



Impact of AI on Society

Wake Up Europe !

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Agenda

And all of this in 12min ? WTF !?!

- >> Who am I ?
- >> DAI, AGI, ML, DL, NN, GB, GAFA ?
- >> 4th industrial revolution = Digitization
- >> Is there any European excellence in STEM ?
- >> Some words on China
- >> Wake Up and Act Europe !

Who am I ?

Digital and AI Expert, Senior Manager, Geek, Serial Entrepreneur, Father of 2 who tries to cook and play piano



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7/2019 –

Independent Advisor

7/2017 –

Founder Algility Capital

8/2017 – 6/2019



Co-Founder & CEO Haalo.io

8/2012 – 8/2018



Senior Director DX & Board Member

8/2007 – 7/2012



Senior Management Positions

8/2002 – 7/2007



Senior Management Positions

1/1999 – 5/2002



Head of ASP/CTO

1/1997 – 1/1999

Founder GCS

2/1993 – today



Founder CompuSys

1/1991 – 6/1993

Software Developer

AI, AGI, ML, DL, NN, GB, GAFA

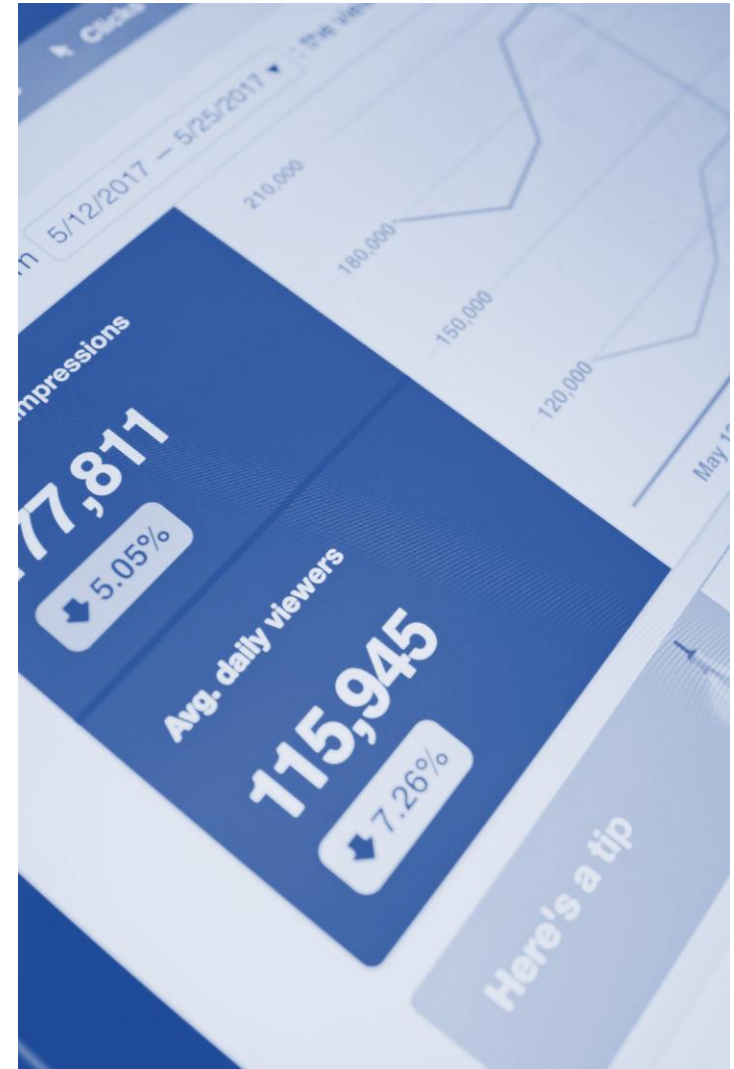
Usually it's a huge mess and most ppl use wrong abbreviations

- >> AI = Artificial Intelligence
- >> AGI = Artificial General Intelligence
- >> ML = Machine Learning = AI but no AGI
- >> DL = Deep Learning = close to AI
- >> NN = Neuronal Networks = AGI & DL love NN !
- >> GB(AT) = Google Baidu (Ali Tencent)
- >> GAFA(M) = Google Amazon Facebook Apple
(Microsoft) => No more
- >> STEM = Science, Technology, Engineering, Mathematics (=MINT)

4th Industrial Revolution = Digitization

We are in the middle of the Revolution and AI affects the current Generation !

