

“Any organisation that designs a system will inevitably produce a design whose structure is a copy of the organisation's communication structure”

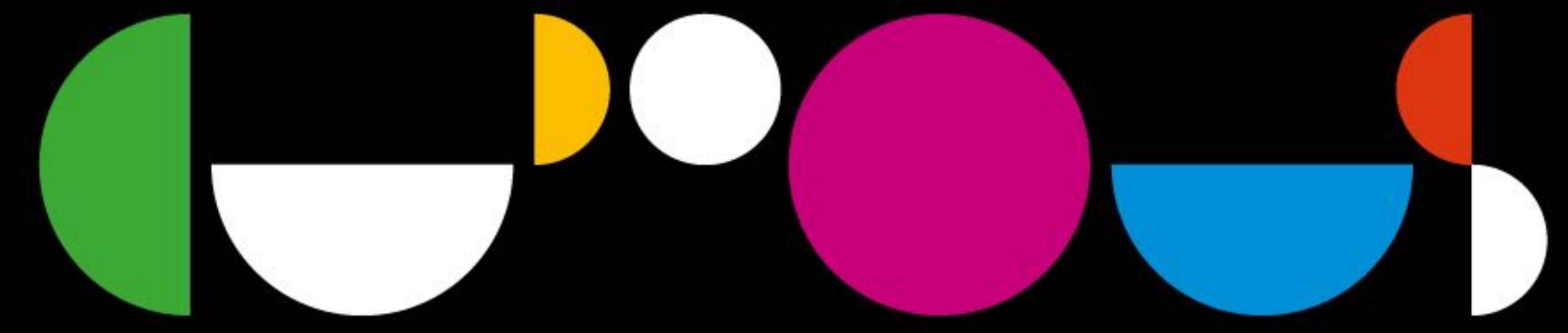
Conway's Law - 1967

**“Any organisation's
communication structure is
inevitably a copy of the
systems they use”**

Reverse Conway's Law

**“Any organisation's
communication structure is
inevitably a copy of the
systems they use”**

Reverse Conway's Law



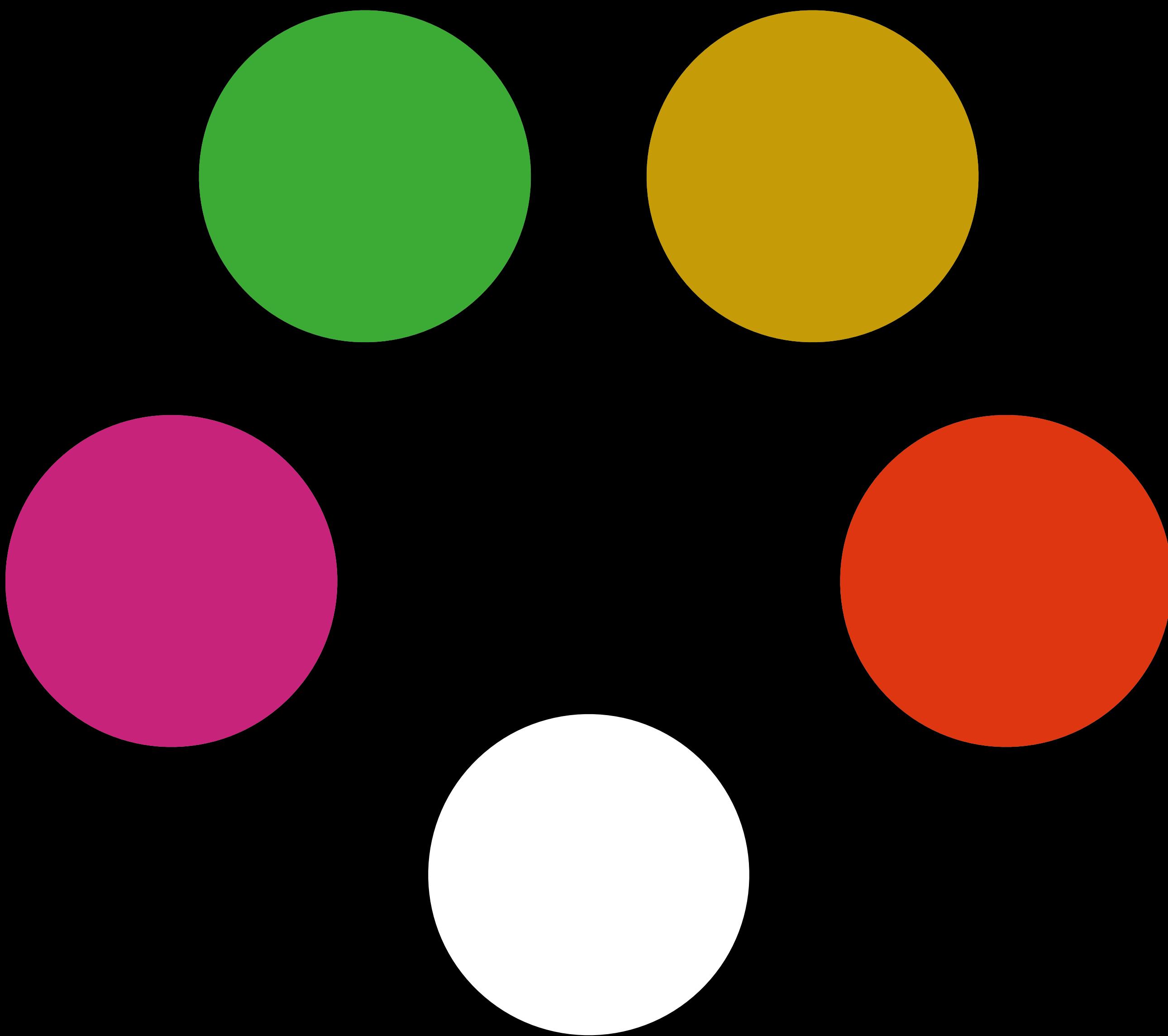
We the curious

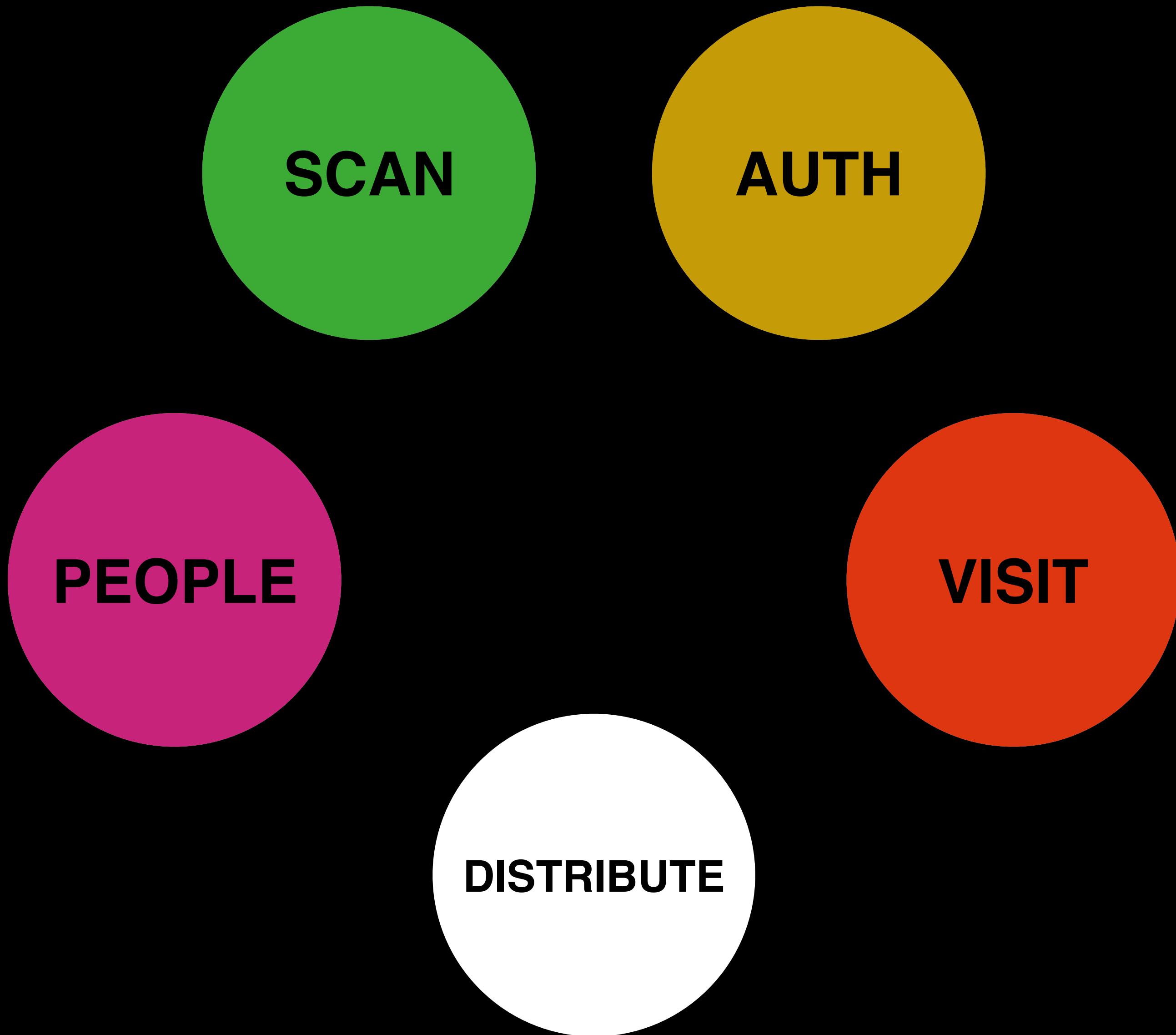
A culture of curiosity

Explore More v2

—Explore More v2—

Curios





SCAN

AUTH

PEOPLE

VISIT

DISTRIBUTE

?

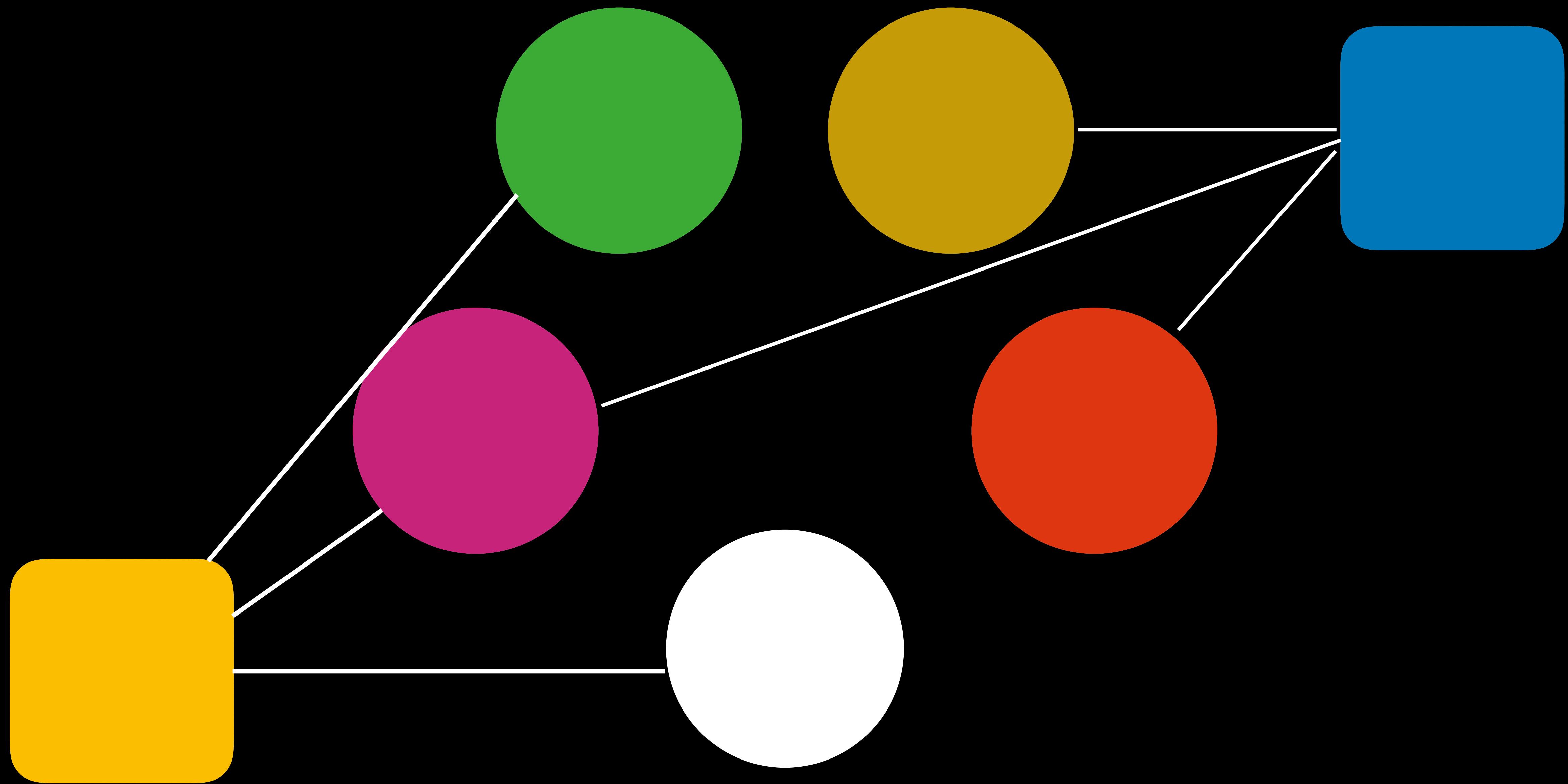
?

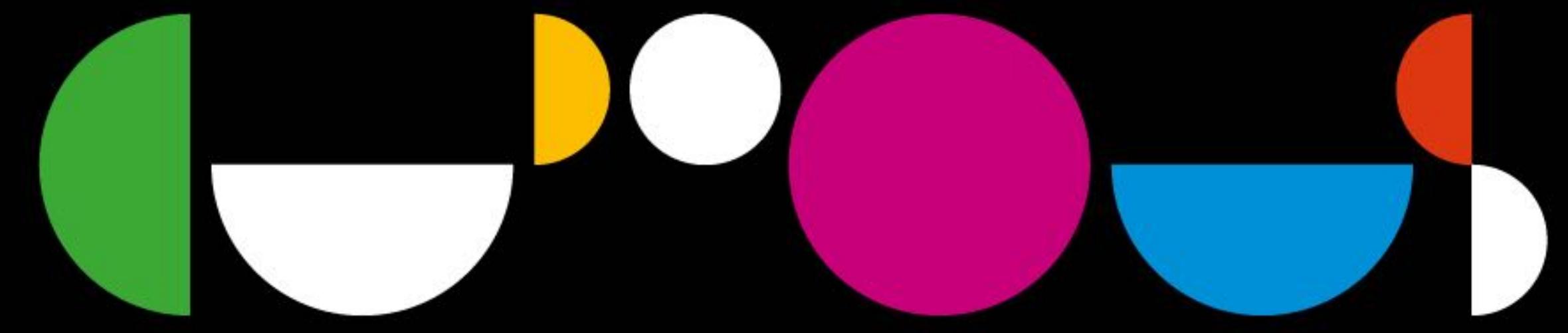
?

