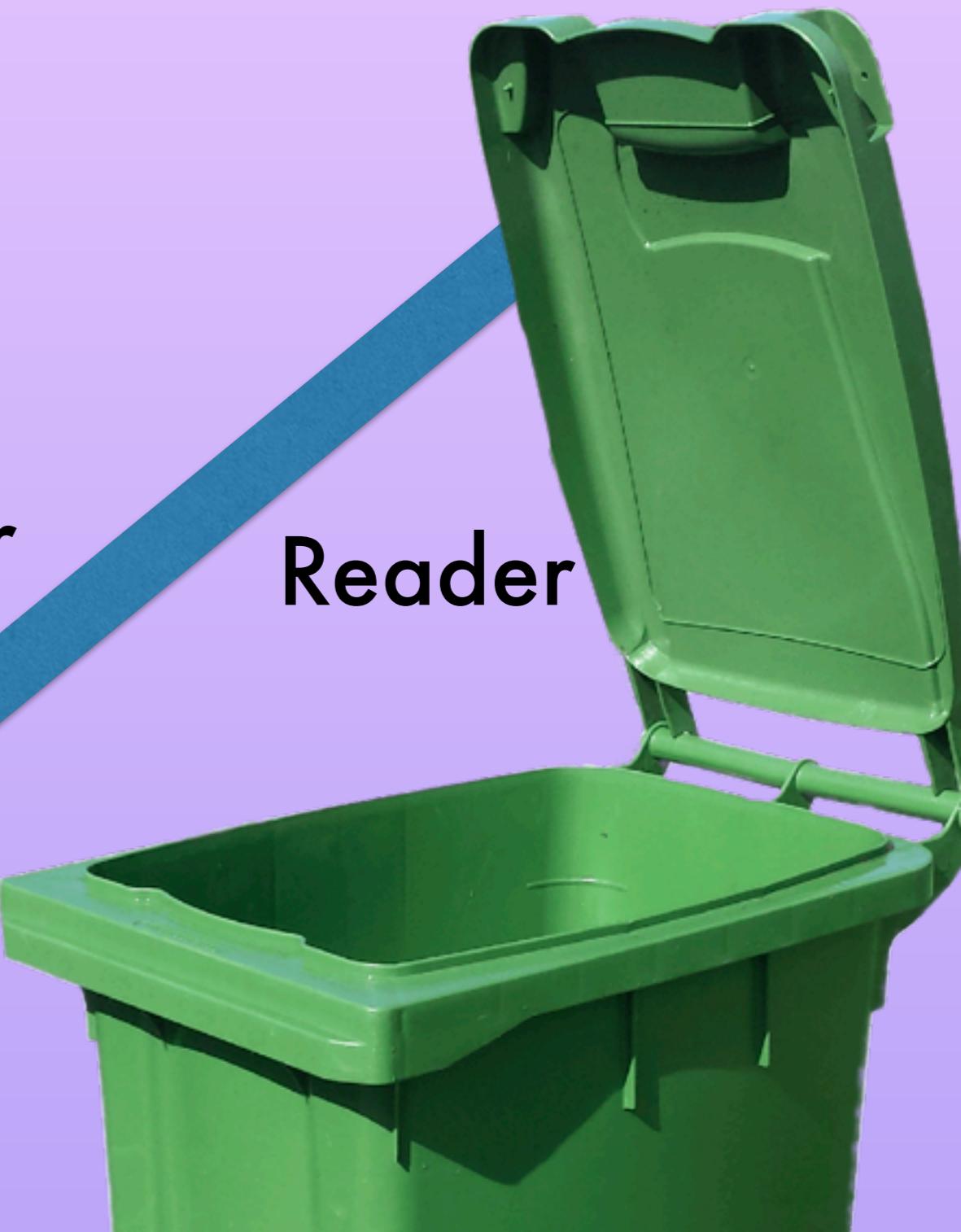
# Implied Author



Narrator

?

big?



