

# Assistant Roadshow

Prague & Healthcare

(5.12. 2018)

[martin@krcek.cz](mailto:martin@krcek.cz)

#assistantroadshow

# Martin Krček



Martin has been in global marketing and development for more than 20 years. The last three years he is focused on the implementation of chatBots & voiceBots.

As a Mentor in Google Developer Launchpad program, he's helping startups to build and scale great products, with a focus on simplicity and high performance.

He is an evangelist and designer of Voice Assistants and chatBots.

OK Google? :-)

# Assistant Roadshow

- ❑ October 25th | London | Ideathon: Voice Assistant & IoT
- ❑ November 7th | Ostrava | Google Assistant for Business
- ❑ November 20th | Karvina | Voice Bots & chatBots for Business and Startups
- ❑ November 27th | Prague | Voice Assistants & Bots in Bank
- ❑ November 30th | Olomouc | Three days IoT hackathon & Voice Assistant Design
- ❑ December 1st | Koprivnice | Voice Assistant & Games and Entertainment
- ❑ December 4th | Ostrava | Google Assistant Workshop for Developers
- ❑ December 5th | Prague | Voice Assistants & Bots in Bank
- ❑ **December 5th | Prague | Voice Assistants in Healthcare**
- ❑ December 6th | Brno | Google Assistant Workshop for Developers
- ❑ December 12th | Prague | Voice Bots & chatBots for Telco

# 100+1 stories

## for Voice Assistants

Let's create something together.

Something worthwhile. Original. Czech.

# Mouse Age

1963: introduced by Douglas Engelbart

1983: Apple Lisa



# Swipe Age

2007 Apple iPhone



# Listen & Talk



In the beginning was the Word, ...

# Talking Age

2010 Nuance Communications (app for iOS)

2011 Apple iOS on iPhone 4S

2014 Amazon Echo

2016 Google Assistant + Google Home Speaker



# Talking Age

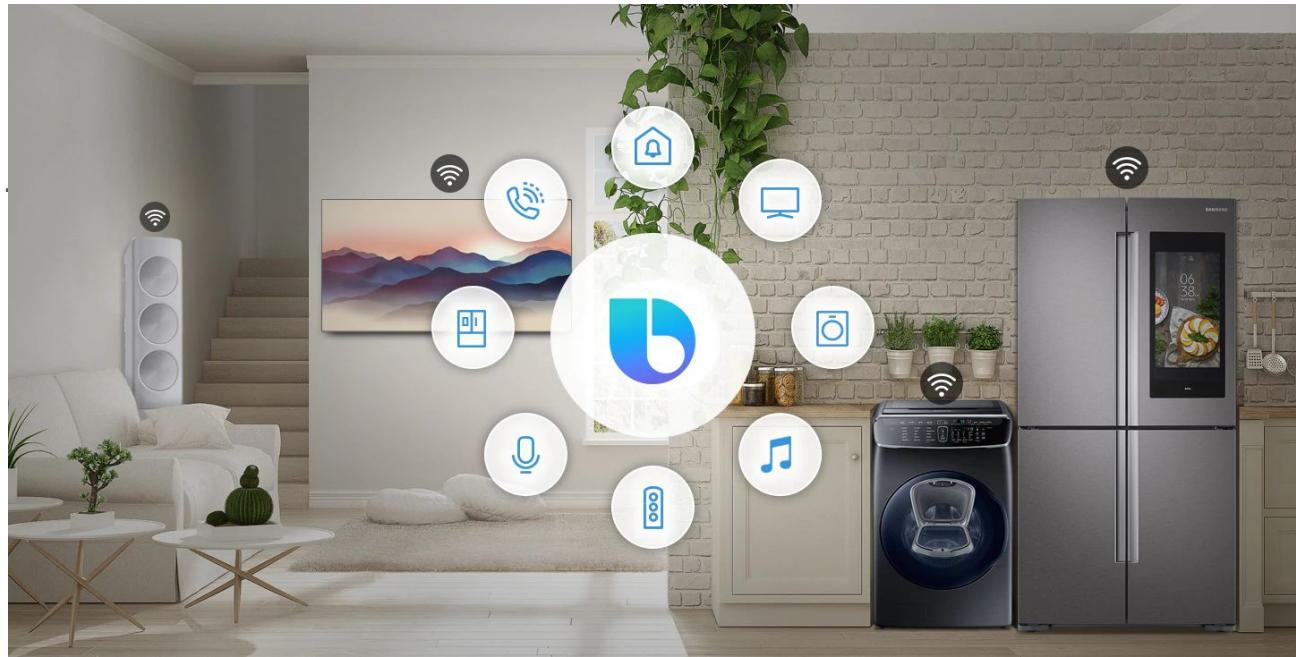
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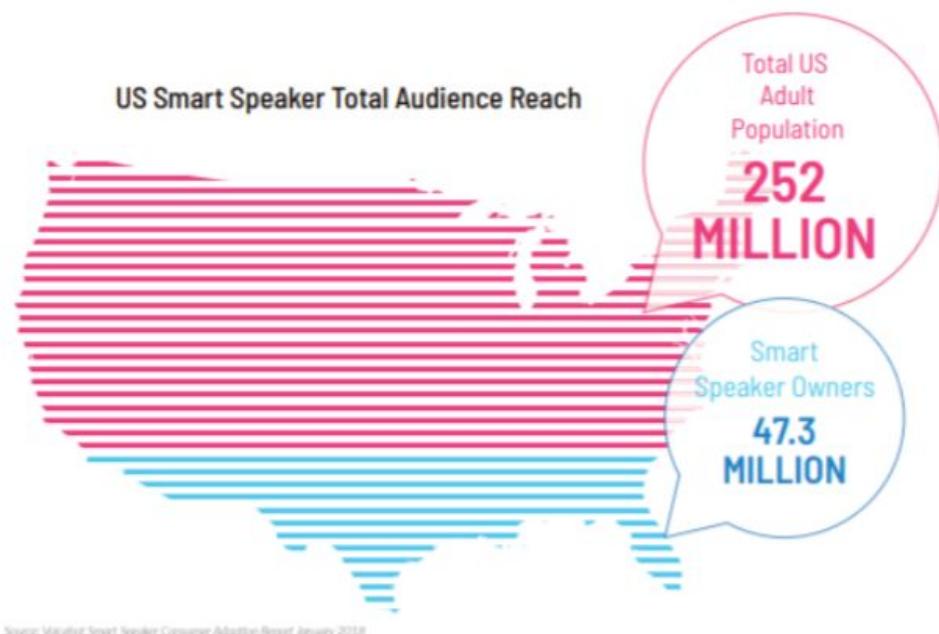
2018 Samsung Bixby



