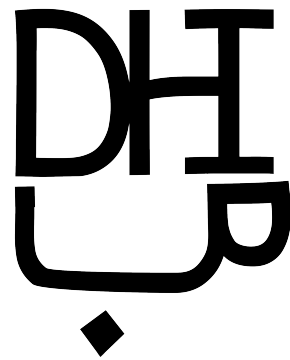# Quantified Self - 1

David Joseph Wrisley @DJWrisley #DHIB2019
Digital Humanities Institute Beirut 4 May 2019

DHIB

جامعـــة نيويورك أبـوظـبي
🔥 NYU | ABU DHABI

Outcomes (http://djwrisley.com/dhib-2019-quantified-self/)

- Participants in the workshop will

  explore basic arguments in the contemporary context of self-tracking and the datafication of human life.
- be exposed to relevant issues in information privacy related to device usage and commercial data aggregation.
- visualize some data about themselves
- practice data storytelling techniques reusing that data (map visualization, plotting).
- discuss to what extent these data reflect their own life experience, or constitute "self-knowledge".

- Situate data literacy about the self within one's larger conception of information literacy
- examine critically the risks and benefits of QS applications for emerging and vulnerable environments

- Enrich and improve on the evolving course wp.nyu.edu/quse

2-day plan

Day 1

-discussion of data privacy, geo-privacy
-introduction to quantified self (QS) movement and to its globalization
-exploration of the data collection capacities of a smartphone / wearable technologies
-exploration of self-tracking apps
-choosing an app for data collection and extraction exercise

exercises: watching the watching; observing the data collection apps already on your phone; extracting data from an app or web service

Day 2

-debriefing about data collection: findings and shortcomings.
-discussion of a theoretical issues in QS, media studies and digital citizenship
-exporting data from web services
-presentation of relevant data visualization techniques.
-explore some ways to extend your information literacy to include more privacy in the digital age

exercises: close analysis of extracted data; data storytelling with that information

Information Literacy (ACRL)

"Information literacy is the set of integrated abilities encompassing the reflective discovery of information, the understanding of how information is produced and valued, and the use of information in creating new knowledge and participating ethically in communities of learning."

ACRL Framework

http://www.ala.org/acrl/standards/ilframework

IL, QS & DH: an interwoven conversation

- From digitization to datafication

  Digitization: the process of converting information into a digital (i.e. computer-readable) format, in which the information is organized into bits.(Wikipedia)

  Datafication is a modern technological trend turning many aspects of our life into data which is subsequently transferred into information realised as a new form of value. (Wikipedia)

- Both IL & QS involve digital abstractions, models
- We are now the data (and have been for some time)!
- Impacts of datafication on everyday life: health, insurance, HR, marketing, smart cities?

DJW's working "hack" of the ACRL IL definition

Literacy about oneself in a digital society is the set of integrated abilities encompassing the reflective discovery of one's own datafication, the understanding of how information is produced about the self--actively and passively, knowingly and unknowingly--in the post-digital age and the use of information in exploring new insights about the self, for understanding more about our embeddedness in a computationally-ubiquitous society, choosing if/when to opt out as well participating ethically and advocating for digital citizenship in our increasingly datafied society.

We have always measured human life. But how much is too much? What are the ethical boundaries of collecting such measurements?

Recording one's life

https://twitter.com/chrisdancy/status/1117973306282475521

https://i.imgur.com/5zop8mn.png
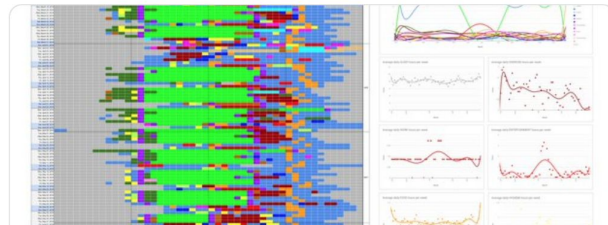
Chris Dancy 🧑🏽👨🏼🤖☑
@chrisdancy

Follow

High school student recorded every 1/2 hour of his life.

Yet people are still clamoring about #privacy and #data breaches.

The #quantifiedself is so mainstream, they don't even use that term any more.

The difference between my Facebook and yours? I extract my data BACK.

جامعــة نيويورك أبوظـبي
NYU | ABU DHABI

Discussion #1

- Where in your life do you have data like the high school student?

- What are your opinions about collecting/visualizing data about yourself?

- How private/safe do you think the data collected about yourself are?

- What does "privacy" mean in your family/home/country of origin?

Exercise #1: Installing Privacy Badger

What are web trackers? What do they track?

