

Human against the machine

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communication is collaboration

Agenda

Communication

Bots / Robots

Artificial Intelligence

Human Brain

AI for business





Where people own communication
and communication doesn't own people.

Hubgets is converged communication

Unified chat

Enterprise PBX - voice, video

Media and files sharing

Presence

Screen sharing

Live video streaming

Business collaboration flows



Artificial Intelligence increasingly relevant in communication

Management - cost reduction, new service

End-users - smart, interactive device

Service Providers - improved services

ISV - too many opportunities!!!

AI - Quick reality check

Huge difference between humans and machine

Hardware is progressing faster than software

Linear predictions are not correct

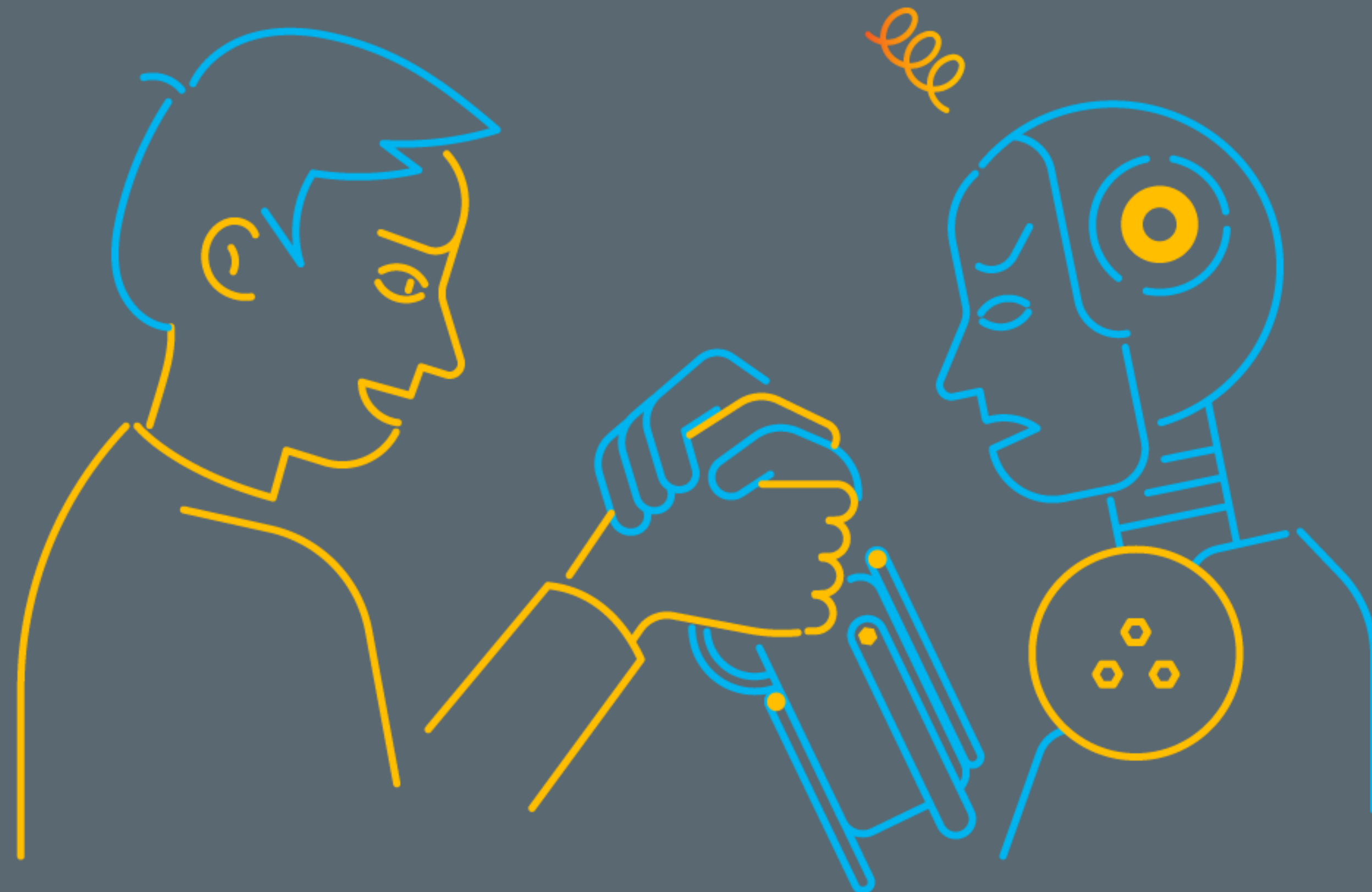
Few models are “accurate enough”

