

Leah Elliott

# CONTRA CHROME

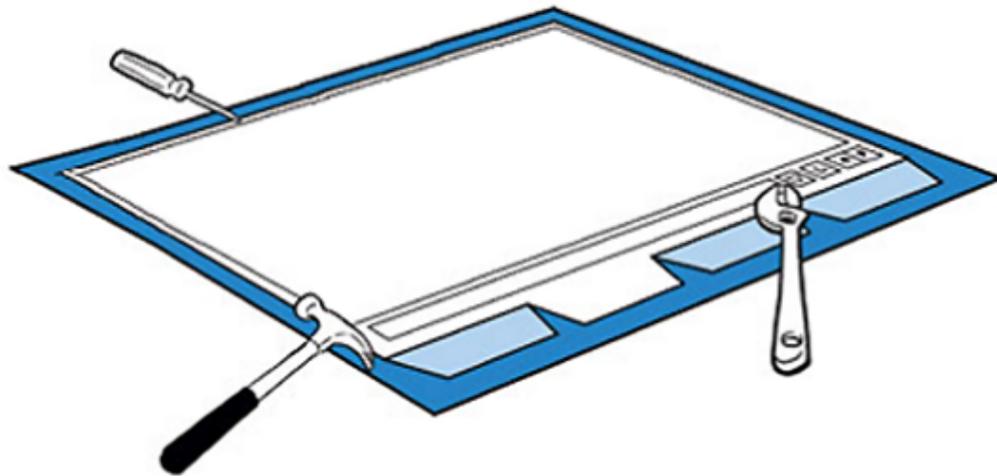
**How Google's Browser became a threat to privacy and democracy**



Leah Elliott

# CONTRA CHROME

How Google's browser became a threat  
to privacy and democracy



*An Honest Comic*

*Remixed from Scott McCloud's Google Chrome Comic*

# Google Chrome



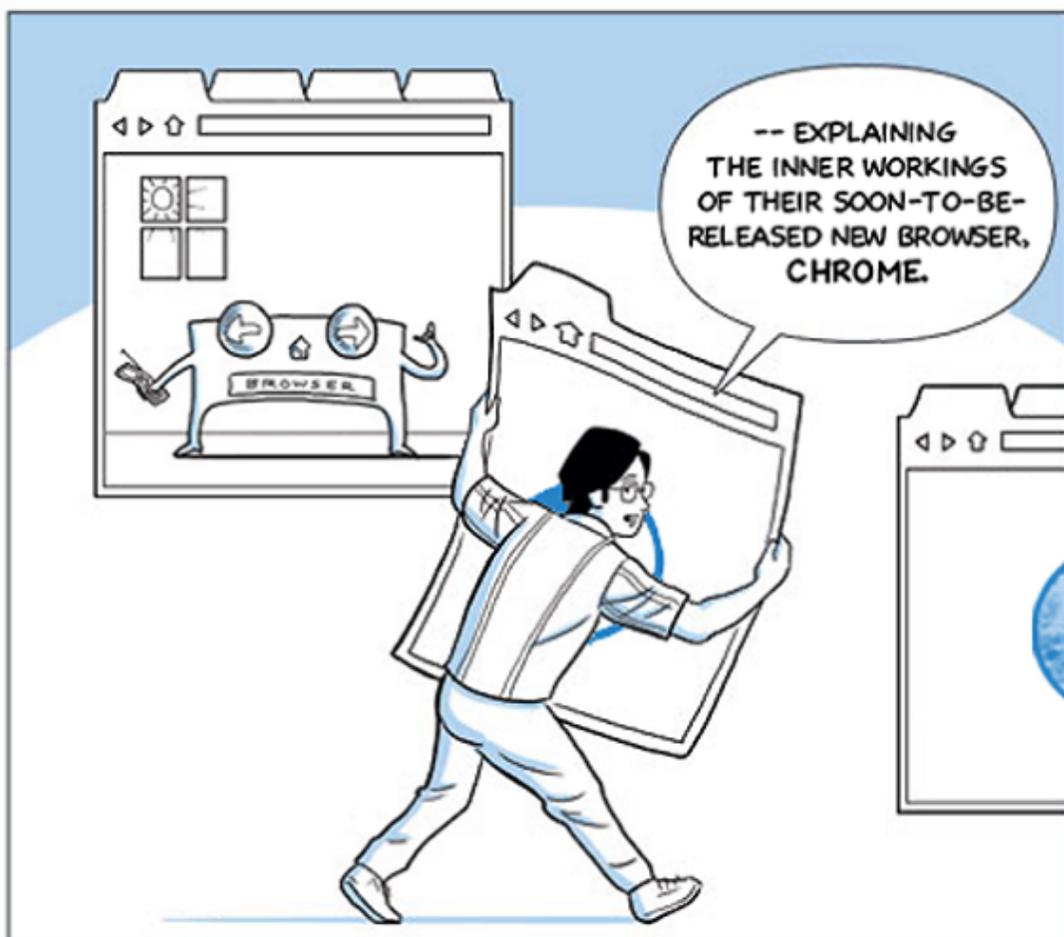
Introduction



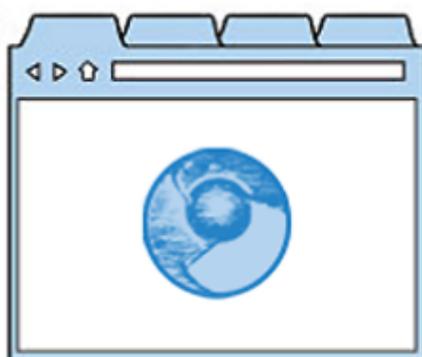
HI, MY NAME IS SCOTT McCLOUD! I'M A CARTOONIST AND COMICS SCHOLAR. BACK IN 2008, I CREATED A COMIC BOOK FOR GOOGLE --



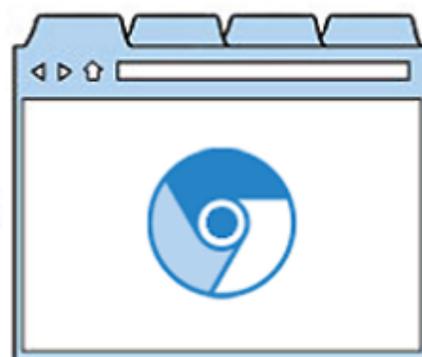
-- EXPLAINING THE INNER WORKINGS OF THEIR SOON-TO-BE-RELEASED NEW BROWSER, CHROME.



THE COMIC WAS A WEB PHENOMENON WHEN FOR TWO DAYS IT WAS THE ONLY SOURCE OF INFORMATION ON THIS MAJOR SOFTWARE RELEASE.



2008



2022

BUT NOW THAT WE'RE ENTERING THE 2020s, ME AND THE GOOD FOLKS AT GOOGLE HAD THE SAME FEELING:



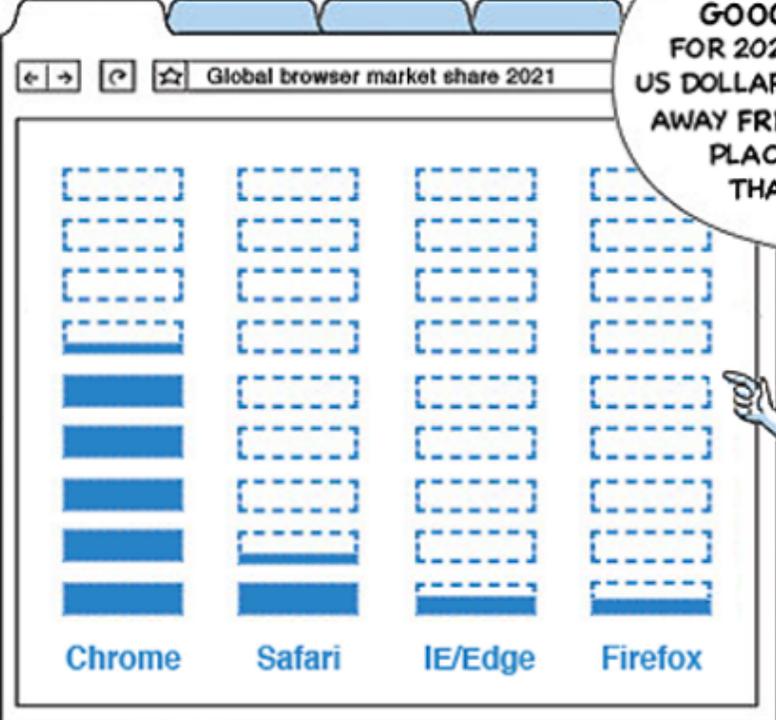
CHROME HAS CHANGED SO MUCH THAT WE OWE YOU GUYS AN UPDATE.

ENTER THE GOOGLE CHROME TEAM, WHO WILL GUIDE YOU THROUGH VARIOUS NEW FEATURES AND DEVELOPMENTS.

HEY THERE, SCOTT!



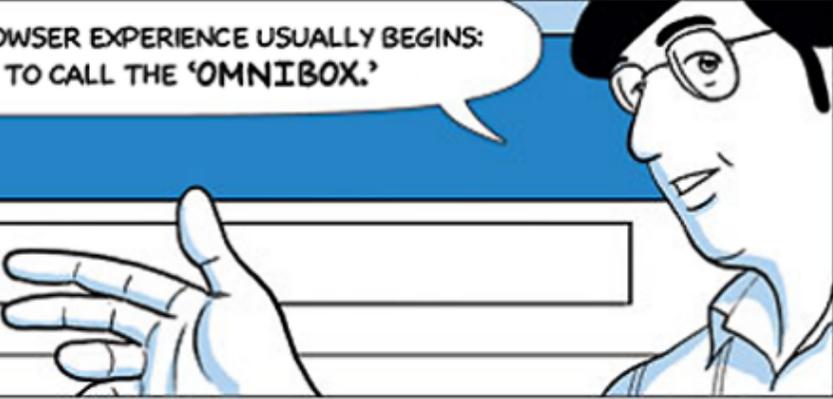
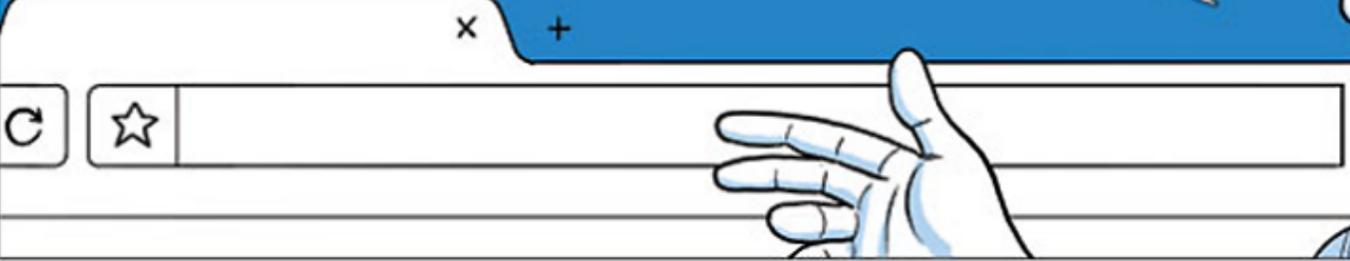
IT HAS BEEN QUITE A RIDE FOR CHROME THIS PAST DECADE. SINCE 2012, CHROME HAS BEEN THE MOST POPULAR BROWSER, WITH OVER TWO BILLION ACTIVE INSTALLS.



AND AT THE SAME TIME, GOOGLE'S REVENUE FOR 2021 WAS 257 BILLION US DOLLARS -- ALL FOR GIVING AWAY FREE SOFTWARE AND PLACING ADS! HOW IS THAT POSSIBLE?



WELL, LET'S START WHERE YOUR BROWSER EXPERIENCE USUALLY BEGINS: IN THE SEARCH BAR WE LIKE TO CALL THE 'OMNIBOX.'



Part One



Dial O for Omnibox



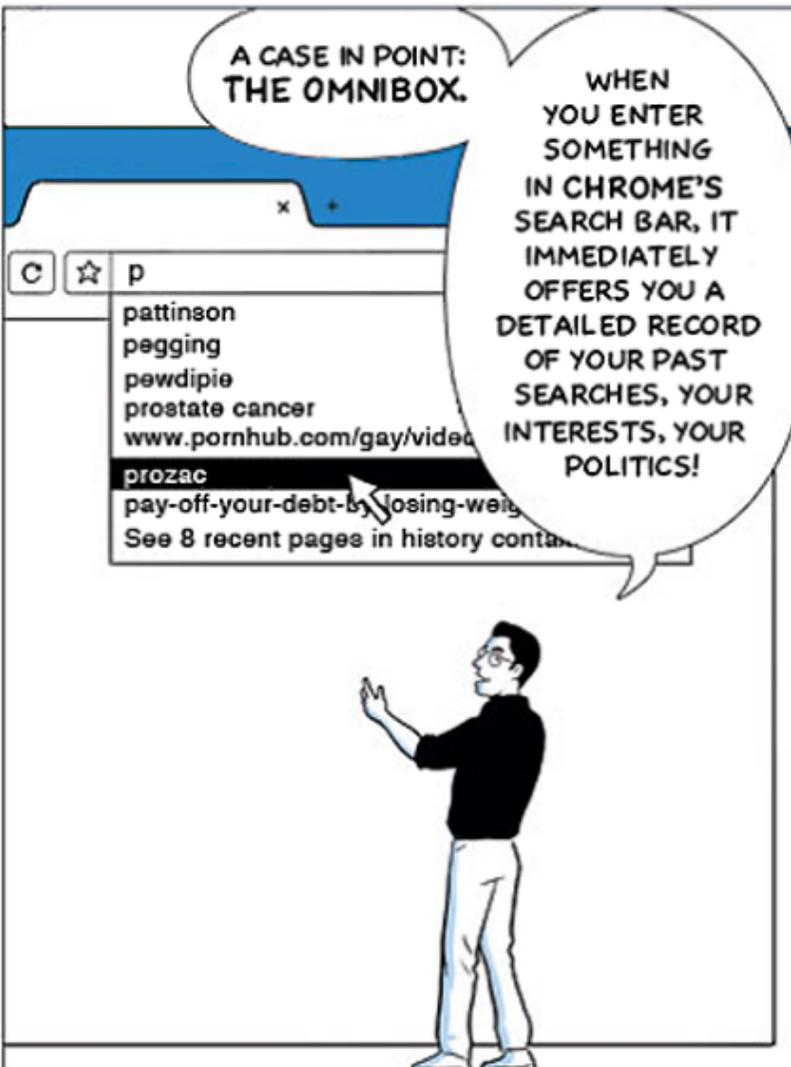
WE TELL OUR WEB BROWSERS THINGS WE WOULDN'T EVEN TELL OUR BEST FRIENDS.

AND SIMULTANEOUSLY HAVE THIS VAGUE FEELING OF LEAVING TRACES ALL OVER THE WEB.



