Ανοικτό Πανεπιστήμιο Κύπρου

Σχολή Θετικών και Εφαρμοσμένων Επιστημών

Μεταπτυχιακό Πρόγραμμα Σπουδών *Κοινωνικά Πληροφοριακά Συστήματα*

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Social Networks And Emotions: Depictions Of The Refugee Crisis In Images And Audio Visual Content.

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Η παρούσα μεταπτυχιακή διατριβή υποβλήθηκε
προς μερική εκπλήρωση των απαιτήσεων για απόκτηση

μεταπτυχιακού τίτλου σπουδών
στα Κοινωνικά Πληροφοριακά Συστήματα

από τη Σχολή Θετικών και Εφαρμοσμένων Επιστημών
του Ανοικτού Πανεπιστημίου Κύπρου

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ΛΕΥΚΗ ΣΕΛΙΔΑ

Summary

Visual content, including videos and images, in news channels, operates as evidence of an event or situation with the audience as the witness. Hence, if a negative event appears, the most common feelings, as per Huxford (2004), are usually anger or rage. Certainly an image like Aylan Kurdi's depicts drama and human grief, and possibly also the anger and rage of those affected. It is then reasonable to expect that such images will elicit strong responses from the audience.

This research aims to study and find out how an image like Aylan Kurdi's can generate emotional expression on two popular social platforms, Facebook and YouTube. An observational study was conducted, based on an extensive analysis of public comments expressing emotions, collected from Facebook and YouTube. A coding scheme was developed by adopting and revising qualitative coding schemes from previous studies (Kim & Kuljis, 2010; Naaman, Boase and Lai, 2010; Rose, et al., 2015). The analysis was limited to a specific image, of Aylan Kurdi, posted on three news outlets' (CNN, NBC and CBS) public pages in Facebook and YouTube. Two sets of samples were collected; data from Facebook and from YouTube, using the Facebook and YouTube Application Programming Interfaces (APIs).

Findings illustrate that men tend to express more their opinion or complaints (representing 18.33% of all comments made by men) while women tend to express more their emotions, such as sadness (18.25% of all comments by women). This suggests that women are more likely to express their emotions on social networks/Facebook than men. Additional findings show that, the majority of YouTube users do not share their emotions through commenting in comparison to Facebook users. Generally speaking, the analysis demonstrates that emotions are expressed on social networks and that an image can provoke negative or positive emotions through commenting.

Therefore, a new channel's choice of platform and the character of its audience appear to be correlated to the expression of emotions. Respectively, further research is needed in order to understand whether such sensitive discussions are susceptible to emotional contagion, and if so, what news channels should do about this.

Περίληψη

Το οπτικό περιεχόμενο, το οποίο παρέχεται μέσα από τα μέσα ενημέρωσης, λειτουργεί ως πειστήριο ενός γεγονότος με το κοινό να αποκτά το ρόλο του μάρτυρα. Συνεπώς, με την ανακοίνωσή μιας δυσάρεστης είδησης, η οργή και ο θυμός, είναι τα κύρια συναισθήματα που αναμένεται να εκφραστούν (Huxford, 2004). Μια εικόνα σαν και αυτή του μικρού Aylan Kurdi, απεικονίζει, δράμα, ανθρώπινη θλίψη και πολύ πιθανόν θυμό και οργή. Επομένως μια τέτοια εικόνα, είναι πολύ πιθανόν, να προκαλεί έντονες αντιδράσεις. Η παρούσα έρευνα λοιπόν, στοχεύει να μελετήσει, το πως ένα οπτικό περιεχόμενο ή μια εικόνα, όπως αυτή του Aylan Kurdi, μπορεί να υποκινήσει τους χρήστες να εκφράσουν αρνητικά ή θετικά συναισθήματα μέσα από δημοφιλείς πλατφόρμες κοινωνικής δικτύωσης όπως το Facebook και YouTube.

Η έρευνα αποτελεί μελέτη παρατήρησης η οποία βασίζεται σε μια εκτενή ανάλυση δημόσιων σχολίων που εκφράζουν συναισθήματα. Τα δεδομένα, συλλέχτηκαν από το Facebook και YouTube. Για την ανάλυση τους, αναπτύχθηκε ένα κωδικοποιημένο σύστημα, υιοθετώντας και αναθεωρώντας ποιοτικά συστήματα κωδικοποίησης από προηγούμενες μελέτες (Kim & Kuljis, 2010; Naaman, Boase and Lai, 2010; Rose, et al., 2015). Η ανάλυση, περιορίστηκε σε μια συγκεκριμένη εικόνα, αυτή του Aylan Kurdi, η οποία δημοσιεύτηκε στην επίσημη σελίδα του CNN, NBC και CBS, στο Facebook και στο YouTube. Συλλέχθηκαν λοιπόν, δυο ομάδες δειγμάτων, δεδομένα από το Facebook και από το YouTube, χρησιμοποιώντας το API του Facebook και το YouTube Data Tool.

Τα ευρήματα της μελέτης, δείχνουν ότι η πλειονότητα των ανδρών εκφράζουν περισσότερο τη γνώμη τους ή τις απόψεις τους (18,33%) και η πλειοψηφία των γυναικών εκφράζει περισσότερο τα συναισθήματά τους, όπως θλίψη (18,25%). Πρόσθετα ευρήματα δείχνουν, ότι η πλειοψηφία των χρηστών του YouTube επιλέγει να μην εκφράζει συναισθήματα όταν σχολιάζει αλλά να μοιράζεται περισσότερο πληροφορίες και απόψεις. Επομένως, μέσα από τα αποτελέσματα αποδεικνύεται ότι, τα συναισθήματα μπορούν να μεταφερθούν μέσω κοινωνικών δικτύων και πως μια εικόνα μπορεί να υποκινήσει τους χρήστες να εκφράσουν αρνητικά ή θετικά συναισθήματα στα σχόλια τους. Παράλληλα, η επιλογή πλατφόρμας κοινωνικής δικτύωσης ενός μέσου ενημέρωσης και ο χαρακτήρας του κοινού, φαίνεται να συσχετίζεται με την έκφραση των συναισθημάτων.

Συνεπώς, απαιτούνται περαιτέρω έρευνες για να κατανοήσουμε εάν τέτοιες ευαίσθητες συζητήσεις είναι επιρρεπείς σε συναισθηματική αλλοίωση και εάν ναι, τι πρέπει να κάνουν τα μέσα ενημέρωσης σχετικά με αυτό.

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Chapter 1
Introduction

These last 2 years, special attention has been given on social networks, with regards to the image of Aylan Kurdi and the refugee crisis. The continuous reproduction of the image and video of the little toddler lying down on the beach, has attracted great interest, not only by individuals but also by news channels, newspapers and social networks. Hence, the big publicity and the interest shown on social networks on the matter, has aroused the interest on carrying out the following investigation.

As the 21st century society is changing rapidly, possibly affects human life in numerous ways, which are arguably both positively and negatively. Many of these changes are related to globalization, a cultural, political, technological and economical phenomenon, which is known to have greatly affected the communication systems (Giddens, 2002). Globalization is a phenomenon, where all cultures meet and interact, thus bringing about various social changes. As mentioned, a key driver of globalization, but also an outcome, is the development of advanced telecommunication technology. For instance, the development of satellites has enabled the rapid flow of information around the world permitting people to communicate with each other regardless of time and space. Over the past two decades, the widespread use of Internet technologies has led to online social networks, offering to humanity easier ways to communicate.

Millions of people use the Internet to communicate, get informed, express and exchange opinions and ideas, educate themselves or just have fun. Research that has been conducted in January 2013 (Hampton, et al., 2013), shows that 74% of adults in America use the Internet and social networks, with 71% using Facebook, 26% using Instagram and 23% on Twitter. These statistics are testament to the easy access of social networks.

Lately one of the most crucial events concerning citizens worldwide is the Syrian refugee crisis. The crisis has been, and is, extensively covered on news channels but also it is being extensively discussed on social networks. The refugee crisis divides both nations and people.

EU countries have been trying to find a solution since 2013. By 2015, the escalating number of refugees and migrants leaving Syria began to cause public concern. In terms of media coverage of this crisis, and the engagement of the public, one incident clearly stands out. By showing the image of Aylan Kurdi, a Syrian boy washed up on a Turkish beach in early September 2015, changed everything. Politicians and the public opened their arms and showed sympathy. (Sandvik, 2016). As will be explained, the current research examines this case study, in order to better understand how the public responded to images and video depicting the Kurdi tragedy, at two popular social media platforms.

While the refugee crisis has continued to dominate news headlines, recent research shows that more citizens in Europe (Wakefield, 2016) and the US (Gottfried & Shearer, 2016) are using social media as a primary source of news, where it is possible not only for them to learn about events, but also to react on them. News channels in turn, are recognizing that social networks are a means of immediate communication and direct information, thus, turn to the assistance of social platforms to broadcast news events. For that reason, the image of little Aylan Kurdi was shared on social networks. Broadcasting channels aired the picture/video, on social networks and without being expected, it became viral and travelled around the globe within seconds, influencing both the public and the governments.

The table below, attempts to demonstrate, how some broadcasting channels presented the loss of the little boy in social networks. It provides, a post and a video of that announcement, as well as a few sample comments shared by users on social networks just to give a better picture on what is mentioned above.

FACEBOOK ANOUNCEMENT CNN – 04.09.2015	YOUTUBE ANOUNCEMENT NBC -02.09.2015
Comment	Comment
"He is sleeping now, let him sleep in peace"	*"Not Europe's crisis... It's Syria's crisis and they are just pawning their problem onto Europe and the rest of the world."*

Table 1 Example images of Aylan Kurdi and comments shared on social networks.

What is noticed, is the excessive use of social networks by broadcasting channels and the great interest shown by the public on news event who in turn make an announcement, event, video or image go viral. These trends bring about the necessity to study the case of the image of Aylan Kurdi and the attempt to prove that an image or an audio visual content, shared on social networks, can affect positively or negatively, the users when commenting. If the content presents a tragedy or an unfortunate event then the expected emotions shared on comments should be anger, sadness and empathy. If the content shows something pleasant, then the expected emotions shared by users should be joy, happiness and pleasure.

Hence, this research aims to study how audio visual content or a picture focused on Aylan Kurdi can generate emotional expression on two popular social platforms, Facebook and YouTube. Furthermore, it aims to answer the following questions:

- Which emotional reactions (e.g. anger, fear, sadness) are people expressing on the refugee crisis and Aylan Kurdis' image?
- Do people express the same reaction to Aylan Kurdi's picture on Facebook that they do on YouTube? In other words, are there systematic differences in terms of the public reactions to Kurdi's image across platforms? In particular:
  - Is there a difference in terms of the number of reactions expressed to the same content, as posted to Facebook or YouTube?

      o   Are there differences with respect of the emotions expressed?

      o   Are there differences with respect to the intensity of emotions expressed?

