

What digital methods are we talking about?

Janna Joceli Omena

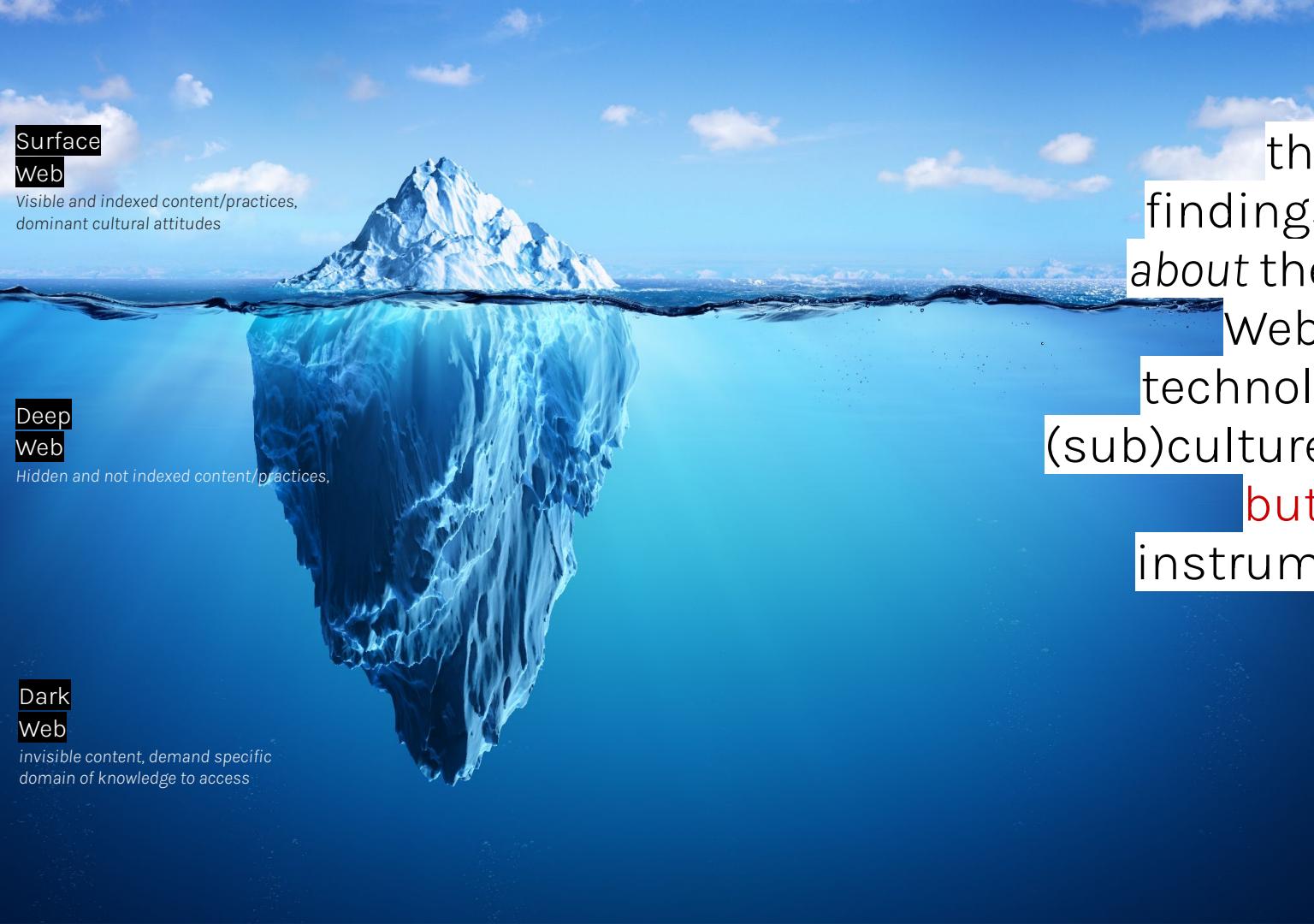
King's College London

What digital methods are we talking about?

Introduce a definition

Unpack digital methods

- 1 Theoretical-Practical Foundations
- 2 Technical Fieldwork and Practices
- 3 Methods Schools & Software Co-Development



Surface Web

Visible and indexed content/practices,
dominant cultural attitudes

Deep Web

Hidden and not indexed content/practices,

Dark Web

Invisible content, demand specific
domain of knowledge to access

Methods that ground findings with and about the Internet, Web data and technologies and (sub)cultures of use - **but not** in an instrumental way

understanding how

DOMINANT PLATFORMS, WEB TECHNOLOGIES

(search engines, social media,
GenAI apps, crawling, scraping, APIs)

DIGITAL OBJECTS

(URLs, hashtags, web entities)

RESEARCH SOFTWARE

(King's 4CAT, Memespector-GUI, Gephi)

integrates into research methods

The knowledge
mobilised by the
medium and
digital objects is
taken seriously

Thinking the

**DOMINANT PLATFORMS,
WEB TECHNOLOGIES**

(search engines, social media,
GenAI apps, crawling, scraping, APIs)

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**TOPIC UNDER
INVESTIGATION**

OBJECT OF STUDY

along with

computational media

Digital methods are not

the migration of existing
methods to online

(Rogers, 2015; Venturini & Latour, 2019)

*Doing stuff with data; a
question of “more” data*

(Omena, 2021; Venturini, 2024)

the mastering of
“ready-made”
packages methods

(Marres, 2017)

Digital methods are a particular form of research practice that is crucially situated in the technological environment that it explores and exploits.

Omena (2021).

web infrastructures, platforms,
applications, data, cultures of use



Web 1.0
read-only
static



Web 2.0
read-write
interactive



Web 3.0
read-write-trust
verifiable

The inevitable proximity with platform
mechanisms, AI and software/tools

Topic under investigation

Brazilian protests against and in favour of the impeachment of President Dilma Rousseff



Anti-impeachment protests,
13 March 2016.

#vemprademocracia
[come to democracy]
#todospelademocracia
[everybody for democracy]
#nãovaitergolpe
[there won't be a coup]
#emdefesadademocracia
[in defence of democracy]



Pro-impeachment protests,
18 March 2016.

#vemprarua
[come to the street]
#foradilma
[get out Dilma]
#forapt
[get out Labour Party]
#ouvocevaiouelafica
[either you go or she stays]
#tchauquerida
[goodbye, dear]



Videos by André Mintz.

Asking research questions and designing methods with and about

Platform

Instagram

Digital objects

Hashtags
images

Computational media required to implement the methods

Software for data collection,
visualisation and analysis

Vision AI for interpreting
image collections

See [Omena, Rabello & Mintz, 2020](#)

Method School: Digital Methods

- ‘digital methods’, a **term/research practice/field** famously heralded by Richard Rogers in 2009

*Text prepared for the Inaugural Speech, Chair, New Media & Digital Culture, University of Amsterdam
8 May 2009*

The End of the Virtual – Digital Methods

Richard Rogers



- **Theoretical background:**
 - **Science and Technology Studies** > issue mapping research
 - **Actor-Network Theory** > controversy mapping
 - **Software Studies** > the role of software in methodology
 - **Communication Design Studies** > the role of data visualisation
- **Applied principles:**
 - **reimagining or repurposing** media methods, digital objects and online data;
 - **technical knowledge** is required, but it doesn't mean I should know how to code or develop software
 - **situated and relational data** rather than all data or big data
 - **visualisations are means of enquiry** not limited to a final product

Which digital methods?