What do they do with the data they collect?

How "quietly" and seamlessly do they collect data?

"Tracking can be defined as collecting data points over multiple different web pages and sites, which can be linked to individual users via a unique user identifier." (Grief)

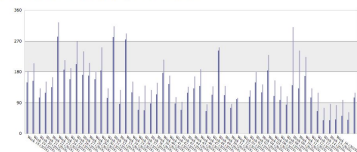Install the PB extension for Chrome and FireFox.
Surf and watch what happens.   https://www.eff.org/privacybadger
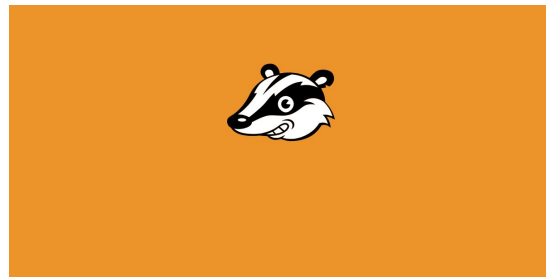
Discussion #2

What is the difference between the high schooler's visualization and what you found while browsing?

"Watching the watching" (a website traffic manager)

Time	IP Address	Viewed Page	Browser	OS	Referer	Time spent
2019-05-04 04:31:48	**193.227.182.194** Lebanon (- Beirut)	DHIB 2019: Quantified Self	Chrome 73.0.3683.103	Macintosh 10.11.6	About Me	>10:00
2019-05-04 04:19:52	**193.227.182.194** Lebanon (- Beirut)	/	Chrome 73.0.3683.103	Macintosh 10.11.6		00:10
2019-05-03 21:20:55	94.187.55.233 Lebanon (- Nabatiye et tahta)	DHIB 2019: Quantified Self	Firefox 66.0	Macintosh 10.12		>10:00
2019-05-03 21:08:29	94.187.55.233 Lebanon (- Nabatiye et tahta)	DHIB 2019: Quantified Self	Firefox 66.0	Macintosh 10.12		02:10
2019-05-03 20:45:34	**193.227.182.194** Lebanon (- Beirut)	DHIB 2019: Quantified Self	Safari 12.1	iPhone 12.2	About Me	00:10
2019-05-03 20:36:05	**193.227.182.194** Lebanon (- Beirut)	DHIB 2019: Quantified Self	Firefox 63.0	Macintosh 10.13		02:40
2019-05-03 19:00:17	89.187.216.212 Lebanon (- Beirut)	DHIB 2019: Quantified Self	Chrome 64.0.3282.140	Windows NT 4.0		02:20
2019-05-03 16:44:53	185.6.148.55 Lebanon (- Jbail)	DHIB 2019: Quantified Self	Safari	iPhone 12.2	Unknown keywords.	00:10
2019-05-03 13:54:00	79.106.142.35 Albania (1033 Tirana)	DHIB 2019: Quantified Self	Chrome 71.0.3578.99	Android 9		00:00
2019-05-03 13:19:23	146.158.186.83 Spain (28013 Madrid)	ESU DH 2018 – Linguistic Landscapes of Leipzig	Chrome 73.0.3683.103	Macintosh 10.11.4	Unknown keywords.	00:00
2019-05-03 12:22:57	212.98.144.18 Lebanon (- Beirut)	DHIB 2019: Quantified Self	Chrome 73.0.3683.103	Macintosh 10.11.6	http://djwrisley.com/wp-admin/admin.php?page=traff...	00:00
2019-05-03 12:20:25	212.98.144.18 Lebanon (- Beirut)	DHIB 2019: Quantified Self	Chrome 73.0.3683.103	Macintosh 10.11.6	http://djwrisley.com/wp-admin/admin.php?page=traff...	04:00
2019-05-03 11:46:19	54.164.112.170 United states (20146 Ashburn)	/	Chrome 73.0.3683.103	Macintosh 10.11.6	About Me	04:30
2019-05-03 11:41:09	54.164.112.170 United states (20146 Ashburn)	Research	Chrome 73.0.3683.103	Macintosh 10.11.6	Research	00:00

جامعة نيويورك أبوظبي

NYU | ABU DHABI

From laptop to devices...

Sensors included in a portable device can include:

- Accelerometer
- Proximity sensor
- touch screen
- Fingerprint sensor
- 3d camera sensor
- Pulse oximeter
- Pedometer
- Geiger counter!

https://fossbytes.com/which-smartphone-sensors-how-work/

جامعـة نيويورك أبوظـبي

NYU | ABU DHABI

Discussion #3

What are the differences between browser tracking and the capacities of portable devices ("smart" phones)?