Many studies have been conducted regarding users' preferences on social networks. There are also many researchers, who have studied what users like, which is their favourite social network and the reasons why they use it.

The current study, however, is exploratory in nature and concerns a specific case study of the Aylan Kurdi. It presents only one aspect of the refugee crisis, therefore it does not address all of the complex features of the crisis and the Syrian war. Hence, this research, focuses on the public reaction to a specific subject – the tragedy of Aylan Kurdi – as depicted through visual and audio visual content posted to Facebook and YouTube. As will be detailed, it focuses on the manner in which the public responded to this content, by comparing similar posts made by news outlets via their social media accounts at Facebook and YouTube, and tries to understand the emotional reactions of the public to this sensitive topic.

The study is organised as follows. Firstly, general theoretical background on information systems and computer mediated communication (CMC), secondly, background of the empirical approach, methodology, analysis and finally conclusions.

1.1 Information

Goffman (1963), believes that each person can and is able to manage the image and the information that wants to receive and transmit to other individuals. This information, is defined as social information and differ in its reliability. Thus, social information has, to do with the way people communicate with each other. Regarding communication, Christakis & Fowler (2009), give emphasis to the differences between communication in the past and today which occurs through interpersonal and mediated communication. Mediated communication, can remotely achieved through technology where information is transferred from one person to another in the absence of face-to-face contact.

In other words, what is achieved today with technology, is to send short messages, either by mobile phone or computer, to communicate directly through social networks, to browse and search the web, to watch movies, videos, and to retrieve information and

establish contacts. So, according to Giddens (2006), technology and particularly Internet, promotes values such as global communication, seemingly limitless information and instant fulfilment.

Manuel Castells (Giddens, 2006), points out that, with the arrival of Internet and particularly, social networks, has fuelled the development of information technology. This means that data can now be exposed to direct virtual process in any part of the world, without the need for physical proximity between the parties. Subsequently, the establishment of social networks in everyday life, led many companies to redesign their organizational structure (Giddens, 2006), focusing on approaching of people through social networks. Hence, news channels in their attempt to reach out the public even further, created accounts on social networks such as Facebook, Twitter, YouTube, Instagram etc. aiming to approach even more the public.

As has already been said, social networks, form part of human daily life. Millions of users, companies and organizations, have now access on social networks and use them as a means of communication, advertising, information sharing and communication. Also, a great deal of past research studies has sought to find out the many ways that social networks may affect individuals; this is because people differ in their social and psychological circumstances which may affect how and why they use the differing forms of media to fulfil their personal needs. This study will be focusing on two of the most popular social networks, Facebook and YouTube. As both, platforms have a common characteristic, the communication through written word (Walther, 2007), users have the ability to communicate with others, share information and opinions according to their availability, giving them, the possibility and opportunity to analyse and correct the text that will post. Thus, it will be examined and analysed the express of emotion on post commenting, that may be subject to the content an individual sees, reads and perceives. Further, the characteristics of social activity of users and the forms of communication on YouTube and Facebook, will be examined. Moreover, it will be studied and explained the content of messages displayed and the differences on the use of both social networks.

1.2 Information Systems

Even though information is related to everyday meaning, the word as such is closely associated to uncertainty. " Uncertainty, in turn, can be measured by counting the number

of possible messages. If only one message is possible, there is no uncertainty and thus no information[1]".

As information is related in almost everything, it is also linked to technology. Thus, we have information technology. Information technology is defined as the science and activity of using computers and other electronic equipment to collect, store, process, manage and send information[2]. The term is used to describe a computer-based system that is designed to support the operations, management, and decision functions of an organization (Kabiru & Kabiru, 2015). Generally, information technology is the use of computer as a media storage but also a medium to send and receive information. In consequence, information systems provide support in collecting, organizing, storing and communicating that information.

Therefore, information systems are considered to be systems of functions concerning the acquisition and transfer of information, the carriers of which can be biological, personal, social or technical units (Francis, 1996). Also, as Buckland (1991) supports, can be collected in three ways; as entity, process and knowledge. However, information systems can only obtain information as an entity such as datum, documents and transcripts. But apart from the written word, information as an entity, could images, sounds and videos.

In addition, Von Baeyer (2004), defines information systems as that branch of engineering that focuses on storing, transmitting, displaying and processing symbols. Hence, it is considered to be a group of components that interact to produce and disseminate information[3]. It is important to note that IT components also include people, as producers and consumers of information.

In short, information is linked to everything. Words that people use to share an idea or thoughts, instructions that need to perform some process or a task. Information systems process directly only the information as entity.

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[1] Gleick, J., 2011. The Information. A History. A Theory. A Flood. New York: Pantheon Books. pp.229
[2] McIntosh, C. & IDM, 2008. Cambridge Advanced Learner's Dictionary. 3rd ed. Cambridge University Press.
[3] Kroenke, D., 2015. MIS Essentials. 4th ed. Boston: Pearson. pp.10

1.3 Social Networks

Manuel Castells (2000), points out that the arrival of Internet and particularly of social networks fuel the development of information technology. This means that data can now be exposed virtually to direct processing in any part of the world, without the need of face to face contact with other people. So, the establishment of social networks in everyday life, led many companies to redesign their organizational structure (Giddens, 2006), focusing their attention on the approach of people through social networks.

A network is defined by Wasserman and Faust (1994), as a set of relationships between various points (e.g., people, groups or institutions in the case of social networks) within an environment. Relationships have a creation cost which can be positive or negative. The various points can be objects, sites, definitions and people and an environment contains features and limitations, where the network can be created and developed. Examples of networks, is the set of entities (e.g. websites) and the variously relationships (links) between them that make up the network. A network, to be considered as social, it must present at least some connection between a set of people in a specific environment. Cohn (2016), considers social networks as a powerful tool to share information across international borders. Across various fields such as entertainment, education, information, job finding, consulting, etc. (Kadushin, 2012), there is consensus that the usefulness and importance of social networks continues to increase.

Hence part of the internet is a network, which can be defined as a set of connected points that constitute one of the fastest communication tools ever created. A social network is a set of connected points that interact with each other in an environment. It is flexible and can be easily adapted to the changing conditions of society that represents (Easley & Kleinberg, 2010). Social networks content though, is the most valuable part which defines its success and continuity.

On social networks, Manuel Castells (2000), indicates the relationships that are established between users. He describes four types of relationships: Relationships of Production, Relationships of Consumption, Relationships of Power and Relationships of Experience (Easley & Kleinberg, 2010). These four types of relationships determine on how users interact. Thus, according to Baym (2015), the medium, allows users to express the type of social relations that exist between them.

Research, regarding the usage of internet in Europe (Chaffey, 2017), demonstrates that the 84% (353 millions) of the population in Western Europe uses the internet. Also, in Eastern Europe the percentage reaches the 67% (284 millions) of the population. Concerning the age distribution of the internet users in Europe, as of November 2014 (Baron, 2014), 23.5% are users between the age of 24-35, 19.7% are users between the age of 15-24, 21.2% between the age of 35-44, 18% between the age of 45-54, from the age of 55 and above the percentage comes up to 17.6%.

Another research conducted in 27 States in America concerning the use of social networks between the decades 2005 to 2015 found that 90% of young people, aged 18 to 29 use social media (Perrin, 2015). Notable, is also the percentage of the use of social networks in ages 65 and over which increased from 11% in 2010 to 35% by 2015. Comparing the use of networks between genders, percentages are almost identical, with the percentage of women reaching the 68% and for men 62%. Furthermore, during the same decade it is shown that in families with high income the use of social media is higher than in families of low income. Concerning the educational level, a similar pattern is observed. People with academic knowledge use more social media than less educated people. Comparing use by racial group, 65% of white, 65% of Hispanic and 56% of African-Americans, use social media. Moreover, half of rural residents now use social networks.

1.4 Interaction on Social Networks

Social interaction can be defined as acts, actions or practices of two or more persons that are mutually oriented towards each other (Rammel, 1976). José A. Scheinkman (2008) defines it as the actions of a group that affect individual's preferences. While James and Ronald, (2002) argues that it concentrates more on interpersonal relationships. So, it can be said that social interaction is related to various acts or behaviours that in turn influence individuals or groups.

Social media, including social networks, provide a context for social interaction, creativity and emotional and informational support (Ronald, et al., 2009). Through the use of social networks, various relationships are articulated and new ones may form. These relations, as mentioned above, are distinguished according to Manuel Castells (2000), by four types of relations, production, consumption, power and experience.

Production is the action of the creation of a product for consumption. Consumption is consequent of production, where humans appropriate a product for their individual use. Experience, is the action of individuals on themselves gained through knowledge, years, etc. As Manuel Castells (2000), supports, it is constructed around the endless search for the fulfilment of human needs and desires. Last relation, is power, which is the action that an individual has on another to enforce his will.

Greater attention can be given to consumption and production relationships, which can be compared to the relationship of capital and labour. Relationships of consumption, can be used mainly for the analysis of the consumption degree of network resources of each node. And relationships of production, can be considered as the actions that users do within the network, such as commenting or liking some comments, information, images or videos that are exchanged between users on Facebook or on any other network.

In a survey that has been conducted with over 800 college students on their social media habits (Reider, 2014), discovered that young people use social networks to express themselves, socialize but also get informed and share their opinion on political issues or other topics of interests. Moreover, without face-to-face communication the study exposed that people communicate on things that they normally wouldn't say in person. Other findings from the survey include that 39% stated that with social media are closer to their friends and 26%, reported that had more friends on social media. That, according to Manuel Castell, are created relationships of power as users have more friends on social networks and can express behaviour and emotions that cannot do in face to face contact. Other relationships that are presented in the survey are the relationships of consumption, where users get informed and use information posted on networks to get informed.

Social media, in consequence, facilitate a virtual form of interaction (Margalit, 2014). That means that users communicate more easily, without being forced to face-to-face communication. If there is need conversation, communication and express of emotions but also, if there is a necessity for sharing ideas and opinions, people can access social media. This unsynchronized communication (Brennan & Lockridge, 2006), does not require others' attendance nor immediate response. Interaction becomes less demanding and more casual.

Part of social media and social information systems are Facebook and YouTube. These two platforms have some common characteristics like, popularity and connectivity. What's more, both platforms, consist two of the world's most visited social networks and are considered to be two of the most well-known networks that can produce, provide and receive information to and from individuals. Therefore, extending the review on social systems and social networks and as the research that follows, examines post commenting on Facebook and YouTube, it's essential to mention some important information regarding these popular networks.