Schools of Methods: a brief overview

(See Özkula et al, 2024)

Cultural Analytics-oriented methods

Lev Manovich
www.softwarestudies.com

Cultural Analytics: Visualizing Cultural Patterns in the Era of "More Media"

(To appear in DOMUS, Spring 2009)

We have moved from the stage of "New Media" to the stage of "More Media" (2004 -)

We are living through an exponential explosion in the amounts of data we are generating, capturing, analyzing, visualizing, and storing – including cultural content. On August 25, 2008, Google's software engineers announced on googleblog.blogspot.com that the index of web pages which Google is computing several times daily, has reached 2 billion.¹ And in same month, YouTube.com reported that video to the site every minute.² And in housed on Flickr reached 2 billion of



Computational methods

SOCIAL SCIENCE

Computational Social Science

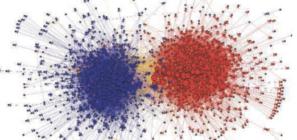
David Lazer,¹ Alex Pentland,² Lada Adamic,³ Silvia Aral,⁴ Albert-László Barabási,⁵ Devon Bruegel,⁶ Nicholas Christakis,⁷ Norbert Contractor,⁸ James Fowler,⁹ Myron Gersbach,¹⁰ Tony Jebara,¹¹ Gary King,¹² Michael Macy,¹³ Deb Roy,¹⁴ Marshall Van Alstyne,¹⁵

We live life in the network. We check our e-mails regularly; make mobile phone calls from almost any location; use credit cards to use public transportation, and make purchases with credit cards. Our movements in public places may be captured by video cameras, and our medical records are stored in files. Personal information extrinsic to anyone, or maintain friendships through online social networks. Each of these transformed digital traces can be converted into concrete metrics of both individual and group behavior, with the potential to transform our understanding of our lives, ourselves, and society.

The capacity to collect and analyze massive amounts of data has transformed such fields as biology and physics. But the emergence of a data-rich field like "computational social science" has been much slower. Leading journals in economics, sociology, and political science show little interest in publishing work in computational social science occurring—in Internet companies such as Google and Yahoo, and in government agencies such as the U.S. National Security Agency. Computational social science could become the exclusive domain of private companies and governments. Alternatively, it could emerge as a pre-legal set of norms among academic researchers residing over private data from which they produce papers that cannot be

A field is emerging that leverages the capacity to collect and analyze data at a scale that may reveal patterns of individual and group behaviors.

critiqued or replicated. Neither scenario will serve the long-term public interest of accumulating, verifying, and disseminating knowledge. What value might a computational social science bring to the academic environment—offer society by enhancing understanding of individuals and collective? What are the



Springer

Journal of Computational Social Science

Editorial board | Aims & scope | Journal updates

First issue published in January 2018.

The *Journal of Computational Social Science* (JCSS) is an interdisciplinary peer-reviewed journal that ties together groundbreaking research across the fields of the social sciences (sociology, economics, political science, psychology, linguistics, and other disciplines), physics, biology, management science, computer science, and data science. In addition to topics conventionally associated with computational social science, the journal invites contributions that analyze social/economic phenomena or structures using computational approaches related to, but not restricted to, the following methods or fields: — [show all](#)

2009 seminal paper by Lazer et al.

Digital methods

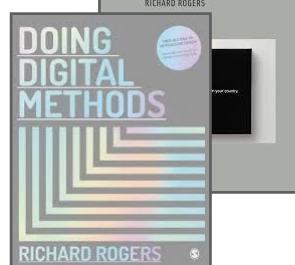
Text prepared for the Inaugural Speech, Chair, New Media & Digital Culture, University of Amsterdam 8 May 2009

The End of the Virtual – Digital Methods

Richard Rogers

Situating Digital Methods in Internet research

Arguably, there is an ontological distinction between the natively digital and the digitized, that is, the objects, content, devices and environments that are "born" in the new medium, as opposed to those that have "migrated" to it. Should the current methods of study change, however slightly or wholesale, given the focus on objects and content of the *medium*? The research program put forward here thereby engages with "virtual methods" that import standard methods from the social sciences and the humanities. That is, the distinction between the natively digital and the digitized also could apply to *current research methods*. What kind of Internet research may be performed with methods that are native (such as online surveys and directories) vis-à-vis those that are native to recommendation systems and folksomony?



Unpacking digital methods

1 Theoretical-Practical Foundations

The Future of STS on the Web, or: what I learned (naively) making the EASST website

by Richard Rogers

This piece contains no handy tips for website development as we know it. Here I provide no information on how, effectively, to panhandle for internet wisdom amongst your colleagues, schmooze with the network guy, beg the department for more computing power, negotiate content, locate model websites, download the right guide to the web, work with an HTML editor, hack code, create links, make forms, use ftp, beta test, write an *ti*, or keep the access and referral log files in order to angle for advertising down the line. I will not talk about work reduction strategies after a site is 'finished' for the first time, as 'if you'd like your announcement to be on the site right this minute, no problem; just give it to me in HTML'. There is nothing in here about my internet behavior (or yours), and the word netiquette will not appear again.

This piece, contrary to the endless how-we-do-it guides, is about what websites are not - up till now. As far as I've seen, there is plenty of social science and STS on the web, to which the modest EASST site and the contents of the links attest. There's also some social scientific analysis of the web, as in the field of internet studies advertised in the Sage mailings. There is, however, very little social scientific thinking embedded in website design.

It's as if every webmaster-social scientist stows his methodological baggage and takes on the mantles of an eclectic librarian and specimen collector, this 'creator' included. Despite tremendous growth, the world wide web remains an elaborate show-and-tell session, with connections to other one room schoolhouses doing the same, but with different acrons. Webmasters are currently locked into the 'promotional flyer', 'merchanise catalogue', 'resource guide' or 'spatial metaphor' design paradigms, all of which (technology studies anyhow predict) have nothing to do with the

inherent limitations of HTML. As Buckminster Fuller used to say, 'it's a design problem'.

The web is meant to afford the opportunity for the server advantaged to be his/her own publisher and communicator, so why do we upload only publications, commentaries, publication lists and CVs, and list our favorite links? And why do the sites, on the whole, look and feel like cabinets of contemporary curiosities, however fascinating? There are perhaps other ways of proceeding with website development and experimentation, in and for STS. I will discuss four preliminary ideas, which I've yet to see.

Evolving Discourse Sites

Most every website is created and maintained by single organisations peddling themselves. Whether it's Pepsi's, Greenpeace's, CERN's, your university department's or EASST's, it contains information about the organisation's services and products, and often provides links to like-minded parties and their productions. A website, contrariwise, could just as easily be created to depict positions on an issue and to chart an evolving discourse *across* organisations.

Here's one way. Take your favorite schematisation of a debate, and render it into a graphic or image map. You can upload your own materials on the positions taken by the relevant actors or organisations in the debate, linking your internal pages (the material) to the respective actors depicted on your graphic. An elementary example would be to select an issue, draw a 'political spectrum' image map and link the position statements made by political parties and interest groups to the proper areas on your spectrum.