# Super Speed

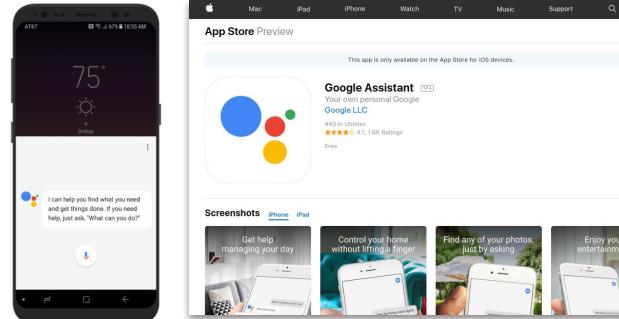
50.000.000 users

- 13 years: TV
- 4 years: Internet
- 2 years: Facebook
- 3 years: Smart speaker



# Let's talk

# Download & Use for FREE | Buy for 1.400 - 1.800 CZK

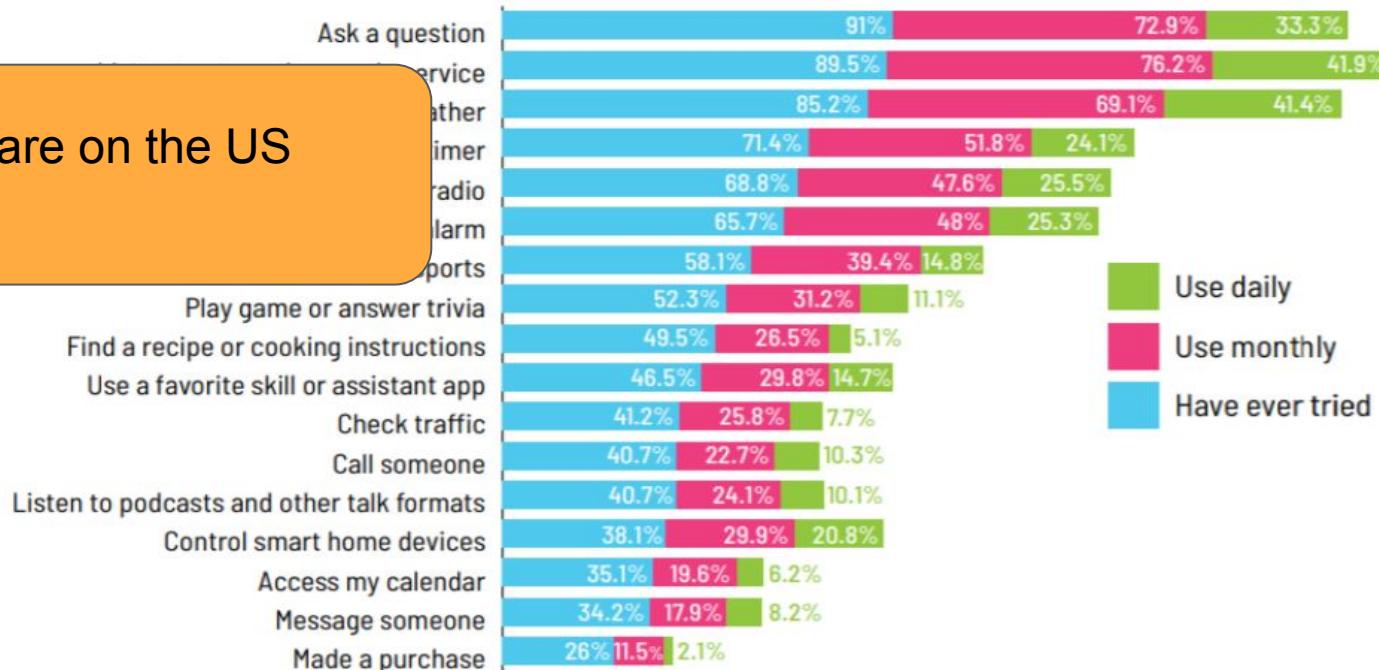


#assistantroadshow

# Smart Speaker: usage 1/2018

How many stars are on the US flag?

