

# Augmented reality Marketing.

The consumer experience in Advertising

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## A. Introduction

Nowadays the use of digital technology in marketing is rapidly growing in importance and in size; the use of digital production, online video and social media are becoming increasingly popular. However, due to the numerous ways of doing marketing digitally, these upcoming marketing channels are constantly under the threat of over-usage. In other words, the Internet is full of information, however it is being cluttered with online advertising, which still applies marketing methods from more traditional marketing (“push marketing”). Such techniques are often incompatible with the new digital environment.

Starting with the first spam in 1978, the proliferation of new advertising channels never stopped until today (Ankit 2014). With an increasing percentage of consumer demographics opting to shop online, Internet advertising is now a multi-billion dollar industry. Mid 90’s to 2000 was known as the “Dot com bubble” and finally busted in 2000. It affected mostly the Silicon Valley. The opening of thousands of new websites and new technology start-ups fuelled the bubble. These companies experienced huge loss of money; depleted their raised capital due to the massive investment in online advertising. Banner ads and pop-ups were resulting in lower click through rates, and Return On Investment (ROI) kept on decreasing (Ankit 2014).

One by one, new advertising mediums exploded. The over proliferation of advertising using banners led to the bust of the dot com bubble and internet advertising revenue dropped by 32% in 2000 (Ankit 2014). The prices of banner ads decreased and so did the click through rates. The pursuit for new alternatives resulted with pop up and pop under ads. Pop up and pop under advertisement both work by opening a new window when the user accesses a website. It can be used as an advertisement or as a mean to capture information about the user such as his email address. Many users found these ads annoying and intrusive; pop ups blockers started to appear and the effectiveness of the advertisement declined. Pop up ads were no longer considered as an online display-marketing medium.



When Internet became popular, its possibilities for marketers were infinite. More recently, however, the abundance of advertisement has pushed many consumers to avoid online advertisement. Cho and Cheon (2004) described this effect as the “Cluster-bomb”. The authors determine that the main reason for decreased consumer responsiveness to online advertisement campaign is due to the massive quantity of Internet ads that exist today. Due to the rising unpopularity of the traditional types of online advertising (e.g. pop-ups, displays, banners), marketers had to approach the issue with more innovative and less invasive ways. Technological advances have been of great importance in this process.

Even though the success of online marketing is being questioned as a whole, the online video advertising market and portable advertising market are expected to develop in the coming years (Abramovich 2013). Watching video online has gone from a niche activity to mainstream. Online video users are expected to exceed 1.5 billion in 2016 (Cisco 2013). A similar trend is evident in another upcoming type of digital advertising; augmented reality (AR). From 2 million dollar in global revenue in 2010, AR is expected to generate 1.5 billion dollar during 2015 (Juniper Research 2013). Furthermore, mobile marketing and search engine marketing, which are all new digital marketing mediums, are also expected to increase in effectiveness.

On top of the new techniques that digital and online marketing offer, an important trend in the digital marketing sphere is how to provide the best experience to the ending consumers. Some possibilities include interactivity between the user and the content, user absorption, increased user experience and appropriation of the content (Wu 2006). Using these key elements to provide a memorable experience to the users have been discussed and became more popular in both traditional and digital marketing over the last decade. According to Cisco Systems’ Global IP Traffic Forecast 2010-2015, the estimated global device growth in tablet and smart phones was expected to be 750% and 194% respectively. Both devices are playing a key role in the increasing popularity of interactive and portable marketing. The new Cisco Systems’ Global IP Traffic Forecast 2014-2019 predicts that the global mobile data traffic will grow 10-fold from 2014 to 2019, a compound annual growth rate of 57%. It also forecasts that 11 billion devices will be

mobile-connected in 2019, approximately 1.5 per capita for the world. These trends give rise to portable and more interactive marketing. It modifies the way users consume the digital content. With handheld mobile devices, consumers experience, interact and are absorbed by their content without being bound to a specific location. The touch point for marketers is now everywhere and at anytime.

Still, the consumer stays at the center stage and keeps a controlling position. The post-millennial digital natives, a term coined by U.S author Mar Prensky in 2001, describes those born into an innate new culture of digital (Joy 2012). A generation of teens and young adults in their 20s who grew up with the digital technologies and who will be familiar with touching, swiping... in other words, familiar with controlling the content they want to see and want to interact with. Nevertheless, another population so called the “digital immigrants”, old-world settlers, who have lived in the analogue age and immigrated to the digital world, is also playing a major role in the development and acceptance of the new technologies and the marketing mediums that come with it.

From the company’s point of view, the approach is often perceived from the managerial side to the customer. An outside-in strategy where the company elaborates plans in order to satisfy their customers. However, this method is not always straightforward. Ultimately, it is always up to the consumer to judge if the company did achieve its goal and if the plan has delivered the expected results. For example, a company can try to ameliorate its delivery service. On the one hand the managerial team will try to elaborate a plan to answer the problematic: how to improve our delivery service? At the most, they will implement a new delivery service that will allow customers to get their product within 24hours. On the other hand, the best delivery service from a customer’s point of view might be a different one. One in which they can choose a small time frame for delivery time. Finally, it is always up to the consumer to decide whether a service was in fact excellent or not. In the same way, numerous researches state that it is finally the customers who subjectively experience an advertisement with their own customer history and socio-environmental background (Meyer, Schwager 2007). Therefore, it is essential for marketers to

understand the subjective experience of the consumer in relation with the marketing content, because of the deviation that can happen between the anticipated and the final experience of the customer.

The aim of this thesis is to review the customer experience with digital marketing. It will be approached through one specific digital marketing technique, the AR marketing (ARM). The technology behind the concept will be explained in the next chapters. It has been chosen for evaluation because of the potential the technology has to offer for marketing in the near future. With large investments of the biggest tech-companies in AR (Microsoft, Google, Facebook) but also by some other out comers (Magic leap), AR market is sure of being of major importance in the next decade (Gaudiosi J, 2015). Because ARM is normally used with mobile devices, it goes with interactivity, user participation and control over the device and the content which make it an interesting medium of communication and promotion for marketers.

