

Leah Elliott

CONTRA CHROME

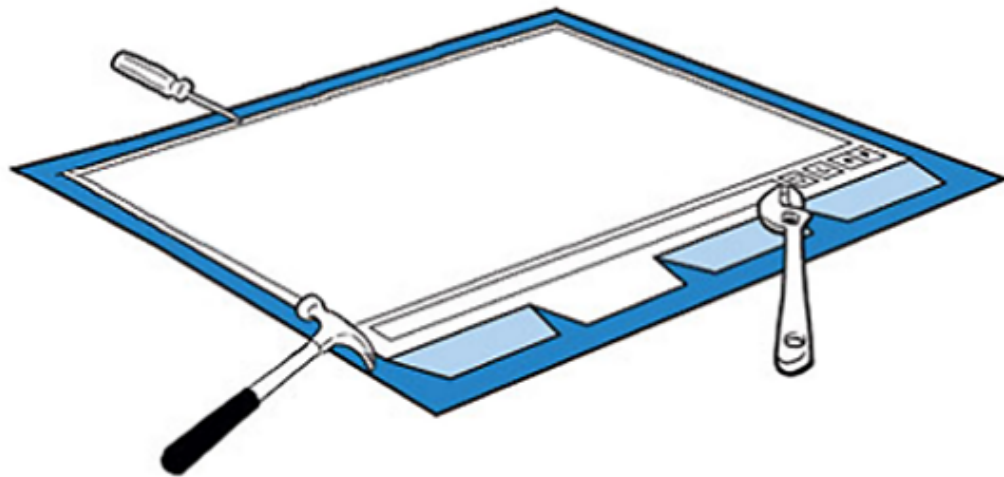
How Google's Browser became a threat to privacy and democracy



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



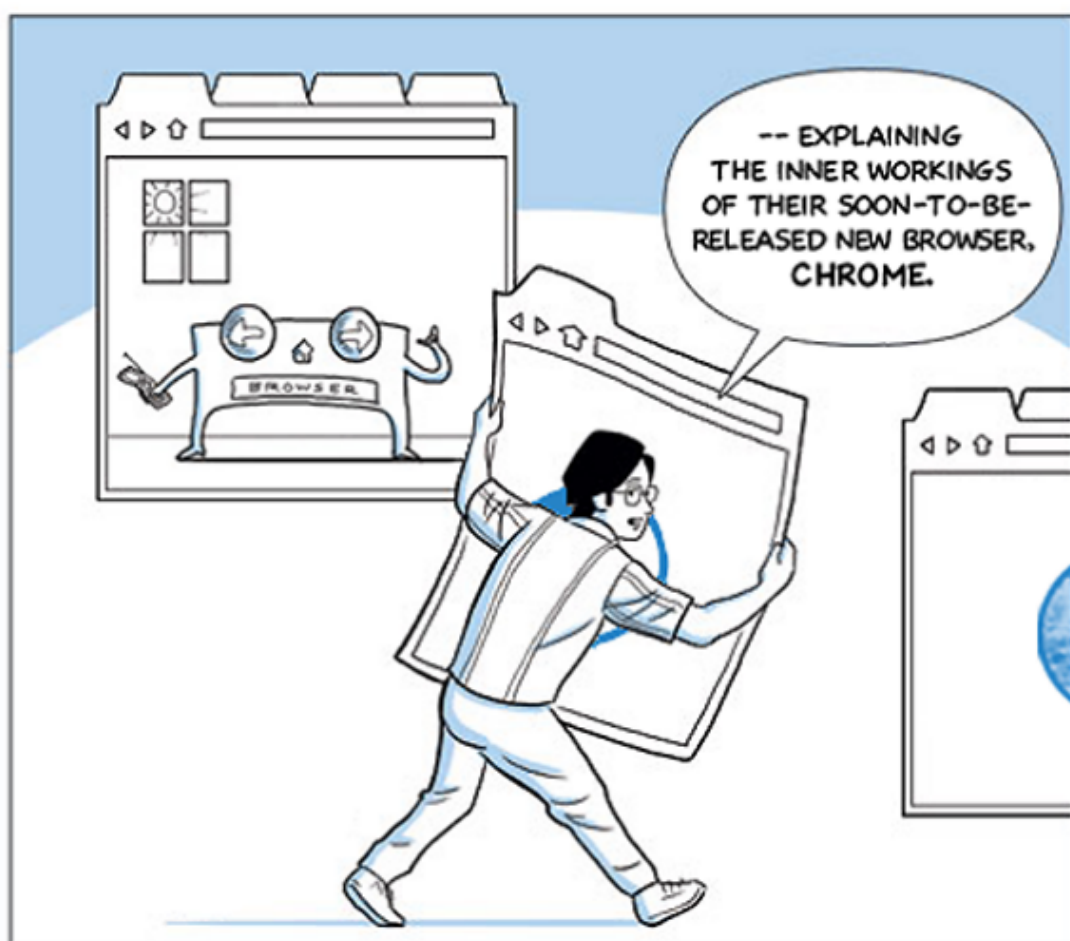
Introduction



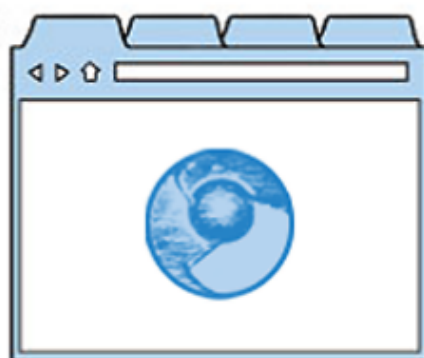
HI, MY NAME IS
SCOTT McCloud!
I'M A CARTOONIST AND
COMICS SCHOLAR.
BACK IN 2008, I CREATED
A COMIC BOOK FOR
GOOGLE --



-- 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 INFOR-
MATION ON
THIS MAJOR
SOFTWARE
RELEASE.



2008



2022

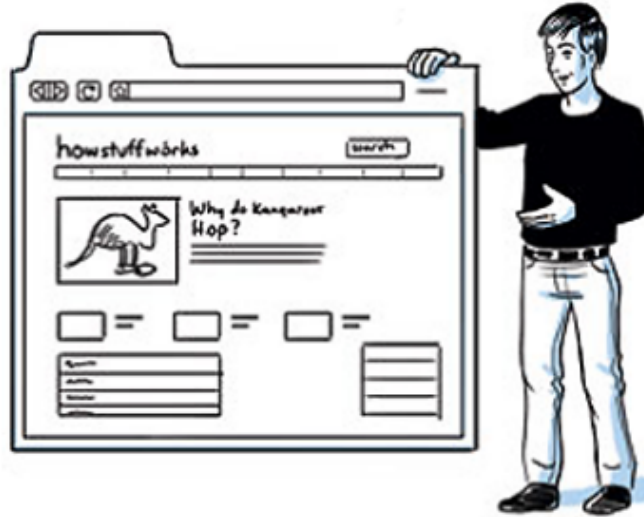
BUT NOW
THAT WE'RE
ENTERING
THE 2020s,
ME AND THE
GOOD FOLKS
AT GOOGLE
HAD THE SAME
FEELING:



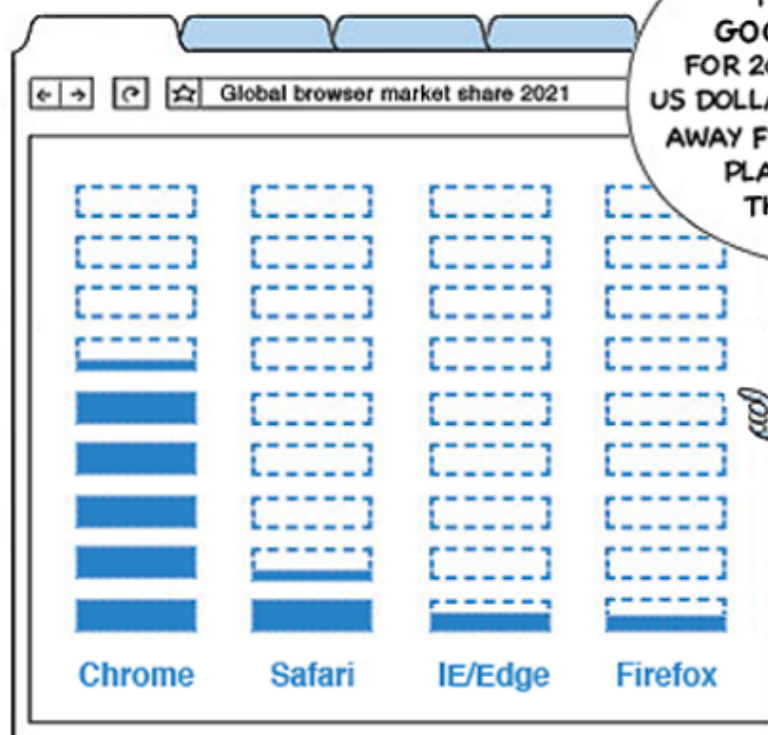
CHROME
HAS CHANGED
SO MUCH
THAT WE OWE
YOU GUYS AN
UPDATE.

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

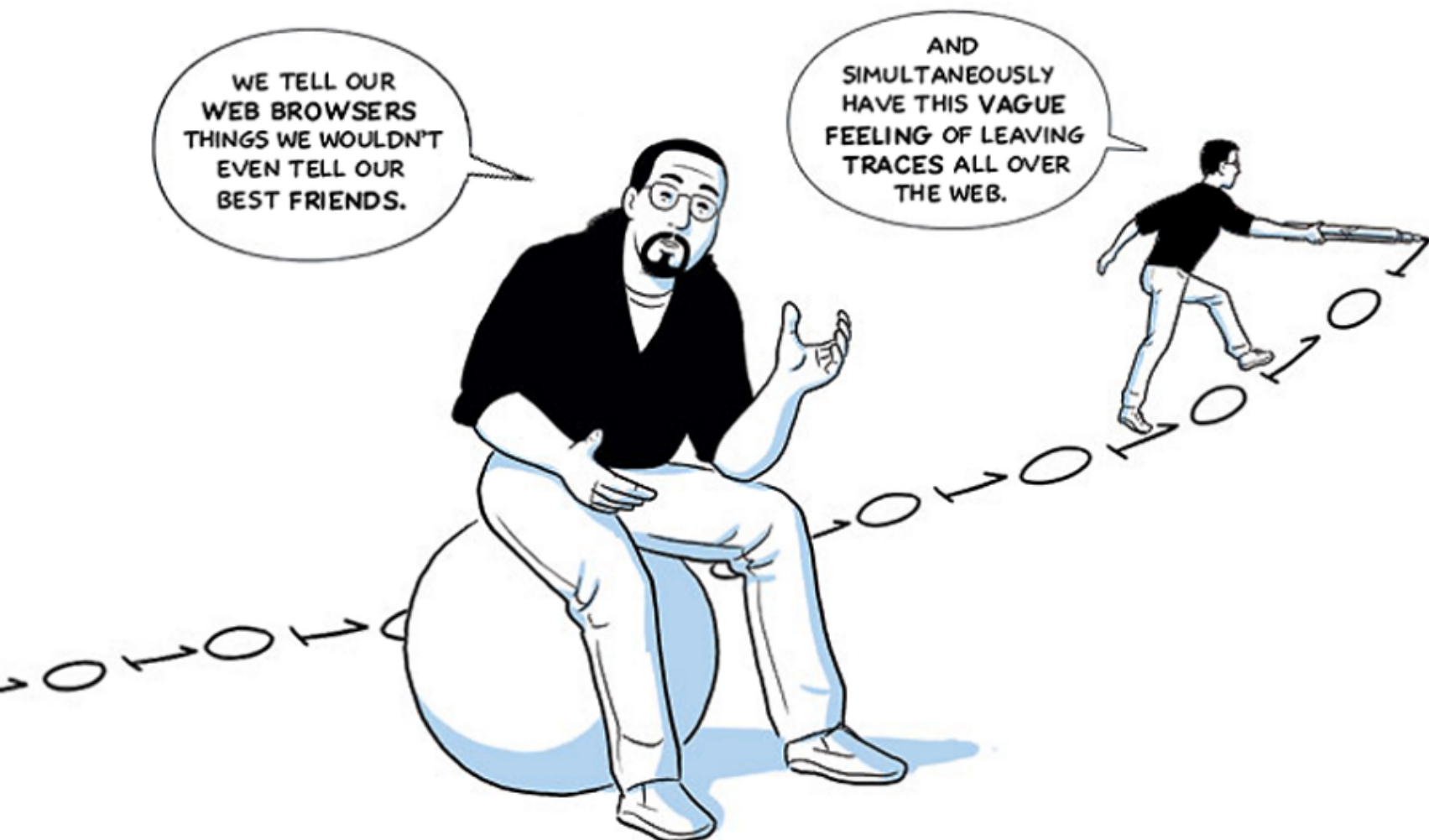


Dial O for Omnibox



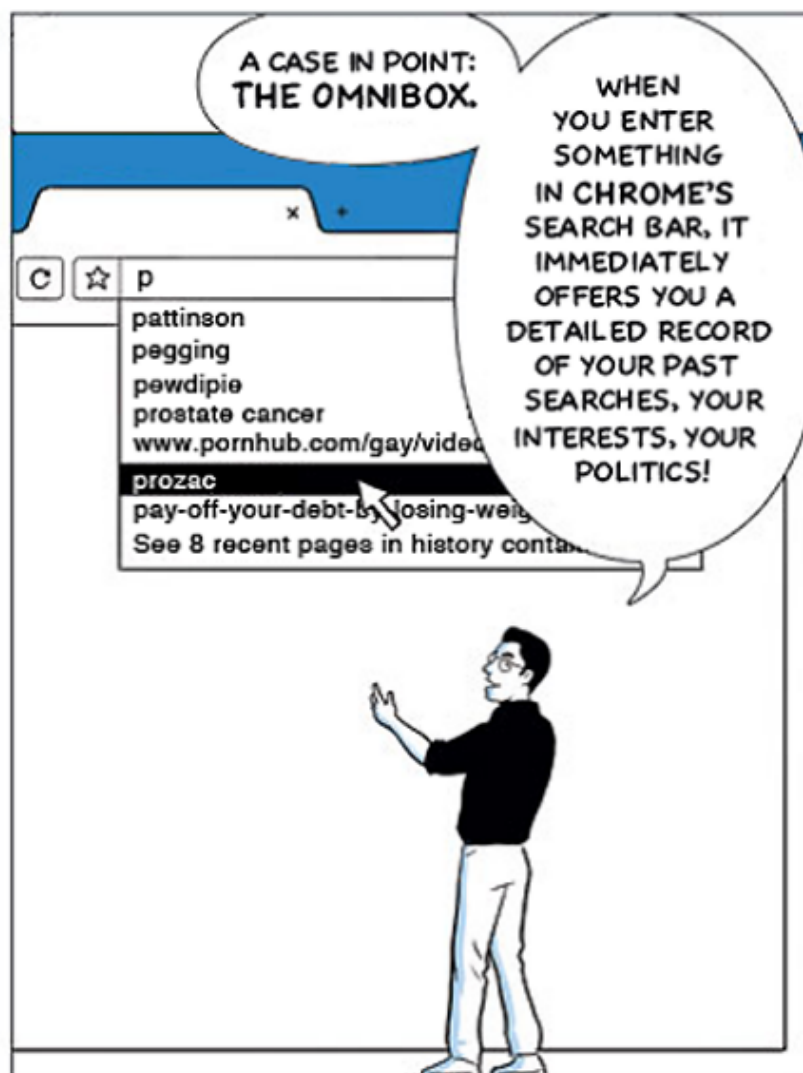
WE TELL OUR
WEB BROWSERS
THINGS WE WOULDN'T
EVEN TELL OUR
BEST FRIENDS.