?

?

YOUR APP





We the curious

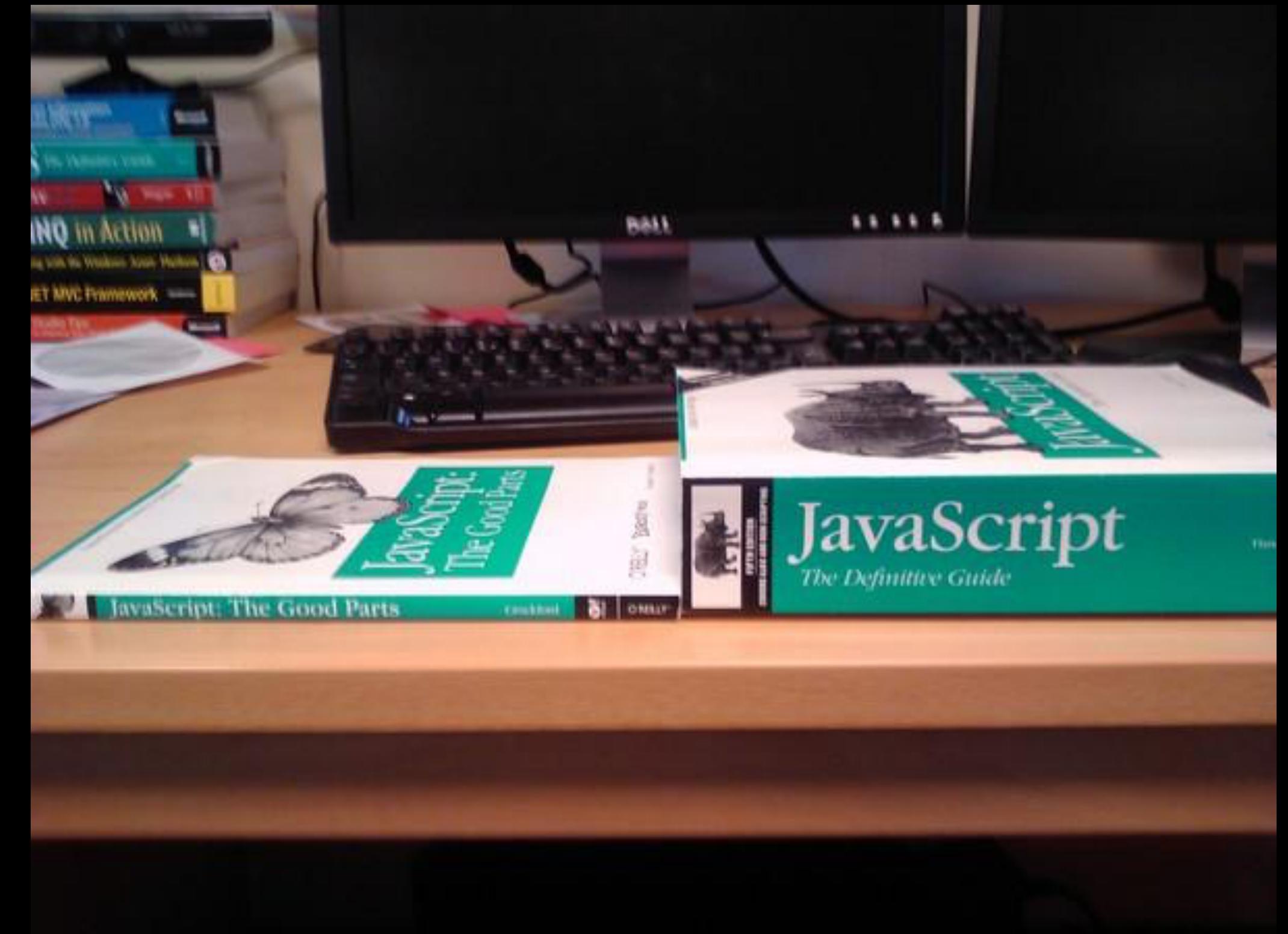
Welcome

Part 1

JavaScript functional programming

Covering structure

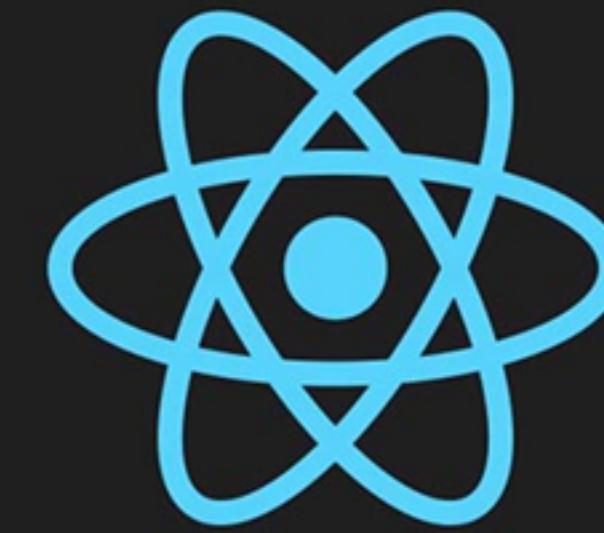
Not covering Basic syntax explicitly



Part 2

React + Redux

**Covering app creation,
architecture and tooling**



REACT + REDUX

Part 3

Databases

Deployment

Security



INTRO

Covering

The history of JavaScript

Covering

The history of JavaScript

**What the difference is between a
language and an environment**

Covering

The history of JavaScript

**What the difference is between a
language and an environment**

Running our first bit of JavaScript

Question

**What is a
programming language?**

A language for people to talk
about logic.

JavaScript

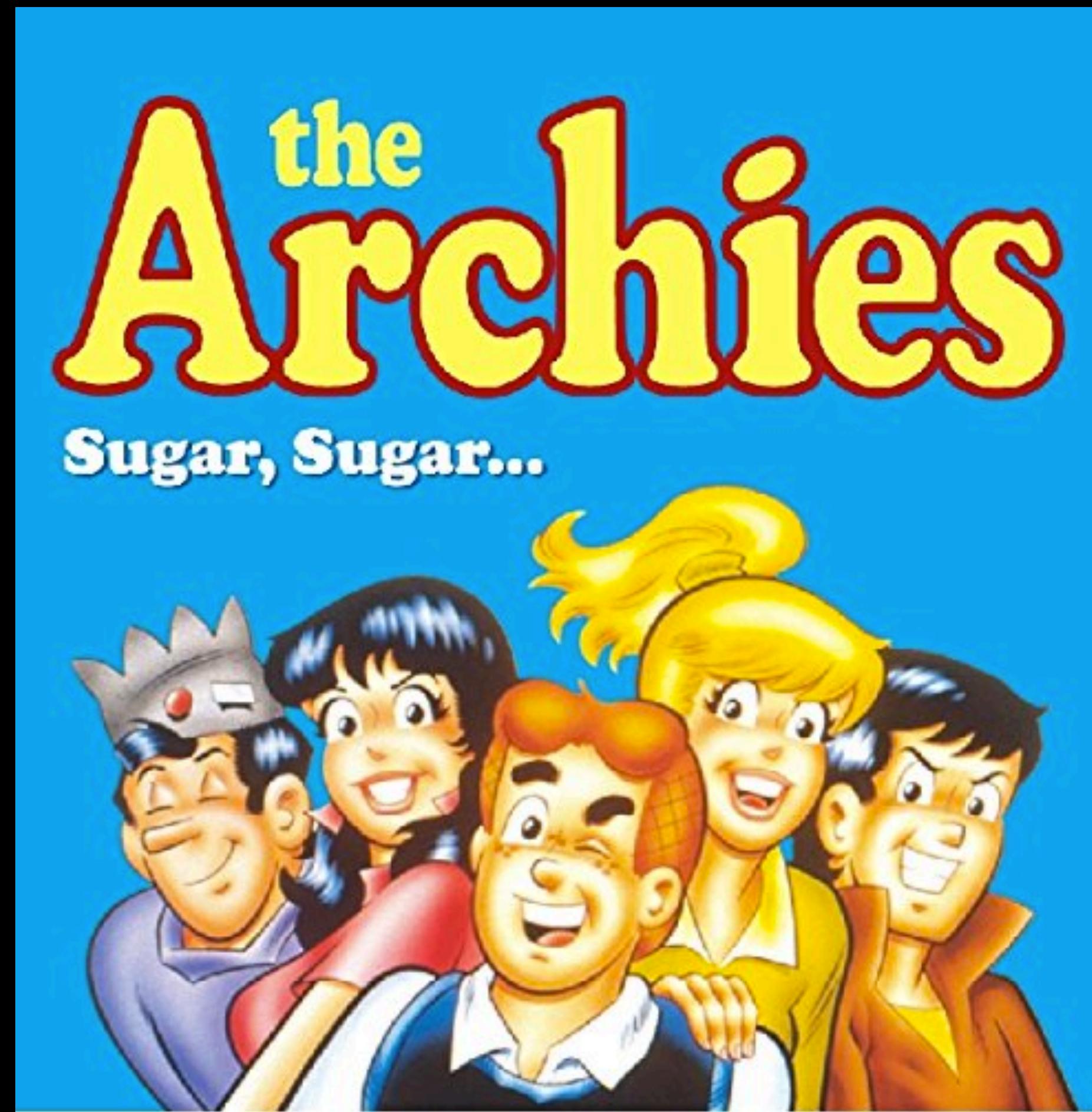
The language of the modern web

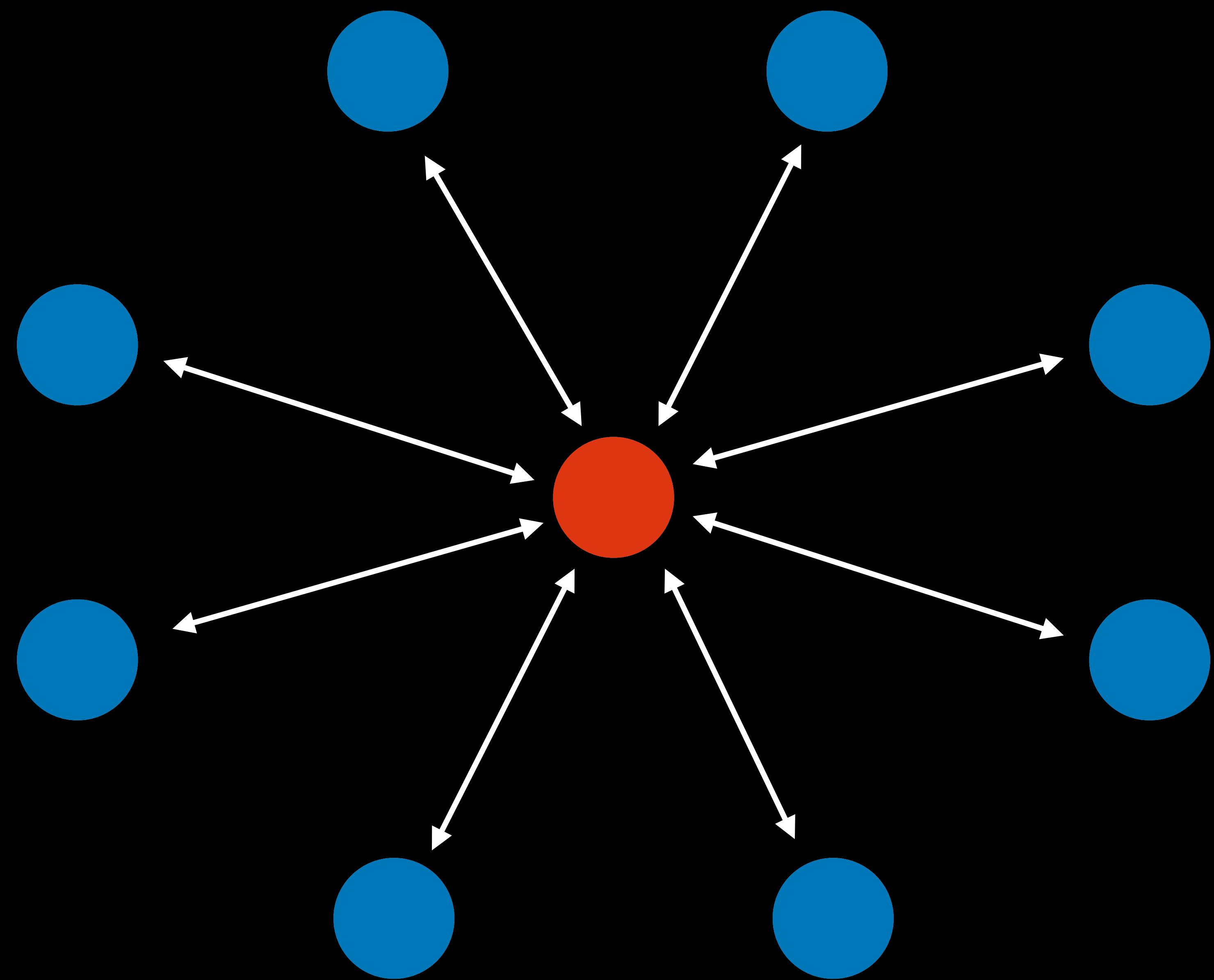
Discussion time!