Your site becomes 'dynamic' once you find and link points on your spectrum to the actual political party or interest group websites. With

Working with the natively digital Accounting for media ephemerality

Repurposing dominant platforms and online data

Rogers, 2013

Landscaping climate change: a mapping technique for understanding science and technology debates on the World Wide Web

Richard Rogers and Noortje Marres

New World Wide Web (web) mapping techniques may inform and ultimately facilitate meaningful participation in current science and technology debates. The technique described here “landscapes” a debate by displaying key “webby” relationships between organizations. “Debate-scaping” plots two organizational positionings—the organizations’ inter-hyperlinking as well as their discursive affinities. The underlying claim is that hyperlinking and discursive maps provide a semblance of given socio-epistemic networks on the web. The climate change debate on the web in November 1998 serves as a test case. Three findings are reported. First, distinctive .com, .gov and .org linking styles were found. Second, organizations take care in making hyperlinks, leading to the premise that the hyperlinks (and the “missing links”) reveal which issue and debate framings organizations acknowledge, and find acceptable and unacceptable. Finally, it was learned that organizations take substantive positions and address other organizations’ positions. Thus, we found the makings of a “debate” that may be mapped. Scenarios of use to support new public participation techniques and experiments are discussed by way of conclusion.

1. Introduction

In *Henry Fool*, a film by Hal Hartley, the unassuming sanitation engineer, Simon Grimsley, pens an erotic epic poem no publisher would touch. At the behest of Henry Fool, the inspirational stranger new to the small town, Simon’s poem is posted on the Internet. Young boys and girls the world over swoon, the mass media embraces the discovered “masterpiece,” and publishers

Working with the natively digital

Accounting for media ephemerality

Repurposing dominant platforms
and online data

Rogers, 2013

Seeing the topic of study through lists of digital objects or keywords that are “good enough” for dataset curation and further analysis.

VISUAL NETWORK ANALYSIS: THE EXAMPLE OF THE RIO+20 ONLINE DEBATE

WORK IN PROGRESS

Tommaso Venturini, Mathieu Jacomy & Debora Pereira
Sciences Po Paris médialab

INTRODUCTION

In the last few years, a spectre has been haunting networks. Throughout social as well as natural networks. Telecommunications, transport networks, ecological and economic networks... and dots. More recently, the interest for graphs of networks started to appear everywhere: on shirts and furniture; they colonize the desks we have become the emblem of modernity, though.

Our growing fascination for networks is no longer encapsulating in a single object multiple affordances (networks as maps) and manipulation of data.

In the first place and to a large extent, the versatility of graph mathematics. From rail communications flows, from ecosystems to mobile applications. Graph computational formalism

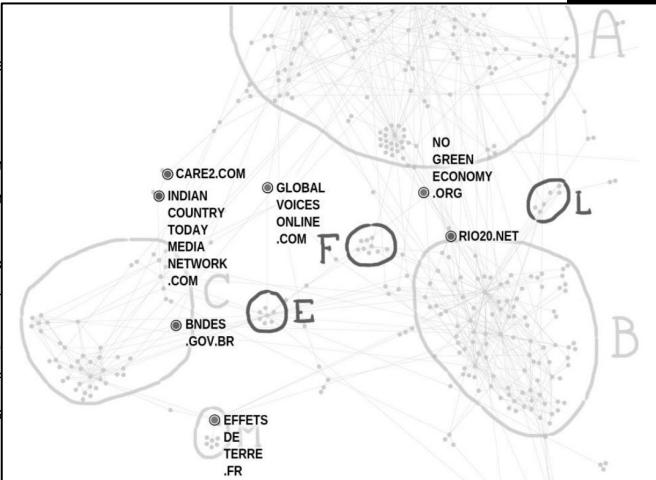


Figure 10 – Nodes and clusters in a bridging position

Working with the natively digital

Accounting for media ephemerality

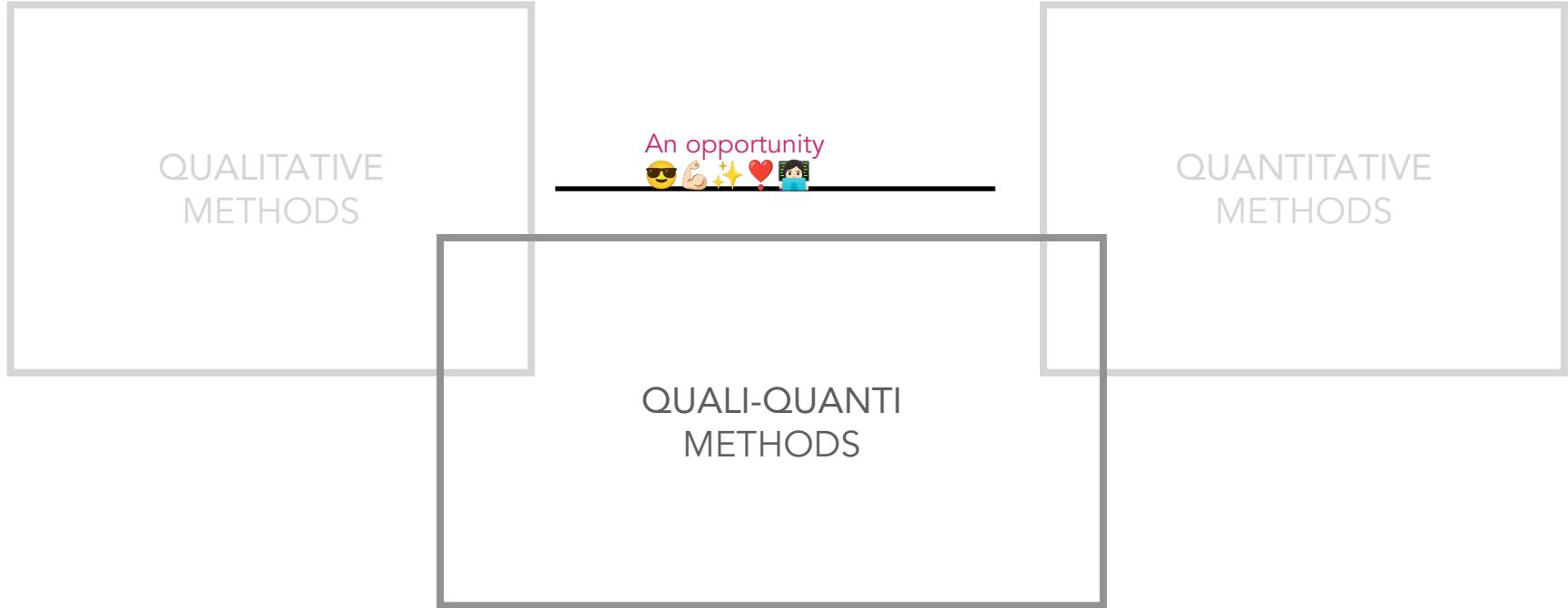
Repurposing dominant platforms
and online data

Rogers, 2013

Seeing the topic of study through lists of digital objects or keywords that are "good enough" for dataset curation and further analysis.