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



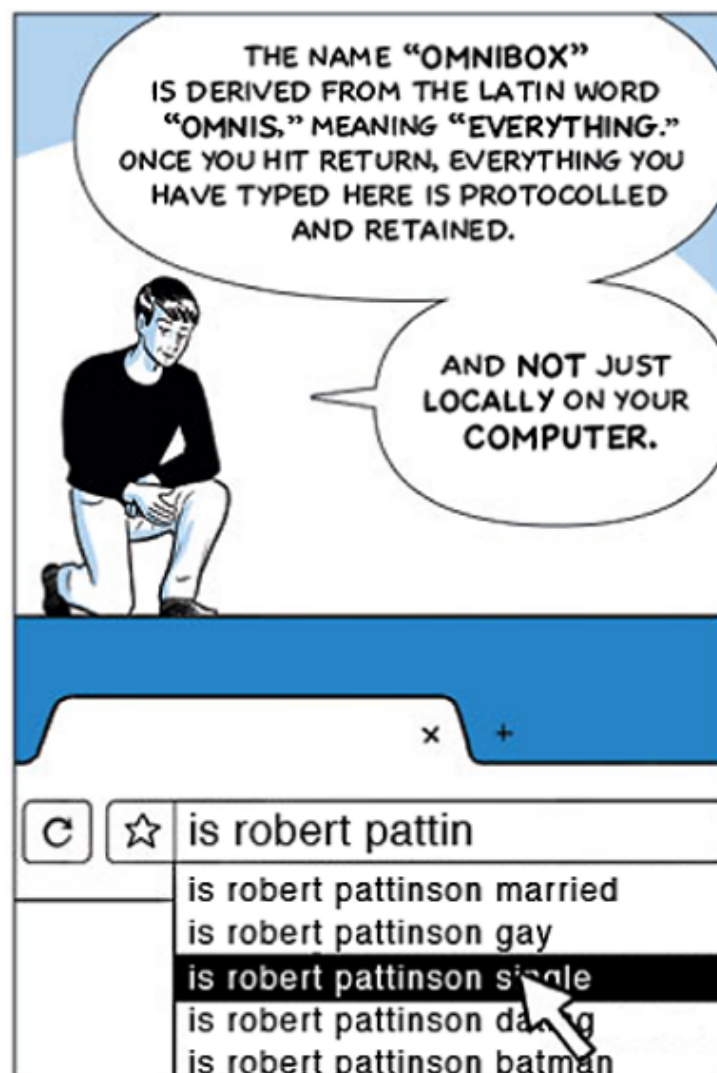
A CASE IN POINT:
THE OMNIBOX.

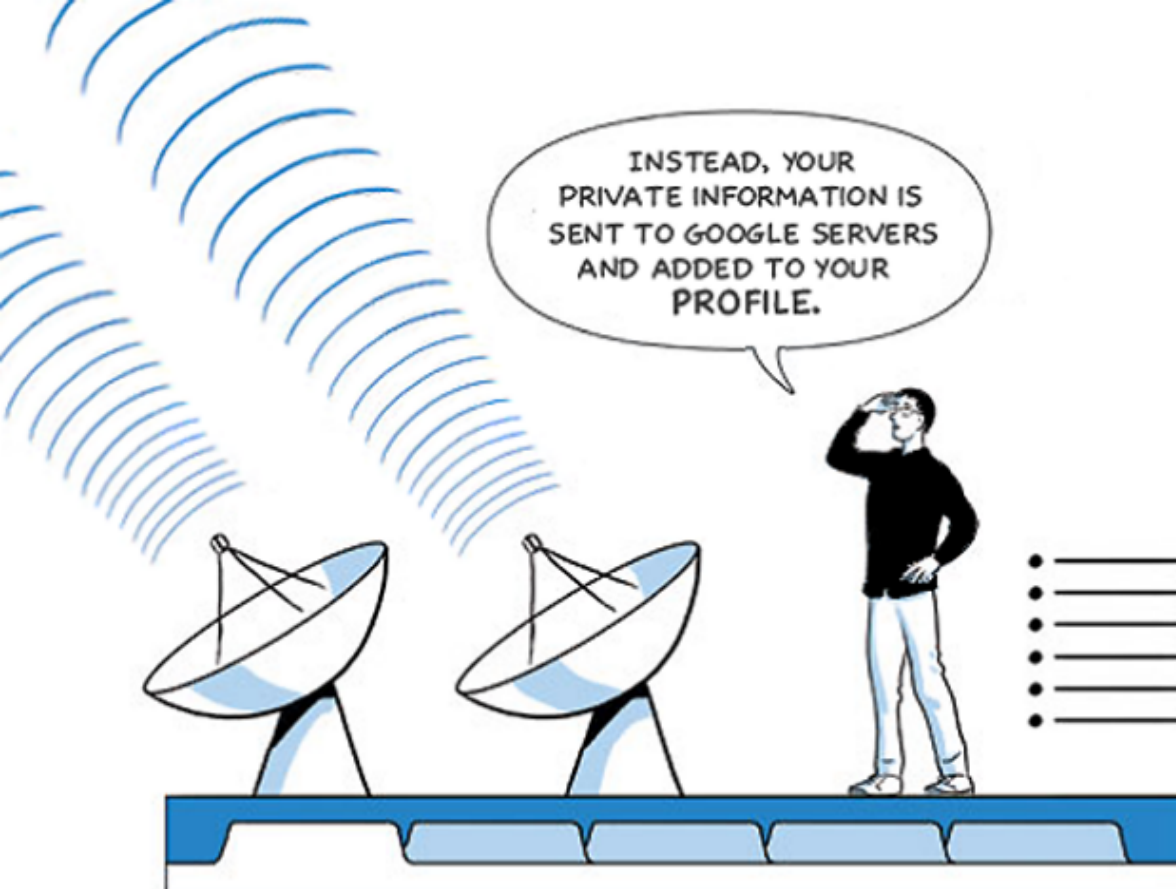
WHEN
YOU ENTER
SOMETHING
IN CHROME'S
SEARCH BAR, IT
IMMEDIATELY
OFFERS YOU A
DETAILED RECORD
OF YOUR PAST
SEARCHES, YOUR
INTERESTS, YOUR
POLITICS!



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.

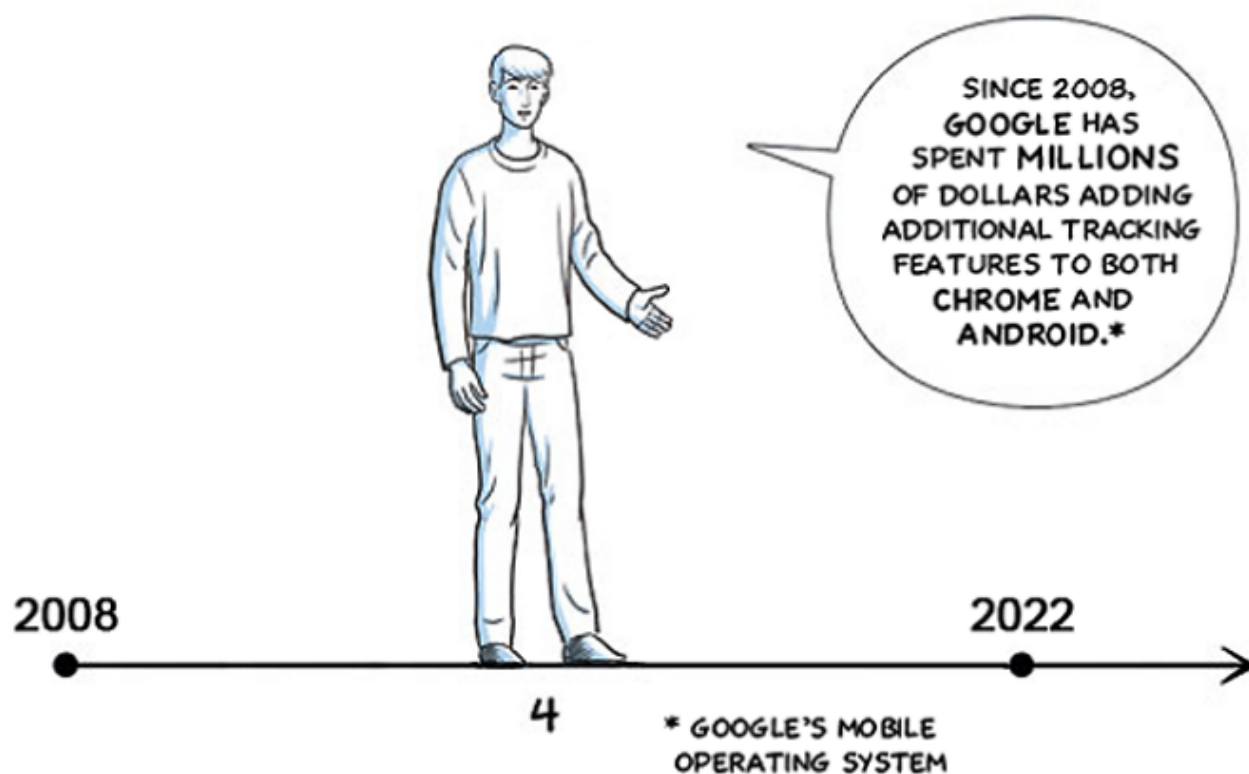




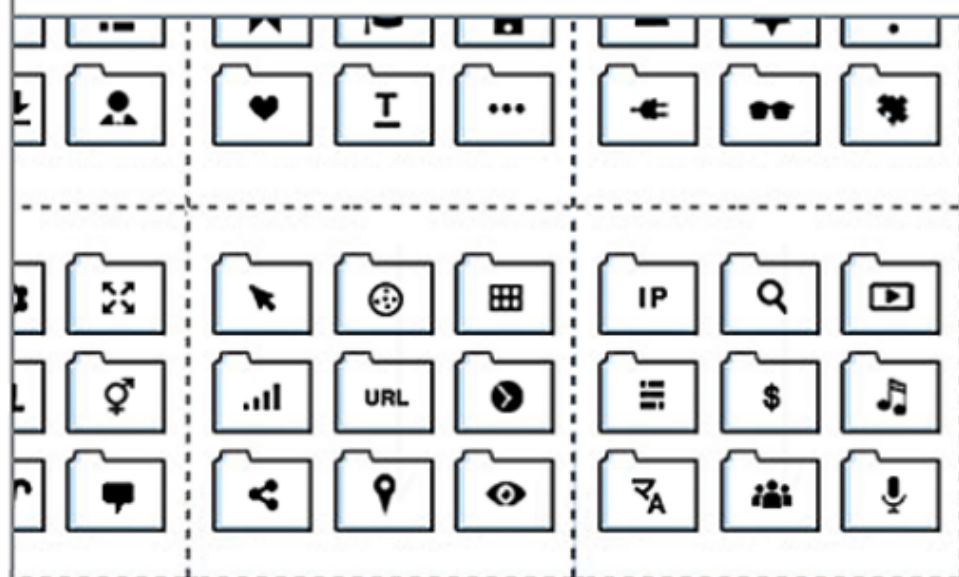
IN FACT, YOU DON'T EVEN HAVE TO PUSH RETURN AT ALL. FROM THE MOMENT YOU BEGIN TO TYPE, EVERYTHING IS INSTANTLY SIPHONED OFF.



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



WHEN YOU READ THE CURRENT PRIVACY POLICY, YOU WILL FIND THAT CHROME COLLECTS YOUR IP ADDRESS, THE WORDS YOU SEARCH FOR, THE VIDEOS YOU WATCH, THE PAGES YOU VISIT, THE ADS YOU CLICK, YOUR PURCHASE ACTIVITY, THE NETWORK OF PEOPLE YOU'RE IN TOUCH WITH, AND MUCH MORE.



-- INCLUDING
VOICE AND AUDIO
INFORMATION IF
YOU USE AUDIO
FEATURES.



ALL FACETS
OF YOUR LIFE ARE
SCRUPULOUSLY
COLLECTED --



-- ANALYZED AND
ASSEMBLED INTO AN
INTIMATE PROFILE:
A DATA TEXT THAT
AIMS TO DESCRIBE WHAT
MAKES YOU YOU.