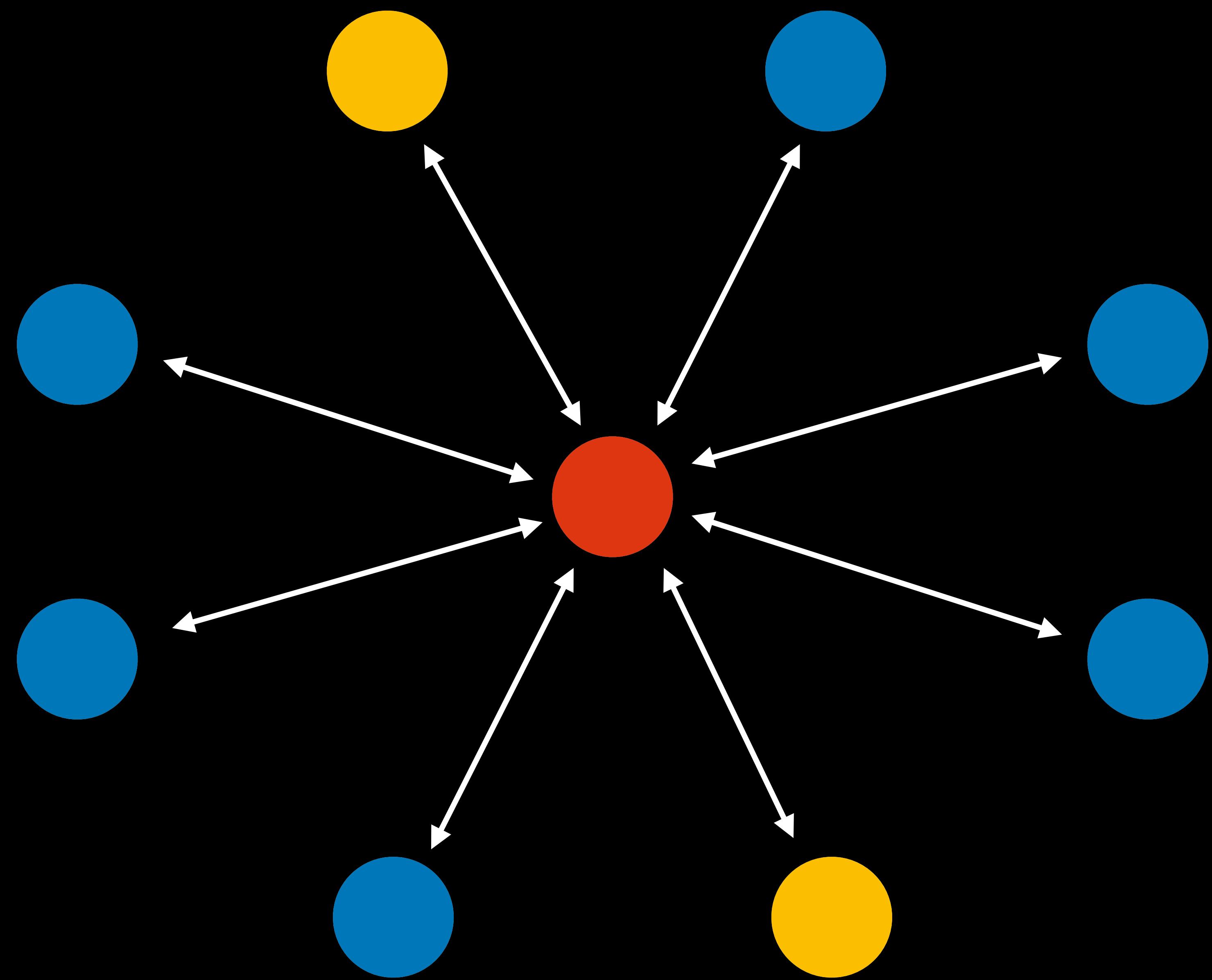
**What's the difference between the
internet and the web?**