### a. Research Problem

As was described above, digital technologies offer a large collection of possibilities and opportunities for marketers. Nevertheless the majority of these opportunities failed to show their full potential and ended up being categorised under the “cluster bomb” category (Cheon and Cho, 2004). The main reason for their fiasco resides in the marketers’ desire to implement traditional marketing techniques to digital technology. As discussed in the introduction, the usual “push marketing” does not seem appropriate for the online environment, and rapidly showed its limits. These techniques are perceived by the consumer as neither entertaining or informational and do not represent a cost efficient strategy for online marketing (Garth, 2012). ARM is a recent instrument in the digital marketing toolkit that endeavours approaching advertising and marketing in a way more appropriate to the digital and online environment rather than using the old-fashioned techniques. Even if AR has been used for almost 10 years, it is still a very recent tool and a new technique for academics and marketers. Ultimately the consumer stays the most important category to educate to the new technology. In order to approach him the right way, it is

essential to evaluate the technology from a customer perspective as to understand its full potential and the best way to implement it in a marketing strategy. Therefore the objective would be to study how consumers experience the technology when implemented in digital marketing.

Consumers are all much different and thus cannot be studied the same way. As ARM is new for all categories of consumers, a general survey could be appropriate. However the digital environment and the digital marketing techniques best apply to consumers that have been raised surrounded by the digital and connected technologies. Therefore the focus of the study will be on the digital natives, as they have been defined in the introduction.

To be more specific concerning the research problem and the issue that was chose to be evaluated, the study aims to examine the experience of digital natives with the use of ARM. Certain characteristics and features offered by the technology are assumed to have an effect on the consumer experience. More precisely the feeling of control and interaction with the content as well as the absorption by the content will be evaluated. The author chose to appraise those specific “feelings” and characteristics after a strong review into experiential marketing and because of their ability to be experienced by the consumer in the digital space and to be directly observed by the interviewer.

For marketers, ARM may provide a new scope of techniques to connect consumers to their brand and product, and a new tool to create an unforgettable experience for the consumer that would not be accessible without the technology. Finally, the exciting aspect of this research is the assessment whether or not the consumers experience this memorable moment and what do they have to say about their feeling and impressions.

## b. Aim of the study

More precisely, this study has two different goals. The first is to evaluate the consumer experience with ARM and evaluate the influence of the different characteristics chosen to be

studied (control, interaction, absorption), how those affect the overall experience. The objective of this part is to obtain a deep understanding of the digital natives' experience with ARM content.

The second ambition of the study, closely related to the first one, aims to understand the potential uses of AR to support a marketing campaign. The focus will concern the digital natives, young adults in their early 20s. This population has been chosen because they represent the potential ideal target for ARM.

The sample population of the research consists of young adults between 20 years old and 30 years old, residing in France and in the Netherlands. Again, this sample has been chosen because it represents the perfect target group for ARM. Digital natives are proactive users of digital technologies.

### c. Research approach

The research target is to evaluate specific characteristics experienced by the consumers using ARM. Therefore a qualitative approach has been selected. The data has been collected during interviews where the research participants were shown multiple AR advertising on a tablet, during which their reactions were recorded. A questionnaire was also given to the participants to allow them to express with their own words the different emotions and feelings they felt whilst experiencing the AR content.

A quantitative approach seemed inappropriate for this kind of study because of the necessity to record the most authentic reactions from the participants and because of the content itself that cannot be experienced in the same way with an Internet questionnaire.

Finally, the focus is the subjective experience of the consumer when using ARM. The goal of the study is to collect data from the participants and analyse the information given through these data.

## d. Structure of the Thesis

The thesis is organised in five main chapters. It consists of an introduction, the theoretical framework with a review of the literature concerning marketing experience, the research methodology, the results and analysis of the qualitative study and a conclusion.

The structure has been established to provide a complete overview of the technology and its possibilities to the reader and to link it with experiential marketing.

The first chapter introduces the topic to the reader and the reasons why such a study has been chosen. It gives the social and scientific relevance behind the research. Then, the theoretical framework reviews publications related to the topic and describes in details the different experiences that can be evaluated in this field and with this kind of technology. The methodology explains in details how the data have been collected and how the interviews and the questionnaire were realised. The results section is divided in four main headings and displays the outcomes of the interviews and their analysis. Finally, the conclusion connects the literature review and the analysis; providing some suggestions concerning ARM and discussing the limitations of the study.

## B. Marketing Experience

This part of the study examines the experience related issues and their implication for marketers. There are various features that describe the digital environment and link it to ARM. Therefore it is important to understand what is meant by digital environment. The first part of this section will describe the characteristics of the digital environment. Then, a study of ARM will be conducted and linked to the different customer experiences that can take place in the digital environment.

## a. The digital environment

The interesting thing about the digital environment is the difficulty to find one definition. If multiple definitions are used in a research it is hardly possible to come up with a meaningful and correct conclusion. The digital environment is often compared to cyberspace, virtual environment or virtual reality. Even if they have different characteristics, they can be used interchangeably to refer to the digital environment, often highlighting the time at which the literature was produced. Indeed the literature referring to digital environment 20 years ago is logically different from the literature referring to Internet in 2015. In our context, the digital environment refers to individuals using mobile devices to be present simultaneously in the real world and online (Rajnovic, 2012). It implies the duality and mix of real life and connected experience with the use of smartphones or tablets. Throughout the paper when the terms "online" and "digital environment" are used, it refers to the digital world in which the consumer is present with the help of a mobile connected device.

## b. ARM

AR is one of the new comers in the digital environment. The technology has been present for the last 25 years but has truly shown its potential during the past five years. It has first been developed by professor Caudell in the 1990's for the engineering company Boeing to help its engineers during the construction process (Caudell, 1992). Multiple steps and technological improvements have led AR to the potential it has today. As stated previously, it represents a new medium to interact with customers through the use of mobile connected devices. The development of AR application on smartphones and tablets tremendously modified the digital world and especially digital marketing.