Narratee

Implied Reader

Reader

Author

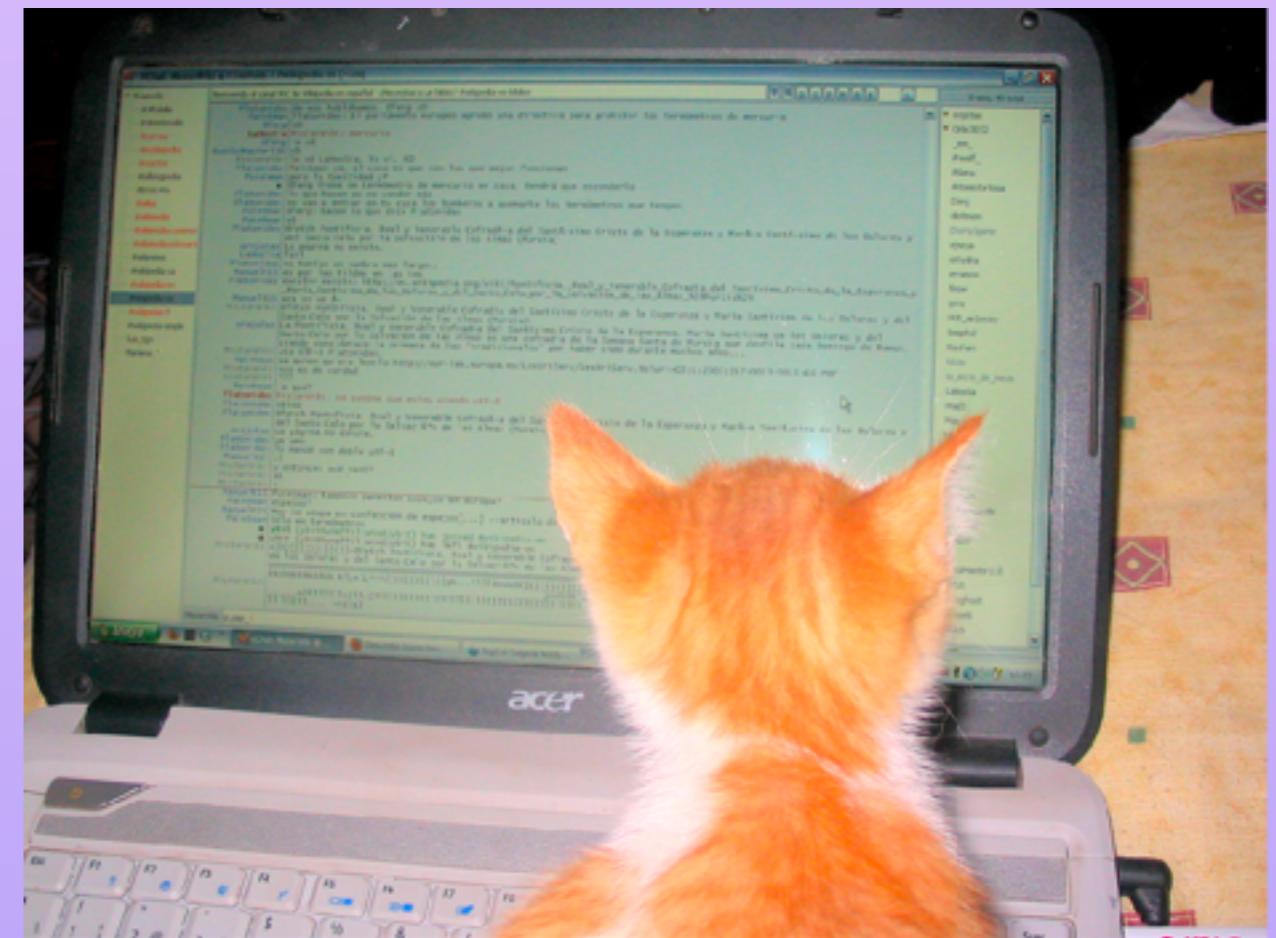


Coder

Implied Author



Implied Coder

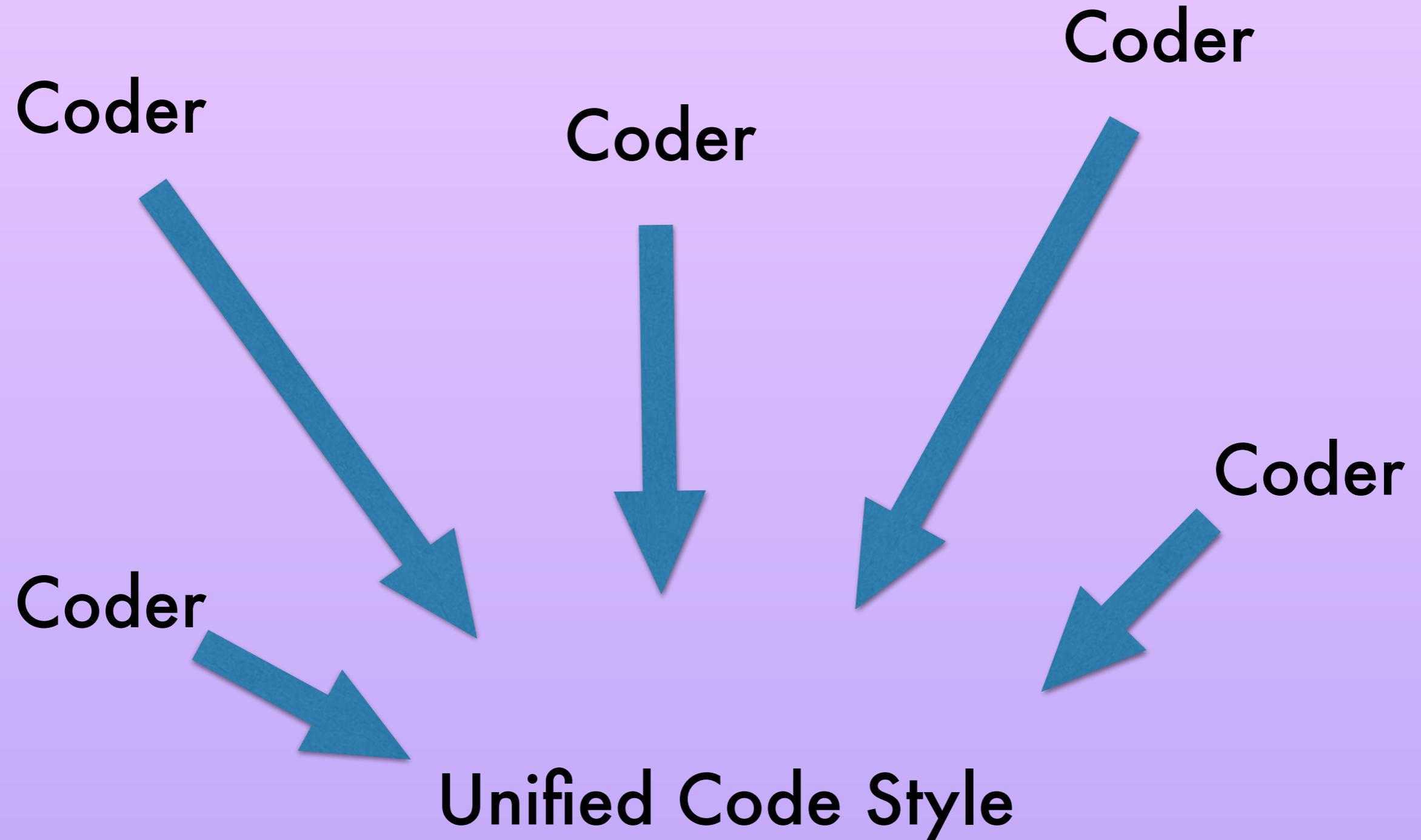


**Narrator**



**Unified Code Style**





**Don't be  
this way!**



**Love your Linter!**

# Thank you, Matt.

- Q: Why did the computer spy quit?
- A: He couldn't hack it anymore!

#viewsource



**Next up.**

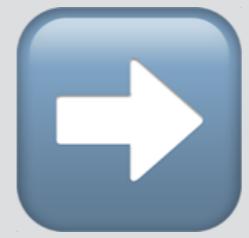
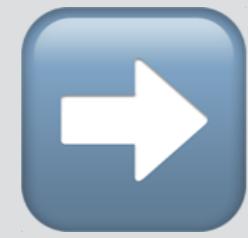
Ana Rodrigues - I want to read  
your blog

#viewsource

I want to read your blog

!!











They're rebels, the free thinkers.  
The round pegs in the square holes.  
The ones who see things differently.  
They're not fond of rules. And they  
have no respect for the status quo.  
You can quote them, disagree with  
them, glorify or vilify them. About  
the only thing you can't do is ignore  
them. Because they change things.

e.g.

#newwwyear

#indieweb

I'm \_\_\_\_\_ of my  
content!

*You're more than  
your job title*

**“Everyone already  
knows this...”**



how to ma



How do I a



How to be



How We B



How to X

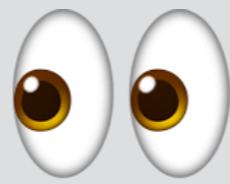
Realistic  
consequences

VS

*fears*

*Hello fear my old friend*

Your fears are part  
of who you are







*Please send me your blogs*

# Thank you, Ana.

- Q: Why don't Vikings like to send emails?
- A: They prefer to use Norse code!

#viewsource

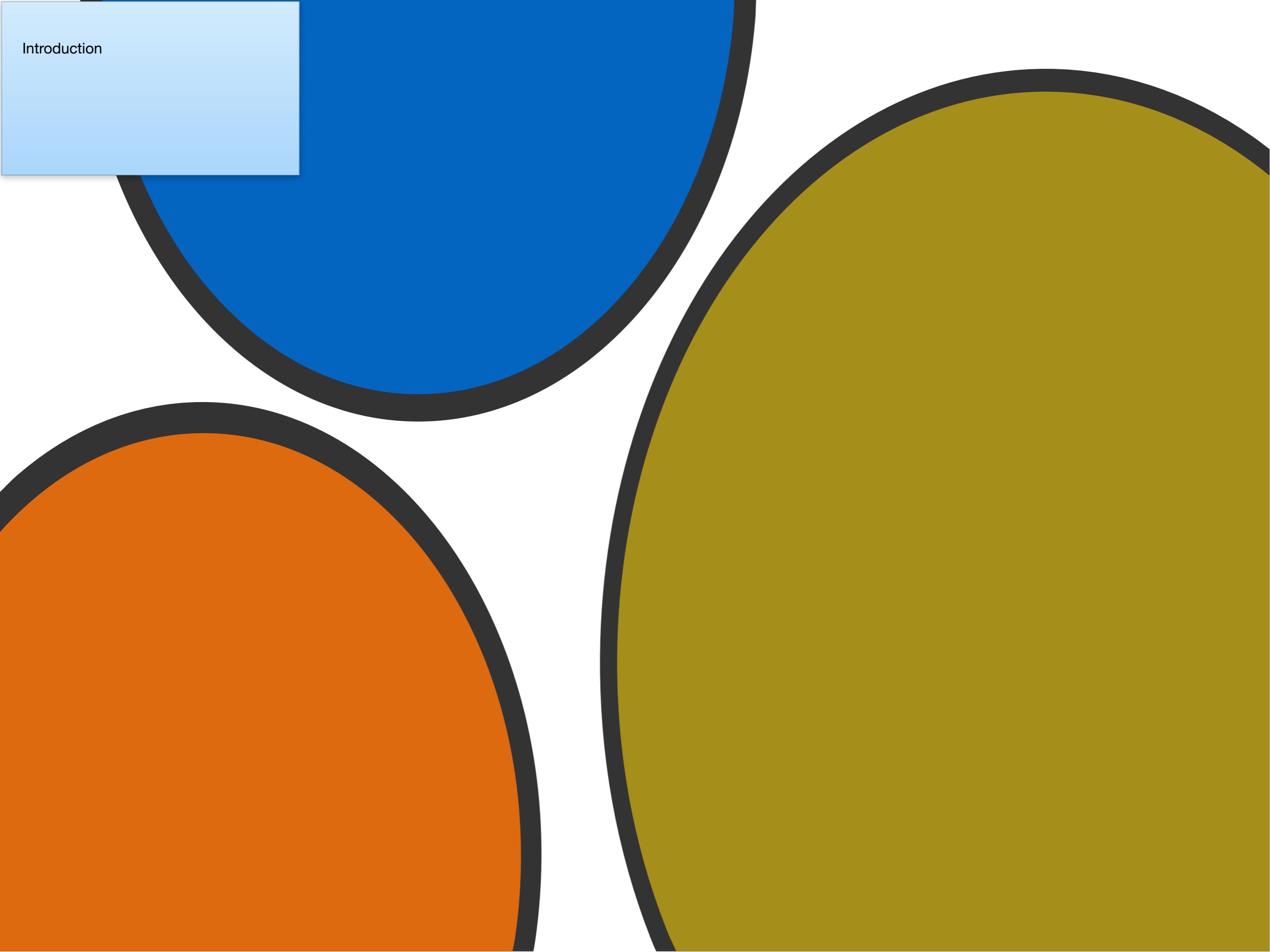


**Next up.**

Sim Brody - Designers /  
Developers more than the sum  
of our parts

#viewsource

## Introduction





Improve the quality of social care decisions with  
Community Care Inform

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Find out more

Not sure if you're a member?

How can we help an organisation like yours?



# TAKE CONTROL OF YOUR INFORMATION SECURITY

Get the inside track on the latest security threats and risks to protect your information and empower your business.

GET IN TOUCH

## ► REDEFINING SECURITY

In a world of evolving cyber threats, information security is now a business imperative. Your organization has unique set of security concerns and we can tailor our deep knowledge of information security to meet them.

We're an experienced team of innovators, creating new technology to stay ahead of threats and offering essential cyber security insights to protect, inform and empower your business.



Tuesday  
dancing

Join us from  
7.30pm tonight  
for beginner class  
and social  
dancing at the  
Railway Club



## Fun and friendly swing dance classes in Brighton & Hove

Just drop in - no partner needed - everyone welcome!



Home

Classes

What is Lindy Hop?

