The future of games and ads is personalized and interactive. An app called IOCO uses target-oriented ad displays through hologram-like 3D projections. After players have selected interesting industries, the app proposes individual, customer-specific brands to match their current needs. By accessing and playing the game integrated within the 3D projection, users can play brand-specific games, collect points and enjoy a short entertainment.
**IOCO—PLAY WITH PERSONALIZED ADS**

**Introduction to IOCO**

Thomas is yet again waiting for the subway. He randomly picks up paper-ads which are neither relevant nor engaging. Moreover, Thomas has lost interest in playing mobile games like Candy Crush since he has not received any sufficient rewards besides virtual points that he cannot use in reality.

This illustration scratches on the surface of today’s issues with games and advertising. While computer games lack complementation and connection with the real world, advertisements are neither tailored, nor interactive. IOCO presents a solution to these issues by offering a platform that combines advertising and games by projecting interactive visual content generated with multi-view lasers into three dimensions.

In Latin, IOCO means fun, game and pastime, a combination of words which defines the mission of the IOCO company - to create a fun experience when interacting with advertisements. Academic researches confirmed that interactive advertisements have a positive influence on the opinion about a brand and encourage purchasing decisions. (Besharat, et. al. 2013; Herrewijn, Poels, 2015). Therefore, IOCO’s innovation is an attractive platform both for companies and users. Players get discounts, premium offers or presents from the companies. Also, users can pass time by playing various games in a 3D sphere. The user motivation of IOCO is exemplified in the following description of the two personas.

**1st persona: a points collector** is driven to play games in order to get discounts, presents, and premium offers. A point collector is goal-oriented and wants to access the game in a fast way.
2nd persona: a bored daily traveler plays the branded games as a pastime activity. Discounts play a secondary role in the user-motivation, but still attract the players to come back.

In the future, there will be no commercial posters. Visual graphics and business messages will be flowing in the air, but an advertisement will be changed according to the interest of a person nearby. By using new technological solutions, IOCO enters the personalized advertising market with 3D gaming advertising stations. By accessing these platforms, consumers can choose to play any games of the currently displayed company brand. Companies are able to develop their own 3D projections, including games selected by themselves, in order to customize their content and spread a message that corresponds with the firm’s goals and business ideas. IOCO displays the specific brand projections based on their user data and preferences. In this way, the company targets consumers who are likely to buy their products. By empowering the company to choose, create and develop the games they want to embed in 3D holographic visuals, IOCO can remain neutral and focus on technological solutions.

**Computer games will have a special plug-in for making a holographic friendly 3D version for IOCO technology.**

**Technology**

IOCO runs on two technologies. Firstly, people download the app. The app collects information of users’ interests. It also shows a map where different ads of brands are currently located, and how many points a player needs to collect to get discounts. The app functions as an informative tool to gather and show information, since IOCO aims to keep 3D projections purely as a place for interacting with brands and playing games. Design and main functionalities are represented in the picture 1. In the long term perspective personalized brands will be shown according to player’s history as it is now with Google search.

In 2020, computer games will have a special plug-in for making a holographic friendly 3D version for IOCO technology, as it is now with
mobile friendly web applications. IOCO provides a gadget free solution, thus the audience is able to see and interact with the 3D projected ads without any glasses. The company collaborates with two tech ventures which have already created prototypes of holographic looking 3D images displayed with a new type of lasers. TriLite patented 3D pixel named Trixel. “Each consists of a laser and a moveable mirror. The mirror directs the laser beams across the field of vision, from left to right. During that movement the image information is changed. With this basic idea, different pictures can be sent to the viewer’s left and right eye, so that a 3D effect is created without the need for 3D glasses.” (Trilite-tech.com, 2015). Similar technology is entered in the market by the UK company Kino-mo. The company presented a gadget which consisted of LEDs, chips and magnets. Kino-mo clients could transfer images directly from computers and they will be visualized in the air in 3D format. (Kino-mo, 2016). The mentioned technologies allow to target individual audiences. “Technically, this would not be a problem.” (Pitcher, 2015). Furthermore, the company TriLite produces pico projectors which facilitates the visualization of personalized ads. As it is shown in the picture 2, the pico
projector is set up on the smart phones. “TriLite’s RGB laser module opens up the possibility of virtual reality smart glasses projecting image information directly into the wearer’s eyes, and smart phones as well as smart watches to feature embedded pico projectors” (Trilite-tech.com, 2015). The app IOCO contains information about preferred brands and industries, which is embedded with the pico project in order to show tailored ads. 3D projections are touchable to ease playing and extend the choice of games. The first prototypes of touchable holographic panels are already presented by the company Monomedia. All the three companies mentioned above provide a future solution for personalized and interactive advertising. Therefore, IOCO sees a great possibility to collaborate with these companies.