Can you think of some positive or negative ways of tracking using device sensors?

Lunch time assignment

Examine closely the apps on your phone.

　　What kinds of data are created by them?

　　Is the health app activated (default)? Deactivated? & the Screen Time app?

　　Can you identify a way that you can download your data from them?

Download?
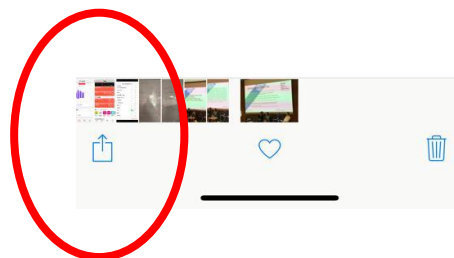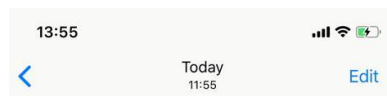
The QS movement

Adjusted brief description of my NYU Abu Dhabi course: wp.nyu.edu/quse

The contemporary "quantified self" movement makes claims of "self-knowledge through numbers" and improving health and human welfare. There are clearly other elements to self-tracking culture that deserve critical investigation. What does the self become seen through the lens of data? What is the dark side of data that can be used against us, and without regard for social justice and equality? The issue of data aggregation about human beings is a rapidly evolving one. There are certainly historical forms of self-quantification and globalized landscape of app tracking and wearable technologies is expanding rapidly. Digital humanists can contribute to this conversation by instructing other to think critically within this increasingly dense data landscape by creating data about themselves that can be analyzed and interpreted using a variety of data visualization and storytelling frameworks.

Gary Wolf's
TED talk

جامعــة نيويورك أبوظبي
NYU | ABU DHABI

The QS movement (Bradford)

Is Big Data the Self-Help Mentor You Never Had?

NYU | ABU DHABI

جامعة نيويورك أبوظبي

Discussion #4

How can we compare & contrast Wolf and Bradford?

Metaphors for social, datafied worlds
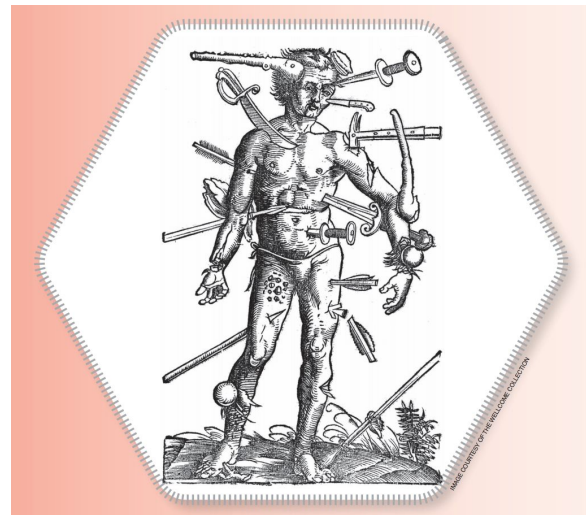
Open, Participatory Culture, or…

Digital Traces
Leaky Bodies
Wound Men (Stevens/Wernimont)
Digital Exhaust (Bradford)

https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=8558773

Stevens / Wernimont

"Digital technologies re-orient the body from a self-contained, sovereign subject to a leaking, commodified, data-producing body."

Group work

QS's site "Show and Tell" page:
https://quantifiedself.com/show-and-tell/

Choose a category and one presentation: look for kind(s) of data, methods of data collection, data skills required, conclusions about data, visualization methods, assumptions
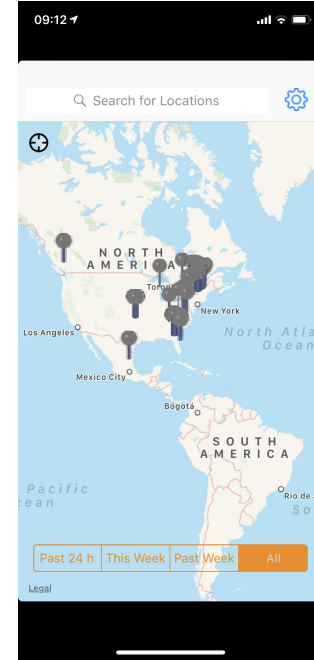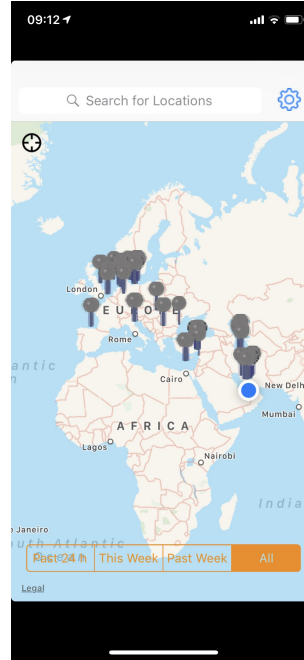
How did you make that?