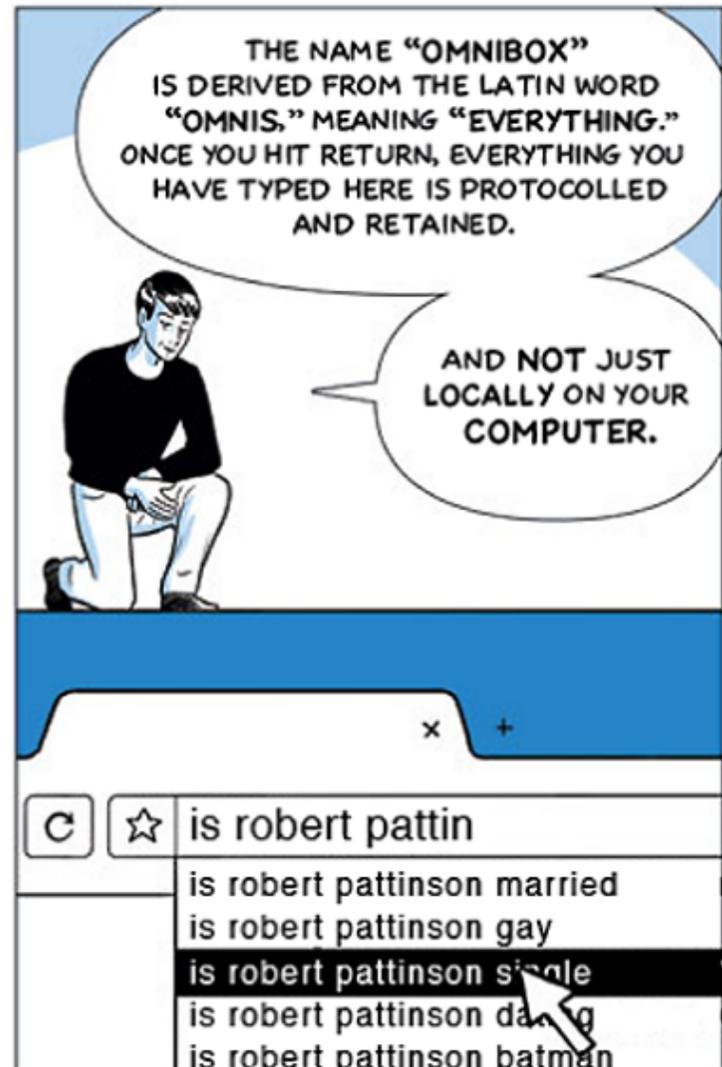
A CASE IN POINT: THE OMNIBOX.

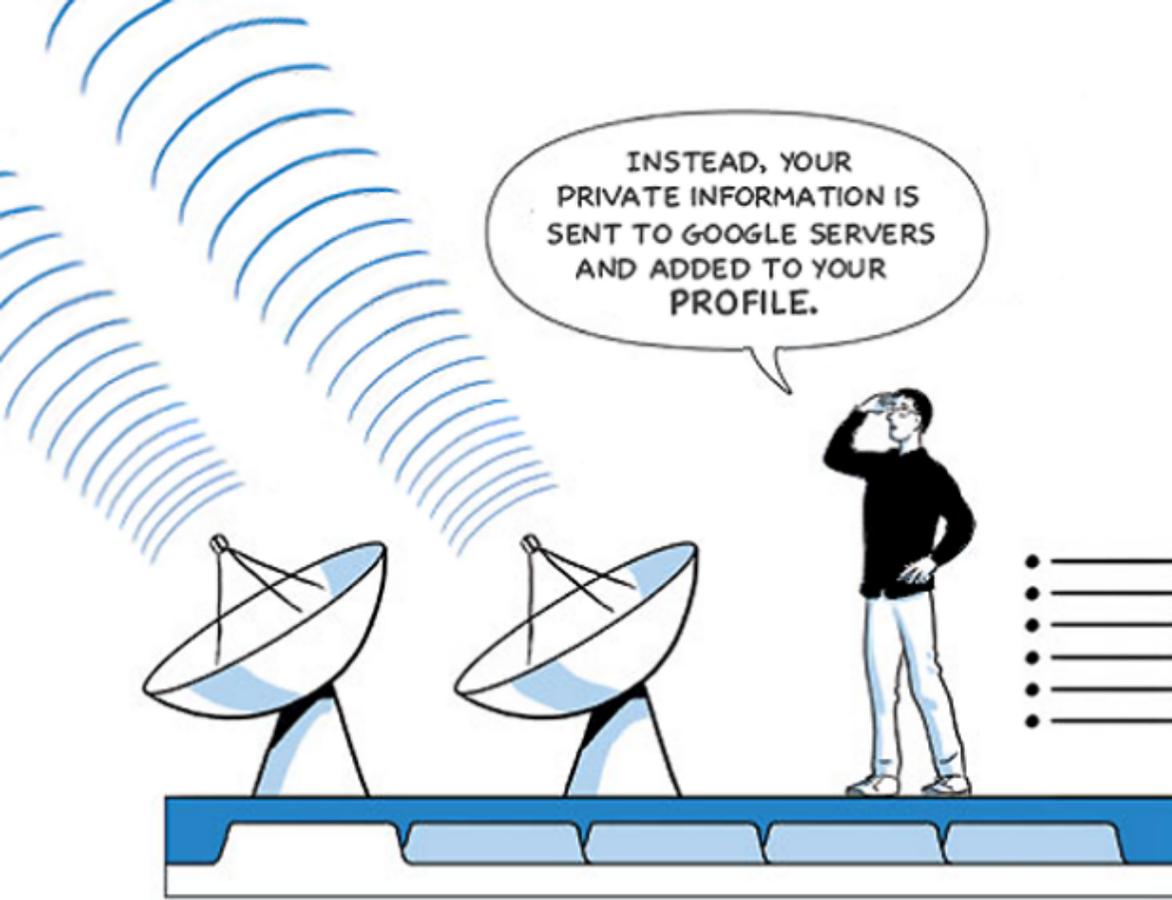
WHEN YOU ENTER SOMETHING IN CHROME'S SEARCH BAR, IT IMMEDIATELY OFFERS YOU A DETAILED RECORD OF YOUR PAST SEARCHES, YOUR INTERESTS, YOUR POLITICS!



THE NAME "OMNIBOX" IS DERIVED FROM THE LATIN WORD "OMNIS," MEANING "EVERYTHING." ONCE YOU HIT RETURN, EVERYTHING YOU HAVE TYPED HERE IS PROTOCOLLED AND RETAINED.

AND NOT JUST LOCALLY ON YOUR COMPUTER.





IN FACT, YOU DON'T EVEN HAVE TO PUSH RETURN AT ALL. FROM THE MOMENT YOU BEGIN TO TYPE, EVERYTHING IS INSTANTLY SIPHONED OFF.

(WE JOKINGLY CALL THIS CHROME'S 'NO RETURN POLICY'.)

LET'S TAKE A MOMENT HERE TO LET THAT SINK IN: ALL THOSE WORDS YOU MIGHT DEEM TOO SENSITIVE TO EVEN TYPE -- YOUR EX'S NAME, AN ABORTION CLINIC, THAT GROUP THERAPY IDEA --

-- BEFORE YOU HAVE EVEN DECIDED WHETHER TO SEND THEM, GOOGLE HAS ALREADY EXTRACTED THEM -- YOUR DOUBTS, YOUR HESITATIONS.

OMNI.  
BOX.



SINCE 2008, GOOGLE HAS SPENT MILLIONS OF DOLLARS ADDING ADDITIONAL TRACKING FEATURES TO BOTH CHROME AND ANDROID.\*



FORGET 'INCOGNITO MODE.'  
BY THE WAY. IT HAS BEEN SHOWN THAT GOOGLE  
CAN STILL TRACK YOU AND WHAT YOU'RE LOOKING AT.  
IT ALSO DOESN'T KEEP YOU SAFE FROM BEING  
TRACKED BY THE WEBSITES YOU VISIT.



-- AND  
CHROME  
ENABLES A LOT  
OF TRACKERS  
OTHER BROWSERS  
WOULDN'T:

HI, MY NAME IS  
GEOFFREY FOWLER,  
I'M A TECH JOURNALIST.  
IN 2019, I WROTE A PIECE  
ABOUT CHROME FOR THE  
WASHINGTON POST, AND  
I WAS SHOCKED!



IN ONE WEEK OF WEB SURFING  
ON MY DESKTOP, I DISCOVERED  
**11,189** REQUESTS FOR TRACKER  
COOKIES THAT CHROME WOULD  
HAVE USHERED RIGHT ONTO MY  
COMPUTER, BUT WERE AUTOMATI-  
CALLY BLOCKED BY FIREFOX.



THESE LITTLE FILES ARE THE  
HOOKS THAT DATA FIRMS,  
INCLUDING GOOGLE ITSELF,  
USE TO FOLLOW THE WEB-  
SITES YOU VISIT SO THEY CAN  
BUILD PROFILES OF YOUR  
INTERESTS, INCOME AND  
PERSONALITY.



CAN YOU TURN  
THIS OFF?

OF  
COURSE!



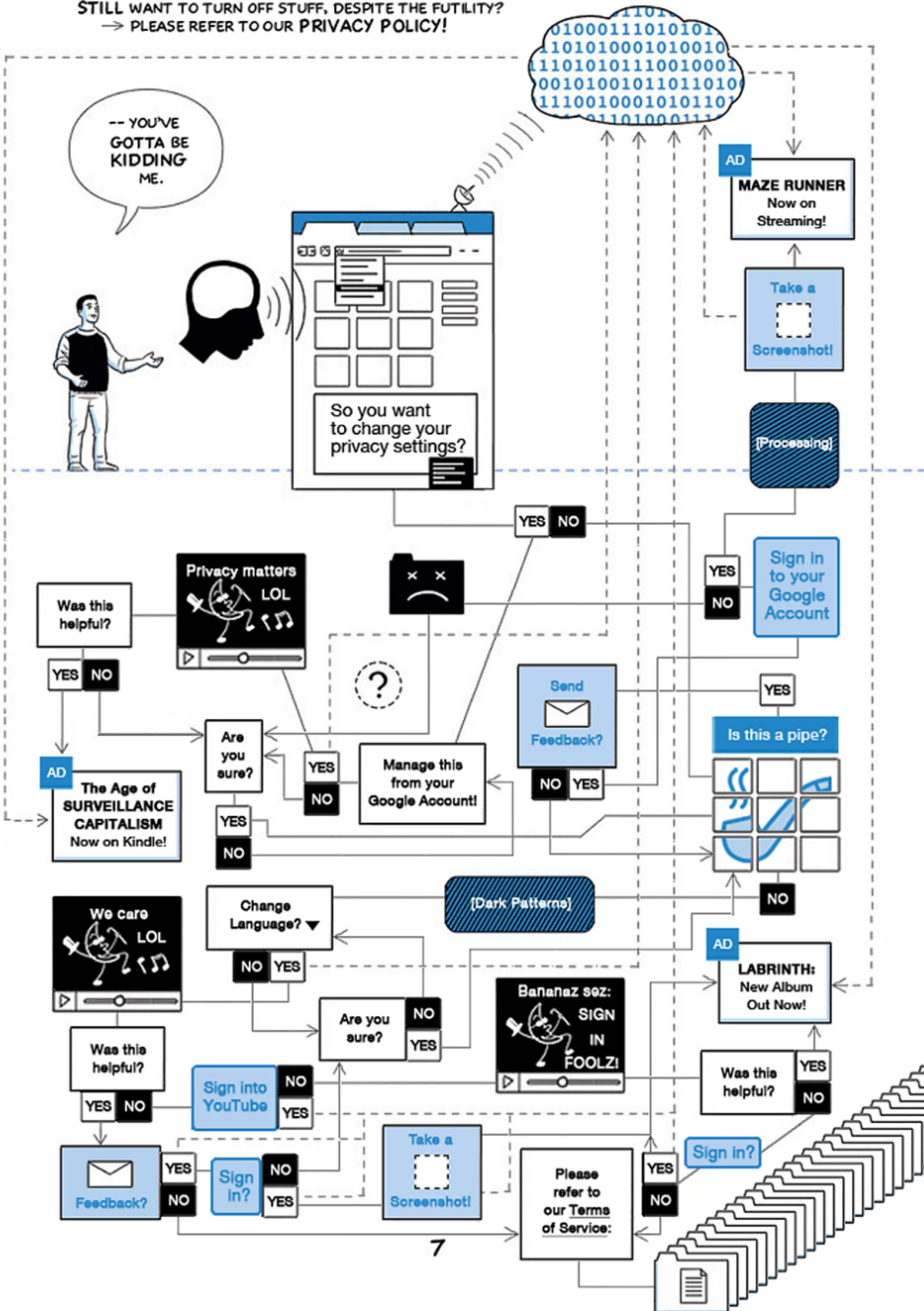
WELL, A LITTLE BIT.  
BUT EVEN WHEN YOU HAVE  
TURNED OFF EVERYTHING  
YOU CAN, THERE ARE STILL  
IDENTIFIERS THAT SIMPLY  
CANNOT BE DELETED.



AND JUST LIKE ANDROID, CHROME CONSTANTLY SENDS LOADS OF  
DATA TO GOOGLE EVEN WHEN YOU DO OR TYPE ABSOLUTELY NOTHING.



