International Fiscal Association

Virtual Event
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Evolution of the Digital Economy

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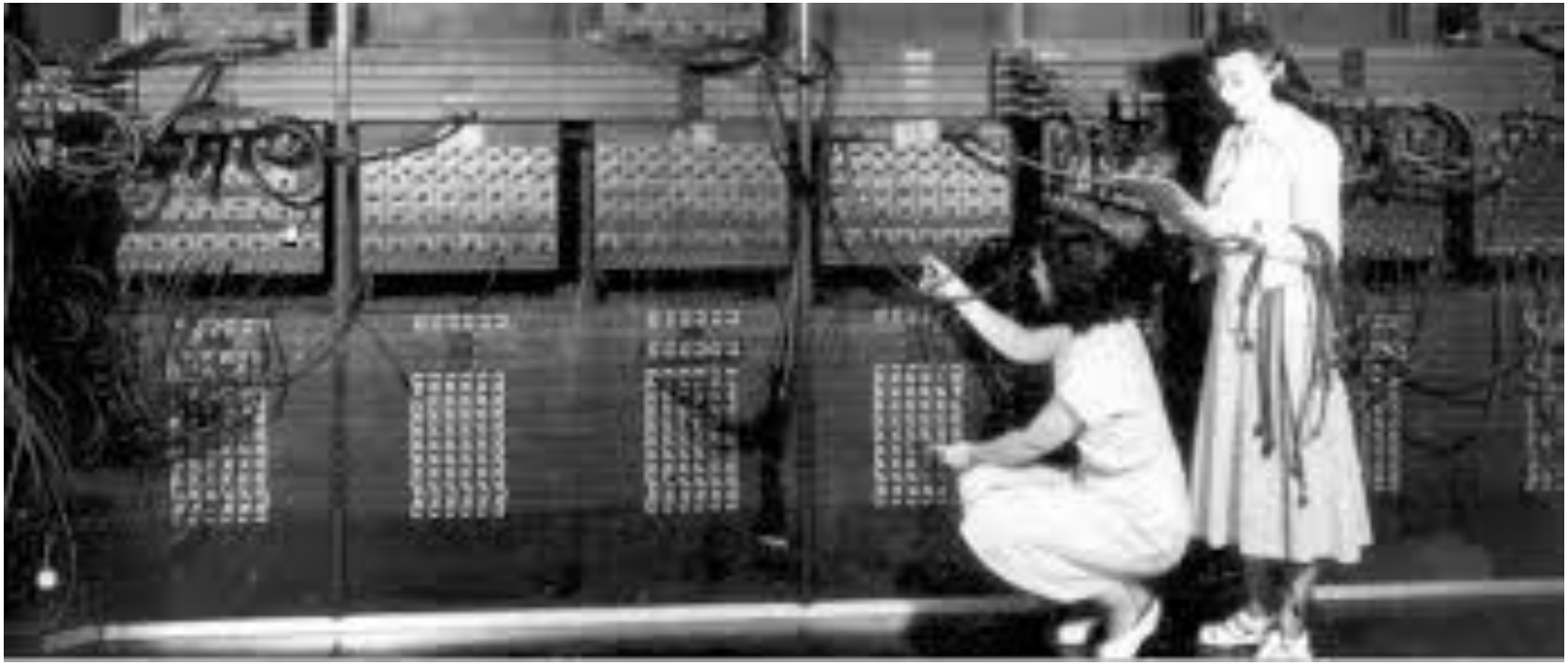


The First Computer Programmers Coding the ENIAC
Coders in the 1940's Were Women

(US Army photo, from archives of the ARL Technical library, courtesy of Mike Muuss

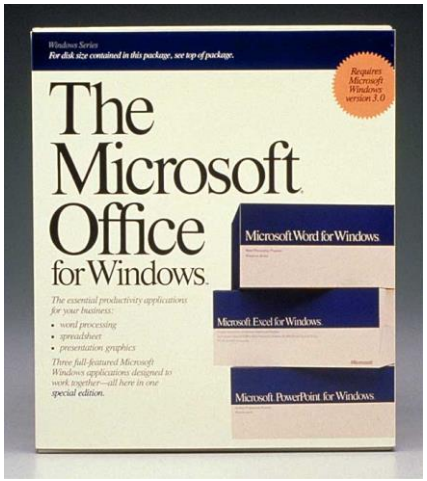
https://www.history.com/news/coding-used-to-be-a-womans-job-so-it-was-paid-less-and-undervalued.

