



Do we Require an Ethics of Data Science?

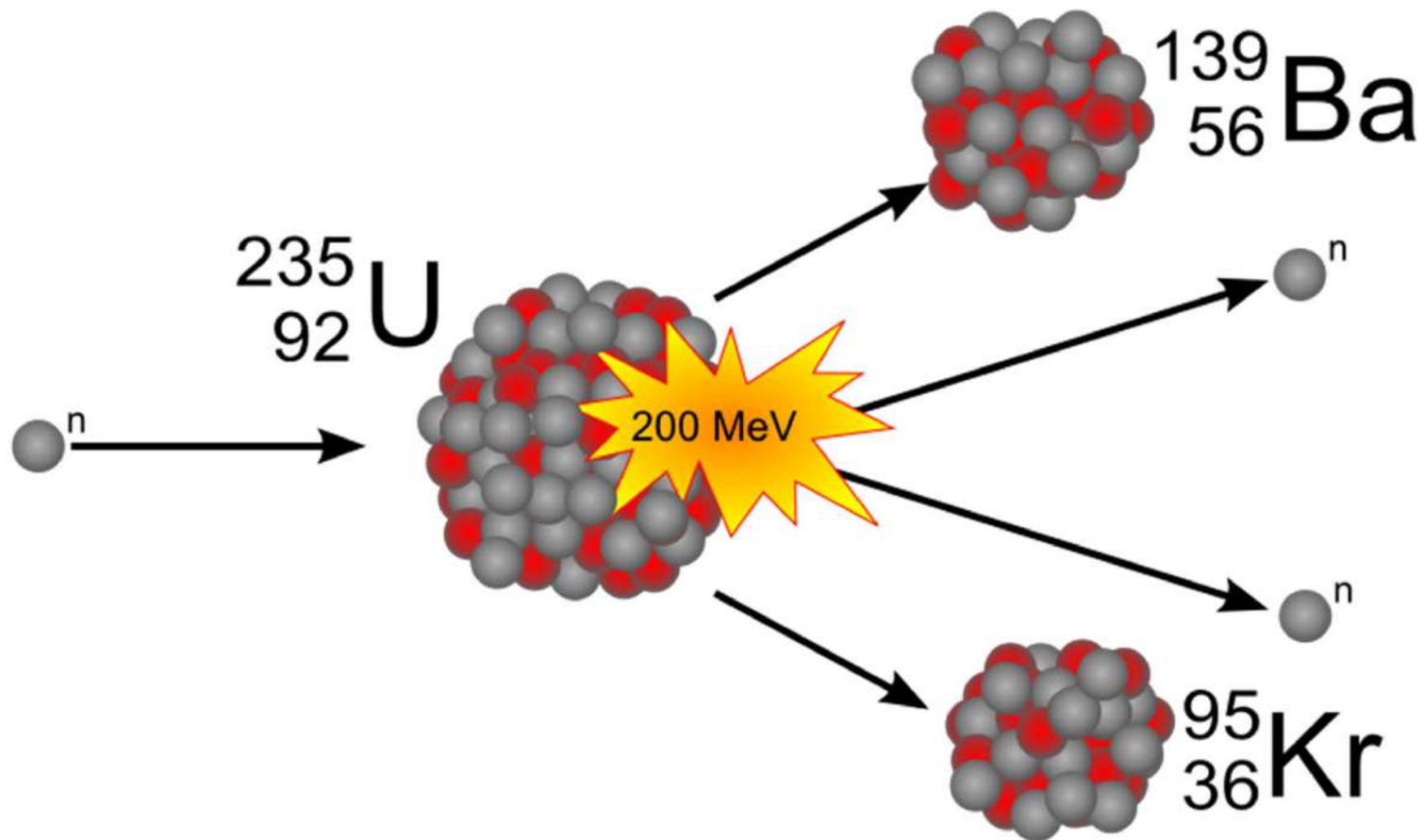
clemens.cap@uni-rostock.de

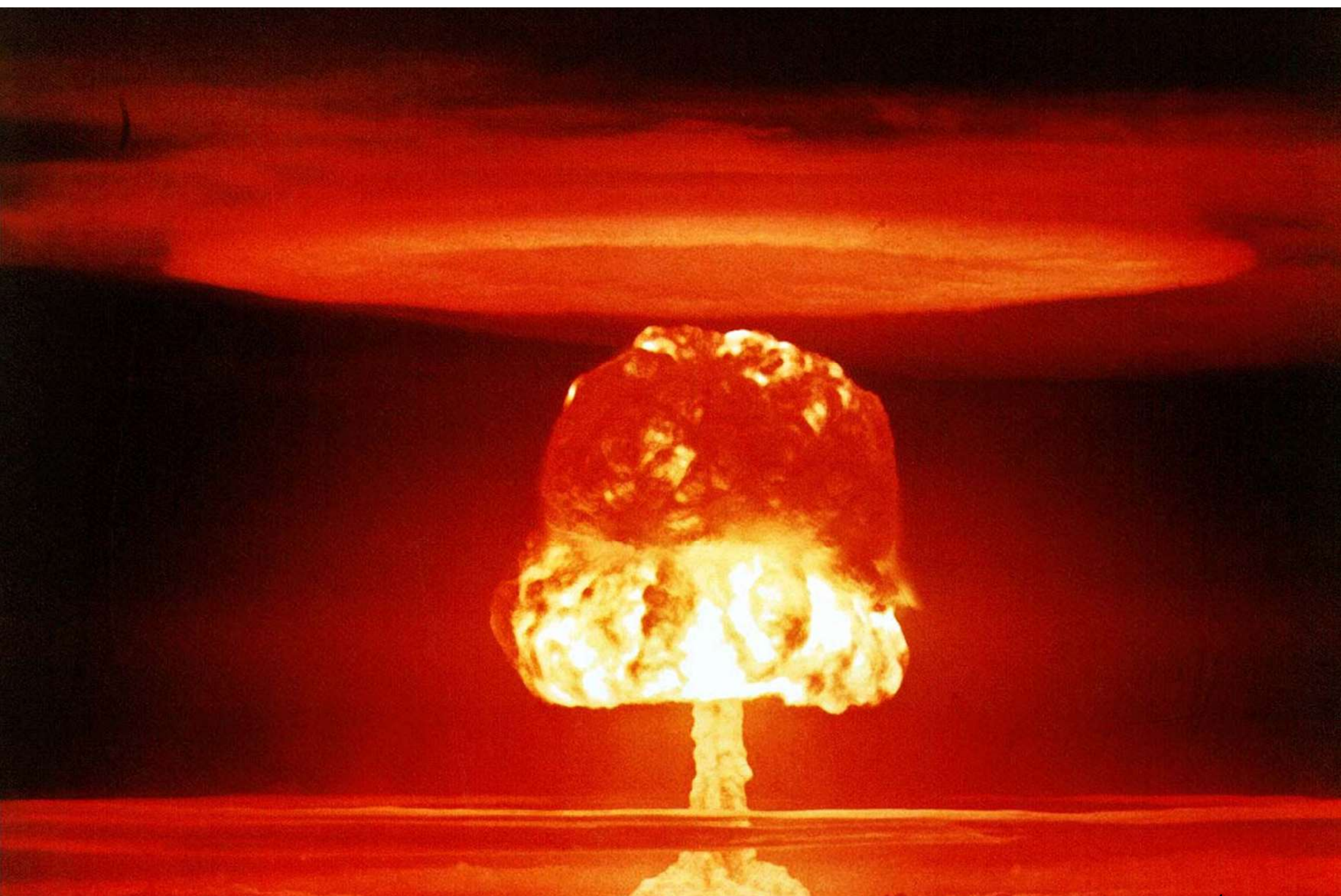
Clemens H. Cap



Von J Brew - originally posted to Flickr as Nuclear Fission Deutsches Museum, CC BY-SA 2.0, <https://commons.wikimedia.org/w/index.php?curid=4291036>

https://upload.wikimedia.org/wikipedia/commons/2/23/Nuclear_Fission_Experimental_Apparatus_1938_-_Deutsches_Museum_-_Munich.jpg