Marketing is the medium by which companies promote and advertise their product to enhance their sales and stay in contact with their customers. Marketing is about customer experience and customer satisfaction. Customer satisfaction is often seen from two perspectives; transaction

specific and cumulative aspects. The first one refers to the customer's perceived value after one specific transaction whereas the later corresponds to the measurement of the customer's overall experience with the brand, at the various stage of the buying decision process (Yuan and Wu, 2008). Consequently the perceived value occurs at several stage of the buying process, including the pre-purchase stage.

ARM combines the most traditional type of advertising (paper) with mobile connected devices. The user is shown a series of images overlaid on the real world through his mobile device. In other words, the technology generates images that appear to be superimposed onto real objects. The real objects and the projected images appear to be part of the same world. The generated graphics augment the perceived reality, increase customers' senses and create a new experience. From a marketer's point of view, it paves the way for more personalisation and more socialisation of the content and also represents an innovative and disruptive mean to interact with customers. Nevertheless, ARM is still questioned and contested because of its lack of long-term evidence success. Just as previous "marketing buzz", many authors see the technology as another short-term hype that will disappear after the "buzz period" (Clawson, 2009). As a new medium for communication and promotion, AR raises questions in the marketing community. On the one hand it has its opponents, but on the other hand it has a large group of proponents and early adopters who believe in the full potential of the technology. One important aspect that ARM can offer is the ability to get consumers' attention through the creation of a memorable and unique experience.

The most attention-grabbing AR techniques might be the projection of three-dimensional images of products onto the screen of mobile devices. In 2012, for the launch of their new Beetle model in Canada, Volkswagen created an app (VWjuicedup) that can be downloaded from the apple store onto an iPhone or an iPad. Once the app is downloaded, the user can point his device on the marker to watch the car perform. In one case the car would busts through the billboard and, in another would jump on a ramp and starts flipping around it. The idea behind it was to offer the customer an advertisement that would be as impressive as the car (Appendix 5).



In 2009 a survey observed that a majority of the marketers believe experiential marketing builds long-term relationship and drives word of mouth (Morton, 2009). While most AR examples concern the pre-purchase stage of the buying process, the technology can also be applied at the post-purchase stage to increase customer loyalty and enhance word of mouth. Lego is using ARM during both pre and post purchase stages. In store, the "Digital Lego kiosk" creates a virtual model of the Lego toy from inside the box that is projected on top of the package when presented to the camera of the Lego digital kiosk. Furthermore, to increase the customer experience and ameliorate brand loyalty, Lego also offers AR during the post purchase phase. Indeed, once the Lego toy is built, the "Lego story teller" app allows the consumer to bring its creation into life. By creating an interactive story corresponding to the Lego toy, the customers can experience the product at a superior level.

Experiential marketing is a multi-media promotional activity, which encourages two-way interaction between the customer and the brand. Experiential marketing enables the brand to interact on a much more personal level with the consumer and creates a greater level of emotional engagement. The importance of experiential marketing is recognised as a mean to create value for the end customer (Pine and Gilmore, 1998). ARM can be inserted in various ways at different points in time. AR application can be inserted into newspaper, magazines, and websites or in stores to enhance the real experience of the consumer at the place of sale. For instance the recently renewed Burberry store in London Regent Street provides an interactive and unique experience to its customers. Various technologies have been installed in the shop; one hundred screens with five hundreds speakers enable the customer to interact with the retail store itself. Mirrors with incorporated camera and transforming into screens displays live video of the client wearing some of the brand's products, giving a fleeting glimpse of how well a product fits on the customer, increasing the retail experience.

Marketers need to fully understand the potential of AR to implement the technology to their particular field. Clawson (2009) gives some mandatory guidelines to apprehend the use of AR

and implement a corresponding marketing strategy. First, it has to be customer oriented. In other words, AR has to offer to the customers a unique and personal experience. The focus is on the customer himself rather than on creating a general buzz. Secondly the AR campaign has to be in alignment with the company's objective. Thirdly marketers have to be utility oriented; AR has to offer to the customer a valuable experience instead of just being another meaningless technological improvement. Finally, most people are resistant to adopt new technologies. Companies will have to educate customers to the use of AR to reduce resistance and increase the reach of their campaigns. It has become evident that all businesses will have an online counterpart in the future and therefore will have some element of e marketing. It is essential to be conscious of the specificities of the digital environment and to understand the related consumer experiences.

### c. Customer experiences

This section look at what is meant by consumer experience. A customer experience refers to an interaction between a company and its customers. It is perceived through the customer's conscious and subconscious mind and reflects the organisation's performance in terms of public image. During the last two decades there has been an important focus on consumer experience in marketing literatures, so experience overall has become essential with the marketing discipline. Researchers have highlighted that it is fundamental for organisations to understand what does customer experience require, when and where it can be applied and how they can benefit from it (Meyer and Schwager, 2007). Services and experiences are often associated; indeed services provide the perfect setting to deliver customer's experience. The physical world and the tangible aspect of services make the experience substantially easier to realise.

Moreover, marketing literature highlights the importance of intangible experience such as brand experience (discussed in the next section). That is to say, consumers are assumed to experience the product itself from various angles; from the brand identity, the physical aspect of the product, the communication of the company concerning the product - how it is advertised and marketed.

With the up rise of the digital environment and the digital communication, the organisation's touch point with the customers is online. Not only it is necessary for communication but it can also be an experience in itself.

## 1. Digital experience

Intuition and previous research suggest that creating a compelling online environment for Web consumers will have numerous positive consequences for commercial Web providers. Indeed the information system environment has recently changed, and so has the nature of computing and the users' behaviour. Computers are no longer used to perform a specific task like calculating or text editing; they became a part of users' life, an extension of their body. Computing has become so ordinary that users' do not pay attention anymore to the fact that they are actually using their computer or mobile device to do something. Digital experience is now mobile and highly dependent of the social factors and the social media. It is dependant on two forces, which are the digital experience itself, and the customer experience. The later is unclear and must be the core of the strategy. As it is not an IT driven initiative, it is much harder to figure out how to implement and must be a "customer-needs driven initiative" to be successful. Finally both forces have to be highly connected in order to meet and exceed the changing customer desire and expectations (Hinshaw, 2015).

