

Prof. dr. sc. Mario Spremić

# DIGITALNA TRANSFORMACIJA POSLOVANJA

Sveučilište u Zagrebu / Ekonomski fakultet



# Digitalna transformacija poslovanja i industrijska revolucija 4.0

*Prof. dr. sc. Mario Spremić*  
*Ekonomski fakultet Zagreb*

# NUMBER OF YEARS IT TOOK FOR EACH PRODUCT TO GAIN 50 MILLION USERS:



When will STEEM break 50 million users?

# Digital economy

- **Digitalna ekonomija** – krovni pojam za označavanje novih modela poslovanja, proizvoda, usluga, tržišta i brzorastućih sektora, osobito onih temeljenih na digitalnoj tehnologiji kao osnovnoj infrastrukturi poslovanja



- **Primarne digitalne tehnologije** – social, mobile, cloud, big data, sensors (IoT)

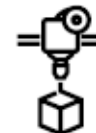
N26



NETFLIX



- **Sekundarne digitalne tehnologije** – VR, AR, cognitive technologies - AI, drons, robotics, additive manufacturing - 3D printers, holograms, wearables, face and speech recognition ....



ABBA



amazon go



Audi



## GE – The Digital Industrial Company

- Industrial Internet — the convergence of industrial machines, data, and the Internet
- In 2012 \$1 billion investment to put sensors on gas turbines, jet engines, and other machines; connect them to the cloud; and analyze the resulting flow of data to identify ways to improve machine productivity and reliability
- **Physical business model:** sensors have been riding on GE machines for years. Pre-Internet of Things (IoT) sensors were used to conduct real-time operational performance monitoring, such as displaying a pressure reading on a machine, not to collect data. A technician would often take a reading from a machine to check its performance and then discard the data



# GE – The Digital Industrial Company

- **Digital business model:** embedding sensors and IoT in devices, sending data, connecting machines via the cloud and using data analytics to help predict breakdowns and assess the machines' overall health
- The sheer volume of data that GE hoped to collect — 50 million data variables from 10 million sensors installed on its machines — **would be many times more than most social and retail sites could ever generate**
- **Intelligent** pipelines, jet engines, turbines, machines, devices, etc.
- ***Predix** software, a cloud-based digital industrial platform for creating Industrial Internet applications*
- ***BP** would outfit 650 of its thousands of oil wells with GE sensors as part of a pilot to test Predix. Each well will be outfitted with 20 to 30 sensors to measure pressure, temperature, and the like and will transmit 500,000 data points to the Predix cloud every 15 seconds*

# Inovativni poslovni modeli



<https://www.fastcompany.com/most-innovative-companies/2018>

# Future predictions (Gartner)

By 2020, 100 million consumers will shop in augmented reality.

By 2020, 30% of web browsing sessions will be done without a screen.

By 2019, 20% of brands will abandon their mobile apps.

By 2020, algorithms will positively alter the behavior of over 1 billion global workers.

By 2022, a blockchain-based business will be worth \$10 billion.

By 2021, 20% of all activities an individual engages in will involve at least one of the top-seven digital giants.

Through 2019, every \$1 enterprises invest in innovation will require an additional \$7 in core execution.

Through 2020, the Internet of Things (IoT) will increase data center storage demand by less than 3%.

By 2022, IoT will save consumers and businesses \$1 trillion a year in maintenance, services and consumables.

By 2020, 40% of employees can cut their healthcare costs by wearing a fitness tracker.

Gartner predictions: [How digital innovation will impact the world](#)



# Global digital platforms

**Digital reservation platforms** (Airbnb, Booking.com and similar)

**Digital platforms for traffic** (Uber, Lyft, Blablacar, DriveNow)

**Digital industrial platforms** (GE)

**Digital communication (social) platforms** (Facebook, Twitter, Instagram, Snapchat, LinkedIn)

**Digital commerce platforms** (Amazon, eBay, Alibaba)

**Digital payment platforms** (mPesa, PayPal, Apple Pay, Stripe, Square, Google Wallet, Oradian, etc)

**Digital marketing platforms** (Google, Facebook, Instagram)

**Digital education platforms** (Coursera, edX, Udacity, Khan Academy)



# Jedinstvene karakteristike digitalnih tehnologija

- Digitalne tehnologije predstavljaju kombinaciju informacija, računalnih znanosti, komunikacijskih i povezivih tehnologija
- Digitalna transformacija se odnosi na velike promjene modela poslovanja, kojima se primjenom digitalnih tehnologija stvara nova poslovna vrijednost putem inovativnih strategija, disruptivnih poslovnih modela, izvrsnih usluga, procesa i korisničkih iskustava (UX)
- Sveprisutne, dostupne, spremne za korištenje (čak i cjenovno prihvatljive)
- Price/performance capability of digital technologies
- Fleksibilne, nepredvidive, jednostavne za korištenje
- Istodobno se primjenjuju, integracija standarda i tehnologija
- Digitalno zrele kompanije eksperimentiraju i pametno koriste sve dostupne digitalne tehnologije, a ne samo pojedine



# Hvala na pozornosti

## Pitanja, komentari, prijedlozi Q&A

Prof.dr.sc. Mario Spremić

Sveučilište u Zagrebu

Ekonomski fakultet, Katedra za informatiku

Trg J.F.Kennedya 6, 10000 Zagreb

e-mail: [mspremic@efzg.hr](mailto:mspremic@efzg.hr)

web: <http://www.efzg.hr/mspremic>

linkedin: <https://hr.linkedin.com/pub/mario-spremic/15/149/a90>