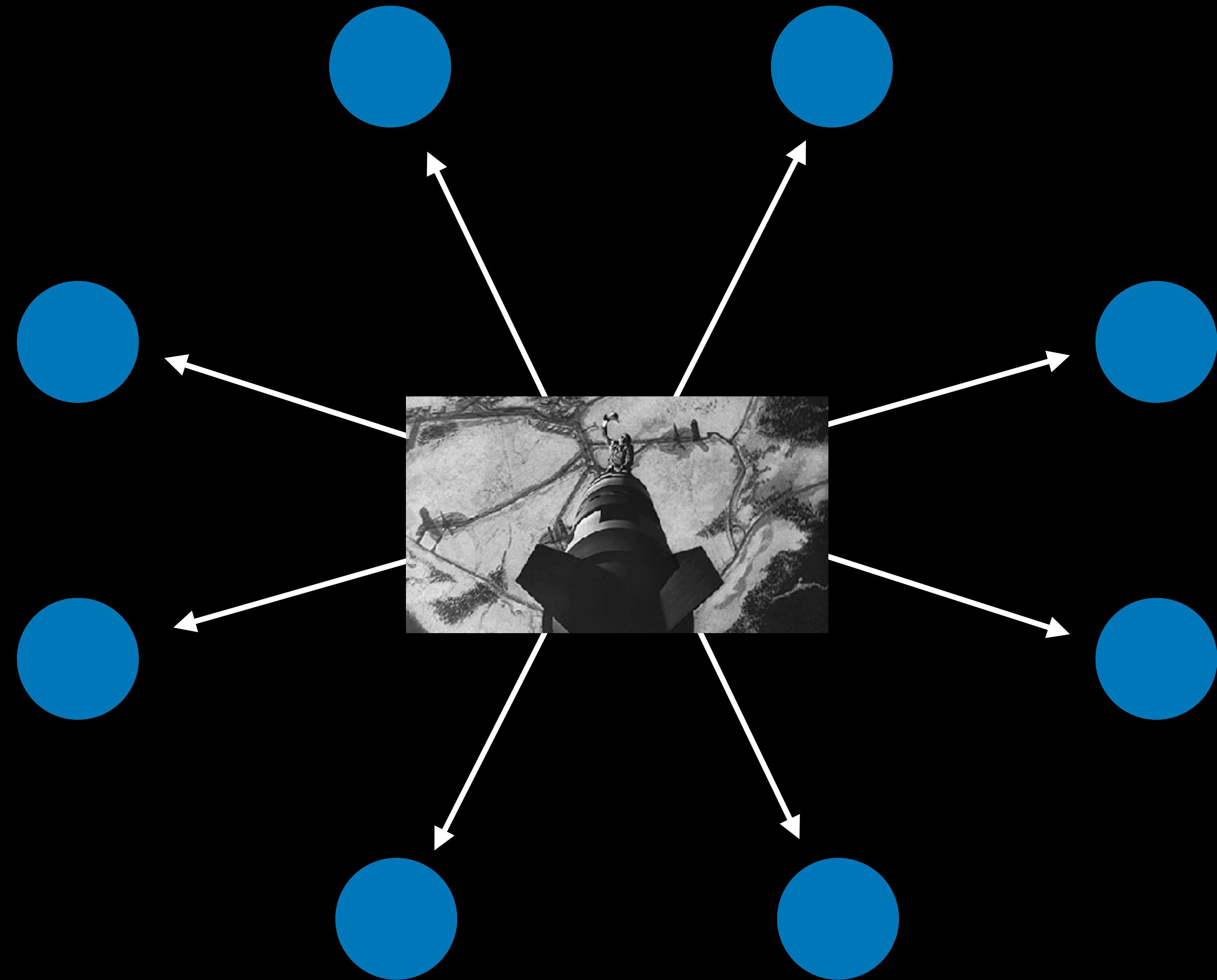
HISTORY

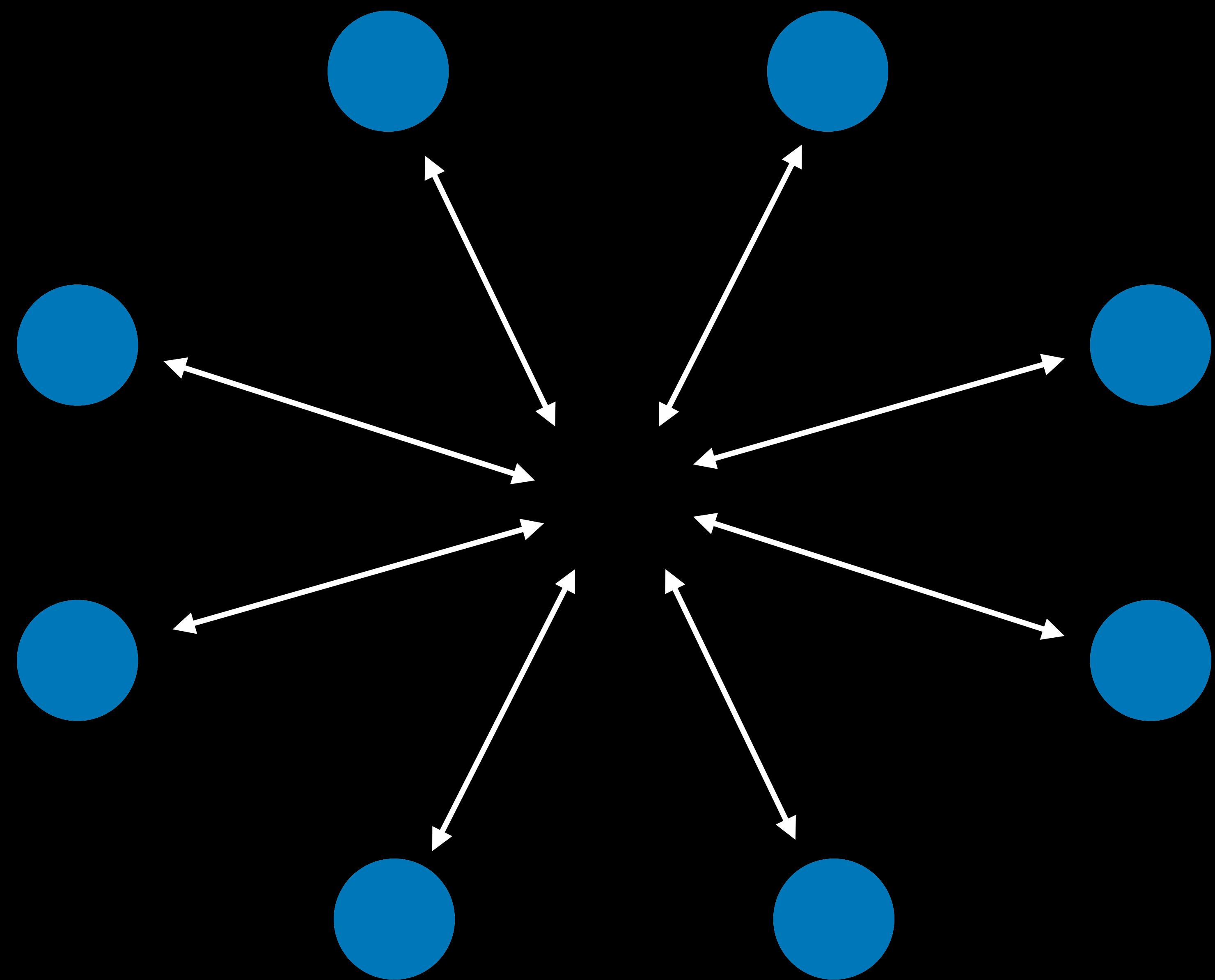
1969



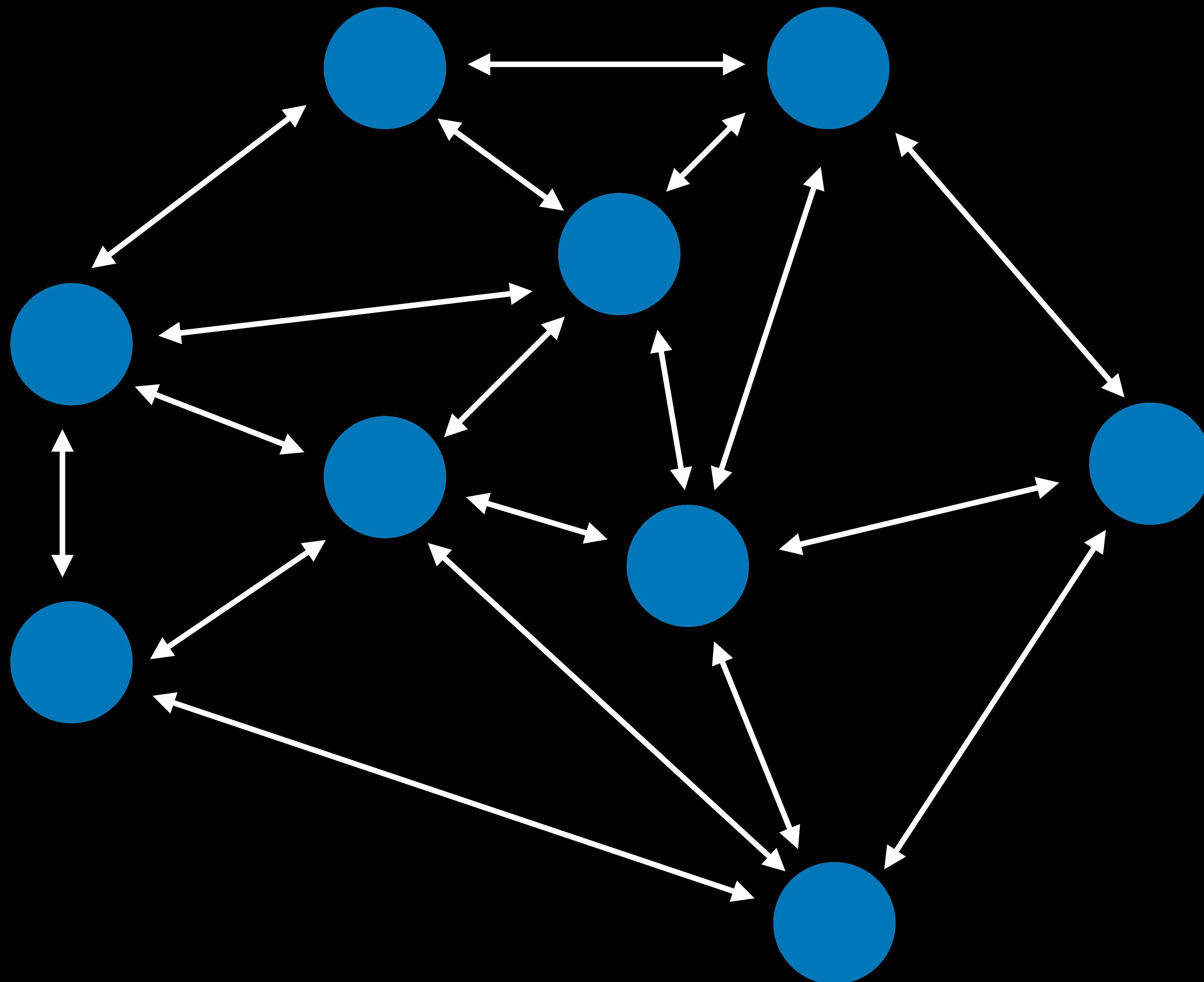


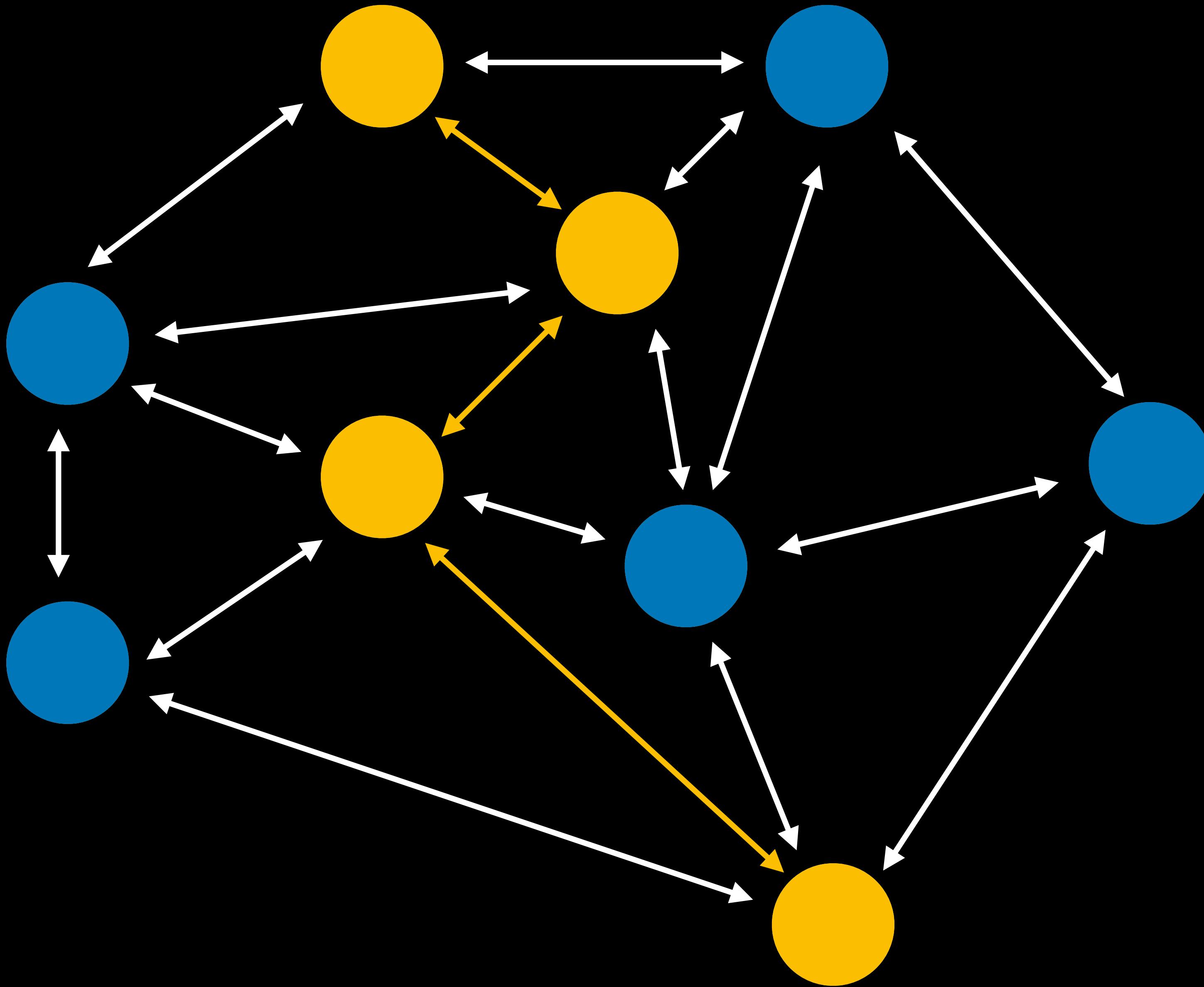


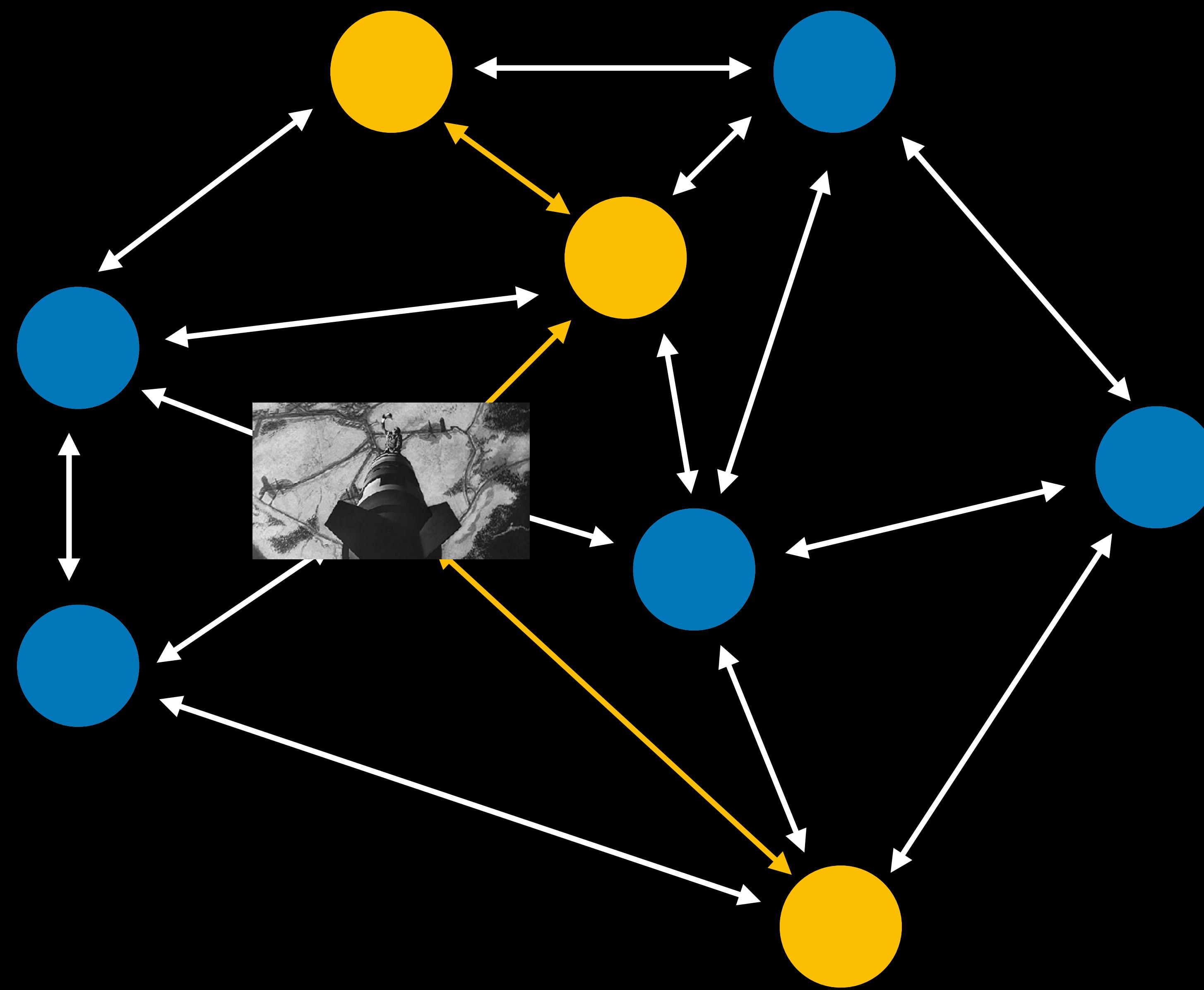


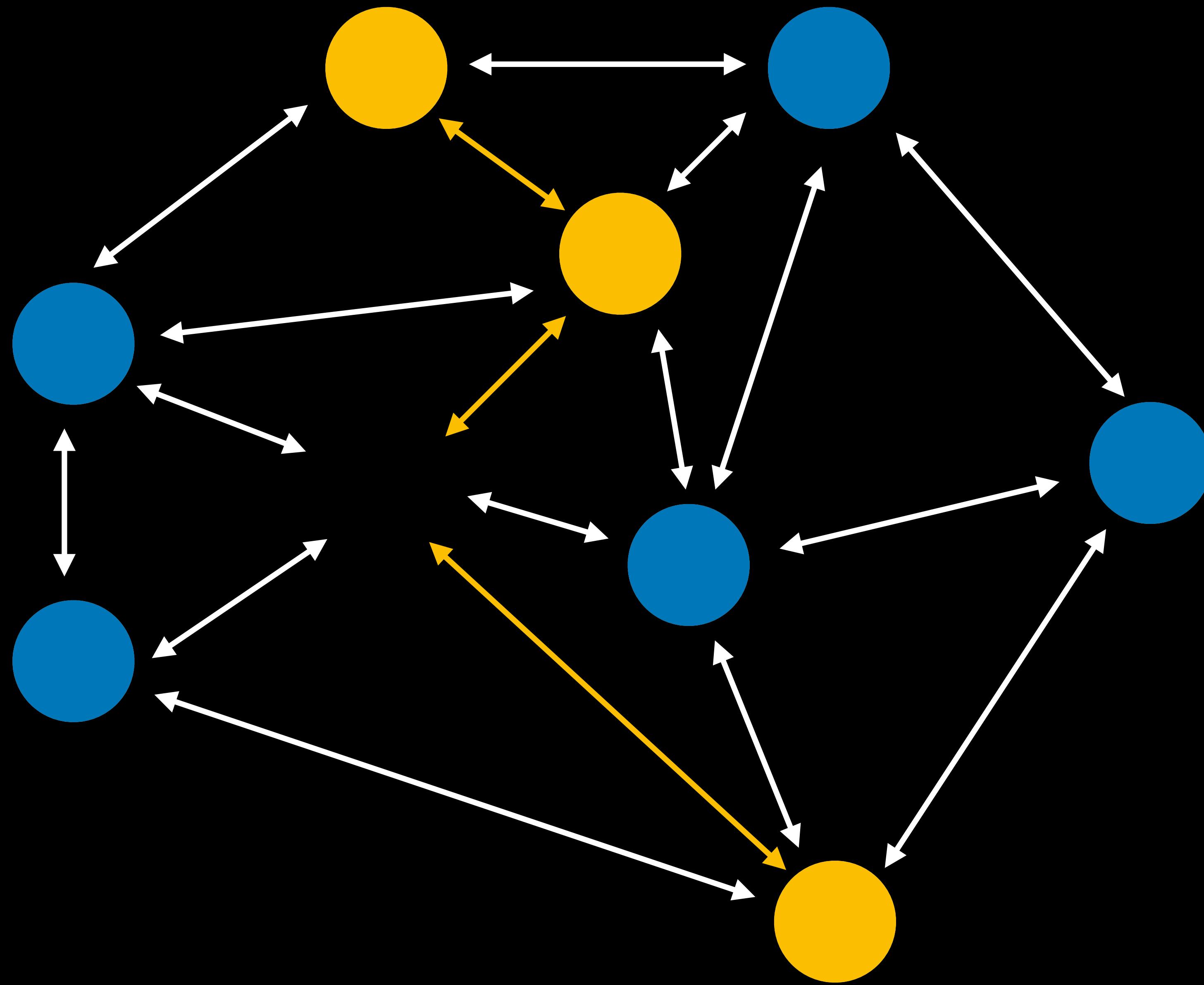


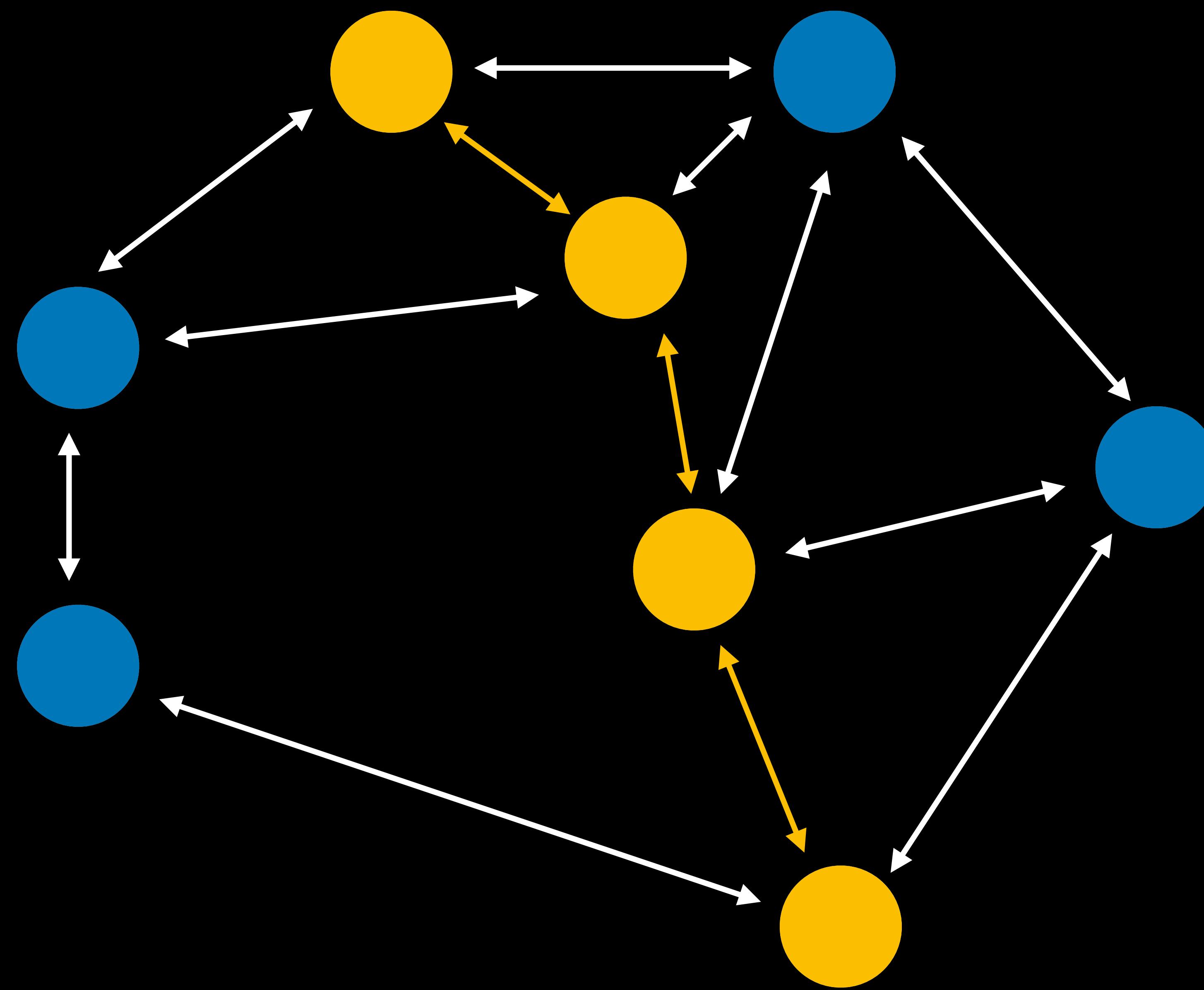








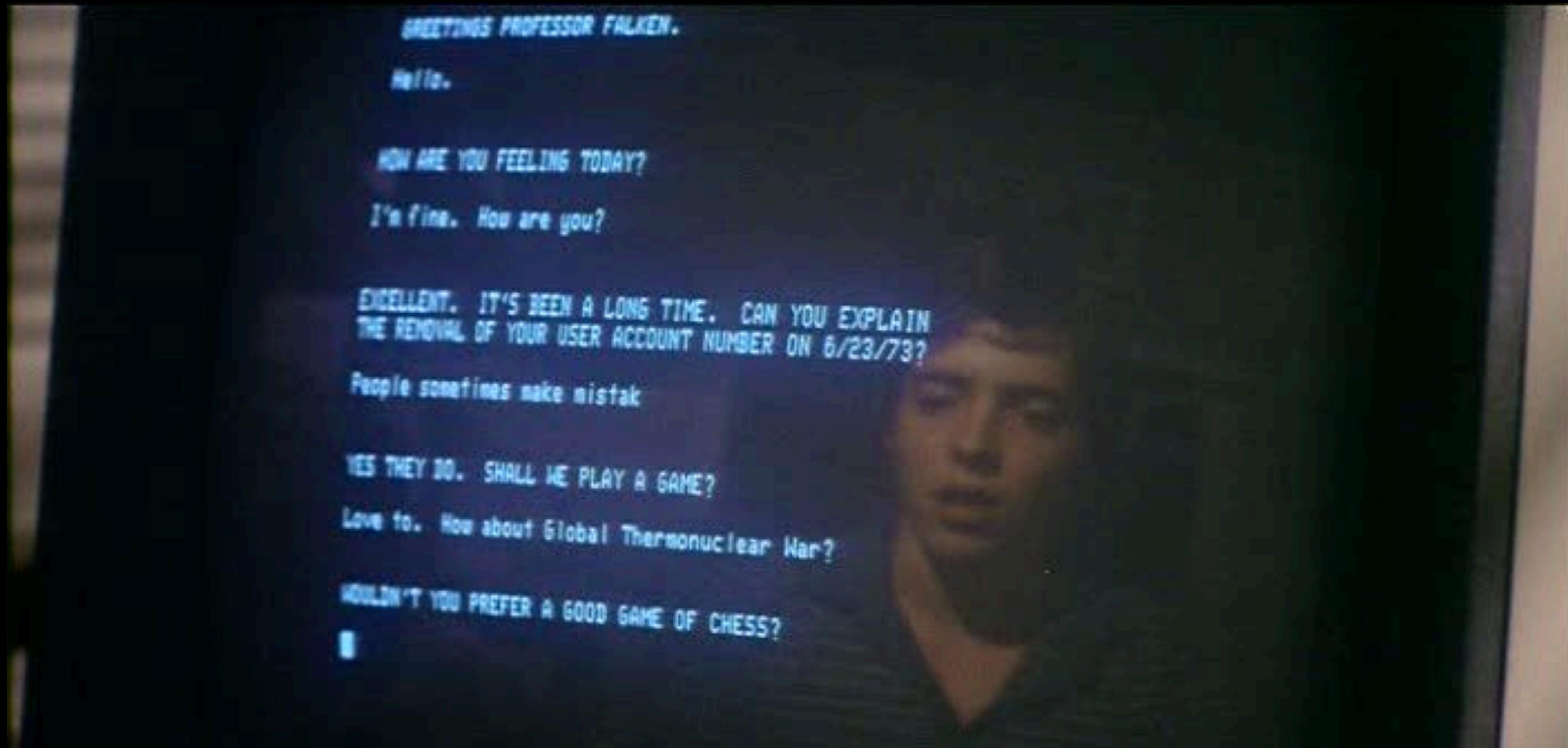




1973



1973



GREETINGS PROFESSOR FALKEN.

Hello.

HOW ARE YOU FEELING TODAY?

I'm fine. How are you?

EXCELLENT. IT'S BEEN A LONG TIME. CAN YOU EXPLAIN
THE REMOVAL OF YOUR USER ACCOUNT NUMBER ON 6/23/73?

