# 20/20: my past 20 years / the next 20 years in IT

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# Introduction

*What's this talk about?*

# Ramblings of an old fart

- some philosophical ideas
- some IT lessons learned
- some future trends

# Who am I?

- Cypherpunk
- Cryptoanarchist
- Privacy extremist
- Libertarian
- Computer scientist / software developer

$\Rightarrow$ main interest: "freedom technology"

# Cypherpunk

**not** <u>Cyberpunk</u>: subgenre of SciFi in a dystopian futuristic setting that tends to focus on a "combination of low-life and high tech". (example movie: Blade Runner)

<u>Cypherpunk</u>: an activist advocating widespread use of strong cryptography and privacy-enhancing technologies as a route to social and political change. (example tech: Signal app)

# Cryptoanarchy

Cryptoanarchy: a form of anarchy accomplished through computer technology.

Cryptoanarchists employ cryptographic software in an effort to protect their privacy, their political freedom, and their economic freedom.

# Privacy extremism

Privacy Extremism: privacy should be maintained in all situations; that if in question, privacy should be given preference, unless sufficient arguments to the contrary apply to the specific situation.

# Libertarianism

Libertarianism: a collection of political philosophies and movements that uphold liberty as a core principle.

Libertarians seek to maximize political freedom and autonomy, emphasizing freedom of choice, voluntary association and individual judgement.

# there are only two ways to make money

You provide a product or service that people want (voluntary).
(example: software developer)

You steal it from other people (involuntary).
(example: politician)

# freedom technology

IT is a great tool to make the world a better place.

IT is also great in making the world a dystopian hellhole.

It is our choice.

# lessons learned in 20+ years of programming

*Learn <u>at least</u> one programming language really well*

# lessons learned in 20+ years of programming

*Study computer science history*

# lessons learned in 20+ years of programming

*English is <u>the</u> language of IT, master it*

# lessons learned in 20+ years of programming

*Hypes change fast, fundamentals evolve slowly*

# some hypes

- XML
- Java
- the cloud
- docker & kubernetes
- blockchain

# some fundamentals

- memory management
- graph theory
- state machines
- communicating sequential processes (e.g., in Golang)
- big O notation (to measure time and space complexity of algorithms)
- database theory

# lessons learned in 20+ years of programming

*Deliver value*

# lessons learned in 20+ years of programming

*Keep learning, keep coding*

# lessons learned in 20+ years of programming

*Academia is overrated*

# lessons learned in 20+ years of programming

*data structures > algorithms*

(example: Git's directed acyclic graph)

# Virtual Reality (VR)

Warning: *If you want to become an unproductive loser without sticking needles into your arm, VR is the way to go.*

Prediction: *In the future the addictive potential of VR will surpass that of heroin.*

# Augmented Reality (AR)

Prediction: *AR will be* **massive** *and surpass VR by far.*

Prediction: *AR will play an important role in giving us "superhuman" capabilities.*

# machine learning / artificial intelligence (AI)

Prediction: more and more tasks will be better done by computers than by humans, including programming

Conclusion: You can either program the AI or the AI will program you.

# drones

Prediction: drones will massively disrupt transportation of goods (short-range and mid-range).

Prediction: drones will massively shift the balance of power in the future.

# crypto currencies

Prediction: Crypto currencies and other crypto assets will bring massive wealth outside the reach of the state.

Conclusion: People who can successfully use it will escape the state, the rest is taxed even harder. Welfare states will collapse.

# conclusion

2020 starts the decade that will make it or break it.

World-wide technological totalitarianism or Cyberpunk future with pockets of freedom?

Our choice.

# pointers

- Frank Braun, @thefrankbraun, `https://frankbraun.org`
- Cypherpunk Bitstream Podcast
  `https://taz0.org/bitstream`
- slides: `https://frankbraun.org/2020.pdf`



thank you very much for your attention! questions?