**GOOGLE'S
BUSINESS MODEL
IS TO SELL ACCESS TO
THESE ANALYZED AND
REFINED DATA PRODUCTS
TO THE HIGHEST
BIDDER.**



FOR THE EVERYDAY USER,
THE CHROME BROWSER THEREFORE
RESEMBLES A TWO-WAY
MIRROR.

YOU THINK
YOU ARE BROWSING THE WEB,
WHEN IN REALITY, GOOGLE
AND OTHERS ARE BROWSING
YOU --

-- EXTRACTING
YOUR EXPERIENCES
WITHOUT YOUR AWARENESS,
YOUR KNOWLEDGE, OR
YOUR CONSENT.



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!



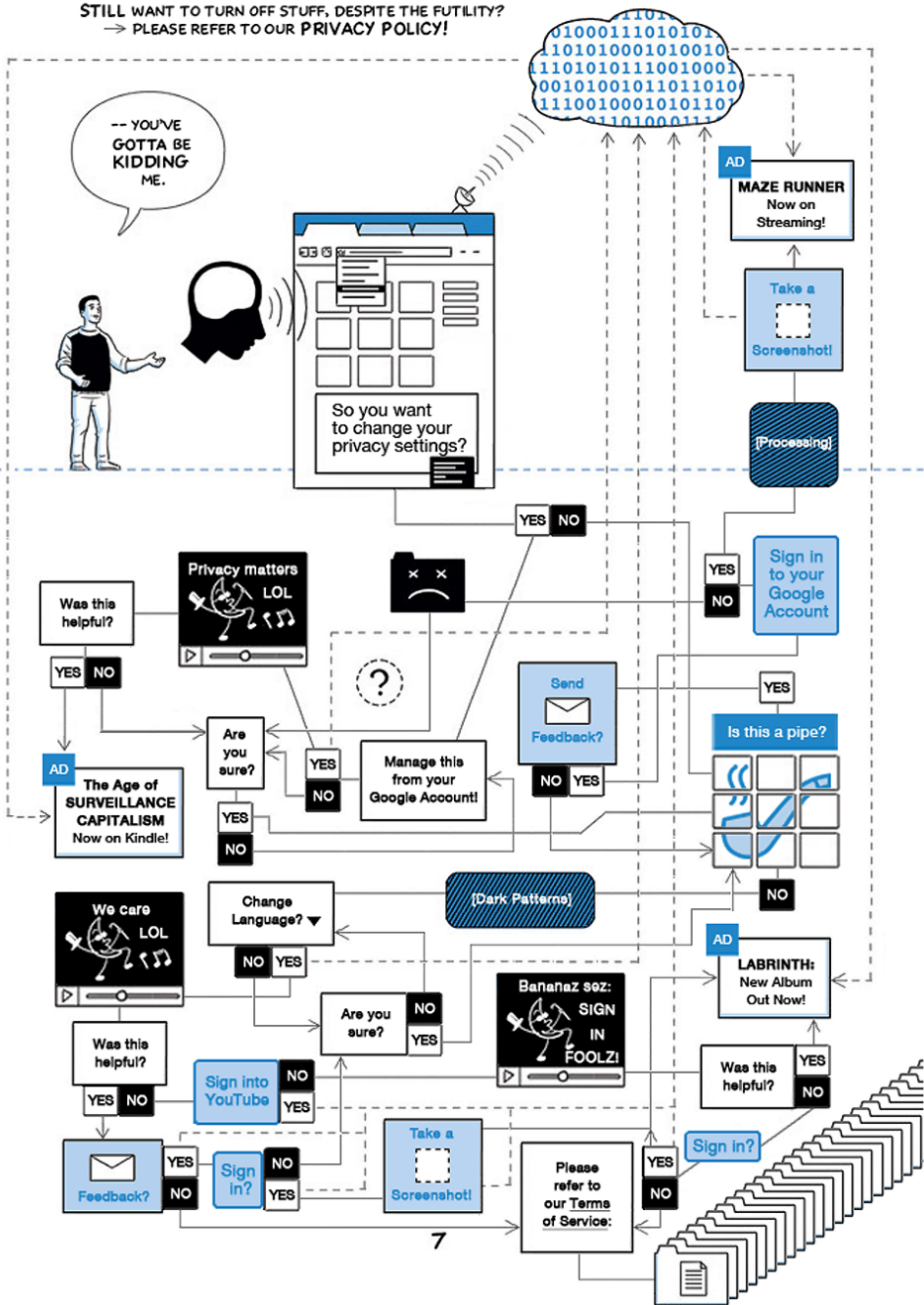
WELL, A LITTLE BIT.
BUT EVEN WHEN YOU HAVE
TURNED OFF **EVERYTHING**
YOU CAN, THERE ARE STILL
IDENTIFIERS THAT SIMPLY
CANNOT BE DELETED.



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 --

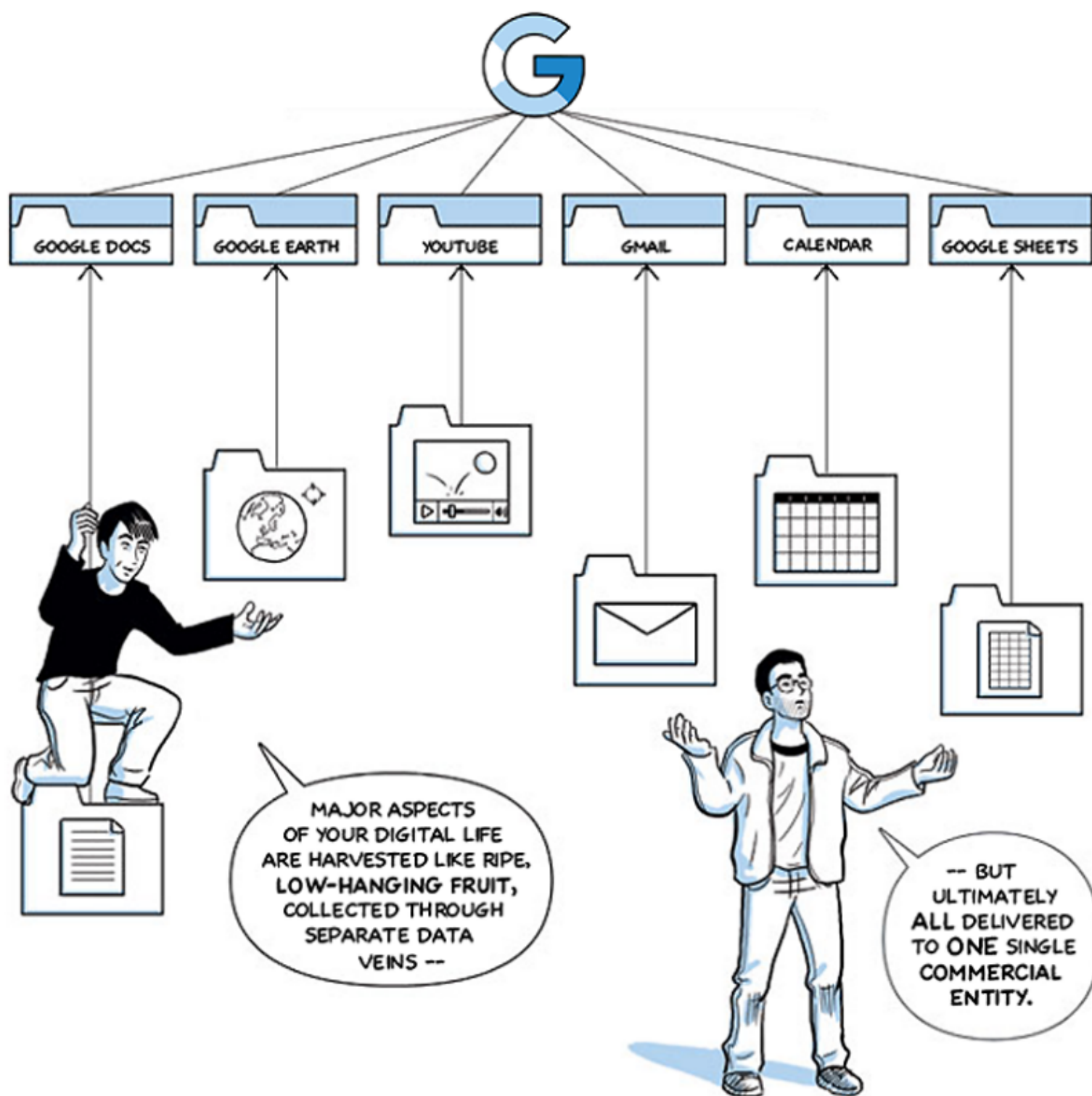
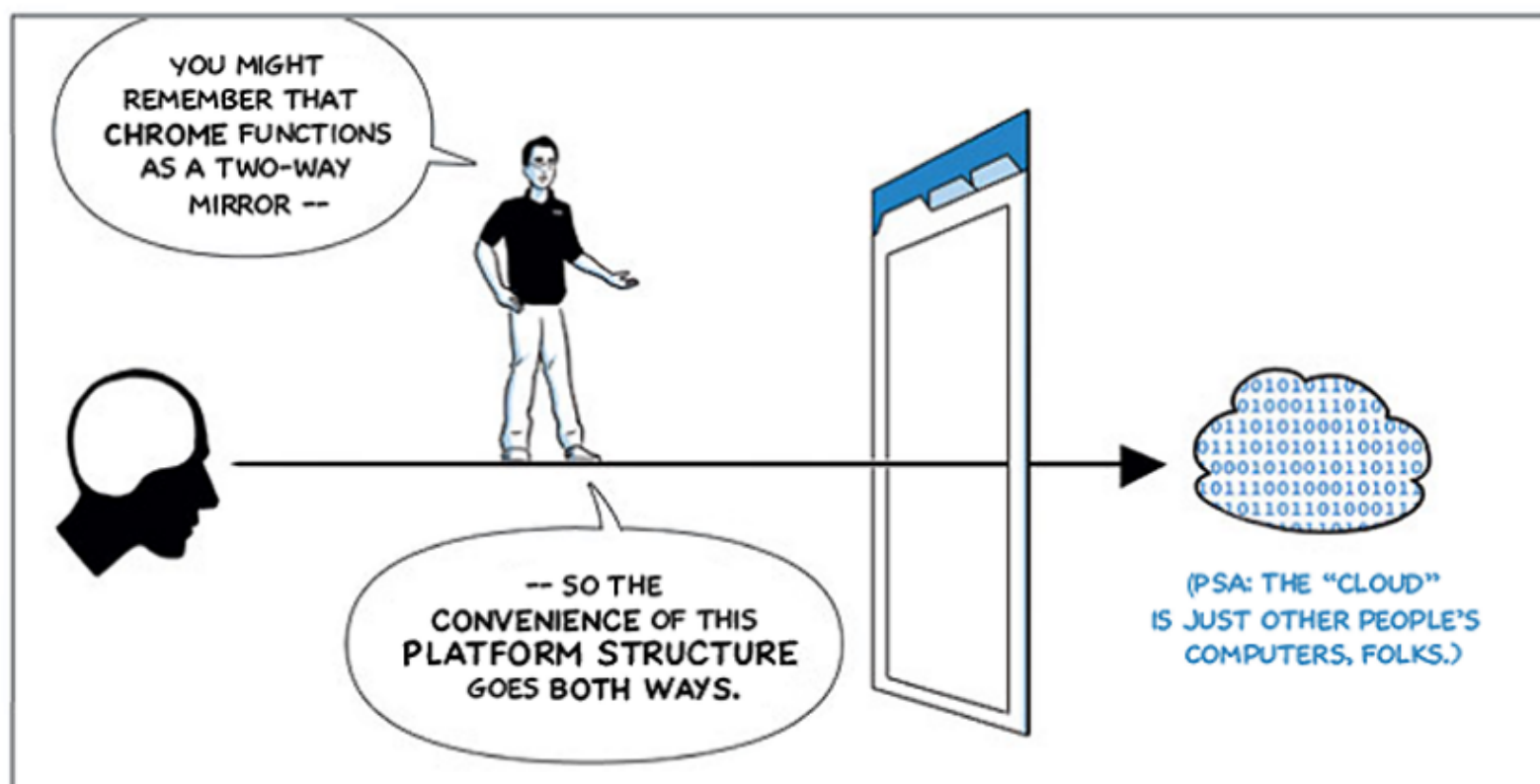


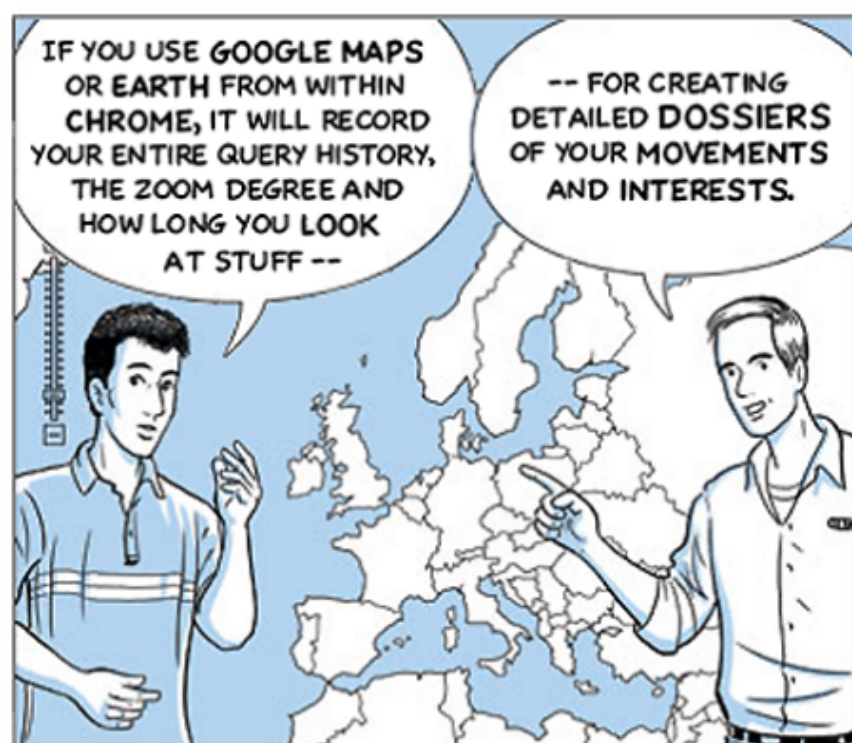
-- GOOGLE HAS ARRANGED AN EXTENSIVE
ECOSYSTEM AROUND ITS BROWSER --



-- 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.