- >> Digitization is the basis for the Revolution
- >> AI is responsible for most of the changes
- >> Most jobs will be affected by AI – not only in low income sector !
 - 50% of **all** jobs are affected by AI and automation **TODAY**.
 - Less than **5%** of all jobs will be made fully redundant
 - **60%** of all jobs will be automated by AI with at least **30%**.
- >> When AGI is available most jobs will get redundant !
- >> Is the SMB market and public administration ready for Digital Transformation ?



Europe's excellence in Supercomputing ?

Europe is not even getting close to US – China is far away !

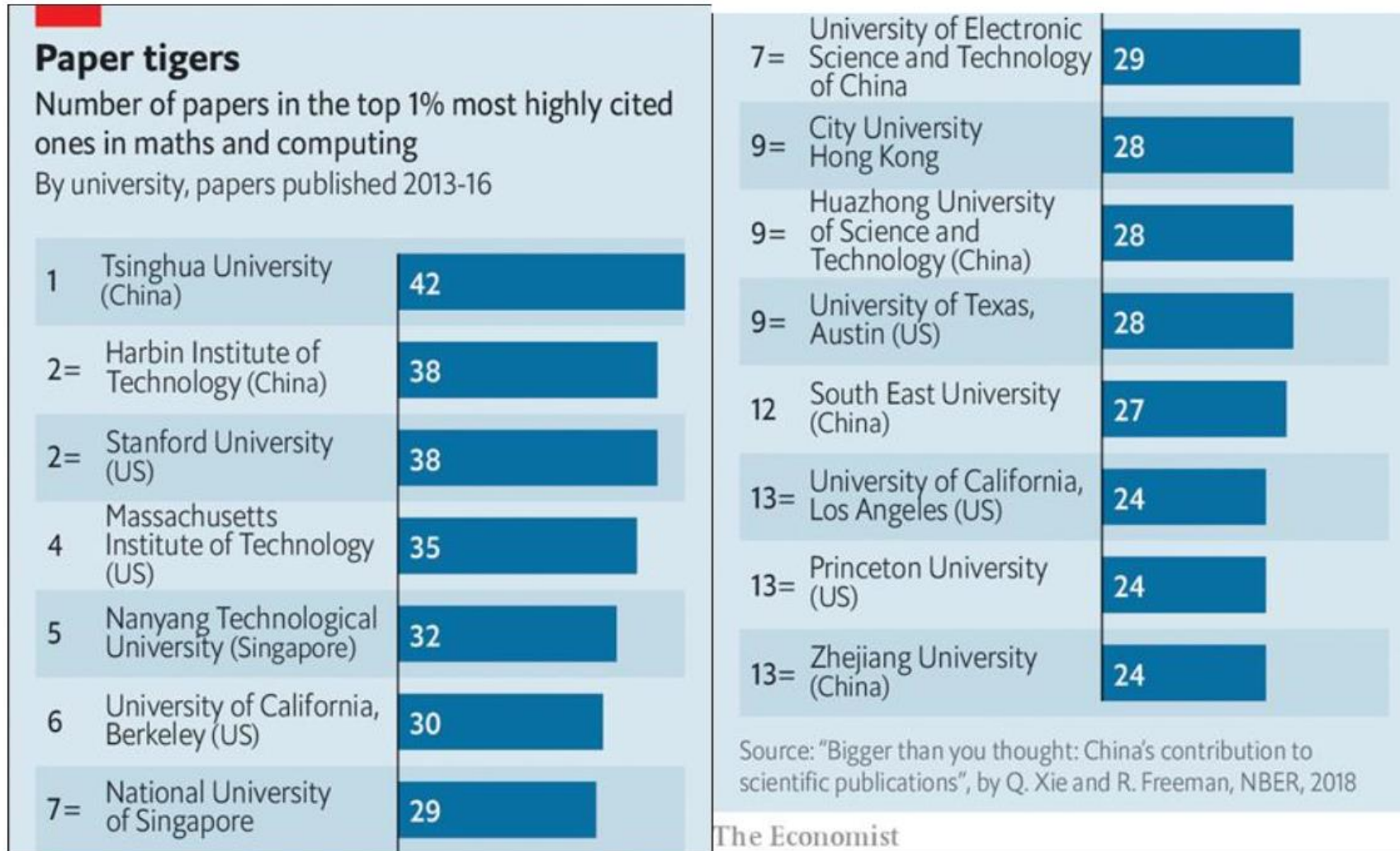
Die 500 leistungstärksten Computer der Welt: China auf dem Marsch