People sometimes make mistakes.

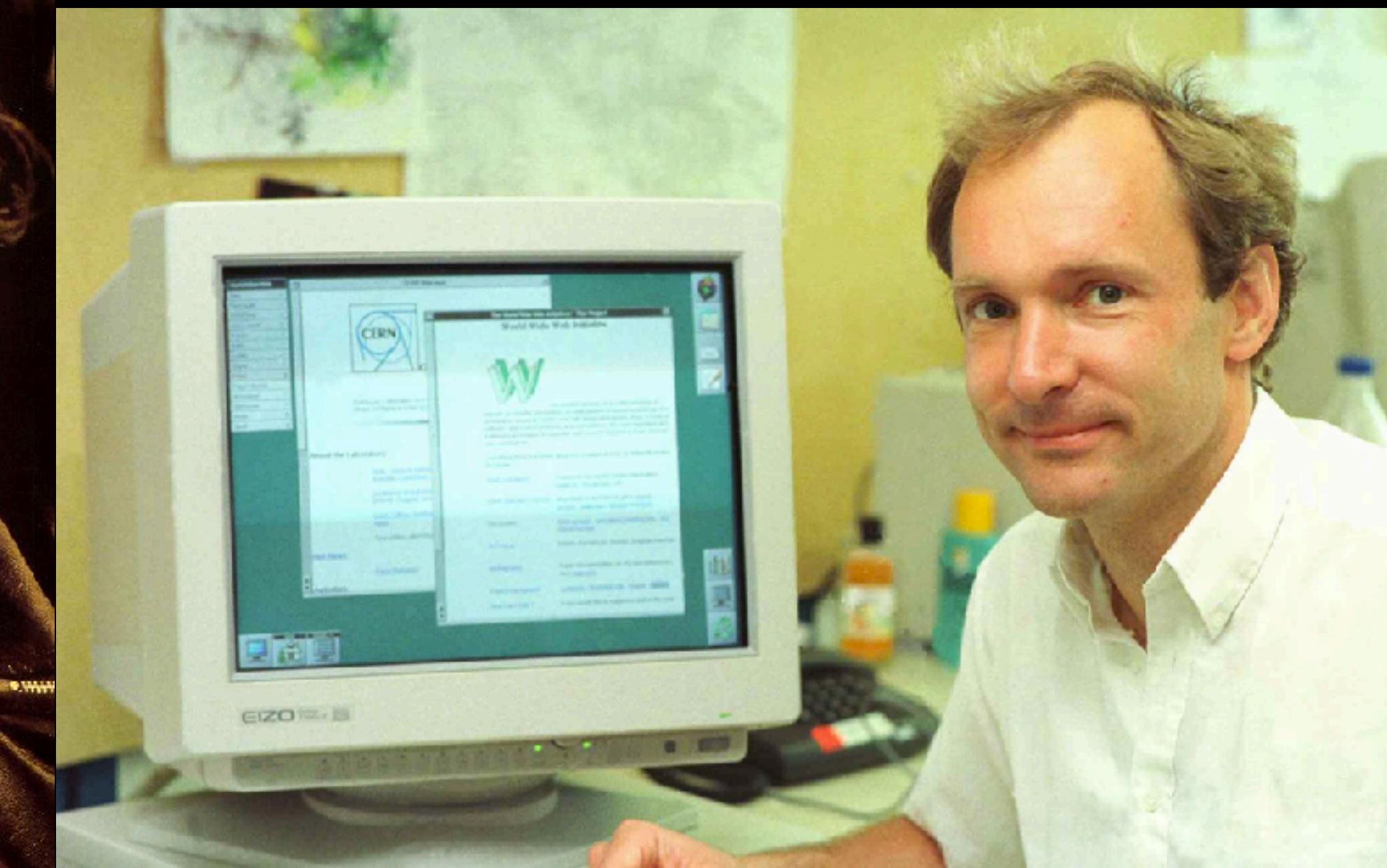
YES THEY DO. SHALL WE PLAY A GAME?

Love to. How about Global Thermonuclear War?

WOULDN'T YOU PREFER A GOOD GAME OF CHESS?

■

1989



THE WEB!

HTML

```
<html>
```

```
  <head>
    <title>Thing</title>
  </head>
```

```
  <body>
    <h1>What have I got</h1>
    <p>Hi I've got the html</p>
  </body>
```

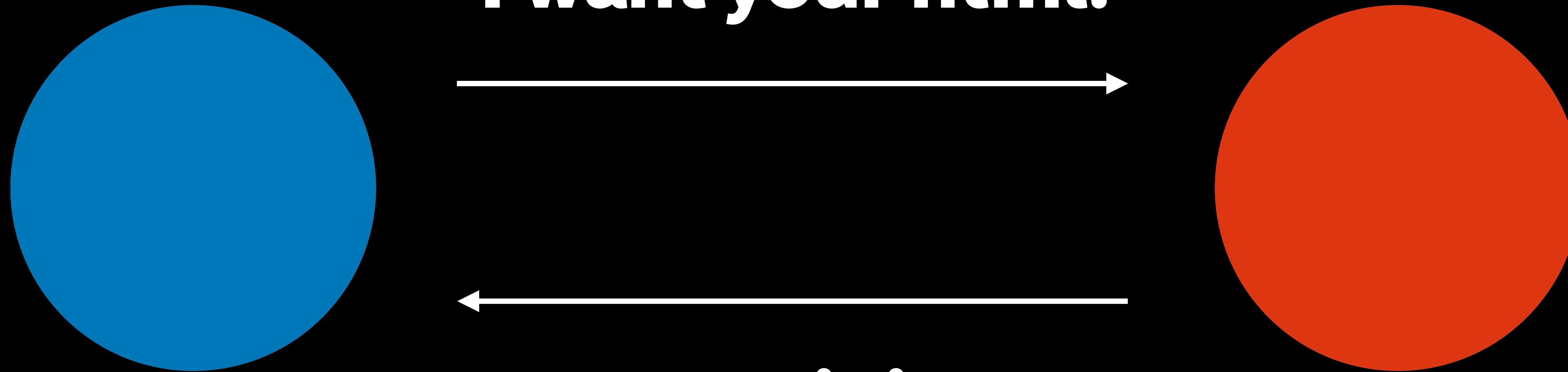
```
</html>
```

Thing

What have I got
I've got the html

HTTP

I want your html!

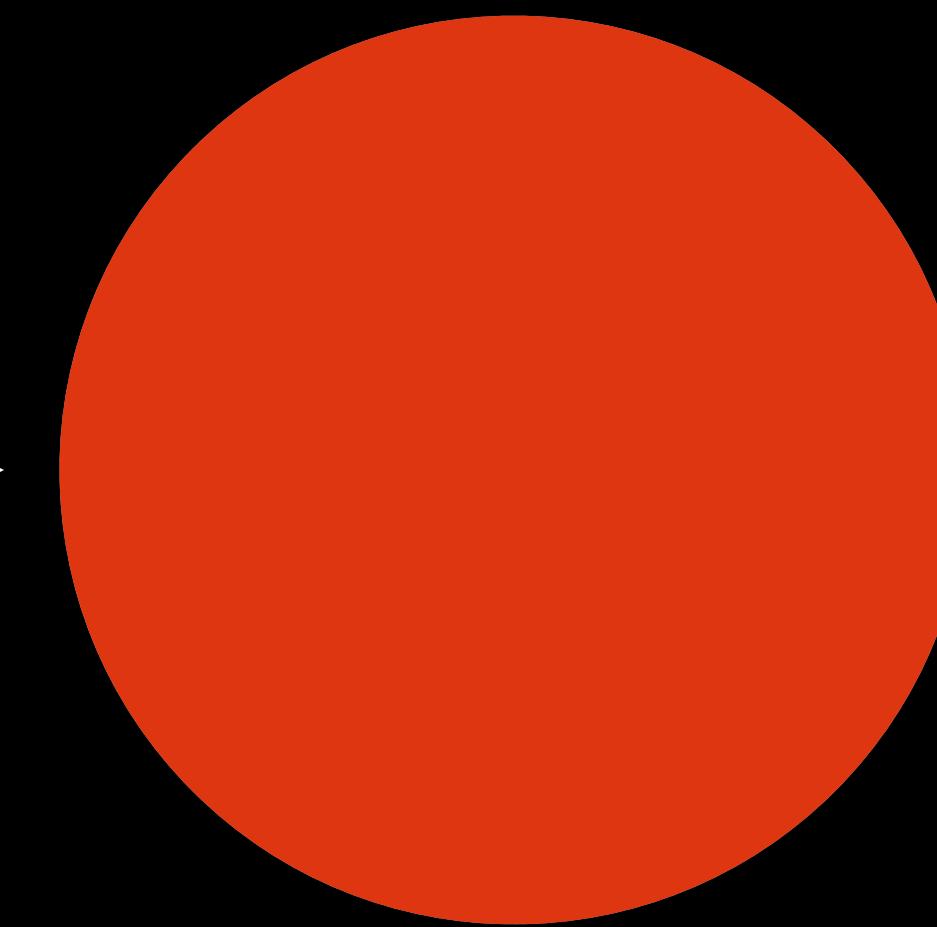
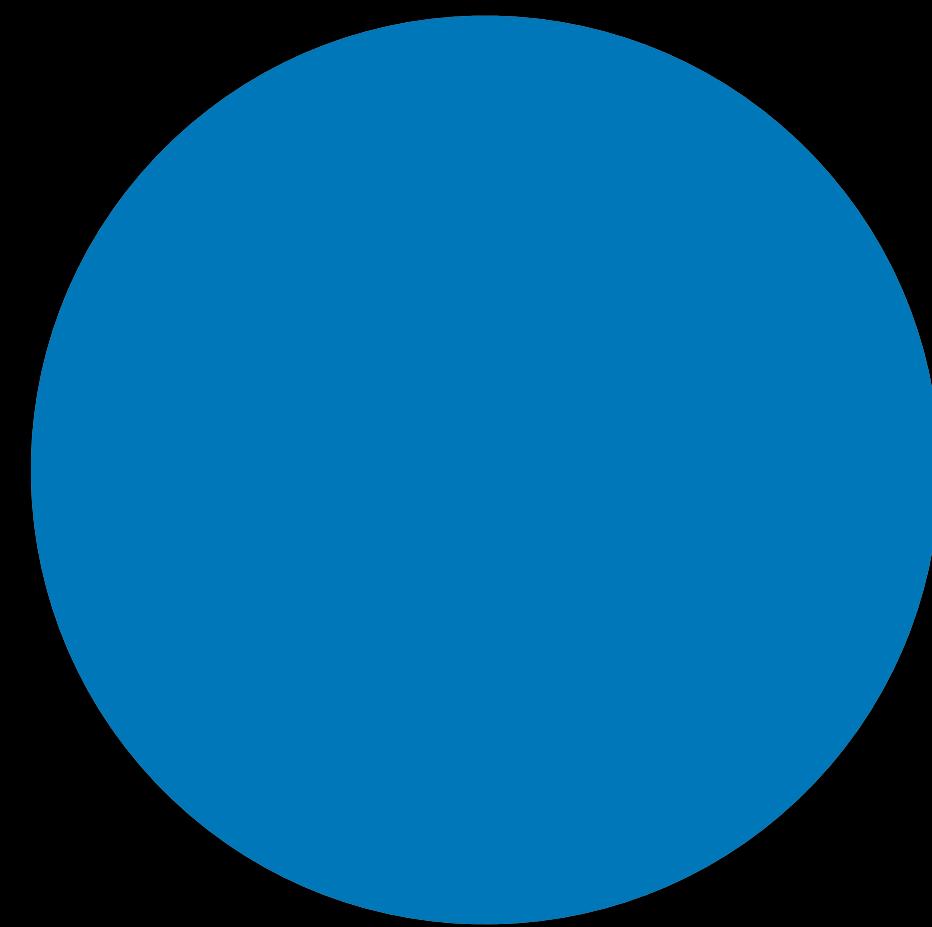


