

# IOWN INTEGRAL

NTT R&D FORUM 2024

DEVELOPMENT

δ 01-21

Digital humans capable of  
natural human-like interaction

We will create an AI that can allow for more  
natural conversations and is easy to talk to

#Customer Experience Value Creation #Productivity Improvement

## 異なる特性・役割を持つAIが 非同期で処理を実行

AI with different characteristics and roles  
execute tasks asynchronously

### 速い思考/ fast thinking

相手の状況を高度に認識・理解  
Recognition and understanding of  
the speaker's situation

相槌やつなぎの発話などを即時制御  
Instantly controlling acknowledgments  
and filler utterances

### 遅い思考/ slow thinking

対話状況に応じて対話戦略を策定  
Formulating dialogue strategies  
based on the situation

対話戦略に基づき話す内容を生成  
Generating spoken content based on  
the dialogue strategy

## ///Technical Issue

Conventional digital humans are unable to fully consider conversations, the other person's state, or the environment, resulting in mechanical AI-like interactions.

## ///Research Goal

By applying this technology to a wide range of customer service scenarios, we can achieve cost reductions and improve the user experience.

## ---Technology

By combining NTT's unique technologies such as dialogue situation recognition, voice/image recognition, and speech synthesis, it has become possible for digital humans to respond flexibly according to the situation, such as the behavior of the person they are talking to.

## ---Applicable Business

The digital humans will be applied to the following business around 2030.

- Customer services such as product explanations, exhibition explanations, and digital signage in the field of retail or public services. [Market scale: 12 billion USD]
- Services providing the counseling and conversation partners in the field of the medical, welfare, and education industries. [Market scale: 6 billion USD]

## ---Novelty

Conventional digital humans can only carry out "dialogue" by waiting for the other person to finish speaking and then responding, but this technology can achieve "synlogue" by combining various recognition and generation technologies to provide appropriate responses at any time.