About us

Hire us

Contact us

Swing Kids





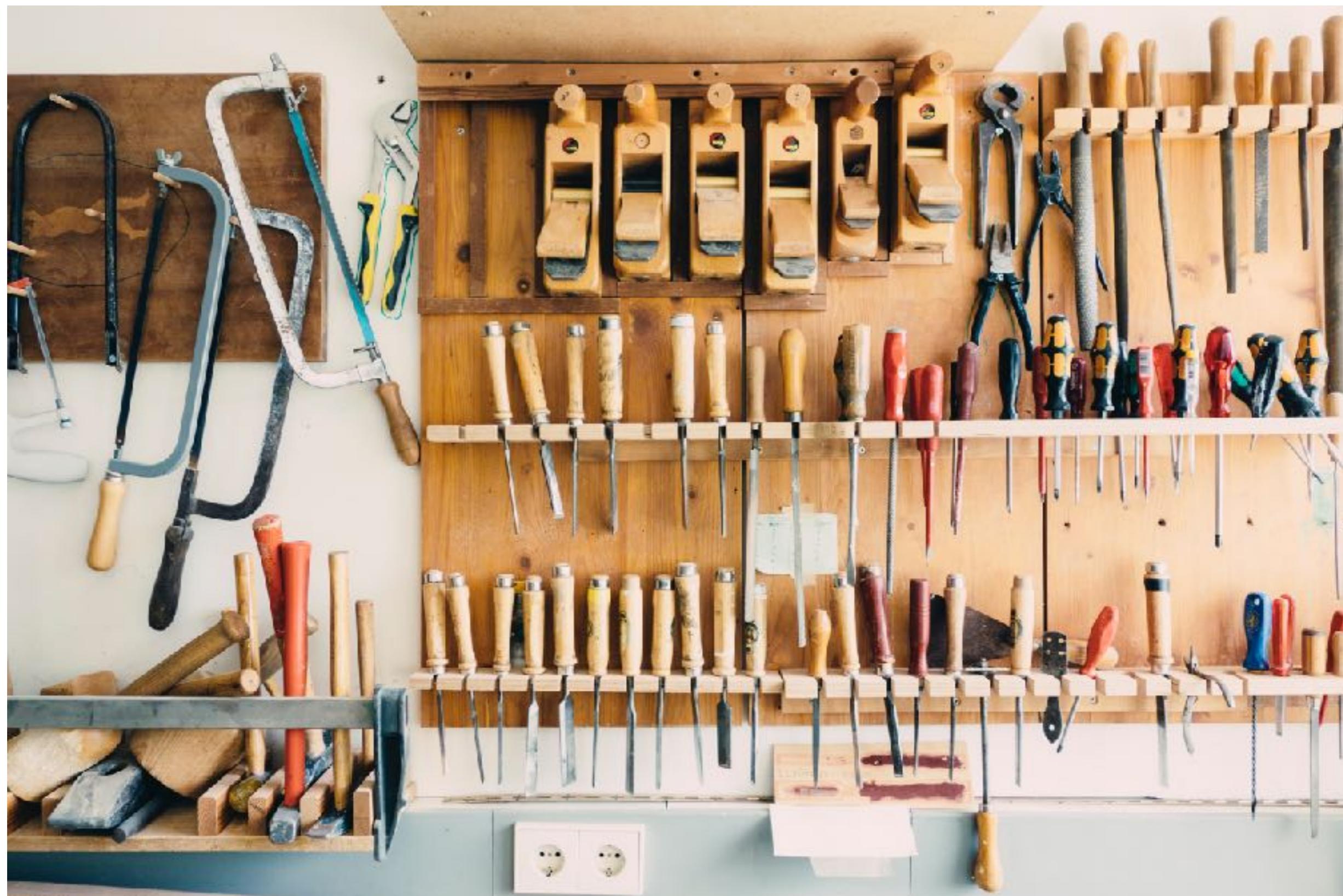


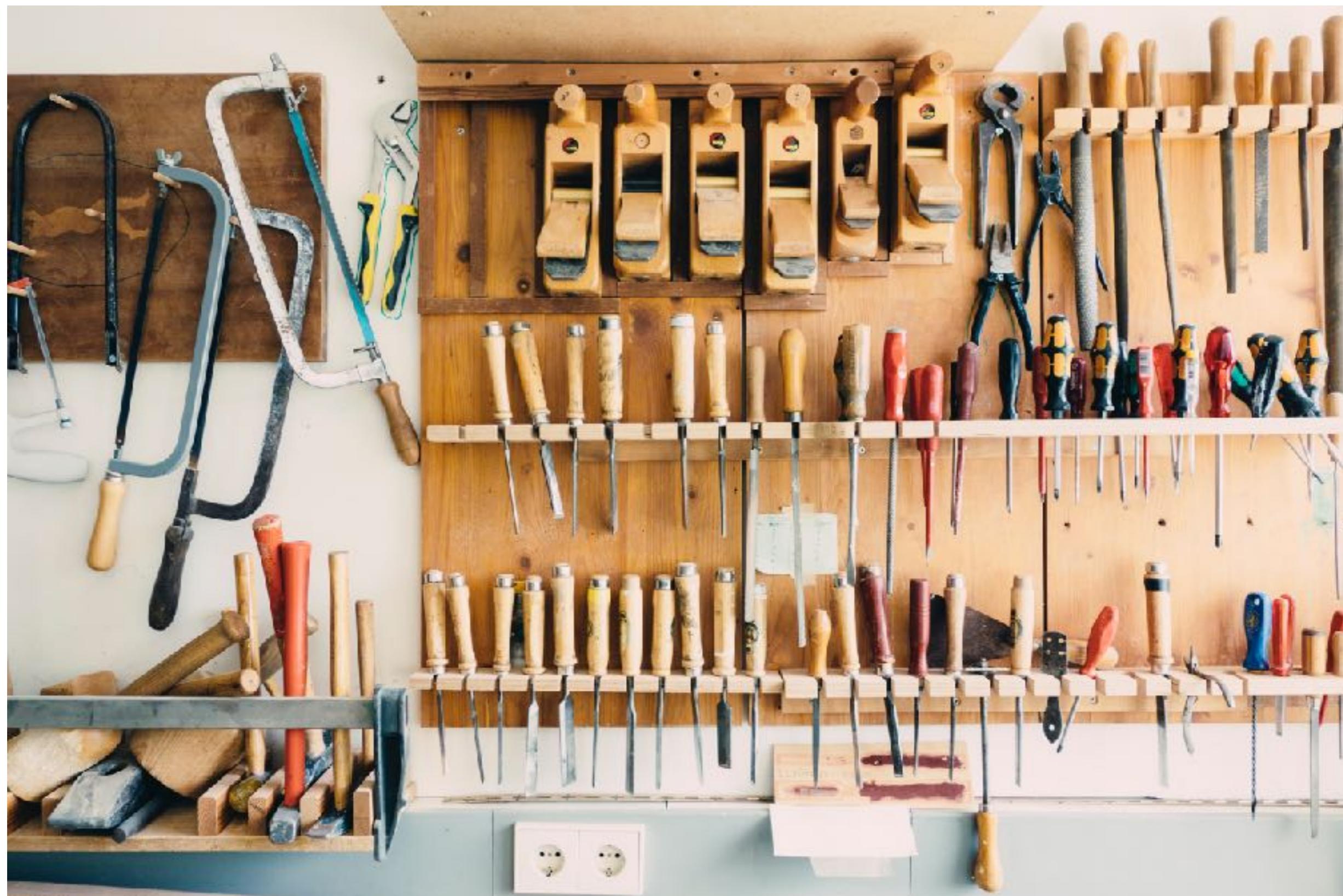
Photo by [Paolo Nicolello](#) on [Unsplash](#)



Photo by [Paolo Nicolello](#) on [Unsplash](#)