Much hype, poor understanding

Computing power is not the main limiting factor



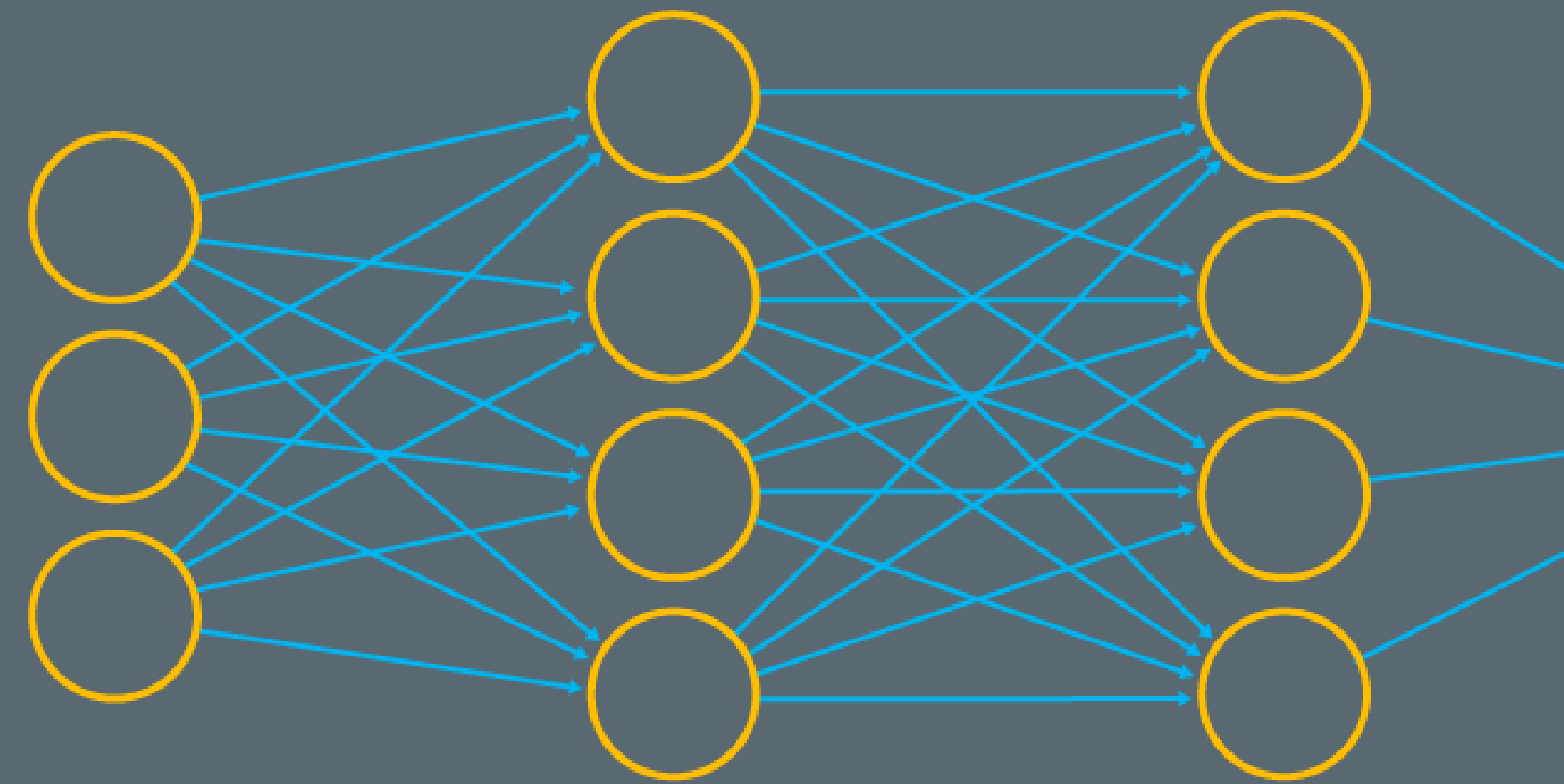
Huge opportunities when
limitations and possibilities are correctly understood