Land	November 2018					November 2008	
	Anzahl der Systeme unter Top 500	Anteil der Systeme zahlenmäßig in Prozent	Performance - Rmax in Tflops/s	Anteil an der Performance in Prozent	Anzahl der Systeme unter den Top 200	Anzahl der Systeme unter Top 500	Anteil der Systeme zahlenmäßig in Prozent
China	227	45,4	438.228	31,3	41	63	12,6
USA	109	21,8	533.209	38,1	67	264	52,8
Japan	31	6,2	109.436	7,8	19	28	5,6
Großbritannien	20	4,0	41.729	3,0	9	23	4,6
Frankreich	18	3,6	43.580	3,1	8	22	4,4
Deutschland	17	3,4	60.503	4,3	10	20	4,0
Irland	12	2,4	19.789	1,4	12	2	0,4
Kanada	9	1,8	14.028	1,0	5	10	2,0
Italien	6	1,2	31.111	2,2	5	5	1,0
Südkorea	6	1,2	21.938	1,6	3	5	1,0

Quelle der Daten: TOP500.org, November 2018

Is there any European excellence in STEM ?

Europe is in hibernation mode – 9 out of 15 Top Universities in Asia, 6 in US

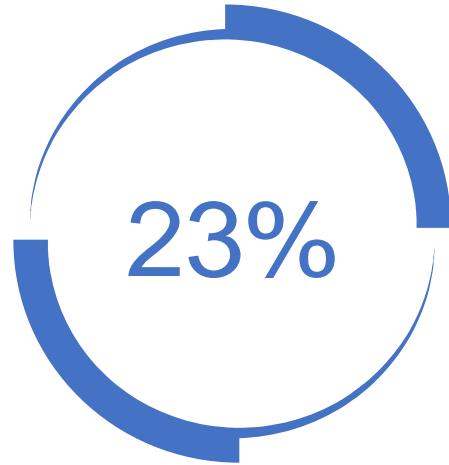


https://scholar.harvard.edu/files/freeman/files/chinabig_xie-freeman_final-ms_post-scholar_dec2018.doc

<https://www.economist.com/china/2018/11/17/tsinghua-university-may-soon-top-the-world-league-in-science-research>

Chinese Excellence in STEM !

China is no longer a copycat of others !