Von United States Department of Energy - This image is available from the National Nuclear Security Administration Nevada Site Office Photo Library under number XX-33. This tag does not indicate the copyright status of the attached work. A normal copyright tag is still required., Gemeinfrei, <https://commons.wikimedia.org/w/index.php?curid=443729>



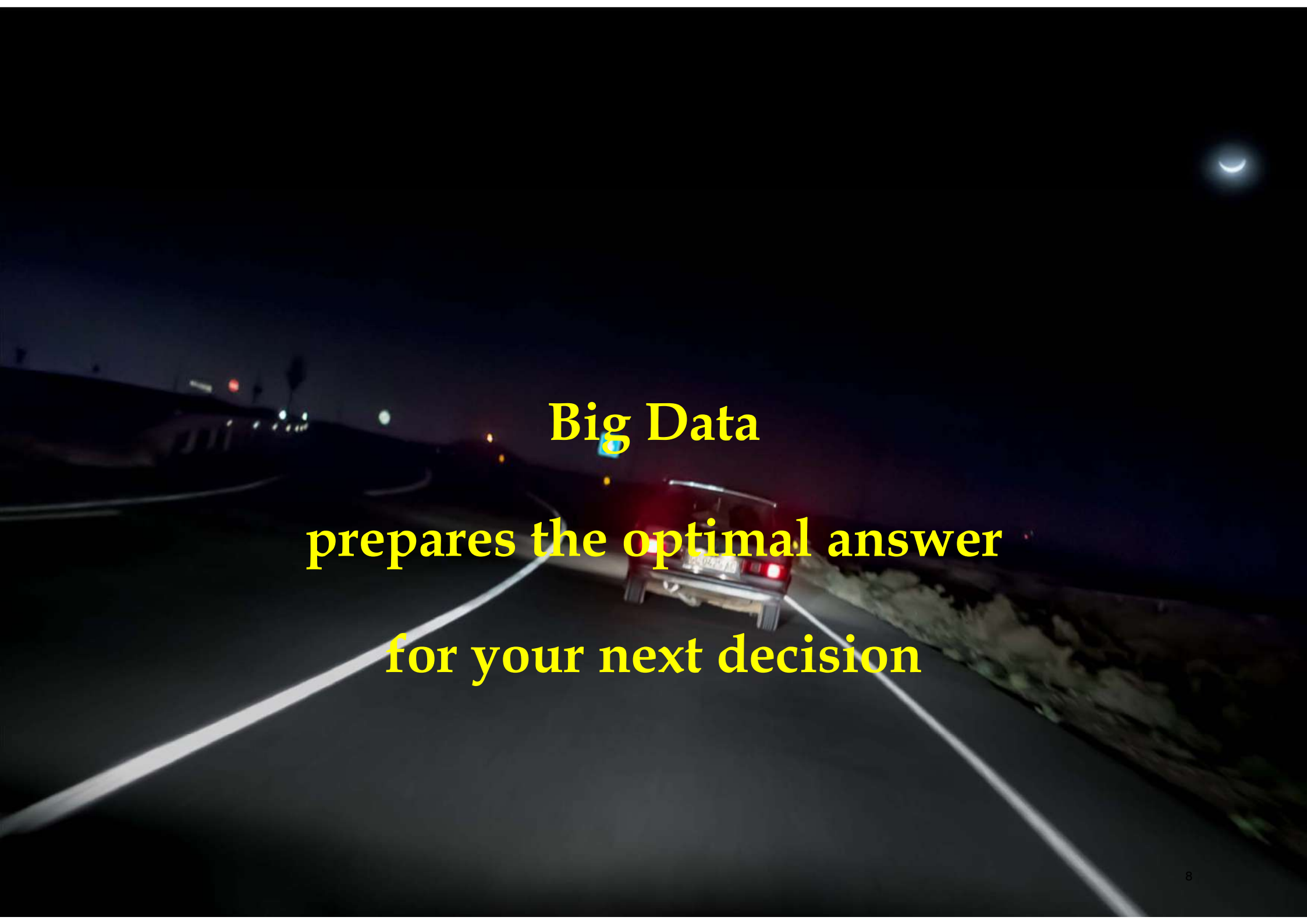
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**Do not use this
in armed conflicts**

