

Digital Culture

A brief history of the Internet and today's digital landscapes

The Independence of Cyberspace

A Declaration of the Independence of Cyberspace

A Declaration of the Independence of Cyberspace

by John Perry Barlow

Governments of the Industrial World, you weary giants of flesh and steel, I come from Cyberspace, the new home of Mind. On behalf of the future, I ask you of the past to leave us alone. You are not welcome among us. You have no sovereignty where we gather.

We have no elected government, nor are we likely to have one, so I address you with no greater authority than that with which liberty itself always speaks. I declare the global social space we are building to be naturally independent of the tyrannies you seek to impose on us. You have no moral right to rule us nor do you possess any methods of enforcement we have true reason to fear.

Governments derive their just powers from the consent of the governed. You have neither solicited nor received ours. We did not invite you. You do not know us, nor do you know our world. Cyberspace does not lie within your borders. Do not think that you can build it, as though it were a public construction project. You cannot. It is an act of nature and it grows itself through our collective actions.

You have not engaged in our great and gathering conversation, nor did you

"Governments of the Industrial World, you weary giants of flesh and steel, I come from Cyberspace, the new home of Mind. On behalf of the future, I ask you of the past to leave us alone. You are not welcome among us. You have no sovereignty where we gather.

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"Our choice is not between "regulation" and "no regulation." The code regulates. It implements values, or not. It enables freedoms, or disables them. It protects privacy, or promotes monitoring. People choose how the code does these things. People write the code.

Thus the choice is not whether people will decide how cyberspace regulates. People — coders — will. The only choice is whether we collectively will have a role in their choice — and thus in determining how these values regulate — or whether collectively we will allow the coders to select our values for us."

Question

How is the Internet (and to a larger extent the web) regulated today?