STILL WANT TO TURN OFF STUFF, DESPITE THE FUTILITY?  
→ PLEASE REFER TO OUR **PRIVACY POLICY!**



## Part Two



Platform Puzzles



**CHROME**  
HAS COME A LONG WAY  
FROM THE UNASSUMING  
FAST AND MINIMAL BROWSER  
IT USED TO BE  
IN 2008.



OVER THE YEARS, LIKE THE LEAVES OF  
A CAMERA SHUTTER --

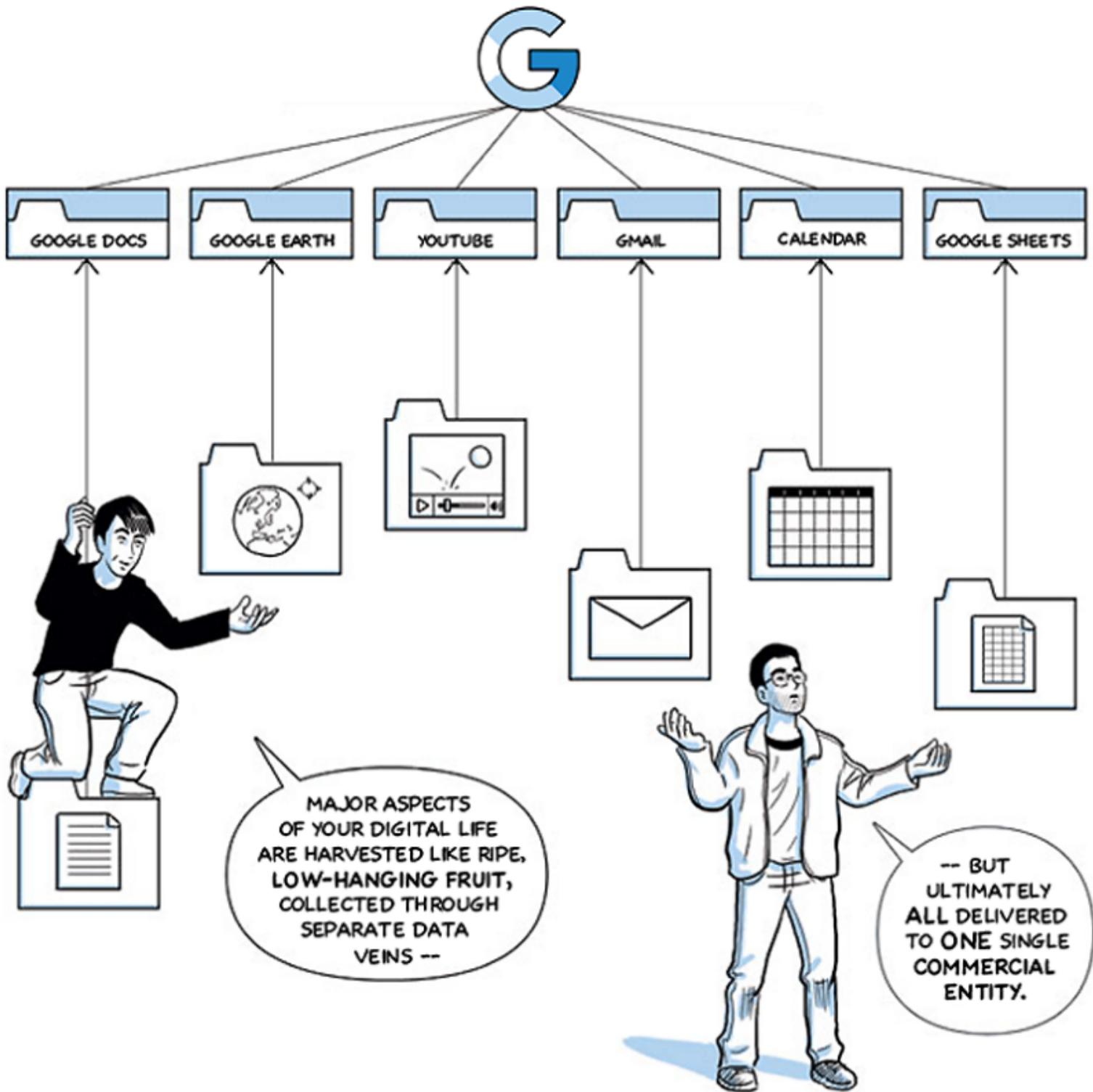
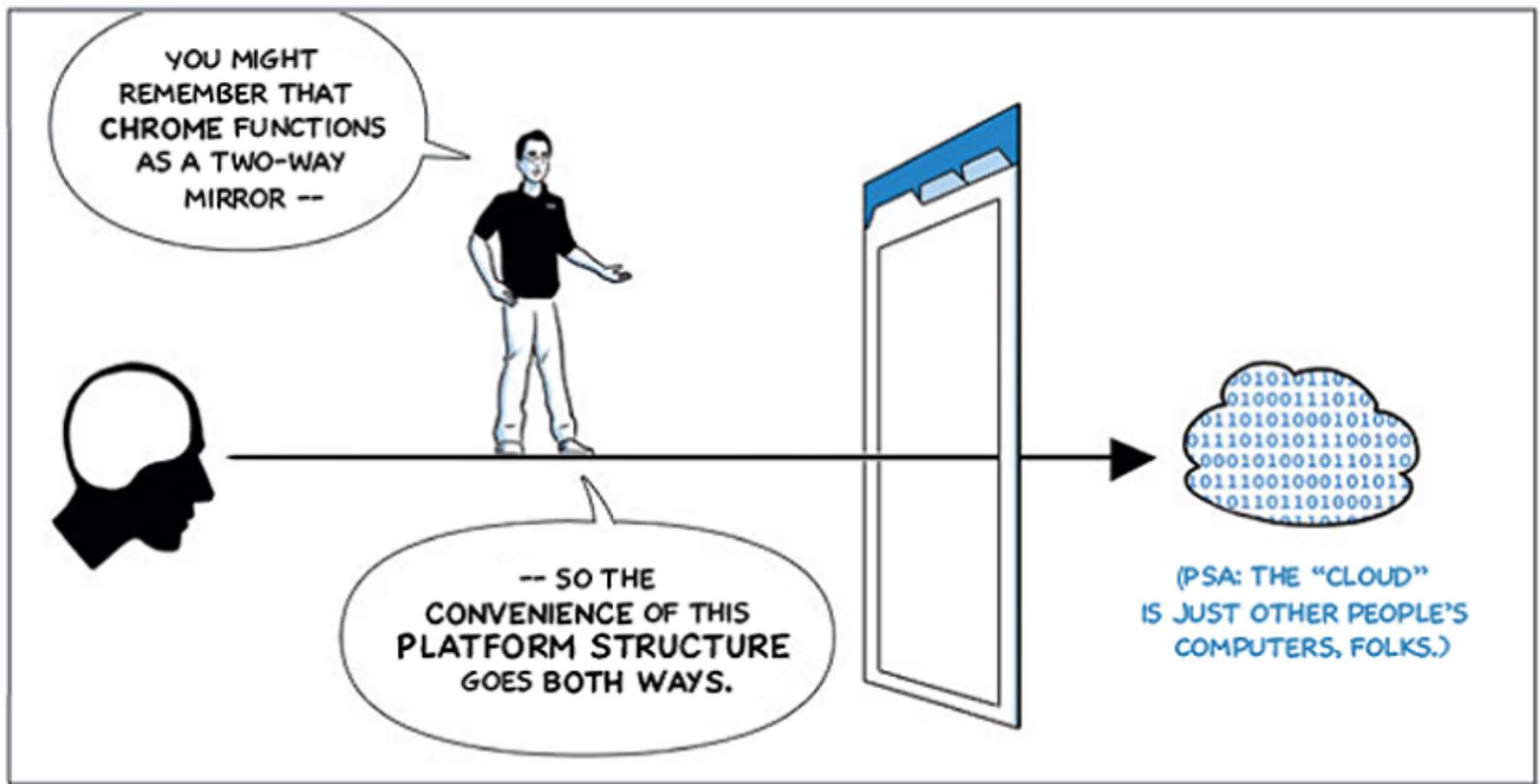


-- GOOGLE HAS ARRANGED AN EXTENSIVE  
ECOSYSTEM AROUND ITS BROWSER --



-- TURNING CHROME INTO A CENTRAL HUB THAT'S ONLY ONE CLICK AWAY FROM WRITING A GMAIL,  
LISTENING TO YOUTUBE MUSIC, PRINTING OUT A DOCUMENT OR UPDATING YOUR GOOGLE CALENDAR.







THE SLEEK AND COMPACT BROWSER OF YORE HAS TURNED INTO A CROWDED APPLICATION PLATFORM, WITH SOMETIMES DUBIOUS INTERFERENCES BETWEEN ITS RESPECTIVE SERVICES:



**Web Images**

chrome.google.com > privacy-nightmare

**e.g. Chrome for Android** sends Google your location every single time you conduct a search.

Missing: privacy | Must include: informed consent

IF YOU USE GOOGLE MAPS OR EARTH FROM WITHIN CHROME, IT WILL RECORD YOUR ENTIRE QUERY HISTORY, THE ZOOM DEGREE AND HOW LONG YOU LOOK AT STUFF --

-- FOR CREATING DETAILED DOSSIERS OF YOUR MOVEMENTS AND INTERESTS.

AND THE GOOGLE ASSISTANT, GOOGLE'S ANSWER TO ALEXA, WILL NOT FUNCTION PROPERLY UNTIL YOU HAVE GRANTED GOOGLE ACCESS TO YOUR BROWSING HISTORY.

IT WON'T EVEN RESPOND TO "WHAT TIME IS IT?" UNTIL YOU FEED IT ALL OF YOUR BROWSING HISTORY AND CONTACTS.

THOUGH IT IS STILL LISTENING, OF COURSE, THEN --

-- STILL RECORDING EVERYTHING YOU SAY.



IN SHORT, CHROME IS NUDGING AND COMFORTING YOU INTO SPENDING MOST OF YOUR DIGITAL LIFE WITHIN THE GOOGLE ARCHITECTURE --

-- WHILE YOUR PRIVATE DATA, YOUR INTIMATE PATTERNS OF LIFE, YOUR THOUGHTS, MOTIVATIONS, DESIRES AND ROUTINES --

-- ROAM FREELY THROUGH A CLOSE-MESHED FIBER OPTIC WEB, A GARGANTUAN ONE-WAY ANT TRAIL MARCHING TOWARDS GOOGLE'S DATA CENTERS:

VAST INDUSTRIAL COMPLEXES, HEAVILY GUARDED BY BARBED WIRE FENCES, VEHICLE BARRIERS, BIOMETRIC IDENTIFICATION, AND LASER-BASED INTRUSION DETECTION SYSTEMS.

HERE, YOUR DATA IS RETAINED INDEFINITELY, WAY BEYOND YOUR CONTROL EVER SINCE IT HAS BEEN PROCESSED THROUGH THE SYNCHRONIZED INTERPLAY OF SHUTTER LEAVES --

-- LEAVES, WHICH, JUST AS THEIR PHOTOGRAPHIC COUNTERPARTS, ORGANIZE BUNDLED INFORMATION IN ORDER TO CONSTRUCT A PRECISE PORTRAIT OF YOU. AT THE CENTER OF IT ALL:

A LENS - EXPRESSIONLESS AND EVER-WATCHING.



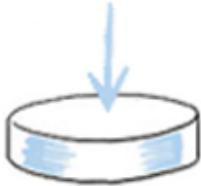
Part Three



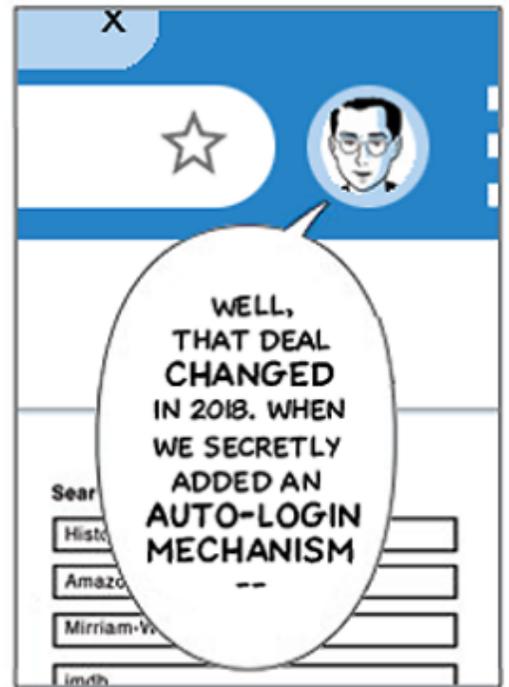
The Regression Game



AND YES, FOR MANY YEARS, BASIC MODE MEANT THAT YOUR DATA WAS STORED LOCALLY --



-- WHILE THE OPTIONAL SIGNED-IN MODE SENT ALL YOUR BROWSER DATA TO GOOGLE.

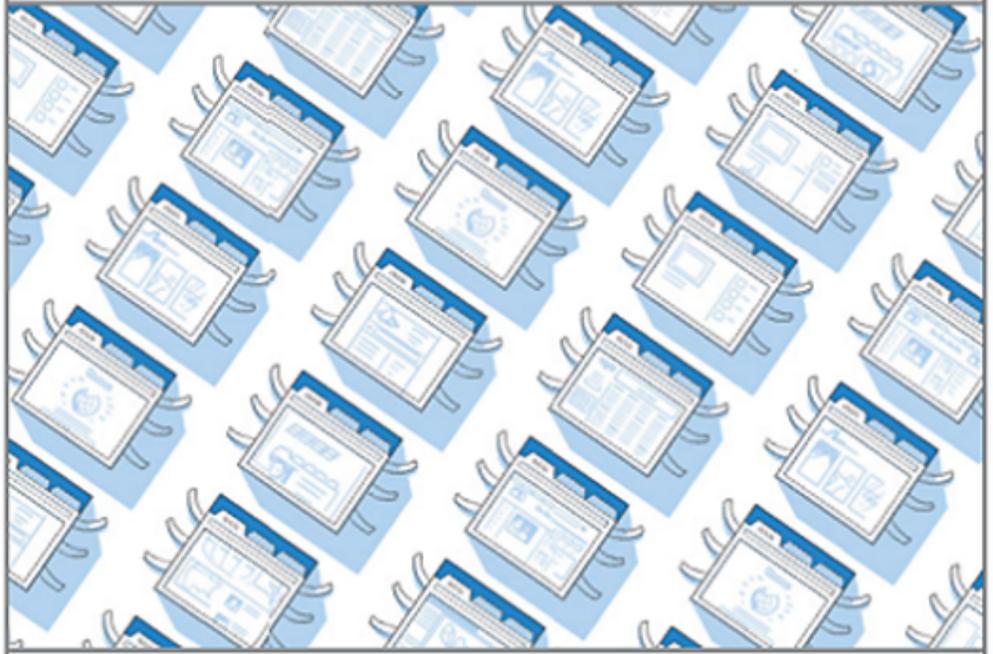


THE OPTION OF SYNCING HAS BECOME THE DE FACTO RULE.

SURPRIISE!



THIS IS SERIOUS. ONCE YOU TURN ON SYNC, YOUR BROWSING HISTORY, YOUR DOWNLOAD HISTORY, YOUR BOOKMARKS AND YOUR AUTOFILL INFORMATION BELONG TO GOOGLE --



-- AND AUTOFILL INCLUDES YOUR NAME, ADDRESS, PHONE NUMBER, USERNAME AND PASSWORD.

CHROME WILL DO THIS WITHOUT ASKING, WITHOUT NOTIFYING. JUST LIKE GOOGLE HAS MODIFIED A CRUCIAL PRIVACY FEATURE WITHOUT TELLING ITS USERS.

UNFORTUNATELY, THIS IS NO EXCEPTION.

YEAR AFTER YEAR, UPDATE AFTER UPDATE, GOOGLE HAS PLAYED A RELENTLESS PRIVACY REGRESSION GAME:



**06.2015**  
A CHROME UPDATE SILENTLY SWITCHES ON YOUR MICROPHONE AND SENDS WHAT IT HEARS TO GOOGLE.

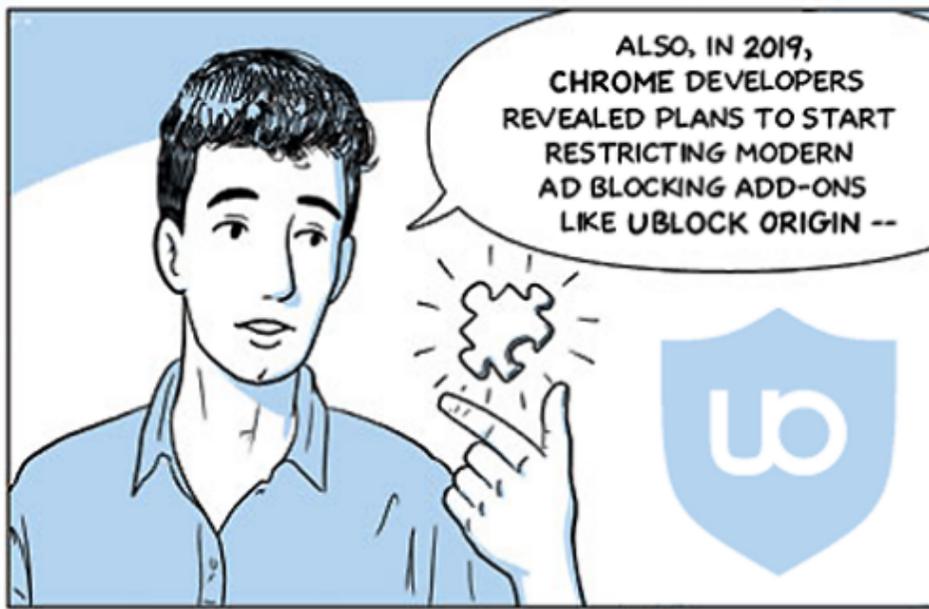
**05.2017**  
A CHROME "FLAW" ALLOWS SITES TO SECRETLY RECORD AUDIO AND VIDEO WITHOUT WARNING OR CONSENT.

**03.2018**  
THE 'CHROME CLEANUP TOOL' SCANS AND REMOVES FILES ON YOUR COMPUTER WITHOUT CONSENT OR TRANSPARENCY.

**04.2019**  
CHROME ELIMINATES THE OPTION TO TURN OFF THE SURVEILLING 'HYPERLINK AUDITING.'

**10.2020**  
WHEN TOLD TO WIPE ALL COOKIES ON EXIT, CHROME NOW EXEMPTS ALL GOOGLE SITES LIKE YOUTUBE OR GOOGLE SEARCH.

**10.2021**  
CHROME CAN NOW TRACK WHEN YOU'RE NOT IN FRONT OF THE SCREEN, LOGS BREAKS AND SLEEP CYCLE VIA ITS NEW 'IDLE DETECTION'.