1.5 Facebook

Mark Zuckerberg, is the founder of Facebook, one of the most popular social networks ever created with 1.712 billion users (Baron, 2016). The main reason for its creation was to help people understand the world but originally was developed as utility for the university where Zuckerberg studied. At the early stages of foundation, only students of Harvard University were able to join, but gradually, Facebook opened up participation to the public, and its adoption quickly spread throughout the world (Carlson, 2010). By accessing Facebook, users now have the opportunity to use applications that allow, making publications, sharing and receiving information, advertising and to developing applications. Through their profile and news feed, users, have the opportunity to get informed on news events, to meet new people, to find out what their friends are up to and to share personal information.

The main way, though, for people to get informed is to enter Facebooks News Feed. The content presented there, is usually determined by algorithms that are constantly developed by Facebook (Kramer, et al., 2014). People there often express feelings, share ideas, thoughts, videos, photos or get informed about events that are taking place around the world. Since users produce a great amount of content, News Feed, filters messages, stories and pictures so users can see the most important from now on.

According to an article by Dan Noyes (2017), users on Facebook upload 300 million photos per day and every 60 seconds, 510.000 comments are posted, 293,000 statuses are updated, and 136,000 photos are uploaded. That means that there is a great number of users but also a greater amount of photos and information shared on Facebook.

1.6 YouTube

YouTube is the social networking site where individuals share video news material and content posted by registered users. Here, there are no specific themes regarding video sharing, but on the contrary topics vary, from music, to social events, news events, fashion, education, beauty, etc.(Staff, 2016). YouTube was created, 11 years ago, on February 14th 2005, by a group of former PayPal employees. The idea behind its development was to form a network where individuals could find and share easily videos. Today, it is one of the most visited sites worldwide and is widely used by news organizations, politicians, musicians, artists and ordinary people (Anderson, 2015). YouTube is the second largest social networking site after Facebook and the number of people using it constantly increases. Particularly, around three out of ten adults posted a video on a website in 2013 and 77% of Internet users are on Facebook while 63% use YouTube (Anderson, 2015). What distinguishes YouTube from other social media is that users do not have to leave comments or additional information about themselves. Rather, they can get involved by choosing content from millions of videos, which they may share with others (Staff, 2010). One of the unique aspects of YouTube is the ability of users to share raw footage of events that have not yet posted to a news channel. It is noteworthy that, most watched news video on YouTube are by common users (Pew Research Centre: Journalism & Media Staff, 2010).

According to Ingrid Lunden (2013), YouTube seems to be the number one, network in online video, in Europe, with Germany, France, Italy, Spain, Russia, Turkey and UK to have more minutes per viewer. Also, YouTube has over a billion users that watch hundreds of millions of hours of videos and generates billions of views, Also is one of the few networks that is developed in 76 different languages (Cham, et al., 2017), giving the opportunity to people, to use it in their mother language.

1.7 Technology-mediated communication

Communication, as well as information, is very important in social contacts, since it is the only way that a person manages the information that acquires from someone else (Goffman, 1956). People, during communication and interaction, share a lot of

information allowing others to know from the beginning, what they are expecting and also find out what others are expecting from them. Face-to-face communication, permits people to interact using different ways of communication like verbal signs, body language, facial expressions, etc. Based on signs, but also on experiences, people can come to conclusions regarding their interlocutor, predicting their present and future behaviour. Time, however, and everyday communication, can lead to a precise conclusion regarding their interlocutor.

Through face-to-face communication, individuals enter into an impression management process, where they interpret roles to gain positive impressions resulting in desire reactions by others. So, when interacting, individuals, define the current situation, gaining positive impressions. Thus, face-to-face communication, is the interaction where mutual impact is created, direct or indirect, by one another, in physical presence. In contrast, as will be discussed, technology-mediated or "computer-mediated" communication, offers interlocutors different affordances in their interactions with others, and through which they can express themselves.

As was noted already, by Shannon (see: Gleick, 2011), there is a close relationship between communication and information. Human capabilities to produce, store and transmit information are increased with every new development in information technology. Nowadays, communication is much simpler and widespread. Satellites provide a worldwide network of radio, television, telephone and internet. Hence, communication may occur between and within individuals, groups, organizations, social classes, nations, countries and regions of the world. Therefore, computers are used as a medium that brings people much closer, allowing them to communicate making their lives simpler. However, it must also be noted that, many researchers have expressed opposing views, arguing that computer-mediated communication has complicated things and/or has led people not to be closer but more superficial.

Speaking of, computer-mediated communication (CMC), at first, it is necessary to define CMC. Hence, Moses Boudourides (1995), defines it as the process of one-to-one, one-to-many and many-to-many communicative discourse using a computer-based communication channel, often taking place in an environment that emphases text-based expression. Karl Erik Rosengren (2000), refers to computer-mediated communication

(CMC), as to any human communication achieved through, or with the help of computer technology. It's a process of human communication via computers, which involves people, who are situated in particular contexts, engaging in processes to shape media for a variety of purposes (December, 1997). Extending the meaning of CMC, Susan Herring (1996), supports that it's the communication that takes place between human beings via the instrumentality of computers. What is most interesting about CMC, is arguably the fact that each technology's technical and communication affordances shapes how people communicate with one another. Interesting is also, the statement by Steinfield and Fulk (1988), who supports that, CMC systems provide more than a simple channel for text delivery but also, offers a lot more services, like, message creation, delivery, reception, and filing options.

Extending the concept and the benefits of CMC, Moses Boudourides (1995) goes one step further to indicate that internet, consists the most common world-wide computer network used in CMC, with the e-mail being the most frequently used CMC service (Carl-Mitchell & Quarterman, 1993). For the moment that internet entered humans' daily life and on, people have been communicating about and by means of, computer technology (Rosengren, 2000). And as Katharine A. Cannella (2004) points out, internet mediated communication (IMC), comes to impacts interpersonal communication. Meaning that, users adapt to computer mediated communication and establish mutual understanding in an asynchronous environment. Now, individuals use direct messages, which are reaching a wider audience than in a face-to-face encounter. Similar to Katharine A. Canella's indication, was the statement made by Sherry Turkic (2012), who supports that, people today can enter in a whole different world on internet, letting them instant-message, e-mail, text and access social networks eliminating the boundaries of time and space. Now, instead of phone calls people message to each other, avoiding in that way, to reveal much information about themselves. Users now have the ability to, create online personalities, change their appearance, home, jobs and have romances. So, once individuals start communicating, they have the opportunity to process a message judging what is useful, what information will be kept and what information will be given. On information processing and self-presentation, Erving Goffman (1961), supports that it is upon individual's desire, to regulate the offering data on the environment in which one is located. This process, leads users to form an image of the other party, which in turn, drives

them to come to some conclusions along the way, defining in the end, the behaviour of the converser.

What is also identified in CMC is the Grounding Framework (Brennan & Lockridge, 2006), where participants are adjusted in such a manner so as to avoid confrontations. It can be also defined as impression management (Goffman, 1956), where in the case of CMC, individuals use a standard behaviour toward their interlocutors, in order to come to an understating and have their sympathy. Also, it is at the discretion of each individual whether to reveal many or few information. Consequently, on impression management, everyone has the right to present any aspect of himself.

Apart from the positive results that CMC can offer, negative outcomes can be generated as well, such as poorer communication. As Brennan and Lockridge (2006), explain, in many contexts verbal signs do not exist, thus, facial expressions and body gestures are lost making it harder for individuals to interact. And as the "Bandwidth Hypothesis" (Brennan & Lockridge, 2006), proposes, face to face interaction leads to better communication; thus, CMC platforms that facilitate communication that is closer to the face-to-face context, will fare better.

However, for many purposes CMC is better, since it is offering the chance to processes messages as well as leaving traces (Walther, 2007), where one can return and process. Moreover, people can communicate with many receivers at the same time, through written word, telephone communication and/or video call. And as Walther (2007), supports CMC interaction, can lead to a more positive relationship through the course of time but also to more extreme impressions of the others, compared to face to face interaction.

Thus, millions of people as well as organisations use social networks, either to entertain or to be entertain, get and share information or socialize. Social networks have also been a subject of research and discussion, proving that their use may possibly affect individuals. Two of the most popular networks which form part of this research are Facebook and YouTube and are considered to be means of mediated communication (CMC) as they are able to transfer messages, information and emotions through the computer.

As of the content and the emotions shared on social platforms, it will be discussed in the following chapter, chapter 2, which emphases on the Syrian crisis, the image of Aylan Kurdi, on concepts like emotions and behaviour and on the visual material that is shared in social networks. This chapter is considered to be the linked cricked between chapter 1 and the methodology section, where the method of data collection is analysed.

Chapter 2
Sharing Of News Images

2.1 Syrian Crisis

Today there are more than 4.7 million Syrian Refugees in neighbouring countries. More precisely, as of the time of writing, 1.069.111 people are situated in Lebanon, 637.859 in Jordan and 245.543 in Iraq. Approximately 1 million have applied for asylum in Europe and more than 13.5 million people are in need of aid in Syria (Nelson, 2016). The Syrian crisis originated in March of 2011, through a peaceful protest, as part of the Arab Spring, that got out of hand when the government used violent means to break up the protest. Thus, the protestors began fighting back. By July of that same year, army's apostates, organized the Free Syrian Army (Nelson, 2016), where civilians took weapons to join them. Divisions between secular and Islamist militants and ethnic groups continued to complicate the politics of the conflict. Due to that, and Russia's bombings at ISIS targets in Syria, in October 2015, more and more Syrians abandoned their country in order to seek safety (Nelson, 2016).

As mentioned, while the majority of refugees are situated in Jordan, Lebanon and Iraq, more and more are crossing the borders into Turkey seeking out a better future. Others are risking their lives by crossing the Mediterranean Sea, from Turkey to Greece. But as the number of refugees is growing, so are measures taken by other countries, in order to prevent their entrance. As a result, Greece appears too many as the only possible destination, and that has placed a great burden on Greece (Editorial, 2016).