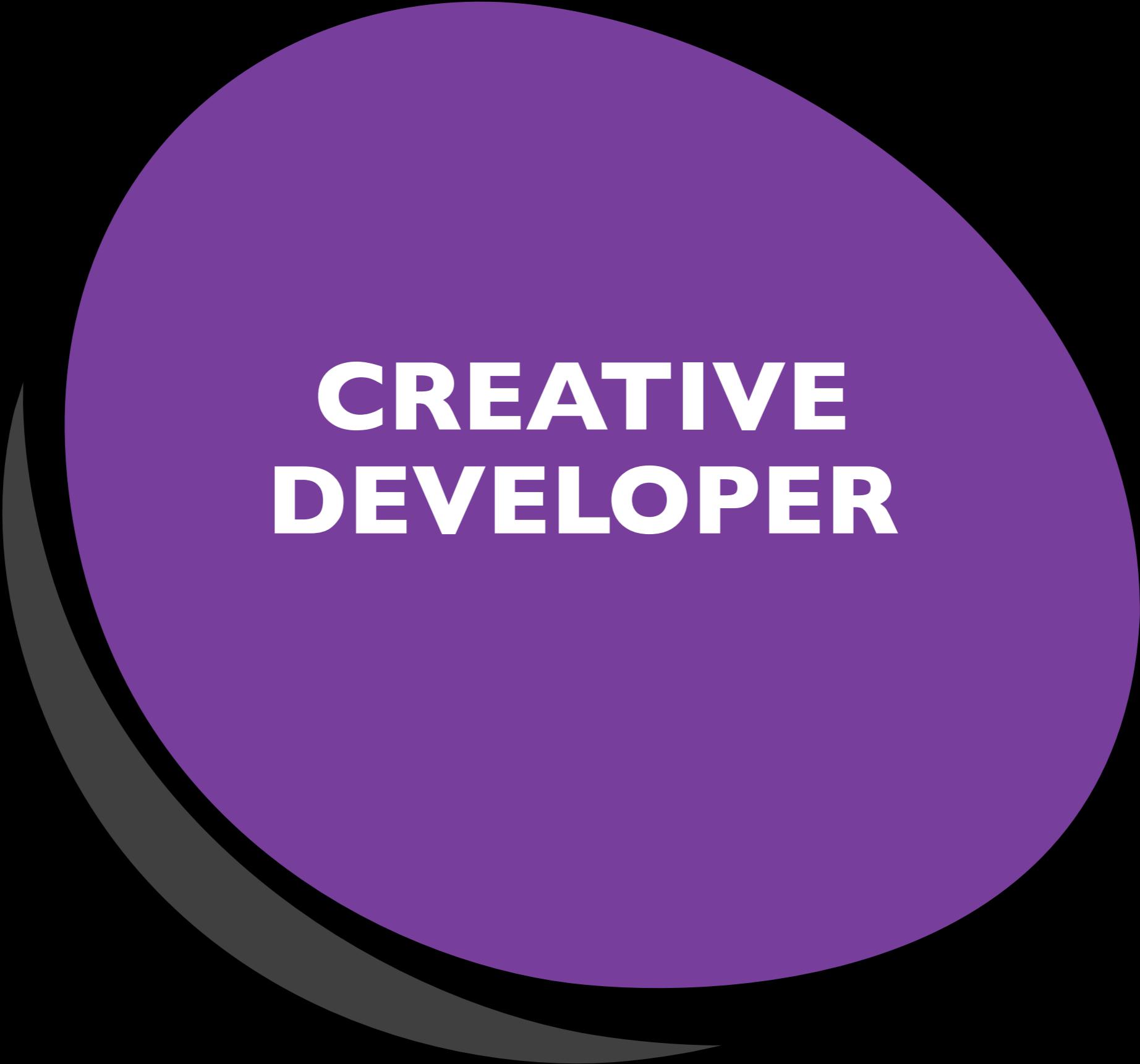
00:24



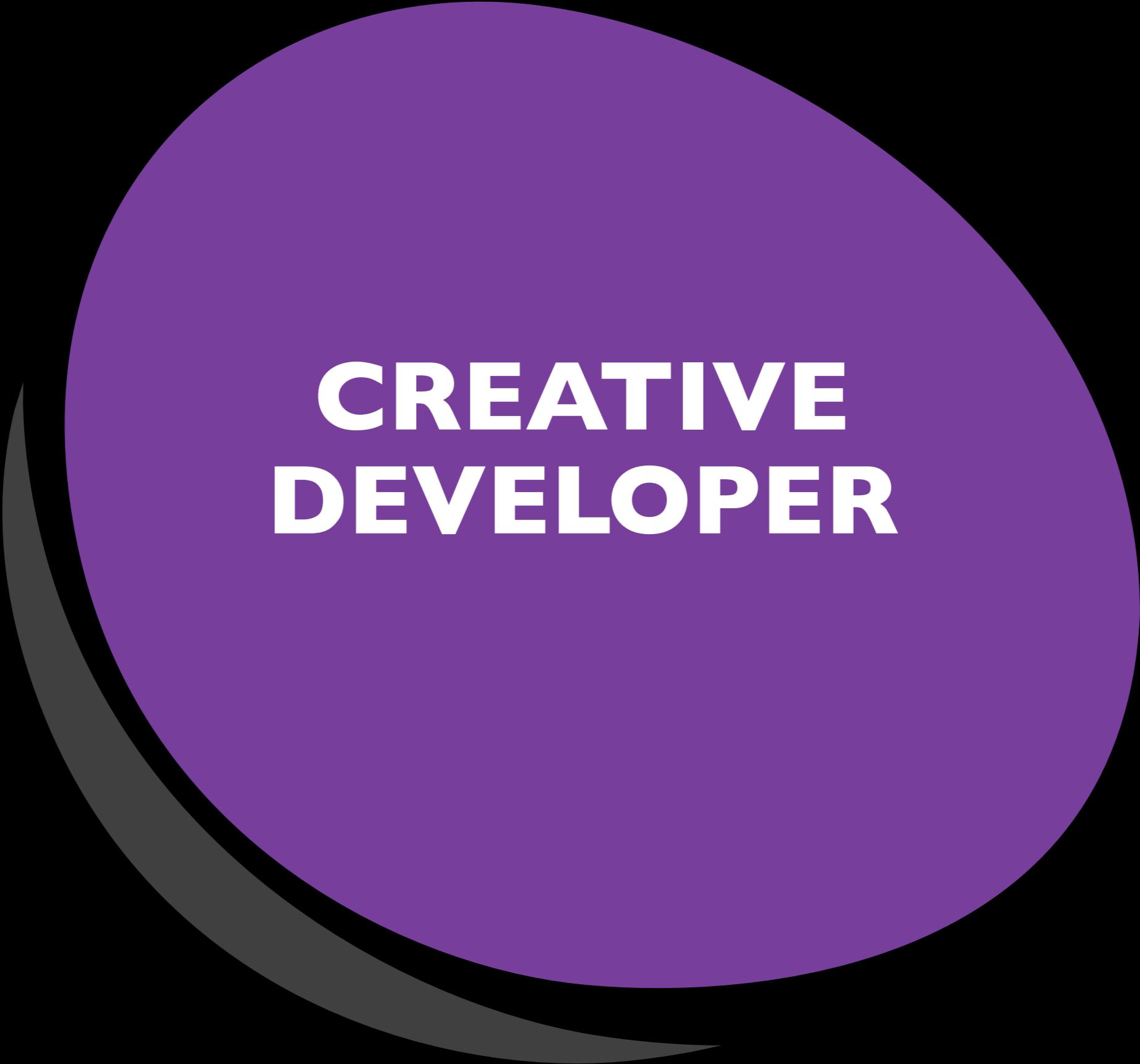




[Joel Abroad](#)



**CREATIVE  
DEVELOPER**



**CREATIVE  
DEVELOPER**



By Terry Robinson (Batman and Robin) [CC BY-SA 2.0 (<https://creativecommons.org/licenses/by-sa/2.0>)], via Wikimedia Commons



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# Sim Brody CREATIVE DEVELOPER

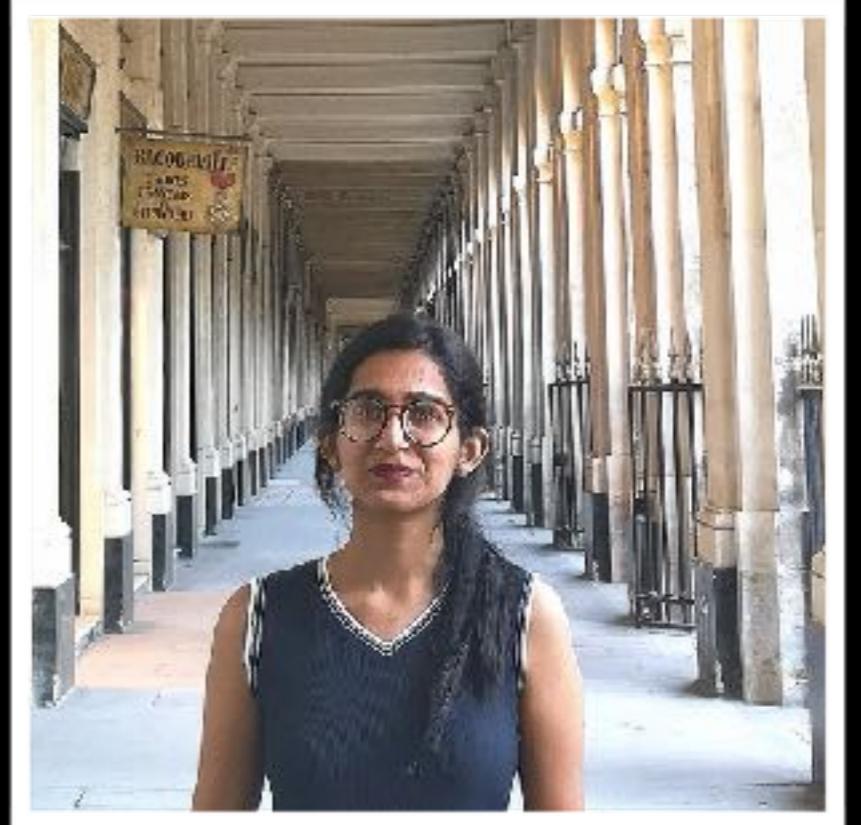
[simbrody.co.uk](http://simbrody.co.uk)  
[sim@simbrody.co.uk](mailto:sim@simbrody.co.uk)

#viewsource

# Thank you, Sim

- Q: How many programmers does it take to change a light bulb?
- A: None. It's a hardware problem.

#viewsource



Next up.

