empact

Artificial Emotional Intelligence

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Problem

Currently, there is a huge disconnect between humans and technology. We interact and use our machines like tools instead of utilizing their intelligence. This chasm is created by technology's inability to truly understand us.

We want to give technology emotional intelligence. We want technology to truly empathize with its users: to revolutionize user experience.

Target Users & Insights

65%

65% of people who own an Amazon Echo or Google Home can't imagine going back to days before they had a smart speaker.

GeoMarketing

72%

72% of people who own voice-activated speakers say that their devices are used as part of their daily routines.

Google

1 in 6

One-in-six Americans own a voice activated smart-speaker

Edison Research

Key Findings

Interactions with voice assistants feel robotic and cold.

With the development of AI, emotional understanding is necessary.
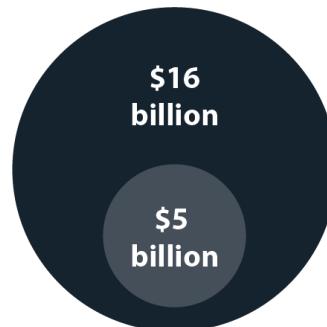
We interact with technology like dumb tools instead of intelligent machines

Market Research

55% of all households in the United States will own a smart speaker by 2022

OC&C Strategy Consultants

$16 billion

$5 billion

In 2018, the size of the virtual digital assistant market was worth $5 billion. In 2021, it will be worth $16 billion

Statista
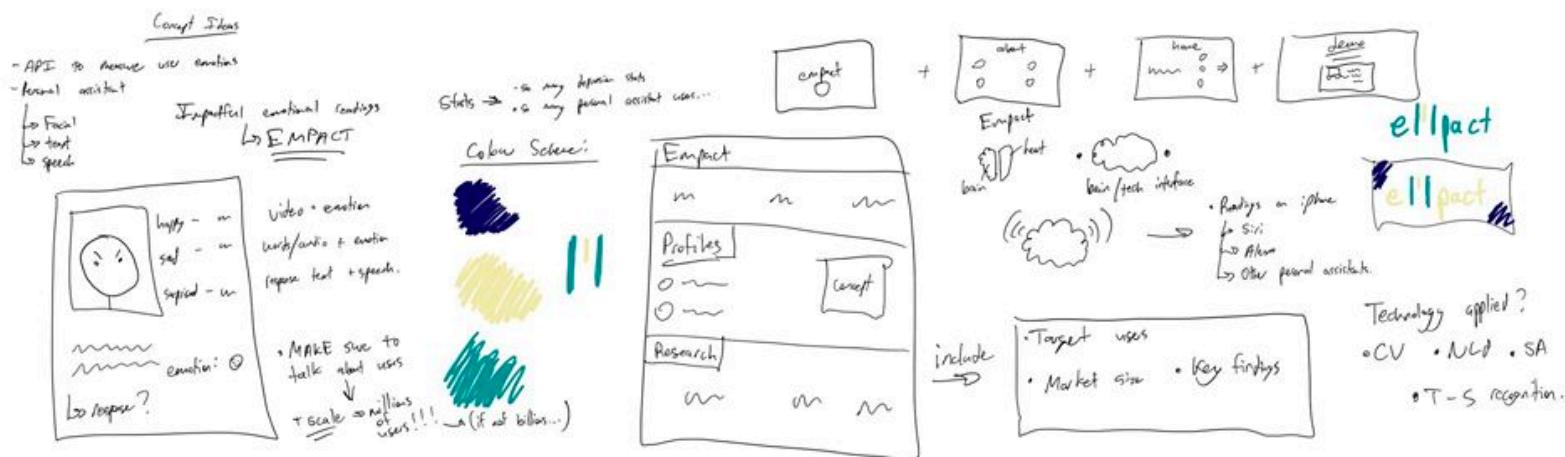
50%

50% of all searches will be voice searched by 2020

ComScore

Concept Sketches

Applied Technology

🧠 AI/Deep Learning

👁 **Computer Vision**

To analyze facial expression and the emotion associated with the expression

💬 **Natural Language Processing**

To analyze audio speech, understand the words, and the emotion in the tone

🙂 **Sentiment Analysis**
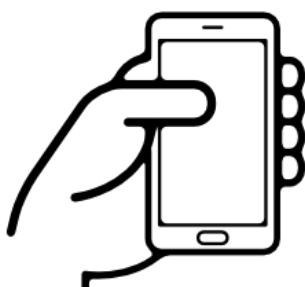
To analyze what is said, and the emotion that is implied.

🔊 **Text-to-speech and Speech recognition**
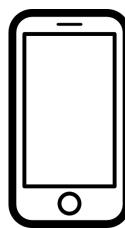
User Scenario

1

User interacts with technology or virtual digital assistant

2

Empact runs in the back, making sense of the user's emotions

3

User and technology can finally understand each other! This creates a whole new user experience

Final Design

Facial Emotion:

Happy: 99.93%

Face: 😃

Clicked the start button
The detector reports initialized

Vocal Emotion:

Happy: 93.09%

START   STOP   RESET

Hey Jarvis order me some food

🎤

EMPACT

Facial Emotion:

Sadness: 100.00%

Face: 😔

Clicked the start button
The detector reports initialized

Vocal Emotion:

No input

START   STOP   RESET

Hey Jarvis order me some food

Jarvis: Yes, of course! What would you like?

Whatever you want

🎤