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

-- 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 COUNTER-
PARTS, ORGANIZE BUNDLED
INFORMATION IN ORDER TO
CONSTRUCT A PRECISE
PORTRAIT OF YOU.
AT THE CENTER OF IT ALL:

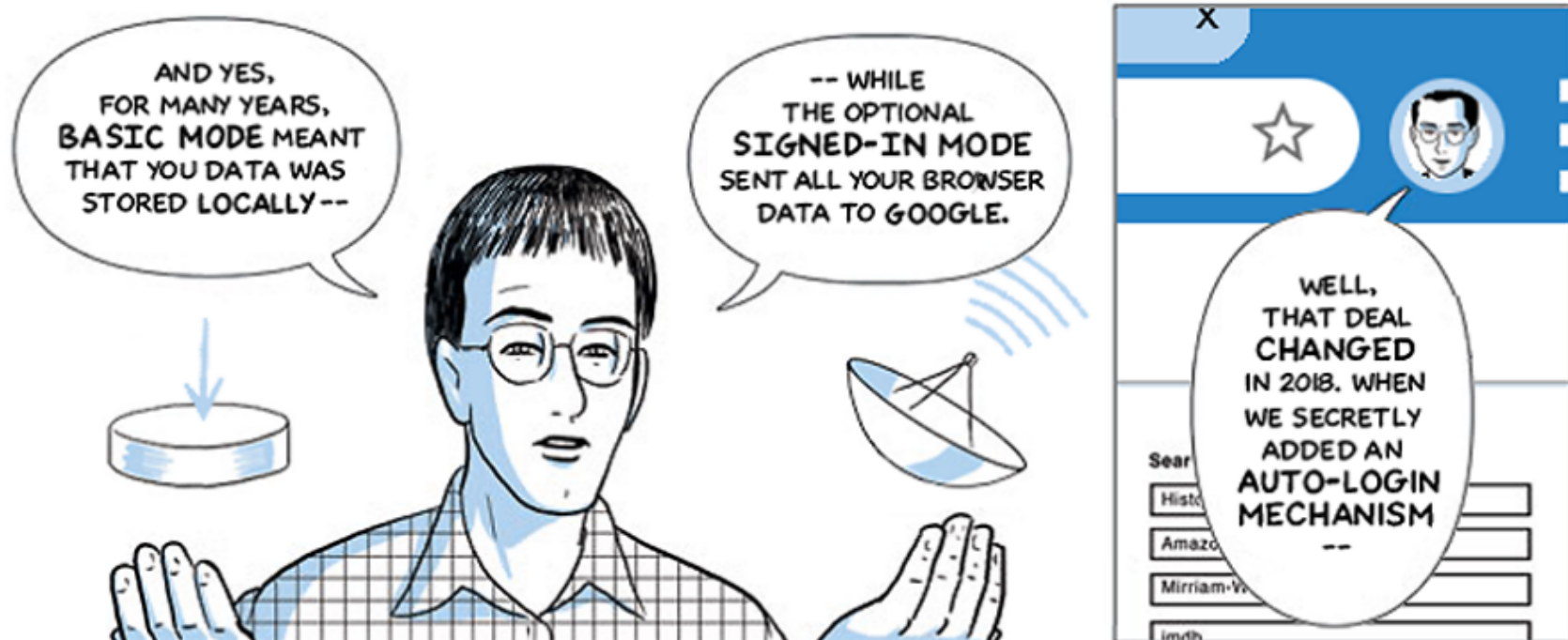
A LENSE - EXPRESSIONLESS
AND EVER-WATCHING.



Part Three



The Regression Game

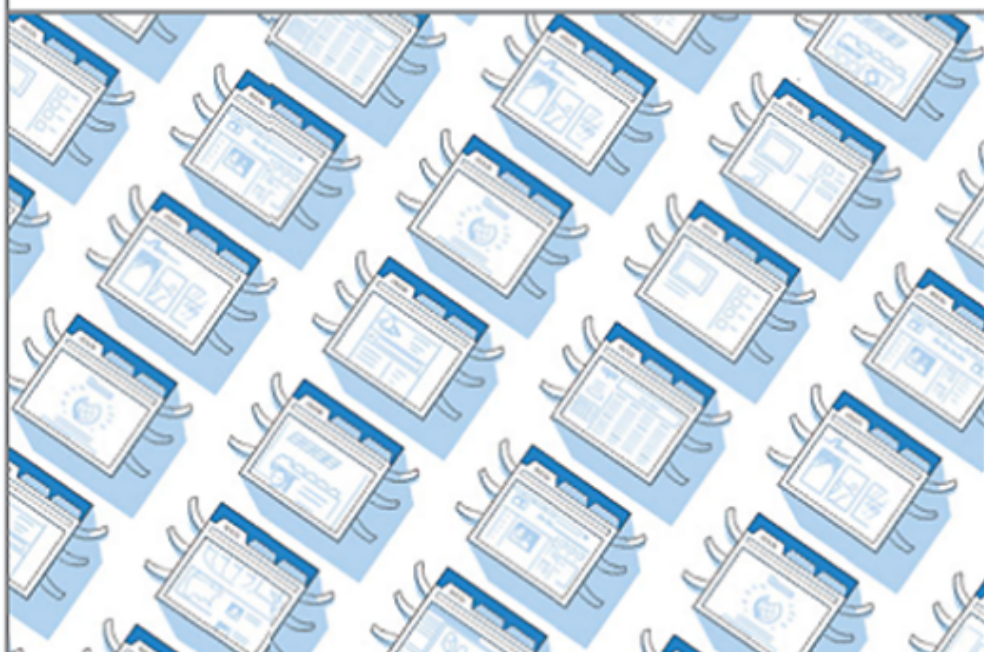


THE OPTION OF SYNCING HAS
BECOME THE DE FACTO RULE.

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 MICRO-
PHONE AND SENDS
WHAT IT HEARS
TO GOOGLE.

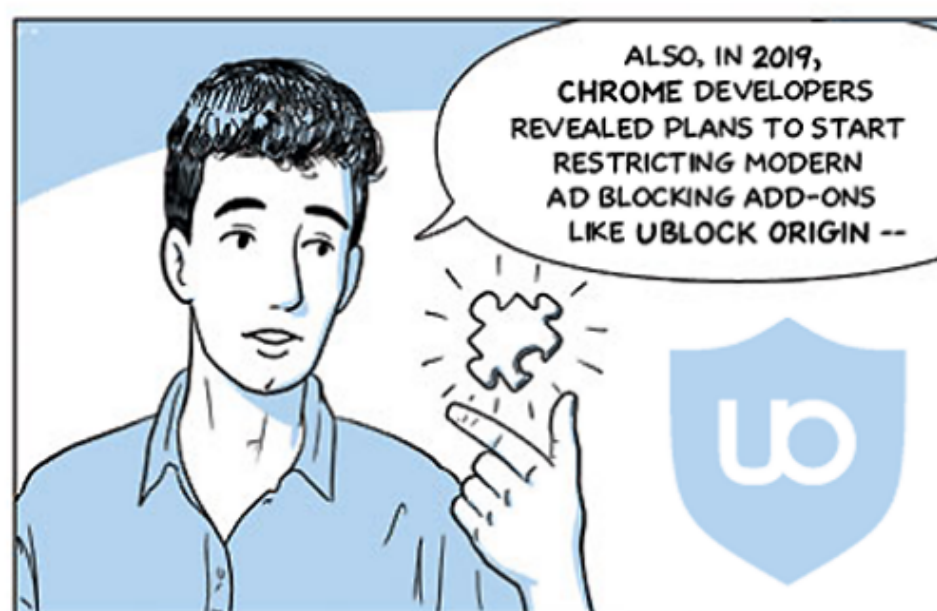
05.2017
A CHROME "FLAW"
ALLOWS SITES TO
SECRETLY RECORD
AUDIO AND VIDEO
WITHOUT WARNING
OR CONSENT.

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

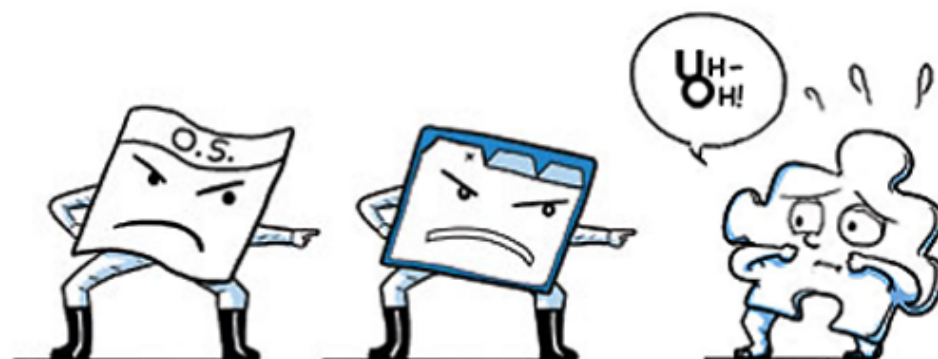
04.2019
CHROME
ELIMINATES
THE OPTION
TO TURN OFF
THE SURVEILLING
'HYPERLINK
AUDITING.'

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 --

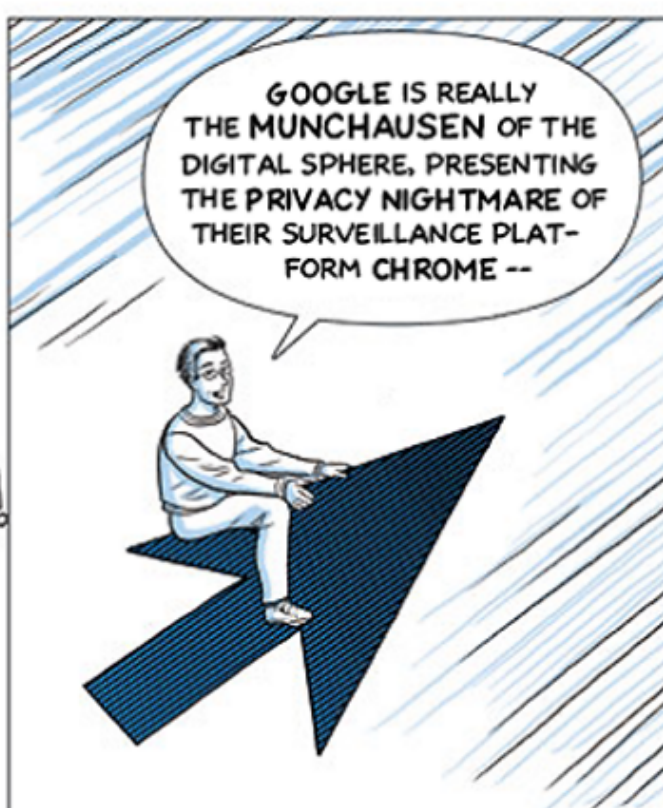
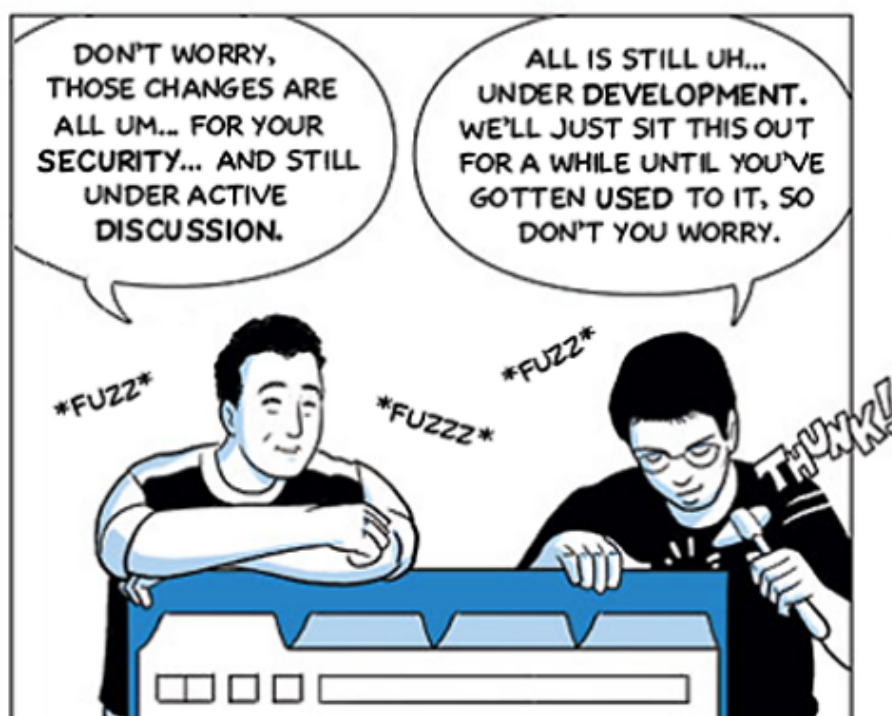


-- THE "RISK FROM ADBLOCKERS" TO THEIR REVENUE IN THEIR SEC FILINGS.

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 LEIGHTWEIGHT,
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?

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

SECRETLY.

WAIT,
WHAT?

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

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.