Shagufta Gurmukhdas - Deep  
Speech

#viewsource

**moz://a**

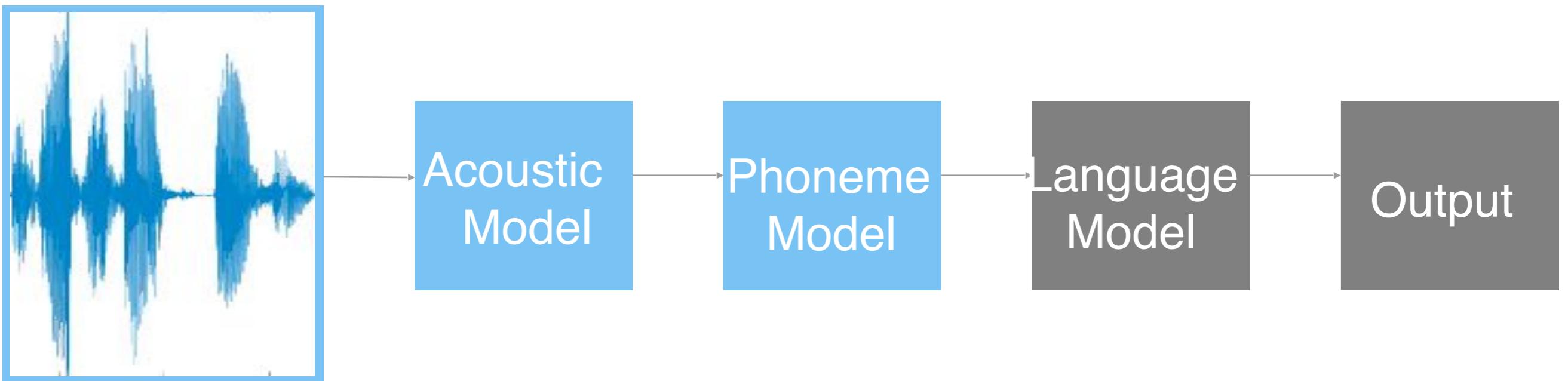
# Deep Speech

Scaling up end-to-end speech recognition

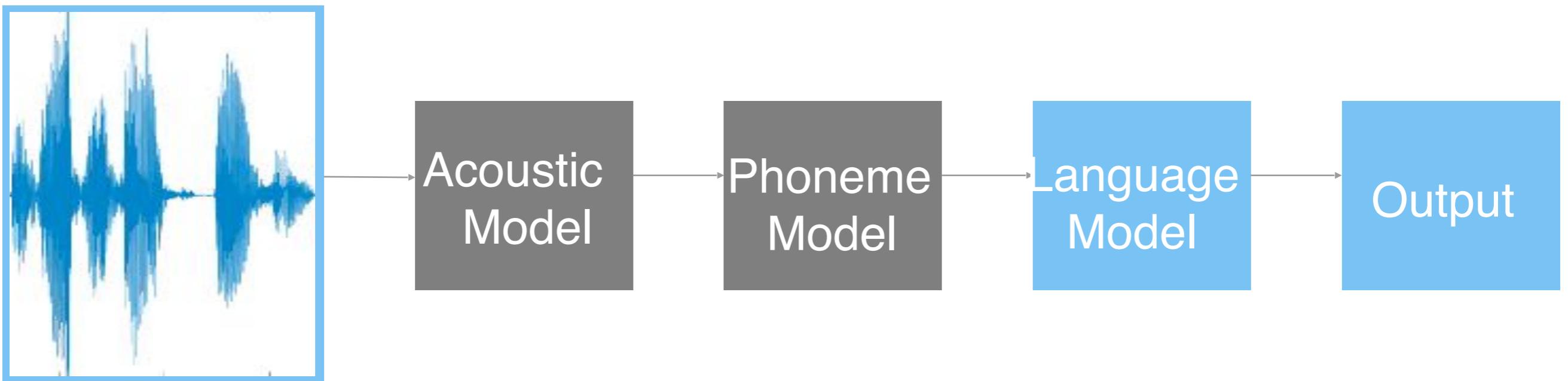
**Shagufta Gurmukhdas**

@shaguftamethwan

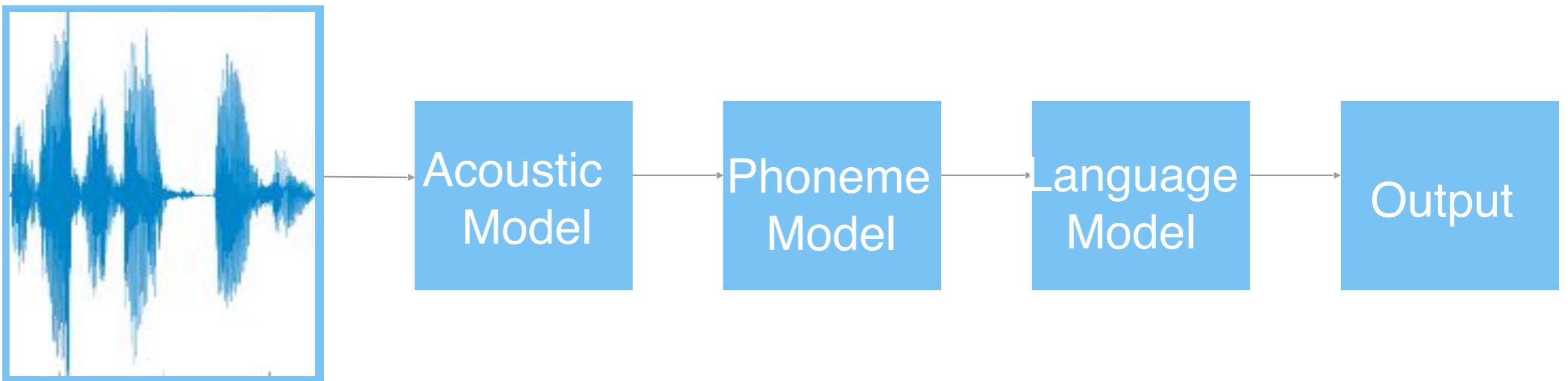
# Traditional speech recognition systems



# Traditional speech recognition systems



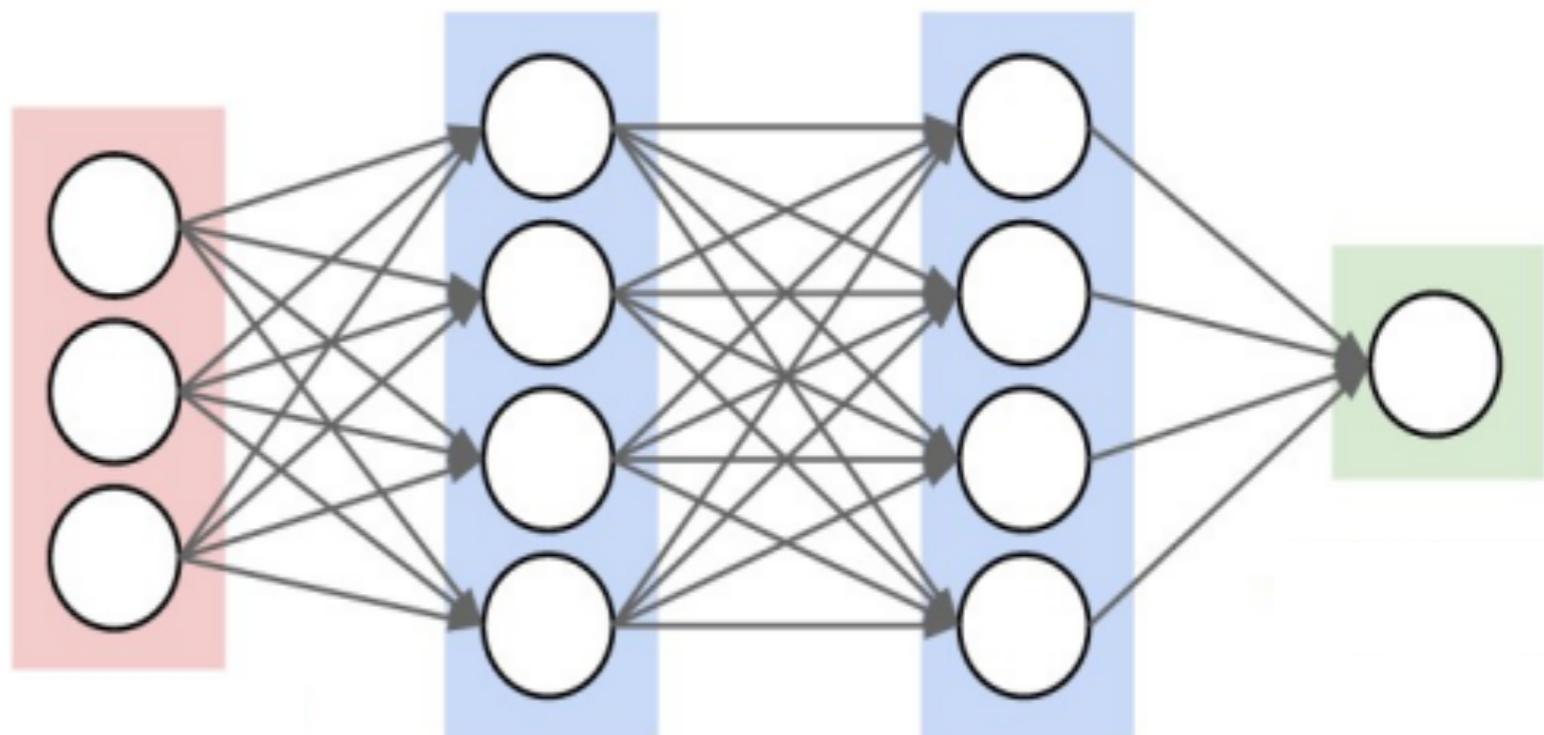
# Traditional speech recognition systems



