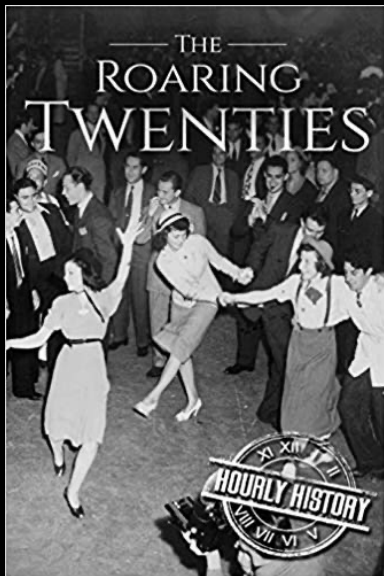


ICT to support the transformation of Science in the Roaring Twenties

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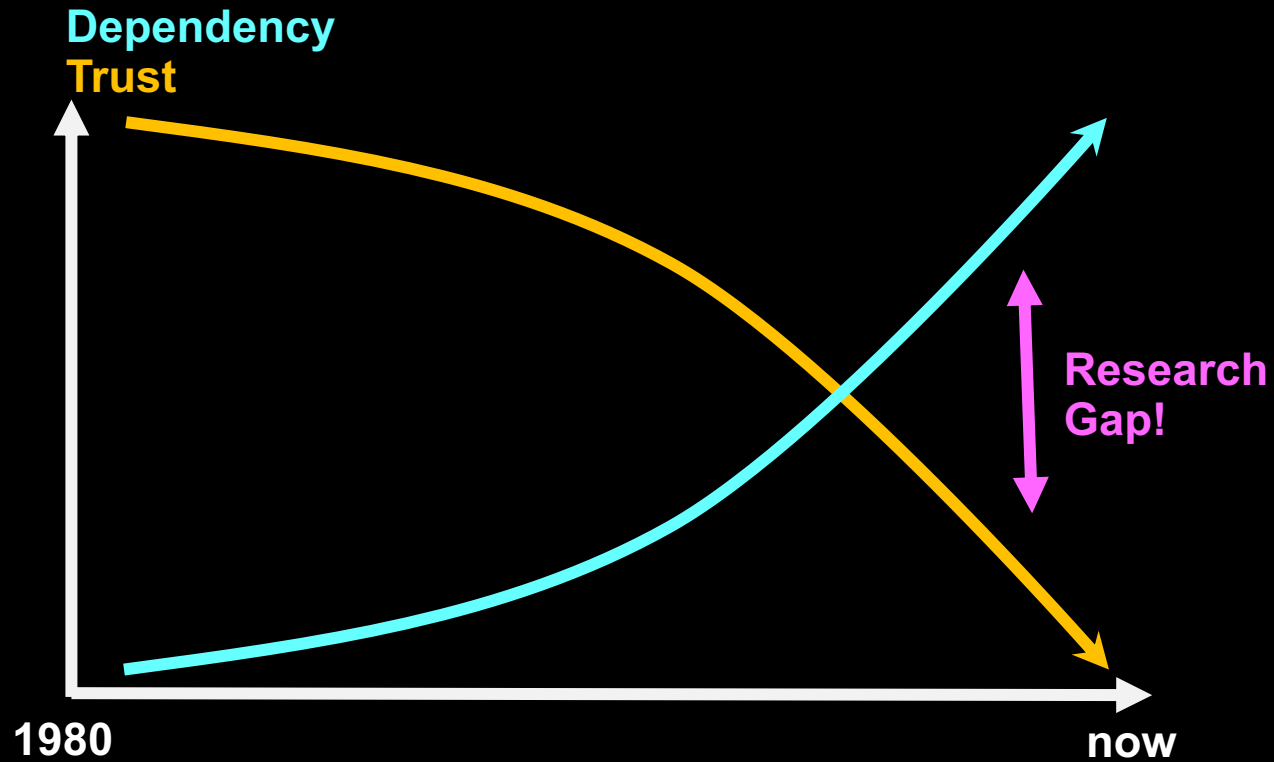
ICT to support the transformation of Science in the Roaring Twenties



From Wikipedia: The Roaring Twenties refers to the decade of the 1920s in Western society and Western culture. It was a period of **economic prosperity** with a distinctive cultural edge in the United States and Western Europe, particularly in major cities such as Berlin, Chicago, London, Los Angeles, New York City, Paris, and Sydney. In France, the decade was known as the "**années folles**" ('crazy years'), emphasizing the era's **social, artistic and cultural dynamism**. Jazz blossomed, the flapper redefined the modern look for British and American women, and **Art Deco** peaked....

This period saw the large-scale development and use of automobiles, telephones, movies, radio, and electrical appliances being installed in the lives of thousands of Westerners. Aviation soon became a business. Nations saw **rapid industrial and economic growth, accelerated consumer demand**, and introduced significantly new changes in **lifestyle and culture**. The media focused on celebrities, especially sports heroes and movie stars, as cities rooted for their home teams and filled the new palatial cinemas and gigantic sports stadiums. In most major democratic states, women won the right to vote. The **right to vote** made a huge impact on society.

