

A woman with long dark hair, wearing a light blue button-down shirt, is smiling and touching the hand of a silver humanoid robot. The robot has a black visor and glowing blue lights on its joints. The background is a bright, modern office setting.

TRUE MULTIMODAL INTERACTION WITH THE IM.MIND® FRAMEWORK

In the customer service world, a new generation of **Virtual Agents** are taking over the interaction with the customer and substituting human operators to fulfill tasks that are repetitive and boring. Past generations of interactive services (IVRs) required the customers to listen to menus and select numbers or keywords to get access to a customer service. Today instead, natural language (voice or text) is the main means of communication between the customer and the new Virtual Agents.

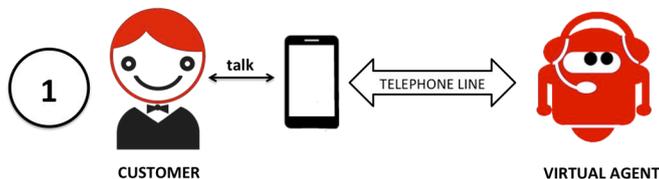
At the very core of the Virtual Agent we find **artificial intelligence** technologies, applied to **natural language understanding**. They improve the performance of the dialog management and create the “magic” of a natural conversation. As the technology improves and the demand for smart Virtual Agents grows, the complexity of the tasks assigned to them increases as well. The newest Virtual Agents establish a natural interaction with the customers in an **omnichannel** environment, which means that the customers can contact them using any kind of channel (telephone, chat, email...) and the dialog remains consistent on every channel. The channel may also change in the middle of a transaction. For instance, the customer can discuss a product over a chat session and finalize the purchasing in a following phone call, without the need to restart the conversation.

But natural interaction is not only natural language. Humans are communicating using different channels at the same time, which amount to a multimodal interaction. Talking, pointing to pictures on a catalog or a product on the shelf and gesticulating are all means of contributing to a natural interaction. The IM.MIND® Framework supports true **multimodal** interactions with the customers, to make the communication more natural, pleasant and effective.

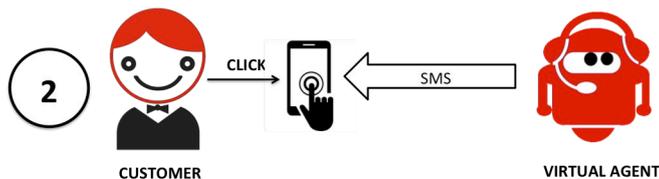
VISUALLY AUGMENTED PHONE CALL

The visually augmented phone calls are typical examples of true multimodal communication in action.

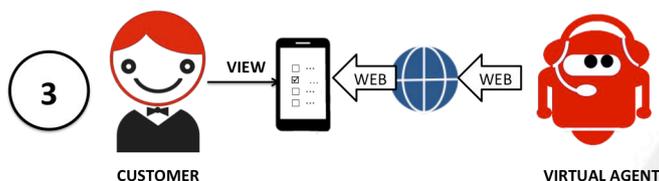
Here, the customer is engaged in a conversation with the Virtual Agent using a smartphone (1). At some point of the



conversation the customer is supposed to confirm the details of a transaction – for instance providing an email address. Since it would be too complicated for the customer to handle the transaction through the phone call, the Virtual Agent acts smart and sends the customer a text message with a link (2).



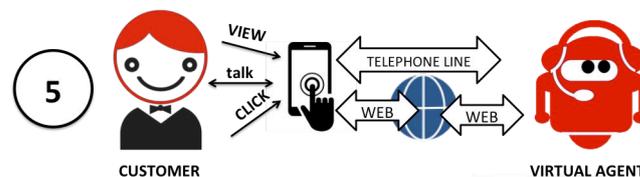
The link points to a secure website showing a customized dynamic page, built on the fly for the user (3).



The visual information shown on the web page helps the customer to complete the transaction (4).



The Virtual agent remains available on the line, monitoring both the phone call and the web channels, to support the customer while the transaction and the entire dialog is completed (5).



MULTIMODAL DIALOG MANAGEMENT

The **IM.MIND® Dialog Management Engine** is the technology at the very core of the **true multimodal interaction** capability of IM.MIND® and it acts as a single point of integration for any numbers of communication channels.

The IM.MIND® Dialog Management Engine integrates with the NLU (Natural Language Understanding) modules of IM.MIND® to interpret the meaning of natural language and is open to receive a variety of inputs from multiple sources: the “next move” in the management of the dialog may involve actions executed on as many channels as needed.

Interactive Media develops and deploys natural language-based omnichannel solutions for the automation of customer service interactions for voice and chat conversations. Active in the CX market since 1996 and doing Natural Language Processing since 2008, Interactive Media has had the time to prove itself: numerous happy customers can tell the tale.

Interactive Media Spa,
Viale Città di Europa 679, 00144 Roma – Italy

IM Service Lab Srl,
Corso 3 Novembre, 132, 38122 Trento– Italy

IM Interactive Media Brasil Serviços de Telecomunicações Ltda.
Av. Roque Petroni Jr. 1089 – Sala 1010 - CEP 04707-900 - São Paulo – SP Brasil

Interactive Media North America, Inc
One Market Street – San Francisco CA 94105 - USA



Info-web@imnet.com



www.imnet.com