The Development of Computing

The Pascaline

First mechanical calculator

1642

Blaise Pascal



Babbage's machine

First programming algorithm

1843

Ada Lovelace

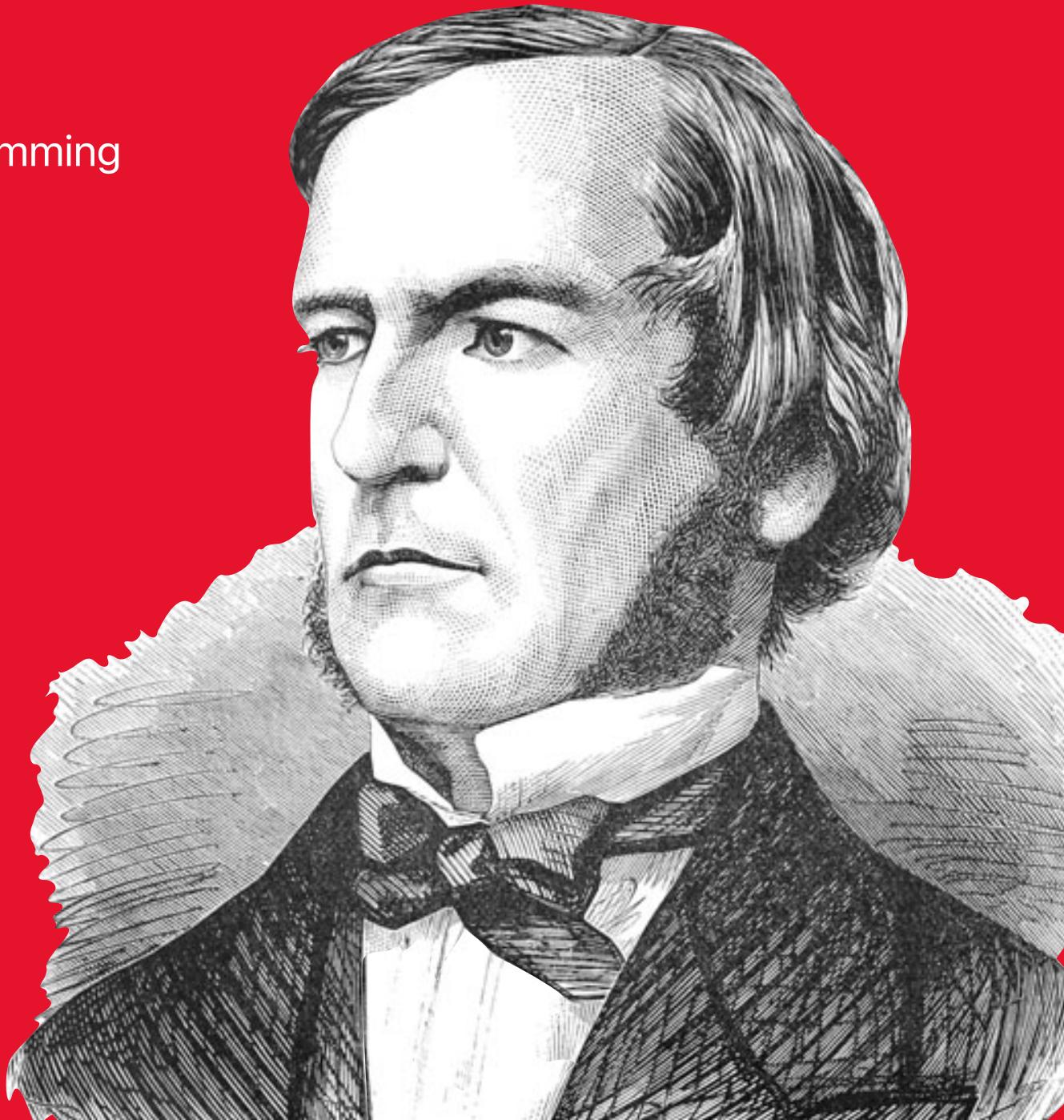


Boolean logic

Invention of the programming language

1850

George Boole

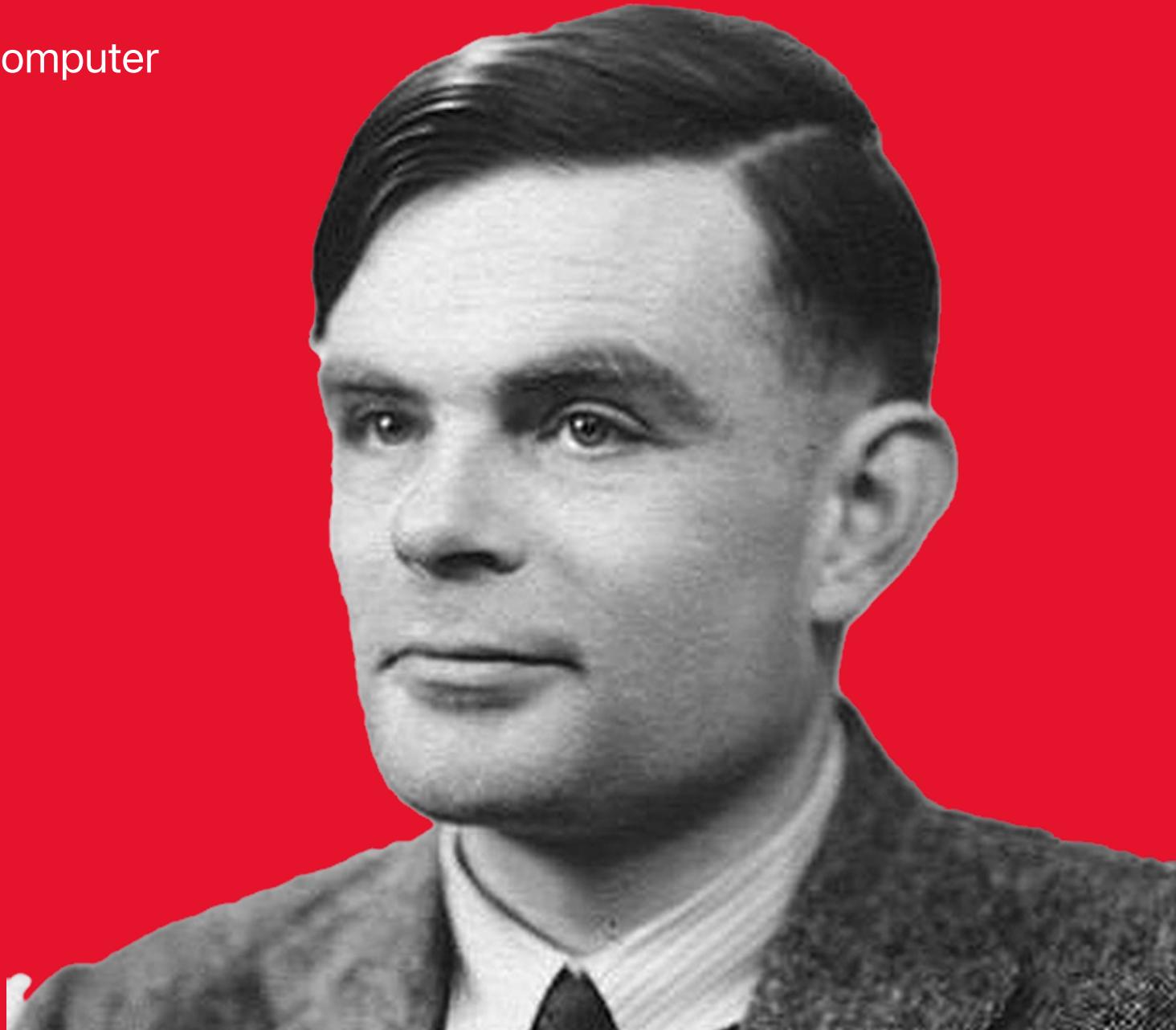


Mathematical father of computing

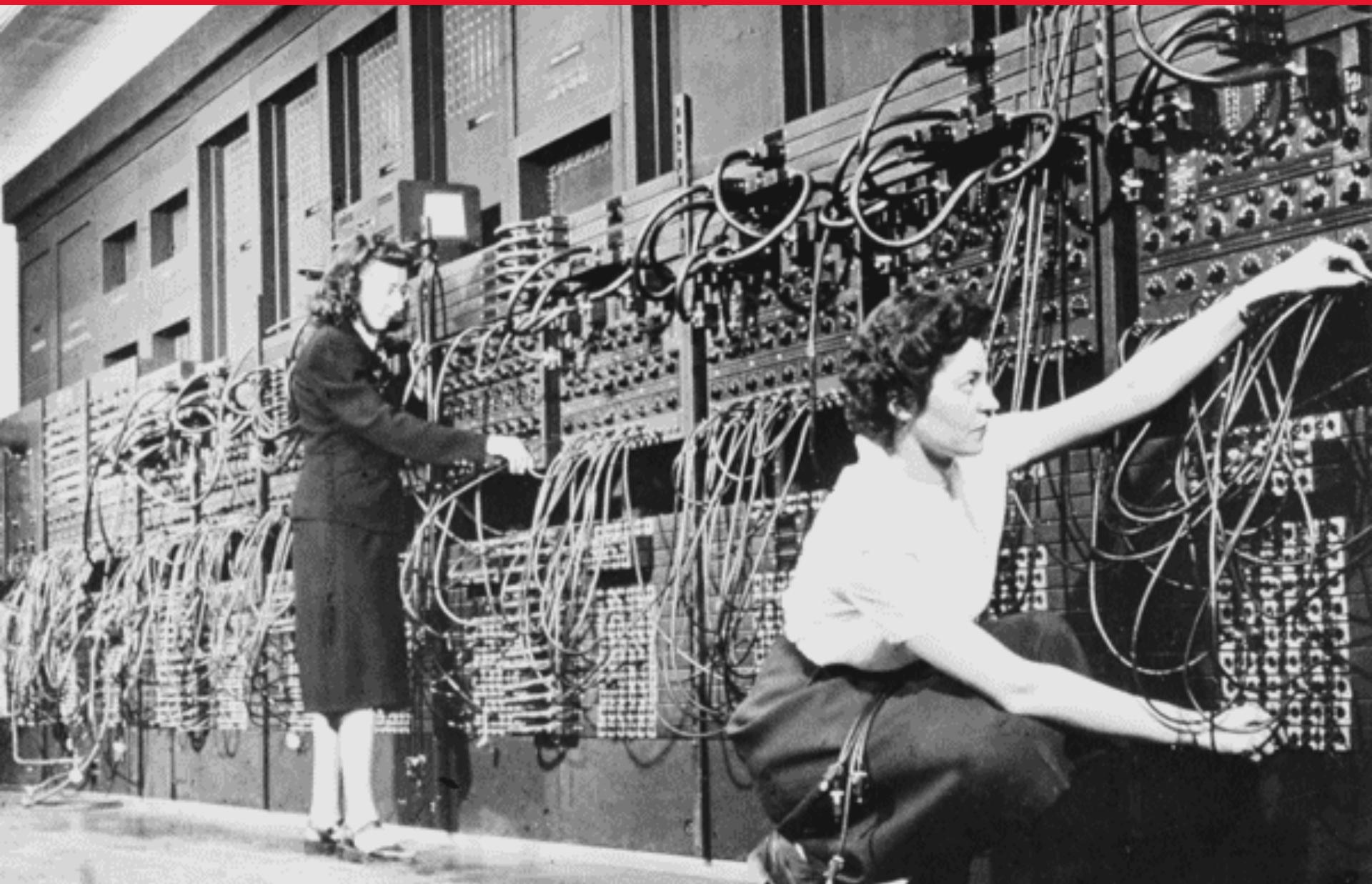
Invention of the computer

1937

Alan Turing



ENIAC



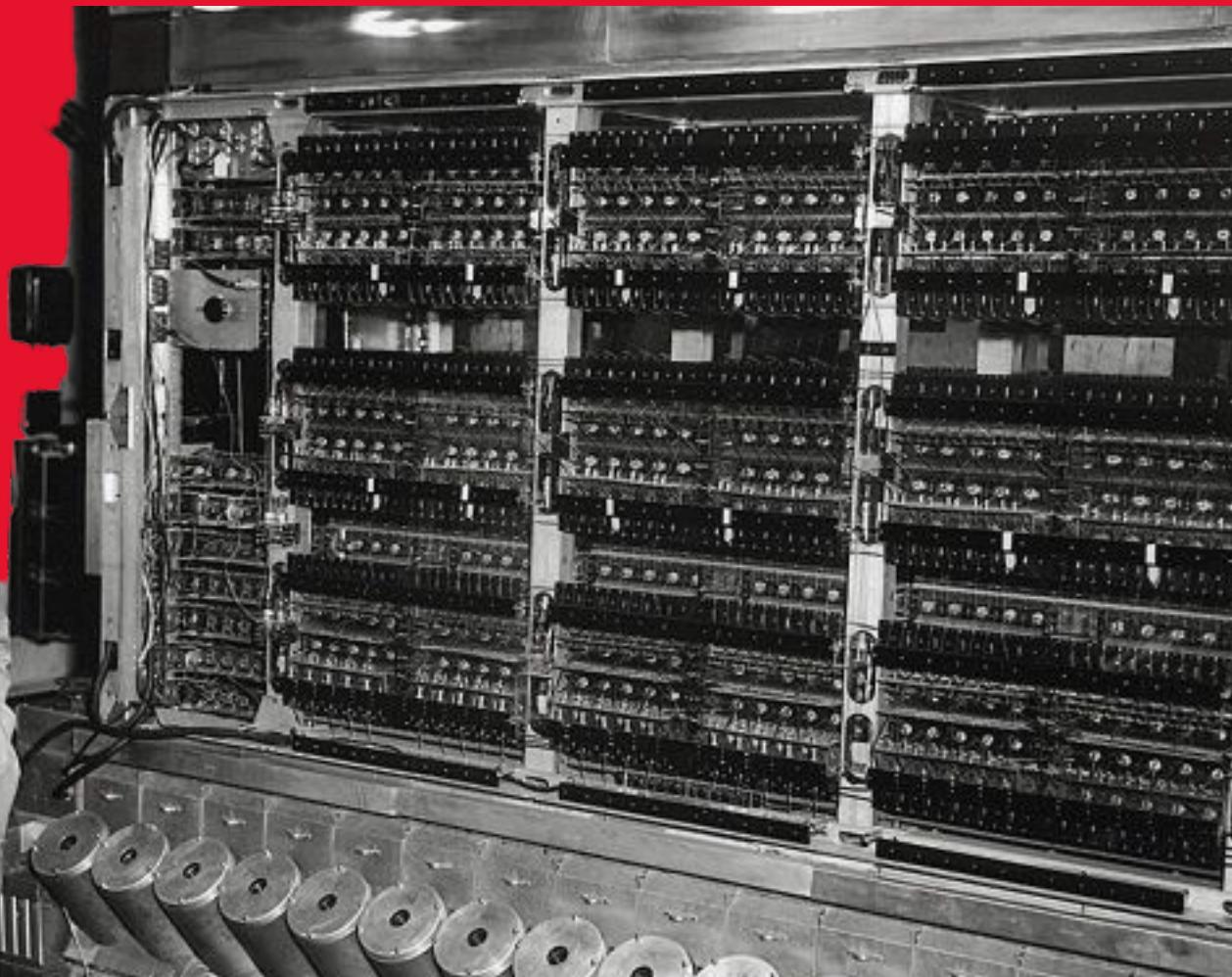
Source: Records of the U.S. Information Agency, 1900 - 2003

Technical father of the computer

Invention of the EDVAC (Electronic Discrete Variable Automatic Computer)

1951

Eric Von Neumann



Key Points

The development of computing is:

- a long-standing history
- fuelled mostly by mathematical and technological advances
- from its early developments, deeply linked with military endeavours

ARPA and Decentralised Networks

Tension Points

As John Perry Barlow's Declaration underpins, there is a tension between:

- on the one-hand, the pioneers' vision of the Internet and the cyberspace, which is very libertarian
- on the other, today's Orwellian fear of the control the Internet and technological advances have over us