Border closures, bad weather conditions and the huge number of people on incoming boats, have complicated the refugees' attempts to make it safely to Greece. Aylan Kurdi and his family were one of those families trying to cross the Mediterranean Sea from Bodrum, Turkey in a small inflatable boat. According to an article in the Independent

(Withnall, 2015), Abdullah Kurdi, Aylan's father, tried to hold on to his wife and two children as their boat, going to Kos, Greece, was turned over and failed to save them. As a consequence, his wife Rihanna, his older son Ghalib, and the three year-old child, Aylan, drowned and Aylan's body washed up on a Turkish beach, on the 2nd of September 2015. His image was subsequently broadcast around the world. The family's intended, final destination was Vancouver, Canada where Aylan's aunt has lived for more than 20 years. The Kurdi family had been trying to immigrate to Canada after fleeing Kobani three years ago. Mr. Kurdi said Canadian officials had offered him citizenship after seeing what had happened (Weise, 2015). On September 3rd, 2015, the bodies of Kurdi along with brother Galib and mother Rihanna were taken to Kobanî for burials, which took place the next day, as it is Islamic tradition to bury the dead within 24 hours if possible.

2.1.1 The specific case of Aylan Kurdi

The story of Aylan Kurdi should have ended on September 3rd, 2015, and it would have, if it wasn't for that photograph.

Image 1 Aylan Kurdi. Source: (http://www.mid-day.com/articles/the-image-that-moved-the-world/16508170)

That photograph (image 1), illustrates little Aylan Kurdi lying with the face down on a beach, with half of his body facing the ocean and the other half the land, letting the sea waves hugging his figure gently. The depiction of Aylan, laying on the beach as if sleeping, wearing blue trousers, red T-shirt and sneakers draw public's attention and travelled the world within seconds, reaching the 3 million social media posts (Postles, 2015). This

particular image is believed to have touched the heart and soul of many people and have alerted many countries resulting in opening their borders to the refugees. Kingsley and Timur (2015), agree that, the image of Aylan Kurdi, the 3 year old boy that was found drowned on a Turkish beach, woke the west to the urgency of the Syrian refugee crisis.

That photograph was taken by Nilüfer Demir, a Turkish photographer of the Dogan News Agency who stated that on that day the beach had turned into a "children's graveyard" (Walsh, 2015). She decided then, to capture Aylan's image, who was situated half in the sand and half in the water with his clothes and shoes still on. The image of this little boy went viral on social media, with Walsh (2015) supporting that Aylan became a symbol of all the children who lost their lives trying to reach safety in Europe. What Hugh Pinney (Laurent, 2015), states is that "The reason we're talking about this photograph is not because it's been taken or not because it's been circulated, but it's because it's been published by mainstream media". Likewise, vice president of Getty Images, a distributor of news images, argues that the reason the public is talking about it, is because it breaks a social taboo; a picture of a dead child (Laurent, 2015).

That fact, could be explained by Susan Ager (2015), who supports, that images showing dead, injured or suffering children tent to become iconic, for transmitting sadness and motivation for help. Several were the comments posted on social networks, when that image went viral, one of them was of Peter Bouckaert, a director at Human Rights Watch, stating that he couldn't stop staring that picture and imagining that it could be one of his own sons lying drowned on that beach. But the most significant fact was that, two days after the picture went viral, British Prime Minister David Cameron announced his nation would take in thousands more Syrian refugees (Ager, 2015). As Kingsley and Timur (2015) state, Aylan's death changed the way governments looked at refugees. David Levi Strauss (see: Laurent, 2015), is certain that this image will live on in history.

The sentiment of many members of the public can arguably be summed up in the statement given by a Chinese refugee, as made to the New York Times (Clarkson, 2015). "When I saw the photo of three-year-old Aylan Kurdi lying dead, face down on a Turkish beach last month, I felt an electrifying stillness''.

2.2 Social Networks and Important Events

As mentioned, Aylan's image draw public's attention and reached the 3 million social media posts in social networks in a really short time. This proves that, with today's Internet, the flow of information is much easier and people are always updated on what happens around the world. Global media, now, bring news, images and information into people's homes, linking them directly and continuously to the outside world. Important events, that marked the global, such as Aylan Kurdis story, the fall of the Berlin Wall, the terrorist attacks of September 11th 2001, the ISIS attacks and the refugee crisis, are spread by the media directly on the event time with people staying tuned to get informed.

More and more people, public figures, shops, journals, newspapers and news channels join social networks, in order to inform and increase the size of their audience. In particular, with news channels on social networks, it can be said that individuals can now be informed about a news event faster, than on television.

Nowadays, news outlets, on their Facebook page, chose to share an image or a video rather than textual documents. The explanation for this, is given by James Balm (2014), who claims that an image can grab attention, help the audience to learn, to teach difficult ideas and give inspiration. Lengthening his statement, he supports that a great part of the human brain dedicates itself to visual processing, therefore it takes less time to understand a visual content than a textual. Additionally, Dr. John Huxford (2004), argues that an image is an effective delivery vehicle, therefore, for the media, an image or a visual content has the illusion to transfer the reader at the event illustrated. Hence, the image, freezes the time and place of an event and allows the viewer to get inside and live it. A picture, according to Huxford (2004), confounds the distance of time and space between the object represented and the observer, making him or her a witness of the event. At the same time it offers immediacy to viewer and stimulates feelings, especially when, real individuals and events are presented (Huxford, 2004).

A study, conducted by Pew Research Centre in association with the John S. and James L. Knight Foundation (Barthel , et al., 2015), discovered that the majority of users of Twitter (63%) and Facebook (63%) use each platform as a source for news, events and issues outside the realm of friends and family. That share has increased substantially from 2013, when about 52% of Twitter and 47% of Facebook users stated that they get informed

from social platforms. On both Facebook and Twitter, more and more users are getting informed of news events than in the past.

2.3 Visual Material in Social Networks

It is known that a visual material can be an effective means in delivering a message. Technology and consequently social networks emphasize on an image and advances its usage. It can help contribute to the storytelling process that can make science more engaging (Balm, 2014).

Concerning the use of a visual material, John Huxford (2004), supports that image has become, a form of war, both as sophisticated psychological weapons and as fiercely contested battlefields of meaning. In terms of media, picture offers the photographic illusion that the reader is transferred to the event where the news are broadcasted.

Hence image converts the viewer to a virtual witness. Reeves and Nass (1996), come to the conclusion that even the simplest story that is close to real people, places and things activate social and natural answers. The conclusion resulted from research carried out on TV audience (see: Huxford, 2004). When the audience was watching negative news their negativity grew stronger and the memory of the viewers was improved while on a less dramatic broadcast was reduced. In conclusion, over Reeves and Nass experiment when horrifying images on news, viewers were remembering the terrifying image rather the information on the event.

An additional study (Huxford, 2004), conducted after the 9/11 attack, showed the psychological effects that terrorist attacks had on public. What was discovered was that by seeing more tragic images of the terrorist attacks and their subsequent were discovered high stress levels. Many viewers field sad when the incident was reminded to them and after six to nine weeks 11% of those surveyed had images that could not forget (Huxford, 2004). Different research, that was carried out in March 2004 by eMarketer (Redsicker, 2014), showed that images represent the content that is most often posted and shared on social networks, and more precisely on Facebook posts containing images, are reaching 75%. The same percentage, was given on posts with video sharing on Facebook (Walters, 2015). Another survey (Cohen, 2016), which deals with Facebook

images, reveals that 18% of users have changed their profile pictures to draw attention to an issue or event, with 42% of those doing so in response to the terrorist attacks in Paris last November 2016 .

With respect to the above studies, it is shown that a visual content, with sad themes, can evoke negative emotions, moreover, it can bring about sad memories or draw the public's attention to such memories. It is clear that visual material is an essential tool in transmitting information and stimulating feelings in social networks.

2.4 Behaviour

The behaviour of some major nodes, in social networks influences others, but "the crowd" has the greater influence. Those who hold great influence in a network are named Opinion leaders and are individuals who, in an informal way, can influence the opinion, attitude, beliefs, motivations and behaviour of others. (Mohamed & Mohamed, 2012). According to Do Kyun (2007), are those to whom other individuals turn for guidance and information. Opinion leadership in the 1940s and 1950s was largely a matter of interpersonal communication[4]. In 1944, professor Lazarsfeld, (see: Mohamed & Mohamed, 2012), discovered that the majority of the population, preferred to communicate firstly with the opinion leaders and then with other common civilians. Local opinion leaders, as they had been called by Robert K. Merton (see: Mohamed & Mohamed, 2012), at that time, used to encounter others on the street, or in various gathering locations that existed in that era, to inform them regarding important issues.

At the present time, with media, social networks and online communication, opinion leaders are becoming even more available, as they have at their disposal mobile and internet communication and help them to increase their social relations. In the process of influencing others, opinion leaders, according to Do Kyun (2007), are not necessarily innovators, rather than evaluators, whose opinion is inspiration to their followers and their way of communication is rather informal and interpersonal.

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[4] Taddichen, M. & Schäfer, M. S., 2015. Opinion Leadership Revisited: A Classical Concept in a Changing Media Environment. International Journal of Communication, Issue 9, pp. 956

Therefore, opinion leaders, influence a great number of people who in turn have greater influence to the crowd. Hence, people voluntarily or involuntarily are affected by the behaviour and decisions of the crowd. In social networks, the tendency to change one's opinion based on the majority's behaviour, is called information cascade (Easley & Kleinberg, 2010). This phenomenon usually affects the judgment of an individual who bows to the power of the crowd and can result in both negative and positive effects. This influence can result in negative outcomes, when the crowd forms false conclusions based on misinformation or incomplete information and positive effects when the crowd makes correct conclusions based on precise and complete information.

On the influence of the crowd, Jordan Kasteler (2010), mentioned that, what man does in his everyday life, even the way he feels is influenced by those around, who in turn are affected by those around them. Therefore, people's actions can have emotional impact to others, changing their behaviour and beliefs and in some extreme occasions their health. In the 21st century, where everything is digitalised, contagions as per Jordan Kasteler (2010), can be spread through social networks.

Since social networks are considered as accessible by everyone, then each person is allowed and can react, behave, share, receive, and transfer information and vice versa. These actions are most likely to power contagions either positives or negatives and are able to influence someone else whether he or she knows him or not.

2.4 Emotional Contagion

Human behaviour can reflect on human's emotions and emotions in turn can be transmitted from one person to another. This phenomenon is called emotional contagion. Dictionary.com (2004), defines emotional contagion as "the tendency to feel and express emotions influenced by others." Alternatively, emotional contagion is considered to be a phenomenon where one's negative thoughts or anxiety affects other's mood. Also, it can be defined as the tendency to automatically mimic and synchronize expressions, vocalizations, postures, and movements with those of another person's and, consequently, to converge emotionally (see: Hatfield, et al., 1993).