Artificial Neural Network (ANN)

Imitates a highly simplified model of Biological Neural Network:

- Neurons
- Topology - task specific
- Weights
- Learning algorithm - task specific

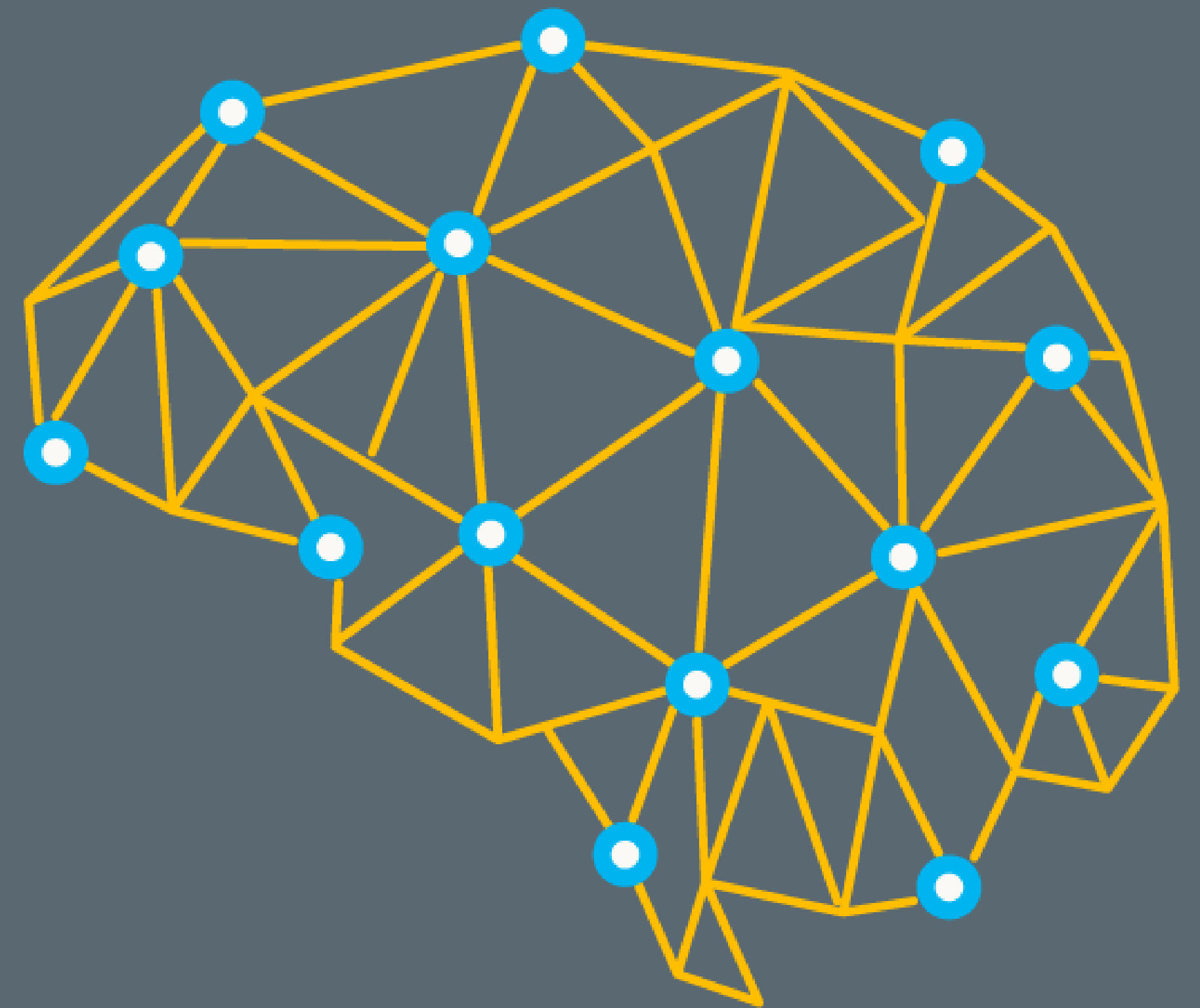


Machine learning process

Objective - increase the network's performance to deliver better results for the task:

- Feed data to network
- Measure the outcome
- Modify the weights

Over and over again, in a computational expensive process



Machine learning vs. humans

It's like teaching a kid to recognise a pattern!

Machine (like a child) needs examples, but:

- It needs many more samples
- Will inspect them many times
- Will consider the shape and only the shape

In the end, the machine will be specialised on recognising objects faster than any human.



Biological Neural Network

Lots of things we don't know about

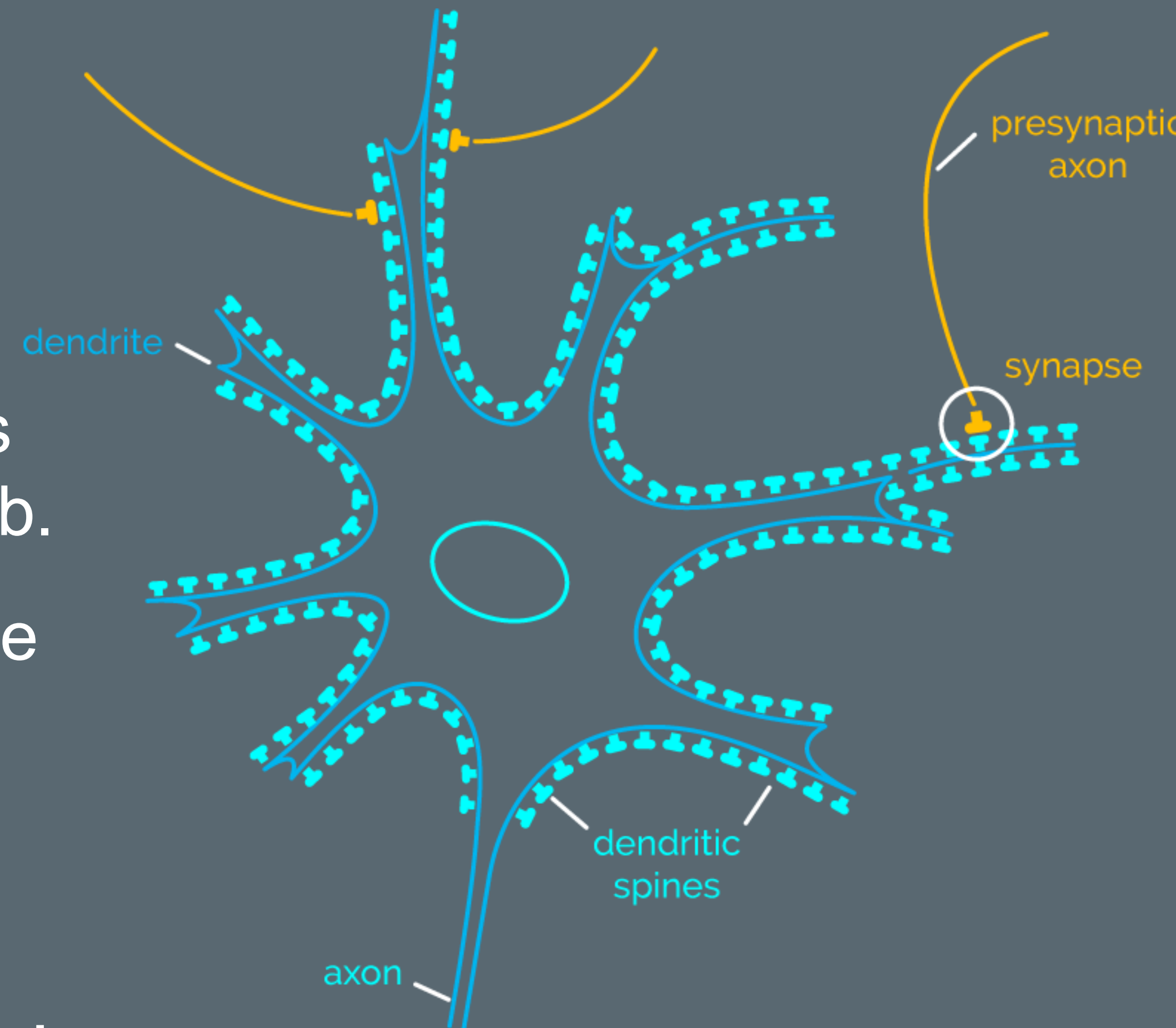
Recent discoveries suggest that each neuron may be unique and different