Here it is

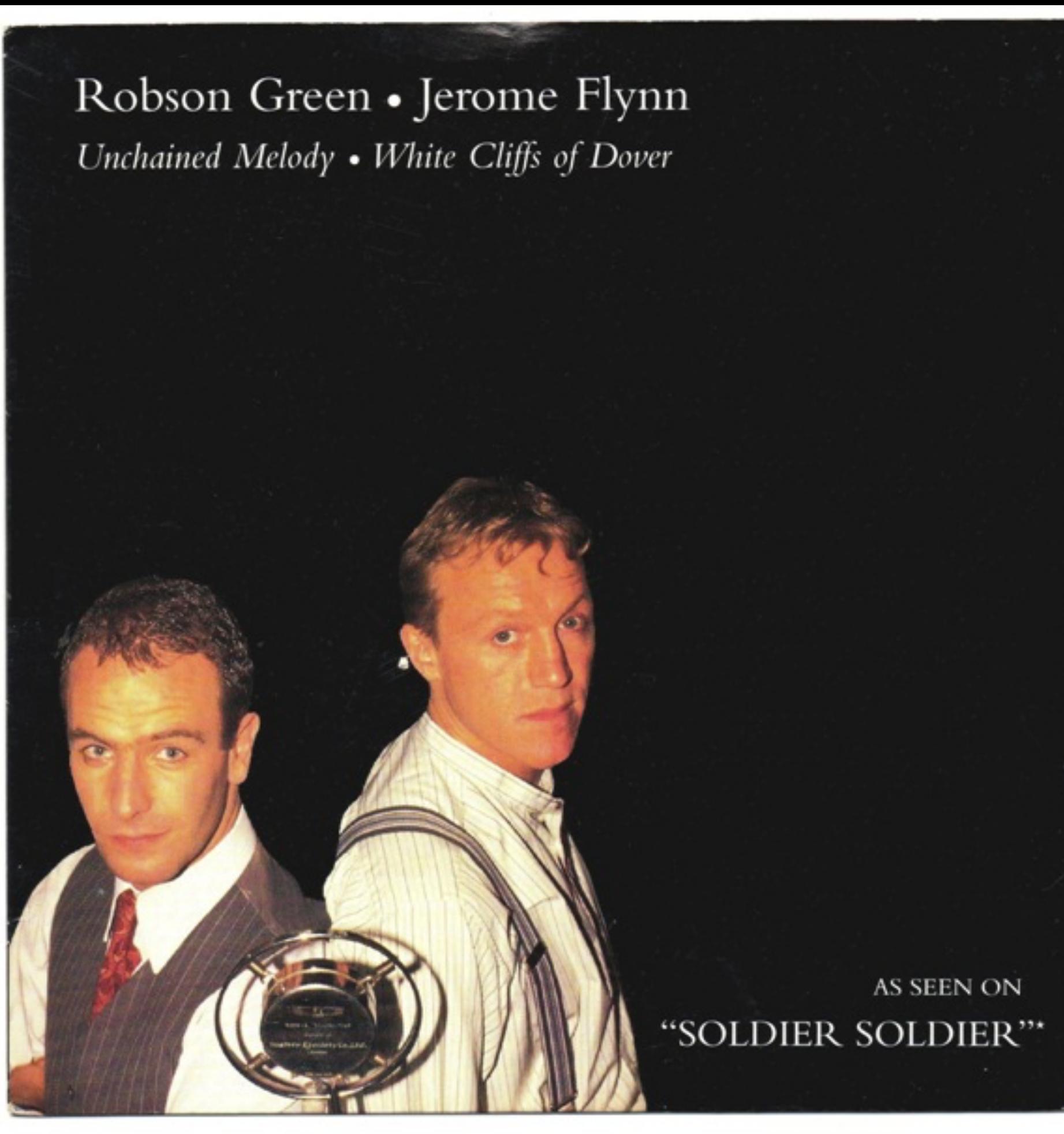
HTTP

I want your html!

http://52.48.211.106 →



1995



Yahoo - A Guide to WWW

[[What's New?](#) | [What's Cool?](#) | [What's Popular?](#) | [Stats](#) | [A Random Link](#)]

[Y Top](#) | [Up](#) | [Search](#) | [Mail](#) | [Add](#) | [Help](#)

- [Art\(466\)](#) NEW
- [Business\(6426\)](#) NEW
- [Computers\(2609\)](#) NEW
- [Economy\(743\)](#) NEW
- [Education\(1487\)](#) NEW
- [Entertainment\(6199\)](#) NEW
- [Environment and Nature\(193\)](#) NEW
- [Events\(53\)](#) NEW
- [Government\(1031\)](#) NEW
- [Health\(367\)](#) NEW



Brendan Eich!

AND HE MADE....

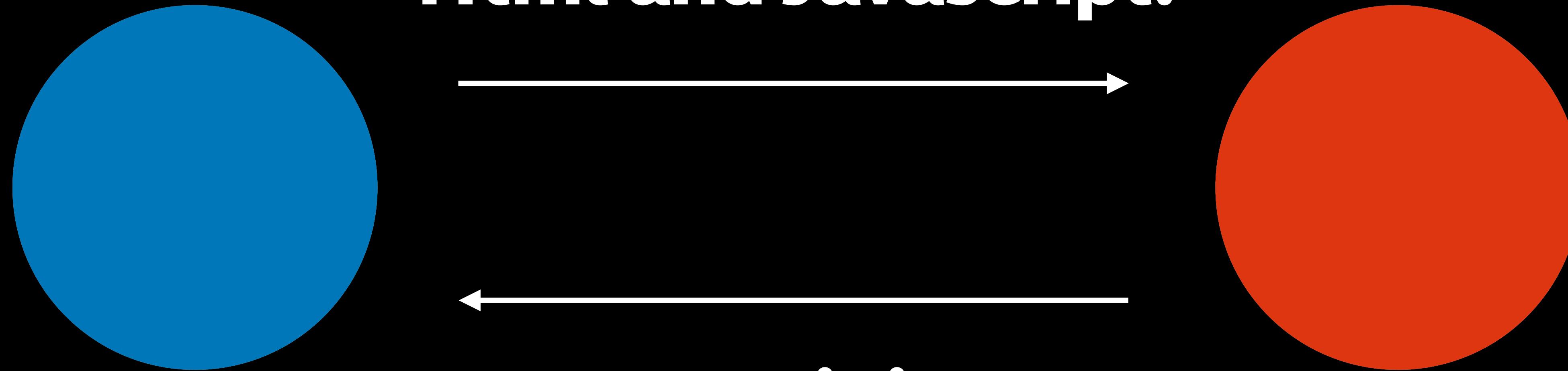
DRUM ROLL....

LiveScript

LiveScript
JavaScript

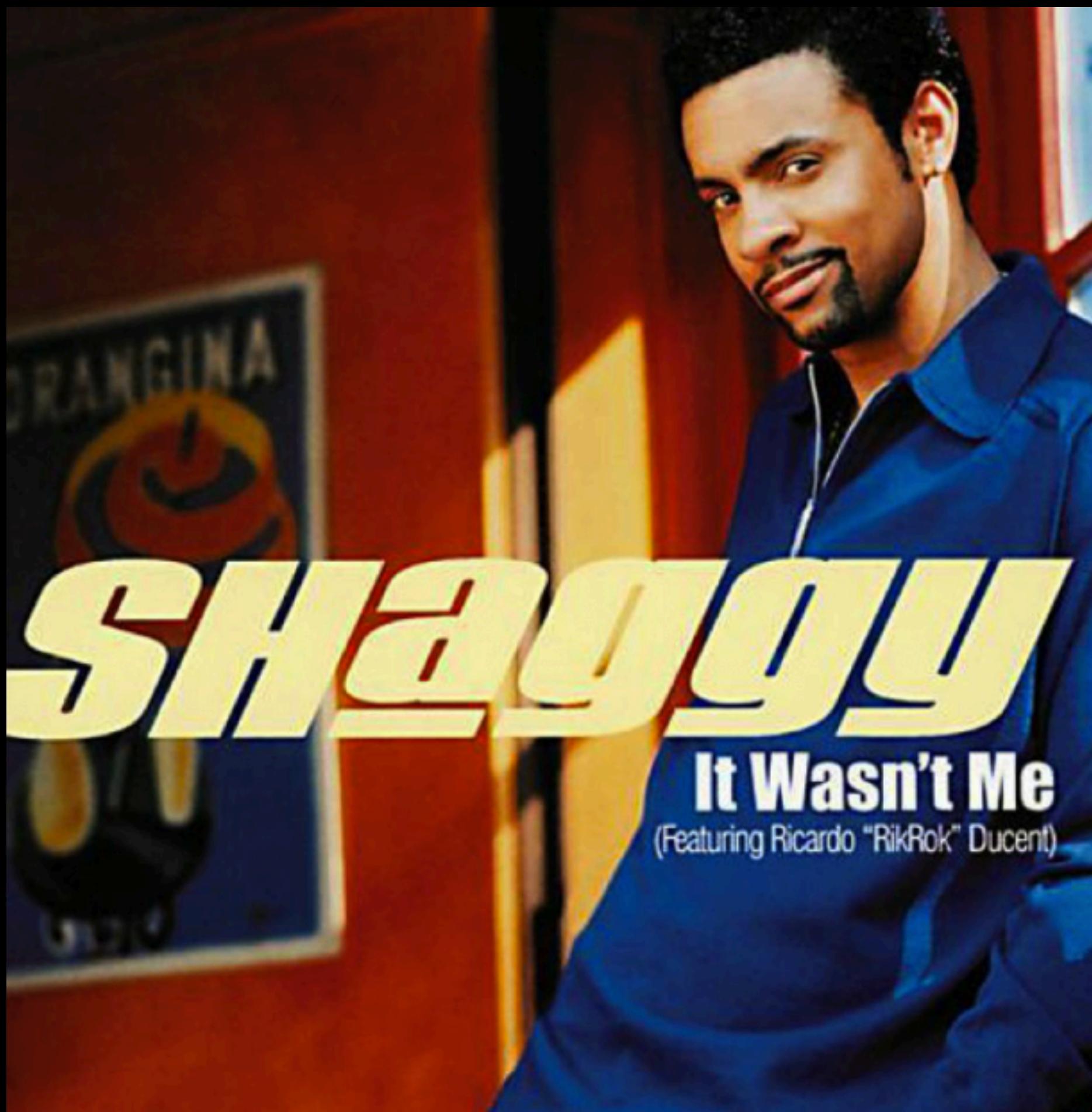
HTTP

I want your
Html and Javascript!



Here it is

2001



B&B Solutions Inc. SGI Reseller Microsoft Internet Explorer

File Edit View Favorites Tools Help
Address http://www.bbcsolutions.com/

B&B Solutions Inc.
Serving Customers Worldwide for Over 8 Years!

**B&B Solutions Inc. now offers:
Hardware Training Courses for
ALL SGI Workstations/Servers**

SGI

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• HOME

Visual Computer 

Silicon Graphics **Intergraph** **Digital/Compaq** **Enterprise Solutions**

Price Quote Form **SGI Systems & Parts!** **We buy SGI Equipment!** **Consignment Program**
Contact Us **Service, Support** **SGI Hardware Maintenance** **Corporate Overview**

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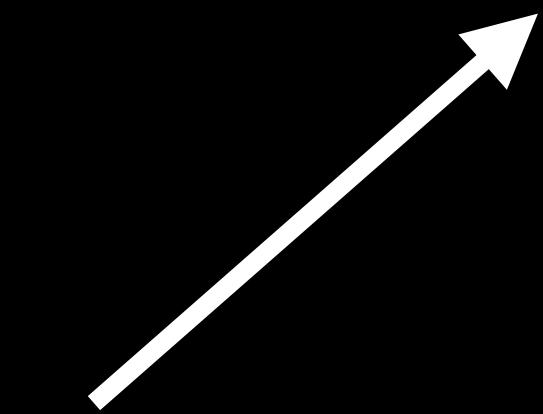
© 2000 B&B Solutions Inc.