Experimental studies conducted on emotional contagion (Christine & McEuen, 2010), resulted in people expressing and feeling emotions that are similar to others. Note, that

people were also influenced by others' emotions. Through the research, it was confirmed that emotions and attitudes can indeed be transmitted from one individual to another. One's behaviour, thoughts, and attitude not only can affect and influence a person's emotion but it can also influence an entire group of people. What Christine and McEuen (2010), support is that during face to face communication individuals copy actions, expressions and attitudes from others. By observing, people can understand, the emotional state in which a person can be. Specifically, a research conducted on the effects of service with a smile on customer satisfaction, verifies that within seconds, there can be emotional contagion between strangers, even those in ephemeral contact (Christine & McEuen, 2010). Additional research on emotional contagion, studied students whose roommate suffered from depression. What was discovered was that in a period of over three months the level of depression increased affecting both roommates.

Consequently, in face to face contact, emotional contagion can be produced by several communicative processes, such as dynamic mimicry (Garcia, et al., 2016). Therefore, it can be verified that emotional contagion can be related to everyday life and interaction with other people. Fowle and Christakis (2008) support that emotions can be transmitted via social networks as well, which result to long term effects. Garcia David, Kappas Arvid, Küster Denis and Schweitzer Frank (2016), comment that online interaction having as main path of communication the written communication, creates interpersonal emotional interaction in real-time chats (Garcia, et al., 2016).

Data from a study lasting 20 years (Kramer, et al., 2014) suggested that emotions can be transmitted via social networks. Different survey, conducted by Facebook, submits that that emotional contagion occurs online even in absence of non-verbal cues typical of in-person interactions (Kramer, et al., 2014). Regarding this statement, an experiment was executed by Ferrara and Yang (2015), using Twitter as case study, to explore the hypothesis of emotional contagion via social streams. Researchers, chose to observe the Twitter stream without manipulating the content of the user. Also, they developed a model that deducts the level of emotional contagion and other correlational biases and a method to recreate motivations to users before posting their tweets. This procedure, allowed them, to study every user individually along with his response to deferent emotions. The study presented that positive emotions are more likely to contagious, and that sensitive users are more likely to adopt positive emotions (Ferrara & Yang, 2015).

The data that were retrieved revealed that emotions are transferred through social media and have long term effects on users. Platforms like Facebook and Twitter could then stand to influence the emotions of individuals and society at large, and in particular in the context of social and political discussions, disasters, emergency incidents, war, famine and death.

A different study directed by social scientists at Cornell, University of California, San Francisco (UCSF), demonstrated that Facebook emotions can be spread among users (Segelken & Shackford, 2014) (Facebook study is Kramer et al. 2014) The conclusion resulted from an experiment, where scientist, reduced the amount of either negative or positive stories on Facebooks News Feed, on 689.003 users. Lorenzo Contrary and colleagues (2014), supports as well that happiness and other emotions can spread among humans through direct contact. However, they are not sure whether emotions can be transmitted, through social networks as well. Contrasting to their opinion, Hancock (see Segelken & Shackford, 2014), argues that online messages can influence indeed user's emotions on social media conversations and giving to Ferrara and Yang's (2015) statement, this leads to affect the offline community psychologically or mentally.

The above mentioned studies argue that use of social networks has an influence on human behaviour and actions. Generally, technological determination is the perceptive that technology is a key governing force in society, however it is extremely difficult to demonstrate technological determinism in an empirical study. Hence, changes in technology exert one of the greatest influences in a society and therefore its development (Smith, 1944). Regarding the individual's behaviour, technological determination supports that an individual's behaviour in a society, depends on media technology and the transition from one technology to another (Mcluhan, 1962). Media and technology can influence, and perhaps even determine how people of a society think, feel and act (Γερατζιώτης, 2015). Similarly, Kramer, Guillory and Hancock (2014), claim that both positive and negative emotions can be spread through a social network such as Facebook.

Empirically, it has been shown that emotions can be transmitted during face to face communication, but also via social networks. Emotions, through social networks, can be revealed through commenting or responses. What was not mentioned though, was the emotional contagion that an image can provoke. For that reason, the current research aims through, an extensive observational analysis, to study the impact that an image has

on user's commenting. The observational analysis is carried out through the comments that are posted on Aylans Kurdis image on social networks.

Chapter 3
Methodology

As discussed in previous chapter, visual content, in news channels, operates as evidence of an event or situation and the audience is the witness. Hence, if a negative event appears, the most common emotions, as per Huxford (2004), are usually anger or rage. Certainly, an image like Aylan Kurdi's, depicts drama and human grief, and possibly also the anger and rage of those affected. Thus, it is reasonable to expect that such images will elicit strong responses from the audience. For instance, audience comments might express compassion and empathy or reactions such as protests and debates against particular governments' stances toward the refugees and the war that takes place in Syria, these past few years.

The current study is an observational analysis which is based on an extensive analysis of public comments expressing emotions, collected from Facebook and YouTube. A coded scheme was developed by adopting and revising qualitative coding schemes from previous studies (Kim & Kuljis, 2010; Naaman, Boase and Lai, 2010; Rose, et al., 2015). This section provides in detail the stracture of the basic dataset which expands on the qualitative coding process and results on the coding scheme.

3.1. Sampling and Utilizing
The aim of collecting samples is to gather a descriptive part from the public, so that the results can be compared to the population (Marshall, 1996). According to Maxwell (see: Charles Teddlie & Fen Yu, 2007), samples vary from particular settings to persons or events. Maxwell adds also, that samples are intentionally selected in order to collect data, which in turn can provide important information which can help for the development of a research[5].

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[5] Teddlie, C. & Yu. F., 2007. Mixed Methods Sampling: A Typology With Examples. Journal of Mixed Methods Research, 1(77), pp. 77

According to Charles Teddlie & Fen Yu (2007), there are three types of sampling plus a category that involves multiple probability techniques[6]:

- Random sampling—occurs when each sampling unit in a clearly defined population has an equal chance of being included in the sample.

- Stratified sampling—occurs when the researcher divides the population into subgroups (or strata) such that each unit belongs to a single stratum (e.g., low income, medium income, high income) and then selects units from those strata.

- Cluster sampling—occurs when the sampling unit is not an individual but a group (cluster) that occurs naturally in the population such as neighbourhoods, hospitals, schools, or classrooms.

- Sampling using multiple probability techniques—involves the use of multiple quantitative (QUAN) techniques in the same study.

The type of sampling intended to be analysed in this research is stratified sampling. Samples are divided into two groups, those that use Facebook and those that use YouTube and to three sub groups for each group, the users of each channel. The sample, therefore, consist a number of people, who use Facebook and YouTube, and like the pages of particular broadcasting channels.

The material intended to be analysed – the image of Aylan Kurdi- was identified form the official pages of the broadcasting channels posted on the 4th of September 2015. Note that the samples, were collected after the publication of the image of Aylan Kurdi.

Through the collected samples, there was a need to identify how users express their emotions when commenting. The obtained elements, which were collected from these samples were gender, messages and information shared by individuals.

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[6] Teddlie, C. & Yu. F., 2007. Mixed Methods Sampling: A Typology With Examples. Journal of Mixed Methods Research, 1(77), pp. 79

3.2. Data collection

According to Kim and Kuljis (2010), the sampling methods vary, depending on the research questions. This study therefore, was limited to a specific image, that of Aylan Kurdi, posted on news channels in Facebook and YouTube, on the 4th of September 2015. So, the concern was, which news channels should be selected to address the research questions.

The goal was to collect as much data as possible in order to have valid results and a complete idea on how people express their emotions on commenting when facing unfortunate events. As Martin N. Marshall (1996) supports; the larger the sample size, the smaller the chance of a random sampling error[7]. Therefore, the official page of the news channels to be selected should have had a high number of people liking and following it.

Initially, the idea was, to find out how Cypriot citizens react on such images. Unfortunately, the number of likes, followers and comments on the official page of Cypriot news channels and on the image of Aylan Kurdi in social networks was limited.

CHANNEL	FACEBOOK		YOUTUBE	
	LIKES	FOLLOWERS	VIEWS	SUBSCRIBERS
SIGMALIVE	108,995	105,796	11,957,497	12,497
MEGAONE	18,525	18,389	7,224,909	N/A
ANT1IWO	104,937	103,738	11,755,680	8,234

Table 2 Summary statistics for SIGMALIVE, MEGAONE and ANT1iwo as of the time of writing.

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[7] Marshall, M. N., 1996. Sampling for qualitative research. Family Practice, 13(6), pp. 522

Sigma Live	Mega one	Ant1 iwo
Στον υγρό τάφο της Μεσογείου θρηνεί τα παιδιά του και τη γυναίκα του ο επιζώντας πατέρας #migrants #KiyiyaVuranInsanlik Πνίγηκαν με τη μαμά τους τα δύο προσφυγόπουλα απο τη Συρία | News Ο θάνατος των δύο προσφυγόπουλων από τη Συρία, του πεντάχρονου Galip και του τρίχρονου Aylan Kurdi κατά το ταξίδι τους στη Μεσόγειο έχει προκαλέσει... SIGMALIVE.COM 👍 Like 💬 Comment ➤ Share	No post shared relating to Aylan's story	No post shared relating to Aylan's story
Likes: 30 Comments: 9 Shares: 3	Likes: N/A Comments: N/A Shares: N/A	Likes: N/A Comments: N/A Shares: N/A

Table 3 The image of Aylan Kurdi on Cypriot news channels in Facebook.

Hence, the research couldn't provide valid results. Therefore, excluding the official pages of local news channels, leaves as only option, of collecting data, the official pages of international broadcasting channels, with the supposition that such pages are liked and followed by people from all over the world. Such channels are considered to be CNN, NBC and CBS.

Below are the numbers of likes and followers of the official pages in Facebook and YouTube, of three of the most known broadcasting channels internationally:

CHANNEL	FACEBOOK		YOUTUBE	
	LIKES	FOLLOWERS	VIEWS	SUBSCRIBERS
CBS	4,094,547	3,993,696	1.208.233.984	797.137
CNN	27,312,567	26,757,597	1.845.831.928	1.995.422
NBC	8,895,206	8,668,471	173.965.611	448.340

Table 4 Summary statistics for CBS, CNN and NBS social media accounts as of the time of writing.

As demonstrated in Table 2 and Table 3, due to the low number of followers, likes and limited content to be analysed on Cypriot broadcasting channels, CNN, BBC and NBC (see table 4), were chosen for the development of the research. Information on these three channels is briefly reported below.

CBS is a private broadcasting channel in America that operates in fields of media and entertainment such us radio, local TV, film, cable etc.[8]. CNN, is also a broadcasting channel in America which includes nine cable and satellite television networks, two radio networks, the CNN Digital Network, which is the top network of news Web sites in the United States, and CNN New source, the world's most extensively syndicated news service[9]. Finally NBC, also an American broadcaster, features brands, including NBCNews.com, MSNBC.com, TODAY.com, Nightly News, Meet the Press, Dateline, and the existing apps and digital extensions of these respective properties[10].