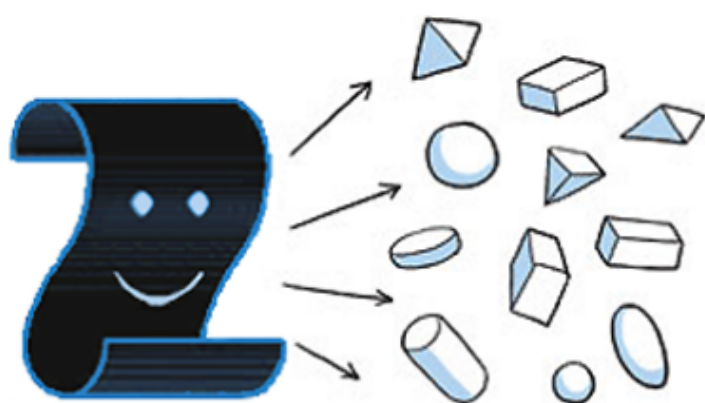
WHENEVER WE POST
PICTURES TO A WEBSITE,
WHENEVER WE BLOG, CHAT,
TWEET, OR "LIKE" SOME-
THING, WE ARE AUTHORS
OF A MULTIMEDIAL
PUBLIC TEXT.



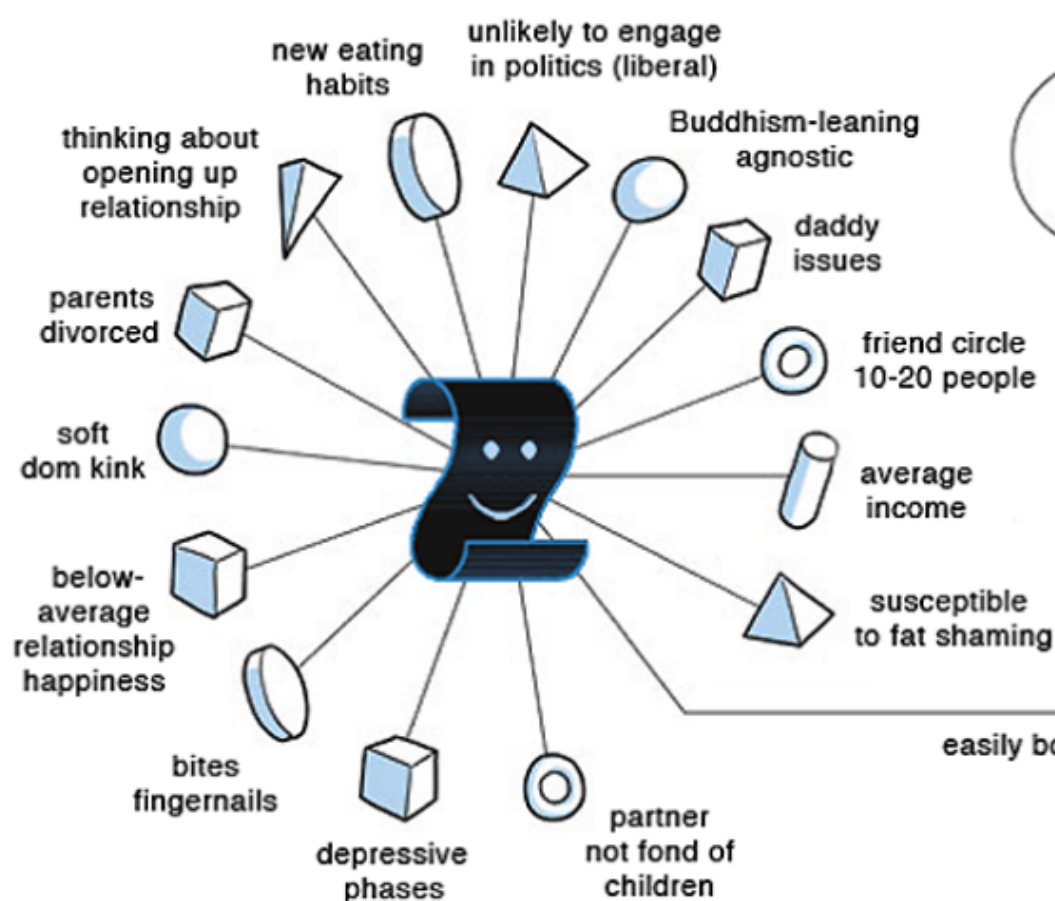
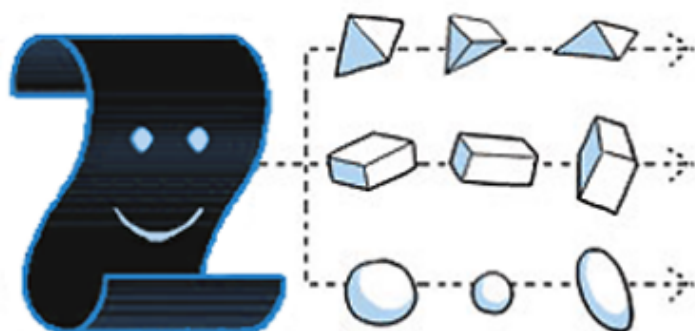
BUT IN ADDITION TO THAT, EVERYTHING YOU TYPE OR CLICK WHILE
BROWSING THE WEB, HOWEVER TRIVIAL OR FLEETING, WILL BE
ENGRAVED INTO A SECOND TEXT.



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**.

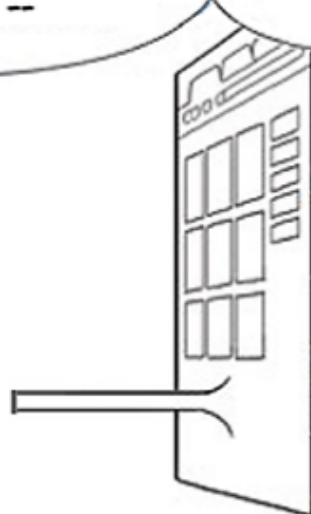
easily bored by tech talk



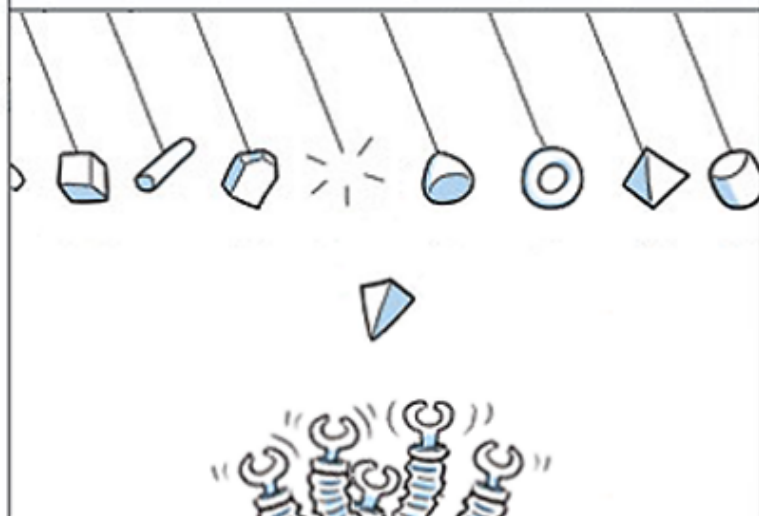
WHEREAS THE FIRST PUBLIC TEXT IS VISIBLE TO US, THE **SHADOW TEXT** IS HIDDEN FROM OUR VIEW --

-- "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.

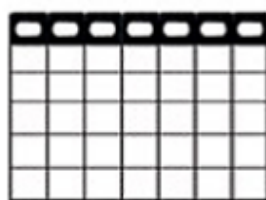
BUT WHAT ARE YOU GONNA DO ABOUT IT, HUH?



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.

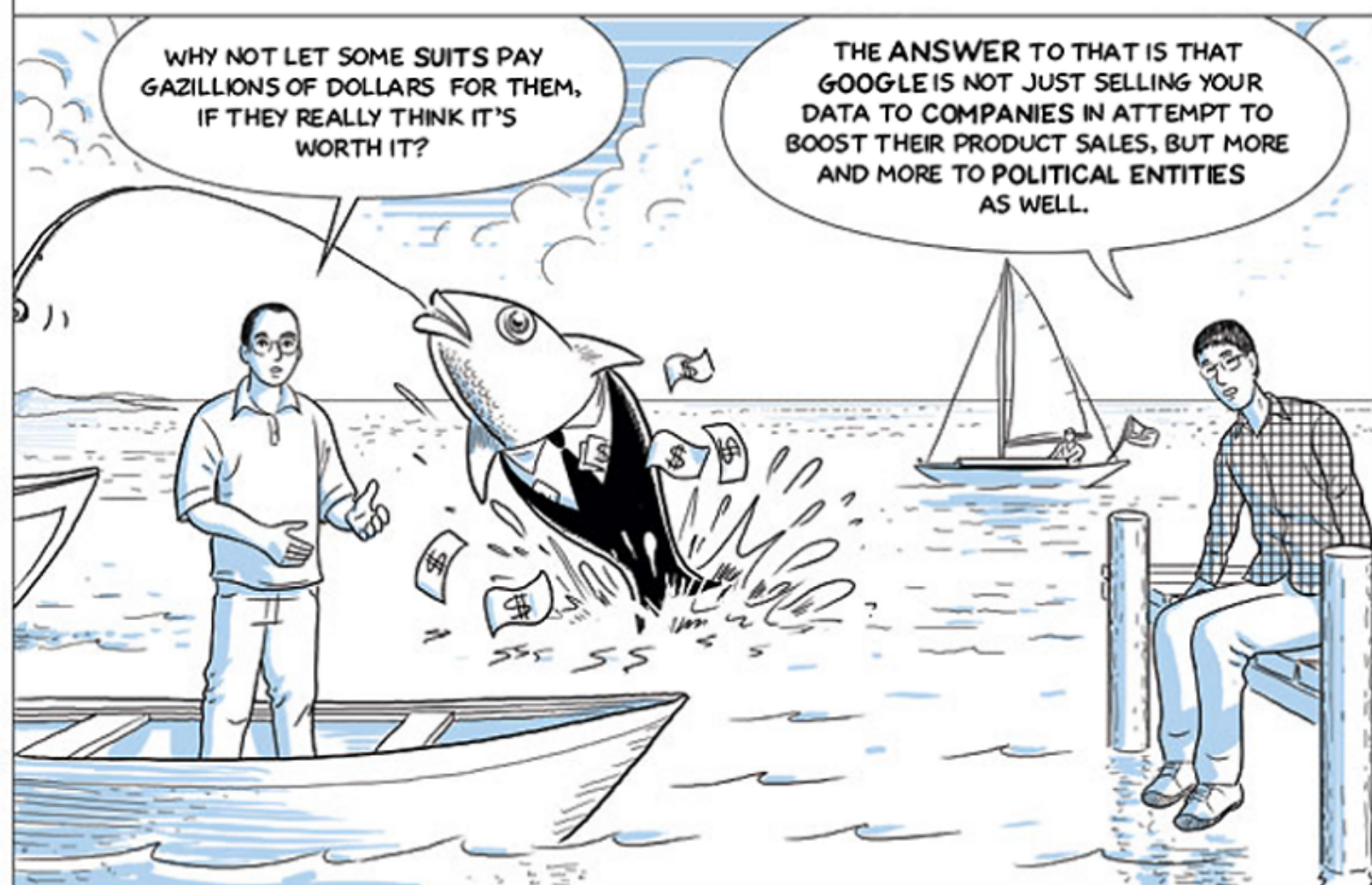




Conclusion



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



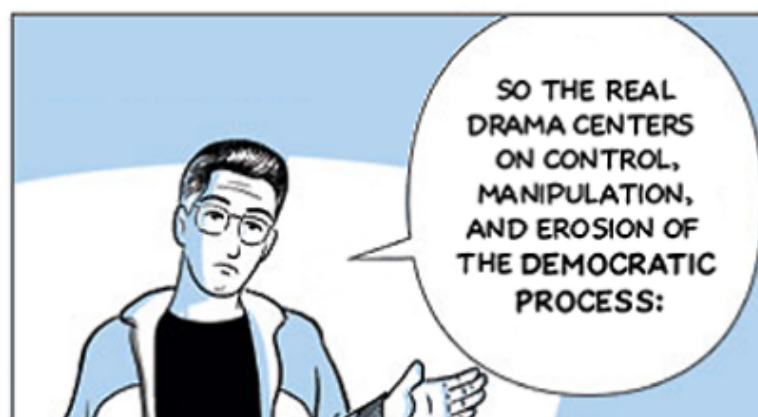
IF WE AGREE THAT THE AD BUSINESS IS A KIND OF BEHAVIORAL MODIFICATION INDUSTRY --



-- IMAGINE WHAT HAPPENS WHEN THE MOST PRIVATE DETAILS OF MILLIONS OF VOTERS ARE BOUGHT UP BY POLITICAL PLAYERS!



SO THE REAL DRAMA CENTERS ON CONTROL, MANIPULATION, AND EROSION OF THE DEMOCRATIC PROCESS:



THEY'RE CLOSING GRAMPA'S COAL MINE!!

TOLDJA TO VOTE TRUMP.