My Computer

JavaScript



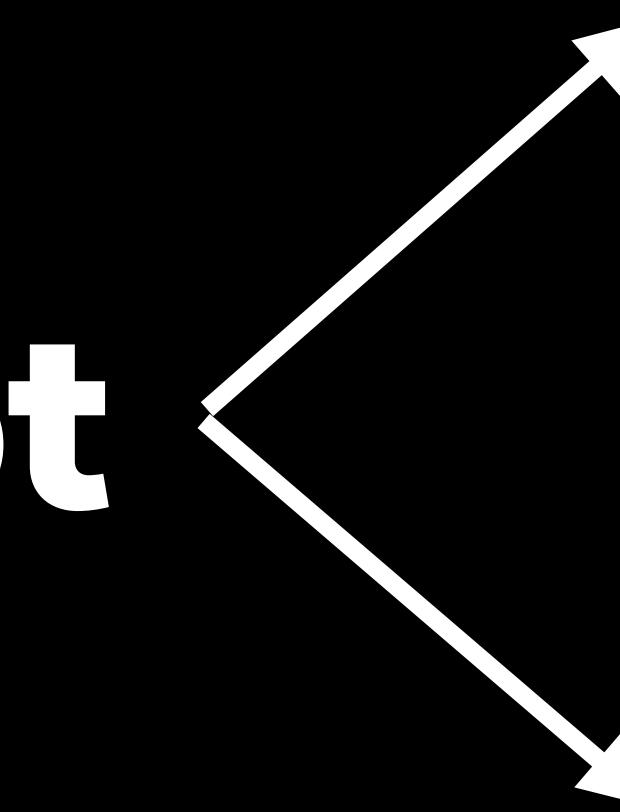
JavaScript



JScript



JavaScript



JScript

ECMAScript

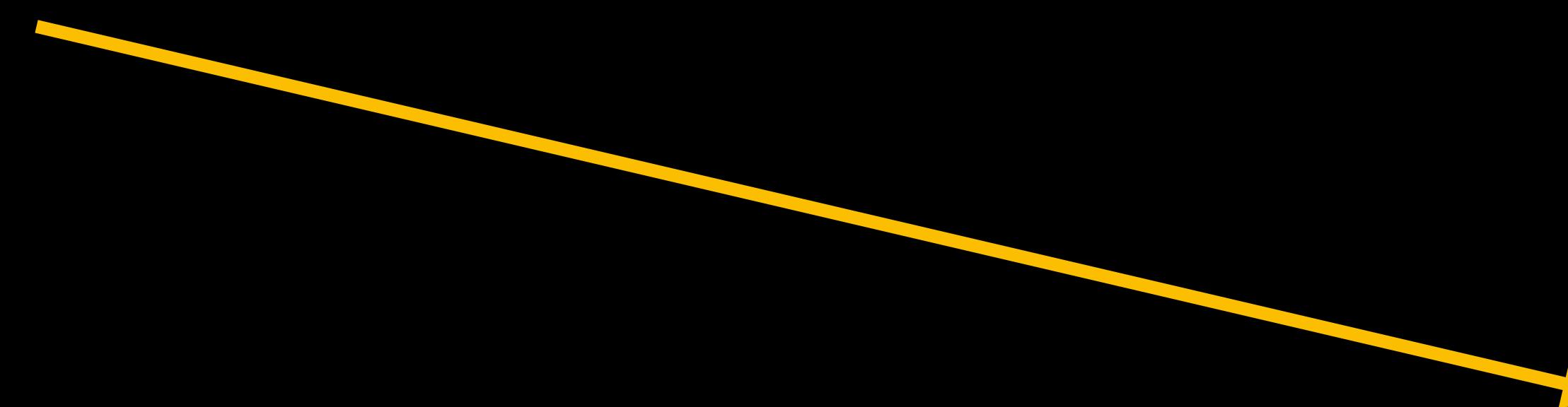




JScript



ECMAScript





JScript



ECMAScript







2007

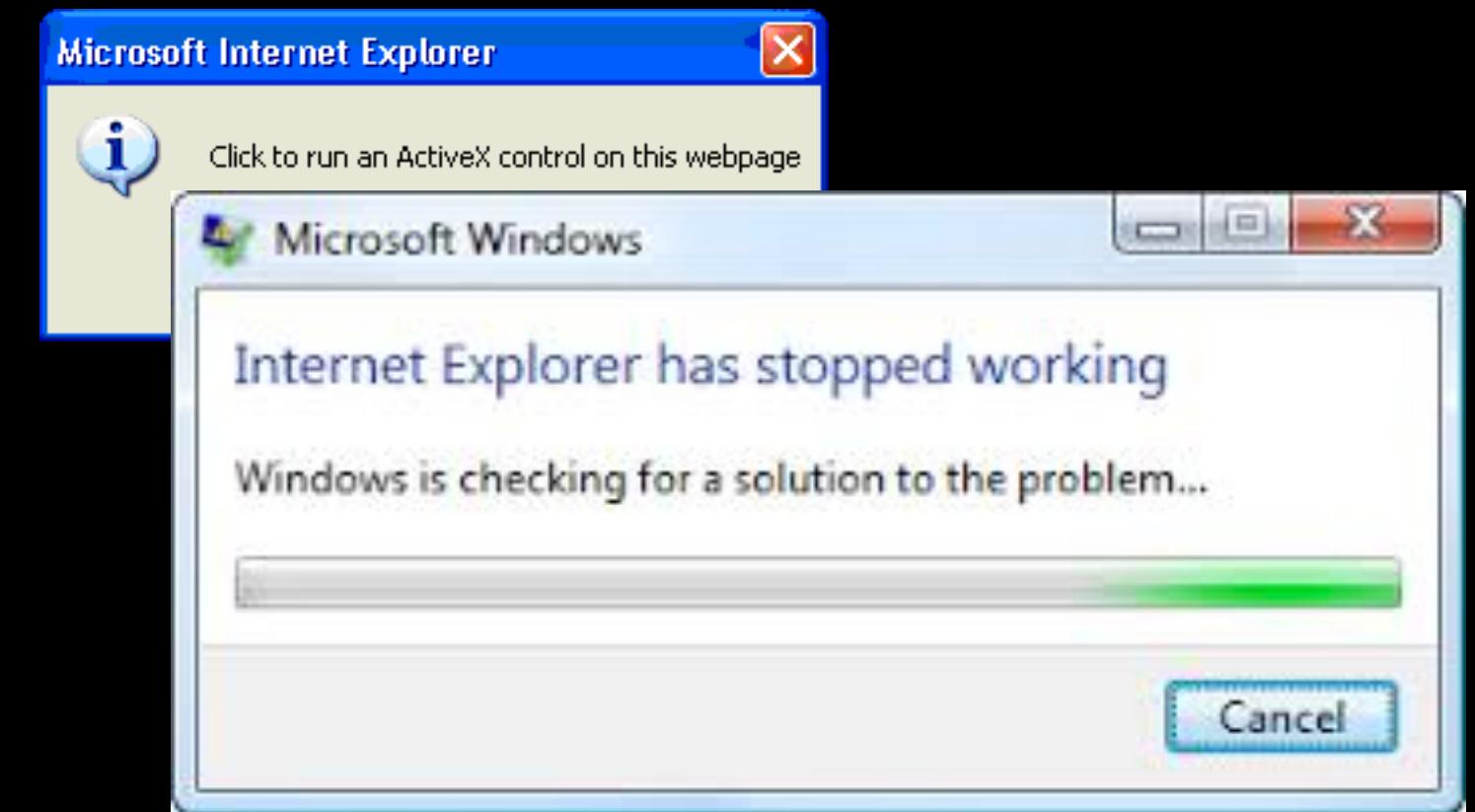


A screenshot of a Facebook profile page for "Matt Cahill". The profile picture shows a young man with short brown hair, wearing a dark t-shirt with a graphic on it. The main information section includes his name, "Matt Cahill", and his location, "Facebook Iowa State Alum Silicon Valley, CA". It also lists his email as "mcahill@facebook.com", AIM screenname as "lacuna arcana", and mobile number as "319.378.1965". The "Personal Info" section shows he is male and interested in women. His political views are listed as "Moderate" and his interests include "Web Design, Photography, Almost All Music, Tennis, Nintendo DS Lite". On the left, there is a sidebar with links to "My Profile", "My Friends", "My Photos", "My Notes", "My Groups", "My Events", "My Messages (7)", "My Account", and "My Privacy".





JScript



ECMAScript



2011

The image is a composite of two screenshots. On the left, a black and white photograph of Adele from her 'Someone Like You' album cover is shown. Overlaid on the bottom right of this photo is the text 'ADELE SOMEONE LIKE YOU'. On the right, a screenshot of a Twitter profile for the account '@Archer_Creative' is displayed. The profile picture shows a man and a woman. The bio reads: '@Archer_Creative multi-media storytellers. website and graphic design. video production. copywriters. cool people. also: @KarlaArcher and @RemyArcher Birmingham, AL - http://archercreative.com/andy-and-karla/'. The profile has 376 tweets, 445 following, and 324 followers. The timeline shows several tweets from the user, including one from Brian Gardner (@bgardner) and several from the user themselves (@Archer_Creative). At the bottom right of the image is the Node.js logo, which consists of the word 'node' in a stylized font followed by a hexagon containing the letters 'js'.

Archer Creative
@Archer_Creative
multi-media storytellers. website and graphic design. video production. copywriters. cool people. also: @KarlaArcher and @RemyArcher
Birmingham, AL - <http://archercreative.com/andy-and-karla/>

376 TWEETS
445 FOLLOWING
324 FOLLOWERS

Tweets

- Following
- Followers
- Favorites
- Lists
- Recent images

Tweets

- Brian Gardner @bgardner 1 hr
And this, my friends, is why you should NEVER download a theme from an unreliable source. #wordpress twitpic.com/7qw0vs
RT Retweeted by Archer Creative
View photo
- Archer Creative @Archer_Creative 6 Dec
Headed to location but first, scratching "beautiful morning sunrise" shot. #Rain =
5 Dec Crew Call tomorrow says I should be in bed ... 2.5 hrs ago! ... "facepalm" ~ r
- Archer Creative @Archer_Creative 24 Nov
Need hosting for your website? Dreamhost is running a special: \$9.24 for your first year and a domain name. [fb.me/1IY4qmldP](http://bit.ly/4qmldP)
- Archer Creative @Archer_Creative 24 Nov
Need hosting for your website? Dreamhost is running a special: \$9.94 for your first year and a domain name. [fb.me/1IY4qmldP](http://bit.ly/4qmldP)

Similar to you

- Nancy Jones @nancik
Following
- Ed Fields @Helexits-handed
Follow
- Birmingham Works! @BirminghamW...

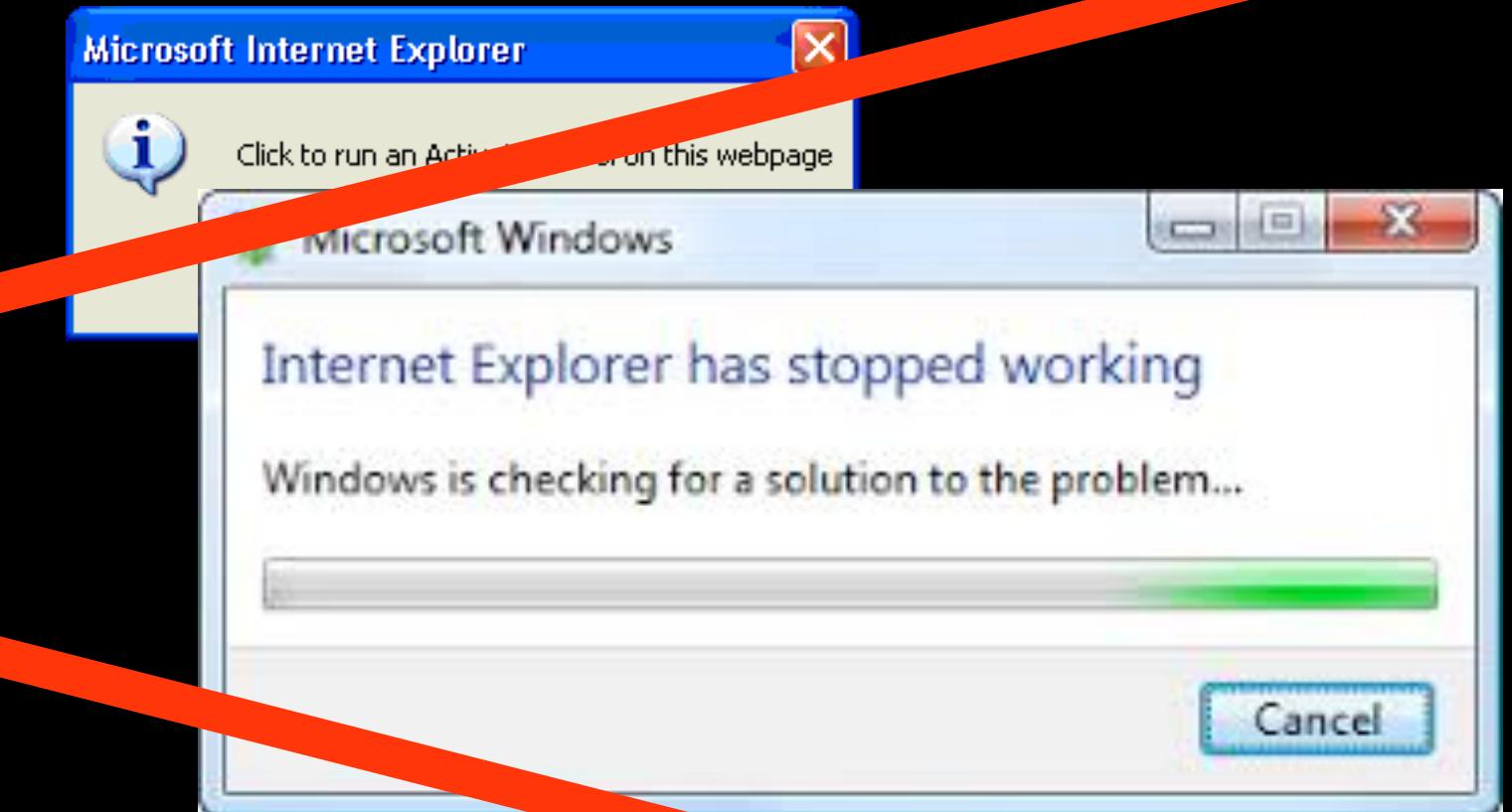
node.js™

2015





JScript



ECMAScript





ECMAScript



REMEMBER THESE THINGS!

JavaScript is old, but also very new

REMEMBER THESE THINGS!

JavaScript is old, but also very new

It looks like Java, but is very dissimilar

REMEMBER THESE THINGS!

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It is called JavaScript commonly, but is ‘actually’ called ECMAScript

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Versions of JavaScript are called es(x) ie es6 / es 2015

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Versions of JavaScript are called es(x) ie es6 / es 2015

Beware old JavaScript examples

REMEMBER THESE THINGS!

JavaScript is old, but also very new

It looks like Java, but is very dissimilar

It is called JavaScript commonly, but is ‘actually’ called ECMAScript

Versions of JavaScript are called es(x) ie es6 / es 2015

Beware old JavaScript examples

JavaScript is still evolving rapidly

THE LANGUAGE AND THE ENVIRONMENT

Programming language

A language for people to talk
about logic.

Programming language

**A language for people to talk
about logic.**

Computers speak binary

Programming language

A language for people to talk
about logic.

Environment

Turns the programming language
into binary

But what is the environment?

But what is the environment?

An application like any other

But what is the environment?



An application
for making music

But what is the environment?