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A photograph of a car driving on a road at night. The car is in the center of the frame, moving away from the viewer. The road has white lane markings. In the background, a city skyline is visible under a dark sky with a crescent moon. The text is overlaid in the center of the image.

Big Data
prepares the optimal answer
for your next decision



Big Data

ruins lives



Big Data

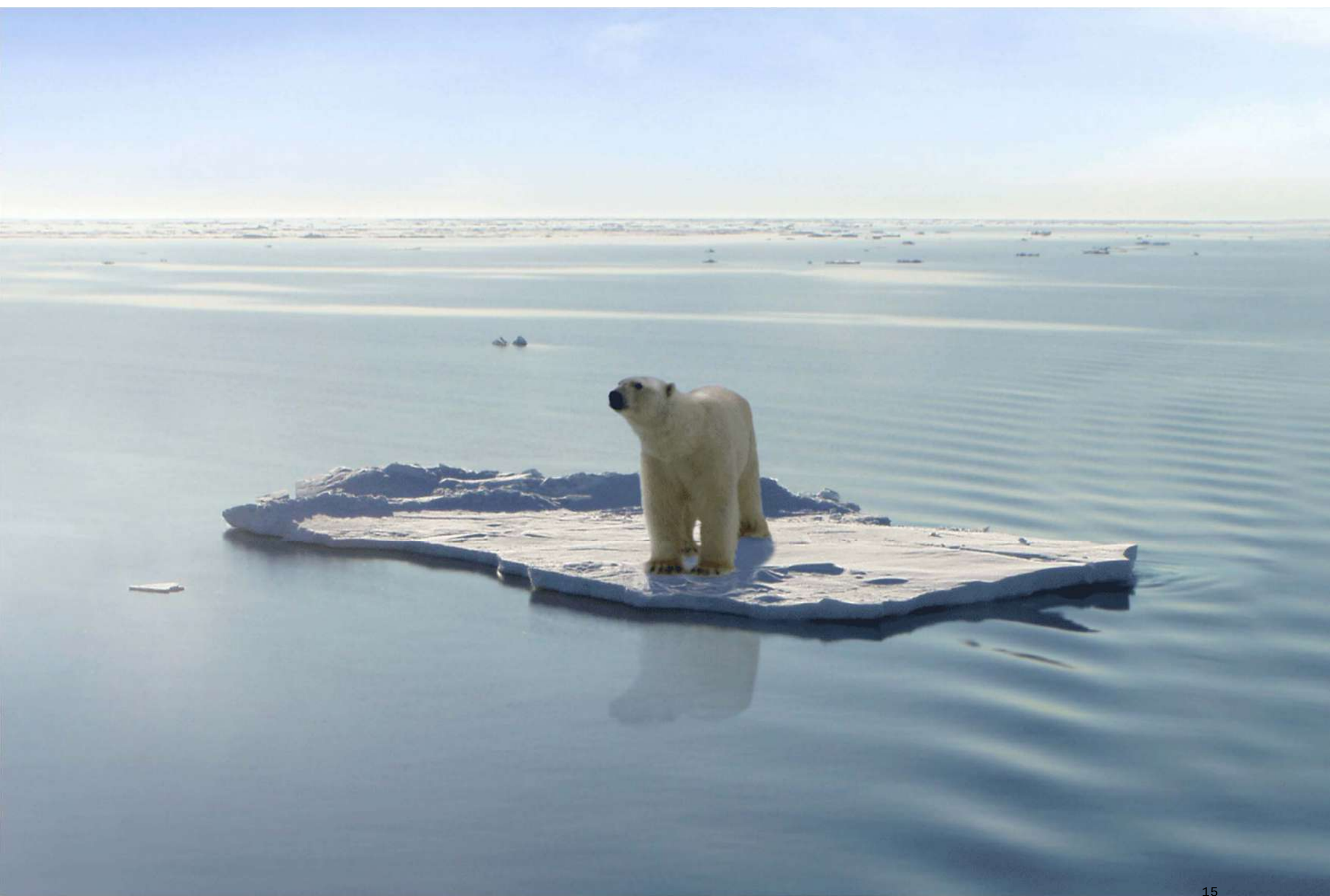
ruins lives

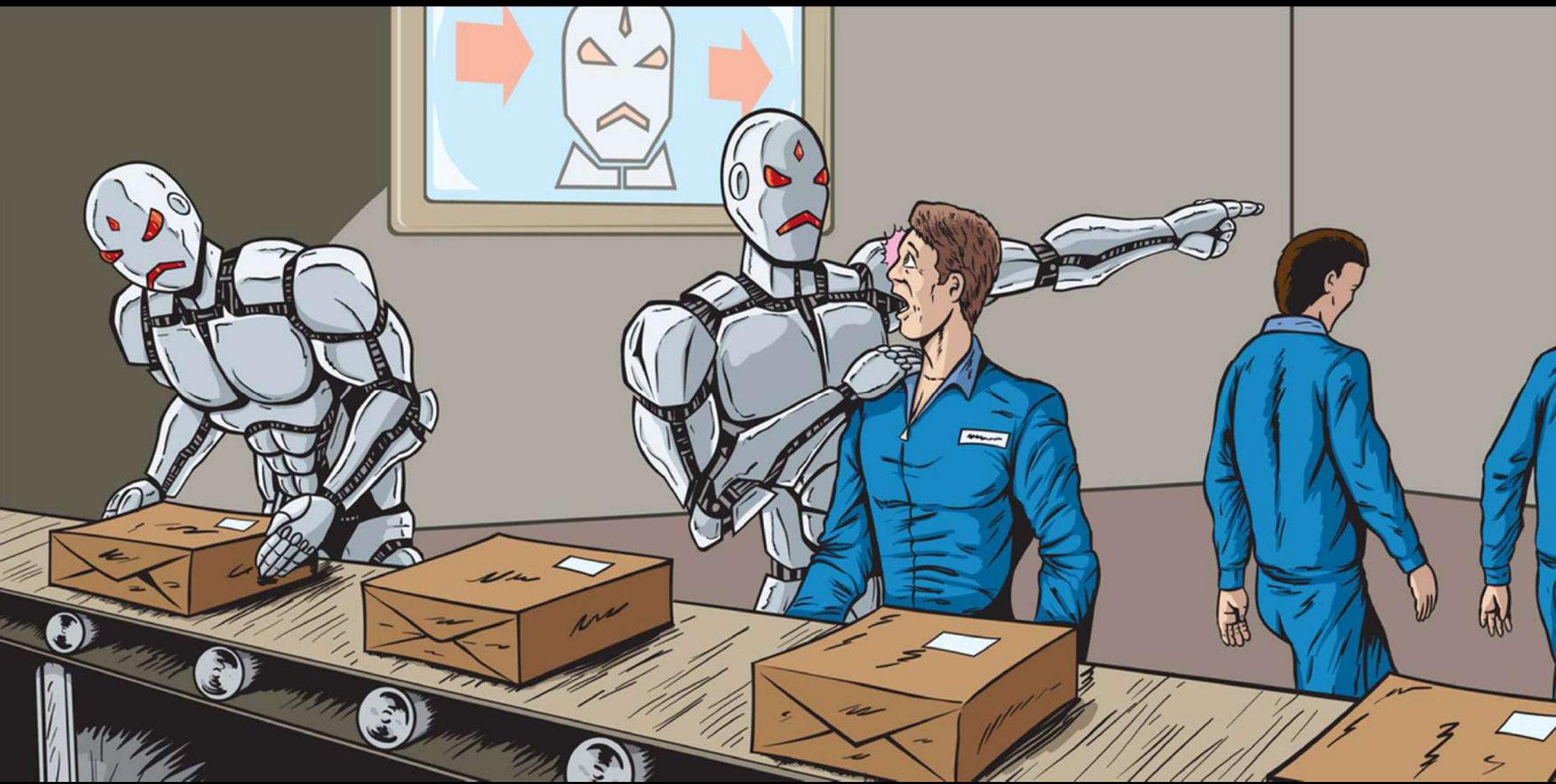


Pos.	Name	Kurs	Markt-Kapitalisierung
1	APPLE Aktie	137,75€	Data 733,49 Mrd.
2	ALPHABET Aktie	882,55€	Data 577,69 Mrd.
3	MICROSOFT Aktie	63,59€	Data 497,05 Mrd.
4	AMAZON Aktie	892,08€	Data 437,19 Mrd.
5	JOHNSON & JOHNSON Aktie	115,23€	318,60 Mrd.
6	EXXON Aktie	70,41€	314,04 Mrd.
7	TENCENT HOLDINGS LTD. /	30,98€	293,53 Mrd.
8	JPMORGAN CHASE Aktie	73,18€	271,02 Mrd.
9	WELLS FARGO Aktie	45,86€	239,02 Mrd.
10	NESTLE Aktie	76,34€	236,79 Mrd.











Observation 1:

Loss of privacy and solidarity

This observation

is only our smallest problem.

For instant messages, we use TLS (transport-level security) to encrypt your messages between your Skype client and the chat service in our cloud...

Most messages will only be sent via our cloud to provide the optimal user experience.