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 --

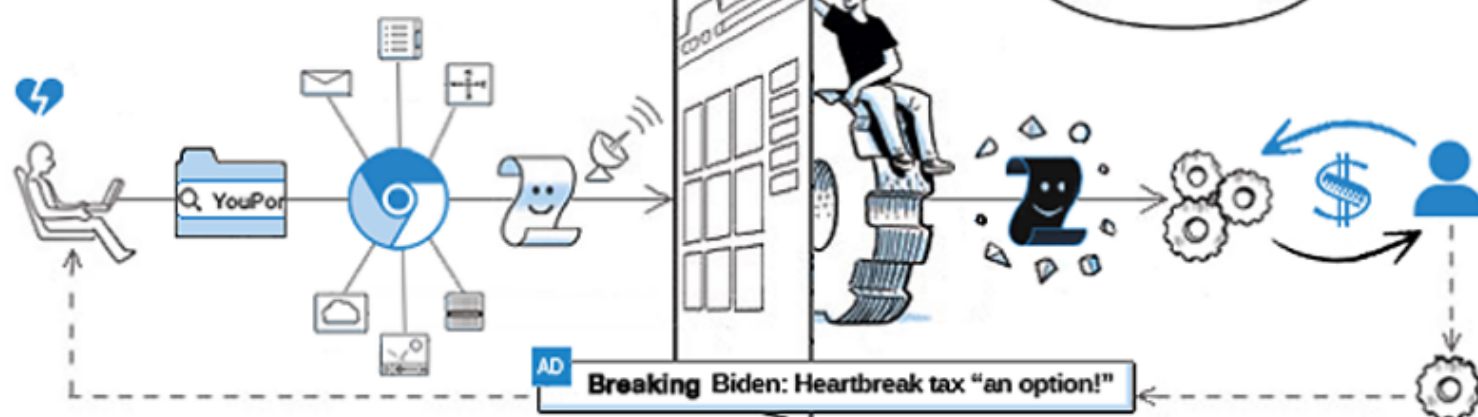
-- AS WAS THE CASE IN BOTH THE 2016
TRUMP AND BREXIT ELECTIONS, WHEN
POLITICIANS FROM THE US AND THE EU
ACCUSED GOOGLE OF PROFITING FROM
HATRED AND OF WEAKENING DEMOCRACY
THROUGH DISTORTED INFORMATION.



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 --

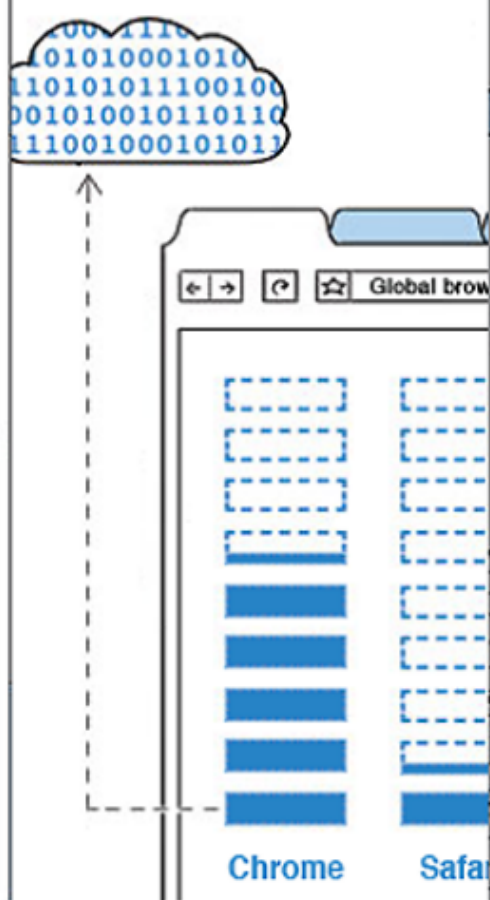
-- A
WHOPPING
\$150 MILLION
IN THE US
ALONE DURING
THE LAST
DECADE.



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.



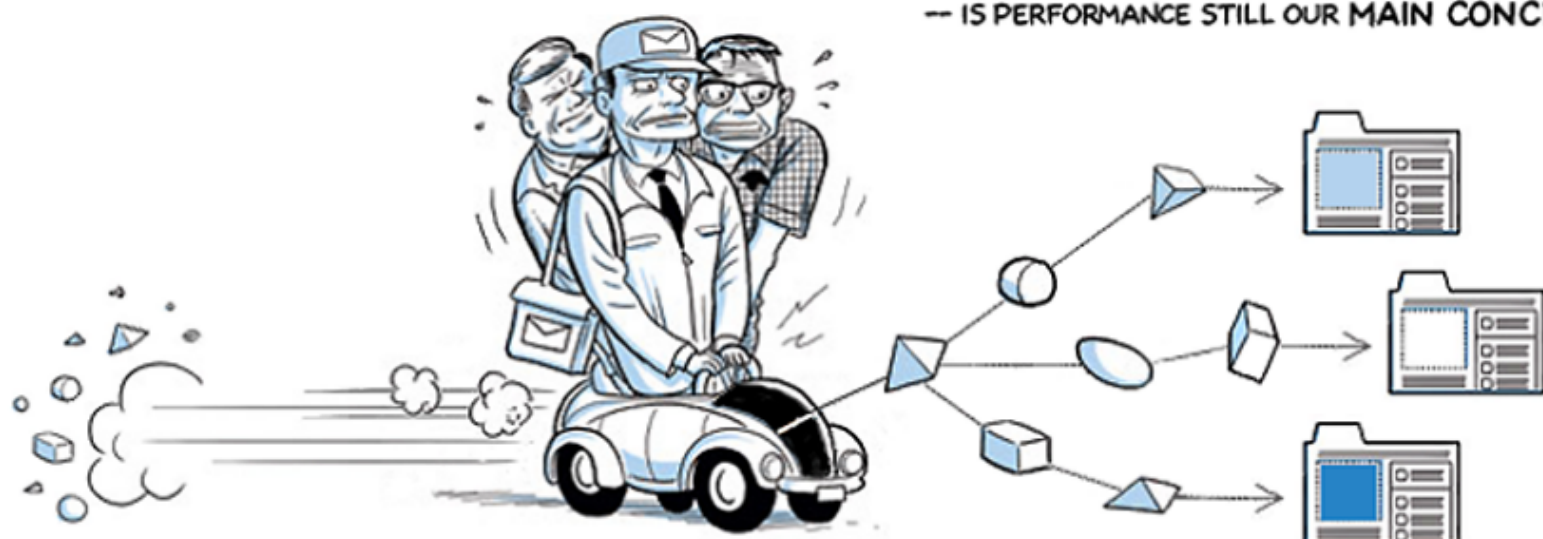
IN THE END, THIS IS THE SOLE
PURPOSE CHROME WAS
BUILT AROUND: EXTRACTING
AND MONETIZING AS MUCH
OF YOUR PERSONAL LIFE AS
POSSIBLE, WHILE DELIVERING
GOOD PERFORMANCE.



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?



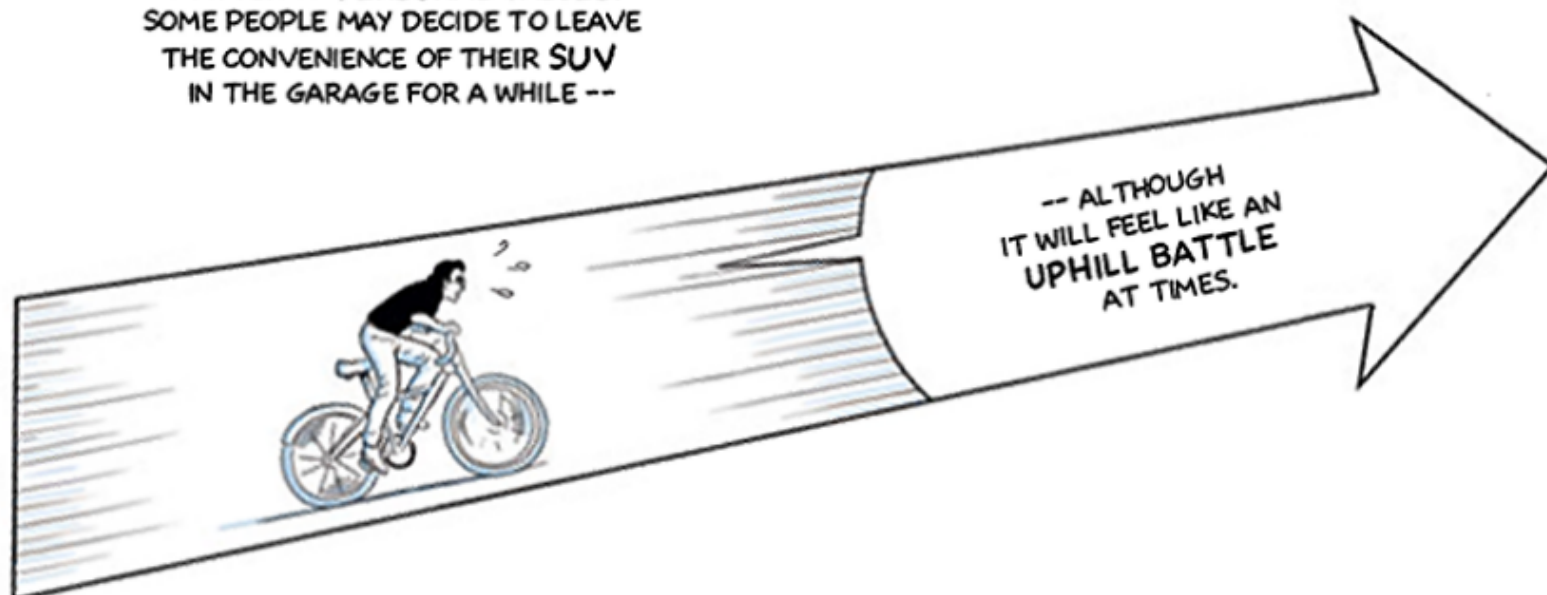
OR SHOULDN'T WE BE AT LEAST AS APPALLED AT OUR IMMENSE DAILY DATA EXHAUST AS WE ARE IN OTHER CASES OF MORAL BANKRUPTCY THAT BRING FORTH AN EXCESSIVE AMOUNT OF EMISSIONS?

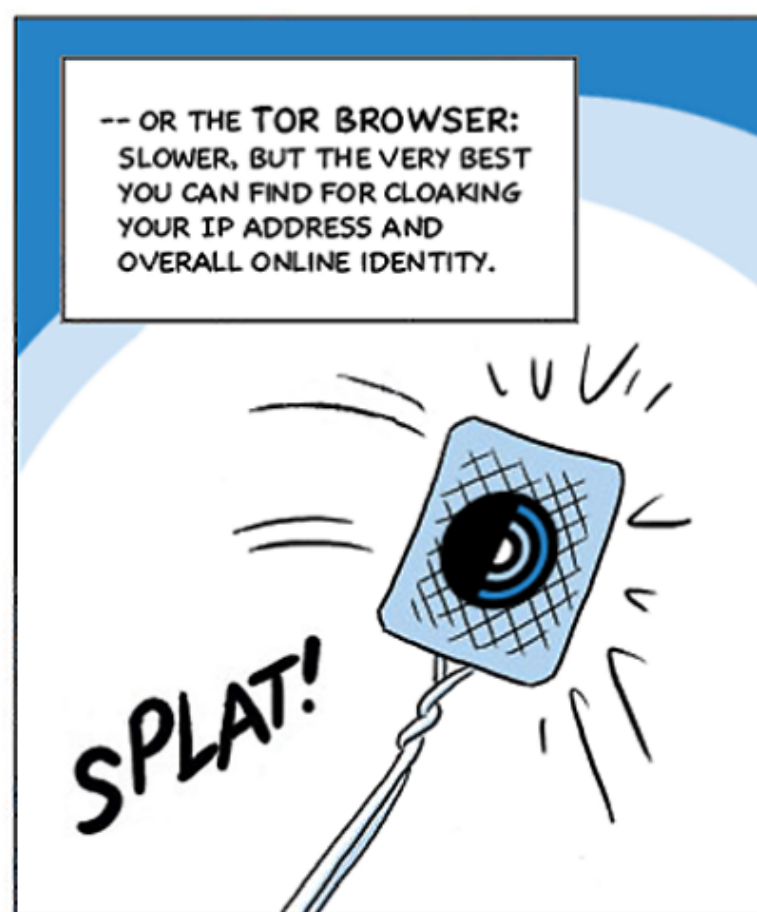
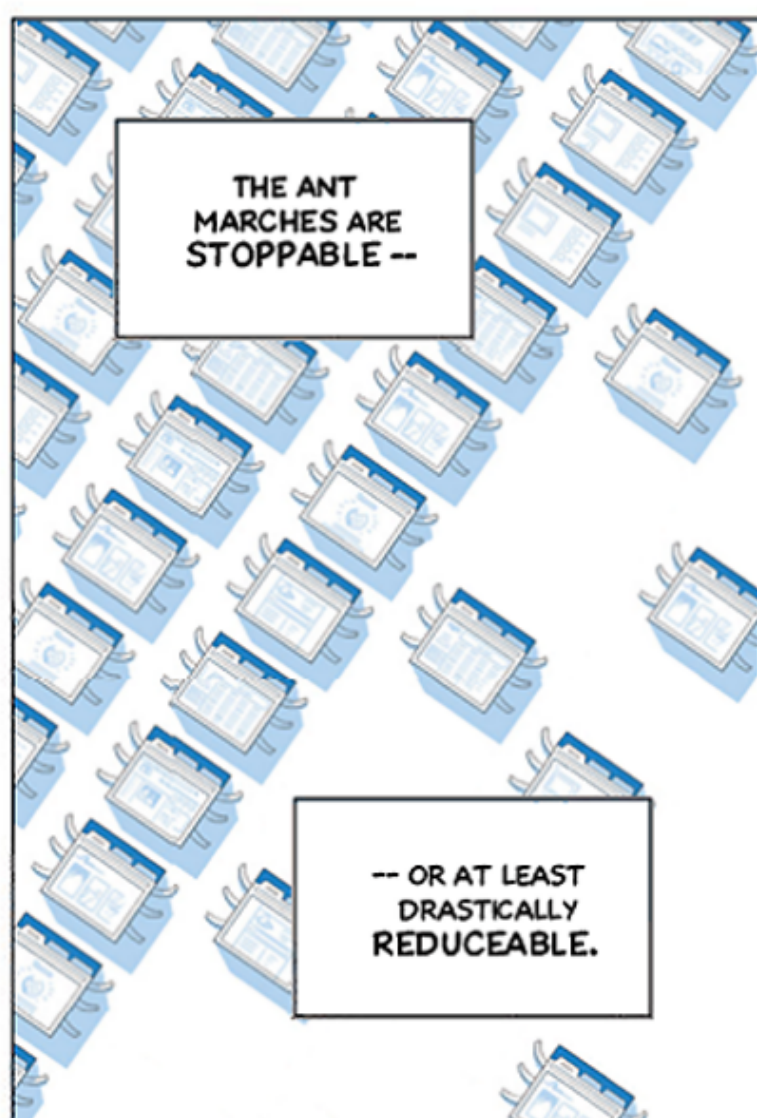
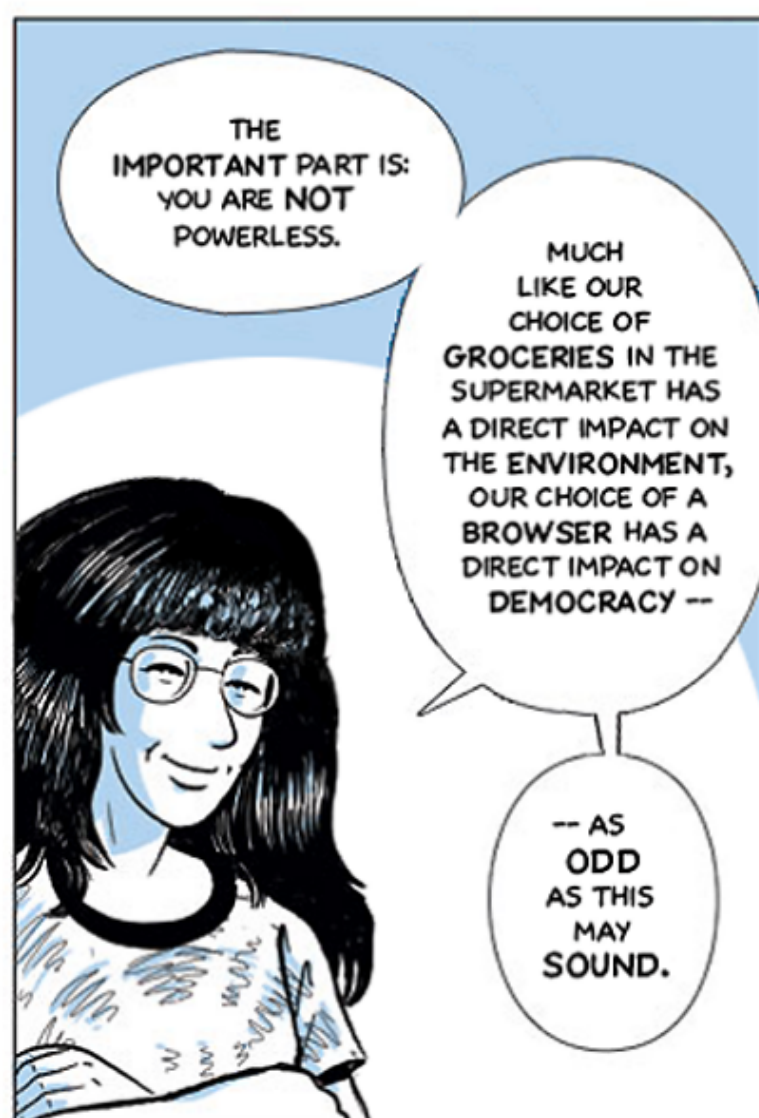