https://forum.quantifiedself.com/c/quantified-self/apps-tools

https://quantifyme.io/

https://kit.exposingtheinvisible.org/what/venmo.html#

His Portland / His Berlin

Parecki, Ten Years of Tracking my Location

Julian Lehr @lehrjulian · 12h
Here's my 2018 Quantified Self report:

A one year summary of my physical activity, media consumption, travel, nutrition, wellbeing and productivity.

↳ julian.digital/2019/04/16/qua...

    6   ⟲   ♡ 8   ✉   ⌄
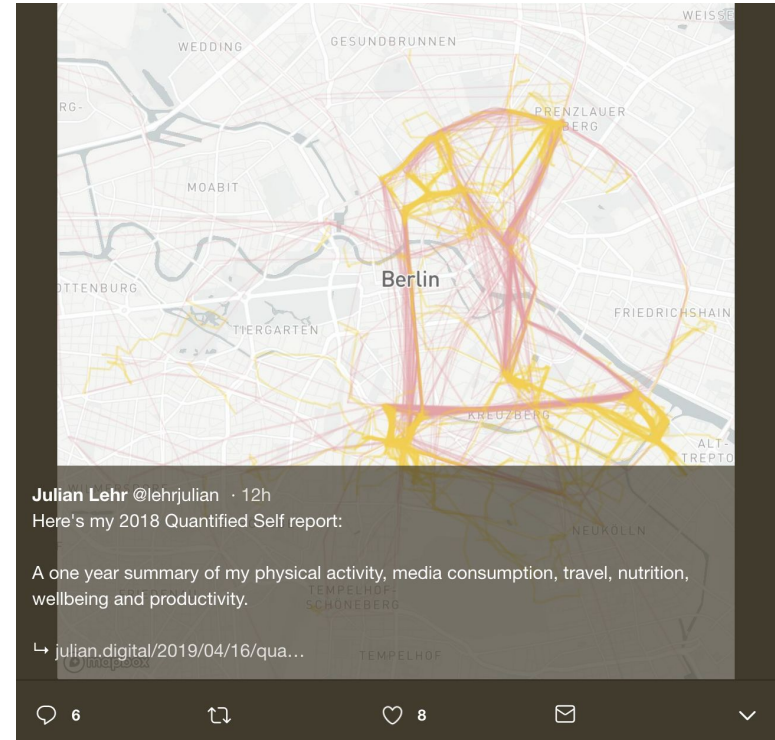
OpenPaths.cc (now defunct)

NYU | ABU DHABI

جامعة نيويورك أبوظبي
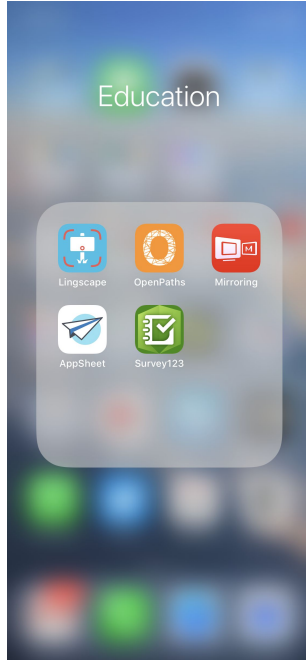
Geosocialfootprint.com

This website is an educational demonstration of how public Twitter.com data can be harvested and analyzed to uncover location intelligence. With 14 million tweets per day containing embedded GPS coordinates, and up to 35% of all tweets containing additional location information, viewing trends and making predictions is not only possible, but it should also be a considerable privacy concern for social media users.