# Deep Learning

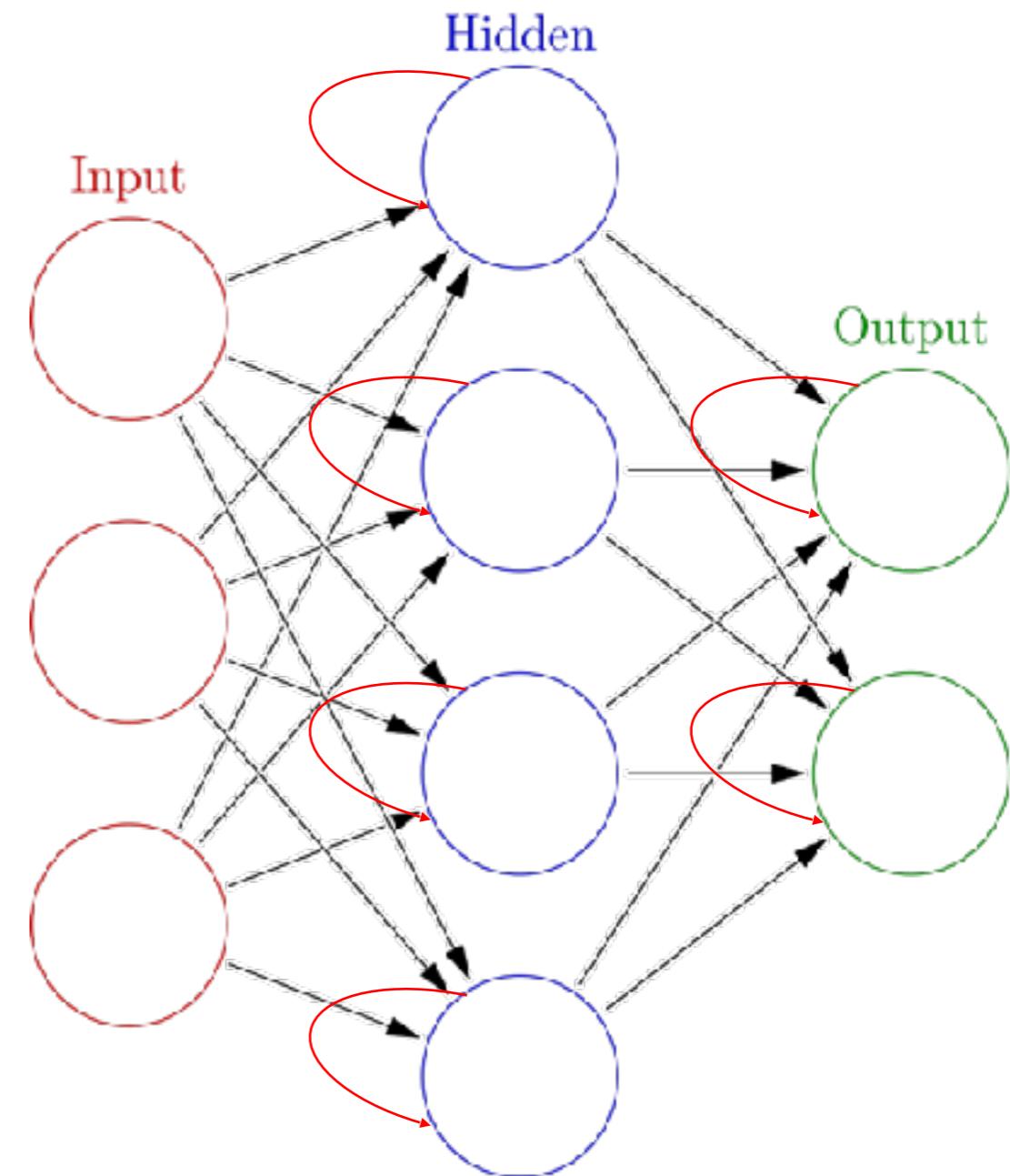
# Feed Forward Neural Networks

# Feed Forward Neural Networks

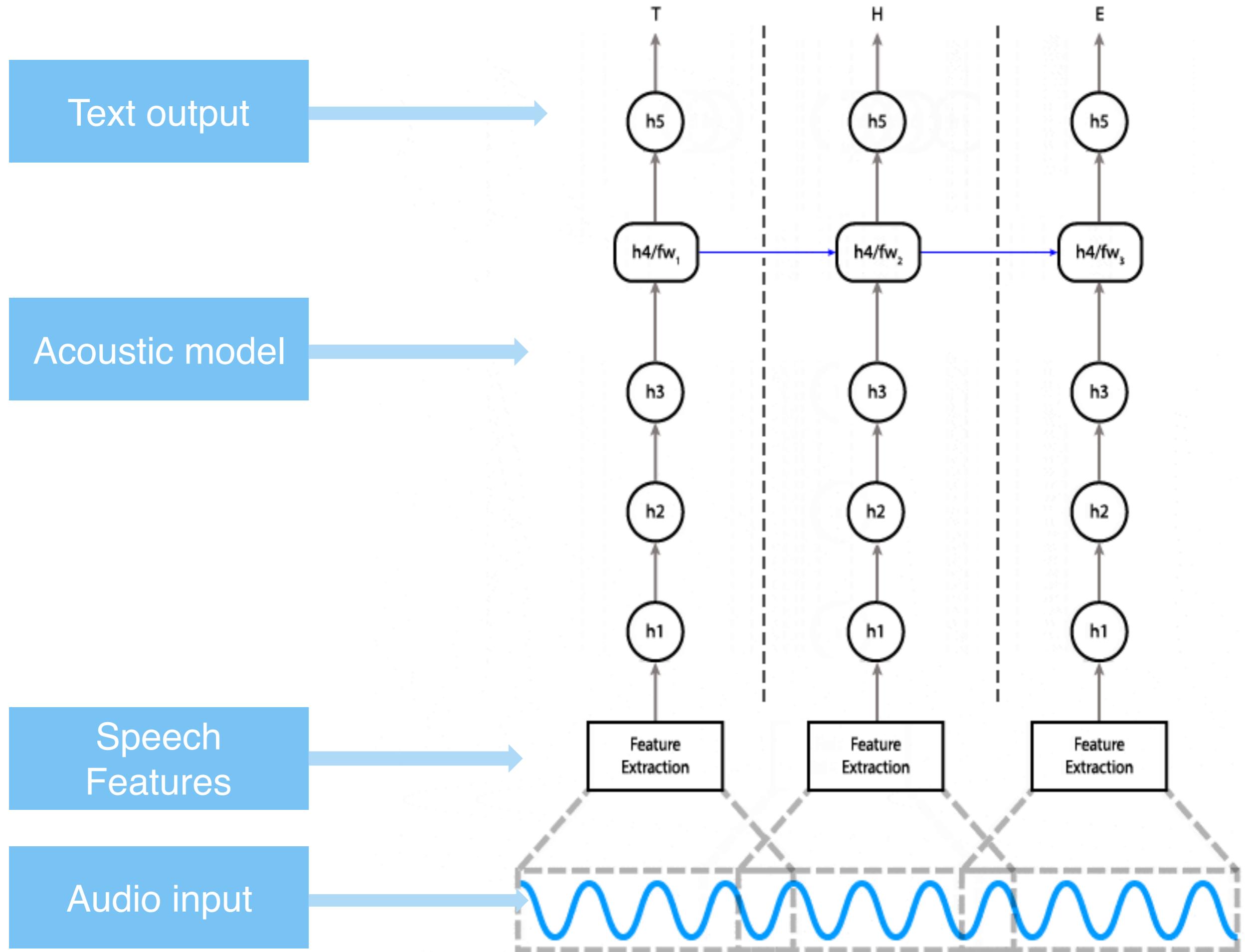


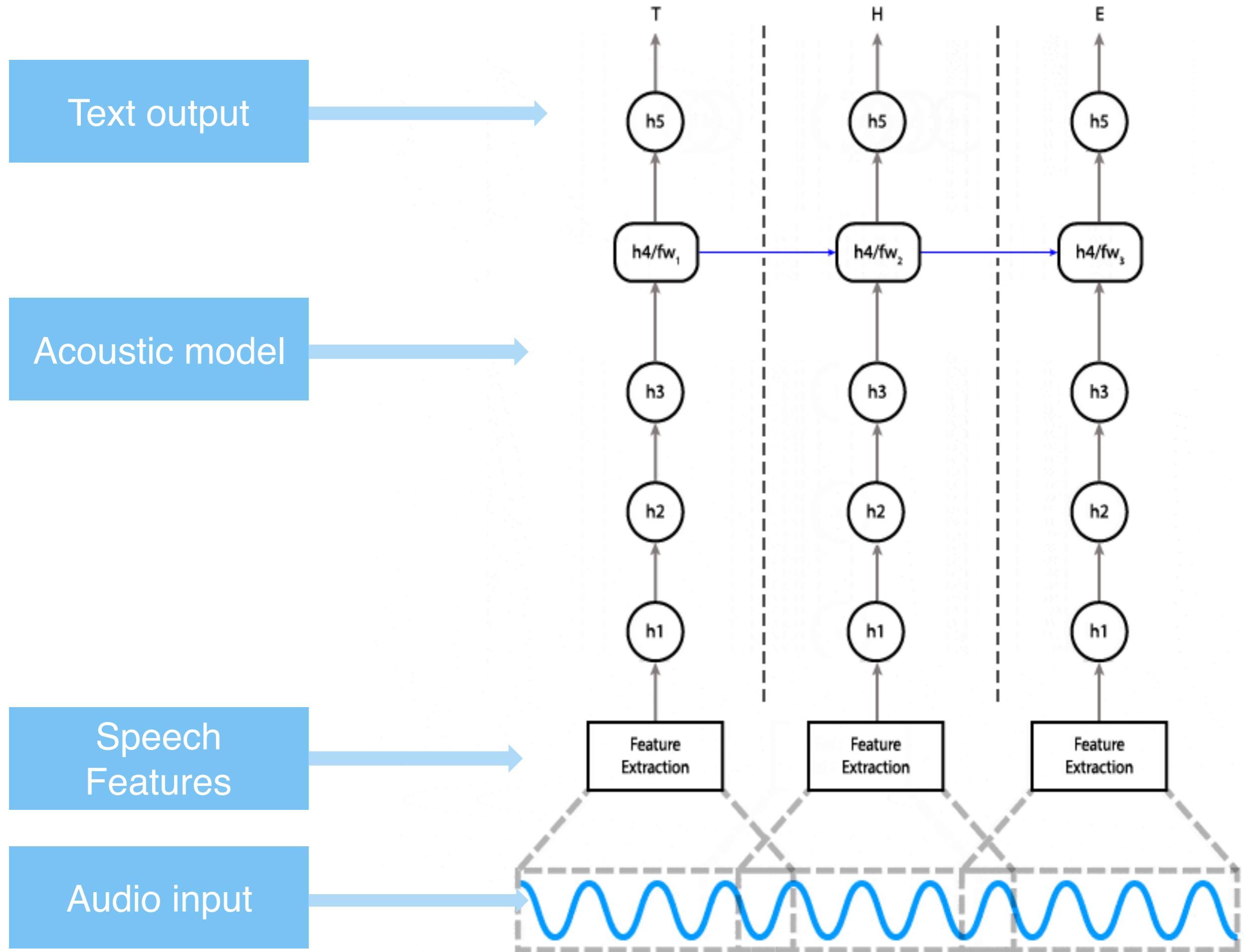
# Recurrent Neural Networks

# Recurrent Neural Networks



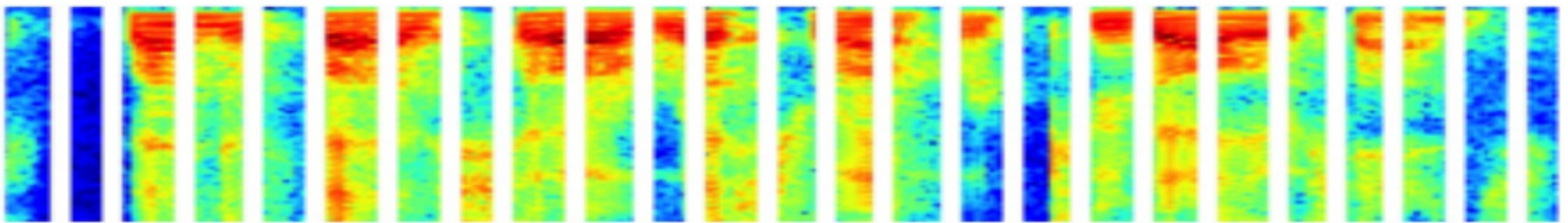
# Deep Speech





# Connectionist temporal classification

P(\_VI\_\_EEE\_E\_W\_-S\_\_OOO\_U\_R\_\_CC\_\_E\_\_-)

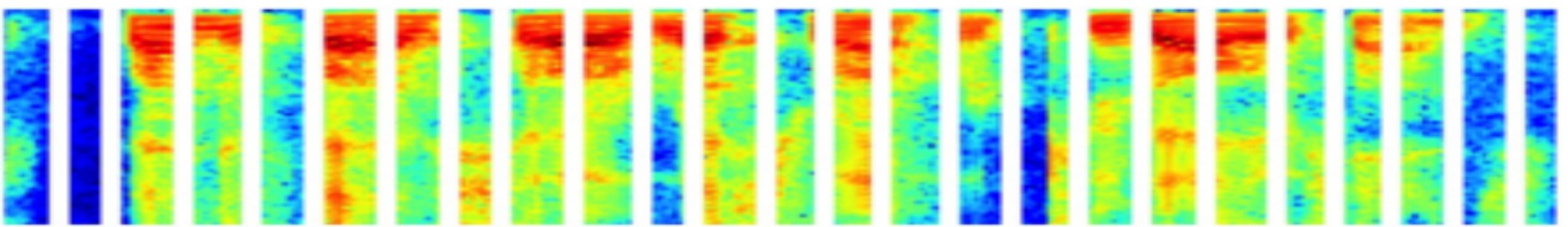


# Connectionist temporal classification

P(\_VI\_EEEE\_W\_-S\_\_OOO\_U\_R\_\_CC\_E\_-)