Smart Speaker Use Case Frequency January 2018



# Smart Speaker: usage 1/2018

Who is the president of the Czech Republic.

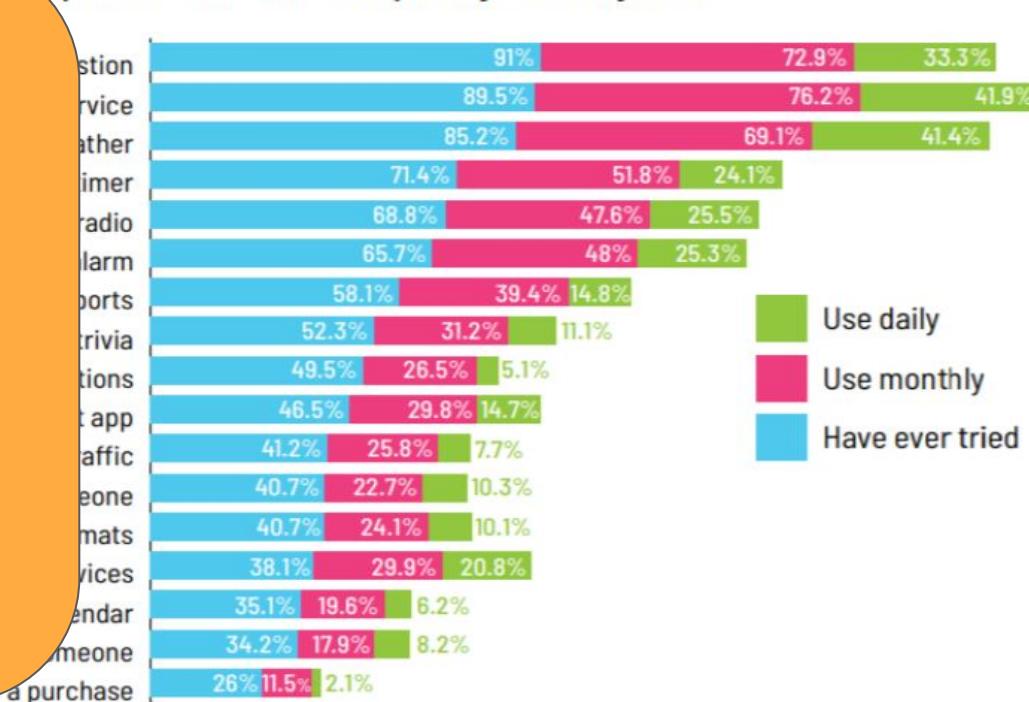
What is the name of his wife?

What is the name of her daughter?

Show me her images.

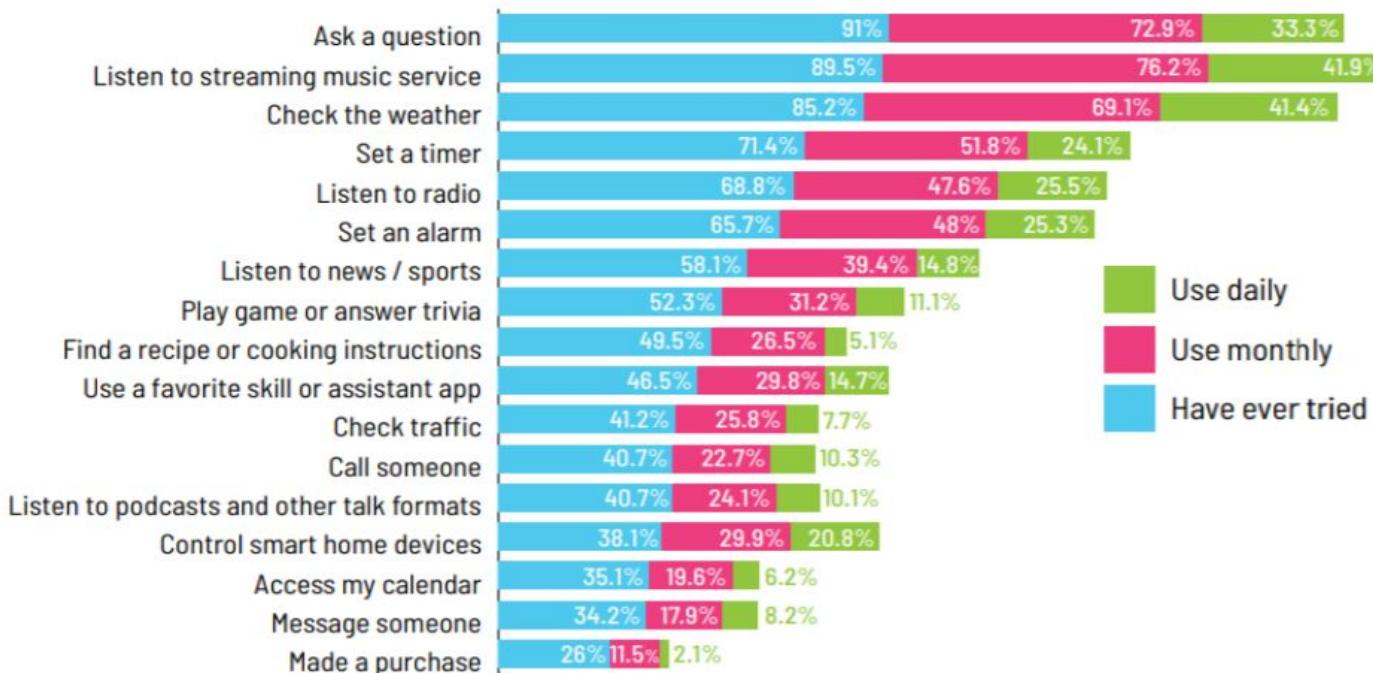
Is she single?