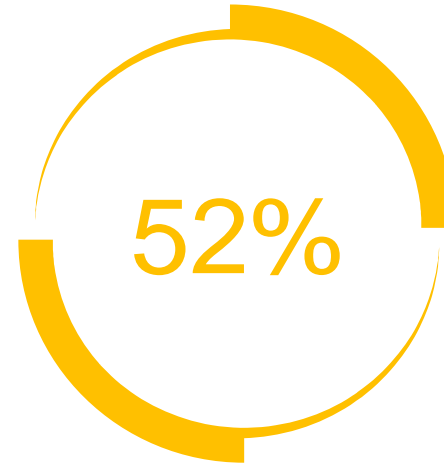
Total Chinese Contribution

Total Top STEM Papers with
Chinese Contribution



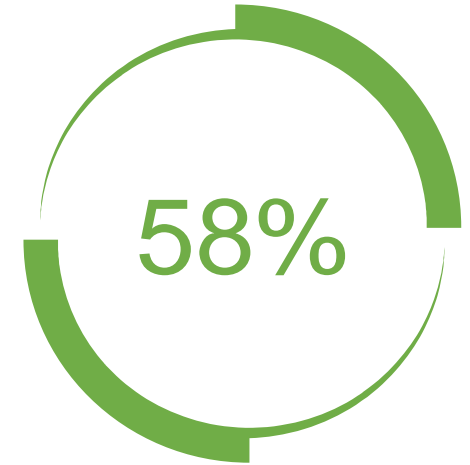
Chinese Papers

Top STEM Papers with only
Chinese Researchers



Geology

Papers on Geology
China vs Rest of World



Oncology

Papers on Oncology
China vs Rest of World

AI Impact on Society

Thx to 4th Industrial Revolution, average wealth in Europe will grow



Jobs



- Most Jobs will change due to Digitization
- Many repetitive Jobs will be automatized
- New Jobs will not cover loss of old Jobs => Many People redundant

Society



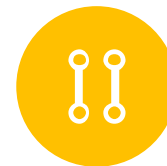
- Society needs to decide on how to use gained free time
 - Music, Arts, Theater, Travel Leisure
- We need to understand how this will work from an economic point of view and future distribution of income

Values



- We need to start rethinking of Values as there will be a shift in how Society values different roles
- Will a Master in Arts be higher valued than an MBA ?
- A Nurse higher than a Lawyer ?

Ethics



- We need to have a clear discussion on Ethics and Core Values
- Discuss Darkside vs Lightside
- Different Concepts in Asia/US/Europe

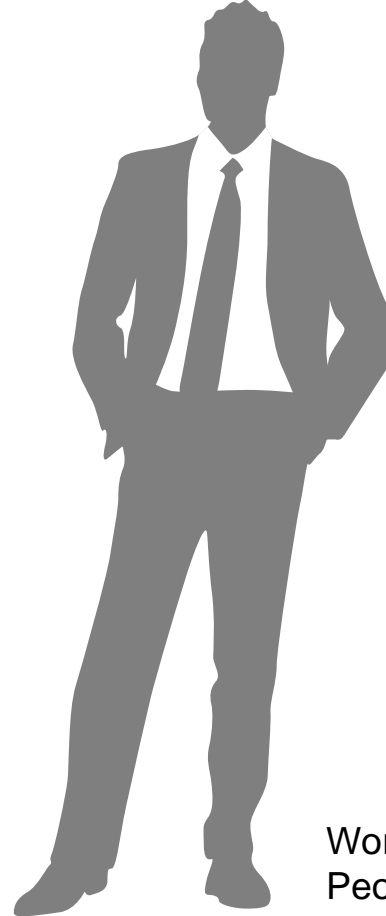
Two futures for human economy in the long run

It's US who have to decide which Future we choose and of course others are possible as well



First possible Future

- Most people are not doing anything that's considered economically productive.
- People are not involved in any economic exchange work for pay in any form
 - This gets us to a vision for universal basic income ("Grundeinkommen")
- There is a sector of the economy which is largely automated and incredibly productive
- This Productivity generates wealth in a form of goods and services NOT money
- This wealth can subsidize economic viability of everyone else
- Seems to be not very interesting as there is no real incentive for ppl to do things, we do now like going to school, learning & training, becoming experts in something. Hard to see motivation for acquiring a good education when it doesn't have any economic function