<https://support.skype.com/en/faq/FA31/does-skype-use-encryption>

Datenschutz: Microsoft liest Skype-Chats mit



Think your Skype messages get end-to-end encryption? Think again

Ars catches Microsoft accessing links we sent in our test messages.

<https://arstechnica.com/security/2013/05/think-your-skype-messages-get-end-to-end-encryption-think-again/>

Dropbox...opening my docs?

 September 12, 2013

 vintsurf

InfoSec

 No Comments

I had the opportunity recently to beta-test [HoneyDocs](#), a web app that generates documents that can 'buzz home.' This is done by a unique, embedded GET request that is initiated when the generated document has been opened.

How closely is Google really reading your e-mail?

<https://www.washingtonpost.com/news/the-switch/wp/2014/08/04/how-closely-is-google-really-reading-your-e-mail/>

ZEIT  ONLINE | DATENSCHUTZ

START POLITIK WIRTSCHAFT GESELLSCHAFT KULTUR WISSEN **DIGITAL** STUDIUM KARRIERE

Start › Digital › Datenschutz › Kinderpornografie im Netz: Microsoft und Google spielen Polizei

KINDERPORNOGRAFIE IM NETZ

Microsoft und Google spielen Polizei

IT-Firmen scannen den Mailverkehr ihrer US-Nutzer auf verdächtige Fotos. Im Kampf gegen Kinderpornografie ermitteln sie gegen jeden – auch ohne Verdacht. Ist das legal? VON JOHANNES WENDT