Your "Google" timeline

Click on this link to see your own data:

https://www.google.com/maps/timeline?pb

October 19, 2018 - Paris, France
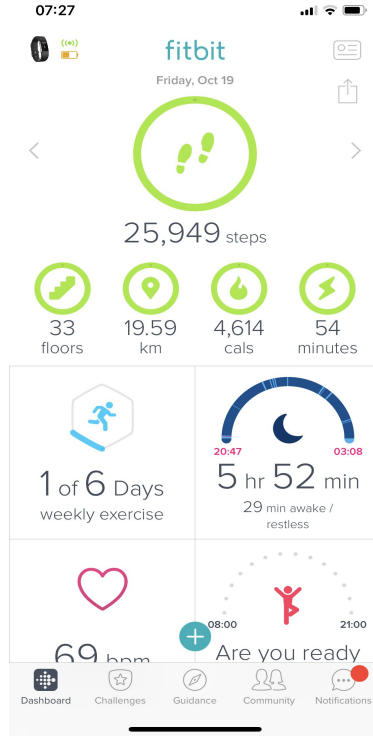
May 3, 2019 - Beirut, Lebanon
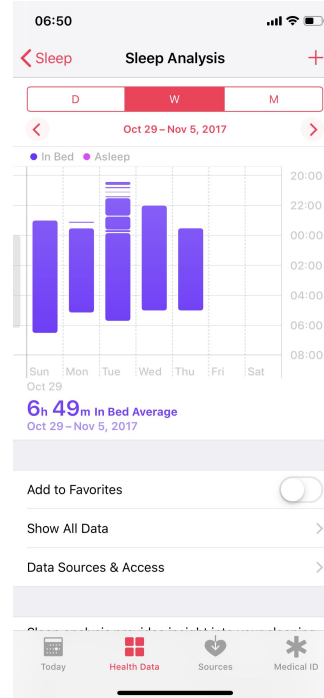
Exercise #2: Using the QS app with Health app

https://theappfactor.com/how-to-export-health-app-data-iphone-ipad/
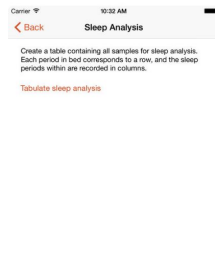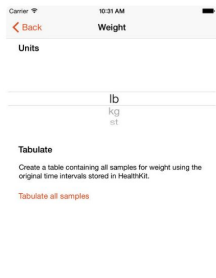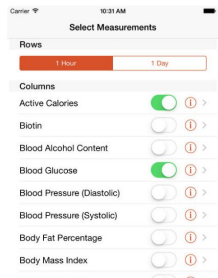
Download one of the kinds of data. Study the format. How would we visualize it in Excel?

Overnight Homework

1   Set your phone alarm now for every half hour until bedtime. In your DHIB notebook, when the alarm goes off, log your mood on a scale from 1 to 10.

Happy / Hungry / Tired / Annoyed ….

2   Try to download your data from one or more of your apps/platforms :

Health (use the QS app) / Uber / LinkedIn / Slack / Twitter / Instagram / Google / Whatsapp / Tinder …

جامعــة نيويورك أبوظـبي

NYU | ABU DHABI

2-day plan

Day 1

-discussion of data privacy, geo-privacy
-introduction to quantified self (QS) movement and to its globalization
-exploration of the data collection capacities of a smartphone / wearable technologies
-exploration of self-tracking apps
-choosing an app for data collection and extraction exercise

exercises: watching the watching; observing the data collection apps already on your phone; extracting data from an app or web service

Day 2

-debriefing about data collection: findings and shortcomings.
-discussion of a theoretical issues in QS, media studies and digital citizenship
-exporting data from web services
-presentation of relevant data visualization techniques.
-explore some ways to extend your information literacy to include more privacy in the digital age

exercises: close analysis of extracted data; data storytelling with that information

Quantified Self - 2
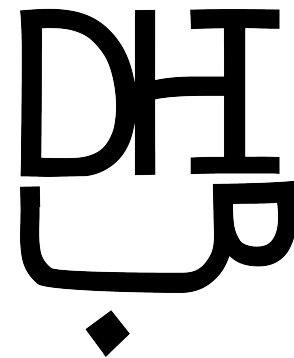
David Joseph Wrisley @DJWrisley #DHIB2019
Digital Humanities Institute Beirut 6 May 2019

جامعة نيويورك أبوظبي
NYU | ABU DHABI

Outcomes (http://djwrisley.com/dhib-2019-quantified-self/)

- Partcipants in the workshop will
  explore basic arguments in the contemporary context of self-tracking and the datafication of human life.
- be exposed to relevant issues in information privacy related to device usage and commercial data aggregation.
- visualize some data about themselves
- practice data storytelling techniques reusing that data (map visualization, plotting).
- discuss to what extent these data reflect their own life experience, or constitute "self-knowledge".
- Situate data literacy about the self within one's larger conception of information literacy
- examine critically the risks and benefits of QS applications for emerging and vulnerable environments
- Enrich and improve on the evolving course wp.nyu.edu/quse