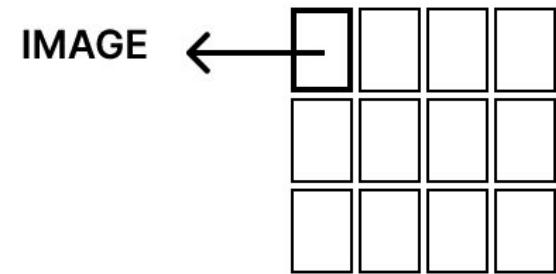
Data visualisation as means of enquiry

Digital methods “offer the most developed example of
quali-quantitative approach to social research” (Venturini 2024)



Network Vision Methodology

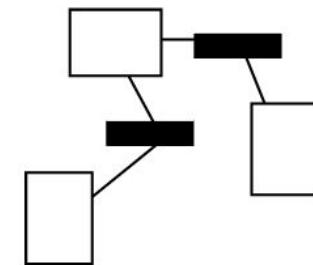
Omena, 2024



+

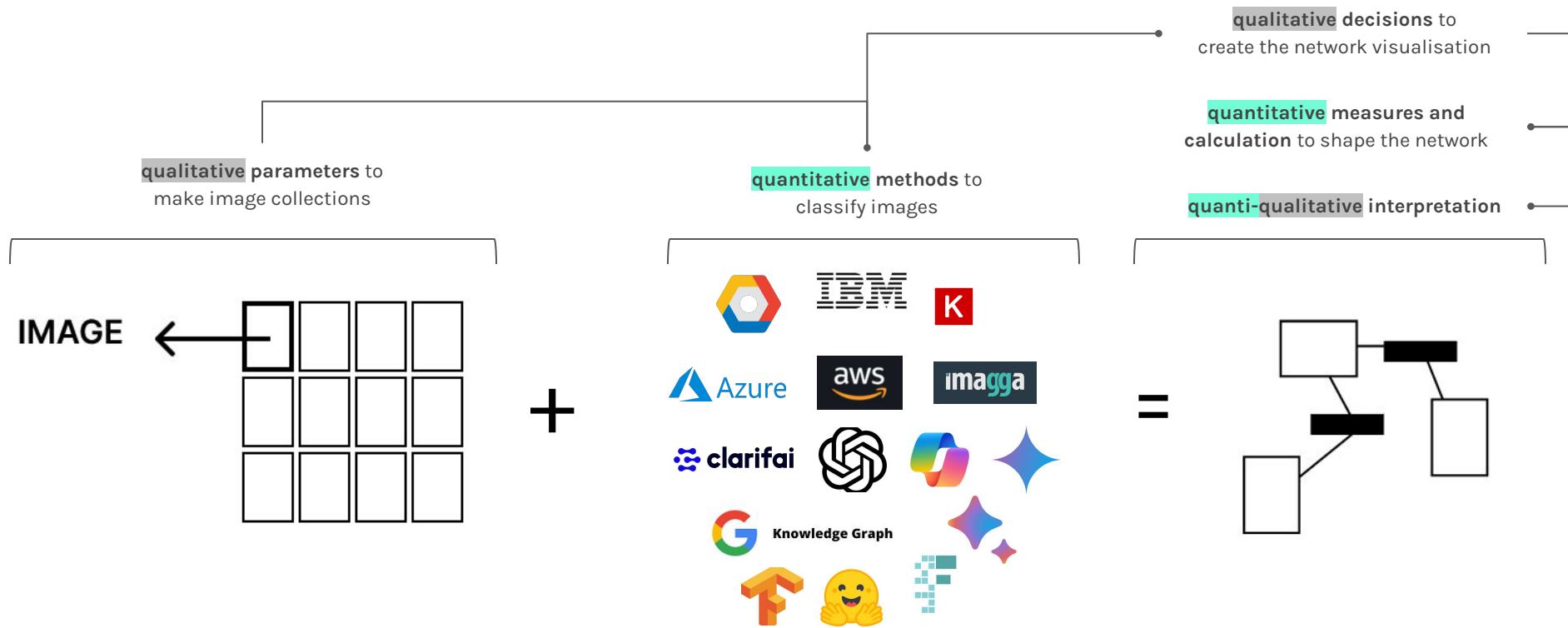


=



qualitative to quantitative

and back and forth.



Unpacking digital methods

2 Technical Fieldwork and Practices

take the Web a technical object
and research environment

engage with software

use data visualisation for enquiry,
navigational procedure

*Specific mindset towards
the medium that leads to new
ways of research*



• a vision of technicity.

*Specific mindset towards
the medium that leads to new
ways of research*

a vision of technicity.

Gain familiarity with computational
media necessary to implement the
methods, in isolation and
comparatively, from conceptual,
technical and empirical perspectives

Let's say these are the procedural steps
often constituting digital methods

Making lists of
**keywords and digital
objects** as entry points

Building
datasets

Using data
visualisations as a
means of enquiry

Staging the
main findings

procedural steps

They are operationalised with **the web** not only as a social space but also as a technical object and research environment

Making lists of
keywords and digital
objects as entry points

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visualisations as a
means of enquiry

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main findings

procedural steps

the web

space but also as a technical object and research environment

Invite researchers to seeing **computational media** in their own right & relationally

Making lists of
keywords and digital
objects as entry points

Building
datasets

Using data
visualisations as a
means of enquiry

Staging the
main findings

Knowing when and why to value layers of technical mediation and meaning carried by AI, platform mechanisms, research software and tools

procedural steps

the web

space but also as a technical object and research environment

Invite researchers to seeing **computational media** in their own right & relationally

using **data visualisation for enquiry**, we engage with a
navigational procedure to make sense of data

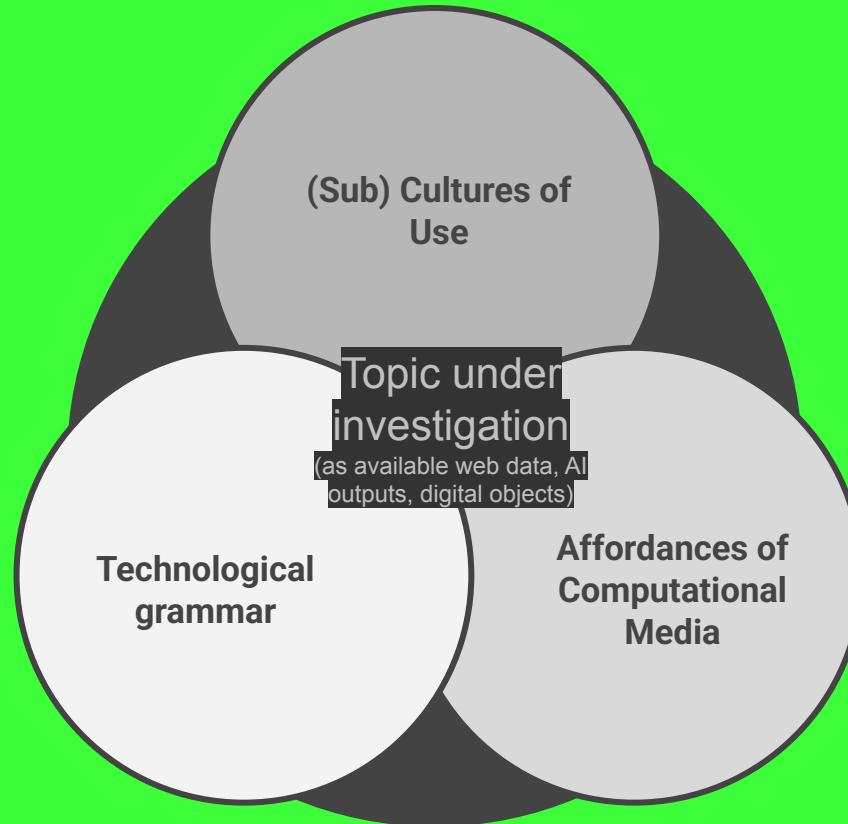
Making lists of
keywords and digital
objects as entry points