Mobile Devices als Lebensgefährten

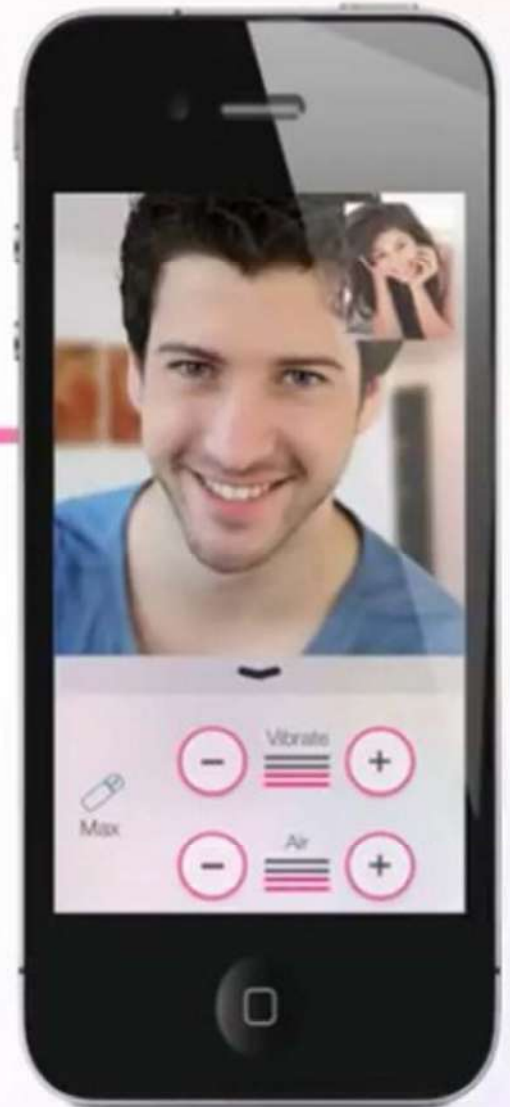
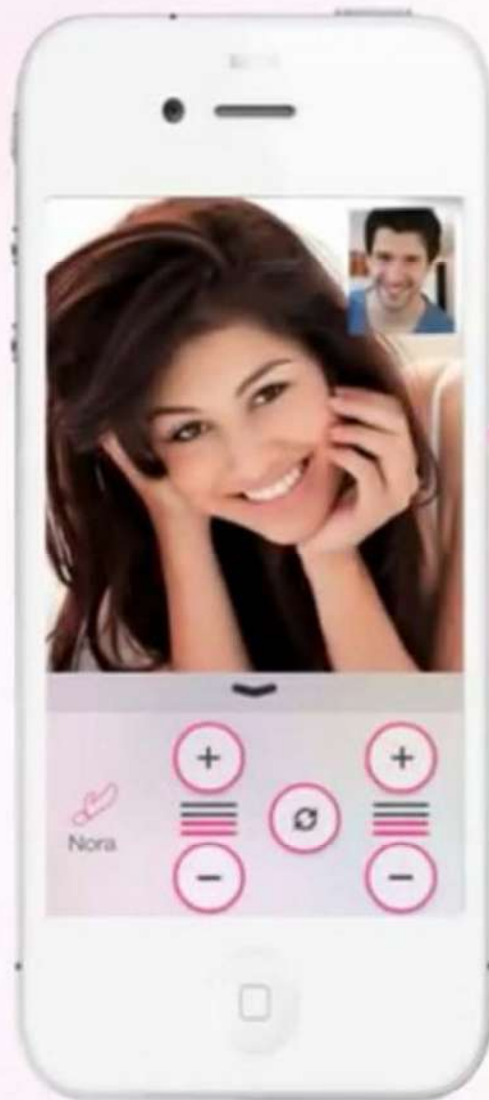
Anders als die meisten Erwachsenen, die noch in analogen Zeiten aufgewachsen sind und klar zwischen on- und offline unterscheiden, denken Jugendliche beide Welten ganz natürlich zusammen. Ihre digitalen Aktivitäten sind nahtlos in ihre Lebenswelten integriert – ohne ihr „echtes Leben“ zu beeinträchtigen. So verbringen unter 20-Jährige zwar vier bis fünf Stunden am Tag vor Screens, aber trotzdem treffen sie sich drei- bis viermal pro Woche mit ihren Freunden (DAK 2013). Und diese „Offline-Freunde“ sind ihnen wichtiger als reine Online-Freundschaften (Welt Online 2014).

Der Generationenunterschied definiert sich zunehmend über den Umgang mit digitalen Medien. Mobile Devices und soziale Netzwerke sind für Jugendliche keine Spielzeuge, nicht einmal Werkzeuge. Sie sind Lebensgefährten, ein organischer Teil ihrer Lebenswelten. Und sie prägen die Faktoren, auf denen die neuen Werthaltungen der Liquid Youth beruhen: Vernetzung, Transparenz, Flexibilität.

Dildo



<http://www.heute.at/love/erotik/Diese-pikanten-Daten-senden-Vibratoren-an-Hersteller;art23700,1325930>
<http://europe.newsweek.com/sex-toys-connected-internet-risk-being-hacked-437366?rm=eu>
<http://motherboard.vice.com/read/dildo-data-hacking>