## 2. Brand experience

Brakus, Schmitt and Zarantonella define brand experience as "sensations, feelings, cognitions, and behavioural responses evoked by brand-related stimuli that are part of a brand's design and identity, packaging, communications, and environments."(2009). While talking about the brand experience, the totality of the experience and the tonality of the experience must be the two elements to focus on. It is the right combination of these two elements that makes the experience complete, clear and efficient in the customers' mind. Totality refers to the consistency and the extensiveness of the message across the various techniques used in the marketing mix. Indeed,

consistency enables the customers to identify the brand image and acknowledges what the company is going to deliver at every touch point with the customer. For example, if you are a luxurious hotel manager, you need to make sure that you are offering a complete brand experience to your customers. If you have beautiful flyers and brochure in the various travel agents it can be a good start, but without an online website with interactive content showing all the appealing elements of your residence and pushing the client to picture himself in the hotel, you won't be offering a complete and consistent brand experience. The totality of the brand experience is necessary to create loyalty (Joseph, 2013).

On the other hand the tonality of the brand experience signifies the spirit of the experience. It means that the experience provided to the customer can be highly consistent but in order to be efficient it has to be in line with how the brand has been defined and what kind of message it is supposed to drive. For instance, if we keep the first example of the luxurious hotel, even if it has an incredible website and outstanding online and offline reviews, if the staff is unbearable during the client experience, the overall tonality will be affected and so will the brand experience (Joseph, 2013).

To conclude, both elements are essential and the combination of the two needs to be consistent and in line to provide a solid and meaningful experience to the customer. As soon as one elements or channel fails to deliver the right message, the all marketing message and brand image will be affected (Joseph, 2013).

## D. Experience features

### 1. Interaction

In everyday life, interaction is the basis of an exchange, a conversation. Interactive marketing has been a growing trend in traditional marketing and is becoming more and more popular with online and mobile marketing. It is altering marketing from a one sided

customer interaction to a conversation between the brand and its customers. They want a company or a brand with which they can interact and that memorises the past experiences (past purchase, communication preferences, product interests). It is now a core element and an obligation for any company in order to serve their client in an efficient way (Lyliquist,2015). As an example, the American electronic commerce Amazon records and analyses the past behaviour of every visitor on their website, which enable them to present meaningful information in the present. It serves both the company and the client as it increases Amazon's sales and helps the client to find products that correspond to his interests.

## 2. Control

In this part, another important characteristic of the digital experience is studied: control over the content. Nowadays with the new technology and especially with the online environment, consumers are taking control over the content they use and see. Contrary to the more traditional media, it enables the customer to shape his experience and to make it very personal. Two different type of control can be identified: the internal and external control. External control refers to a message produced by a professional source whereas the internal control means that the user remains in charge of the content. The message is changed, modified and evolves over time (Page K, 2009).

The idea of being in control of the content is highly subjective. Like other characteristics, companies and especially marketers can create online and digital content and enable the customers to take control over it. However it is ultimately up to the customer to say if he feels as if he is taking control over the content or not. Therefore the notion of control highlights the possibilities for AR in marketing as playing, controlling and changing the content is the major goal of the technology.

### 3. Absorption

Here another characteristic of the customer experience is approached; Absorption. Intimately related to the first two characteristics studied (interaction and control), absorption describes the relationship that a person can experience with a situation when it implicates high level of involvement and concentration. The customer can feel absorbed by the digital content due to the proximity created by the technologies (smartphones, tablet) and the possibilities of interaction with the content (tactile screen, camera).

AR take the possibility of absorbing the user in the content to another level. The combination of control and interaction captivate the user and engage him in a deep relationship with the content.

## C. Methodology

Throughout this section the research methodology of the paper is described. It explains what method has been chosen and for what reasons, how the sample of respondents was selected, how the questionnaire was created and how the interviews were conducted. The method for the analysis will also be described in details to help the reader understand how the conclusions were drawn.

First and foremost it is important to revise the main objectives of the study. The first goal of the thesis is to understand how the customers experience ARM with the study of some selected features described in the previous chapter. Then, the study aims to use the analysis of the first part to better apprehend the technology and to evaluate the potential of AR in marketing. In other words, the objective is to provide to the marketers with an analysis of the customers' experience when using ARM and to deduct the best ways of using AR in marketing.

As previously mentioned, ARM is a recent topic, and previous researches in this field are rare or out-dated. Consequently there are no specific guidelines concerning how to conduct the study or

how to evaluate the potential of this technology. The studied phenomenon is highly personal and subjective as it relates to the customer experience. Therefore a qualitative study seemed appropriate as it gave reliable results to evaluate. The idea behind the qualitative study is to collect data from interviews to collect the feelings and emotions experienced by the consumer when using AR.

### a. Method

Data were collected during open interviews using a questionnaire and annotations to record the reactions of the respondents. The interviews were organised in the same way. Each respondent was shown four different ARM content using a tablet.

The advertising and marketing contents were selected by the author to provide the respondents with various type of content from different companies and to avoid possible biased results due to a specific brand connection with the respondent. The author made a pre selection of ten advertising AR content and a test interview was conducted in order to select the most appropriate ones. The test interview was conducted in the beginning of May. It followed the same path as the other interviews except that the respondent was shown ten different ads, had to make a selection of the most appropriate ads for the technology and had to choose the most efficient ones. This interview helped the author to select the best content to analyse the effect of AR on the consumers and to avoid biased results. After the test interview, the selection was reduced to four ads from different brands and different markets. The advertising contents that were left out were those with the lowest quality results on the device and the ones that were too similar to another advertising in the pre-selection.