Building
datasets

Using data
visualisations as a
means of enquiry

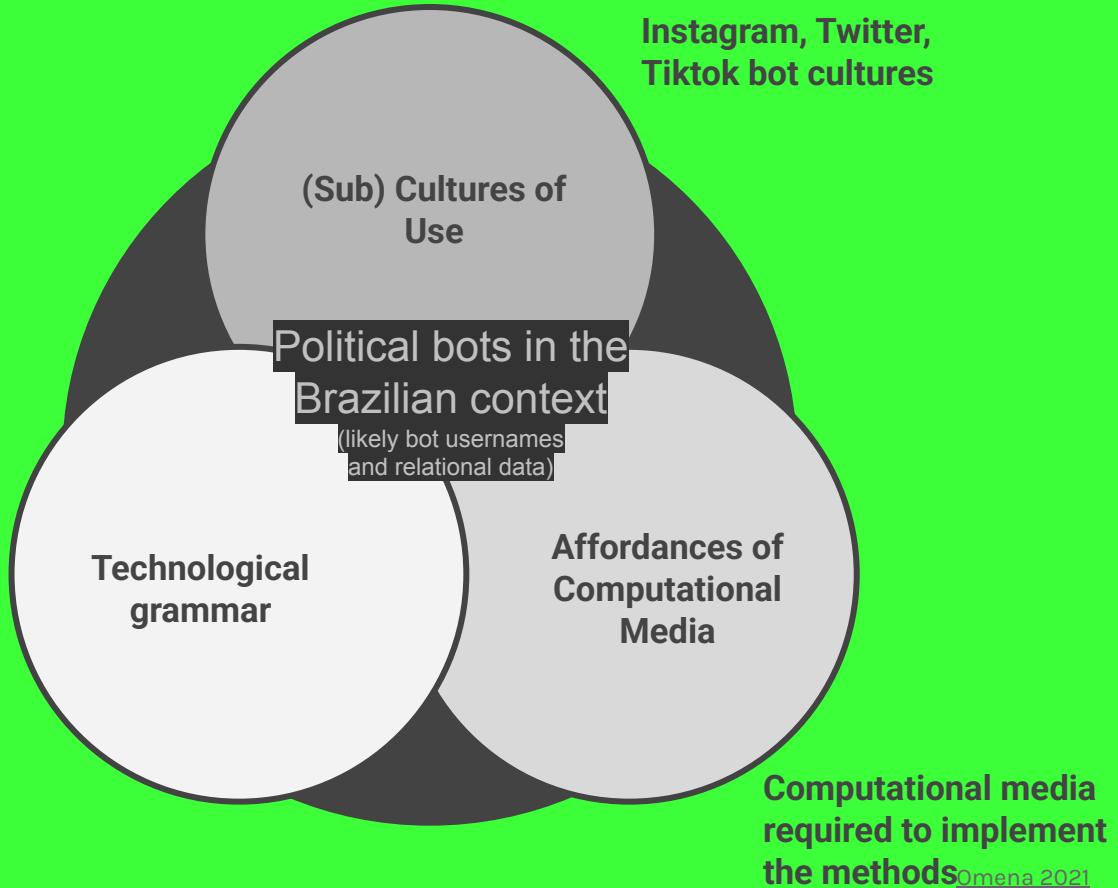
Staging the
main findings

Taking **the web** not only as a social space but
also as a technical object and research environment



Taking **the web** not only as a social space but
also as a technical object and research environment

What is captured,
how it is made available,
how it is connected to bot practices





A list of bot-like accounts

> *bot-following networks*
> *metadata* >
study of political bots

Pesquisa

bolsonaro mito

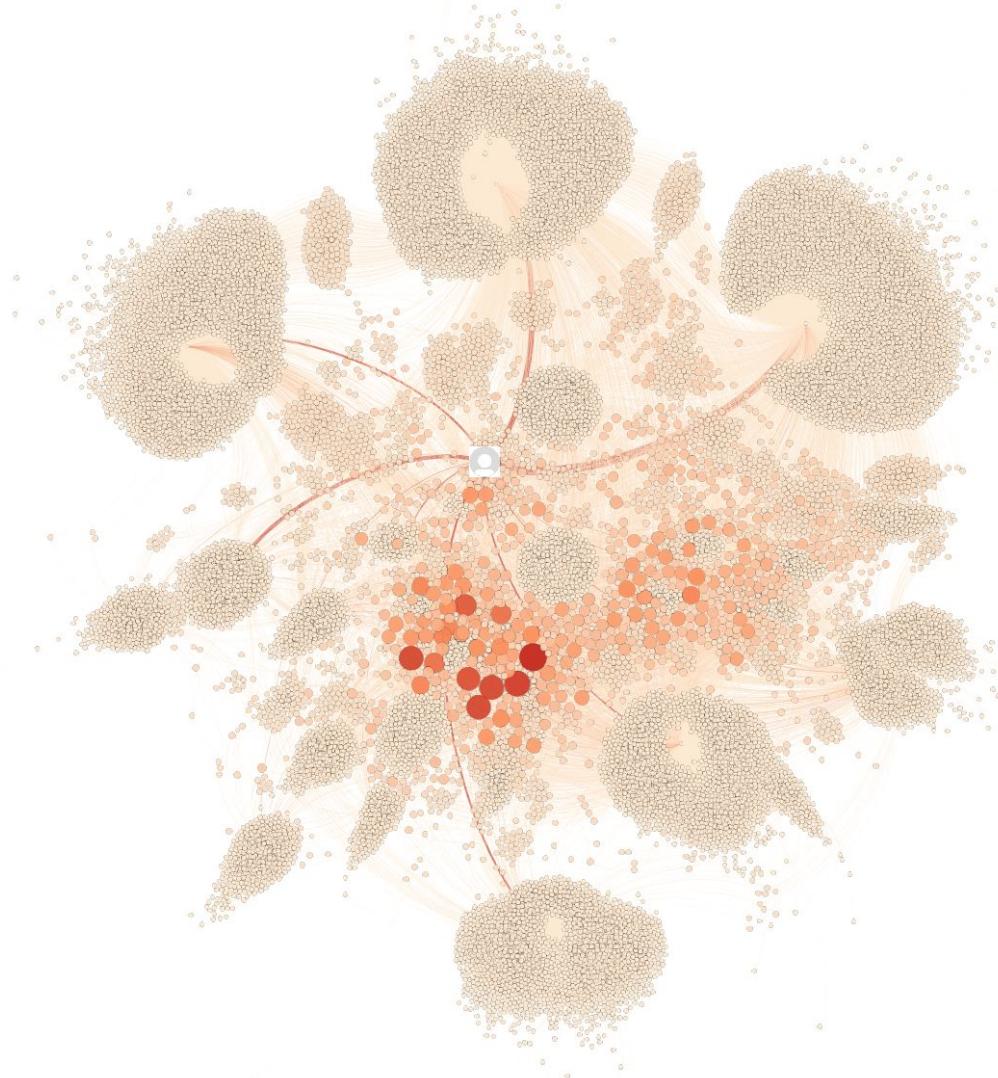
- apoiadoresdobolsonaro
Bolsonaro Mito
- bolsonaromitooficial
Bolsonaro - O Mito®
- bolsonaromitoofficial22
Bolsonaro - O Mito®
- bolsonaromito.22
Fernando
- _bolsonaro_mito
BOLSONARO MITO
- bolsonaro22
Bolsonaro - mito
- bolsonaro.mito.17
Bolsonaro Mito
- bolsonaro_mito_br
BOLSONARO
- bolsonaro_mito6
BOLSONARO MITO
- otto.vidal
Bolsonaro Mito
- bolsonaro_mito2018
Bolsonaro mito
- bolsonaromitonadf
BOLSONARO MITO NA DF
- #bolsonaromito
444.417 publicações
- mitoairbolsonaro2023
Bolsonaro o mito
- bolsonaro_mito_mito
Bolsonaro Mito
- bolsonaromito22ofc
Bolsonaro Mito ▶▶
- memes.do.mito
Memes_do_Bolsonaro
- bolsonaro_meu_presida_sempre