The little spins on dendrite can act as neurones themselves. Already proven in the olfactory bulb.

Some synapses are two sides, allowing dendrite to dendrite communication

A neurone may act independently sending signals back

We are still in the infancy of BNN understanding!



AI in communication - bots

Smart bots - input driven, capable of recognising a limited number of patterns

Conversation flows are impossible to implement with current technology

A new interaction interface - the web wizard of the future

Can save a lot of time and money on highly repetitive tasks - self service

Most successful implementations use bots to suggest answers to people



AI in communication - hidden examples

Automatic content classification

Sentiment analysis

Opportunity rating

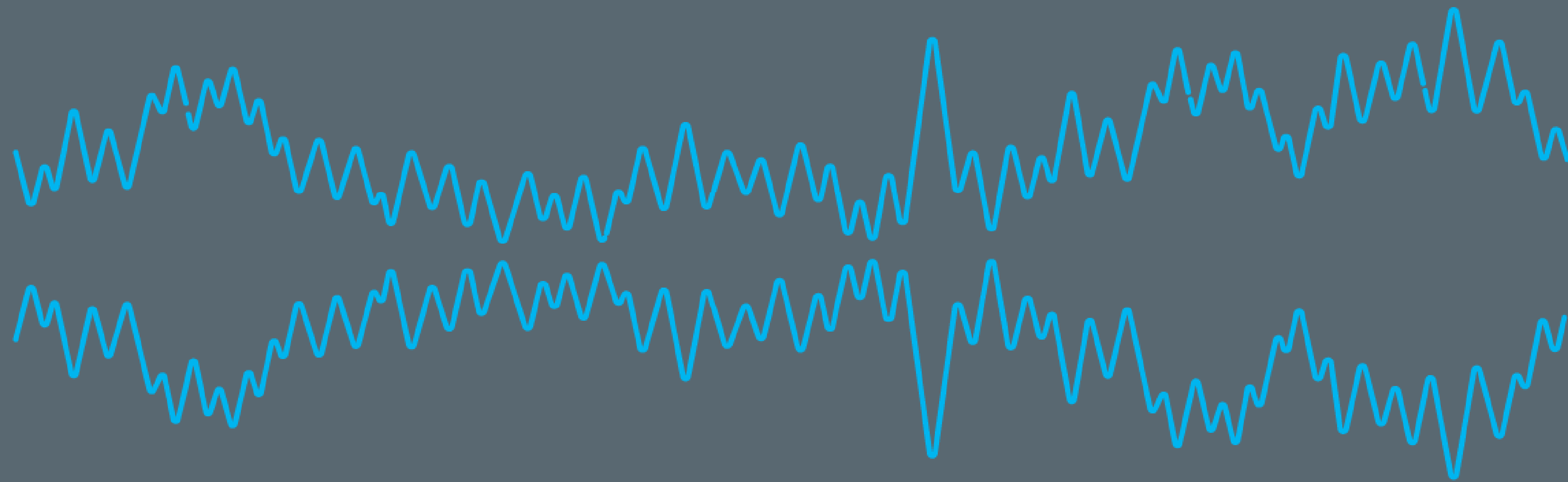
Opportunity matching

Quality analytics

Productivity analysis

Interlocutor intelligence

We believe that the most important service we can deliver to our users is not replacing them, but serving them in the communication process.