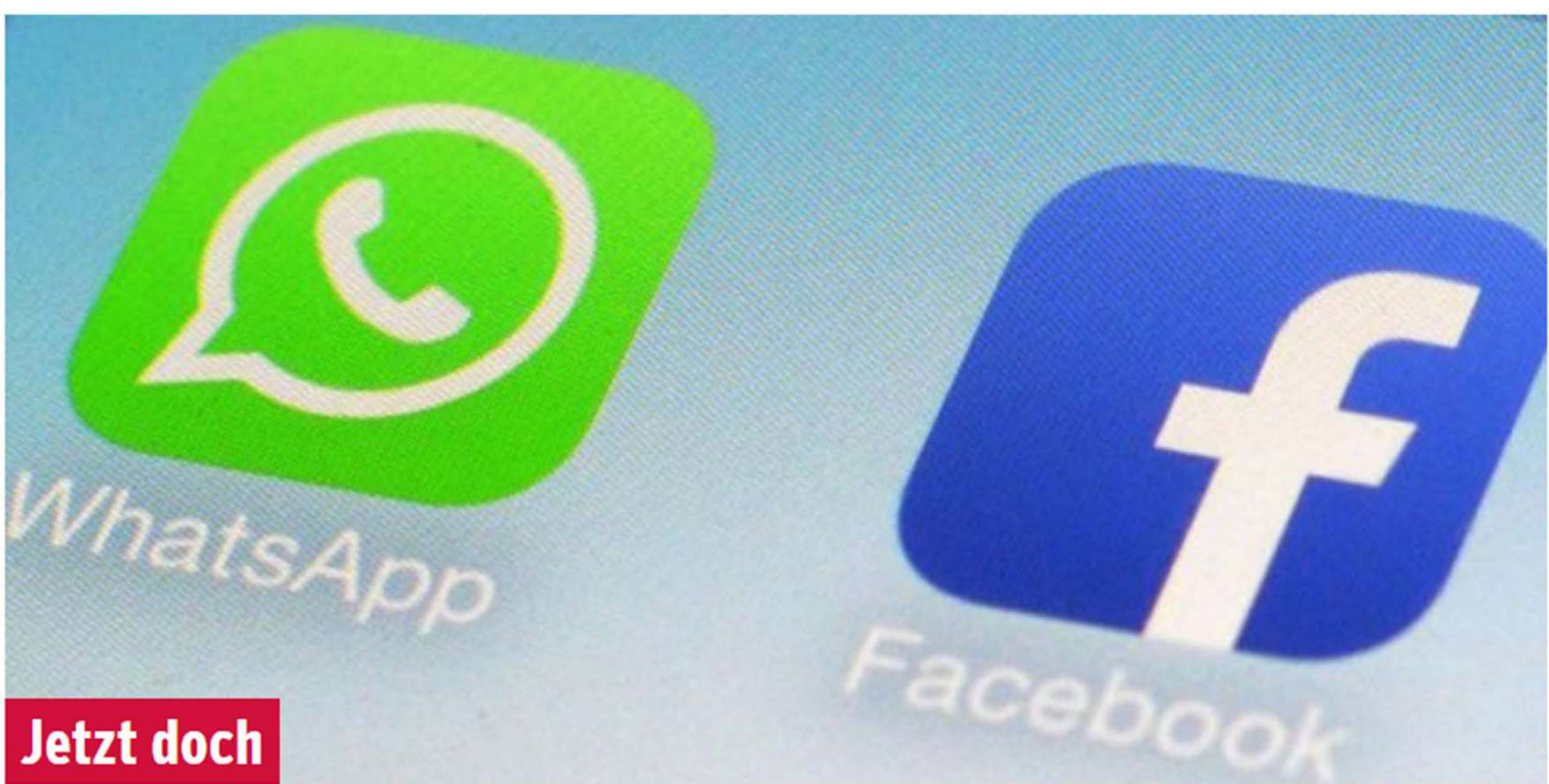




Manufacturer receives and stores

- Duration of use
- Intensity of vibration
- Temperature of device

Covered by terms of use & EULA
Data provided to the authorities upon request.



WhatsApp gibt Facebook Daten weiter

Choose Your **Departure Flight**

SUN Feb 24 \$132 MON Feb 25 \$132 TUE Feb 26 \$132 **WEDNESDAY February 27 from \$132** THU Feb 28 \$132 FRI Mar 01 SAT Mar 02

Lowest Fare		Refundable		Business / First			
Flights	Departure	Arrival	Choice	Choice Essential	Choice Plus	Business / First	
Sort Options							
448	09:30 am LAX	10:45 am LAS	☐ \$348	☐ \$416	☐ \$436	☐ \$1105	
170	11:35 am LAX	12:50 pm LAS	☐ \$348	☐ \$416	☐ \$436	☐ \$1105	
1714	03:10 pm LAX	04:25 pm LAS	☐ \$348	☐ \$416	☐ \$436	☐ \$1105	

All prices are now **ROUND-TRIP**

Take a look [at](#) all the new features we've added to AA.com



LAX to LAS

Wednesday February 27, 2013

Shopping Cart

Your Round-Trip Cost:
\$0 USD

[Baggage and Optional Service Charges](#)

Choose Your **Departure Flight**

SUN Feb 24 \$159 MON Feb 25 \$159 TUE Feb 26 \$159 **WEDNESDAY February 27 from \$159** THU Feb 28 \$159 FRI Mar 01 \$193 SAT Mar 02 \$159

Lowest Fare		Refundable		Business / First			
Flights	Departure	Arrival	Choice	Choice Essential	Choice Plus	Business / First	
Sort Options							
448	09:30 am LAX	10:45 am LAS	☐ \$159	☐ \$227	☐ \$247	☐ \$488	
170	11:35 am LAX	12:50 pm LAS	☐ \$159	☐ \$227	☐ \$247	☐ \$488	
1714	03:10 pm LAX	04:25 pm LAS	☐ \$159	☐ \$227	☐ \$247	☐ \$488	

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Digital Enlightenment



Digital enlightenment is man's emergence from his self-imposed immaturity.

Immaturity is the inability to use one's **data and digital devices** without guidance, **paternalism and surveillance** from another.

This immaturity is self-imposed when its cause lies not in lack of **technical possibilities** but in lack of resolve and courage to use it without guidance, **paternalism and surveillance** from another.