Smart Speaker Use Case Frequency January 2018



# Smart Speaker: usage 1/2018

Smart Speaker Use Case Frequency January 2018



# When we use it?



Turn light on :)

74.000 CZ

cannot see

Do I need an umbrella today?

Set timer for 5 minutes

Call Martin on Skype

News - Alexa, what's in the news

Turn light on

1.077.000 CZ

every tenth person



Do I need an umbrella today?

7 minutes exercise

Call my husband

News - Alexa, what's in the news

1.880.000 CZ

elderly (65+)



Turn light on

Start my Audio Book

What's the time?

Alexa, ask my buddy to alert mom



News - Alexa, what's in the news

? CZ

takes pills



Did you take a blue pill?

Start your rehabilitation

Measure your pressure

Call my doctor

# Two centimeters that makes Your life dependent on Alexa

**Adam Ježek**

volunteer project manager

**Veronika Liďáková**

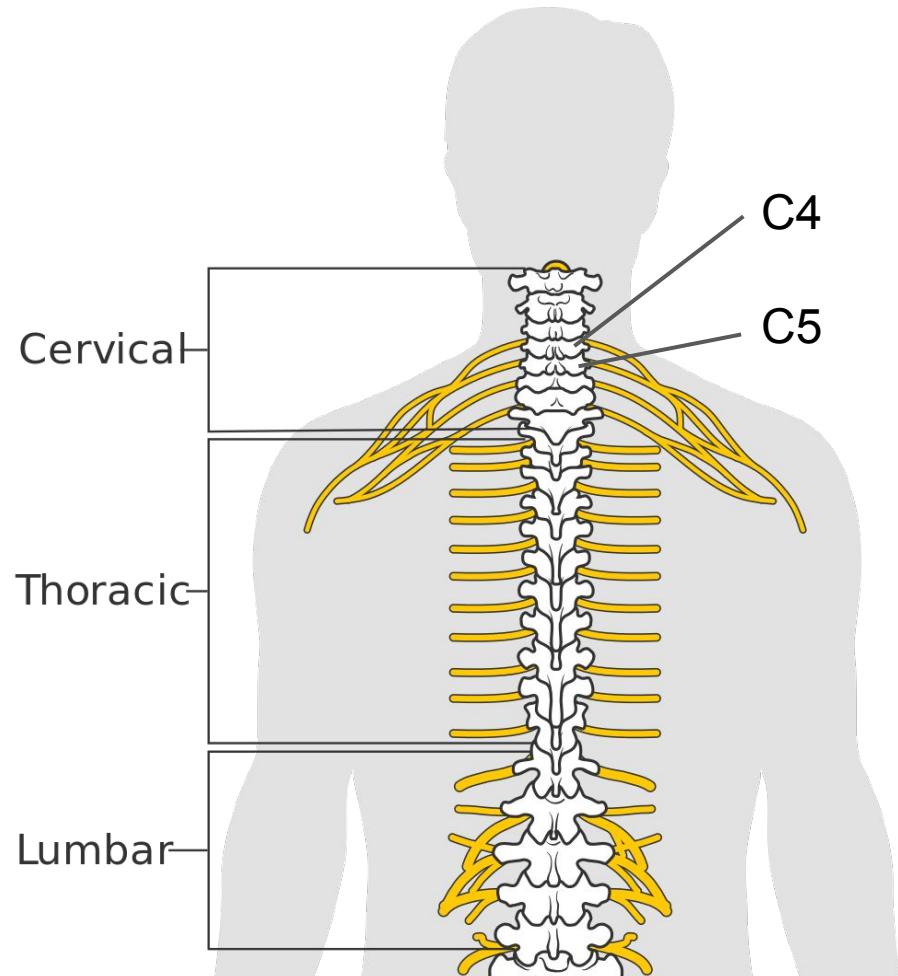
lead ergotherapist at Spinal Cord Unit at FN Motol