Pesquisa

- bolsonaro.genocida_
bolsonaro lixo
- bolsonaro_genocida
forabolsonaro
- bolsonaro_genocida_canalha
bolsonaro genocida
- #bolsonogenocida
481.347 publicações
- bolsonaro__genocida
Felipe neto
- bolsonaro_genocida__
bolsonaro favorece o vírus.
- _bolsonarogenocida
Bolsonaro Genocida
- bolsonaro_genocida_fora
BOLSONARO GENOCIDA FORA
- bolsonaro_genocida_2022
Fora genocida
- bolsonaro_genocida___
FORA BOLSONARO
- forabolsonarogenocida_13
FORA BOLSONARO GENOCIDA
- bolsonaromoreuhajo
bolsonaro genocida
- movantibolsonarista
Bolsonaro Genocida
- #bolsonogenocida
10.047 publicações
- bolsonaro_genocida13_
fora bolsonaro
- brasildobozo04
Bolsonaro Genocida
- anti_bozos
Fora Bolsonaro Genocida!
- forabolsonaro.irlanda
FORA BOLSONARO GENOCIDA
- bolsonaro.genocida

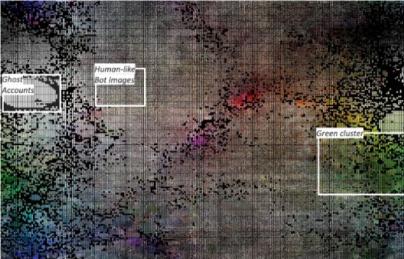
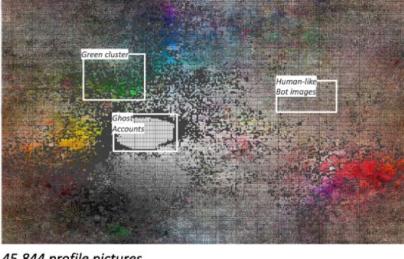


The role and presence of ghost accounts





Bot Visual
Vernaculars

HOW DO IMAGE WALLS LOOK?		EXEMPLARY FINDINGS	CLUSTERS OF PROFILE AVATARS & "HUMANS"
<p>Pro-Bolsonaro following network profile images</p>  <p>33.768 profile pictures</p>	<p>Green cluster</p>  <p>Image Repetition Use of symbols</p>  <p>Use of logos (Reappropriation)</p> 	<p>Avatar cluster = a sign of unobtrusive bots</p>  	
<p>Anti-Bolsonaro following network profile images</p>  <p>45.844 profile pictures</p>	<p>Green cluster</p>  <p>Image Repetition Use of symbols (Reappropriation)</p>  <p>Use of logos</p> 	<p>Human cluster = fake and bot accounts</p> 	

In digital methods

There is an
inevitable
engagement with
software and AI
platforms
throughout every
step of the
methods

ImageSlicer v4.2 Beta

Google Cloud Documentation Technology areas Cross-product tools Related sites

Cloud Vision API Guides Reference Samples Support Resources

RAWGraphs We need you to keep it alive

Table 2 Net

Load your CSV table

It has to be **comma-separated** and the first row must be dedicated to **column names**.

Choose file... No file chosen

Gephi 0.9.2 - actor-url.net.gexf

BolsoBots_FollowingNet_table2net

emoji-in.FullName

frequency

emoji-in.FullName	alias	frequency
Brazil	red_heart	909
registered	sunflower	177
sparkles	smiling_face_with_sunflowers	146
Japanese symbol for beginner	rose	129
smiling_face_with_sunflowers	smiling_face_with_sunglasses	108
rose	smiling_heart	95
smiling_heart	blush	91
blush	blushing_heart	89

Teleteg Search Engine

By teleteg.com

Ultimate Telegram Search Engine. Target the Right Telegram Groups, Engage Your Ideal Audience

Digital Methods

Book by Richard A. Rogers

Book preview

Digital Methods is the umbrella methodology for using online and digital technologies to generate, collect, and analyse qualitative and quantitative data to investigate a phenomenon (Rogers, 2013).

Newcastle University

Digital Methods | Methods Hub | Newcastle University

People also ask :

- What are examples of digital methods?
- What are the three methodologies?
- What are the digital qualitative methods?
- What are the four types of research methods?

Show me London groups on Telegram

toTelegram ps

procedural steps

What are the tools and software applications that can support these steps?

Knowing how to orchestrate **computational media** necessary to implement the methods;
developing conceptual, technical and empirical understanding

Making lists of
keywords and digital
objects as entry points

Building
datasets

Using data
visualisations as a
means of enquiry

Staging the
main findings

procedural steps

How can a navigational procedure with data visualisation be advanced? What tools or research software can support this practice?