2-day plan

Day 1

-discussion of data privacy, geo-privacy
-introduction to quantified self (QS) movement and to its globalization
-exploration of the data collection capacities of a smartphone / wearable technologies
-exploration of self-tracking apps
-choosing an app for data collection and extraction exercise

exercises: watching the watching; observing the data collection apps already on your phone; extracting data from an app or web service

Day 2

-debriefing about data collection: findings and shortcomings.
-discussion of a theoretical issues in QS, media studies and digital citizenship
-exporting data from web services
-presentation of relevant data visualization techniques.
-explore some ways to extend your information literacy to include more privacy in the digital age

exercises: close analysis of extracted data; data storytelling with that information

Highlights of yesterday's session

In discussion, participants said the following topics were highlights of Day 1:

- The data doppelgänger (tripelgänger [sic]) we all have
- Challenges of privacy across connected devices, IoT
- The deep dive into QS projects (https://quantifiedself.com/show-and-tell/)
- The difference between digitization and datafication
- Self-quantification in the open, socially
- Challenges of making ourselves / being made "computationally tractable"

Global QS

Quantified Self: A Global Phenomenon? Check out the traces of QS around the world. Are they all the same? Are there differences? Where has the movement appeared? where does the movement seem to have persisted? Tokyo, Singapore, London, Beirut, Dubai, Toronto, Portland, Paris, Geneva, San Francisco, Munich, Budapest, India.

QS Beirut

QUANTIFIED SELF
SELF KNOWLEDGE THROUGH NUMBERS

Tag: beirut

BLOG

TOOLMAKER TALK: HIND HOBEIKA (BUTTERFLEYE)

Rajiv Mehta

May 23, 2012

At a recent QS-themed event at Stanford, 3-time Tour de France winner Greg LeMond described the constant stream of new technologies that make bicycles lighter and more streamlined and that provide ever more detailed monitoring of the cyclists. In contrast, innovation in swimming seems limited to controversial bathing suits. Competitive swimmer Hind Hobeika aims to…

BLOG

RECAP OF FIRST BEIRUT QS MEETUP

Alexandra Carmichael

March 26, 2012

QS Beirut
@QSbeirut

Tweets	Following	Followers
37	22	22

Self-knowledge through numbers in Beirut! Tweets by @hindhobeika

⌖ Beirut, Lebanon

🔗 meetup.com/QSbeirut/

🗓 Joined December 2011

Tweet to QS Beirut

🖼 Photos and videos

Tweets   **Tweets & replies**   **Media**

↻ QS Beirut Retweeted

Steven Dean @sgdean · 15 Sep 2012
On stage, morning #qs2012 @rbarooah's show&tell talk on coffee's effects on the mind and body #QuantifiedSelf

جامعة نيويورك أبوظبي
NYU | ABU DHABI

Debriefing about the data collection process

1) Manual

   How easy was our gamified manual data collection process (using a timer and pencil/paper)? Did you come up with a work-around (to make it easier)? Did you make it through to bedtime? Could you go on for many more days? A half a year?

2) Download

   How easy was it to get the data you wanted? What format was it in? Did you discover a functionality that you didn't expect to find? Does the platform that you extracted your social data from have a home visualization?

جامعة نيويورك أبوظبي
NYU | ABU DHABI

Why visualize? What is visualization?

Manovich: visualization as a mapping between discrete data and a visual representation.

D'Ignazio / Klein: feminist visualization rethinks binaries, embraces pluralism, examines power/ aspires to empowerment, consider context, legitimize embodiment and affect, makes labor visible.

In-app visualization vs raw data (csv)

VS

Die Zeit journalist thinking about personal data


ZEIT ONLINE

Suche

Politik Gesellschaft Wirtschaft Kultur ▾ Wissen **Digital** Campus ▾ Arbeit Entdecken Sport ZEITmagazin Podcasts mehr ▾ Z+

Tell-all telephone

deutsch | english

Green party politician Malte Spitz sued to have German telecoms giant Deutsche Telekom hand over six months of his phone data that he then made available to ZEIT ONLINE. We combined this geolocation data with information relating to his life as a politician, such as Twitter feeds, blog entries and websites, all of which is all freely available on the internet.