# SPINAL CORD

information  
highway of  
our body

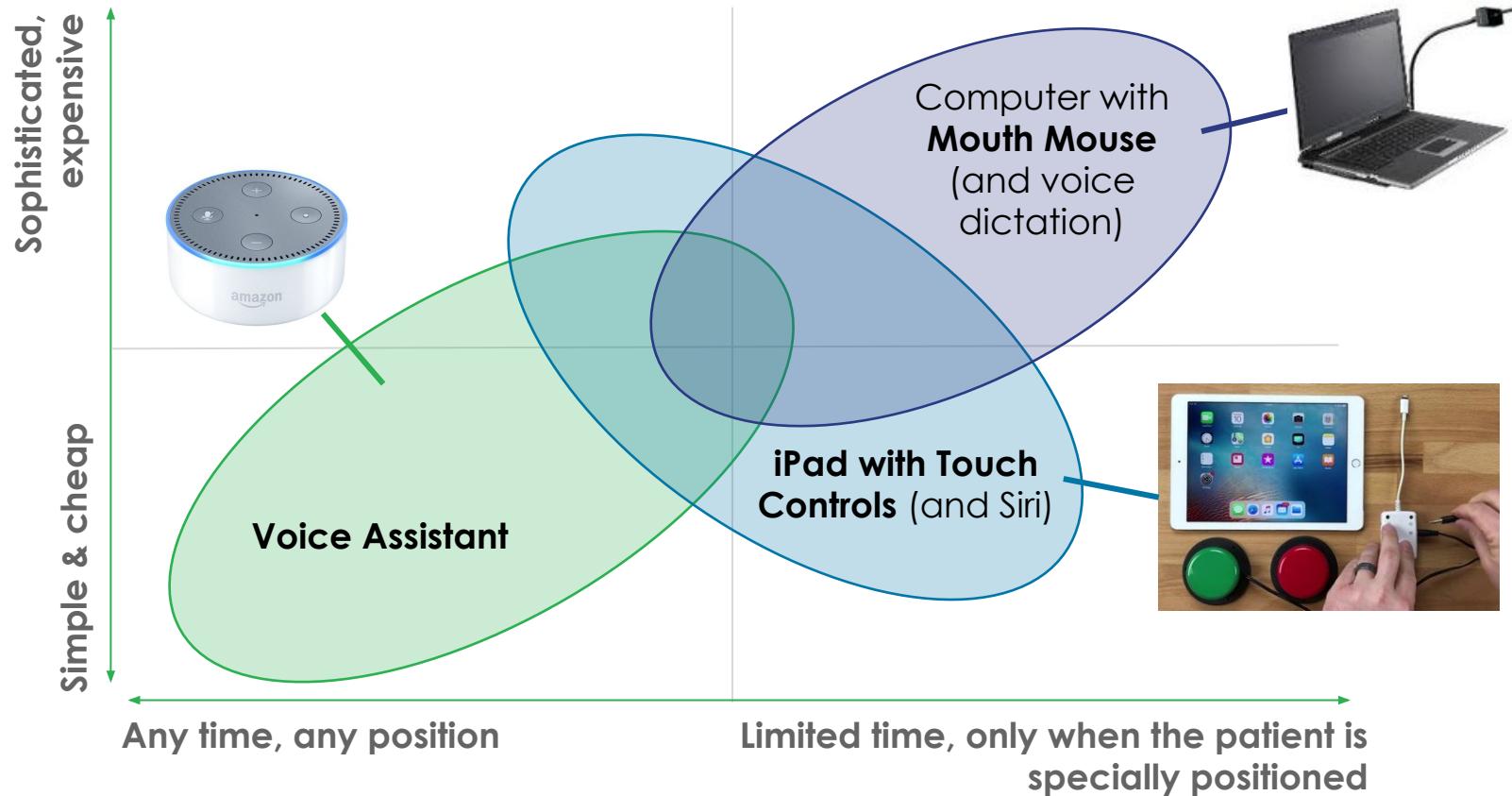


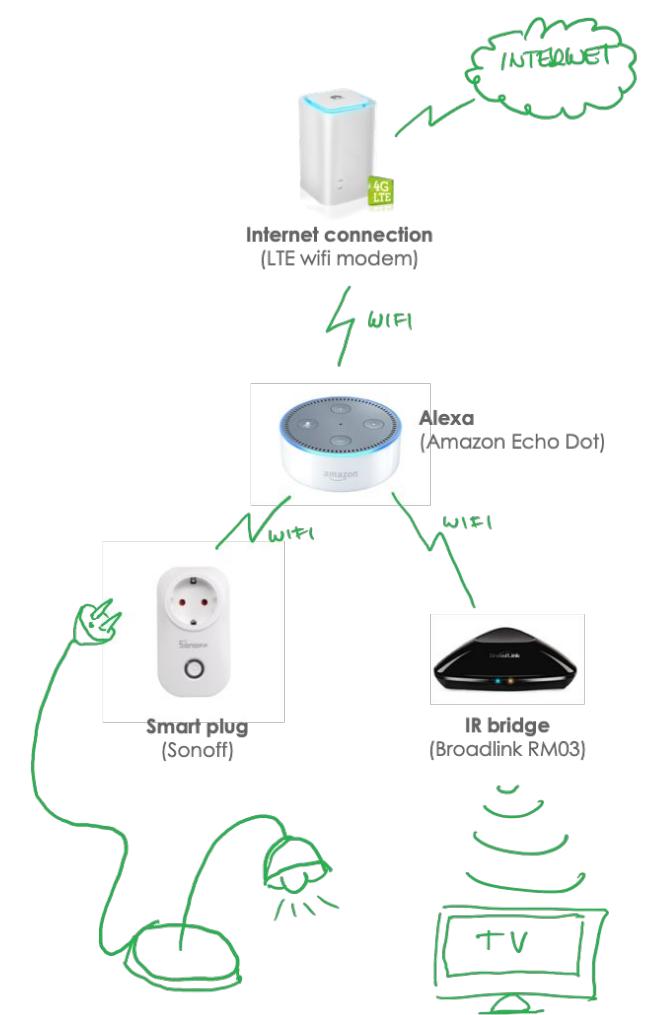


## Two patients ~2 cm difference:

	Pavel “C5”	Václav “C4”
Phone calling	✓	✗
TV & radio control	✓	✗
Lights on/off	✓	✗
Nurse call button	✓	✗
Bed positioning	✓	✗
Eat on his own	✓	✗