THAT SAME YEAR, GOOGLE'S PARENT COMPANY ALPHABET OPENLY MENTIONED --

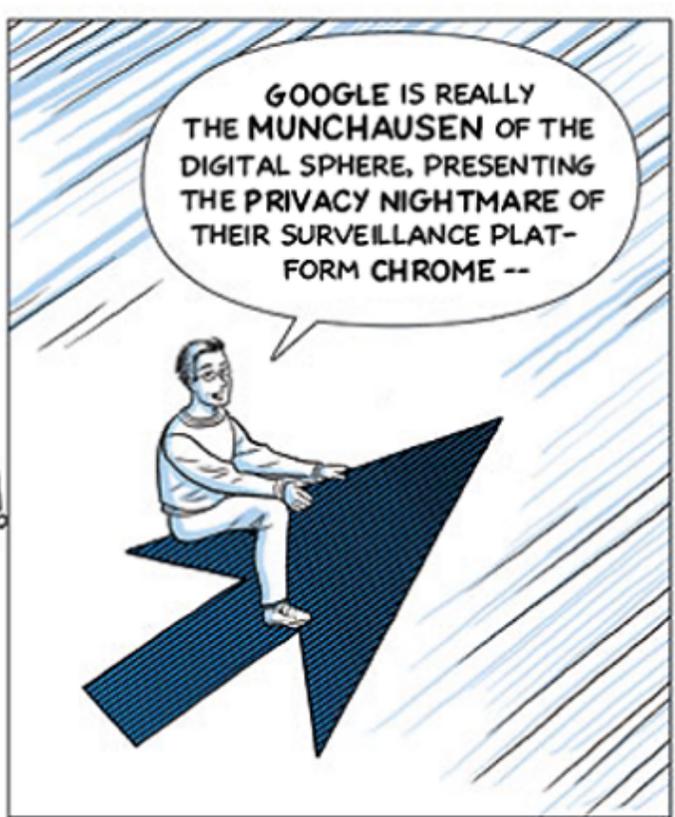
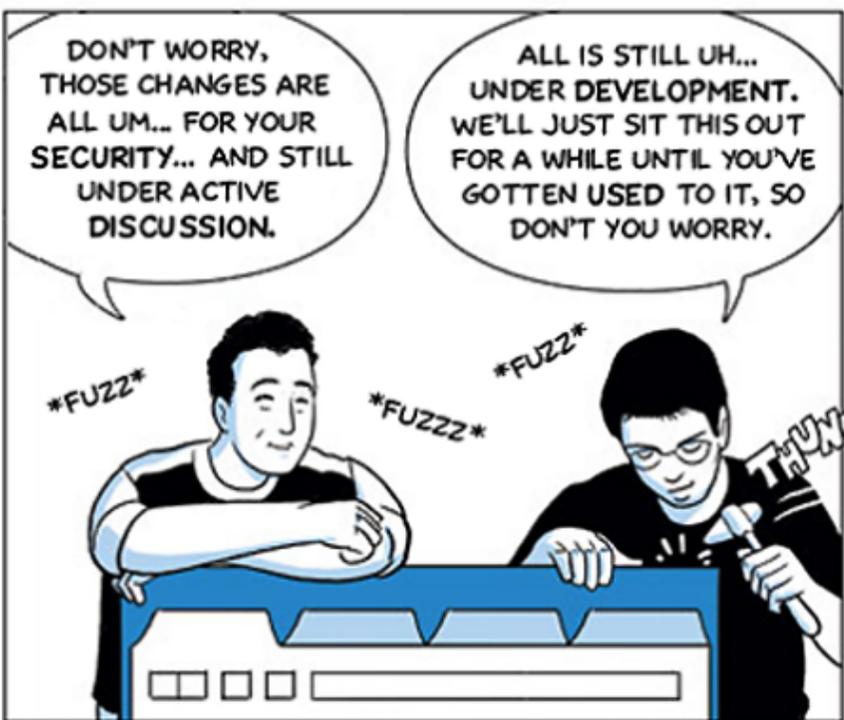


-- THE "RISK FROM ADBLOCKERS" TO THEIR REVENUE IN THEIR SEC FILINGS.

IN THE END, AFTER AN OUTCRY FROM USERS AND PRIVACY ADVOCATES ALIKE, GOOGLE BACK-PEDALED A BIT, BUT AS OF THIS WRITING (2022) NEVER TRULY REVERTED ITS COURSE. AND CONSIDERING ITS RECORD OF BREAKING PAST PROMISES --



THIS IS PART OF GOOGLE'S SUCCESSFUL PR STRATEGY, THEIR TRADEMARK MAXIMUM FUZZINESS®™.





-- AS THIS LIGHTWEIGHT,  
PURE AND INNOCENT PIECE  
OF SOFTWARE.

GOOGLE'S PR APPROACH IS WHAT YOU CALL  
"THE SLOW COOKING OF THE FROG."



WE TAKE  
OUR TIME TO  
DRAW IT OUT OVER  
YEARS, AND EVEN  
REVERSE A LITTLE  
WHEN THERE'S YET  
ANOTHER OUTCRY  
AMONG COMPUTER  
EXPERTS.

WELL, WHAT'S  
THEIR POINT,  
ANYWAY?

WAIT,  
WHAT?

I THOUGHT  
WE JUST  
DROPPED THE  
"DON'T"...?

WE  
ALREADY  
ERASED THE  
"DON'T BE EVIL"  
MOTTO FROM  
OUR CODE OF  
CONDUCT BACK  
IN 2018.

SECRETLY.



THE QUESTION REMAINS:  
WHAT ARE YOU GOING TO DO ABOUT IT?  
FIDDLE YOUR WAY THROUGH OUR PRIVACY  
SETTINGS? READ UP ON WHICH ADD-ONS TO  
INSTALL? TRY OUT ANOTHER  
BROWSER?!

YOU  
HAVE A  
LIFE!

AND  
WE WILL CONTINUE  
TO KNOW EVERYTHING  
ABOUT IT.





HELLO EVERYBODY,  
MY NAME IS SHOSHANA ZUBOFF, I AM A SOCIAL  
PSYCHOLOGIST AND AUTHOR OF THE 2018 BOOK  
"THE AGE OF SURVEILLANCE CAPITALISM".

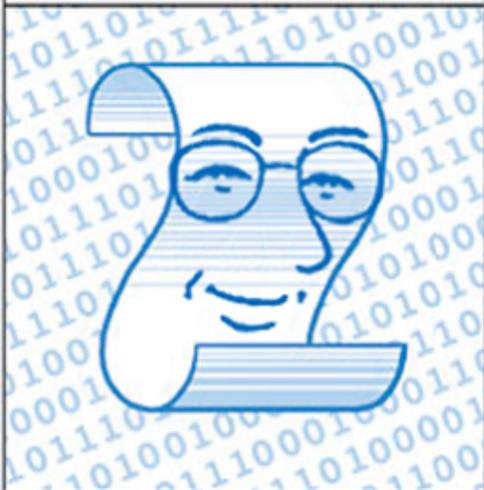
IN IT, I TALK ABOUT  
HOW COMPANIES LIKE GOOGLE AND  
FACEBOOK SECRETLY HARVEST YOUR  
LIFE EXPERIENCES TO CREATE RAW  
MATERIAL TO SELL TO GOVERN-  
MENTS AND COMPANIES.

YOU'VE  
ALREADY TAKEN A LOOK  
UNDER THE HOOD OF  
THE CHROME BROWSER,  
BUT I WOULD LIKE TO  
ADD ONE IMPORTANT  
CONCEPT:

THE  
SHADOW  
TEXT.



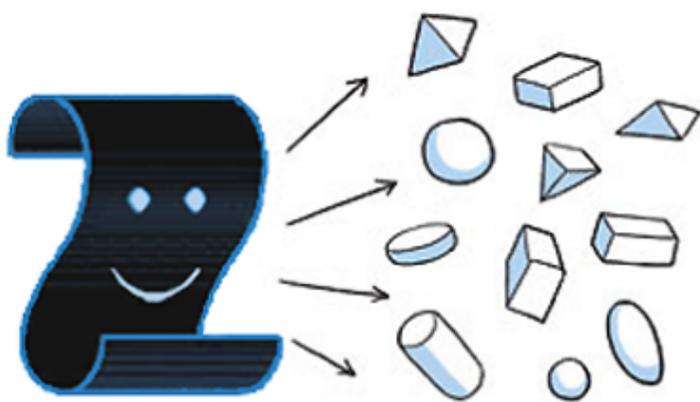
WHENEVER WE POST  
PICTURES TO A WEBSITE,  
WHENEVER WE BLOG, CHAT,  
TWEET, OR "LIKE" SOME-  
THING, WE ARE AUTHORS  
OF A MULTIMEDIAL  
PUBLIC TEXT.



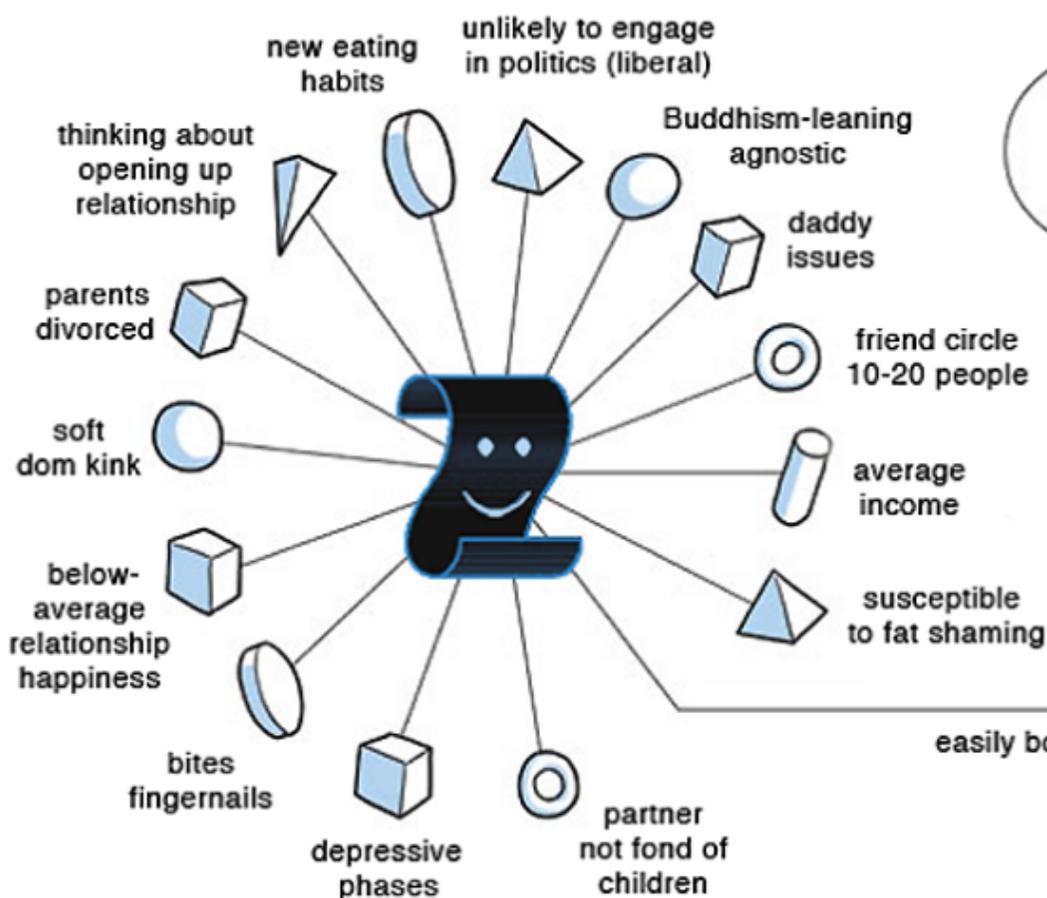
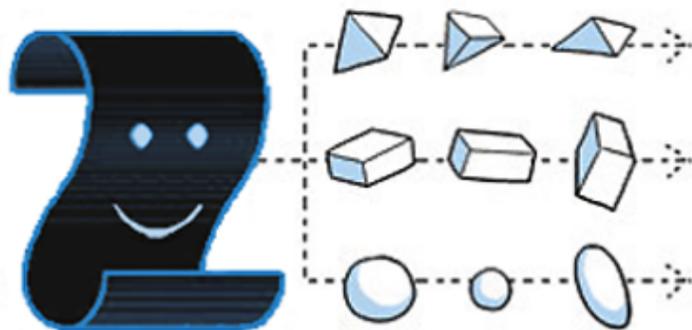
BUT IN ADDITION TO THAT, EVERYTHING YOU TYPE OR CLICK WHILE  
BROWSING THE WEB, HOWEVER TRIVIAL OR FLEETING, WILL BE  
ENGRAVED INTO A SECOND TEXT.



IN ITSELF, EACH OF THESE TINY PERSONALITY PARTICLES MIGHT SEEM RANDOM, UNIMPORTANT, AND UNPROFITABLE.



BUT WHEN EXTRACTED ON A MASSIVE SCALE AND ANALYZED BY GOOGLE'S ALGORITHMS, THESE INSIGNIFICANT DETAILS BEGIN TO FORM PATTERNS.



THANKS TO THE SHADOW TEXT, WHAT WAS ONCE DEEMED USELESS "DATA EXHAUST" --

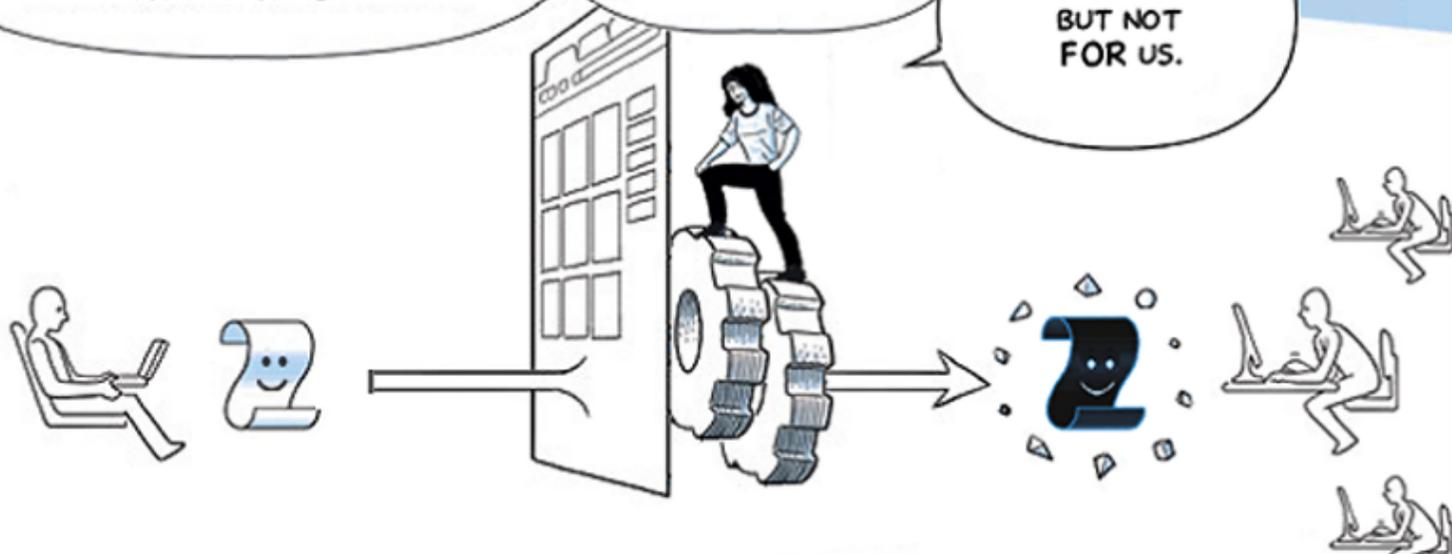
-- WHEN SYSTEMATICALLY LINKED TO YOU, BECOMES A MOST INFORMATIVE AND PROFITABLE DIGITAL TWIN.



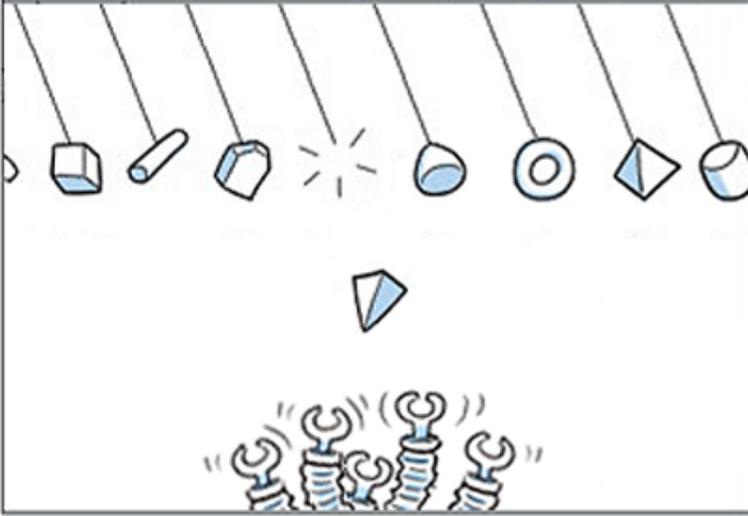
WHEREAS THE FIRST PUBLIC TEXT IS VISIBLE TO US, THE SHADOW TEXT IS HIDDEN FROM OUR VIEW --

--"READ ONLY" FOR SURVEILLANCE CAPITALISTS.