All the advertisements were presented using an application. Blippar is an AR application that can be downloaded on any smartphone or tablet which enables the device to recognise AR markers. Blippar creates, designs, publishes and tracks the results of AR campaigns. It works with markers from different source such as TV, packaging, outdoor advertisement, in store advertisement,

books and merchandising. Their clients varied in size and in type of markets, going from Coca Cola to Jaguar, from Unilever to IBM or Nike. The final selection of advertisements for the study was Heinz (food producer), Nike (shoes manufacturer), the movie the Hobbit (cinema), and the female accessories shop: Accesorize (fashion magazine).

Each advertisement required to be activated by the user. To do so, the consumers had to point the device's camera toward the marker. The various markers were printed out for the interviews. When the application recognises the marker, the AR content appears on the screen and the respondent could start experiencing the advertisement. In the Heinz advertisement, the marker was the Heinz bottle itself. The application identifies the sticker on the bottle and transforms it into a cookbook where the user can turn the page and explore the different recipe that Heinz has to offer to its customers (see appendix 1 for the marker and the illustration of the result with activated AR content).

The Nike advertisement enables the user to explore the shoes with a 3D image. Indeed, after the consumers activated the content, a 3D projection of the sneakers appears on his screen. From here, he can zoom in and out on the sneaker and turn around the shoe (see appendix 2).

The next ad is for the movie The Hobbit. The content is therefore different. The marker was one of the advertisements for the movie. When activated it would provide to the consumers some video of the trailers and will let him interact with some of the main characters of the movie (see Appendix 3).

The last ad was for a fashion outlet: Accesorize. The marker was an ad that can be found in a magazine or in the streets. It would turn into a digital and interactive magazine when activated by the application. The reader could watch some videos, go through the catalogue of the fashion accessories and share what he likes directly on the social media (see Appendix 4).

During the interviews, the interviewer explained to each respondent how to activate the content and then let them experience for two minutes the technology without asking any questions. Letting the interviewee interact freely with the device and the content enables to explore how the user approaches the AR content. Then the interview would start. Each advertisement was



presented to the respondent. The questions were asked while he was experiencing the content and his reaction; such as facial emotion or body movement were recorded. Finally, after all the advertisements were presented to the interviewee, the rest of the questions concerning the general experience were asked to the user.

The interviews were recorded for transcription purposes. However those were not filmed in order to let the respondent focus on the experience itself and avoid any distraction that could interfere with what he says and how he reacts. Furthermore the interviews were conducted in public places, such as cafes and libraries but also at the author's home.

## b. Sample

The sample consisted of ten respondents, five female and five male, all between the age of twenty and thirty. The interviewees were residing in France or in the Netherlands. Five respondents were French, two from the Netherland, two from the UK and one from Germany. The most important characteristic that linked the entire sample was there age and their interests in new technology. The typical case sampling method was chosen to create the sample. This method belongs to the category of purposive sampling. Purposive sampling method is a non-probability sampling method. It focuses on sampling techniques in which the unit that are investigated are based on the researcher judgement. More precisely the typical case sampling enables the researcher to use the sample to illustrate other similar samples but cannot generalise to a population. In this case the sample illustrates digital natives between the age of twenty and thirty that are familiar with new technologies.

The interviews took on average one hour and gave detailed information about the user experience. The authors felt that with ten interviews the survey had reached its limits in term of the necessary information for the study. In other words, the survey gave enough information in order to analyse the ARM.

**Table 1 Respondent references, age and sex**

Reference	Age	Sex
1	22	Male
2	28	Male
3	21	Male
4	26	Male
5	30	Male
6	20	Female
7	27	Female
8	23	Female
9	24	Female
10	26	Female

### c. Interview and questionnaire

The interviews took place in Rotterdam in the Netherlands during May and June 2015. The interviews were carried out in French or in English. The authors took care of the transcription for the French interviews in order to facilitate the content analysis. The majority of the interviews took place at the interviewee's home or in public places.

**Table 2 Interviews**

Interviewee reference	Date	Location	Length
1	3 May	Library	55 minutes
2	15 May	Library	85 minutes
3	2 June	Home of the interviewee	110 minutes
4	20 May	Café	45 minutes

5	6 May	Library	100 minutes
6	4 June	Home of the interviewee	92 minutes
7	26 May	Café	65 minutes
8	30 May	Café	53 minutes
9	1 June	Library	45 minutes
10	10 May	Café	73 minutes

During the interviews the respondents were given the questionnaire at the beginning to inform them about the structure of the survey. The questionnaire was used as a guide but many other questions were asked during the conversation depending on the respondents' attitude and comments during the experience. The AR advertisements were presented in the same order to each respondent: first Heinz, then Nike, The hobbit, and finally Accessorize. Keeping the same order maintains some structure between the different interviews and enables the researcher to analyse the evolution of the respondent's attitude during this particular succession of advertisement.

Finally, the general atmosphere during the interviews was cosy and friendly. It helped the respondent to be relaxed and to stay as open as possible with their explanations about their feeling and their experience. This element was actually one of the most important because the research relied firstly on the sincerity of the information given by the participants about their experience.

#### d. Data Analysis

As previously mentioned in the report, the research focuses on empirical data. The method chosen to conduct the analysis of the transcripts realised during the interviews is a content analysis. It was achieved to extract the common results from the survey and used to categorise the textual data extracted from the interview. It aims to reduce the results to the most relevant categories of feelings that describe the experience.

The information obtained from the content analysis suggested that the interviews had some common themes that were revealed by all participants.

Thus, the experience features previously described in the theory chapter correspond to the main category under which most of the data collected during the interview can be classified. For example, “interaction with the content” regroups all the results from the survey and the comments recorded by the researcher, that relates to this category. Furthermore, most of the data do not belong to one category solely. As interaction and control are strongly linked, some of the results have been attributed to both categories.

The data analysis highlighted three categories of finding that correlate to the three chapter of the theoretical section; namely: interactivity, control and absorption by the content. The later category was mostly supplied by the researcher’s observation during the interview and will be described in further details in the results section.

## D. The Consumer Experience with ARM

In this section the main findings of the content analysis are presented. They are arranged under the three main categories of textual data recorded during the interview. It includes numerous quotes from the interviews to illustrate how the respondent expressed their feeling and how the categories have been created. Some parts of the quotes have been modified so that the reader can have a better understanding of what the respondent meant. Some parts of the quotes that seemed unclear or inappropriate were omitted for the sake of clarity. All modifications have been presented to the respondents to obtain their approval and confirm their meaning.