ADVERTISING AND GAMES

Advertisements in computer games have been introduced within the last century. “Arguably the first advertisement that appeared in a digital game was a self-promotional advertisement in the game “Adventureland” for its next game titled “Pirate Adventure” in 1978.” (Terlutter, Capella, 2013). Even though advertising in games is not a new

Figure 2. 3D advertising. Image credit ©Kina-mo Ltd
trend, the interaction between the two industries could still be refined. There are either interactive games based on projecting 3D images, for example the company HoloLens which integrates games in special glasses (Williams, 2016), or holographic 3D product presentations using for instance a holocube. IOCO is a desirable market offering because the invention connects both games and advertisements in the interactive 3D environment. Currently, games are used for advertising and brand entertainment purposes and divided in the following groups:

- Advergames games work as a platform to spread a message about the brand. “Advergames are a specific type of video game where a brand is strategically embedded within the game.” (Peters, Leshner, 2013, p. 113)

- Advertising in social network games

- In-game advertising (IGA) similar to product placement in movies, brands are included in games. (Terlutter, Capella, 2013, p. 96).

IOCO holographic visualizations include in-game advertising
because this type of ad games, according to researches, is the most promising. “Thus, when the player is able to interact with an IGA and can actively use the branded product, this can lead to more positive attitudes towards the advertised products and brands.” (Densa, et. al. 2016, p. 872). IOCO lets companies decide on games genres, which, however, have to meet IGA requirements formulated by Olli Raatikainen. His optimal dynamic IGA model (2012) is applied on IOCO application in order to create an attractive game space. Regarding the model, advertisement should be a low-involvement product and as subtle, realistic and engaging as possible, in order to “find an optimal balance between the gameplay experience and the dynamic in-game advertising in 3D digital games.” (2012, p. 94). Digital games could also take an advantage of IGA. As one study indicated, suitably selected and intertwined in-game advertisements “reduces the perceived intrusiveness of the IGA and positively contributes to the perceived realism of the fantasy game. Intrusiveness and realism, in turn, influence players’ attitude towards the IGA and their play intention of the fantasy game.” (Dens, et. al. 2016, p. 871). Finally, even a very intensive game is unlikely to disregard the brand. “Gamers who were high achievers reported a higher level of implicit memory than those who were less effective at playing games, suggesting that these ads can be remembered despite a high level of concentration on the game.” (Yeu, 2013, p. 241). The study results confirm the previous statement, namely, that business ventures will be highly motivated to use the IOCO application and include their brands in the games since users will pay an attention to brands despite of difficulty level.

**Business model and network effect**

Companies pay only when their advertisements will be shown to the audience. Pay per 3D visualization business model is a fair solution for the companies which will spend money when a brand message will be spread it out and enjoyed interaction with a concrete segment group. The business model is similar to Facebook’s or LinkedIn’s revenue streams based on a pay per click/view basis. The app is free of charge since IOCO aims to attract a huge customer base. If a person chooses the beauty industry, and both Sephora and Kicks are seeking to target
the same age group in the same location, then an ad will be shown according to which company made a higher bidding to advertise the same type of content for the exact target group. The IOCO business model is based on the networking effect which means that the more users download the app, the better it will be for stakeholders on both sides. Companies will reach a broader range of clients, while they could expect greater discounts and special offers.

**Conclusion and future extension**

The IOCO idea combines three trends: digital games, advertising and geolocation marketing. Currently, these elements are neither coherent, nor embedded in one 3D sphere. IOCO provides both interaction and tailored commercial messages which have a positive effect both on brand recognition and raised level of entertainment. Companies are able to reach very concrete segments in a more engaging way and app users enjoy more personalized ads. Technical innovation with multi-view lazers and data processors connected with smart phones grants us to launch IOCO within the upcoming years. The one obstacle that might delay the market entry lies in making the game versions available to play on 3D projections.

The IOCO entertainment options could be extended in creating players’ networks. Users could get extra points if they would swipe the projection or play a game together, or in opposite, compete with each other. The future of ads is fun and interactive, without any signs such as *Ingen reklam*, tack!
References