ABOUT US, BUT NOT FOR US.

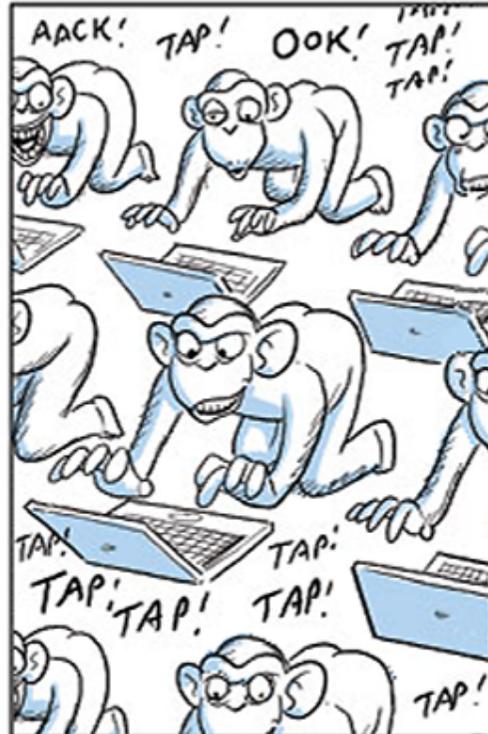


AS ALWAYS, IT IS THE MOST VULNERABLE WHO SUFFER THE DEEPEST FROM THIS DIGITAL ABUSE. DEPENDING ON THE COUNTRY YOU LIVE IN, ONE IDENTIFIER (MUSLIM, LGBTQIA\*, DEMOCRAT) CAN DETERMINE WHETHER YOU WILL GET THAT JOB, THAT CREDIT CARD OR HEALTH INSURANCE POLICY.



AND SOMETIMES, JUST ONE IDENTIFIER PROCESSED THROUGH SHINY "PERSONALIZED" PRODUCTS AND "TAILORED-TO-YOU" SERVICES CAN EVEN SPELL THE DIFFERENCE BETWEEN FREEDOM AND IMPRISONMENT, LIFE AND DEATH.

IT'S TRUE, DEANONYMIZATION IS A PIECE OF CAKE WHEN PEOPLE CONSTANTLY TYPE THEIR LIFE INTO THE CHROME BROWSER LIKE...



...LIKE... SATISFIED... UM... GOOGLE USERS.

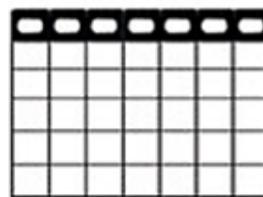


BUT WHAT ARE YOU GONNA DO ABOUT IT, HUH?

WELL, SOMETHING NEEDS TO BE DONE WHEN WE ARE CONSTANTLY SURVEILLED AND RECORDED --



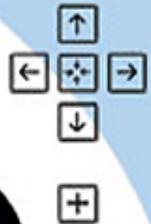
-- WHEN OUR INNERMOST LIVES ARE INVADDED FOR OTHER PEOPLE'S GAINS WITHOUT OUR CONSENT.



HOPEFULLY, THE LAST CHAPTER CAN GIVE YOU AN IDEA ABOUT WHERE TO START.

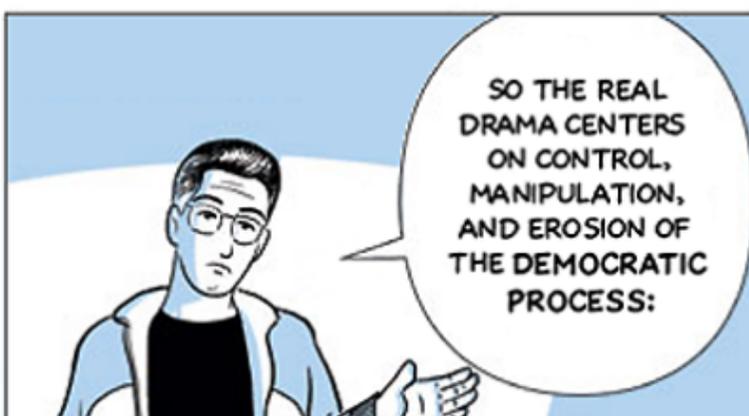
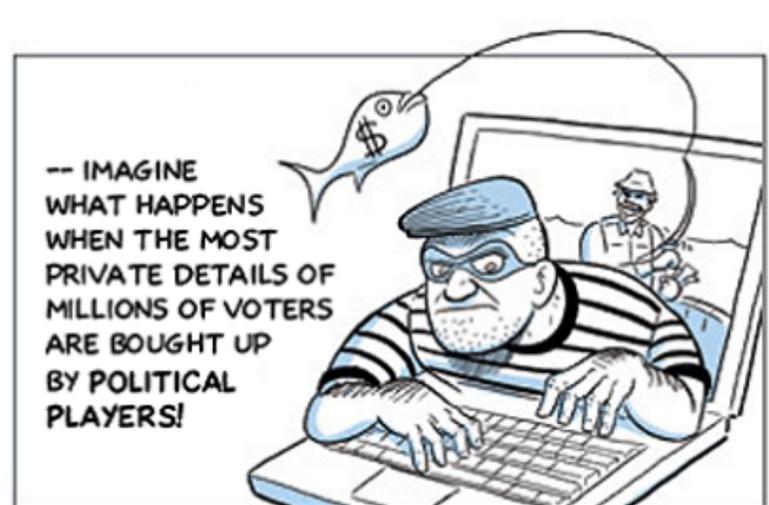
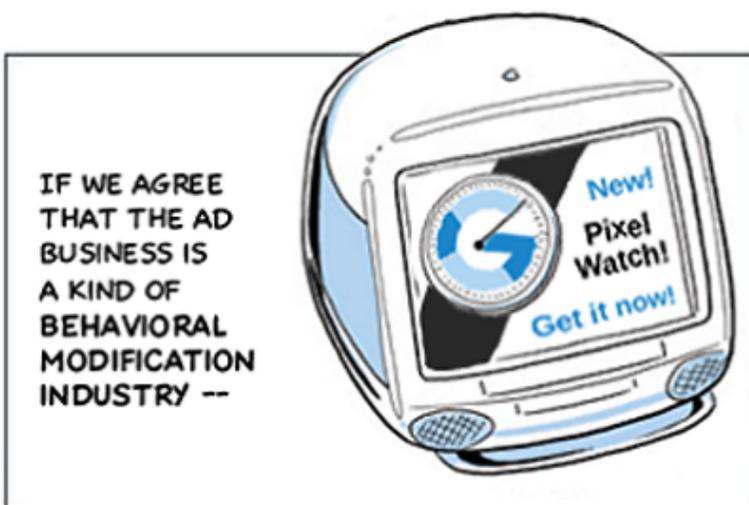
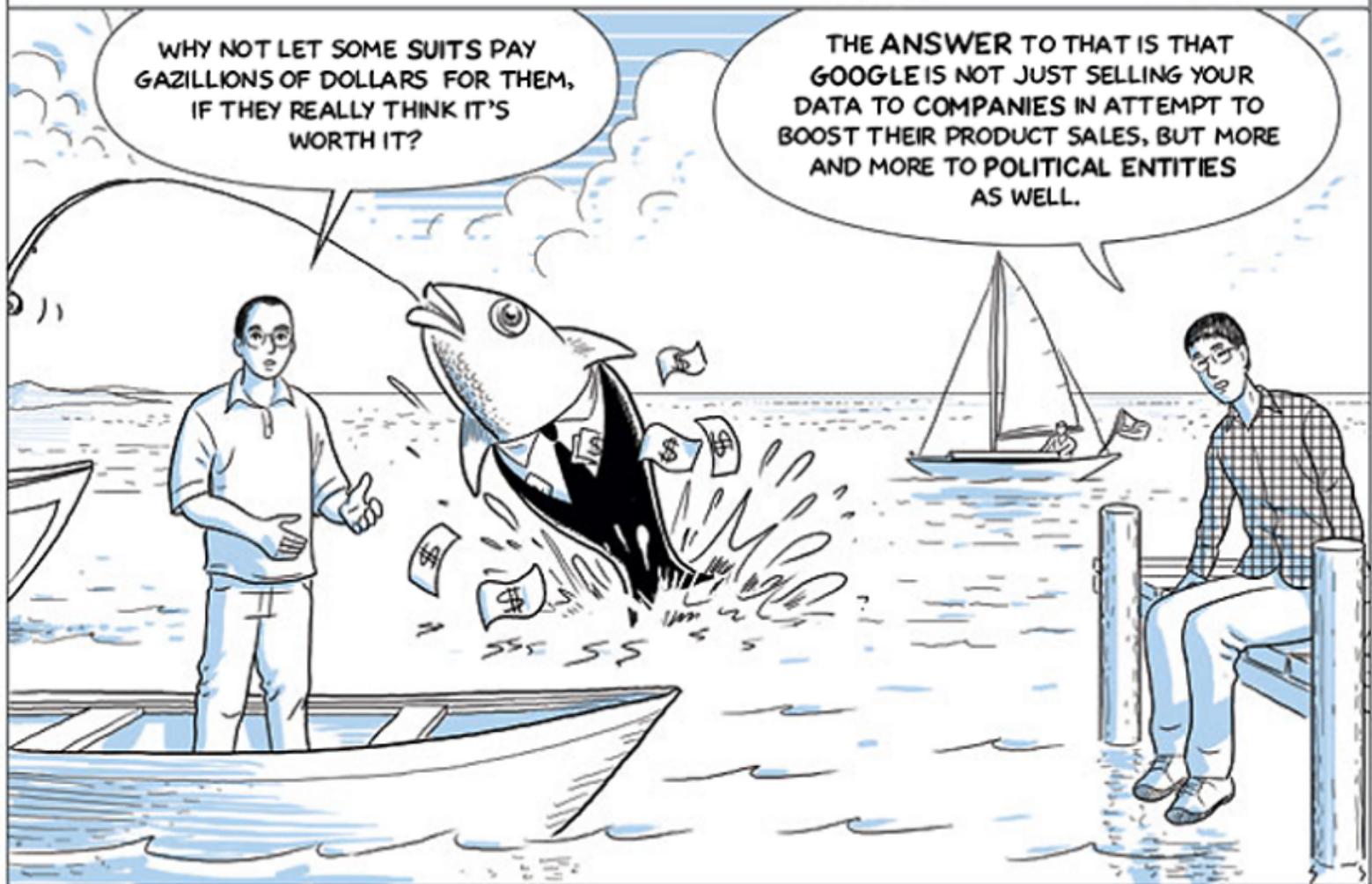


ula88: ROFL ^^  
Hrrbl: LOL  
DMFG





ALL OF THIS MIGHT SOUND OVERTLY MELODRAMATIC WHEN ALL WE'RE TALKING ABOUT IS PERSONALIZED ADS.



REPORTERS AT BUZZFEED DISCOVERED THAT GOOGLE ENABLED ADVERTISERS TO TARGET ADS TO PEOPLE WHO TYPE RACIST AND ANTI-SEMITIC SLURS INTO THE OMNIBAR.

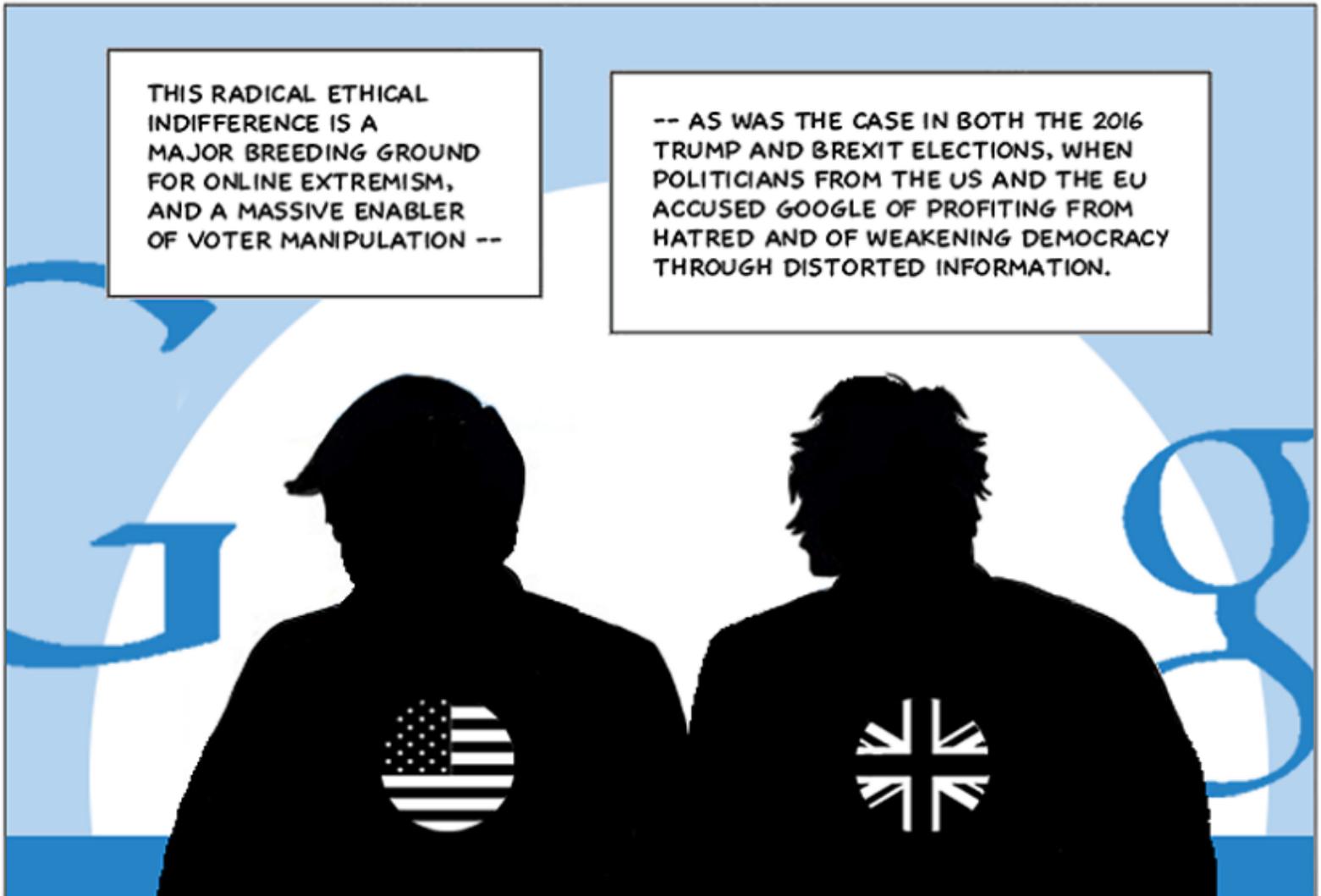
⌂ ☆ Jewish

⌂ ☆ Black people

⌂ ☆

THIS RADICAL ETHICAL  
INDIFFERENCE IS A  
MAJOR BREEDING GROUND  
FOR ONLINE EXTREMISM,  
AND A MASSIVE ENABLER  
OF VOTER MANIPULATION --

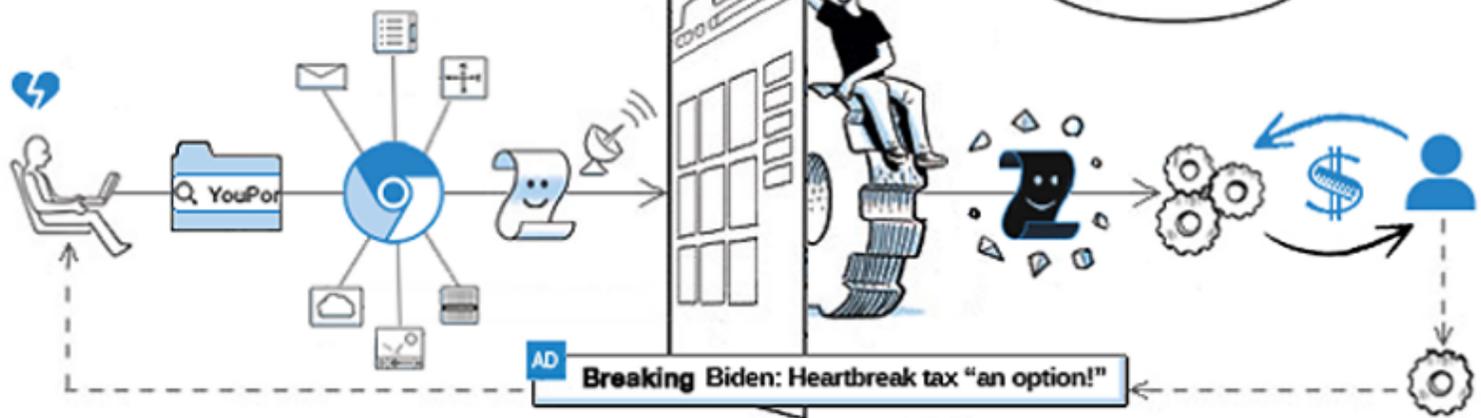
-- AS WAS THE CASE IN BOTH THE 2016  
TRUMP AND BREXIT ELECTIONS, WHEN  
POLITICIANS FROM THE US AND THE EU  
ACCUSED GOOGLE OF PROFITING FROM  
HATRED AND OF WEAKENING DEMOCRACY  
THROUGH DISTORTED INFORMATION.