Have courage **to regain the authority over your own data and devices.**

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Byung-Chul Han, Die Müdigkeitsgesellschaft



Byung-Chul Han, Die Müdigkeitsgesellschaft



Quelle: Daniel Kahneman, Nobelpreisrede 2002, Detecon 2008

Framing: An example

Somebody suffers from an aggressive form of cancer

A study with 100 patients tells us

Therapy A heals 33 patients (Positive Frame)

With therapy A, 67 patient die (Negative Frame)

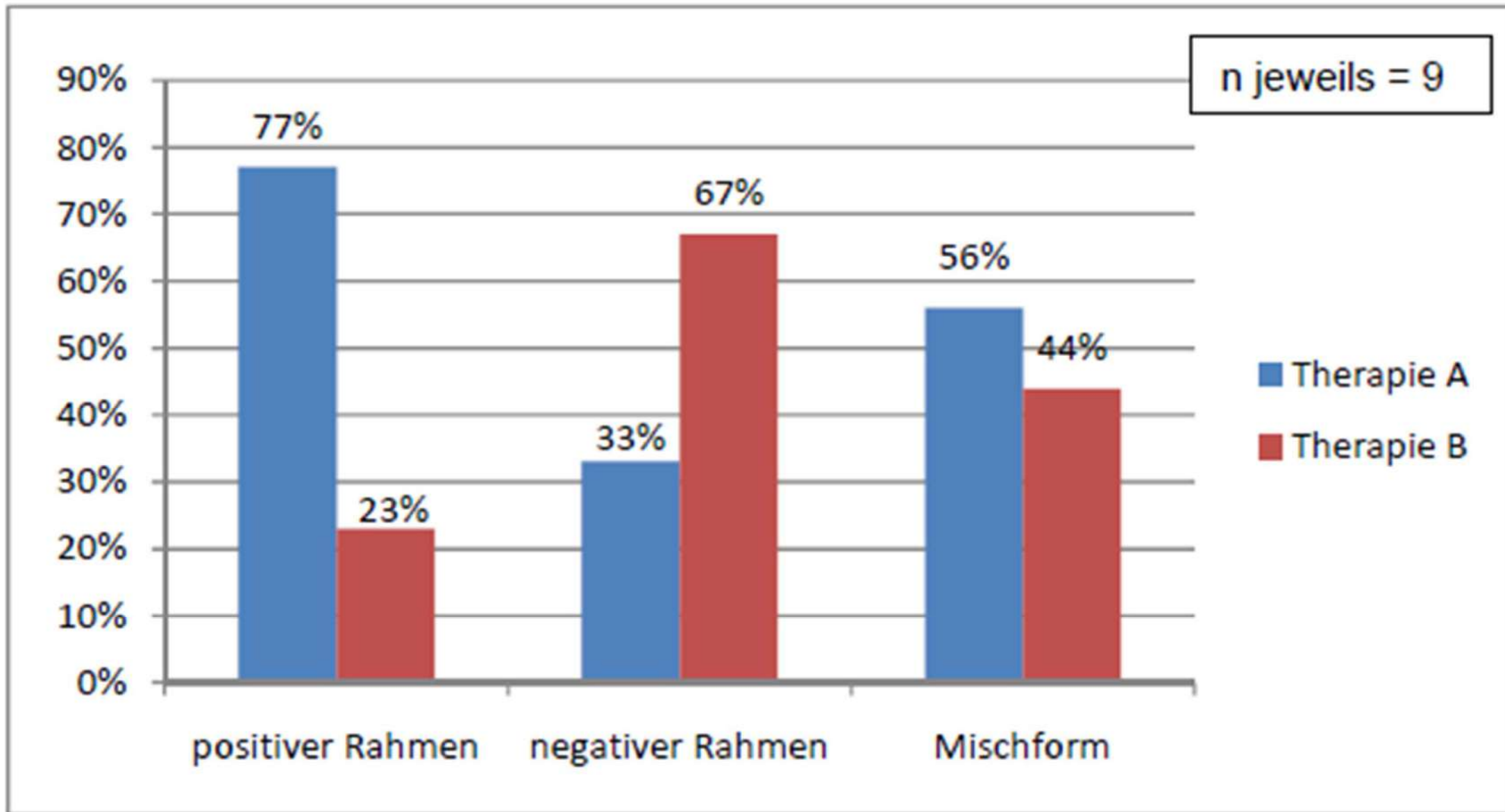
Therapy B heals $\frac{1}{3}$ of all patients

We see:

All 3 statements are (mathematically) equal

Therapies A and B are equally effective

Framing and manipulation



Diese Krankenkassen bezuschussen die Apple Watch

<http://www.welt.de/wirtschaft/article144818188/Diese-Krankenkassen-bezuschussen-die-Apple-Watch.html>

Die Techniker Krankenkasse plant, ihren Mitgliedern die Apple Watch zu subventionieren. Der größte Krankenversicherer ist aber nicht der erste. Zwei anderen Kassen zahlen schon einen Zuschuss.



Observation 2:

The frame

**"Data Science & Big Data
improve our lives"**

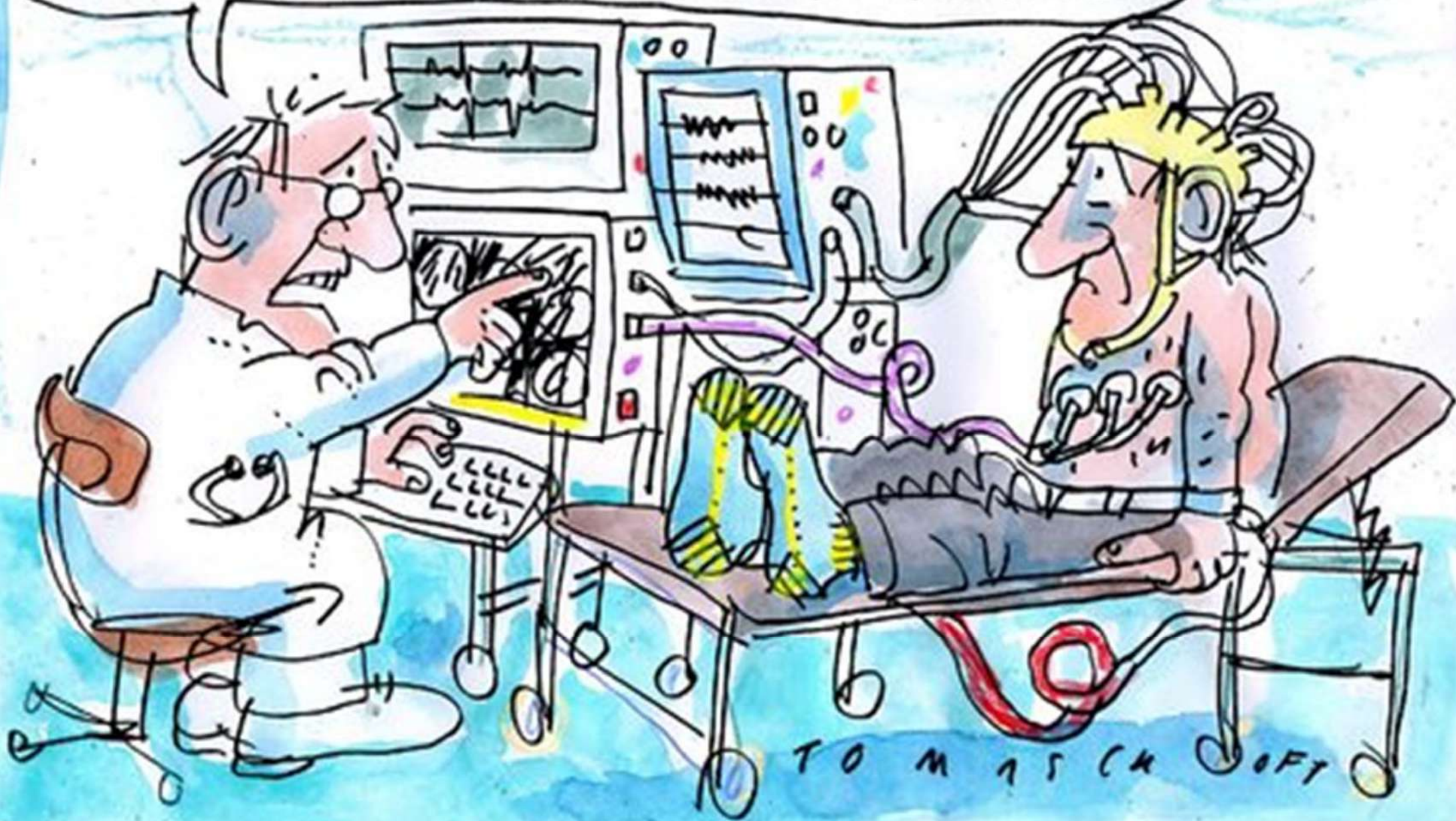
**could be wrong
and manipulative**







UMFANGREICHES TESTS ZEIGEN: IHNEN FEHLEN
EIN PAAR FREUNDLICHE WÖRTE





The \$300m cable that will save traders milliseconds

In the high-speed world of automated financial trading, milliseconds matter. So much so, in fact, that a saving of just six milliseconds in transmission time is all that is required to justify the laying of the first transatlantic communications cable for 10 years at a cost of more than \$300m.

High Frequency Trading 2017

Latency New York – Chicago

Target:	Latency reduction from 4,25 ms to 4,03 ms
Speed of light:	3,93 ms
New Idea:	Improve the protocols
TCP:	200 ns
TCPDirect by Solarflare:	20 – 30 ns

Partnersuche

"Die Ressource 'gebildeter Mann' wird knapp"

How-To Analyze Everyone – Teil V: Der Algorithmus weiß besser als Du, wer zu Dir passt

am 14.03.2014 von Anna Biselli / 6 Kommentare / Teilen





"Sagt der Bewerber die Unwahrheit?"

Spuren im Netz, Rechtschreibfehler im Anschreiben, Mimik im Vorstellungsgespräch: Unternehmen analysieren zunehmend alle Daten von Bewerbern. Wohin führt das?

The Data That Turned the World Upside Down



HANNES GRASSEGER & MIKAEL KROGERUS

Jan 28 2017, 3:15pm

Psychologist Michal Kosinski developed a method to analyze people in minute detail based on their Facebook activity. Did a similar tool help propel Donald Trump to victory? Two reporters from Zurich-based Das Magazin went data-gathering.

**Of all tyrannies,
a tyranny sincerely exercised
for the good of its victims
may be the most oppressive.**

(C. S. Lewis)

Observation 3:

Data Science is not the solution

Data Science is the problem

Observation 3:

The problem is human greed

Data Science is the best tool

3sat



Paul Watzlawick - Wenn die Loesung das Problem ist (1987)

3sat



Paul Watzlawick - Wenn die Loesung das Problem ist (1987)

**The attempt to produce happiness
almost inevitably produces disaster
or it leads to fulfillment
and then this fulfillment turns out
to be something not the least similar
to what I had been looking for**



Der Verzicht auf das Machbare

**We should not do everything
which is possible**

Atomic weapons

are not means to solve armed conflict

Data science & big data

are not means to improve life

Hermann Lübbe

**Wer glaubt die Antwort,
die endgültige Lösung zu haben
wird sich früher oder später berechtigt fühlen
Gewalt anzuwenden**

**Die Selbstermächtigung zur Gewalt
ist ein unvermeidbares Resultat dieses Denkens
(zitiert nach Paul Watzlawick)**



Conclusion

**Data Science, Big Data & Co are very interesting,
they promise efficiency, profit and optimal solutions
and thus turn into a problem of second order**

The deficiency of big data is meaning

**The answer is not to do everything which is possible
but out of greed it will not be implemented
and that is our problem.**