Internet vs. The Web



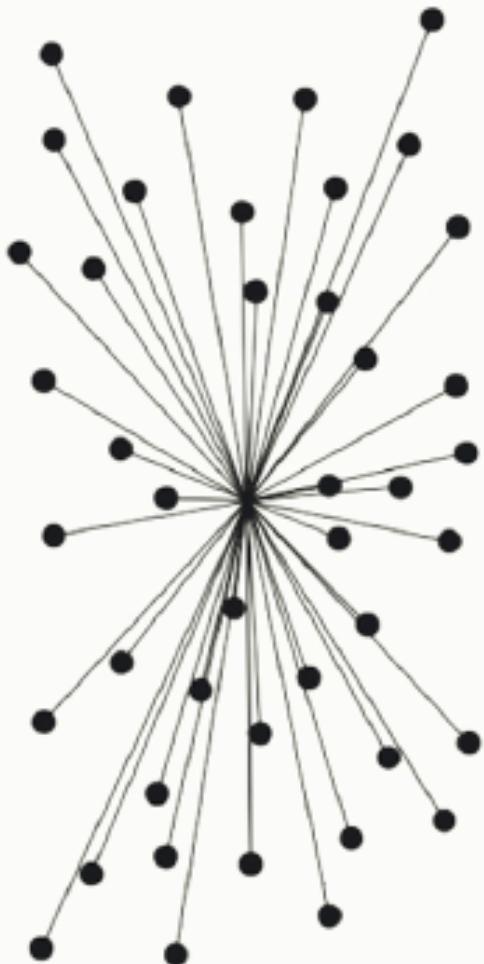
Head of the ARPA/DARPA Initiative

1958

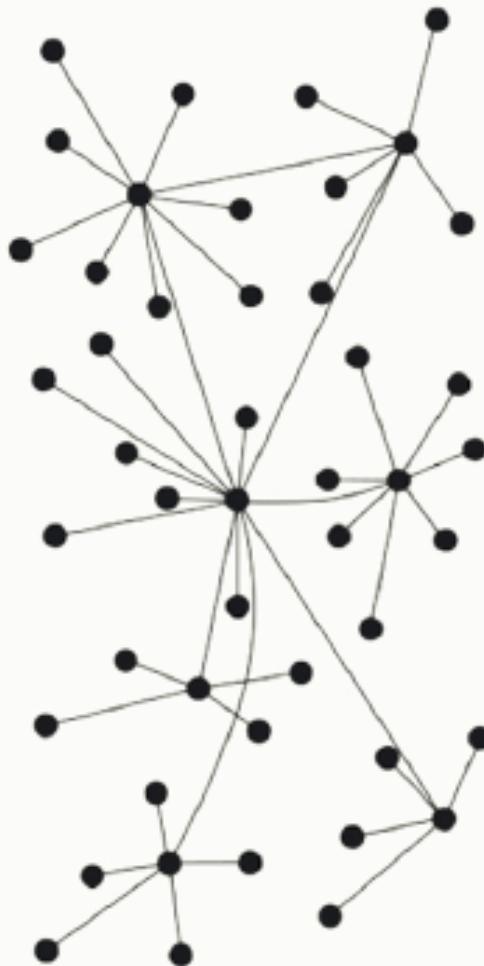
Joseph Licklider



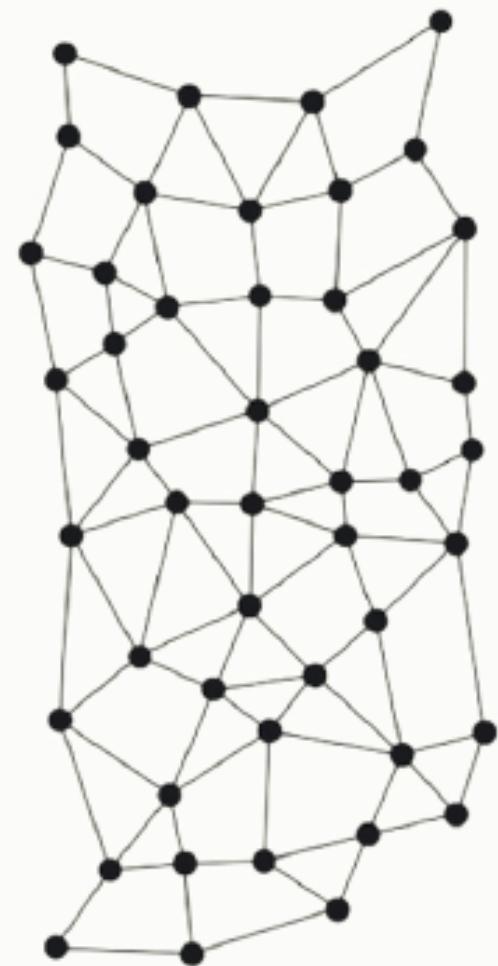
Paul Baran's Diagrams of Networks



Centralised (A)



Decentralised (B)



Distributed (C)

Question

What are the key differences with a distributed network?

National Science Foundation Network (NSFNet)

Physical Initial NSFNET Topology



Center for Cartographic Research and Spatial Analysis, Michigan State University, 2/88

Cooperation and Hackers

Steve Crocker's Request For Comments Feature

Title: Host Software

Author: Steve Crocker

Installation: UCLA

Date: 7 April 1969

Network Working Group Request for Comment: 1

Three Important Regulating Instances

- Internet Engineering Task Force (IETF)
- Internet Corporation for Assigned Names and Numbers (ICANN)
- World Wide Web Consortium (W3C)

The Hippie Contribution

Mathematical father of computing

Invention of NLS (oN-Line System)