Second possible Future

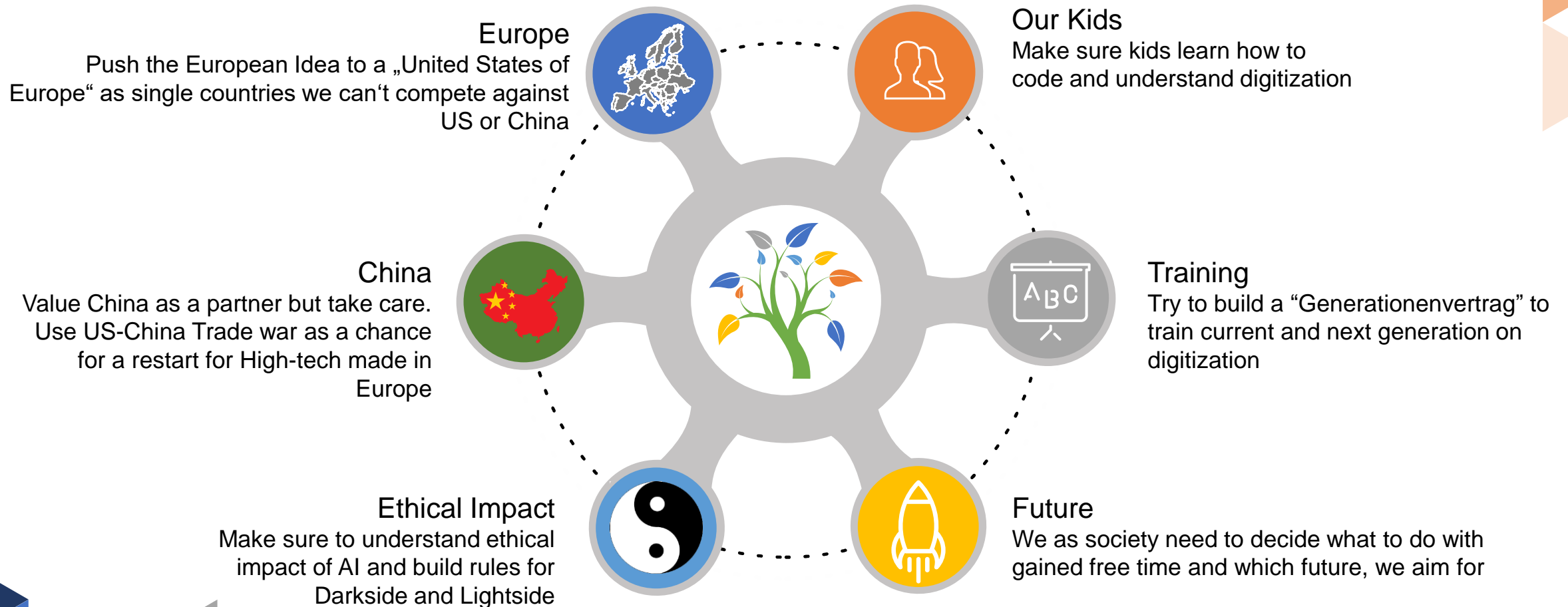


- People are doing stuff to improve quality of life
- People who inspire others to live richer, more interesting more varied
- People to appreciate literature, music or arts, how to build things or even how to survive in the wilderness
- Requires rethinking of our:
 - Values
 - Education System
 - Science and Economic Structure
- We need to understand how this will work from an economic point of view and future distribution of income

Worst possible outcome from both : there are a few super rich People who own all means of production, robots and AI systems so everything what generates economical value and there are the People who basically do nothing