=

P( VIEW–SOURCE–)



# Development Technology



Python



C++



Tensorflow

# Using Deep Speech



# Common Voice Project



Paula decided to attend the Developer Conference next month.

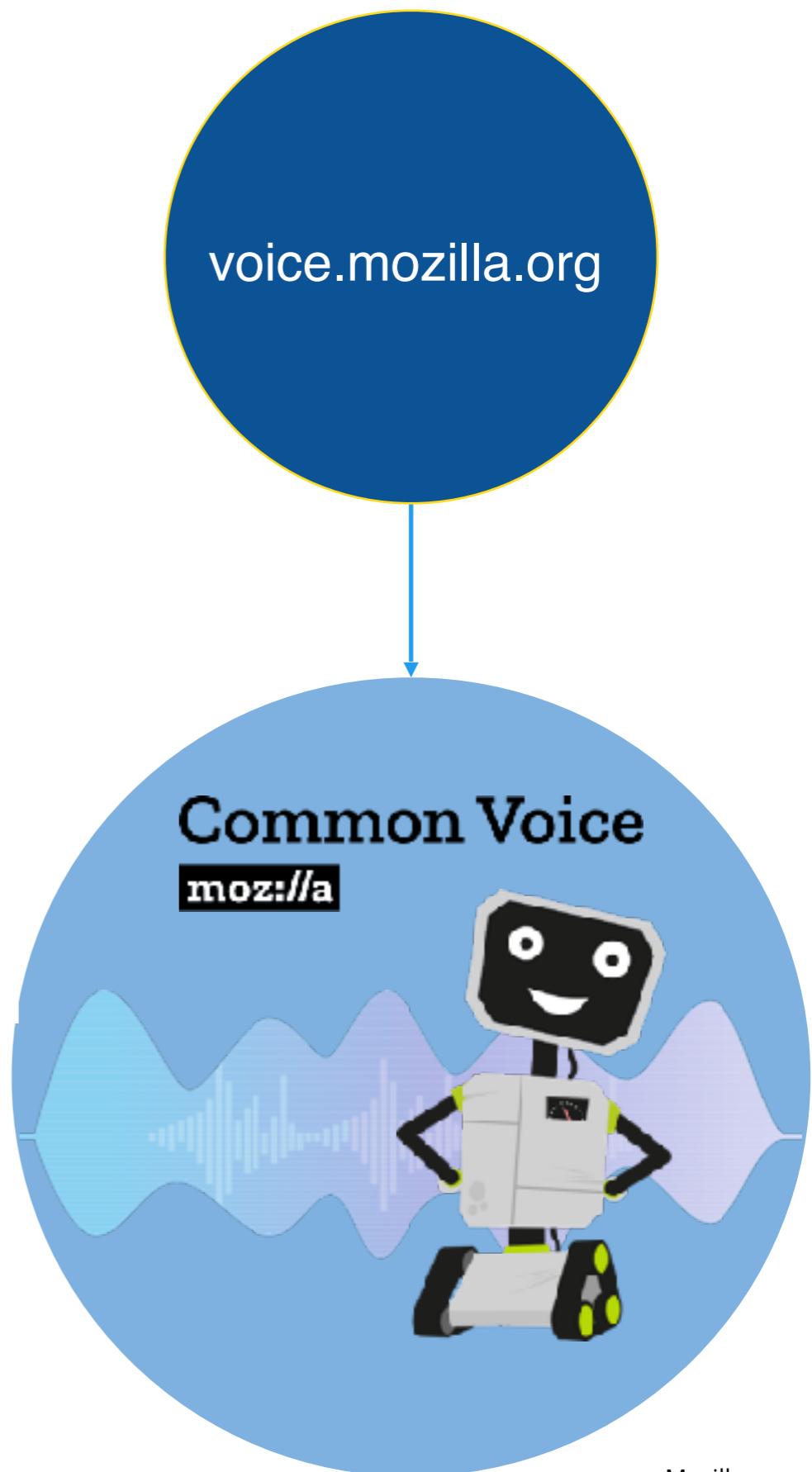
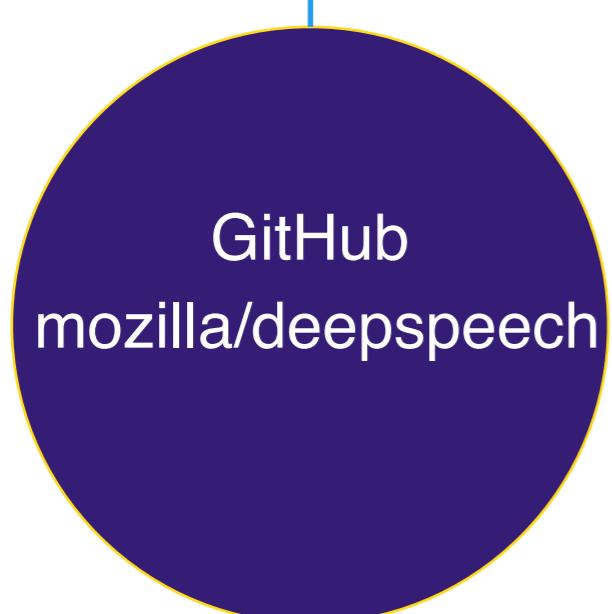


1 of 3

Please tap to record, then read the above sentence aloud.

Create a profile

Why a profile?



**moz://a**

**Thank  
You**



@shaguftamethwan

# Thank you, Shagufta.

- Q: What did the motherboard say to the new software?
- A: I'll show you who's Dos!