Fading Trust in Internet



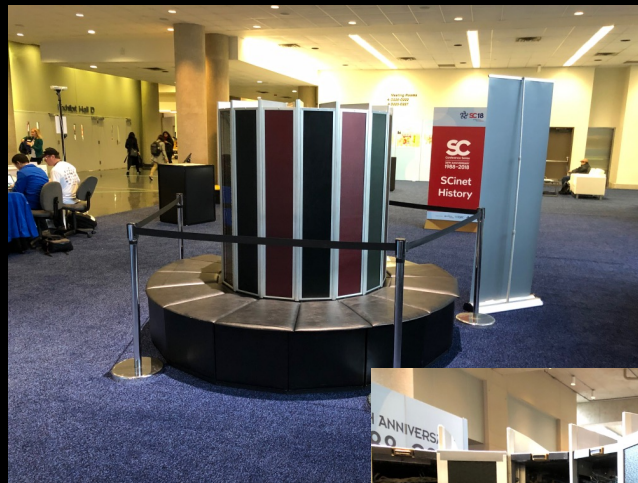
Some progress



2018

= ~7x

? 540 MHz
? MFlops
1000 MByte memory
16000 MByte ssd
0,0012 kWh – 18 h



1976



80 MHz
160 MFlops
8 MByte memory
300 MByte disks
120 kW

If my watch is several times San Diego Supercomputer Center's first computer, what will I be wearing on my wrist in 35 years?



Harvard Business Review



Harvard Business Review

ECONOMY

Managing Our Hub Economy


by Marco Iansiti and Karim R. Lakhani

FROM THE SEPTEMBER–OCTOBER 2017 ISSUE

WHAT TO READ NEXT

The IT Transformation Health Care Needs

SUMMARY SAVE SHARE COMMENT H TEXT SIZE PRINT \$8.95 BUY COPIES



THOMAS M. SICHER/EYEEM/GETTY IMAGES

I. The Problem

The global economy is coalescing around a few digital superpowers. We see unmistakable evidence that a winner-take-all world is emerging in which a small number of “hub firms”—including Alibaba, Alphabet/Google, Amazon, Apple, Baidu, Facebook, Microsoft, and Tencent—occupy central positions. While creating real value for users, these companies are also capturing a disproportionate and expanding share of the value, and that’s shaping our collective economic future. The very same technologies that promised to democratize business are now threatening to make it more monopolistic.

Data value creation monopolies



Create an equal playing field



Sound Market principles

<https://hbr.org/2017/09/managing-our-hub-economy>

The Internet Trend

- Internet used to be end user to end user or service
 - Meshed network
 - Internet exchanges
 - Net Neutrality
- It is becoming end user to data center
 - Internal data center “meet me” rooms
 - Data centers interconnect based on business
 - Less and less data via Internet exchanges
 - Neutrality may get violated by filtering, policing
- And we are back where we started, a bundled phone system.

The Data Trend

- Our Data used to be on location
 - Own data stores
 - Under organisations policy
 - Controlled algorithms
- Data is now moving into cloud with accelerated pace
 - Because the big tech's spend billions on security it is more safe (?)
 - The cloud company also has rights to examine your data (Cortana)
 - Data life cycle and data value cycle divert from prime owner
 - You are basically putting your data on someone else's computer!
- And we are back at A bundled phone data system.
 - Sign at the dotted line, lock-in!

What about the emerging Hyperscaler Data Centers?

- The Data Centers:
 - Are filled with racks of equipment out of the far east
 - Programmed with software out of the far west
 - Controlled by a very few international companies
 - Use large (renewable) energy and cooling footprint
 - Only offer a few maintenance and security staff jobs
- So what is our role in those centers?
 - We basically facilitate the acquisition and use of our data by other powers
 - The only approach we have is legislation and ICT to get entry in the data internet architecture that those centers facilitate.
 - We need to concentrate on Federated ICT supporting European Values!

Who is CEO?

- The best CEO is:
 - Who has the most data on the company
 - The best data analytics tools to process the company's data
 - The best decision support algorithms to absorb all that analytics
 - The best handles to steer the company in the right direction
- Now what if:
 - Other companies have way more data on your company
 - Better and more analytics tools and power to improve them
 - Grander decision support with immense AI (and RI ;-))
 - Can they then make you believe you are the CEO while ... ?

Conclusions, Info, Acknowledgements, Q&A

- In the 90's Internet was running on phone lines
- A few telco's had all the power and offered bundled services
- Around turn of century dark fiber emerged on the market and we build an Internet directly on that!
- Now the phones are running on the Internet and we define the scaling.
- We now are in the same situation with Data
- We need a similar revolution!
- And we need to work on the security of our life in a digital world!

- For more info: <https://delaat.net/>