### a. Interaction

Interaction with the content was the most cited category during the interviews. As previously mentioned, interaction corresponds to the relationship between the user and the content that occur when using AR technology. This section regroups all the findings that correspond or relate to a

contact or dialogue between the device or the content and the user. Therefore it can be divided in two subgroups: interactivity with the device and interactivity with the content.

## 1. Interaction with the device

The respondents were all familiar with the touchscreen technology and except for one of the respondents, they all had experienced an Ipad before. Therefore the interaction recorded and observed during the interview is the results of the device combined with the content and cannot be separated from it.

Interaction appeared when the users were trying to capture the marker to activate the content. At that point the AR advertising would not offer any entertainment to the user. The interaction would only come from the device itself and the challenge of getting the marker with the camera. Respondent number 2 explains that he was already playing with the advertisement even before using the AR content:

*“I am trying to get the picture with the app but it is not that easy (laugh). It ‘s fun, I though it would start to be funny only after the advertisement starts” (Nike)*

During the second phase of the experience (when the content was activated) the user described the interactivity with the device in a very positive way. They highlighted the importance of the swipe function and insisted on the importance of the reaction of the device. Respondent number 7 explained that the touchscreen technology was the main requirement to interact with the content:

*“the touchscreen technology and the obligation to swipe to go through the content make it really funny. I think that without an ipad and the touchscreen it would be boring” (Heinz).*

To conclude on the importance of the device, it seems that it plays a major role in the interaction. It is the medium by which the consumer gets in contact with the content. On the other hand if this

intermediate does not work properly, the interaction is lost and the user become irritated and frustrated as described by respondent number 10:

*“it does not work. I have been trying to target the marker with the camera ten times now and nothing works... I feel like I am bad at that and I don't like it honestly. I don't want to try again” (Nike).*

## 2. Interaction with the content

The second type of interaction concerned the content. Interaction with the content occurs when the users are playing with the AR content. It became obvious that the interaction with the device was the first and necessary step before interacting with the content. Indeed the physical interaction enables the virtual interaction with the advertisement itself. Respondent number 5 explains this sequence:

*“the first activity of getting the marker enables you to open the advertisement and then the real fun starts... it is super funny to be able to see the shoe in 3D and to check every detail, I like being able to put it right here on my desk” (Nike).*

The user also described the interaction with the content as virtual but human. Interacting with the features, playing with it and discussing how they experienced it with the interviewer created a relationship between the content and the user through the device.

*“I feel like I am in a virtual store where I can see some videos, check some products and discuss about it with my friends directly in the store, even if they are not here (Accessorize)”*

Finally, in all the interviews, the interaction with the device or the content was extremely present. The reactions were both positive and negative due to the technology. As the AR advertising forces the user to interact, it results on the one hand in some positive feedbacks when the

technology works rapidly and the content is fun and useful. On the other hand, when the camera does not recognise the marker rapidly or when the unlocked content does not meet the expectation of the user, the consumer feels frustrated or disappointed.

## b. Control

Directly linked to the first element described, namely interaction with the content, the feeling of control was directly mentioned by the respondent and can be observed in every interview. By control, the author and the respondent refer to being in control of the situation and being in control of what happens and what appears on the screen. When respondents were asked about this feeling of control or not, the first reaction was very positive. The majority of the interviewee explained that most of the time in advertising, the consumer is a victim. Victim means that they are not in control of the situation and are experiencing it whether they desire it or not. Respondent 6 highlighted this point:

*“Normally you just see something on your tv or it comes up in front of your screen even if you don’t want it. The good thing with this is that you actually have to activate the advertisement. Nothing happens if I don’t want it.... After I activate the advertisement I am still the one who choose what is going to happen next, that’s a good feeling!” (Heinz).*

Another respondent explained that this level of control was unanticipated and astonishing. Most of the interviewees knew that something would happen when the camera recognise the marker but many explained their surprise of getting that much control and so many possibilities. Respondent three explained:

*“this is really surprising, I expected that the image will move or that something will happen, but this level of control is really surprising” (Heinz).*

On the contrary, some respondent explained that it was hard to handle the device with the AR content. Control was also mentioned in a negative way in regards to the device and some features of the content. The respondents explained that it was hard to keep the image on the screen and that sometimes the content was difficult to control. Respondent 7 explained his frustration:

*“Sometimes it is really hard to keep the image on the screen and play with the content at the same time. With the Nike ad it was easy because you can move the shoe everywhere but with the Accessorize store or the bottle of Ketchup I always lost the image and had to start everything again. It is annoying and when it happens once you don not want to start again...”*

The feeling of control was experienced in various ways. Indeed the notion of control itself is very subjective and personal. Every individual has a different meaning of control. It depends on the past experiences and the ease with the technology. However we can generalise the feeling of control with the interviews. The respondent’s definition is the reference when the interviewer asked him if he felt like he was in control of something during the experience.

### c. Absorption

The third characteristics discovered during the interview concerns the behaviour of the respondent during the experience. Absorption by the content was mostly observed by the respondent while the interviewees were experiencing the different advertisements. Absorption by the content appears when a user is highly focused on the content of the device and when the situation around him becomes secondary. Additionally, it became evident during the discussion when the respondents were being asked how much focus and concentration was needed to interact with the content. Also, absorption is a direct result of the previous two characteristics, namely interaction and control. Indeed when an activity implies high level of focus, interaction, and when the device and the content offers high level of control to the user, absorption becomes evident. The researcher generally observed it during the interview. For instance while the respondents were being asked how they were experiencing the content, they would answer the



question without looking at the interviewer and without losing focus of the device. Respondent eight discusses the necessary focus on the application:

*“This kind of advertisement is almost a game and attract your attention. Also, to obtain what you want on the screen and explore the content your really need to focus. (Nike)”*