1968

Doug Engelbart

The Development of the Personal Computer



A Political Lesson from this History

Key Legacy Points

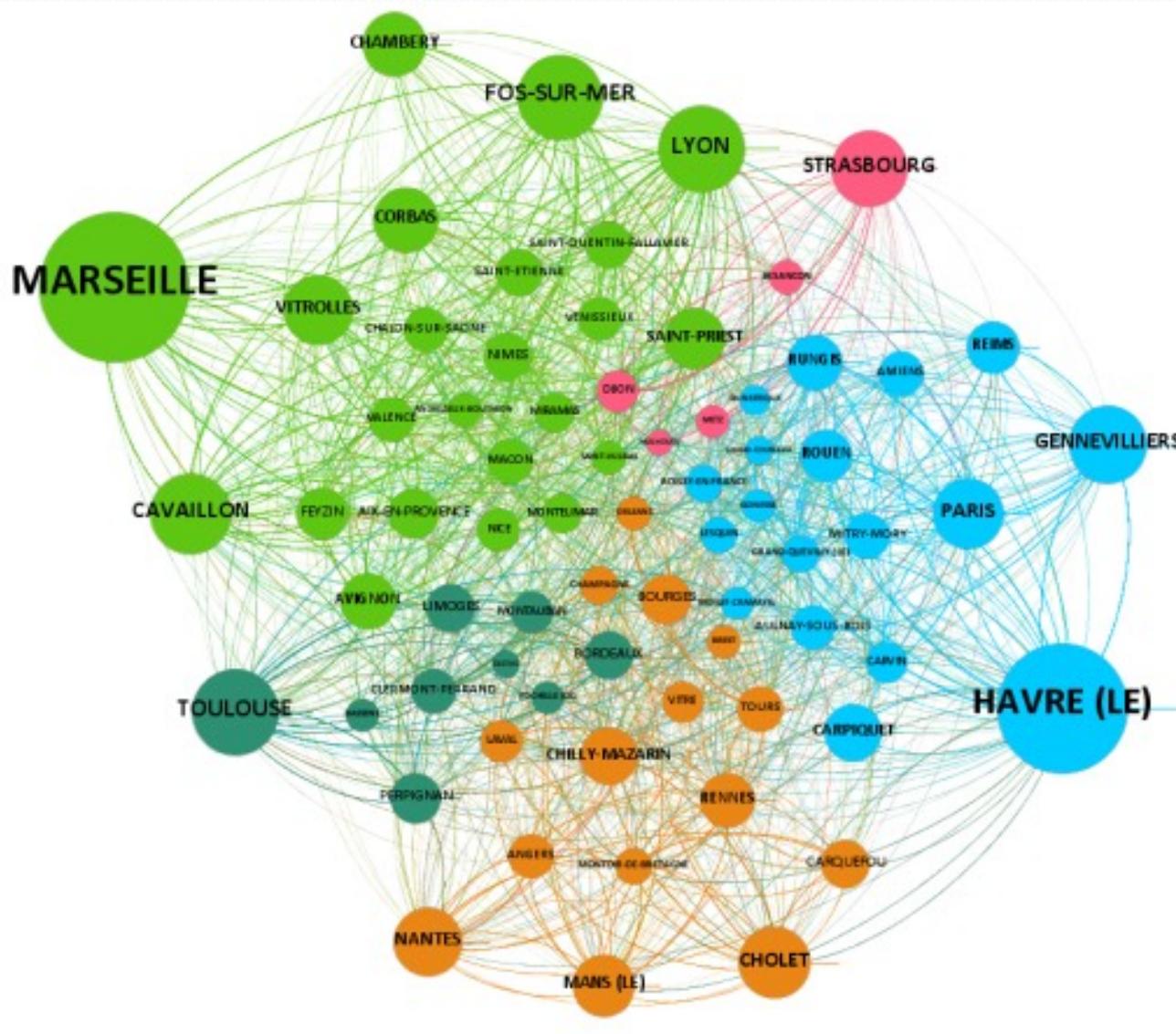
- Internet was built on a promise of emancipation of the individuals
- Internet values communities of exchange
- Internet values social change by connected individuals
- Internet was built on a mistrust of the state — not the market economy

Historical Sociology Interpretation

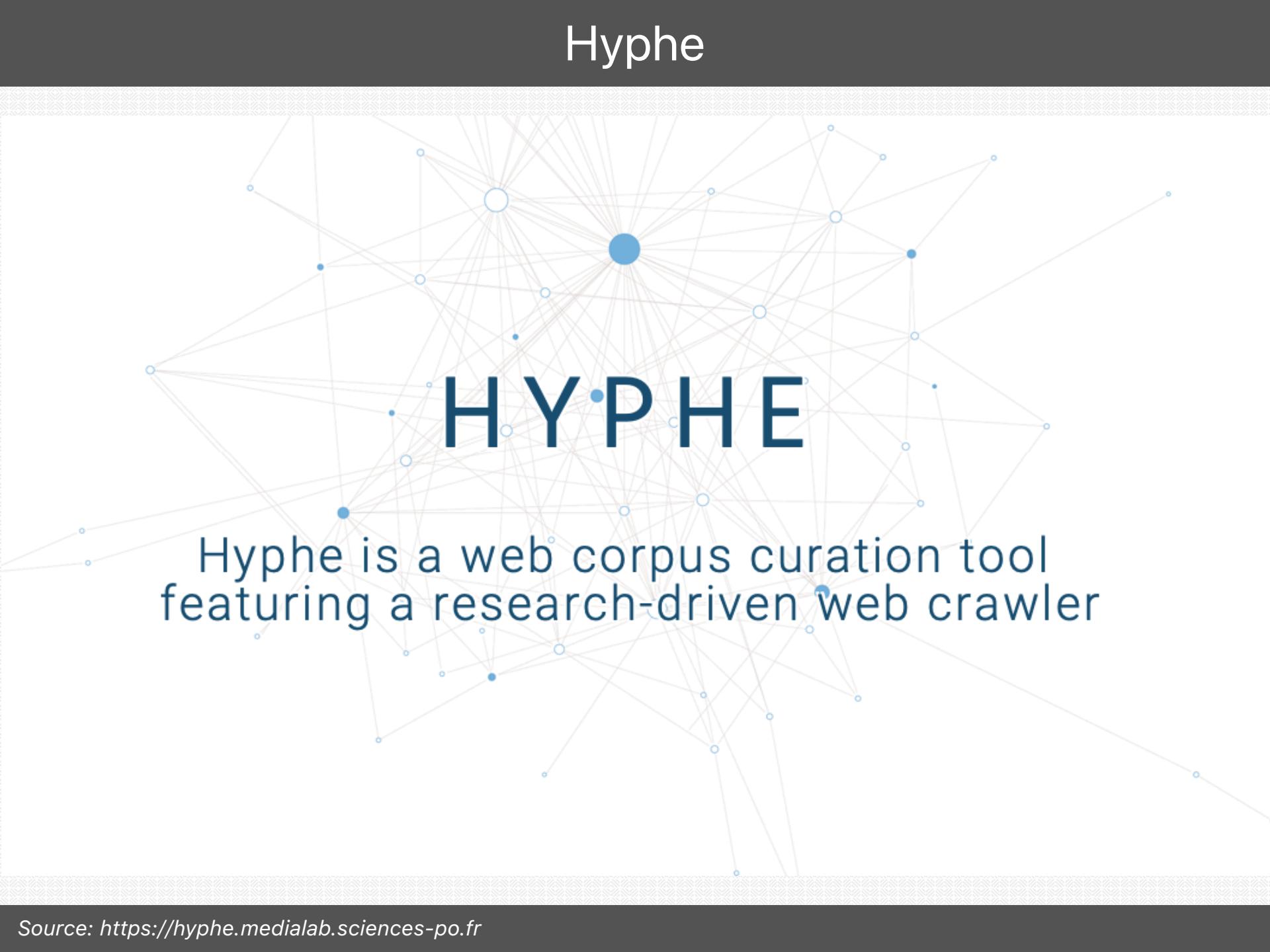
- Important social crisis in the 1960s
- Challenge to the distribution of capital and labour
- A process of transformation - or reinvention - of the forms of capitalism