Keeping in mind the above information, selecting these channels, proves to be the right choice, for the reason that, not only they consist three of the most well-known and viewed channels worldwide they also, maintain accounts at both Facebook and YouTube. Thus, two sets of data were needed; from Facebook and from YouTube.

As the depiction of Aylan Kurdi, consists the key element of this study which aims to explore how social media participants respond to similar stimuli across two different social media platforms, comments were collected, from the official page/channel of CNN, NBC and CBS on Facebook and YouTube, when the event was announced (4th of September, 2015). It is noted that, these comments, present the particular position and emotions of individuals with respect to the image of Aylan when posted on the official page of the before mentioned news channels.

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[8] CBS Corporation and CBS Broadcasting Inc. Available from: http://www.cbscorporation.com/about-cbs/ [Accessed 10 May 2017].
[9] CNN International Edition. Available from: http://edition.cnn.com/about [Accessed on 10 May 2017]
[10] NBCNEWS.COM. Available from: http://www.nbcnews.com/pages/about-nbc-news-digital [Accessed on 10 May 2017]

CBS	CNN	NBC

Table 5 The image of Aylan Kurdi on News Channels.

In Facebook, the image collected, in CNN's account, 23K reactions, 3,6K shares and 1089 comments. Whereas, in NBC's, gathered 989 reactions, 155 shares and 195 comments and CBS's account, 241 reactions, 32 shares and 42 comments. It can be easily observed, that CNN's post had greater appeal on users compared with the other two channels on Facebook. While, the video on YouTube collected separately; CNN 6.457 views, 79 likes, 81 dislikes and 806 comments; NBC gathered 327.485 views, 757 likes, 214 dislikes and 707 comments, and, CBS, 95.271 views, 189 likes, 47 dislikes and 184 comments. This indicates that, NBC had wider appeal to the public with respect to Aylan's video on YouTube.

CBS 03/09/15	CNN 06/09/15	NBC 02/09/15

Table 6 The video of Aylan Kurdi on News Channels in YouTube.

The main data gathering instrument was, Facebook API[11](Application Programing Interface) and YouTube Data Tool[12] . Hence, data collection included:

CHANNEL	FACEBOOK COMMENTS	YOUTUBE COMMENTS
CBS	42	184
CNN	1,089	806
NBC	195	707
TOTAL	1,326	1,697

Table 7 Dataset of comments collected from Facebook and YouTube.

For the dataset, 1,326 samples were collected from Facebook, using Facebook API between 17 of December 2016 and 14 of January 2017. Comments collected, contained information shared by users and phrases that expressed emotions and opinions. Phrases included: "I feel so sad" and "I feel sorry for that little boy".

Next, with Facebook API, additional information was gathered for each of the 1,326 individual responses when the image was posted (4th of September, 2015). Data included, users ID, available profile information but also, number of likes and number of users that engaged on each post. Gender however, was labelled manually, by using users profile picture or profile name.

YouTube dataset, consists of, 1,697 public responses when the video was uploaded on each channel, using YouTube Data Tool, between 17th of December 2016 and 14th of January 2017. Comments collected contained, information shared by users and phrases that expressed emotions and opinions. Phrases included: "It's their father's fault." and "I feel sorry for that boy but his father is responsible for his death". In contrast to Facebook, YouTube user profiles do not have gender listed, hence gender was not include in the obtained dataset.

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[11] Facebook API, https://apigee.com/console/facebook?apig_cc=1
[12] YTDT Video Info and Comments, https://tools.digitalmethods.net/netvizz/youtube/mod_video_info.php

SOCIAL NETWORK	LIKES	ENGAGEMENT
FACEBOOK	2511	304
YOUTUBE	1209	1577

Table 8 Facebook and YouTube likes and engagements collected from comments in total.

3.3. Coding scheme development

To characterize the type of comments posted on Facebook and YouTube categories from Naaman, Boase and Lai's (2010) research where used. Such categories are:

- Information Sharing
- Self-Promotion
- Opinions/Complaints
- Statements and Random Thoughts
- Me Now
- Question to Followers
- Presence Maintenance
- Anecdote (me)
- Anecdote (others)

For the reason that not all of the categories created by Naaman, Boase and Lai's (2010) were useful for the present research, some of them were removed and replaced by others. The additional categories, were thematised by 2 independent coders who assigned categories to 200 sampling comments.

After assigning categories, to the downloaded comments, the analysing procedure took place in order to check the similarity of the categories in order to set the coding categories. For that reason, another 200 comments where downloaded and categorized and adapted the initial categories based on the additional input. The goal by categorizing the comments was to provide a descriptive evaluation of the comment posted. Therefore the categories used to proceed with the analysis where:

- Express of Emotion

- Has the image an impact to the user?
- Empathy
- Demand
- Desperation
- Anger
- Sadness
- Fear Invoking God
- Ironic
- Awakening/ Wakeup call
- Information sharing

After setting the categories, a code book was created which contains the categories and their measurement.

Code book from a study comparing emotions expressed in Facebook and YouTube.

1. Gender of the central figure (Male=0; Female= 1)

2. Express of Emotion (No=0; Yes= 1)

3. Has the image an impact to the user? (No=0; Yes= 1)

4. Empathy (No=0; Yes= 1)

5. Demand (No=0; Yes= 1)

6. Desperation (No=0; Yes= 1)

7. Anger (No=0; Yes= 1)

8. Sadness (No=0; Yes= 1)

9. Fear (No=0; Yes= 1)

10. Invoking God (No=0; Yes= 1)

11. Ironic No=0; Yes= 1)

12. Awakening/Wake up call (No=0; Yes= 1)

13. Information sharing (No=0; Yes= 1)

14. Opinion/Complains (No=0; Yes= 1)

Table 9 Code Book.

3.4 Coding

Due to a large amount of content, assistance was required, therefore, comments were assigned and distributed equally to independent annotators to ensure impartiality. Hence, 5 coders (social media users) independently, categorized the content of each of the 3023 messages. Each person had to code 300 Facebook comments and 300 YouTube comments. For each message, each coder had to decide, depending on the context in which of the given categories belongs: express of emotion, impact on users, empathy, demand, desperation, anger, sadness, fear, invoking god, ironic, awakening/wake up call, information sharing, complains/opinion and statement/random thoughts.

To perform the coding, individuals were instructed to select between the numbers of "1" and "0", therefore, they had to select, "1" in the relevant cell, if the comment fits a certain category and "0" if it doesn't. Note that, categories weren't mutually exclusive and annotators, were allowed to assign multiple categories for each comment. Table 7, presents an example of the comment coding, demonstrating the comments and the categories to which they belong.

Code	Example(s)
Empathy (E)	"Absolutely heart breaking…"
Demand (D)	"We must help!"
Desperation (D)	"Why this situation in the world? ◆◆◆◆"
Anger (A)	"Shouldn't have put your family in so much danger…FOOLS!!!"
Sadness (S)	"My heart break, all they wanted is to live a life without fear"
Fear (F)	"I feel so sorry for them but it's scary not knowing who will bomb you out of these people, it's sad to think like this "
Invoking God (IG)	"God help everyone suffering in Iraq & Syria. People need to realize the middle east is populated by Christians as well. They are suffering more than ever."
Ironic (I)	"just one lest to worry about"
Awakening/Wake up call (AW)	"ITS EUROPES CRISIS DONT EVER THINK THEY ARE GETTING IN PROBLEMS IN THE REST OF THE WORLD DONT U UNDERSTAND THESE 500,000 CHILDRENS DIES EVERY MONTH"
Information sharing (IS)	"He wasn't a MIGRANT!!!! He was a refugee. There's a difference. One is traveling the other is fleeing.""
Opinion/Complains (OC)	"With all the money, intelligence and influence in the world, the saddest about all of this is how easily it could have been avoided"
Statements /Random thoughts (SR)	"The Pope said that you should do what you can to help but didn't say you should ruin and overburden your country by taking everyone in from another country and supporting them."

Table 10 Message Categories.

3.7 Reliability testing

According to The Economic Times, Reliability testing allows the testing of the consistency, it discovers faults and removes them[13]. Jit Gupta (2015), refers to the reliability testing as the quality control testing. Hence, by performing the reliability test reliability is ensured and errors are avoided.

By using the codebook, three coders independently re–evaluated 200 randomly selected comments, in order to reconcile the coding differences between them. Meaning, to examine the consistency between the coders, three annotators, had to code again the same set of material in order to measure their reliability.

In order to measure the inter-coder reliability, the percentage agreement formula (Rose, et al., 2015) was applied [PA= A/n X 100].

FACEBOOK INTERCODER RELIABILITY	
MATCH	12
TOTAL	14
IRR	86%

Table 11 Inter-coder Reliability in FB

YOUTUBE INTERCODER RELIABILITY	
MATCH	12
TOTAL	14
IRR	87%

Table 12 Inter-coder Reliability in YT

The result, presented that there is a strong inter-coder reliability in both Facebook (86.7%) and YouTube (85.7%). On average, the percentage of inter-coder reliability is 86.2% and as the acceptable range is 75% and over (Rose, et al., 2015), it can be confirmed that the reliability is quite strong.

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[13] Definition of 'Reliability Testing'. (n.d.). In The Economic Times. Available from: http://economictimes.indiatimes.com/definition/reliability-testing?prtpage=1 [Accessed 17 June 2017].

Chapter 4
Analysis

The main objective, in this work, is to find out if an image or a video shared on social media, elicits emotional reactions from users through the sharing of textual content.

Therefore, this research, address the following research questions:

   i.   Which emotional reactions (e.g. anger, fear, sadness) are people expressing on the refugee crisis and Aylan Kurdis image?

   ii.   Are there any differences between the two platforms?

   iii.   Are there differences with respect to the emotion expressed or is there a difference in terms of the number of reactions expressed to the same content, as posted to Facebook or YouTube?

   iv.   What do comments have to say (i.e., the content of the comment)?

4.1 Facebook Findings

Table 14, shows in numbers the amount of people expressing emotions when commenting and those who do not. The total number of people who commented on the image of Aylan was 1.329, 801 of them expressed some kind of emotion and 525 had chosen not to express emotion on their message.