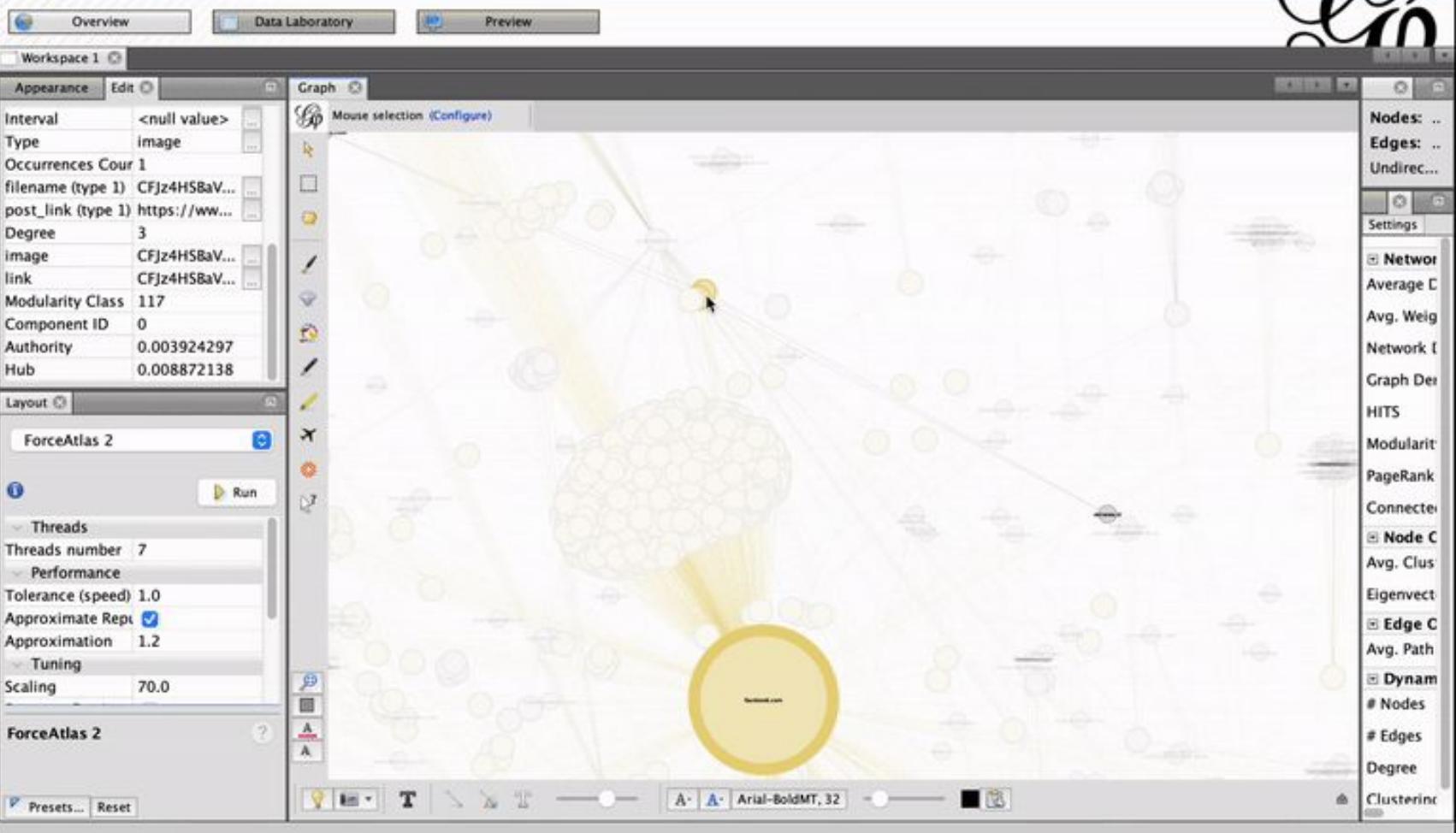
data visualisation for enquiry,
navigational procedure to make sense of data

Making lists of
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visualisations as a
means of enquiry

Staging the
main findings





Images retrieved from
https://metodosdigitais.fcsh.unl.pt/?page_id=1562
https://metodosdigitais.fcsh.unl.pt/?page_id=758

Unpacking digital methods

3 Methods Schools & Software Co-Development

open methods, open software

collaborative and
interdisciplinary settings

Digital Methods Schools

Explore the research topic thinking along with media methods, online data/practices, software and visualisations.

2023

Cross Vision-API Studies



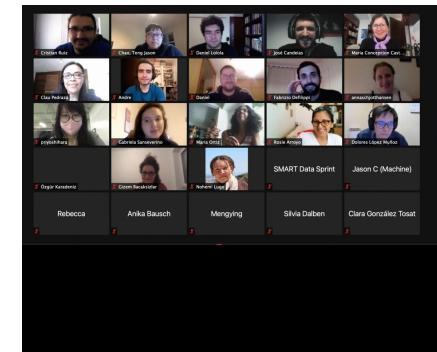
2022

Discussing Methods Making



2021

The current state of platformization



2020

Digital methods:
Theory-Practice-Critique



2019

Beyond Visible Engagement



2018

Interpreters of Platform Data



2017

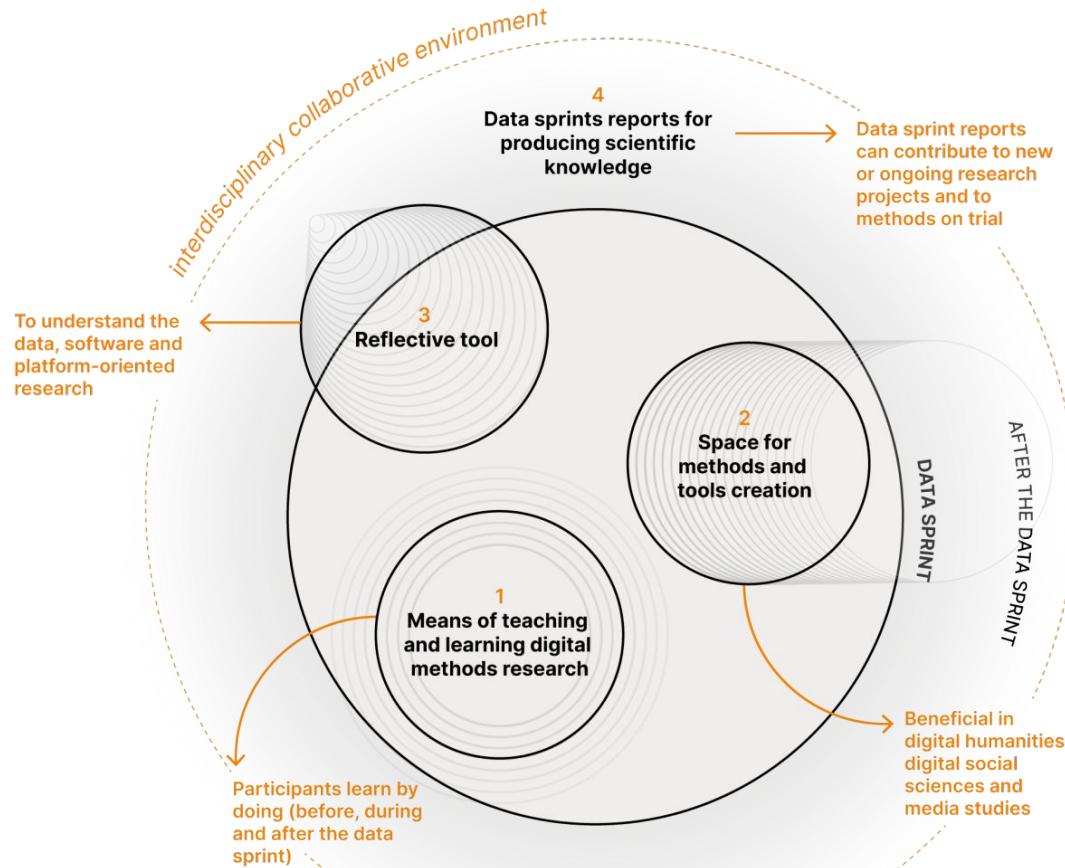
What is the data journalism
debate on social media?



SMART Data Sprint images retrieved from
<https://metodosdigitais.fcsh.unl.pt/>

Digital Methods Schools

promote interdisciplinary collaborative environments



Open methods, Open software

enabling method reproducibility

Digital Methods Resources

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First version: August 2023 | Current version: May 2024

Short link: <https://bit.ly/digital-methods-resources>

TBA



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27 November 2024

'Gather, explore, collaborate' – new toolkit to enrich digital culture research at King's

KingsCAT is a cross-faculty initiative coordinated by the Digital Future Institute's Centre for Digital Culture and the Department of Digital Humanities in collaboration with e-Research and colleagues from multiple institutes, centres, departments and schools at King's.