Tools for Digital Explorations

Gephi



Hyphe



HYPHE

Hyphe is a web corpus curation tool
featuring a research-driven web crawler

YouTube Data Tools

YouTube Data Tools

[blog](#) [software](#) [research](#) [DMI](#) [about](#)

[Home](#) | [Channel Info](#) | [Channel Search](#) | [Channel Network](#) | [Video List](#) | [Video Network](#) | [Video Info](#) | [FAQ](#)

This is a collection of simple tools for extracting data from the YouTube platform via the [YouTube API v3](#).

For some context and a small introduction, please check out this [blog post](#).

Each of the modules has a basic description of how it works, there is a [FAQ](#) section with additional information, and an [introductory video](#).

To learn more about how we handle data, please read our [privacy policy](#).

If you use this tool in a scientific publication, please cite it, e.g. in APA style: Rieder, Bernhard (2015). YouTube Data Tools (Version 1.23) [Software]. Available from <https://tools.digitalmethods.net/netvizz/youtube/>.

Modules

[Channel Info](#)

This module retrieves different kinds of information for a channel from a specified channel id.

[launch](#)

[Channel Search](#)

This module searches for channels relevant to a user query.

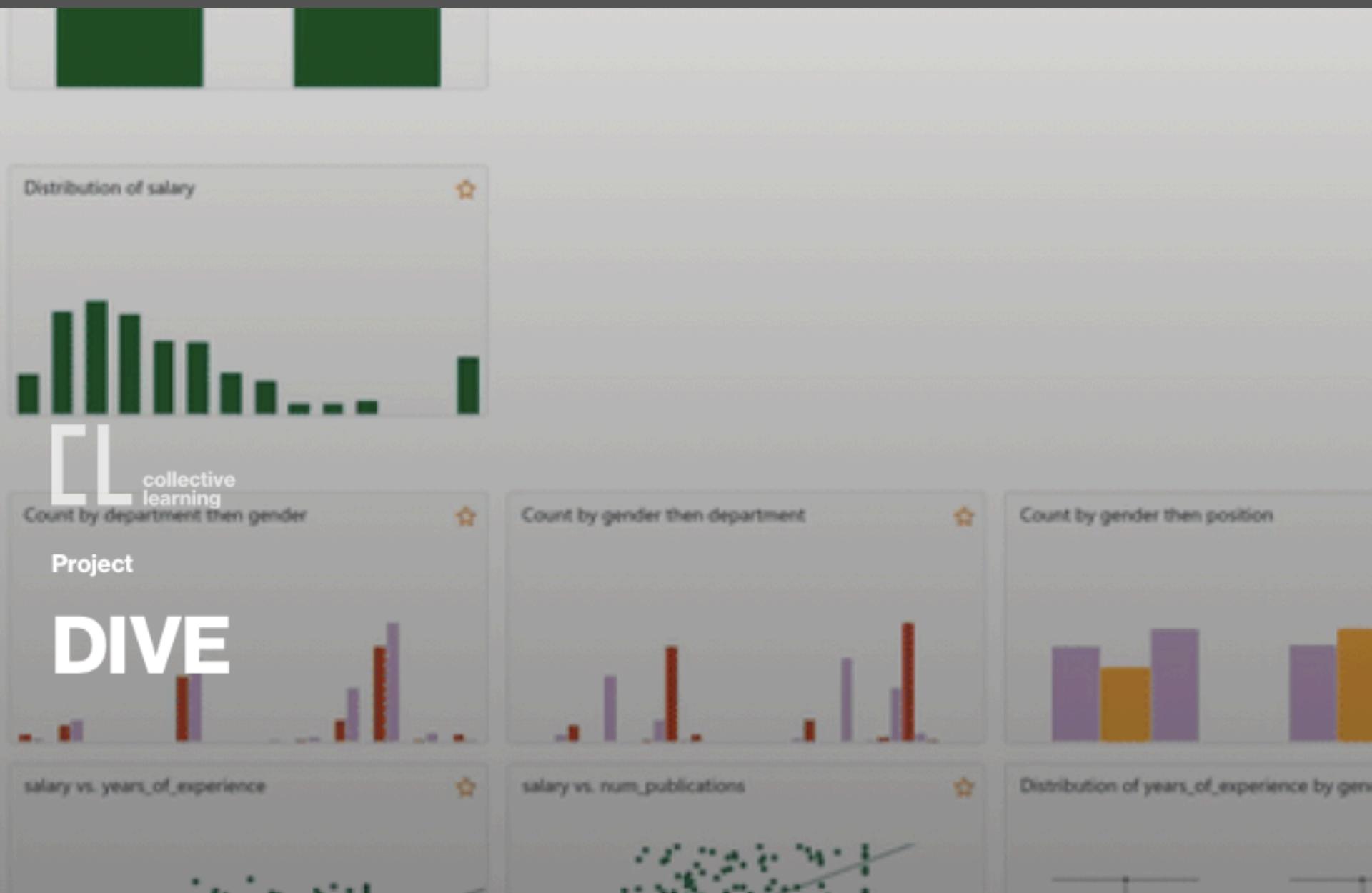
[launch](#)

[Channel Network](#)

This module crawls a network of channels connected via the "featured channels" (and via subscriptions) tab from a list of seeds. Seeds can be channels retrieved from a search or via manual input of channel ids.