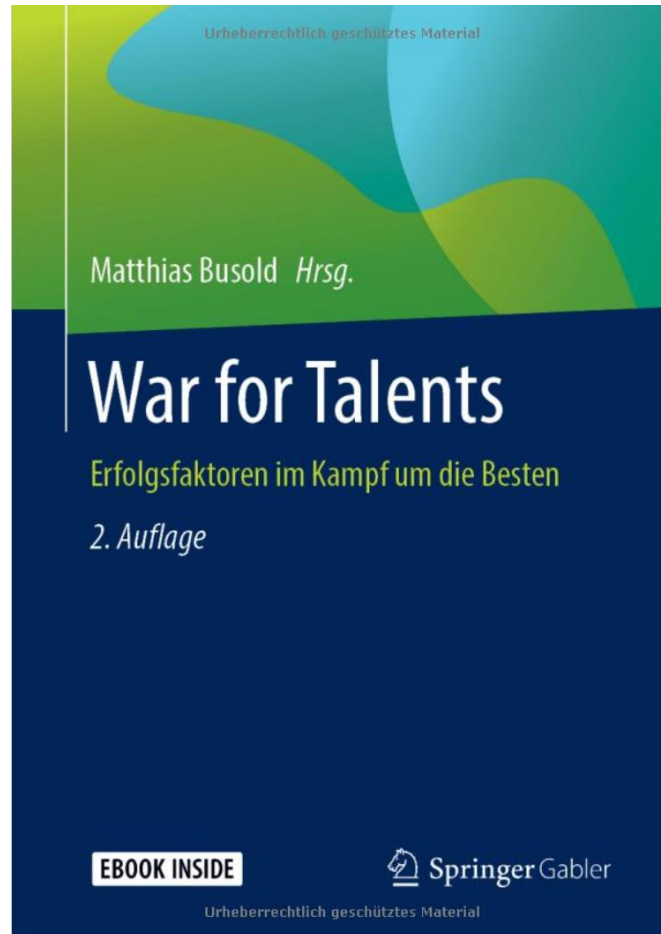
Solutions – WAKE UP Europe !

We need to get things done. Now. Don't waste (y)our time

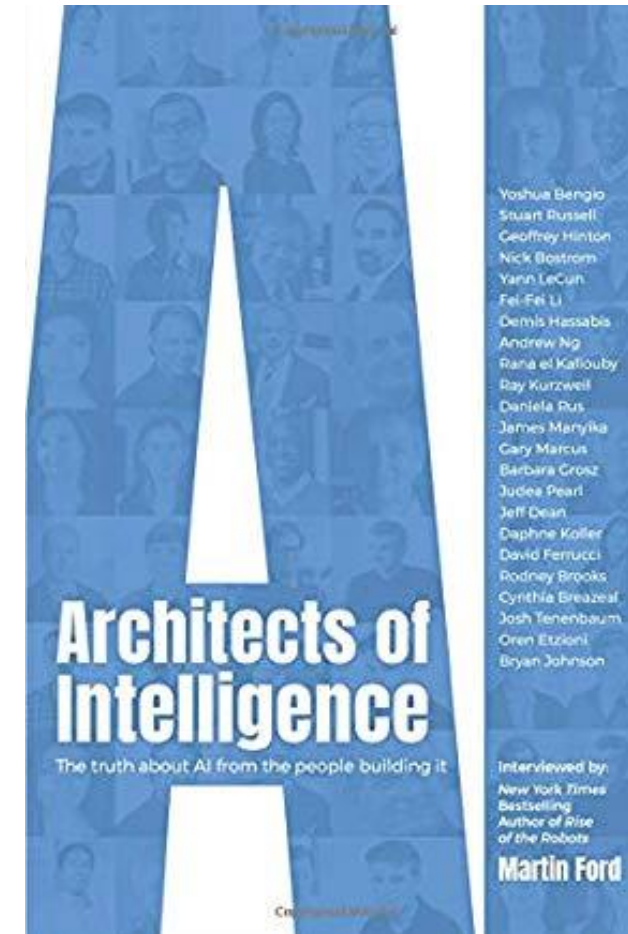


Some good reads

Both books available on Amazon



https://www.amazon.de/War-Talents-Erfolgsfaktoren-Kampf-Besten/dp/3662574802/ref=sr_1_fkmrnull_1?_mk_de_DE=%C3%85M%C3%85C5%BD%C3%95%C3%91&crd=2DP96DFSN6UDN&keywords=war+for+talents+busold&qid=1555421418&s=gateway&sprefix=war+for+tal%2Caps%2C228&sr=8-1-fkmrnull



https://www.amazon.de/Architects-Intelligence-people-building-English/dp/1789131510/ref=sr_1_1?_mk_de_DE=%C3%85M%C3%85C5%BD%C3%95%C3%91&crd=2IA8TFW1YKFZS&keywords=architects+of+intelligence&qid=1560711016&s=gateway&sprefix=architects+of+%2Caps%2C-1&sr=8-1

Thank you !

If you like a digital copy of „War for Talents“ please contact me !



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