Audience at the KingsCAT launch event and workshop on 21 November 2024. Photo: Iryna Rodina



King's College London
Department of Digital Humanities

Software

List of research software currently developed and maintained by [Bernhard Rieder](#), Associate Professor in [Media Studies](#) at the [University of Amsterdam](#) and researcher with the [Digital Methods Initiative](#).

Over the years, Bernhard has been working on quite a number of research tools, mainly for the data driven analysis of social media platforms. My main goal is to gain a deeper understanding of the logics embedded in these platforms and their APIs, but I think that writing research tools is an excellent way to pursue this kind of exploration. Nothing beats first hand experience.

Data Extraction

DMI-TCAT

The Digital Methods Initiative Twitter Capture and Analysis Toolkit - developed with [Eric Horvitz](#) and [Eduardo Salazar](#). Provides fast text processing, various ways to retrieve and collect tweets from Twitter and provides a number of modules to analyze tweet collections. Requires server installation.

[source code](#)

Netviz

A tool that extracts data from different sections of the Facebook platform – in particular groups and pages – for research purposes. It uses an API and this API changes over time. Facebook removed page data access on Sept. 4, 2019 and Netviz is no longer functional.

[launch tool](#) [intro video](#)

TumblrTool

A simple tool that gets posts tagged with a specific term and creates tabular statistics and co-tag networks.

[launch tool](#) [source code](#)

Visual Tagnet Explorer

A simple tool that gets media from Instagram tagged with a specific term or person name. It then calculates user statistics and co-tag networks. Since Instagram has changed its API regulations, this tool no longer works.

[launch tool](#) [source code](#) [intro video](#)

YouTube Data Tools

A collection of simple tools for extracting data from the YouTube platform via the YouTube API v3.

[launch tool](#) [source code](#) [intro video](#)

Analysis

LineMiner

A tool for analyzing textual data stored in timestamped lines of text (e.g. files from Neviz, DMI-TCAT, etc.). Provides fast text processing, various ways to retrieve and collect tweets from Twitter and provides a number of modules to analyze tweet collections. Requires server installation.

[source code](#)

RankFlow

A visualization tool for analyzing changes in ordered lists (e.g. rankings) over time.

[launch tool](#) [source code](#)

SimilarityNet

Calculates cosine similarity between lists of quantified variables (i.e. feature vectors) and outputs a similarity network.

[launch tool](#) [source code](#)

Textonalysis

Another small text analysis tool for emoji statistics and bigram/collocation extraction.

[launch tool](#)

Tag Cloud HTML Generator

Input tags and values in wordfile format to produce a HTML tag cloud or tag list.

[source code](#)

Textprocessing

A (possibly growing) collection of basic Python scripts that interface common data with more complex forms of text processing.

[source code](#)

YouTube Transcript Scraper

Script that uses browser automation to click through the YouTube video interface and download the transcript file. A basic example for starting with Selenium.

[source code](#)

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

Development and maintenance of some of these tools are financed by the Dutch [Platform Digitale Infrastructuur Sociale Wetenschappen en Humaniora](#) as part of the [CAIDSMR project](#).

Most of these tools have basic descriptions or FAQ sections. There are also a number of more advanced versions of these tools.

For the tools funded by the [CAIDSMR project](#) we provide support through a [subreddit](#) and a [Discord channel](#). All other tools are "as-is" and are not supported.

High quality bug reports are much appreciated. If you have no experience with reporting bugs effectively, please read [this guide](#), preferably twice. Submit bug reports via [GitHub](#).

Scripts

MemeSpector

A simple PHP script for using Google's Vision API. Takes a comma- or tab-separated file containing a list of URLs with image URLs as input, sends images to the Vision API and puts the detected annotations back into the list.

[source code](#)

PiperScraper

A series of PHP scripts to scrape and analyze pipelined list archives.

[source code](#)

Reddit Tools

This is a collection of PHP command line scripts to grab data from Reddit and transform it into CSV files.

[source code](#)

Textprocessing

A (possibly growing) collection of basic Python scripts that interface common data with more complex forms of text processing.

[source code](#)

YouTube Transcript Scraper

Script that uses browser automation to click through the YouTube video interface and download the transcript file. A basic example for starting with Selenium.

[source code](#)

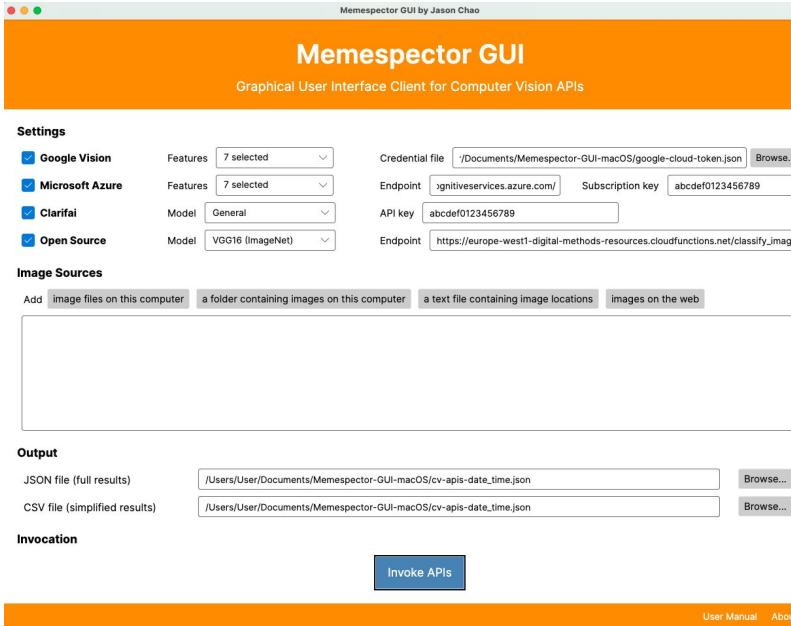
Funstuff

Spotify Artist Network

Creates networks of related artists, based on data from Spotify.

[launch tool](#)

Software Co-Development



Chao, J. (2023). Memespector-GUI: Graphical User Interface Client for Computer Vision APIs (Version 0.2.5) [Computer software]. <https://doi.org/10.5281/zenodo.7704877>

- Total Downloads 1,394
<https://tooomm.github.io/github-release-stats/?username=jason-chao&repository=memespector-gui>
- Developed by Jason Chao in late 2020.
Idea generation by Janna Joceli Omena.
- First released in January 2021 at the SMART Data Sprint
- Later in 2021, [updated to invoke multiple APIs](#)
- Inspired by:
 - Bernhard Rieder's HTML script (2017)
<https://github.com/bernorieder/memespector>
 - André Mintz's python version (2018)
<https://github.com/amintz/memespector-python>
- Public Data Lab blog post by Chao:
<https://publicdatalab.org/2021/10/27/memespector-gui/>

What digital methods are we talking about?

Janna Joceli Omena

King's College London

What digital methods are we talking about?

Introduce a definition

Unpack digital methods

- 1 Theoretical-Practical Foundations
- 2 Technical Fieldwork and Practices
- 3 Methods Schools & Software Co-Development