[launch](#)

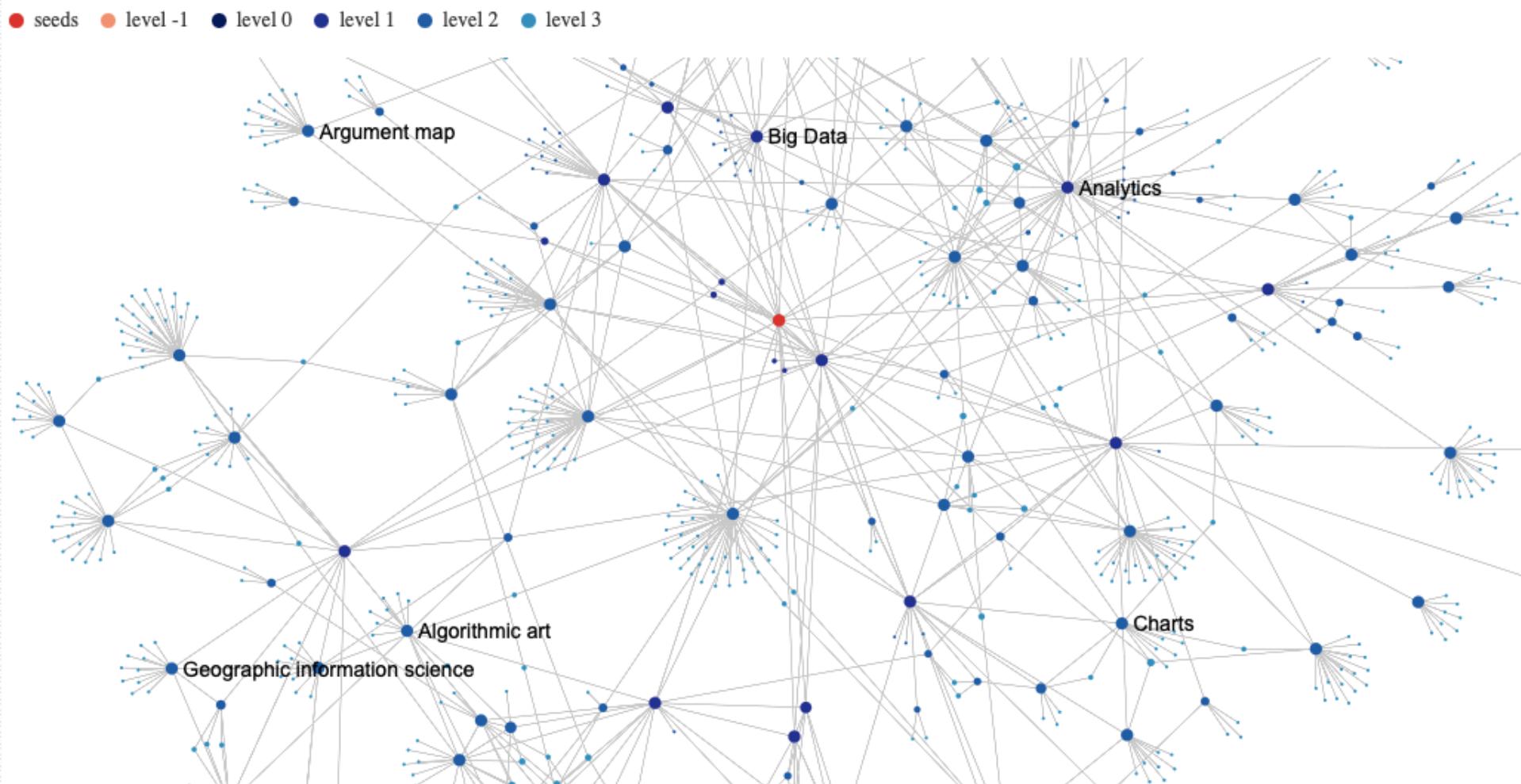
Dive



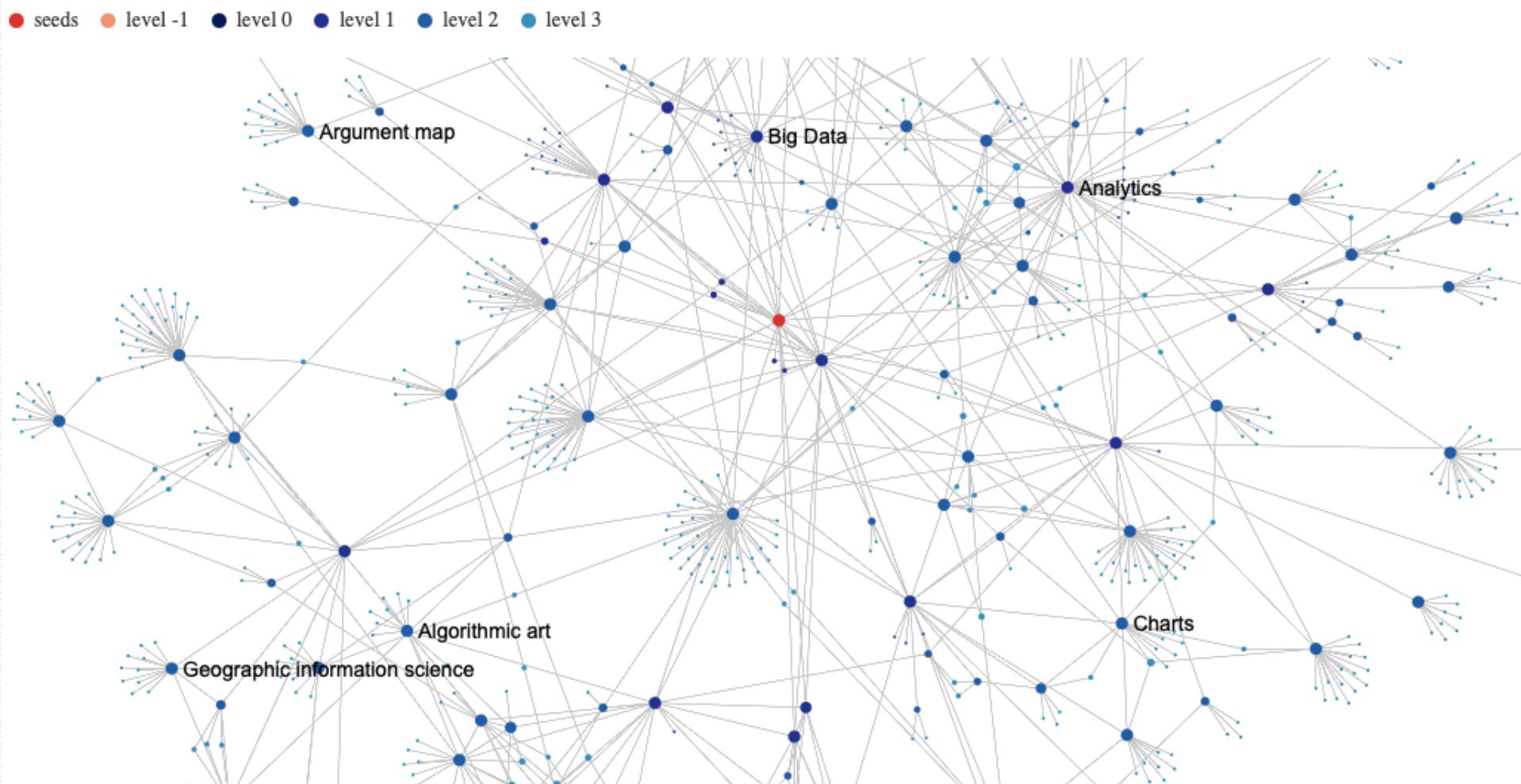
Tableau



Seealso



Seealso



[data.gouv.fr](https://www.data.gouv.fr)



Liberté • Égalité • Fraternité
RÉPUBLIQUE FRANÇAISE

data.gouv.fr

Example of Digital Exploration

Example of Digital Exploration

Introduction

On average, students at SciencesPo Le Havre campus answered that **67%** of all student communications happen on WhatsApp

Increasingly, our communications have become digital, and the SciencesPo Le Havre campus is no exception.

But as the above signifies, “digital communication” does not just happen anywhere. It is concentrated on certain platforms.

Then, why or how did the communication platforms get chosen?

What do these platforms do to the ways we communicate?