DISTORTED INFORMATION  
THAT WAS DELIVERED AT EXACTLY  
THE RIGHT TIME TO EXACTLY THE  
RIGHT PEOPLE --

-- WITH THE  
PRECISION OF A SWISS  
CLOCKWORK.

CONTROL  
AND POWER, SOLD  
TO THE HIGHEST  
BIDDER.



THESE INTRUSIONS INTO THOUGHT AND IDENTITY ENDANGER FUNDAMENTAL RIGHTS. CONCEPTS LIKE FREEDOM OF WILL, INDIVIDUALITY AND SELF-DETERMINATION ARE AT STAKE HERE.



BUT DON'T HOLD YOUR BREATH IN HOPE THAT POLITICIANS WILL CATCH UP SOON AND SMASH THIS ANTIDEMOCRATIC STRUCTURE.



GOOGLE HAS SPENT MORE LOBBYING MONEY IN WASHINGTON AND BRUSSELS THAN ANY OTHER CORPORATE ENTITY IN THE WORLD --

-- A WHOPPING \$150 MILLION IN THE US ALONE DURING THE LAST DECADE.

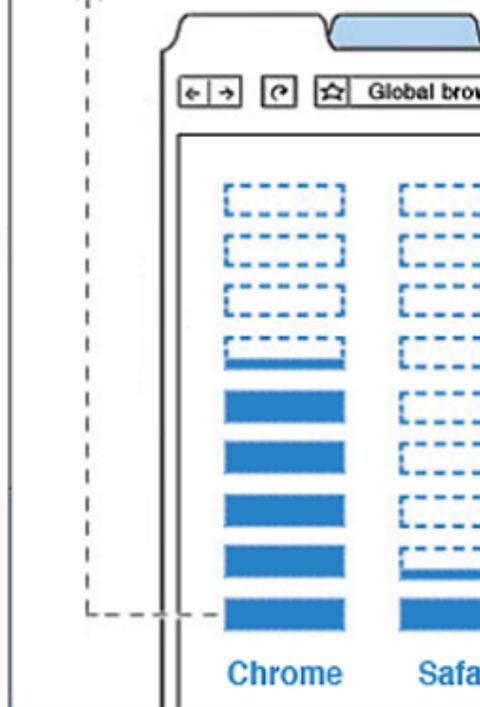


INSTEAD, COMPUTER EXPERTS EXPECT GOOGLE'S GRIP TO TIGHTEN. FORCED SIGN-IN IF YOU WANT TO USE GOOGLE MAPS OR WATCH A YOUTUBE VIDEO IS ON THE HORIZON --



-- SO THAT EVEN MORE DATA VEINS ARE MINED FROM OVER TWO BILLION SLOWLY-BOILING FROGS.

0001110  
01010001010  
10101011100100  
001010010110110  
11001000101011



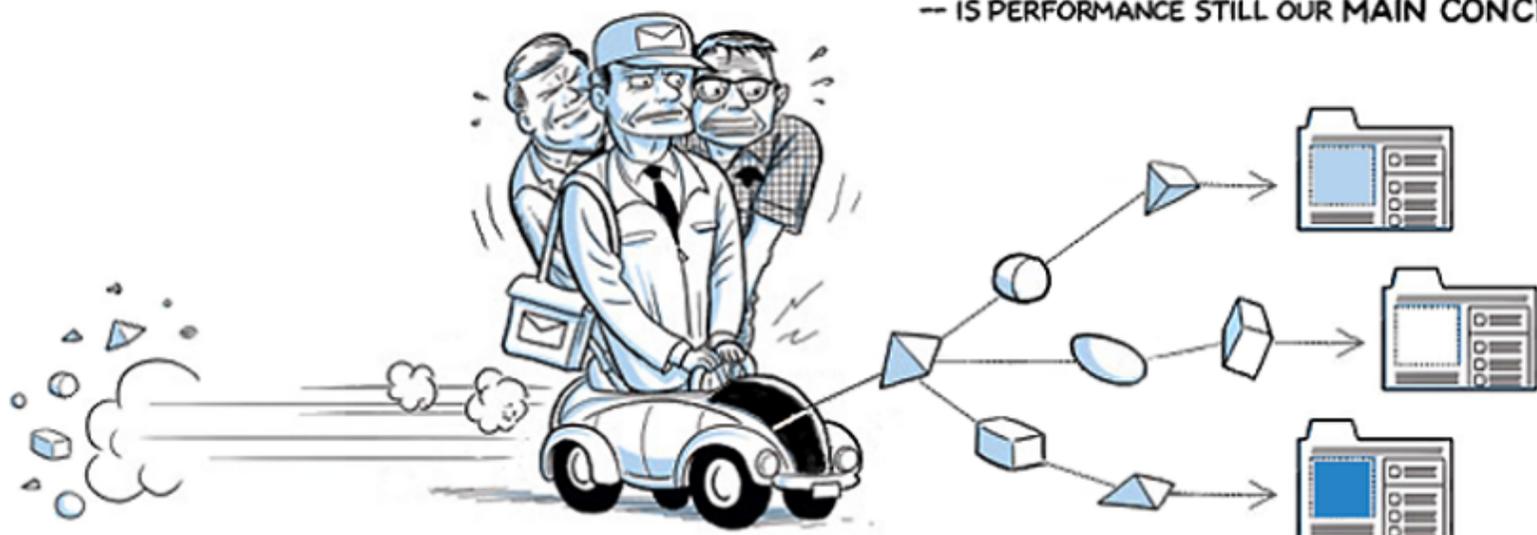
IN THE END, THIS IS THE SOLE PURPOSE CHROME WAS BUILT AROUND: EXTRACTING AND MONETIZING AS MUCH OF YOUR PERSONAL LIFE AS POSSIBLE, WHILE DELIVERING GOOD PERFORMANCE.



AND TO BE FAIR, CHROME STILL DELIVERS A PRETTY GOOD PERFORMANCE (THOUGH IT'S NOT THE SPEEDSTER IT USED TO BE). EVERYONE ENJOYS A FAST BROWSER, BUT WHEN WE FIND OUT THAT ITS SPEED RELIES ON PREDICTIONS ABOUT THE PAGES WE WILL VISIT NEXT BASED ON AN INTIMATE PROFILE BEYOND OUR REACH --

-- WHEN WE FIND OUT THAT ITS FUEL LITERALLY IS OUR DATA --

-- IS PERFORMANCE STILL OUR MAIN CONCERN?



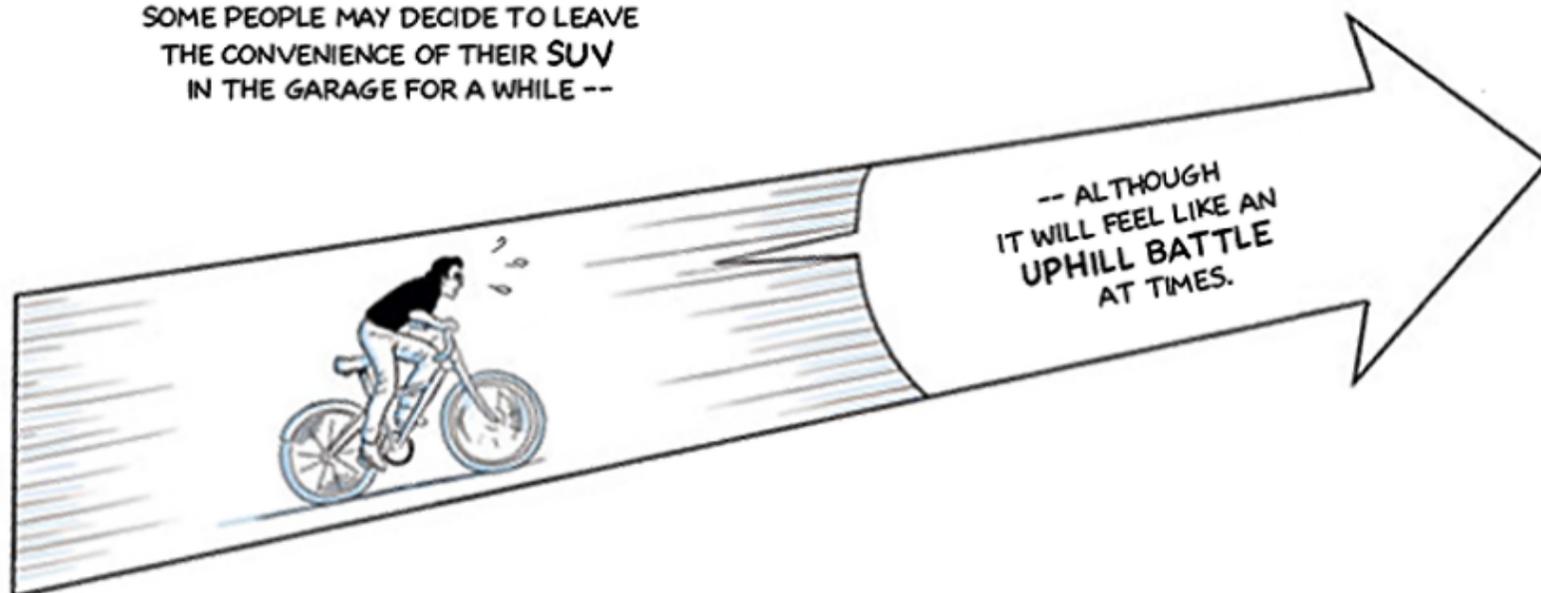
OR SHOULDN'T WE BE AT LEAST AS APPALLED AT OUR IMMENSE DAILY DATA EXHAUST AS WE ARE IN OTHER CASES OF MORAL BANKRUPTCY THAT BRING FORTH AN EXCESSIVE AMOUNT OF EMISSIONS?



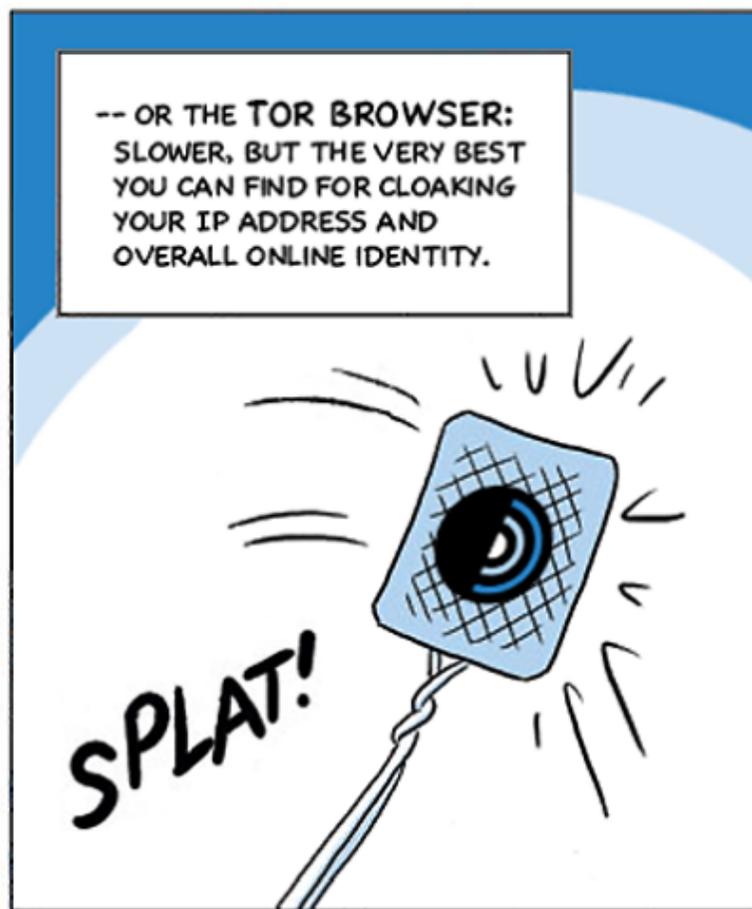
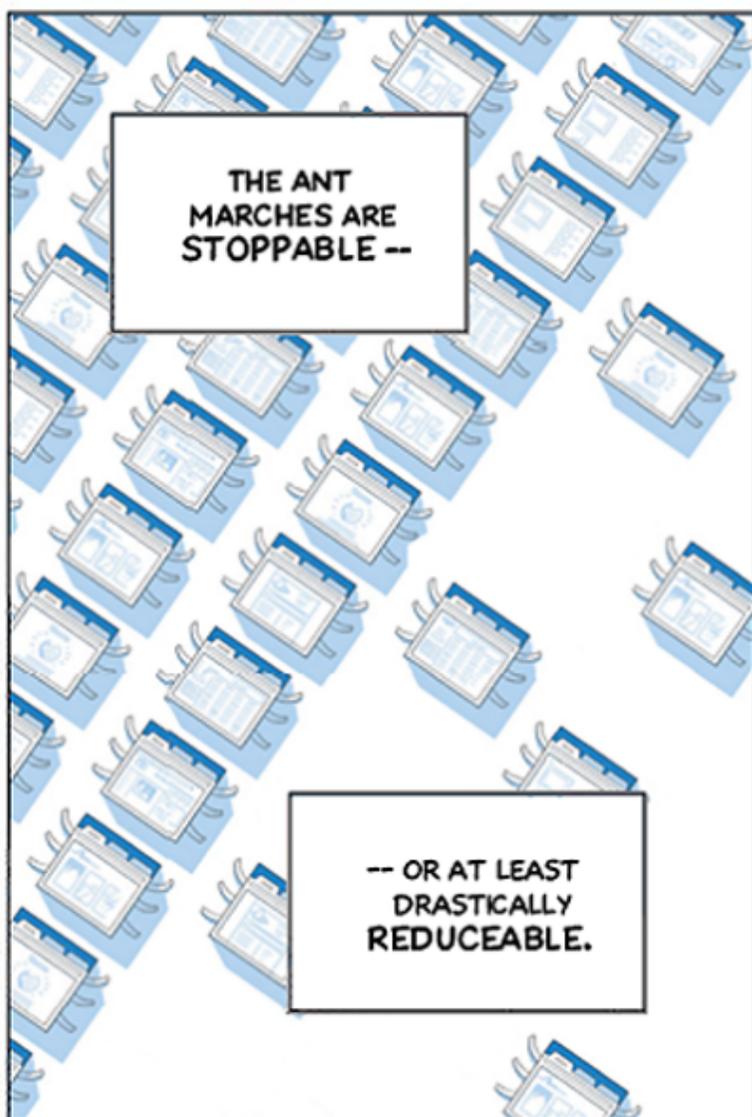
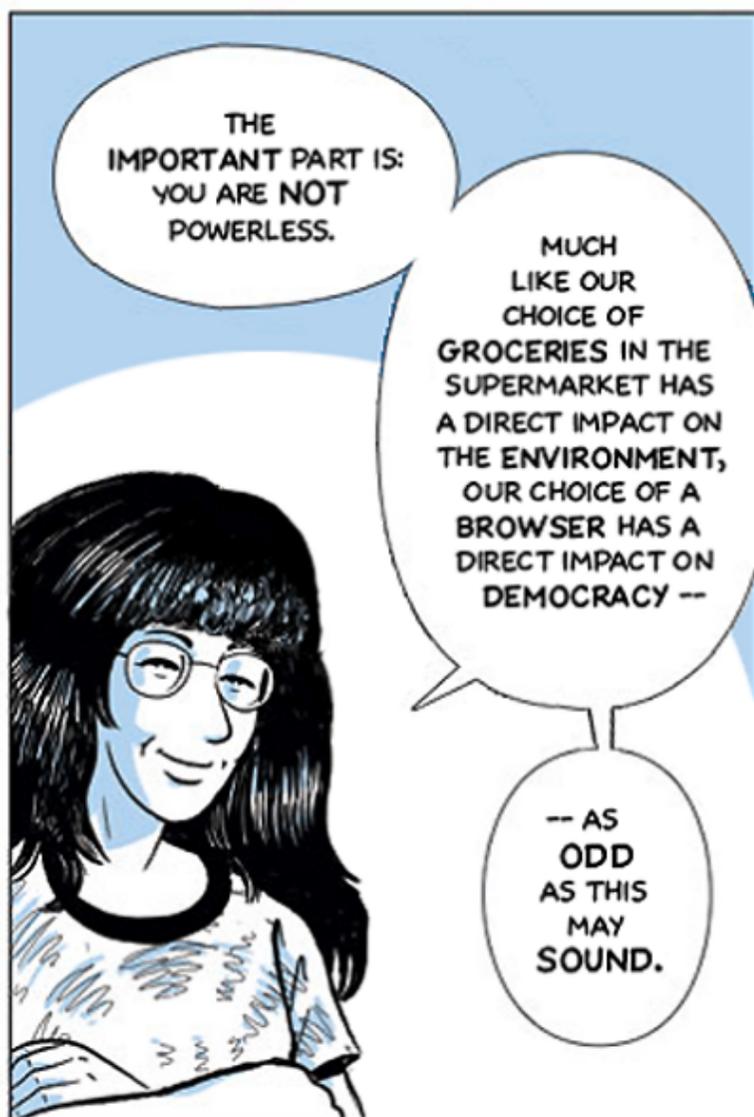
HOW MUCH ARE WE WILLING TO SACRIFICE FOR ANOTHER 10<sup>TH</sup> OF A SECOND OF LOADING SPEED?