By pushing the play button, you will set off on a trip through Malte Spitz's life. The speed controller allows you to adjust how fast you travel, the pause button will let you stop at interesting points. In addition, a calendar at the bottom shows when he was in a particular location and can be used to jump to a specific time period. Each column corresponds to one day.
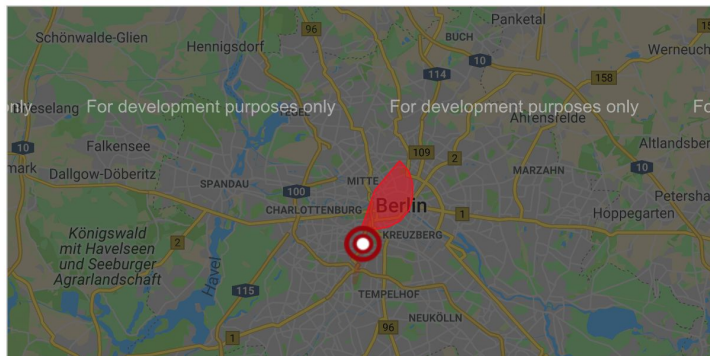
Monday, 31 August 2009

Malte Spitz gives a speech to the Greens in Erfurt against internet censorship. (source: Parteiwebsite)

6 incoming calls
21 outgoing calls
total time: 1h 16min 8s

34 incoming messages
29 outgoing messages

duration of internet connection:
21h 17min 25s

"Data humanism:" art thinking about personal data

Dear Data (Lupi & Posavec)

Bruises (Lupi & King)

Data Not Found (King & Dorsen)

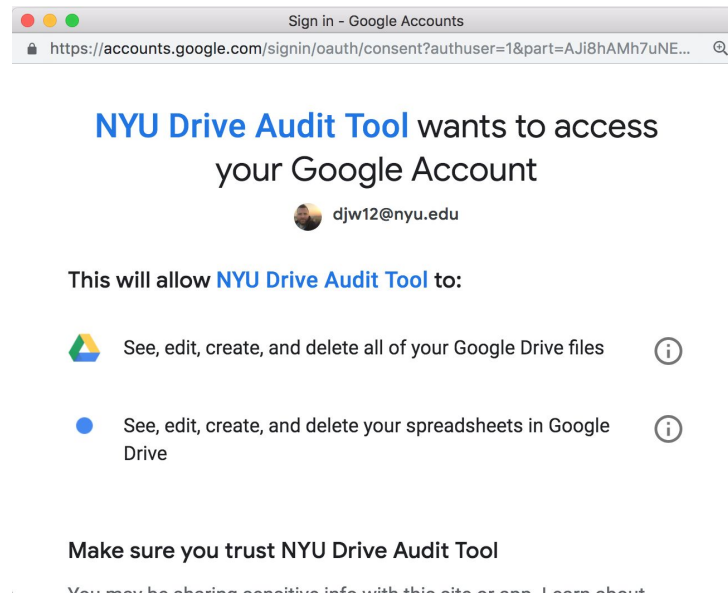# Privacy resources

Electronic Frontier Federation

Ghostery

FemTechNet "Locking down your digital identity"

DuckDuckGo

NYT Privacy Project

جامعـة نيويورك أبوظـبي
NYU | ABU DHABI

Checking your sharing in Drive

https://www.makeuseof.com/tag/see-access-google-drive-files/

Altering your social data, after the fact

Tweet location ☑ Tweet with a location

If selected, you can add a location to your Tweets, such as your city or precise location, from the web and via third-party applications. This setting does not affect Twitter for iOS or Android. Learn more

Delete location information

Location labels you've added to your Tweets will no longer be visible o Twitter.com, Twitter for iOS, and Twitter for Android. These updates ma some time to go into effect.

Apps connected to your Twitter account

DJ Wrisley
API for twitter mining exercise
Permissions: *Read and write*
Approved: Oct 31, 2017, 12:03 PM

Revoke access

mining_r_aub
API for searching through twitter
Permissions: *Read and write*
Approved: Sep 20, 2015, 9:38 PM

Undo Revoke Access

iOS
iOS Twitter integration
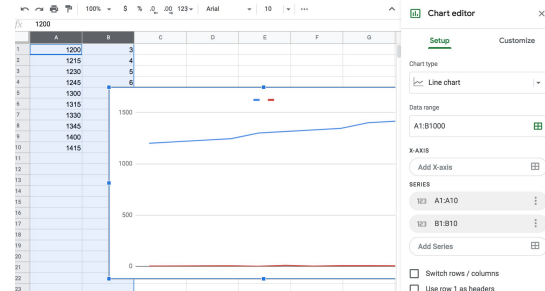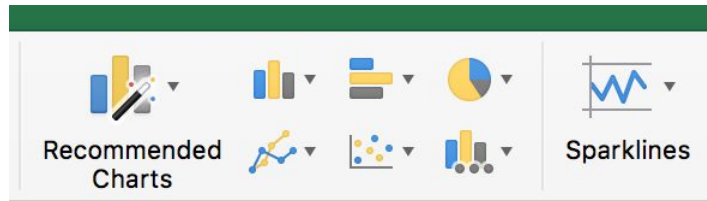Permissions: *Read and write*
Approved: Jan 16, 2014, 6:45 PM

Revoke access

Exercise #1 : simple visualization of your manual life logging

Make columns in Excel/Google Sheets, insert your data in regular formats

Insert > recommended charts (Excel)   Insert > Chart Editor (Sheets)

Were you able to create a simple vis? What does your life logging look like over the evening? What do you expect it would look like with a week of data? A month? A year?