An application
for making music



An application
for editing video

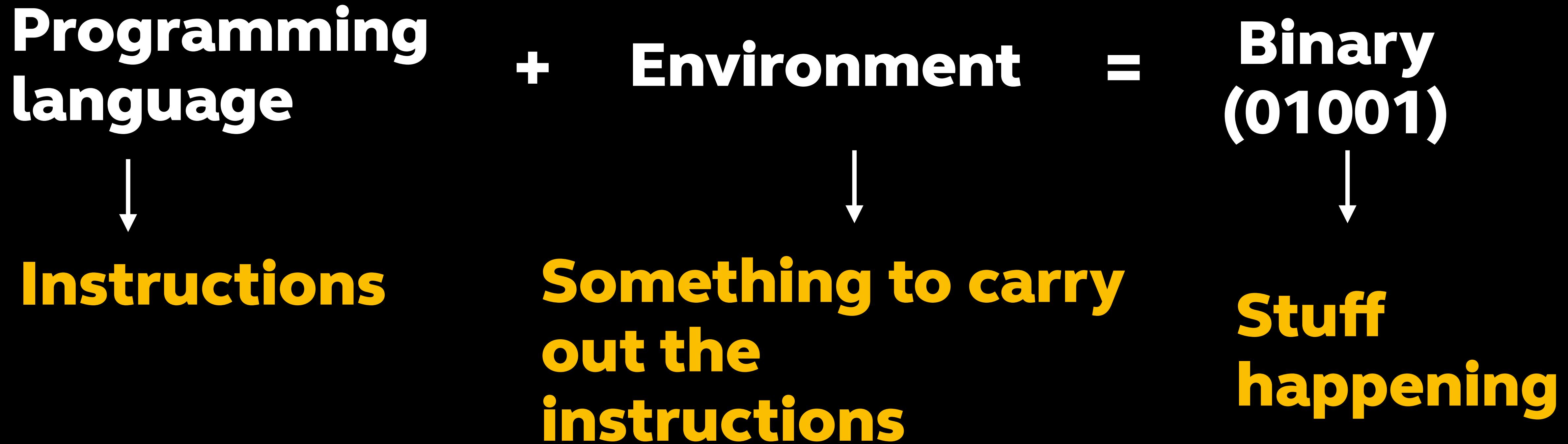
But what is the environment?

An application for making applications

Getting stuff done ...

Programming language + Environment = Binary (01001)

Getting stuff done ...





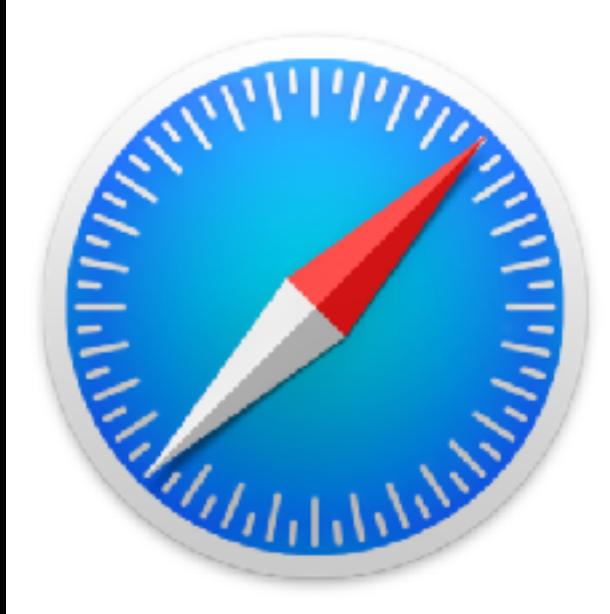
Here's a question ...

What is JavaScript's environment?

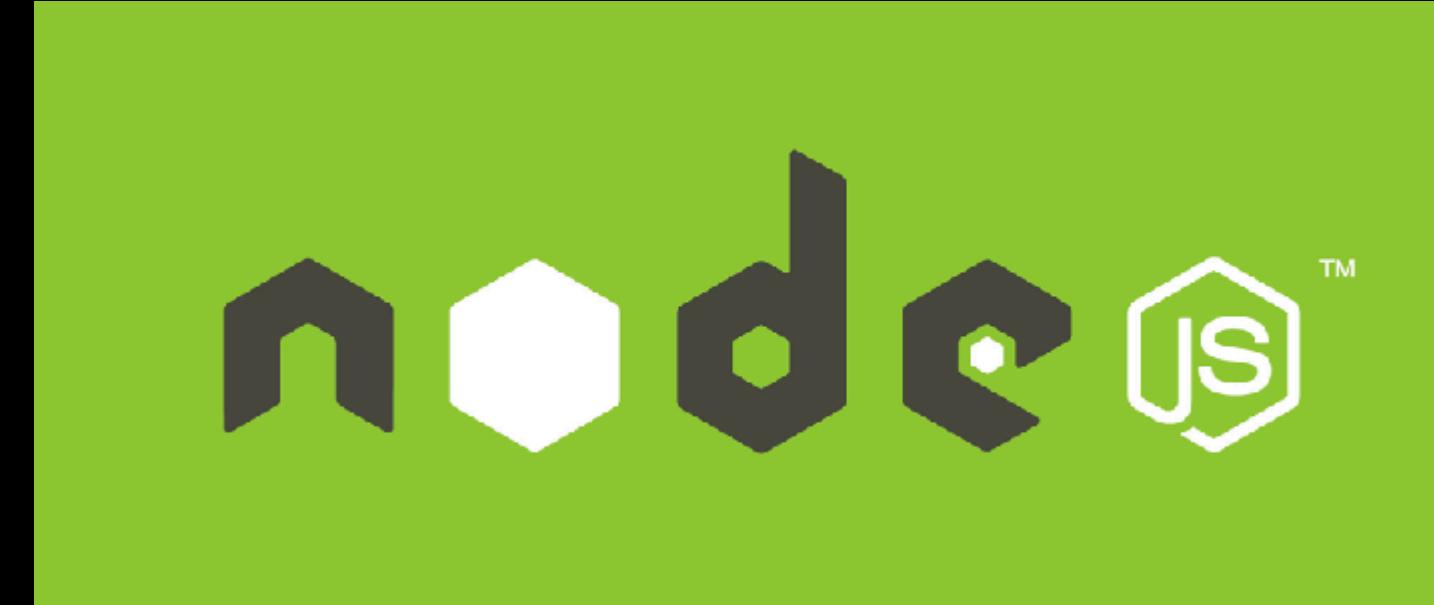
What is Javascript's environment?

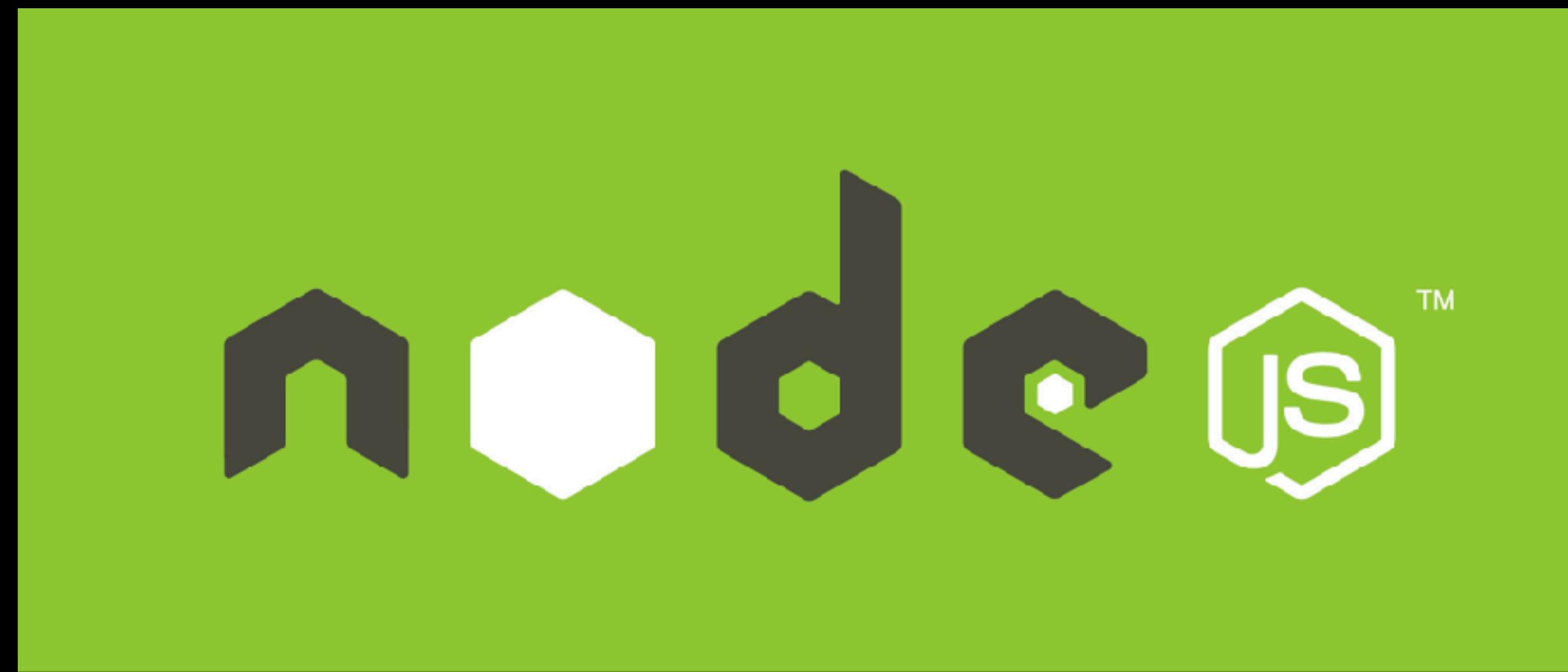


What is Javascript's environment?



or





Let's write some code!

Almost ...

Recap

What is a programming language?

Recap

What is a programming language?

What does the environment do?

Recap

What is a programming language?

What does the environment do?

What is JavaScript's environment?

Let's go ...

Let's code

Start Cloud 9

Open the terminal

type node -h

The command line

node



Program you
want to run

-h



What that program
should do

Try this...

Try this...

Get the version of node

Try this...

Get the version of node

(Hint: there's a command for this
in the help file)

Get the version of node answer

```
type node -v
```

Start node in REPL

type node

Your first line of JavaScript

```
type console.log('hello world')
```

What's going on?

```
console.log('hello world')
```

Object
(a collection of stuff
kind of like a folder)

Function
(an action in that Object)

Argument
(some thing for the
function to act with)

Language + **Environment**

```
console.log('hello world');
```



```
console.log('Date.now()');
```





save as => hello_world.js

There nothing up our sleeves



Run your file

File > upload local file

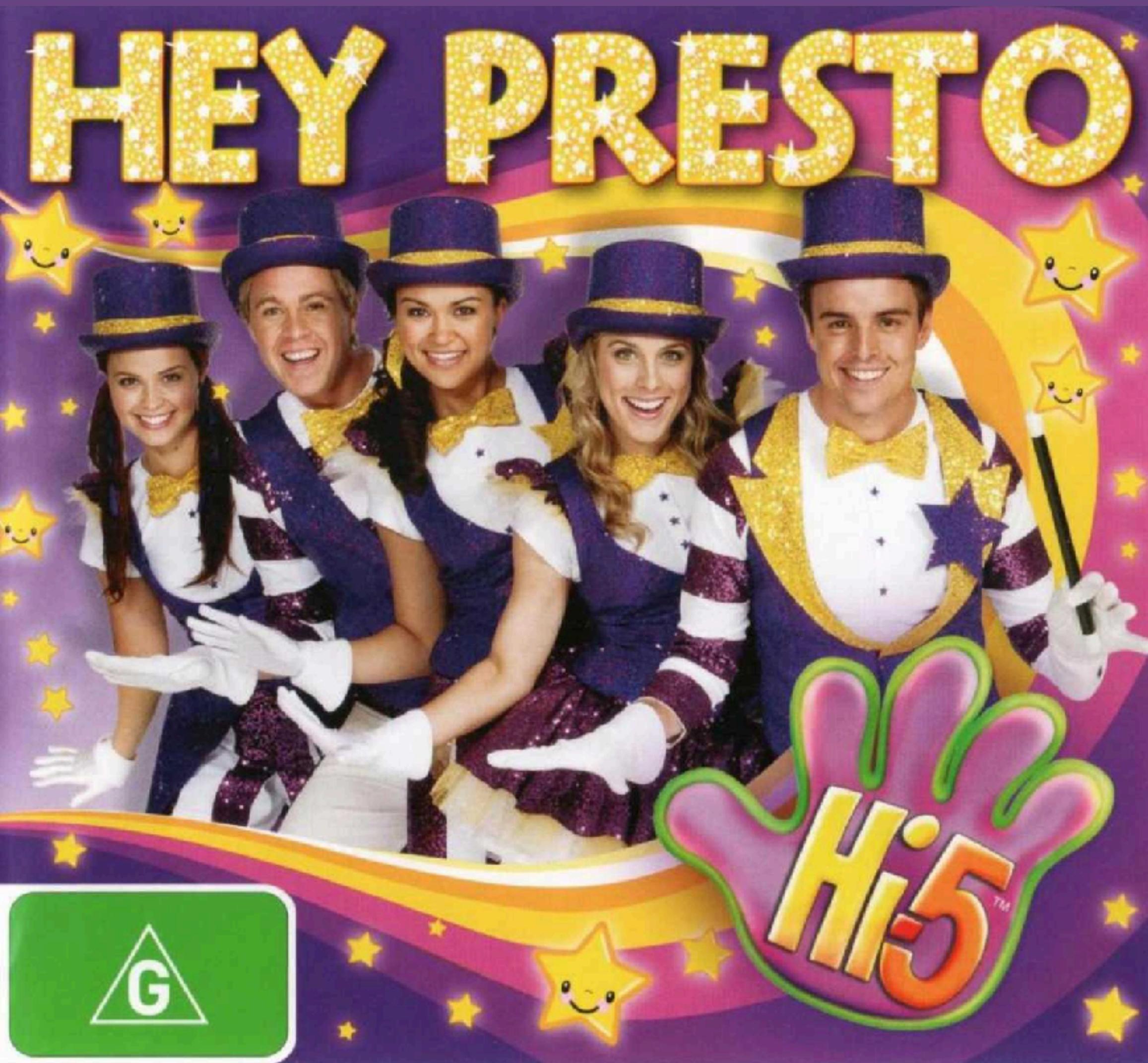
type node hello_world.js

Run your file again!

press alt + c

press up arrow

press enter



Recap

We learnt what we are trying to achieve

We about where JavaScript has come from

**We learnt about the relationship between a language
and an environment**

We learnt how to run node from the command line

We ran our first functions in JavaScript

Next Time

Functions

What to do before then

- 1. Install Node on your home computer**
- 2. Work through codecademy introduction to Javascript parts 1 - 3**
- 3. Run today's script**
- 4. Run codecademy example in node**