IN THE END, THIS IS A MATTER OF PERSONAL VALUES. SOME PEOPLE MAY DECIDE TO LEAVE THE CONVENIENCE OF THEIR SUV IN THE GARAGE FOR A WHILE --



-- ALTHOUGH IT WILL FEEL LIKE AN UPHILL BATTLE AT TIMES.



THESE ARE NOT THE "DATA EIGHTIES," WHERE IT'S ALL ABOUT MAKING FAST MONEY, BUYING FAST CARS AND DRIVING TO THE NEXT FAST FOOD JOINT WITHOUT ANY REGARD FOR OUR HEALTH, SOCIETY OR ENVIRONMENT.



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THESE  
ARE THE 2020s,  
WHERE WE CARE  
ABOUT PROTECTING  
THE VULNERABLE --



-- WHERE WE VIEW  
INJUST POWER DYNAMICS  
NOT AS A GIVEN, BUT AS  
SOMETHING IN NEED OF  
REPAIR --



-- WHERE WE FIRMLY  
REJECT REGRESSIONS  
IN BASIC HUMAN  
RIGHTS --



-- BUT STRIVE TO  
PRESERVE AND ADVANCE  
THE TWIN SISTERS  
DEMOCRACY  
AND PRIVACY.

SO TOGETHER WITH THE WHOLE GOOGLE  
CHROME TEAM, WE ASK YOU ONCE MORE:

**WHAT ARE  
YOU GOING TO DO  
ABOUT IT?**



## ANNOTATIONS

### INTRODUCTION

#### Page 1

· The online version of Scott McCloud's original Chrome Comic from 2008 can be found at:

<https://www.google.com/googlebooks/chrome/index.html>

See also <https://scottmccloud.com/7-consulting/index.html>

#### Page 2

· Google Chrome active installs:

<https://pctechmag.com/2016/11/google-chrome-hits-a-milestone-of-two-billion-active-installs/>

· Global browser market share 2020:

<https://gs.statcounter.com/browser-market-share> or

[https://en.wikipedia.org/wiki/Usage\\_share\\_of\\_web\\_browsers](https://en.wikipedia.org/wiki/Usage_share_of_web_browsers)

(It's worth noting here that browsers like Edge, Opera and Vivaldi are merely built on top of Chrome's core technology.)

· Google revenue in 2021:

<https://www.statista.com/statistics/266206/googles-annual-global-revenue/>

### PART 1 – DIAL O FOR OMNIBOX

#### Page 4

· On the Omnibox "No Return Policy":

<https://www.theguardian.com/technology/blog/2008/sep/04/googlechromeprivacyissuesa>

· Cf. this blog post by John Hopkins cryptographer Matthew Green, "Why I'm done with Chrome":

<https://blog.cryptographyengineering.com/2018/09/23/why-im-leaving-chrome/>

#### Page 5

· Chrome's current Privacy Policy:

<https://www.google.com/chrome/privacy/>

· Panels 2-5 are based on, and sometimes heavily quote, Shoshana Zuboff, "The Age of Surveillance Capitalism" (New York: Hachette Book Group, 2019), pp. 186–187.

#### Page 6

· On the not-at-all incognito mode, see

<https://choosetoencrypt.com/privacy/chromes-incognito-mode-isnt-private-so->

[whats-the-point/](#) as well as

<https://spreadprivacy.com/tracking-in-incognito/>

· Chrome tracking your movements even when you have turned off location

"services":

<https://apnews.com/>

[828aefab64d4411bac257a07c1af0ecb/AP-Exclusive:-Google-tracks-your-movements-like-it-or-not](https://apnews.com/828aefab64d4411bac257a07c1af0ecb/AP-Exclusive:-Google-tracks-your-movements-like-it-or-not)

· "Both Android and Chrome send data to Google even in the absence of any user interaction." (From „Google Data

Collection", a 2018 paper by Vanderbilt University professor Douglas C. Schmidt)

<https://digitalcontentnext.org/wp-content/uploads/2018/08/DCN-Google-Data-Collection-Paper.pdf>

· The original Washington Post article will not be linked here, as the only way to peek behind its paywall is to be thoroughly tracked; you can find Geoffrey Fowler's arguments here as well (some of which have made it directly onto the comics page): <https://www.newstalkzb.co.nz/lifestyle/technology/geoffrey-fowler-why-googles-web-browser-has-become-spy-software/>

#### Page 7

· A helpful tool for breaking down Chrome's labyrinthine Privacy Policy:

<https://myshadow.org/lost-in-small-print/googles-privacy-policy>

### PART 2 – PLATFORM PUZZLES

#### Page 10

· On Chrome for Android sending location coordinates to Google, see Geoffrey Fowler's article listed under *Page 6*.

· If you use Chrome and/or have a Google account, you can verify the worrying Google Maps/Google Earth behavior by visiting:

<https://myactivity.google.com/>

· About Google Home privacy issues: <https://www.theguardian.com/technology/2019/jul/11/google-home-assistant-listen-recordings-users-privacy>

#### Page 11

· For details on Google's data center security practices, see:

<https://www.datacenterknowledge.com/archives/2017/01/13/paper-details-google-data-center-security-design>

### PART 3 – THE REGRESSION GAME

#### Page 12

· The new sync mode has been widely discussed and critized:

<https://www.zdnet.com/article/google-secretly-logs-users-into-chrome-whenever-they-log-into-a-google-site/> and

<https://www.wired.com/story/google-chrome-login-privacy/> and

[https://www.vice.com/en\\_us/article/gyny83/google-chrome-sync-privacy](https://www.vice.com/en_us/article/gyny83/google-chrome-sync-privacy)

It was also the focus of Matthew Green's

infamous blog post listed under *Page 4*.

It was also the focus of Matthew Green's infamous blog post listed under *Page 4*.

#### Page 13

· See the Chrome Privacy Policy listed under *Page 5*.

· Chrome as covert listening tool:

<https://boingboing.net/2015/06/24/chrome-update-turns-browsers-i.html>

· Secret recordings of audio/video:

<https://thehackernews.com/2017/05/browser-camera-microphone.html>

· About the Chrome Cleanup Tool "poking through your underwear drawer without asking" (Matthew Green):

[https://www.vice.com/en\\_us/article/wj7x9w/google-chrome-scans-files-on-your-windows-computer-chrome-cleanup-tool](https://www.vice.com/en_us/article/wj7x9w/google-chrome-scans-files-on-your-windows-computer-chrome-cleanup-tool)

· On Chrome's surveilling hyperlink auditing:

<https://boingboing.net/2019/04/08/no-opt-out.html>

· On Google secretly exempting its own websites when you ask Chrome to wipe all cookies and site data:

[https://www.theregister.com/2020/10/19/google\\_cookie\\_wipe](https://www.theregister.com/2020/10/19/google_cookie_wipe)

· On Chrome monitoring your sleep cycle and daily routine via 'Idle Detection':

[https://www.theregister.com/2021/09/22/google\\_emits\\_chrome\\_94\\_with/](https://www.theregister.com/2021/09/22/google_emits_chrome_94_with/)

[https://www.theregister.com/2021/09/22/google\\_emits\\_chrome\\_94\\_with/](https://www.theregister.com/2021/09/22/google_emits_chrome_94_with/)

#### Page 14

· On Google restricting modern ad blockers: <https://www.forbes.com/sites/kateoflahertyuk/2019/05/30/google-just-gave-2-billion-chrome-users-a-reason-to-switch-to-firefox/> and

<https://www.forbes.com/sites/kateoflahertyuk/2019/05/30/google-just-gave-2-billion-chrome-users-a-reason-to-switch-to-firefox/> and

<https://www.forbes.com/sites/kateoflahertyuk/2019/05/30/google-just-gave-2-billion-chrome-users-a-reason-to-switch-to-firefox/> and

<https://9to5google.com/2019/05/29/chrome-ad-blocking-enterprise-manifest-v3/>

· The original filing submitted by Alphabet to the US Securities and Exchange Commission (SEC):

<https://www.sec.gov/Archives/edgar/data/1652044/000165204419000004/goog10-kq42018.htm#sB8A92C82A7085B27A37F412D2216BC6F>

#### Page 15

· On Google quietly erasing their motto “Don’t be evil” from their code of conduct:

<https://www.zdnet.com/article/google-erases-dont-be-evil-from-code-of-conduct-after-18-years/> and

<https://gizmodo.com/google-removes-nearly-all-mentions-of-dont-be-evil-from-1826153393>

### PART 4 – THE SHADOW TEXT

#### Page 16

· The “Shadow Text” concept is first introduced in “The Age of Surveillance Capitalism”, Part I, chapter six, “III. Surveillance Capital and the Two Texts”, pp. 183–187 (see *Page 5*). Some remarks by Shoshana Zuboff’s comic character shamelessly quote her real-life counterpart.

#### Page 17

· An example of personality particles being derived from your Shadow Text would be the Facebook “like”, as a 2013 paper by Michal Kosinski, David Stillwell and Thore Graepel (and quoted by Zuboff on p. 274) showed: Facebook “likes” could “automatically and accurately estimate a wide range of personal attributes that people would typically assume to be private,” among them sexual orientation, ethnicity, religious and political views, personality traits, intelligence, happiness, use of addictive substances, parental separation, age, and gender.

#### Page 18

· On personalization, cf. “The Age of Surveillance Capitalism” p. 256 f.: “The machine invasion of human depth is prosecuted under the banner of “personalization,” a slogan that betrays the zest and cynicism brought to the grimy

challenge of exploiting second-modernity needs and insecurities for outside gain.”

· The de-anonymization of metadata is discussed by Zuboff, e.g. on p. 244f.: “We are told that it’s not possible to identify individuals from these large-scale amalgamations. However, with as little as three bits of data culled from the public record – birth date, zip code, and sex – reidentification science has demonstrated its ability to de-anonymize metadata with ‘disturbing ease.’”

### PART 5 – CONCLUSION

#### Page 20

· The racist slurs have been pixelated so as not to further reproduce hate speech. If you want to see the concrete wording, check out:

<https://www.buzzfeednews.com/article/alexkantowitz/google-allowed-advertisers-to-target-jewish-parasite-black>

· Like “Shadow Text”, “radical indifference” is a term coined by Shoshana Zuboff. Cf.

<https://www.theguardian.com/technology/2017/mar/25/google-youtube-advertising-extremist-content-att-verizon>

· Trump voter manipulation via “Shadow Text”:

<https://www.theguardian.com/news/2018/mar/17/cambridge-analytica-facebook-influence-us-election> and <https://theintercept.com/2017/03/30/facebook-failed-to-protect-30-million-users-from-having-their-data-harvested-by-trump-campaign-affiliate/>

· Brexit voter manipulation:

<https://www.theguardian.com/technology/2017/may/07/the-great-british-brexit-robbery-hijacked-democracy>

#### Page 21

· On Google spending ~\$150 million on US lobbying over last decade:

<https://boingboing.net/2020/01/22/google-spent-150-million-on.html>

· On Google as one of Brussel’s most active lobbyists:

<https://lobbyfacts.eu/articles/12-12-2016/google-one-brussels%E2%80%99-most-active-lobbyists> and

<https://lobbyfacts.eu/reports/lobby-costs/all/0/1/2/2/21/0/>

#### Page 22

· On Chrome not being the speedy beast it used to be, see this Google Trends graphic comparing the search terms “Chrome slow” and “Firefox slow” from 2008 to 2021:

<https://trends.google.com/trends/explore?date=2008-01-01%202021-01-01&q=chrome%20slow,firefox%20slow>

#### Page 23

· Download Firefox here:

<https://www.mozilla.org/en-US/firefox/new/>

· Download Tor Browser here:

<https://www.torproject.org/download/>

(It is worth noting that some critics view Firefox as part of the Google ecosystem. Google’s considerable funding of Firefox is seen as a strategy to evade antitrust legislation by simulating a pseudo-competitor, while Mozilla, the foundation behind Firefox, is strikingly unwilling to investigate more independent sources of revenue for years – but even most of those critics grudgingly use Firefox.)

