Picturing the future of Neurotech

Edited by Hayato Waki

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Introduction

Introduction

Hayato Waki
(https://wakkihaya.com)

A senior student at University of Tsukuba.

Writer at NeurotechJP

Ex: Co-founder and engineer at startups in Japan and U.S.

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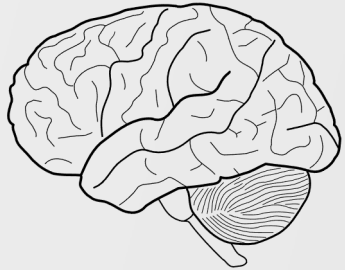**My vision with Neurotech**

Become a person
who achieves Science-Fiction
with technology and creativity

More connected between people by Neurotechnology
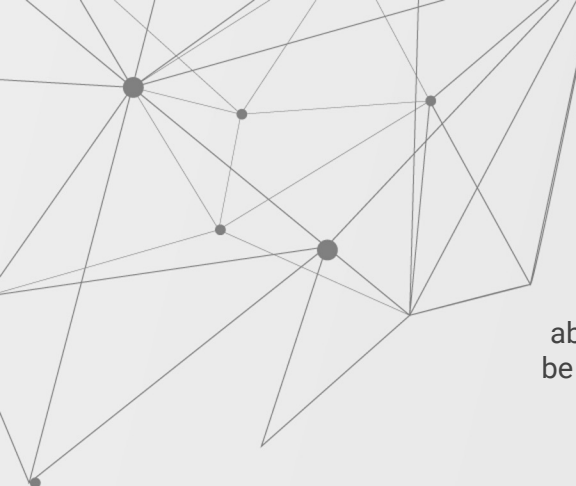
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My motivation

My vision with Neurotech comes from this motivation.

Trajectory

Always thought about how tech can be applied to our life.

"How to connect more and easier?"
Believed that not text or voice but mind is the best.

Entering College

Interest in Neurotech by Neuralink

Childhood

Founding /Joining Startups

Now

Loved Sci-Fi movies. My favorite one is 'Interstellar'.

Interested in consumer region, especially communication, because I like networking.

What I believe

Communication
Any actions to convey something like words, emotions, etc between humans

Hardware
Hardware layer is below software layer and application layer.

can be a new input system.

BCI can be a new hardware layer.

Our life
'Communication' is the base of our life. So if it changes, everything changes in our life.

Our life
New hardware will bring us new ways of input/output, and create a new platform for software.

E.g.
You use words to order foods at restaurants.
But, what if the word-communication changes?
What if you have a new way to convey emotions without using Instagram story?

E.g.
Smart phone: new platform for software
VR: new platform for software
Earphone: new audio input
Projector: new sight input

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Future use cases

These might be not in near future, but they are what I believe in and want to do in the future.

Market transition

Now

- ❑ Medical purpose
- ❑ Education, Sports
- ❑ Meditation, Music, Sleep
- ❑ Neuro-marketing
- ❑ Entertainment

Future

C-to-C region
(e.g. Social media)

BCI(Neurotech) should be used as an interactive

communication tool between consumers in the future.

Future use case 1

To stay connected with
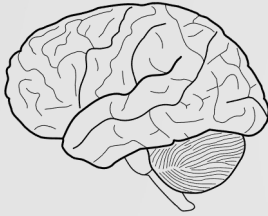your people online,

Now

Call, SNS on phone

You type something on the
screen or do voice call
through a smart phone.

Future

Emotions & words by thoughts.
Sharing same experiences.

Emotions and words using thoughts are
easier and more frequent to communicate.
You can feel eating the same foods as
others by neurostimulation even if you're
far away.

Future use case 2

Measure EEG and emotions
when you do actions, and train
the AI algorithm with those data.

More humanized-AI

AI can suggest empathic actions
to you by classifying real-time data
with an always-mounted device.

You might feel like that AI is a human, who suggests
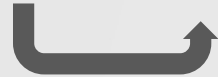something by your mood or emotions, like your mother.

05

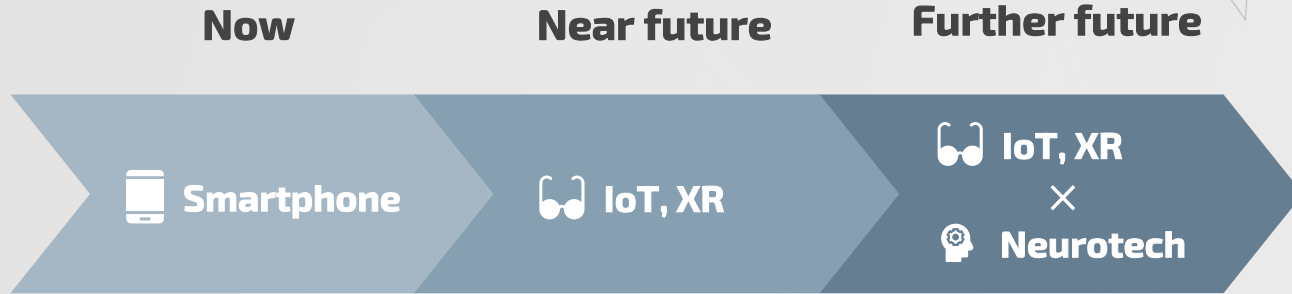## Technology transition

Explains about future of technology transition and problems that might happen then.

Hardware transition

Now

Near future

Further future

Smartphone

IoT, XR

IoT, XR
×
Neurotech

Problem
How do you control a device?
How do you use a voice controller
in silent spaces?

Solution
No need of any controllers
except your mind.

Platform transition

Now

Future

Mobile

Virtual
Reality

More immersed in
VR with Neurotech

Neurotechnology transition

Non-invasive

- ❑ More compact & casual device
- ❑ Transfer learning for scalability
- ❑ More specialized on visual activity

Invasive

- ❑ Resolve ethical issues
- ❑ Clarify high-level brain function
- ❑ Resolve brain damages for long-term attachment.