Exercise #2

Examine your data download for format, structure, size, personal markers, etc.

How granular is it? How algorithmically "cooked" is it? What has been lost?

```
untitled                    Location History.json
1  {
2    "locations" : [ {
3      "timestampMs" : "1410804585278",
4      "latitudeE7" : 338713439,
5      "longitudeE7" : 355070496,
6      "accuracy" : 37,
7      "activity" : [ {
8        "timestampMs" : "1410804612218",
9        "activity" : [ {
10         "type" : "UNKNOWN",
11         "confidence" : 56
12       }, {
13         "type" : "IN_VEHICLE",
14         "confidence" : 19
15       }, {
16         "type" : "STILL",
17         "confidence" : 14
18       }, {
19         "type" : "ON_BICYCLE",
20         "confidence" : 12
21       } ]
22     } ]
23   }, {
24     "timestampMs" : "1410804660959",
25     "latitudeE7" : 338713429,
26     "longitudeE7" : 355070494,
27     "accuracy" : 43
28   }, {
29     "timestampMs" : "1410804721045",
```

Exercise #3: possible workflows for analysis

Matching data format to mode of visualization

- List of real place names (Awesome GeoCode)
- List of people related to each other (Palladio)
- List of numerical values over time (Excel, RawGraphs)
- Unstructured text (Voyant)
- Any other ideas?

Cleaning, normalizing, preprocess (might include anonymization)
Understanding the Privacy Policy of tools
Experimenting with different forms of visualization

Visualizing data

http://rawgraphs.io/about/

Excel/Google sheets

http://umap.openstreetmap.fr/en/

https://hdlab.stanford.edu/palladio/

https://www.wordclouds.com

https://zenobase.com/ (accepts common download formats)

What kind of data predictions are social media doing?

What kind of a person does Google think you are? Twitter?

http://www.gregboggs.com/who-does-google-think-you-are/

https://www.wonderoftech.com/twitter-personalization/

https://www.wonderoftech.com/facebook-ad-preferences/

Beyond Privacy: *Digital Citizenship in a Datafied Society* (2019)

Much activism is alienated from data (local exception: Visualizing Palestine)

"[Datafication] incurs a qualitative shift in how social problems are perceived, decisions made, and ultimately how citizens are governed. In that, it can, and does, have significant and real implications for how and to what extent people are able to participate in society. Data is abstracted from our lived experience but can, at the same time, shape it in its returned form-- 'while we don't live in a world where our reality is exclusively data, we do live in a world where our reality is augmented by data.' (citing Cheney-Lippold). In this sense, it warrants a broader engagement that incorporates a wider range of stakeholders across civil society in articulating both challenges and responses to datafication. (136)"

Outcomes (http://djwrisley.com/dhib-2019-quantified-self/)

- Partcipants in the workshop will
  explore basic arguments in the contemporary context of self-tracking and the datafication
  of human life.
- be exposed to relevant issues in information privacy related to device usage and
  commercial data aggregation.
- visualize some data about themselves
- practice data storytelling techniques reusing that data (map visualization, plotting).
- discuss to what extent these data reflect their own life experience, or constitute
  "self-knowledge".
- Situate data literacy about the self within one's larger conception of information literacy
- examine critically the risks and benefits of QS applications for emerging and vulnerable
  environments
- Enrich and improve on the evolving course wp.nyu.edu/quse

2-day plan

Day 1

-discussion of data privacy, geo-privacy
-introduction to quantified self (QS) movement and to its globalization
-exploration of the data collection capacities of a smartphone / wearable technologies
-exploration of self-tracking apps
-choosing an app for data collection and extraction exercise

exercises: watching the watching; observing the data collection apps already on your phone; extracting data from an app or web service

Day 2

-debriefing about data collection: findings and shortcomings.
-discussion of a theoretical issues in QS, media studies and digital citizenship
-exporting data from web services
-presentation of relevant data visualization techniques.
-explore some ways to extend your information literacy to include more privacy in the digital age

exercises: close analysis of extracted data; data storytelling with that information