Hubgets AI Core

Image Engine - automatic classification, search

Presence Engine - limits interruptions, increases productivity, makes people happier

Mood Engine - delivers the emotional feedback using text, emoji, media, user behaviour

Content Engine - automatic content classification, auto-tagging, content ranking

Page Engine - customer identification, communication channel detection, opportunity classification

Hubgets HUG bot - contextual assistance for Hubgets users, based on Bot Engine



What Mood Engine found out...

A happy person requires 6 to 10 interruptions in 90 minutes to get annoyed.

If you want to annoy a person you have ~3x more chances between 15:00 - 16:45.

It's best to approach someone between 9:00 and 11:00, he/she will be more collaborative

People arriving late in the morning change their mood less frequently, but overall their mood is not better.

Happier people engage with more people every day and they are usually the contact initiators.



What Mood Engine found out...

A happy person is much more responsive than an unhappy person (3x+ faster response).

A translation from happy to unhappy is 4.5x faster than a translation from unhappy to happy.

Happy people participate voluntarily to team actions 4x more than unhappy people.

Over 65% of people describing their mood as neutral lie. Most of them (80%+) are unhappy.

People who change their mood often have a larger network than people who are relatively stable.



What Mood Engine found out...

Very few people (less than 10%) change their mood more than 3 times a day

Software engineers are not so easy to be annoyed (compared to other professionals)

People below 27 change their mood faster than people above 35

Women change their mood faster than men, but also have a faster recovery.

People are not very good at noticing that the mood of their interlocutor has changed. Still, women notice it up to 3x faster.