### EPILOGUE

#### Page 29

· On Chrome’s initially planned FloC technology as a serious security concern:

<https://www.eff.org/deeplinks/2021/03/googles-floc-terrible-idea> and <https://www.wired.co.uk/article/google-floc-trial>

· Report on Google’s backpedaling concerning FloC:

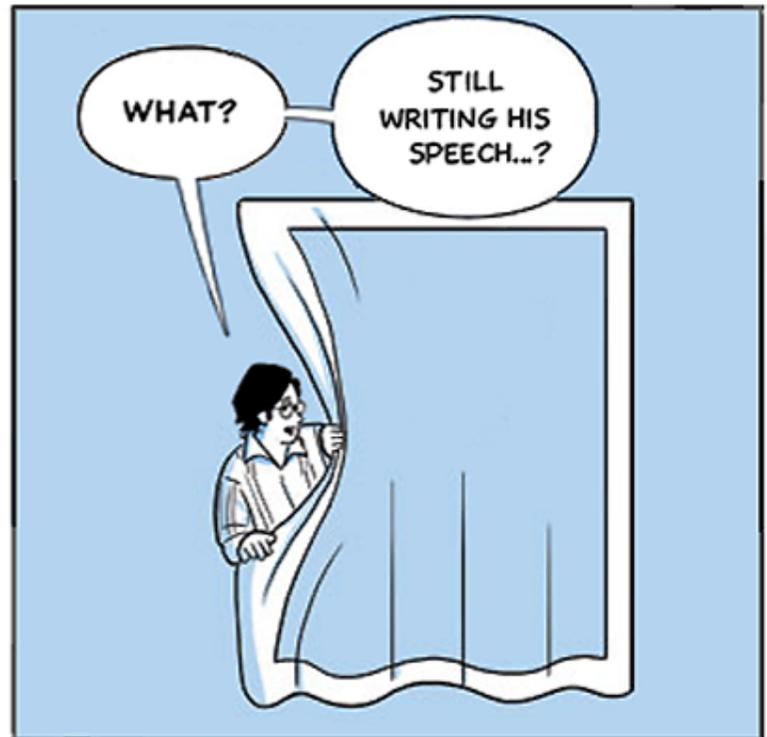
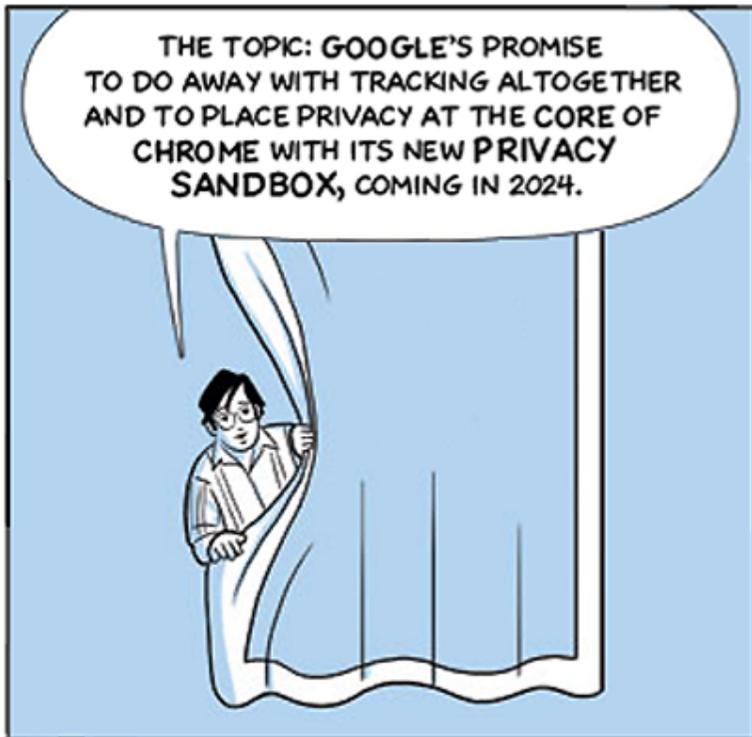
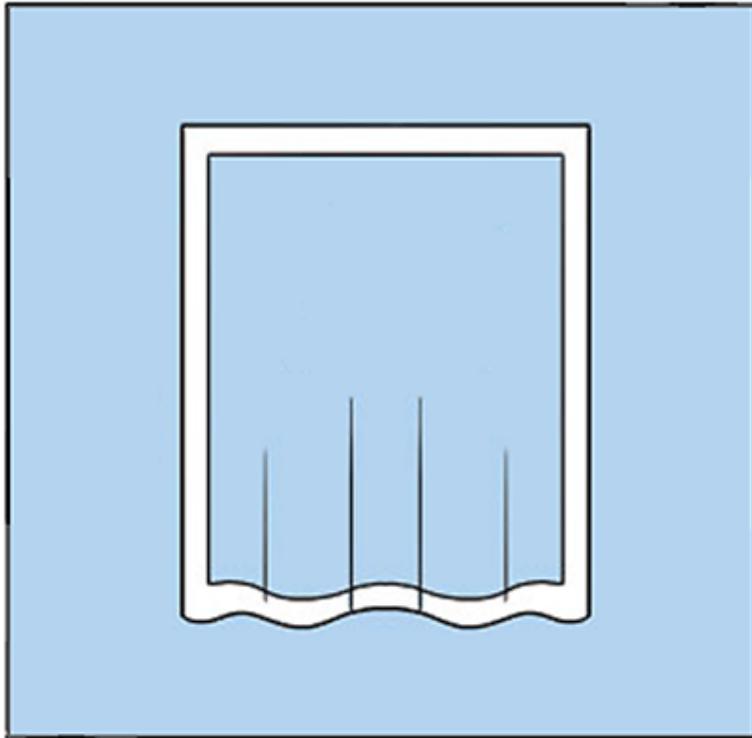
<https://arstechnica.com/gadgets/2022/01/google-drops-floc-after-widespread-opposition-pivots-to-topics-api-plan/>

· Source for the piranha quote:

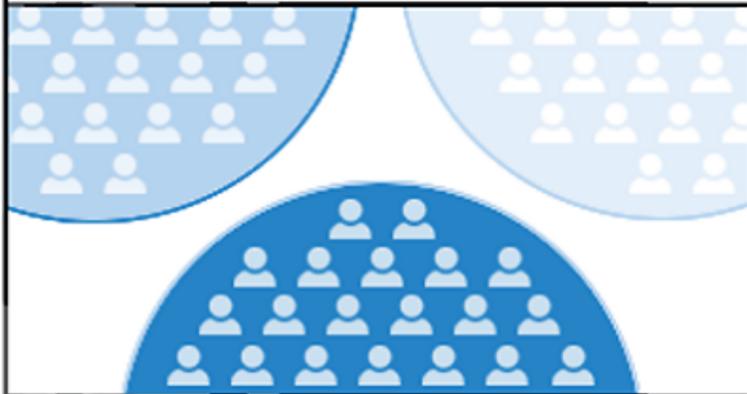
<https://bigbrotherawards.de/en/2021/what-really-makes-me-angry-google>

· And lastly, hundreds of German data-harvesting publishers and advertising companies, among them Axel Springer, filing an EU antitrust complaint against Google in early 2022, claiming damage for their businesses once third-party cookies are abolished:

<https://techcrunch.com/2022/01/24/germany-publishers-privacy-sandbox-complaint/>



INSTEAD, CHROME ITSELF WILL ANALYZE ALL YOUR BROWSING HABITS AND - DEPENDING ON YOUR SURFING PROFILE OF THE PAST DAYS - PUT YOU IN A SO-CALLED "COHORT" WITH OTHERS WHO HAVE BEEN TO SIMILAR SITES.



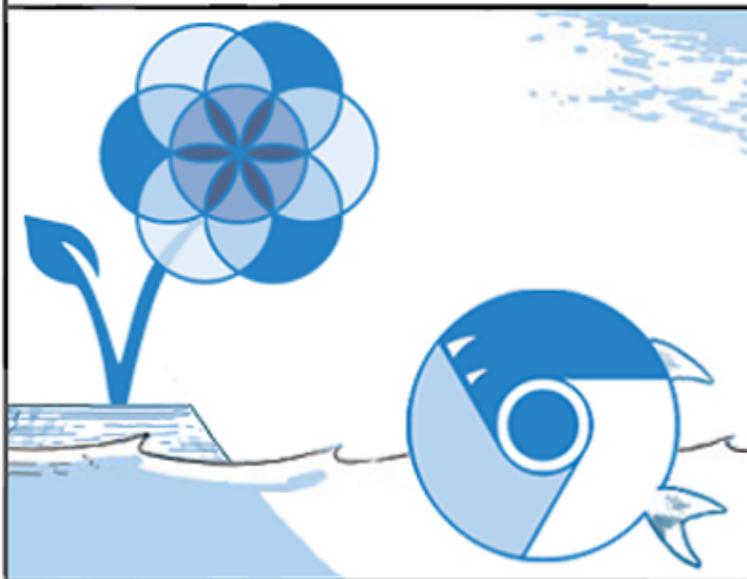
ACCORDING TO GOOGLE, THIS WAY YOUR PRIVACY WILL BE PROTECTED MUCH BETTER THAN BEFORE.

ACCORDING TO PRACTICALLY EVERYONE ELSE, AMONG THEM MANY INTERNET EXPERTS, YOU WILL BE MONITORED EVEN MORE PRECISELY AND RELENTLESSLY THAN BEFORE.

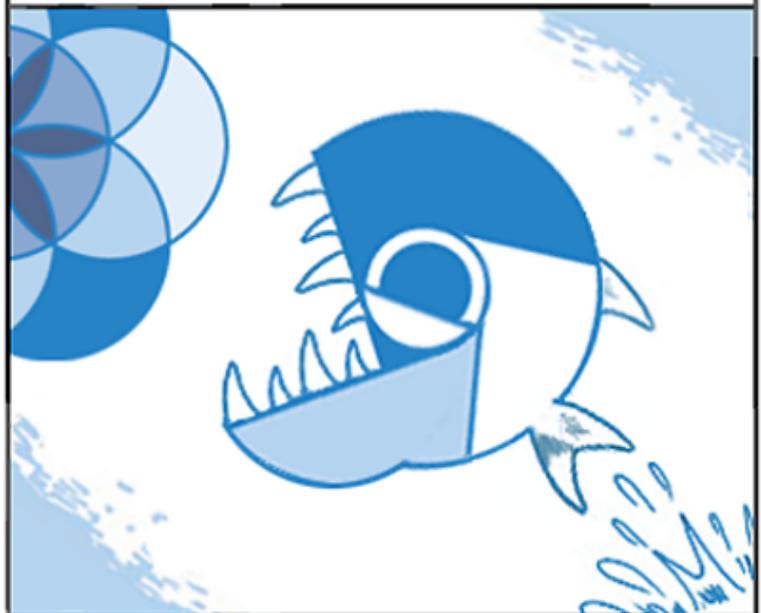


ANOTHER OUTCRY ENSUED, AND ANOTHER ROUND OF GOOGLE BACKPEDALING, A TINY BIT, FOR NOW.\*

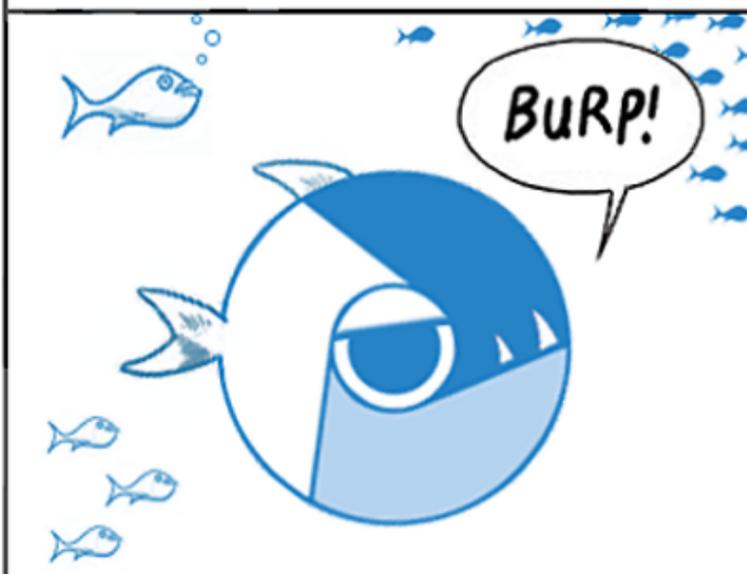
BUT, AS RENA TANGENS, MEMBER OF GERMAN PRIVACY NGO DIGITALCOURAGE, RECENTLY REMARKED: "PIRANHAS WILL BECOME VEGANS..."



"...BEFORE GOOGLE FOREGOES 99 PERCENT OF ITS PROFITS." - TRACKERS GONNA TRACK.



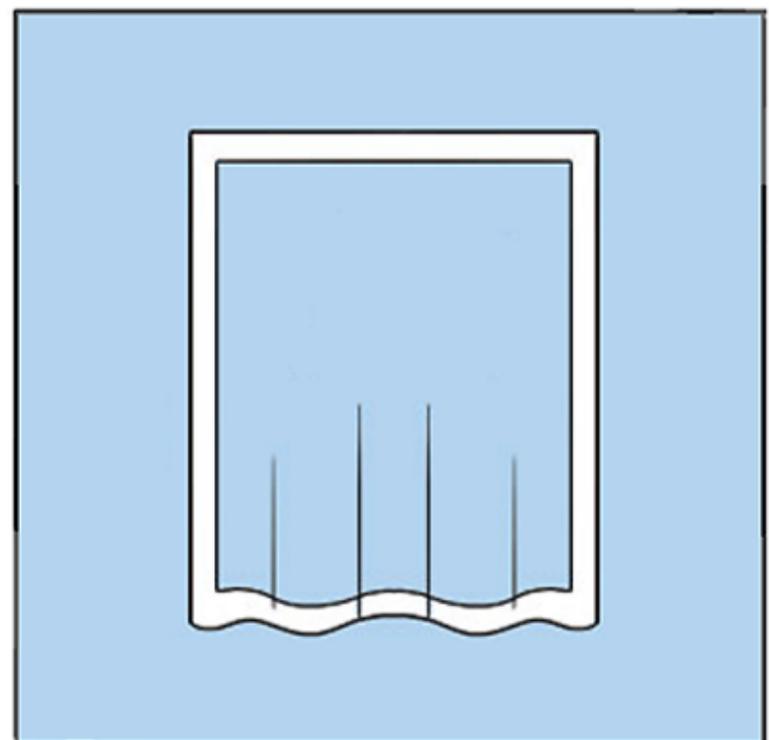
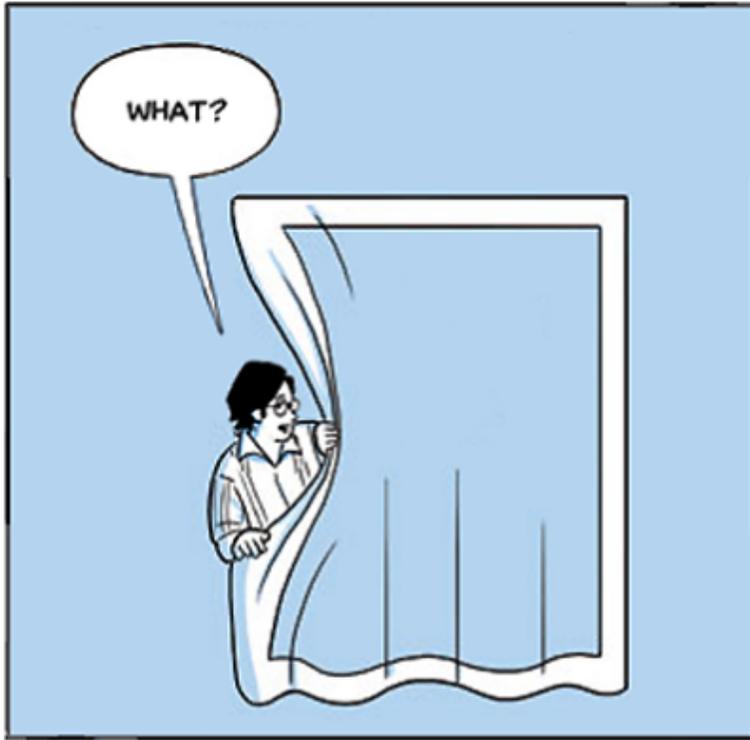
THIS IS MUCH MORE ABOUT GOOGLE BLOCKING ITS DATA-HARVESTING COMPETITORS IN ORDER TO AMASS EVEN MORE MARKET POWER IN ITS OWN HANDS.



BY THE WAY, MOST OTHER BROWSERS HAVE BEEN BLOCKING THIRD-PARTY COOKIES FOR A LONG TIME NOW WITHOUT REPLACING THIS SURVEILLANCE TECHNOLOGY WITH ANOTHER ONE.



\*SEE PART THREE: "THE REGRESSION GAME"





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Contra Chrome 1.1 (September 2022) – a few typos have been fixed.