# What is the best technology for the job?





## Basic voice assistant setup

< 300 USD

Phone calling



TV & radio



Lights on/off



Emergency button



Bed position



Eat on his own



Photo by Adam Jezek  
Rights reserved  
GDPR consent received

# Pilot project with Spinal Cord Unit in FN Motol



deepview

## Project scope

- 3 voice assistant sets
- ~ 6 months
- basic setup + prototypes development

## Project Goals

1. Verify maturity and reliability of voice assistant (and IoT) technology
2. Discover most important use cases and constraints
3. Explore cooperation possibilities with existing producers of medical room equipment
4. Receive feedback from patients and hospital personnel

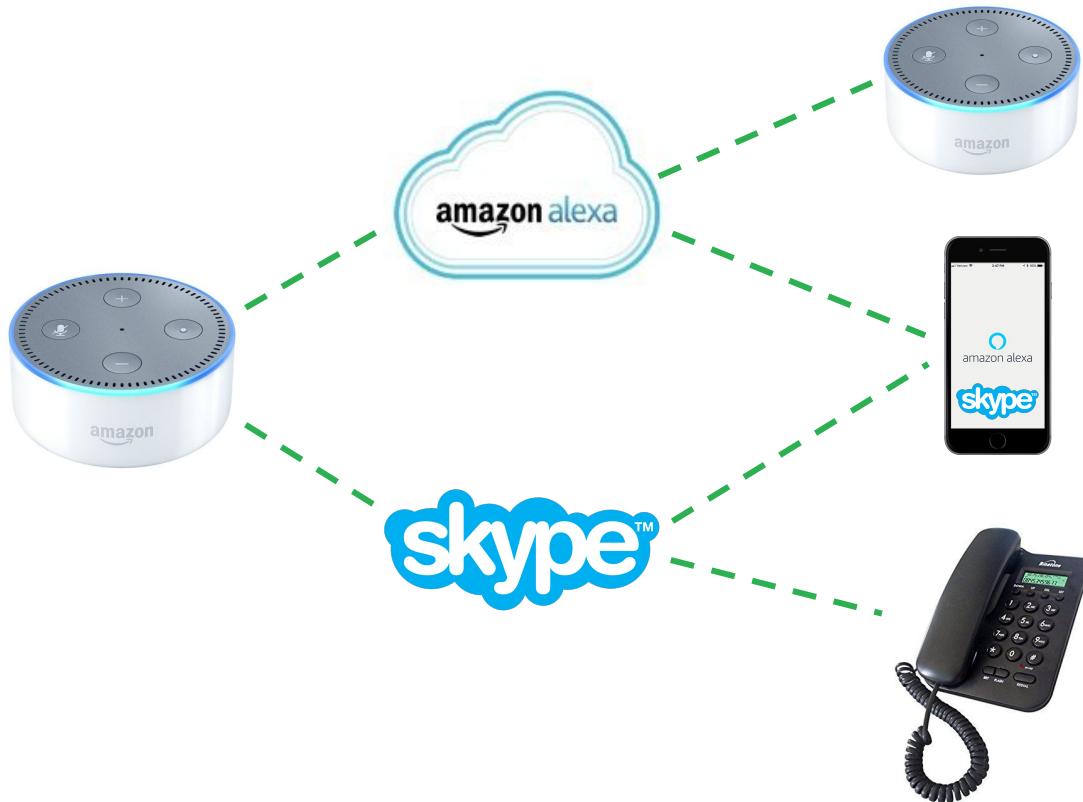
## Project principles



# Alexa, call my son!



Photo by Adam Jezek  
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# Alexa, turn on TV.

# Alexa, channel 5 on TV.

# Alexa, volume up on TV.



wifi



Broadlink RM Pro+

IR



# Alexa, light on.

# Alexa, set light to 50 percent.

# Alexa, make the light warmer.



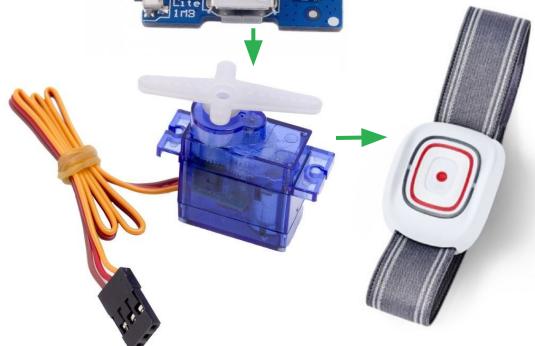
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# Alexa, help me.



Arduino  
(Wemos D1 mini)

wifi



Servo  
motor

Nurse call  
button  
wristband

Pager for hospital  
personnel



Pilot project use cases (in the labs)

Alexa,  
help me.