Express_of_Emotion

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	525	39.5	39.6	39.6
	Yes	801	60.3	60.4	100.0
	Total	1326	99.8	100.0	
Missing	System	3	.2		
Total		1329	100.0		

Table 13 Express of emotions in Facebook

The pie chart below, presents in percentage the above results. It demonstrates that the 60.4% of users expressed their emotions when commenting whereas 39.6% haven't. This can bring to the conclusion that the majority of users in Facebook express their emotion on the sight of an unfortunate event.
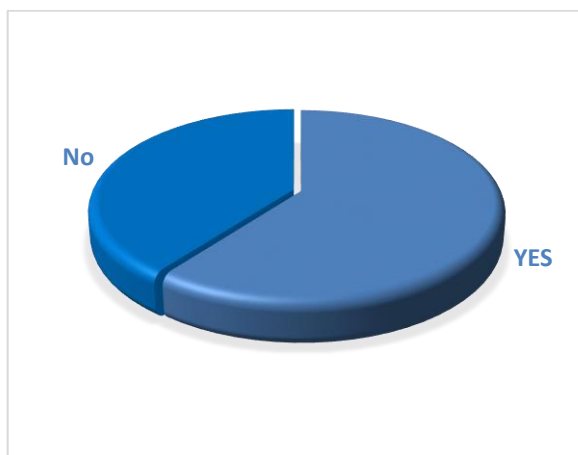
Figure 1 Express of emotions on Facebook

Figure 2; illustrates the number of women and men who had express their emotion when commenting on the image of Aylan Kurdi. In detail 55.7% of men had chosen to express their emotions when commenting whereas 44.3% preferred not to express their sentiments. With regard to women, 67.2% expressed their emotions while 32.8% expressed more their opinions and thoughts.
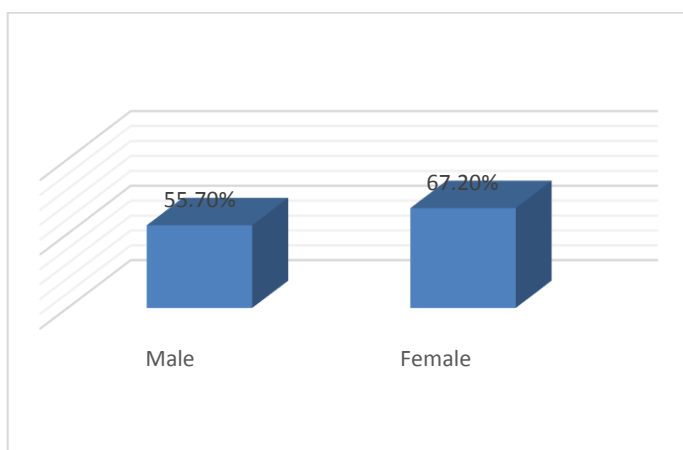
Figure 2 Express of emotions according to gender.

From the results, it looks as if women are more likely to express their emotion when commenting on Facebook than men. To confirm that this statement is valid, Pearson Chi-square analysis was performed.

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	19.439[a]	2	.000
Likelihood Ratio	19.933	2	.000
Linear-by-Linear Association	18.617	1	.000
N of Valid Cases	1326		

Table 14 Pearson Chi – Square Test

As per Table 11, Pearson Chi-Square is 19.439[a] and level of significance is 0.000 (p=0,000, p<0.01). Results show that that there is a correlation between the variables gender and express_of_emotions. Thus, gender and express of emotion are statistically significant and there is a correlation. More simply, the Pearson Chi-Square analysis, proves that women are more likely to express their emotions than men in Facebook.

The bar chart below, presents in detail the breakdown of content categories in relation to the gender. The findings illustrate that the majority of men express more their opinion or complaints (18.33%) and the majority of women express more their emotions, such as sadness (18.25%). Yet another point which proves that women are more likely to express their emotions on social networks and especially in Facebook than men.
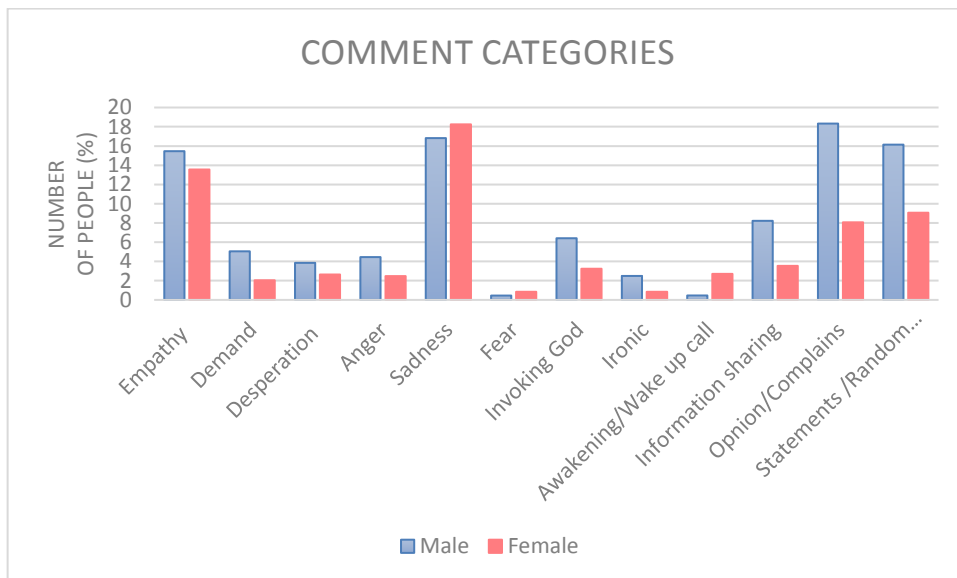
Figure 4 Comment categories according to gender

Extending the analysis, Table 16, displays the breakdown of content categories in the coded dataset. The percentages collected by each category are as follows:

EMOTIONS	PERCENTAGE
EMPATHY	22.16%
DEMAND	3.08%
DESPERATION	1.54%
ANGER	0.51%
SADNESS	17.95%
FEAR	0%
INVOKING ON GOD	2.56%
IRONIC	3.08%
AWAKENING/WAKEUP CALL	2.56%
INFORMATION SHARING	13.85%
OPINION /COMPLAINS	30.26%
STATEMENTS /RANDOM THOUGHTS	27.18%

Table 15 Comment Category Frequency

It can be easily seen from the table that the four dominant categories are information Statement/Random Thoughts (14.9%) Opinion/Complaint (15.6%), Empathy (17%) and Sadness (20.6%).
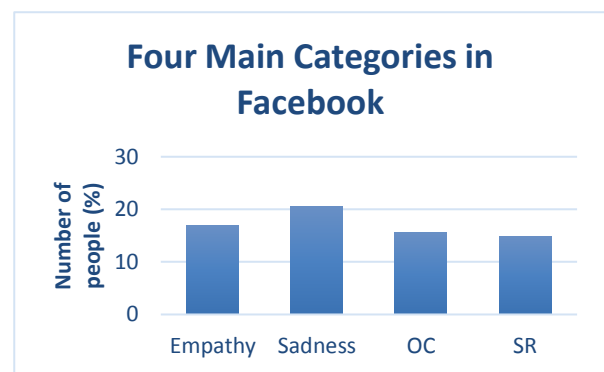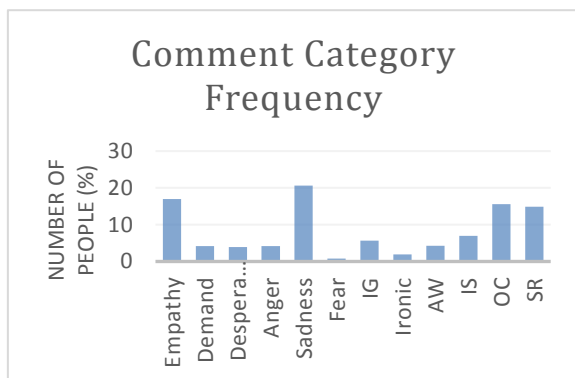
Figure 5 Comment category frequency.

Figure 6 Comment proportions for the four main categories.

Table 16 displays all of the categories on the selected channels. It is demonstrated that in all three channels are presented the same categories. Although the percentages differ, the categories remain almost the same. The only group that does not much in all three

channels, is the category fear. It is clearly shown that in CNN the percentage reaches only the 0.87% whereas in CBS and NBS was the emotion fear was not expressed at all.

EMOTIONS	CNN	NBC	CBS
AWAKENING/ WAKEUP CALL	3.98%	2.56%	9.52%
INFORMATION SHARING	26.46%	13.85%	47.62%
OPNION/COMPLAINS	48.94%	30.26%	45.24%
STATEMENTS /RANDOM THOUGHTS	35.78%	27.18%	52.38%
EMPATHY	9.44%	22.16%	21.43%
DEMAND	3.10%	3.08%	4.76%
DESPERATION	3.48%	1.54%	7.14%
ANGER	7.95%	0.51%	16.66%
SADNESS	4.72%	17.95%	19.04%
FEAR	0.87%	0%	0%
INVOKING ON GOD	2.24%	2.56%	4.76%
IRONIC	5.84%	3.08%	7.14%

Table 16 Category correlation between the three channels in Facebook

Figure 7, presents, the most popular categories of emotions expressed on CNN, NBC, and CBS Facebook page. There, are presented three different graphs where different rates are distinguished in each channel.
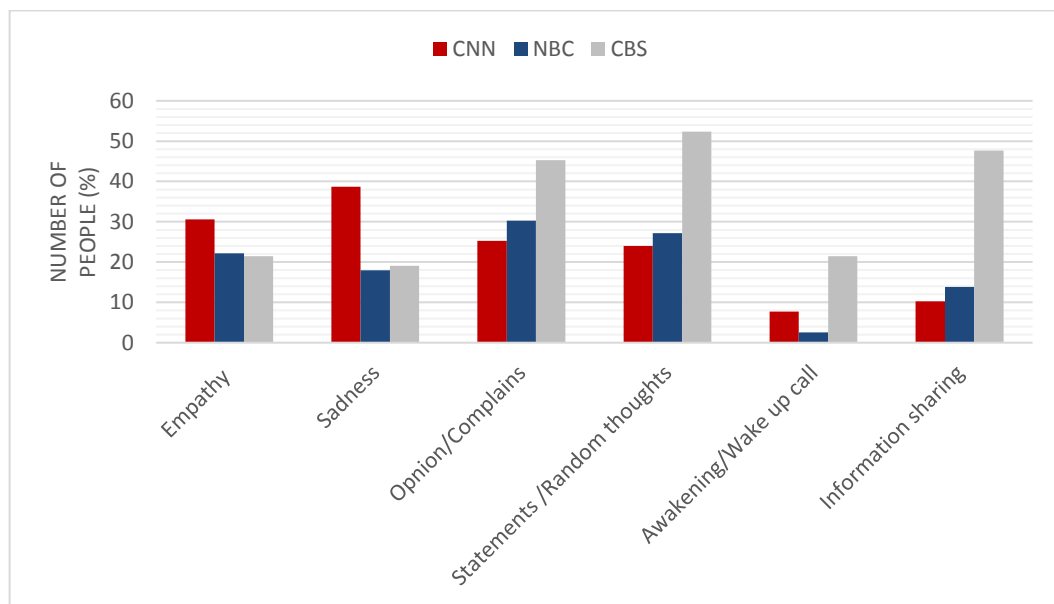
Figure 7 Most popular categories on CNN, NBC, and CBS Facebook page.