Furthermore, most of the respondent insisted on the positive aspect of the absorption by the content and the required focus on the device to interact with the content. Respondent one described the positive outcomes for a marketer:

*“It is really a good system for advertising. If you want to extract the most out of the application and the advertisement, you cannot do something else at the same time”*

Most of the participants insisted on the high level of focus needed. The concentration was mainly on the device and the AR technology. Respondents explained that they were focusing to target the marker and to keep the image on the screen. The combination of the technology itself and the necessary attention to make it work create this feeling of absorption. Respondent three compared the experience with a video game:

*“the experience is highly comparable to playing video game in some ways. I cannot do something else at the same time and I have to focus to go through the content and unlock new things. If they can transform advertising in video game, it is really a good start!” (Heinz and Nike).*

#### D. Brand connection

As previously described in the theory chapter, the brand experience and brand connection are closely related. One of the main possibilities for marketers using ARM is to develop the relationship between the brand and the user, in other word develop the brand connection. However in the case of AR, the focus is mainly on the content and the device. The brand comes

after these two elements in the experience. Respondent 7 insisted on the dominance of the content and the device over the brand:

*“With this ad, the brand is not really important I think. The virtual magazine is well made and organised, and that is what you will remember”*(Accessorize).

When respondents are playing with the content, the experience with the advertisement is also the experience with the brand. Therefore the final image of the app that the user will keep in mind corresponds to the brand image.

During the interviews, each respondent was asked if he knew the brand before and what image of the brand he previously had. These questions enable the researcher to evaluate how biased the interviewee can be when he is experiencing the ad. Furthermore at the end of the interview, the respondents were also asked if the AR advertisement corresponds to the image they had of the brand and if it could change their point of view. Concerning the Nike advertisement, every participant knew the brand and had a positive brand image. Most of the time associated to “sport”, “healthy lifestyle”, and “celebrities”. The experience with the AR advertisement was in this case mainly positive. Respondent two highlighted the fact that it enhances the image of the brand:

*“for a brand as known as Nike, every communication is risky. Everyone love this brand and every mistake would deteriorate the image. I like their ad, it’s easy and beautiful. It improves the brand image, and accentuates the technological image.”*(Nike).

The participant highlighted a major risk with this kind of communication. If the advertisement is poorly done or if anything does not work, it will be directly associated with the brand and deteriorate its image.

Finally, the brand plays a small role in the experience. The user is mainly focused on the device and the content. However the risks for the brand are huge as previously explained. For an

unknown or less widely known brand the experience can only be positive and help create brand awareness and a brand image in the consumer's mind.

## E. Conclusion

### a. Findings

In this section the main findings of the study will be presented. The results of the analysis and the theory will be linked to discuss the general findings and their implication in the field of marketing. The organisation of the conclusion will follow the same order as the theory and the analysis of the results. Then it will discuss the managerial implication for marketers and expose the discoveries made during the interviews concerning the possibilities of AR in marketing and advertising.

#### 1. Interaction

As previously mentioned in the theory, interaction between a company or a brand and its customer has become a core element for marketing success. Consumers are demanding more and more relationship with the brands and expect a lot of attention from the brand. The competition between different brands has pushed the experiential marketing to a new level and has raised the expectation of the customers. They expect direct contact with the company. The experience has shown that AR advertising and the use of a tablet have created a medium that connects the consumer with the brand. Indeed, interaction with the device and the content was the most important characteristics that came out of the content analysis. The participants highlighted the importance of their relationship with the device, the content and the connection it can create with the brand.

## 2. Control

The feeling of control of the situation, and the control of what was happening was also revealed through the interviews and the questionnaires. As explained in the theory it is a very subjective and personal notion. Overall, AR advertisements oblige the user to interact with the device and to take control of the content. The level of control can vary depending on the user. The most important outcome is that the user actually feels like he is in control, whether it is true or not. From a marketer's point of view, it gives to the user the feeling that the brand is offering him something and that he is managing the situation. As soon as the user feels like the brand is consumer friendly and gives something for free, the brand image will be improved consciously or unconsciously.

## 3. Absorption

Finally, the last characteristic that stems out of the first two was absorption by the content. This state of intense focusing, during which the environment become secondary and the user's concentration stay on the primary activity, became very clear during the experience. This mental state can be very positive as it buries the users into the brand's world. Being highly focused on the content help the brand to deliver its message, principles and image to the consumers.

### b. Suggestions

During the interview it became obvious that the digital natives were highly sensible to AR features and like the technology. Also after all the advertisements were presented and during the discussion, respondents were being asked about their opinion concerning the future of the technology in general, in marketing and in advertising. The results were positive and numerous applications in marketing and advertising came up. Most of the respondent highlighted the possibilities behind AR retail shop. During the experience with the Accessorize advertisement,

the majority of the respondents explained that it could be improved and give access to a total virtual shop. Respondent 4 explained for instance:

*“imagine you are waiting for your bus and when you scan the advertisement at the bus stop you enter the tiffany’s jewellery shop and that you can virtually walk, that would be fantastic.”*

These remarks gave rise to a discussion on the different technologies that will push AR to another level. Respondents talked about the “Oculus rift” by Facebook and “the HoloLens” by Microsoft. These technologies are still in development and the consumers will have to be educated. One thing is sure for most of the participants, the future of AR is becoming clearer and the opportunities for marketers will be multiplied with the improvement and the democratisation of these technologies.

### c. Limitations and suggestions for research

The research approach in this thesis was a qualitative one and was realised with a relatively small sample. Therefore as explained in the methodology, the results obtained cannot be generalised to the all population but only to a similar sample with the parallel characteristics. The objective of the study was to analyse the experience of the digital native consumers when using AR technology with advertisement and try to understand if this technology could be implemented in the long run or will only have a “boom effect” and disappear.

Furthermore, concerning the content of the survey and the different ad chosen to be evaluated by the participant, it was imperfect as many other AR advertisements are already working right now and could have represented a better example with maybe a higher quality and better features. The number of advertisements selected gave enough insight on the feelings of the users when experiencing AR but a larger sample of examples could have helped to uncover some other issues or qualities of such a technology in marketing.