HOW MUCH ARE WE WILLING TO SACRIFICE FOR ANOTHER 10TH OF A SECOND OF LOADING SPEED?



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 --

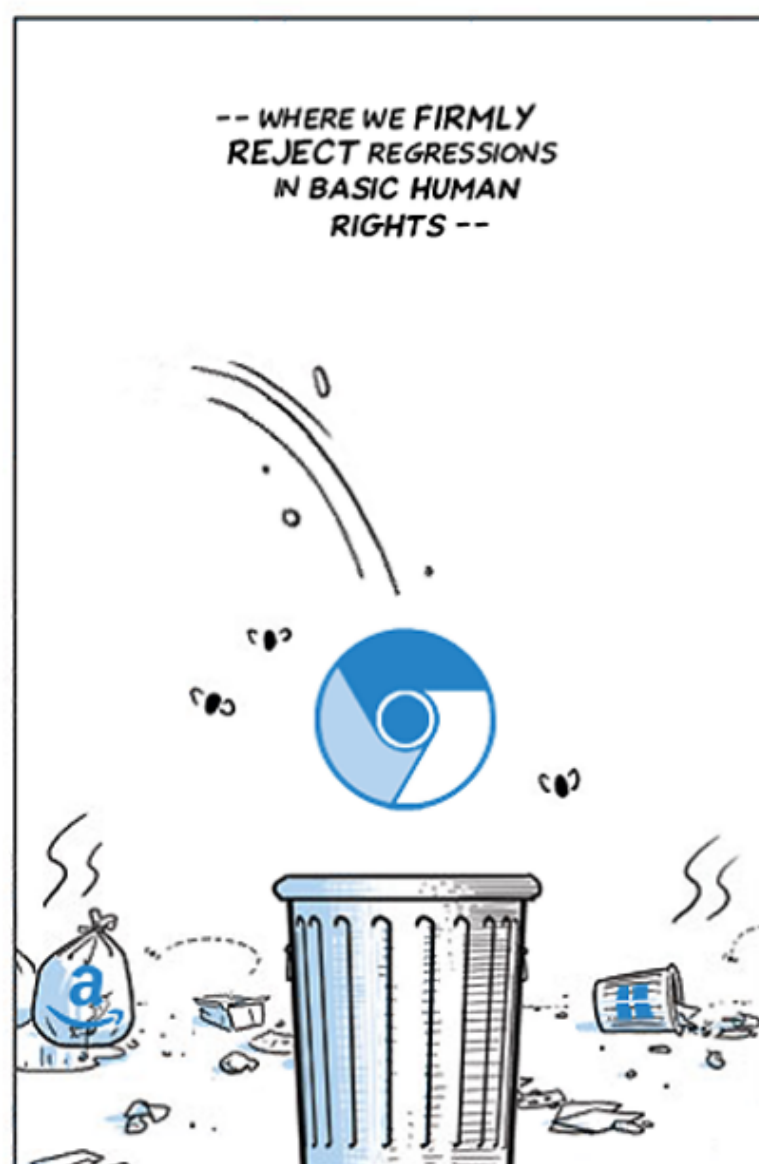




THESE ARE NOT THE "DATA EIGHTIES," WHERE IT'S ALL ABOUT MAKING
FAST MONEY, BUYING FAST CARS AND DRIVING TO THE NEXT FAST FOOD JOINT
WITHOUT ANY REGARD FOR OUR HEALTH, SOCIETY OR ENVIRONMENT.



01010001010001010100101010000101010000101



**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 2021: <https://gs.statcounter.com/browser-market-share>
or
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 3

• On the Omnibox “No Return Policy”:
<https://www.theguardian.com/technology/blog/2008/sep/04/googlechromeprivacyissuesa>

Page 4

• 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>
• “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>

Page 7

• 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 8

• 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 7*.
• 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
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
• 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
• On Chrome monitoring your sleep cycle and daily routine via ‘Idle Detection’:
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://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/alexkantrowitz/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%99most-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

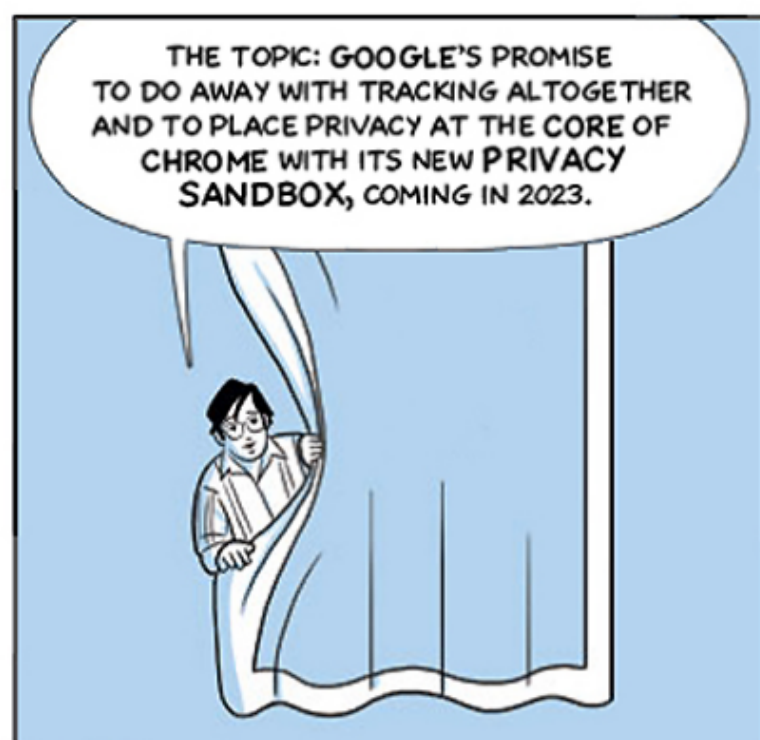
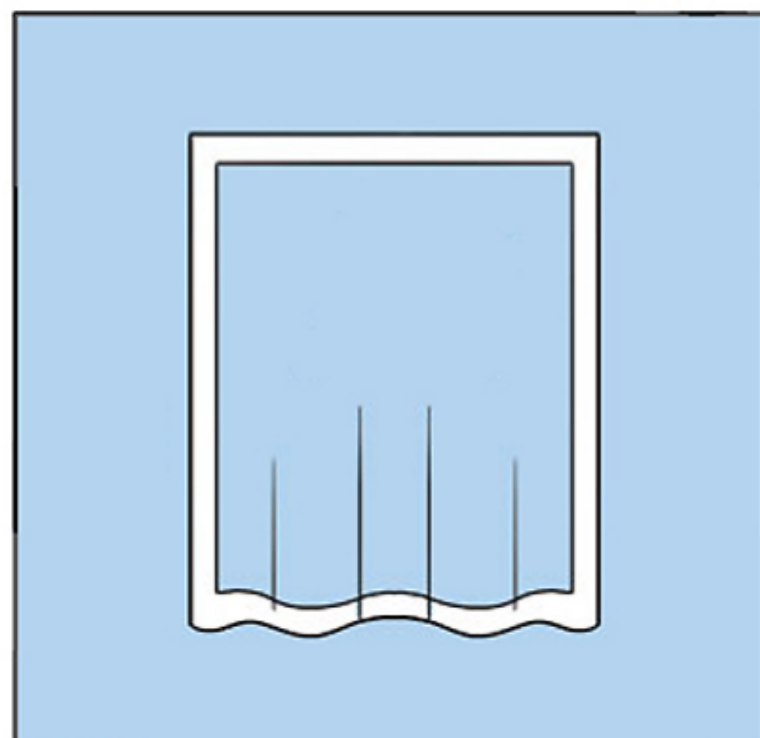
- Download Firefox here: <https://www.mozilla.org/en-US/firefox/new/>
- Download Tor Browser here: <https://www.torproject.org/download/>

(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.)

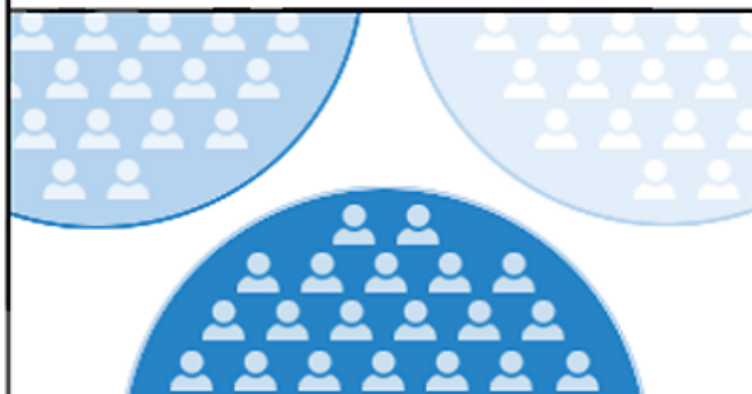
EPILOGUE

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.



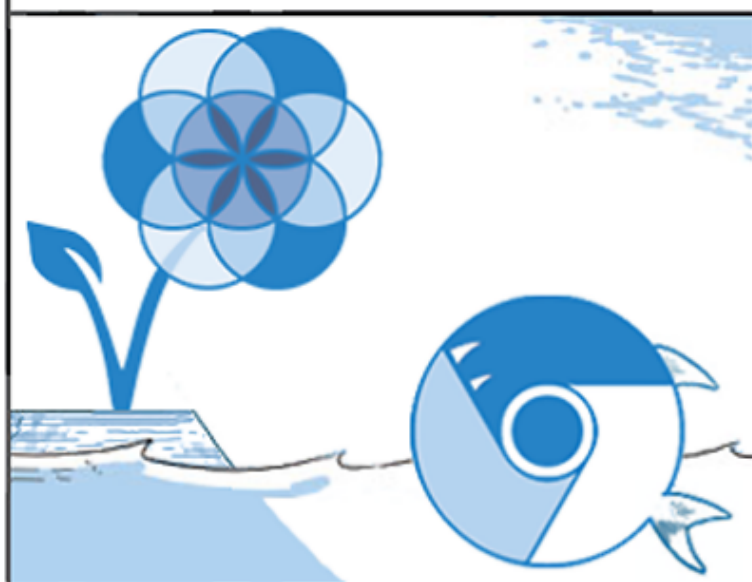
ACCORDING TO GOOGLE, THIS WAY YOUR PRIVACY WILL BE PROTECTED MUCH BETTER THAN BEFORE.