Early prototype :-)



deepview

# Alexa, rise my back. Alexa, lower my legs.

Smart medical bed control unit



Developed by great team from



HARDWARIO

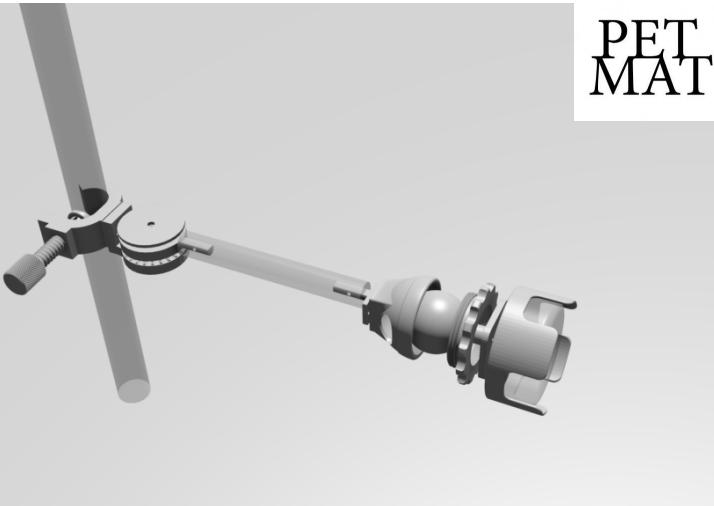
based on their [Cooper](#) & [BigClown](#) IoT platform

Photo by Adam Jezek  
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... in cooperation with  
major medical bed  
producer

# Alexa, move out of my way ;)

Velexa Echo holder - early prototype



Designed and manufactured by [PET MAT](#),  
an NGO and research group from Faculty of  
Architecture at Czech Technical University

Velexa Echo holder - final version



3D printed from their original recycled PET filament!

Pilot project use cases (implemented)



deepview

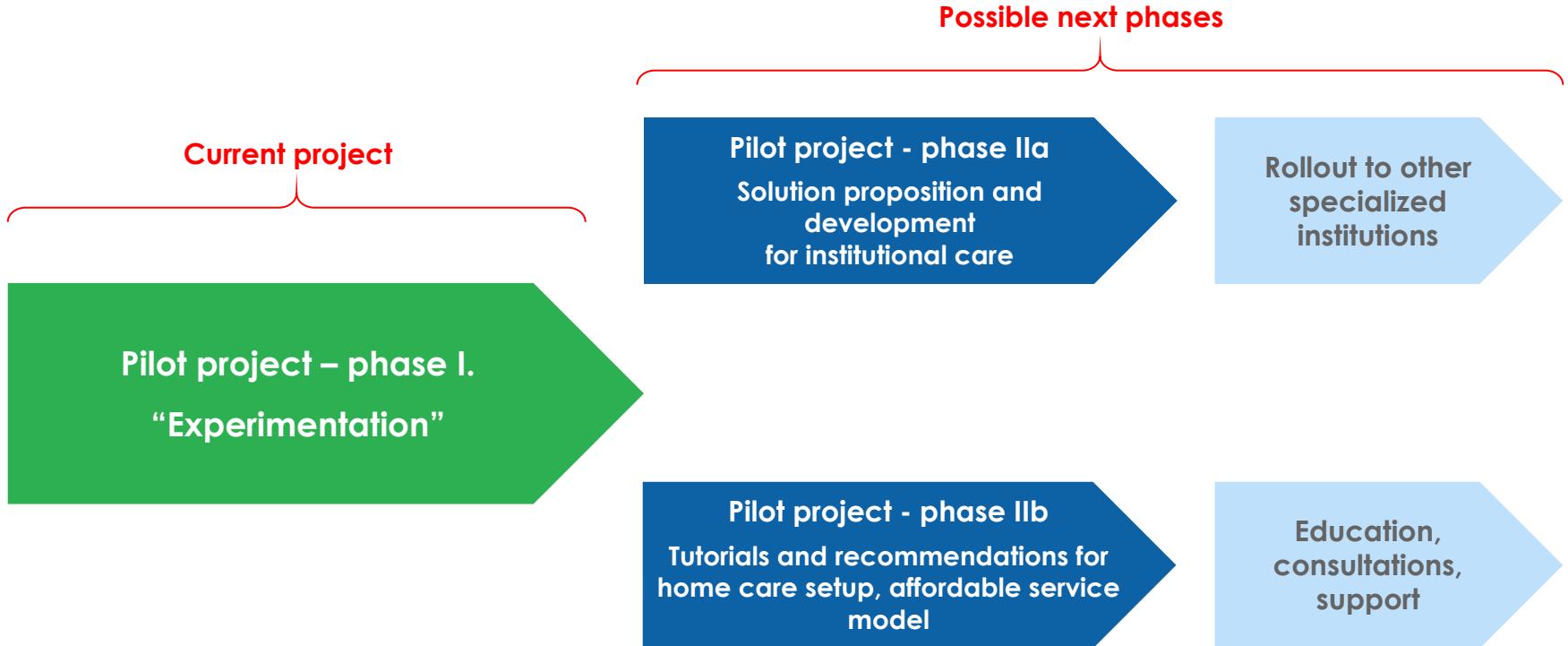
Alexa,  
move out  
of my way ;)



# What next?



deepview



# Lessons learned

- 12 patients already tested Alexa (more than one month each). **All get quickly used to it and were satisfied.** All of them wanted to continue using Alexa after leaving the spinal cord unit.
- Think of **voice assistant project as an isolated island.** Every "set" should have its own (mobile) wifi network, own master e-mail address for registering all the "set related" accounts and own telephone number.
- Complexity of the voice assistant project is huge. You need to understand a lot of technological layers and services. **Taking care of this complexity needs to be addressed before the broader rollout** of your project.
- **English is not a barrier** for non english speakers (when they have no alternatives and lot of time).