Service Providers - communication is at the core of any service

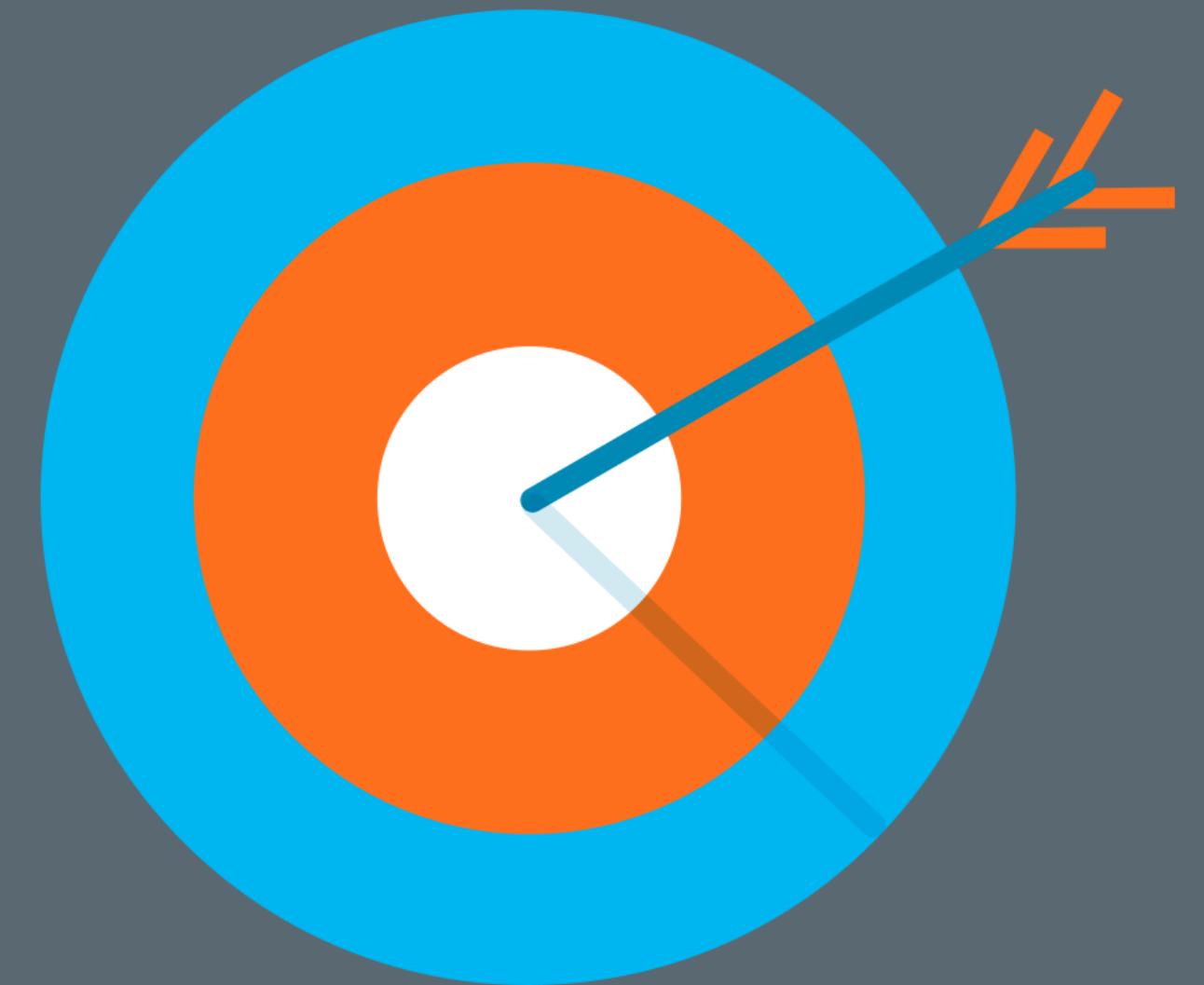
Available now, ready to be deployed

Integrates with your existing data

Most services benefit from direct integration with real-time messaging / voice / video

The opportunity is simple and messaging has no limits, it's extremely flexible and scalable

AI to provide answers and help users, not to serve them better advertising!



Real-time Communication as a Service



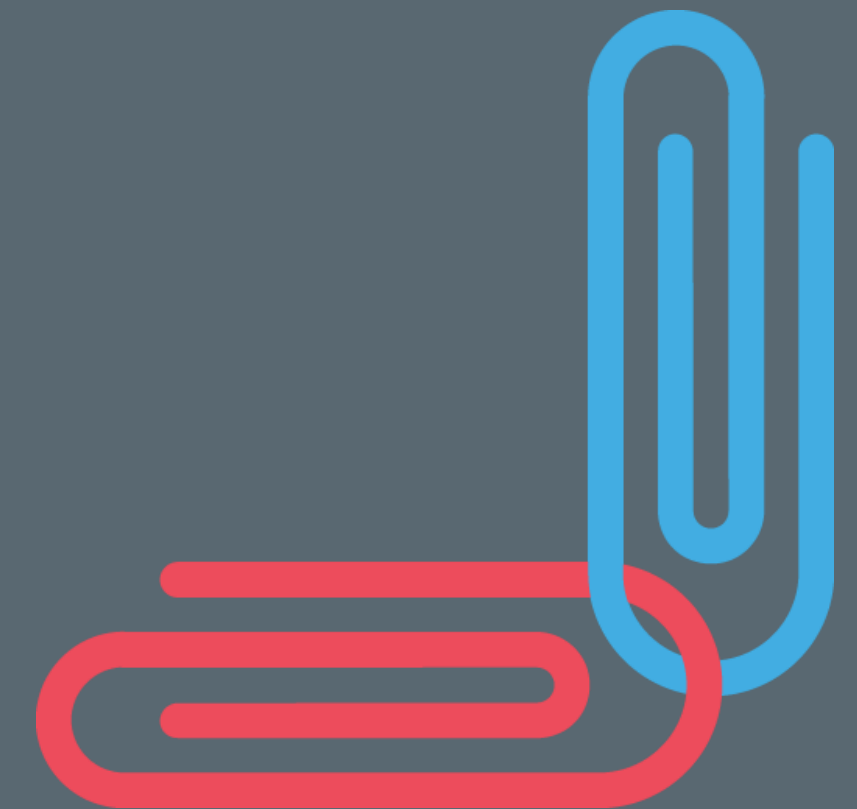
High
ARPU



Strong
growth (42B)



Very
sticky



Service
enabler

Thank you!

See you at our booth G42.



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