#viewsource

Next up.

Andre Garzia - Loanwords,  
Agriculture & WebAssembly

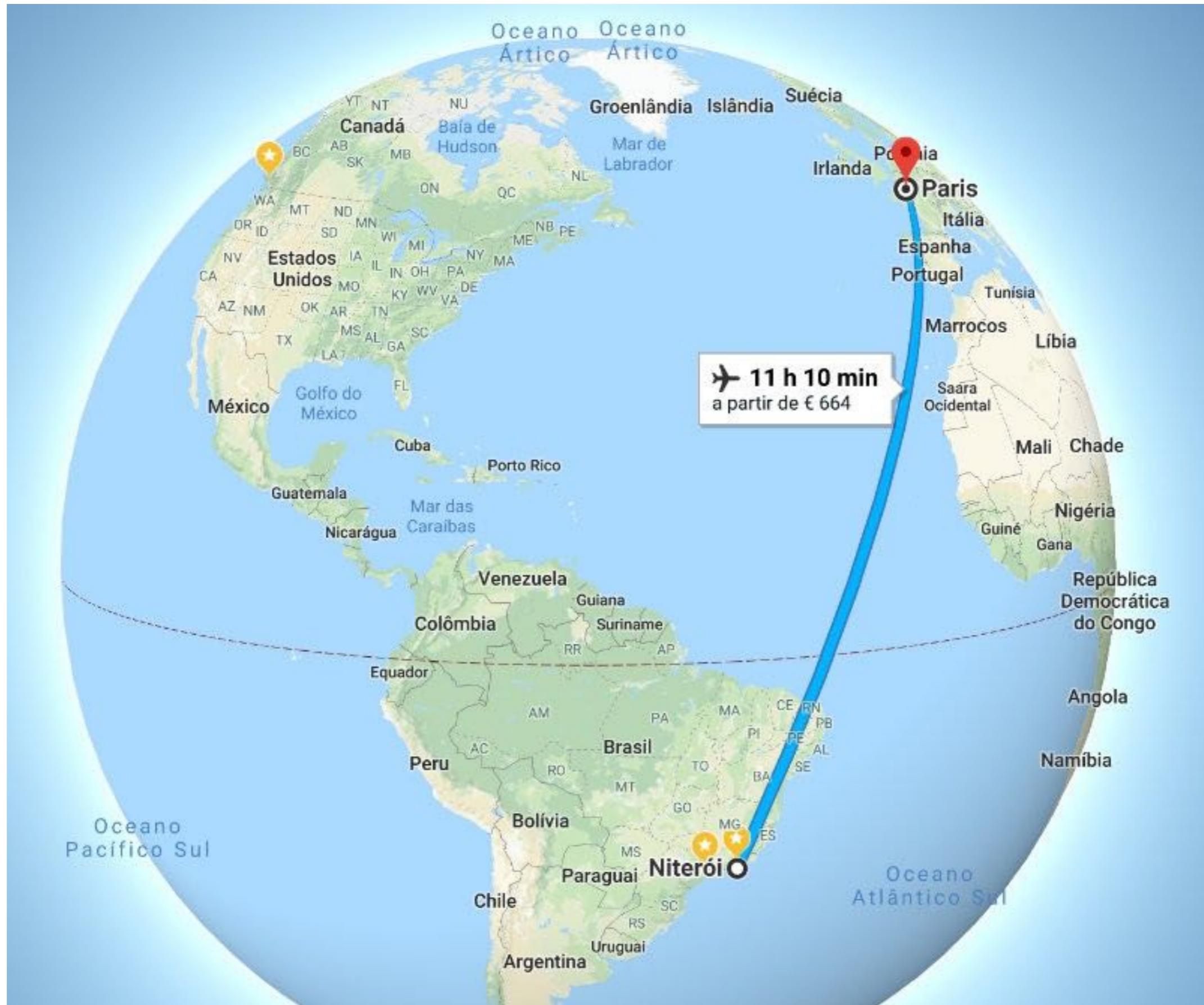


#viewsource

# Loanwords, Agriculture & WebAssembly

by Andre Alves Garzia

# I made a big move



Saudade:

A feeling of longing,  
melancholy, or nostalgia  
that is supposedly  
characteristic of the  
Portuguese or Brazilian  
temperament.

Saudade:

A feeling of longing,  
melancholy, or nostalgia  
that is supposedly  
characteristic of the  
Portuguese or Brazilian  
temperament.

languages  $\leftrightarrow$  expressiveness

same thing with programming languages

An aerial photograph of a large agricultural plantation during sunset. The fields are organized into numerous parallel rows of crops, likely trees, stretching across the landscape. A dirt road runs diagonally from the bottom left towards the horizon. In the background, there are rolling hills and mountains under a sky with warm orange and yellow hues.

This is a plantation

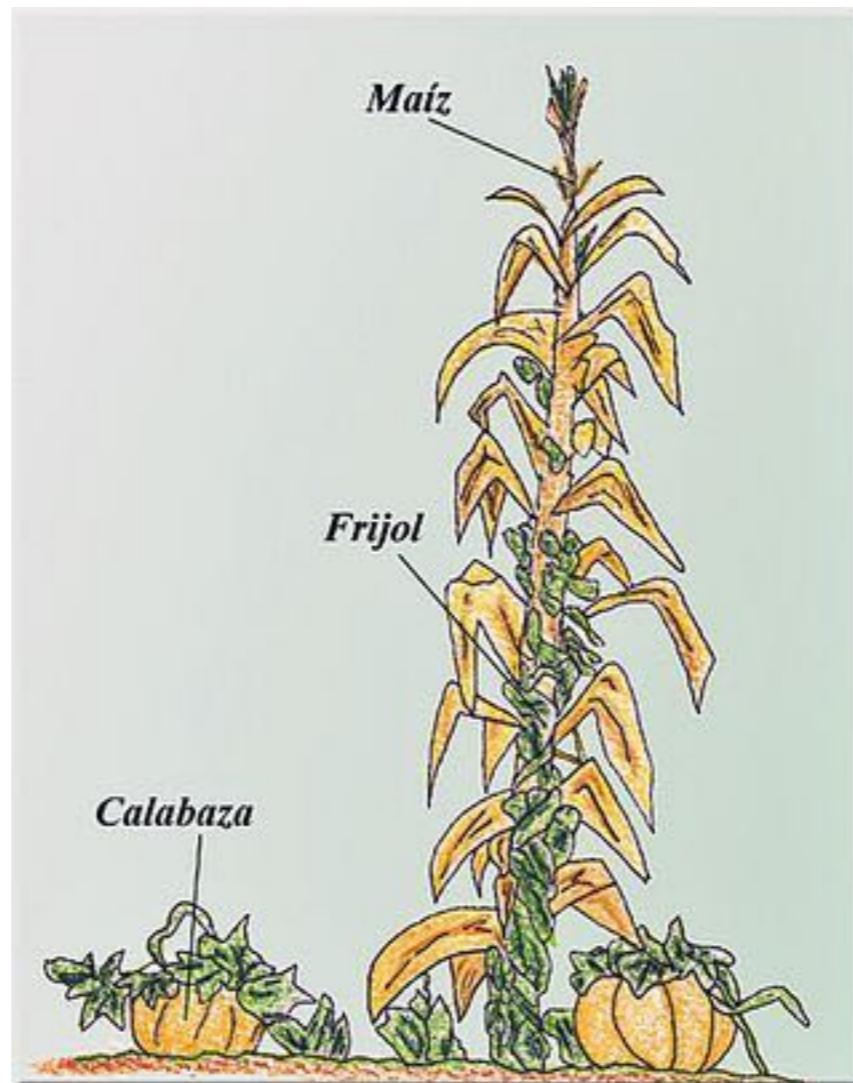
An aerial photograph of a long, straight black asphalt road cutting through a vast green agricultural field. The field is divided into several sections by dirt paths and small streams of water. A red tractor with a white canopy is driving away from the camera on the right side of the road. The sky is clear and blue.

This STILL is a plantation



Plantation == Soil Degradation

This is a milpa



A photograph of a traditional Mexican agricultural field, known as a milpa. The foreground is filled with large, green, heart-shaped leaves of a squash or pumpkin plant. Behind it, tall, green corn plants stand in rows. The field extends into the distance, where more crops and a dense line of trees are visible under a bright blue sky with scattered white clouds.

Milpas are Awesome!



We live in a JS Plantation

I want a Web Milpa!

I want a Web Milpa!

I want a Web Milpa!

```
set font size 45
set font face "Fira Code Retina"

slide
    color "Maroon" "Loanwords, Agriculture & WebAssembly"
    "by Andre Alves Garzia"
end

slide
    "I made a big move"
    with image "flight.jpg"
end

repeat slide 2 times
    color "Dim Gray" "Saudade:"
    § "A feeling of longing, melancholy, or nostalgia ... temperament."
end

slide "languages <-> expressiveness"
```

Let's build a Web Milpa!

Let's build a Web Milpa!



Let a thousand languages bloom!

➔ [github.com/soapdog/nanodeck](https://github.com/soapdog/nanodeck)

@soapdog



Let a thousand languages bloom!

➔ [github.com/soapdog/nanodeck](https://github.com/soapdog/nanodeck)

@soapdog

# Thank you, Andre.

- Q: What is another name for a computer virus?
- A: A terminal illness

#viewsource

# Thank you, View Source.

- Q: What's the best way to learn about computers?
- A: Bit by Bit

#viewsource