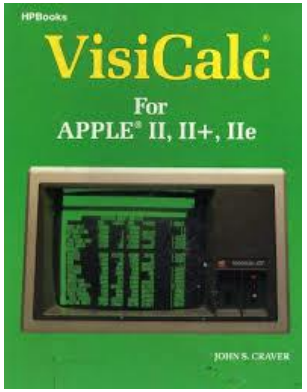
https://spectrum.ieee.org/tech-history/silicon-revolution/building-the-system360-mainframe-nearly-destroyed-ibm

1976 & 1982 PC's & Application Software

PC
1981

Apple II 1977





Success or Failure?

20 YEARS OF INTERNET GIANTS

The Top 20 Biggest Web Properties Over Time

RANK	1998	2003	2008	2013	2018
1	AOL	YAHOO!	Google	YAHOO!	Google
2	YAHOO!	AOL Time Warner	YAHOO!	Google	facebook
3	GEOCITIES	msn	Microsoft	Microsoft	Oath:
4	msn	ebay	Aol.	facebook	Microsoft
5	NETSCAPE	Google	FOX	Aol.	amazon
6	EXCITE	LYCOS	ebay	amazon	COMCAST NBCUNIVERSAL
7	LYCOS	amazon	ASK	GLAM MEDIA	CBS
8	Microsoft	ABOUT	amazon	WIKIMEDIA	Disney
9	AMER.GREETINGS	EXCITE	GLAM MEDIA	CBS	
10	INFOSEEK	CNET	WIKIMEDIA	Turner	HEARST
11	ALTAVISTA	DISNEY	facebook	ebay	PayPal
12	TRIPOD	VIACOM			turner
13	XOOM	AMER.GREETINGS	CBS	ASK	
14	ANGELFIRE	The Weather Channel	Walmart	The Weather Company	meredith
15	HOTMAIL	REAL	Turner	COMCAST	USA TODAY
16	amazon.com	VERIZON	VIACOM	ABOUT	Walmart
17	REAL	WAL★MART	NEW YORK TIMES	GANNETT	WIKIMEDIA
18	ZDNET	SHOPPING	TARGET	Walmart	The Weather Company
19	HOTBOT	SYMANTEC	The Weather Channel	ANSWERS	
20	INFOSPACE	AT&T	CRAIGSLIST	LINKEDIN	CONDÉ NAST

SOURCES: Media Metrix (Dec 1998), ComScore (Dec 2003, Dec 2008, Dec 2013, and Nov 2018)

visualcapitalist.com

https://www.visualcapitalist.com/20-internet-giants-rule-web/

2006 Amazon Cloud Backed by 457,000 Servers

https://www.itprotoday.com/iaaspaas/estimate-amazon-cloud-backed-450000-servers

2019 List of the Largest Internet Companies

Rank	Company	Revenue ($B)	Employees	Market cap. ($B)	Headquarters	Founded
1	Amazon	$280.50	798,000	$920.22	Seattle	1994
2	Google	$161.80	118,899	$921.14	Mountain View	1998
3	JD.com	$82.80	220,000	$51.51	Beijing	1998
4	Facebook	$70.69	45,000	$585.37	Menlo Park	2004
5	Alibaba	$56.15	101,958	$570.95	Hangzhou	1999
6	Tencent	$54.08	62,885	$460.98	Shenzhen	1998
7	Netflix	$20.16	8,600	$141.98	Los Gatos	1997
8	ByteDance	$20	10,000	$78.00	Beijing	2012
HW	Apple Inc.	$260	137,000	$1.288 TR.	Cupertino	1976

https://en.wikipedia.org/wiki/List_of_largest_Internet_companies

- IBM with approx. $77B of revenue and market cap of $106B was overtaken by Apple
- Failure rates over time:

  21.5% in the first year;
  30 % in the second year;
  50% in the fifth year;
  70% in the tenth year

(national.biz/2019)

2020 Unicorns in the Technology Pipeline

In 2020, it is estimated that there are 494 Unicorns

- **U.S.** has 226 Unicorns (valued at $1B) and 13 Decacorns (valued at $10B) = **239**
- **China** has 115 Unicorns, 6 Decacorns and 1 Hectocorn (valued at $100B) – ByteDance (Tik Tok) = **118**
- India has 24 Unicorns
- UK has 23 Unicorns
- Germany has 12 Unicorns
- South Korea has 11 Unicorns
- Brazil has 7 Unicorns
- France has 7 Unicorns
- Israel has 7 Unicorns
- The rest of the world has merely 46 Unicorns

https://www.cbinsights.com/research-unicorn-companies

Bridging the GAP

- What accounts for such a large concentration of Builders/Creators in so few countries?
- Do many countries prefer to be CONSUMERS and avoid upfront investments and risk taking?
- If countries believe it is worthwhile to create an ecosystem that will incentivize and support entrepreneurship, innovation, experimentation, then which of the tax measures under review best align themselves with this objectives?
- *Don't tax me & don't tax thee but tax the man behind the tree*
  - Unilateral Digital Services Tax
  - United Nation proposal on Withholding Tax
  - OECD BEPS 2.0
  - Consumption tax
- See Appendix A-D which follow.