These are the questions we set out to investigate.

Methodology

Ideas of Digital Exploration

Ideas of Digital Exploration

Homework

- watch code.org's video on how the Internet works
 - <https://www.youtube.com/watch?v=kBXQZMmiA4s>
- watch Yochai Benkler's video on the Shared Economy:
 - <https://www.youtube.com/watch?v=mBF-GFDaCpE>
- think about how users with different social backgrounds may use the Internet differently

To go further

WALTER ISAACSON

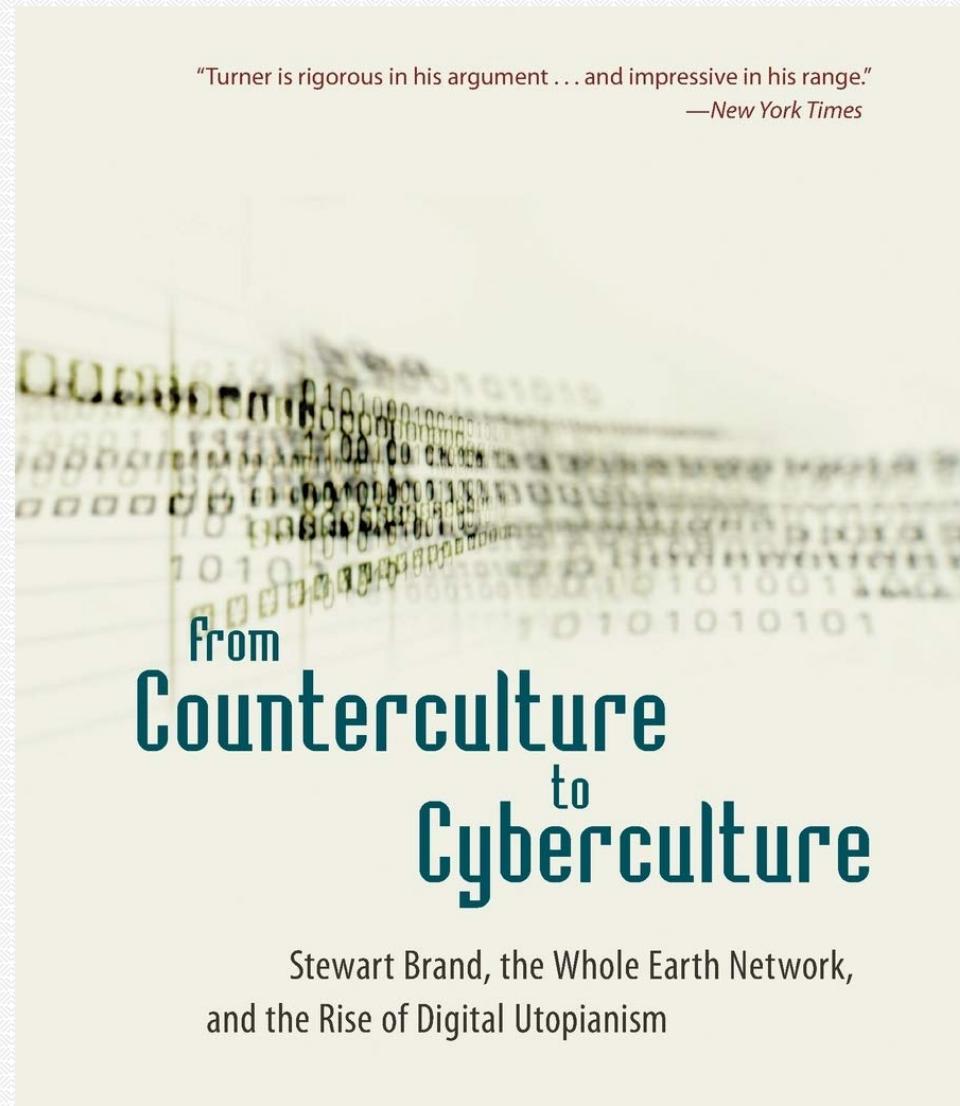
author of **Steve Jobs**

"A stirring reminder of what Americans
are capable of doing when they think big,
risk failure, and work together."

—*The Atlantic*

the
innovators
how a group of

To go further



Source: Turner, F. (2021). *From counterculture to cyberspace*.

Thank you!