PRHOLO:

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Chapter 7
PRHOLO:
360º Interactive Public Relations

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ABSTRACT

In the globalized world, possessing good products may not be enough to reach potential clients unless creative marketing strategies are well delineated. In this context, public relations are also important when it comes to capture the client's attention, making the first contact between the clients and the company's products, while being persuasive enough to make them confident that the company has the right products to fit their needs. Three virtual public relations installations were purposed in this chapter, combining technology with a human like public relations ability, capable of interacting with potential clients located in front of the installation, at angles of up to 57º (degrees), 180º and 360º, respectively. From one to several Microsoft Kinects were used to develop the three interaction models, which allows tracking and recognition of users' gestures and positions (heat map), sound sources, voice commands and face and body extraction of the user interacting with the installation.

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INTRODUCTION

Customer acquisition is the most, or at least one of the most important parts of any company's marketing strategies. Today, the first contact with any company is probably the company's website, which should do its best to contain all the necessary information so that the customer can resolve unanswered questions. However, a website is one medium that in many cases may not be enough to capture the clients' attention and answer all their questions.

A Public Relation (PR) or a salesperson are normally responsible for the first personal contact with potential clients, helping the establishment of links between the customers' demand and the company's offers. New customers are most of the time unaware of all the details surrounding a company's products and services, and in an initial stage, have many unanswered questions. Many times, companies having several exhibitions, conferences, events, etc., need a number of human PRs, that is either not available or that they do not want or like to move or allocate. In such cases they might prefer a high tech creative digital PR to represent the company.

A real size human PR can be digitally represented using avatars or videos of a prerecorded person. There are several technics for projecting these digital representations, where three of the most common are: (a) Frontal projection, which is the most common technique used. The drawback of this technique is that the user in some situations can conceal the projection with his/her presence in front of the installation. (b) Rear projection, which usually uses an ultra-short throw projector, with the projection being made from the back of the projected area onto a retention film. The main advantages of this technique are to allow the projector to be hidden from the users that are in front of the display area, and of course, the lack of occlusion on the projection, which could occur due to the user's presence. (c) Holographic representation, which are alternative technique that uses a holographic images of the digital representation of the PR person. One of the techniques used to create this holographic representation is the Pepper's Ghost (see e.g., Figueiredo, Cardoso, Gonçalves, & Rodrigues, 2014). The main drawback of this technique is the requirement of a large space, while the advantage being the most likeness to capturing a client's attention due to its attractiveness and novelty.

In this Chapter three PR installations are presented. All these installations allow the interaction with a user, supporting several features like the track and recognizing of gestures, users' positions (heat map), sound sources, voice commands, and the extraction of the face and body of the user which is interacting with the installation. The first two installations are of real size persons (avatar or video), with the first using a holographic representation and the second a rear projection representation. The third is a prototype installation, combining a holographic representation of an object or face, with a screen where a menu is displayed. The area for the users' interaction with the PR changes in each of the three installations reaching, respectively, 57º (degrees), 180º and 360º in front of the installation.

The main contribution of this chapter is the development of a model that is capable of tracking users' sounds, position, and gestures inside the working range of the Microsoft Kinect sensors (Kinect, 2014) used in the installations. By installing several Microsoft Kinect sensors, all users are tracked on-the-fly, and the one closest to the installation is chosen to interact with it, by using the most appropriate sensor (depending on the installation). If no user is detected by the installation, the sensors search for a sound source, and when the location is fixed to the emitting sound source, the best-located sensor initiates voice command detection of small sentences or words.

A database is used to store the interactions, tracking data, user's extracted information (e.g., biometric information), allowing posterior statistical analysis, such as user's actions, favorite menus, etc. Currently,