And ... more personal:

- Look around, **You will surely find a problem to be solved.** It will enable You to be beneficial to the society around You and it will **give You back a lot of energy.**
- There are **lot of “positive deviation” people in the environments You would not expect.** You will hardly find them, but if You do something good, they will probably find You.



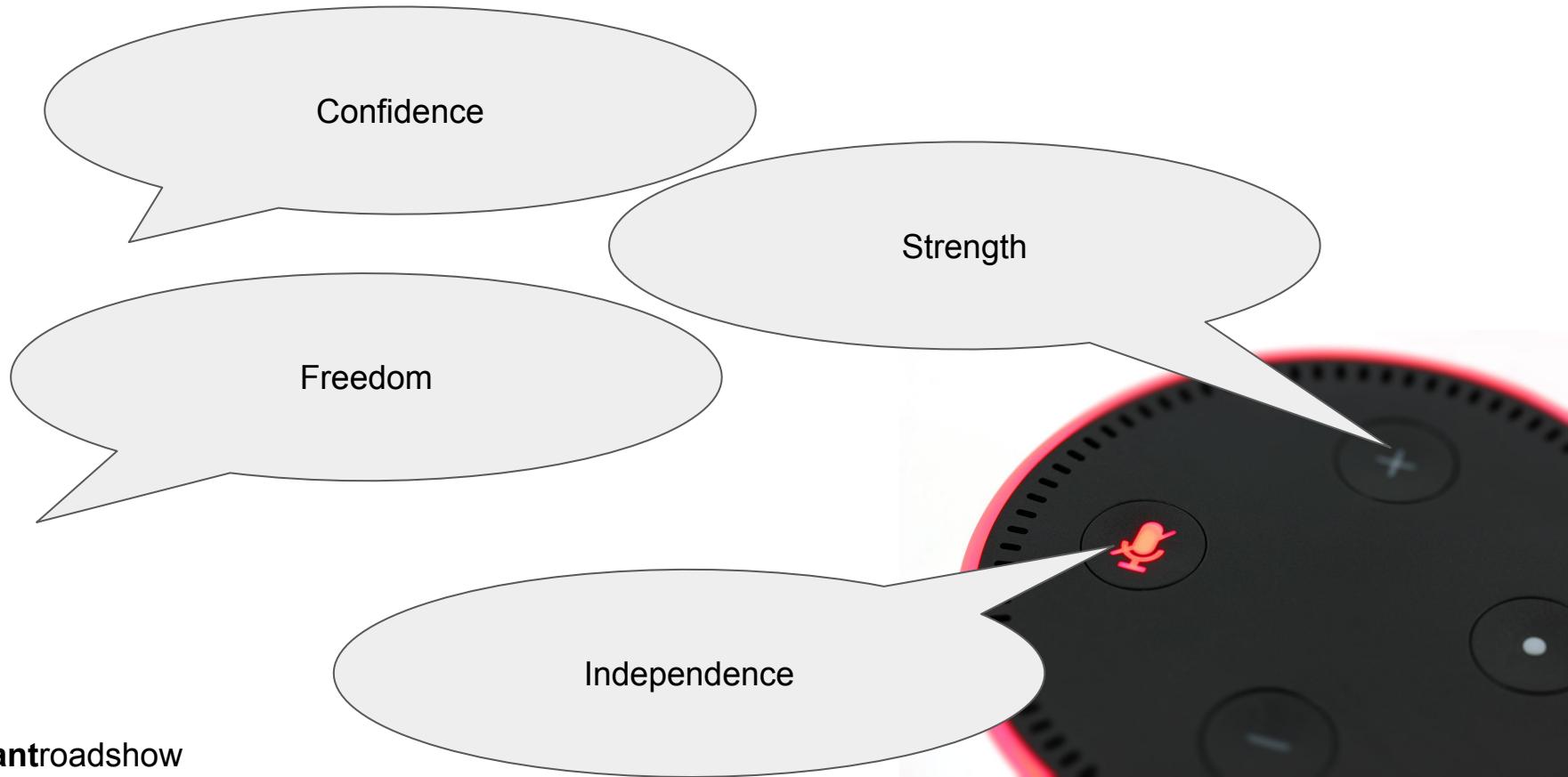
# Thank You!

Contact me at:

[adam.jezek@gmail.com](mailto:adam.jezek@gmail.com)

[www.linkedin.com/in/ajezek/](http://www.linkedin.com/in/ajezek/)

# Voice Assistants?



# Do you speak Czech

- Google Assistant in Czech: no-one knows (? 2019 ?)
- The most competitive "internet" in the world
- We love news: GooglePay, maps
- Quick Voice Recognition and Localization Process, NLU ... (IBM ... Google)
- We want it :-)



# Alexa Echo Workshop for Developers

...in 2019 and think about 100+1 stories



When a mistake  
happens

:-)

# Alexa lost her voice



# FB Group

**Voice Assistant CZ: Google, Alexa Echo, Siri - tipy a rady**

<https://www.facebook.com/groups/1800571440066269/>

# Thank you

Martin@Krcek.cz