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

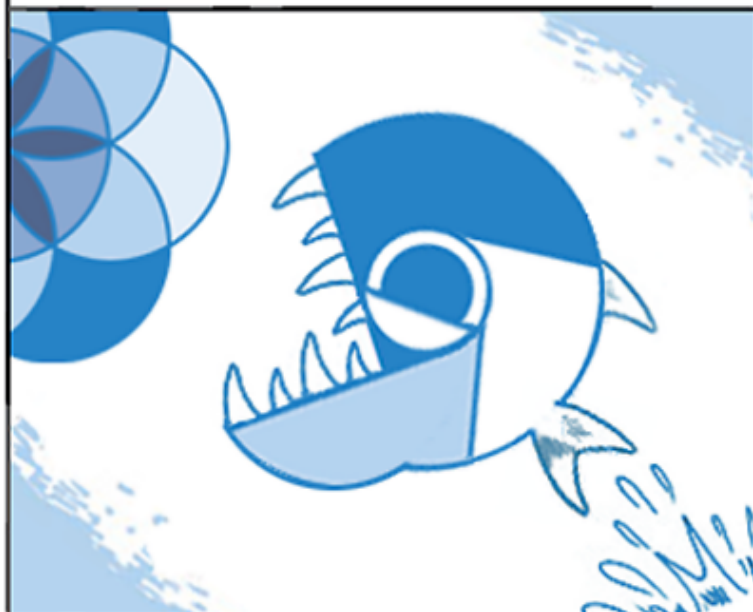


ANOTHER OUTCRY ENSUED, AND ANOTHER ROUND OF GOOGLE BACKPEDALING, A TINY BIT, FOR NOW.*

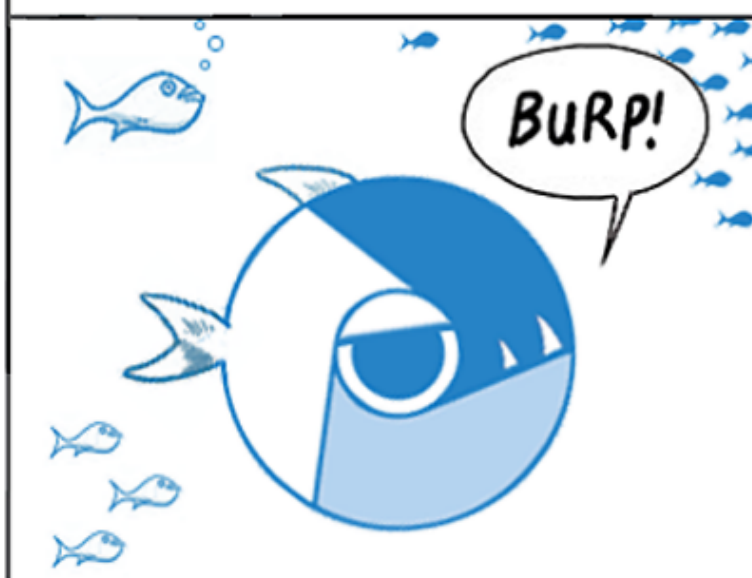
BUT, AS RENA TANGENS, MEMBER OF GERMAN PRIVACY NGO DIGITALCOURAGE, RECENTLY REMARKED: "PIRANHAS WILL BECOME VEGANS..."



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



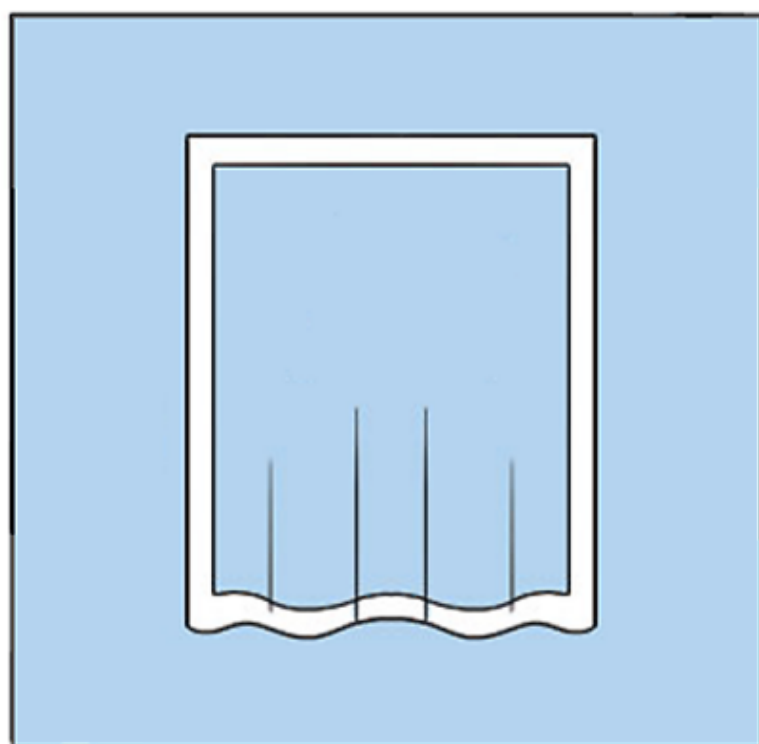
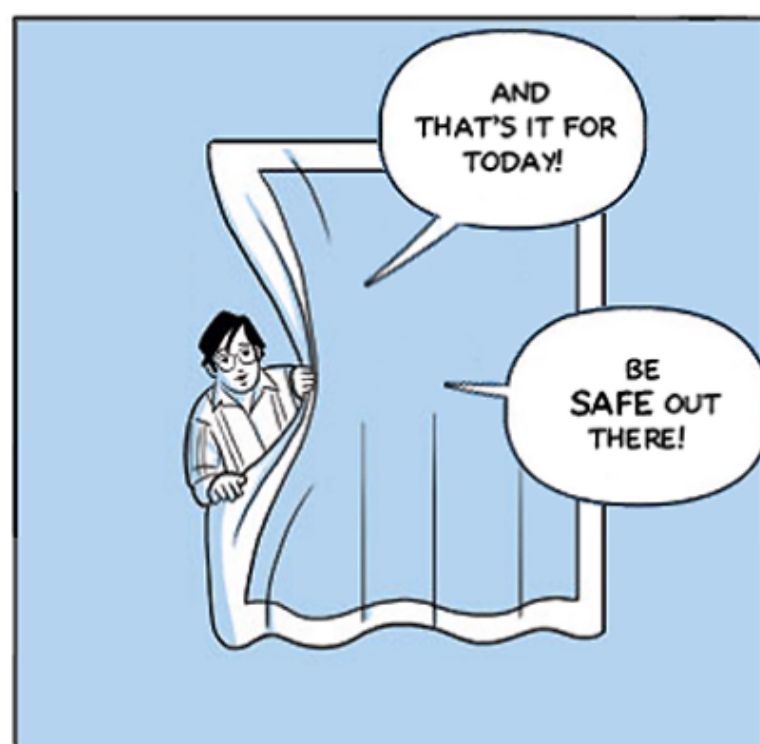
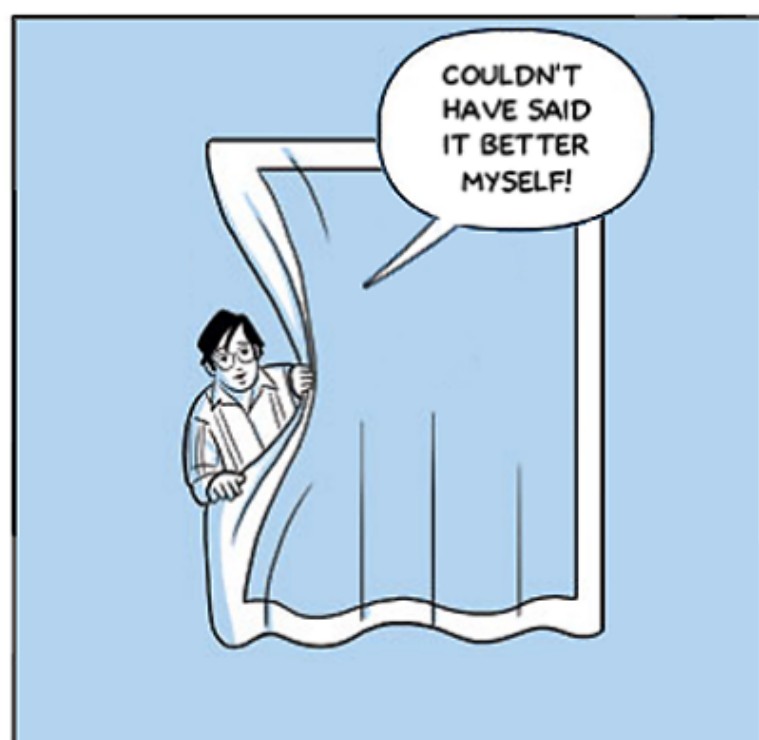
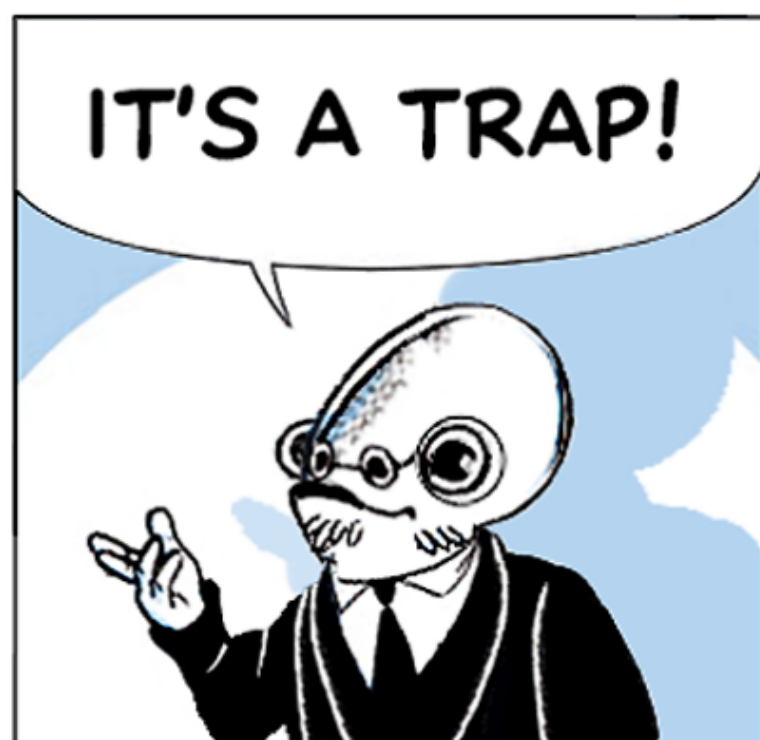
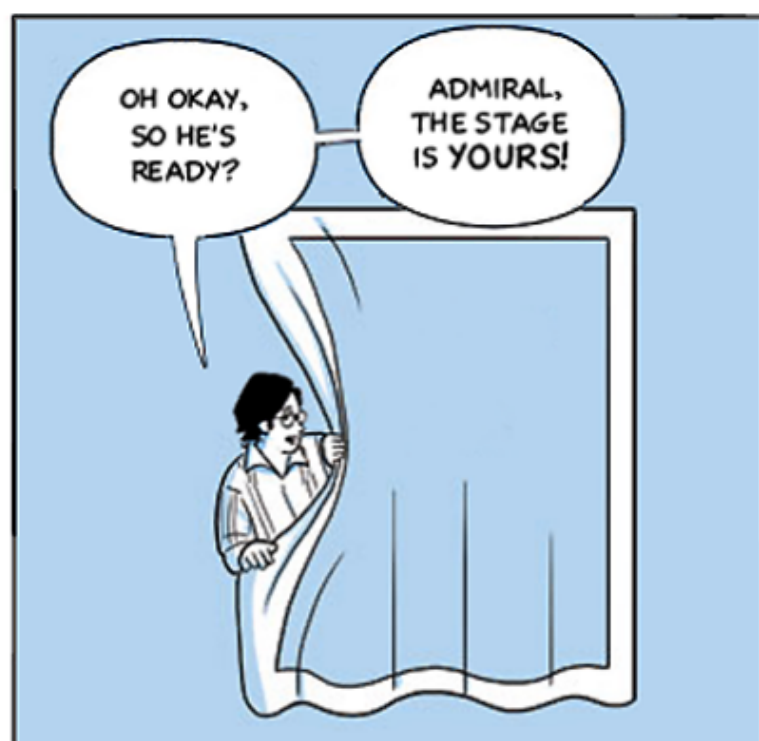
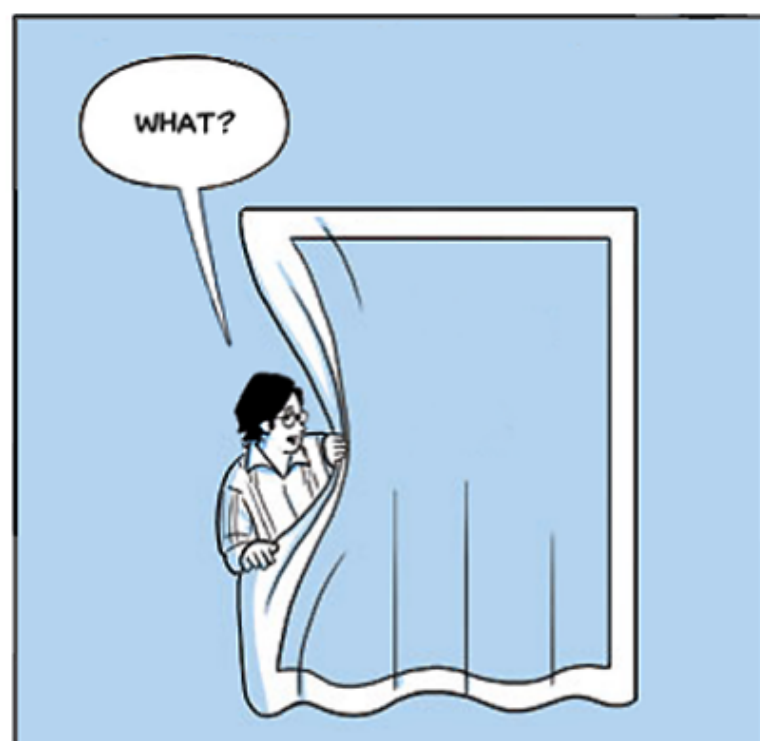
THIS IS MUCH MORE ABOUT GOOGLE BLOCKING ITS DATA-HARVESTING COMPETITORS IN ORDER TO AMASS EVEN MORE MARKET POWER IN ITS OWN HANDS.



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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