2020 Tax Alternatives
Appendix A

- Unilateral Digital Services Tax – According to the World Economic Forum
  - The European Commission's proposal to create an EU digital services tax is aimed mainly at multinational tech giants. But should the tax take effect, it will be Europe's own startups and digital ecosystems that pay the highest price.
  - The question of how to tax increasingly globalized and digitized businesses is vital to the future health of cross-border trade and investment. Sadly, the current debate is mired in confusion and complexity, and is not helped by populist political responses that demonize digital businesses.

    https://www.weforum.org/agenda/2019/01/why-global-taxation-is-needed-for-the-success-of-the-digital-age
- United Nation Withholding Tax
  - Tax on Gross Revenue creates a barrier to trade and crushes loss-making innovative companies, that are using all funds to grow their business. They cannot benefit from Foreign Tax credits when losses exist.
- OECD Global Cooperation BEPS 2.0
  - The challenge is to eliminate tax avoidance without destroying the Global Income Tax System, as a tax on net income and without excessive complexity that renders the tax regime not administrable for Governments and Taxpayers. Is it too much too soon?
- Consumption tax
  - *According to the Tax Foundation: "The potential for easy administration, significant tax revenue, and few economic distortions make the VAT one of the most efficient forms of taxation. In contrast, some other forms of taxation, such as income and corporate taxes, impede economic activity and can distort decisions between consumption and investment."*
  - *The analysis of how a tax burden is divided between consumers and producers - **tax incidence** depends on the **price elasticities of supply and demand**.*

Timeline of Digital Economy
Appendix B

- 1964 – IBM System 360 / Unbundling Software /Origin of Cloud Computing with "dumb" terminals
- 1968 – Birth of Arapnet, a packet switching network used by scientist, institutions & corporations – Queen Elizabeth sent first email in 1976
- 1972 – IBM VM Operating System where many virtual servers on a physical server
- 1976 & 1981 – Apple & IBM PC & Application
- 1993 – World Wide Web
- 2000 – Dot Com BUST – overwhelming losses
- 2006 – Google coins the term Cloud Computing & AWS launched
- 2008 – Financial Crisis – Erosion of Capital
- 2020 – Covid-19 Creative Destruction & Opportunities for Technology which kept business running

Timeline of Tax Developments for Technology Industry Appendix C

- 1969 – U.S. Revenue Procedure 69-21 allows §174 expensing of SW development like hardware while cross-border software is subject to withholding tax under Article 12, royalties
- 1981 – Research and Development § 41 credit applies to software
- 1996 – "Check-the-Box classification Regulations § 301.7701
- 1998 – Revenue Characterization Regulations 1-861-18
- 1998 – OECD - Electronic Commerce: Taxation Framework conditions
- 2000 – IRS issues Revenue procedure 2000-50 confirming Revenue Procedure 69-21
- 2016 – R&D credit enhancements starting in 2016, including offsets to the alternative minimum tax and payroll tax for eligible businesses.
- 2001 – OECD Publication of Taxation and Electronic Co
- 2002 – OECD TAG Report on Treaty Characterization Issues Arising from E-Commerce mmerce.
- 2002 – TAG Report on Treaty Characterization Issues Arising from E-Commerce
- 2015 – OECD Final BEPS package for reform of the international tax system to tackle tax avoidance.
- 2017 – U.S Tax Cuts and Jobs Act restricted many incentives enjoyed by U.S. multinationals while cutting the tax rate for most by raising the tax of small corporations from 15% to 21%.
- **2018 – Economic nexus for Consumption Tax** - The U.S. Supreme Court ruled in favor of South Dakota v. Wayfair confirming that the duty to collect tax exists for remote sellers with *$100,000 of revenue or 100 transactions*. Most other states have adopted similar provisions.

1998 - Electronic Commerce: Taxation Framework conditions Appendix D

In 1998, the OECD issued the "Electronic Commerce: Taxation Framework conditions" A report by the committee on Fiscal Affairs as presented to Ministers at the OECD Ministerial Conference "A Borderless World: Realizing the Potential of Electronic Commerce" on 8 October 1998

> Electronic commerce has enormous potential to change the way we work, play and organize our lives. It is already changing the ways in which multinational enterprises (MNEs) operate – making globalization a reality – and it has enabled consumers and small enterprises to operate and shop beyond their national boundaries.
> If this potential is to be fully realized we must provide a Taxation Framework which provides certainty, fairness, neutrality and avoids putting in place new tax obstacles to the development of this new form of doing business. At the same time this Framework must ensure that taxpayers pay the right amount of tax, in the right jurisdictions and at the right time.