Finally, the experience was realised on an ipad, which is a specific brand of tablet. Consumers can access AR advertising from their smartphones or from a tablet. Also, the device itself affects the results of the experience (size of the screen, rapidity of the software...).

To conclude, this study was achieved to better understand the customer's experience with AR. The results of the research should not be interpreted as definite and final but should give an intuition on what is possible with this technology in marketing. It would be beneficial to complement this first study with further research on one specific type of AR use and how the development of the new technologies can push it to the general public.

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Appendix 1: Heinz Ad (marker on top and result with AR under)

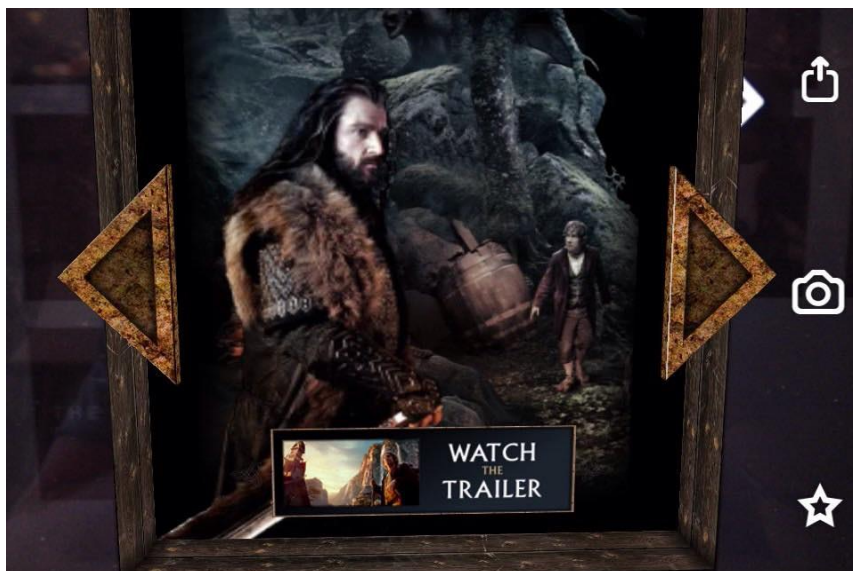


Appendix 2: Nike Ad (marker on top and results with AR under)





Appendix 3: The Hobbit Ad (marker on top and results with AR under)

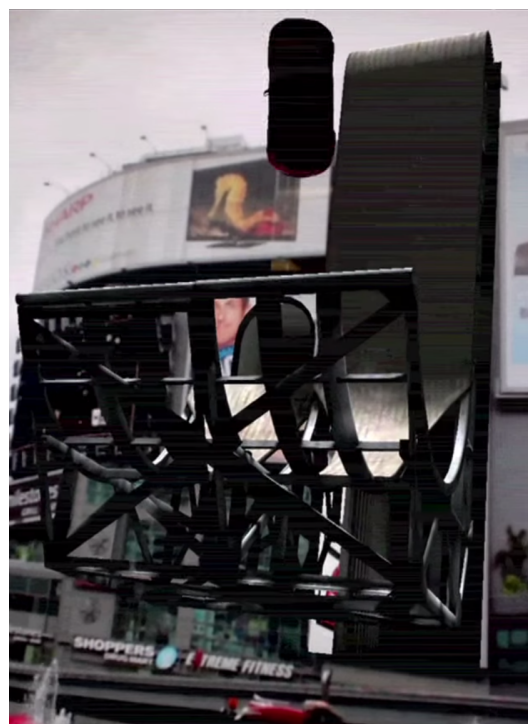
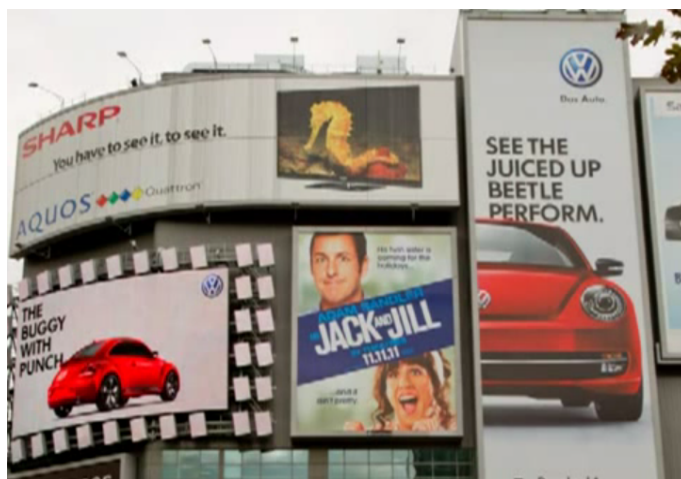


Appendix 4: Accessorize (marker on the left and result with AR on the right)





Appendix 5: New Beetle Volkswagen AR ad (markers on top and corresponding AR results under)



# Appendix 6: Interview and questionnaire

## Preliminary questions

Do you know augmented reality? (heard about it before or used it? )

## Questions about ARM

Do you know the brand from before?  
If yes, What image of the brand do you have?

Describe what you see and hear?

Describe what you feel when you discover the content?

How do you feel with the touchscreen technology?  
Do you use it in your everyday life?  
In this kind of advertisement do you like to use it?

What do you think about the advertisement? (How does it look? The design?)

Do you feel like you are watching something? Experiencing something? Playing?  
Describe your activity

Do you feel like you are focused on the Ipad and the Ad ?  
If yes, do you like it?

Do you feel like you are controlling the content and what is happening on the screen?  
Is it hard to control?  
Do you like this sensation?

Do you feel like there is a relationship between you, the device and the content?  
In what way and how does it feel like?

Did you like this advertisement?  
Does it change something about what you think of the brand and the image you have about it?

## General question

How was the experience in general?  
Did you like augmented reality in advertising?  
Would you download the app in order to check so augmented reality content?  
Why and why not?

Do you think augmented reality will become something important in the future?  
In marketing and advertising?  
Any remark?