The red bar, illustrates the percentage that each category has on CNN's Facebook page. Thus, Sadness consist the leading category (38.66%) with Empathy (30.58%), Opinion/Complains (25.25%) and Statement/Random Thoughts (22.97%) to follow in sequence. The blue bar, represents NBC, whose most frequently appearing category is Opinion/Complaint (30.26%). Statement/Random Thoughts (27.18%), Empathy (22.16%) and Sadness (17.95%) follow. And last, the grey bar, denotes CBS, whose leading category, is Statement/Random Thoughts (52.38%) with Information Sharing (47.62%), Opinion Complain (42.24%) and Awakening/Wake up Call and Empathy (21.42%) to follow in turn.

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	19.879[a]	2	.000
Likelihood Ratio	19.999	2	.000
Linear-by-Linear Association	19.677	1	.000
N of Valid Cases	1326		

Table 17 Pearson Chi – Square Test

A Pearson Chi-square analysis, provides enough evidence to conclude that, to all three channels, are displayed almost the same categories with Sadness, Opinion/Complain and Statement/Random Thoughts, to occupy the highest percentages. As well as, to reveal that there are no significant differences with respect to the distributions of categories between the three channels (p=0.000, p<0.01). The findings, therefore, indicate direct interaction between users but most importantly, present the tendency of user's, to express their emotions much more than to share their opinion and thoughts.

4.2. YouTube Findings

Regarding the number of users who expressed their emotions when commenting on the sight of Aylan's video shared on CNN, NBC and CBS YouTube Channel, 1.422 out of 1.697 do not express their emotion whereas 275 out of 1.697 express their sentiments when commenting (Table 18).

Express_of_Emotion

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	1422	83.8	83.8	83.8
	Yes	275	16.2	16.2	100.0
	Total	1697	100.0	100.0	

Table 18 Express of Emotion in YouTube

Figure 8, presents in percentage the above mentioned results. Hence, the pie chart displays the 83.8% of users who avoid expressing their emotions and the 16.2% of users have expressed their sentiments during the announcement of the event. It is clearly shown, that the majority of YouTube users, do not share their emotions through commenting in comparison to Facebook users.

Yes ■ No
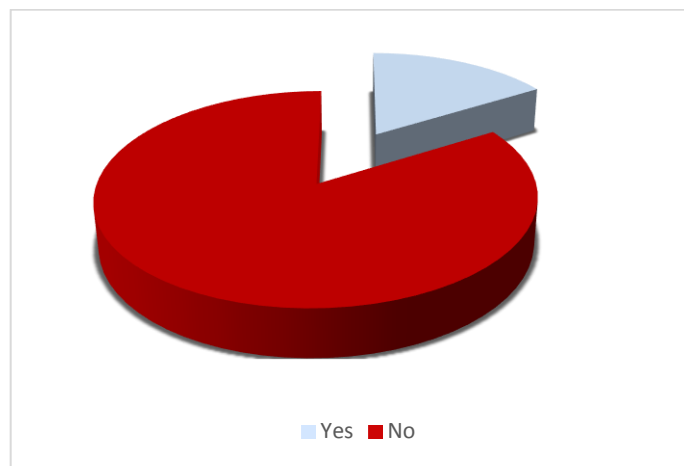
Figure 8 Expression of Emotions on YouTube.

Table 19 displays the comment categories in all three channels. It is show, that in all three channels are displayed the same categories. Even though the percentages differ, the categories continue to be almost the same. The only category that does not much in all three channels, is the category Opinion/Complain, where in CBS was not expressed by the users whereas in CNN reaches the 48.94% and in NBC the 0.42%.

EMOTIONS	CNN	NBC	CBS
EMPATHY	3.98%	8.06%	5.43%
SADNESS	26.46%	1.13%	1.63%
OPINION/COMPLAINS	48.94%	0.42%	0%
STATEMENTS /RANDOM THOUGHTS	35.78%	0.28%	10.35%
DEMAND	9.44%	2.83%	5.98%
DESPERATION	3.10%	0.28%	0.54%
ANGER	3.48%	0.85%	1.63%
FEAR	7.95%	1.41%	3.26%
INVOKING GOD	4.72%	0.71%	0.54%
IRONIC	0.87%	18.25%	21.74%
AWAKENING/WAKE UP CALL	2.24%	49.08%	29.35%
INFORMATION SHARING	5.84%	39.89%	56.52%

Table 19 Category correlation between the three channels in YouTube

Other differences which are revealed through the data collected is that the three dominant categories in CNN are Opinion/Complain (48.94%), Statement/Random Thoughts (35.78%) and Sadness (26.46%). In NBC the leading categories are Awakening Call (49.08%), Information Sharing (39.89%) and Empathy (8.06%). In CBS the categories with the highest percentage are Information Sharing (56.52%), Awakening Call (29.35%) and Statement/Random Thoughts (10.35%).

Extending the analysis, Figure 9, illustrates the breakdown of content categories in all three channels. What is observed is that Statement/Random Thoughts (31.1%) is the most dominant category with, Opinion/Complain (26.9%), Information Sharing (21.2%) and Awakening Call (6.9%) to follow successively.
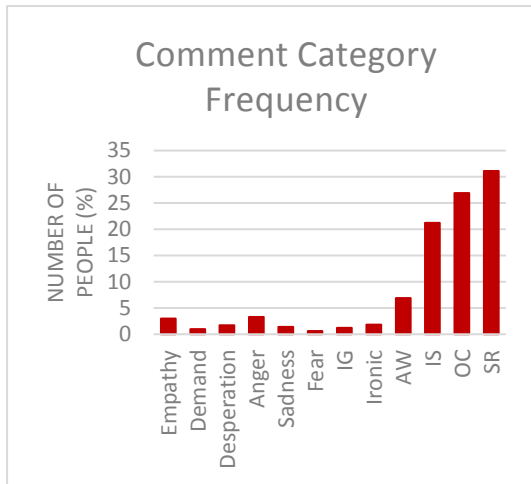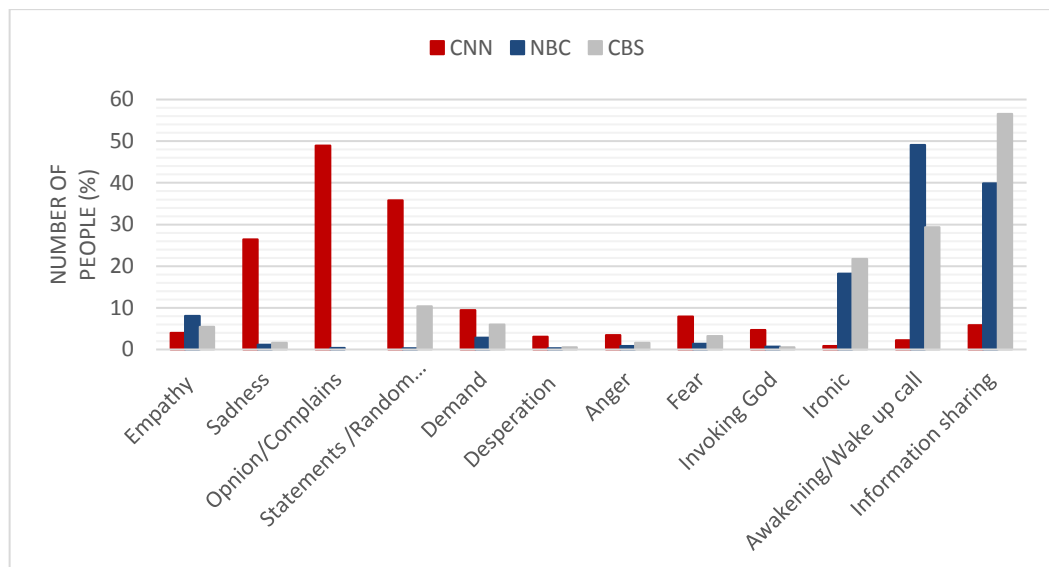
Figure 9 Comment category frequency.
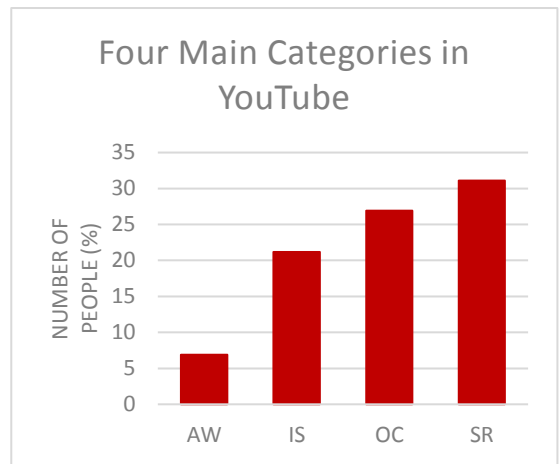
Figure 10 Comment proportions for the four main categories

Figure 11, is an overview of the categories of emotions expressed on CNN, NBC, and CBS YouTube channel, as well as the content of the comments.


Figure 11 Comment categories on CNN, NBC, and CBS YouTube channel.

As can be seen from the chart, the most dominant categories on all three channels are, Opinion/Complain and Statement/Random Thoughts. The leading categories on CNN, are Opinion/Complain (48.94%), Statement/Random Thoughts (35.78%), Sadness (26.46%) and Demand (9.44%). On NBS, the categories with the highest percentage are, Opinion/Complain (49.08%), Statement/Random Thoughts (39.89%), Information Sharing (18.25%) and Empathy (8.06%). Also, on CBS, the leading categories are

Statement/Random Thoughts (56.52%), Opinion/Complain (29.35%), Information Sharing (21.74%) and Anger (10.35%). As shown, it is clear that opinions and random thoughts are primarily expressed on YouTube and the expression of emotions follow with much lower rates.

4.3. Facebook and YouTube Correlation

After having analysed all data collected from each platform, a comparison between them can now be made. To accomplish that, the aggregate data collected from Facebook were compared with those of YouTube across all news channels. Results show that, when the picture of little Aylan Kurdi was posted on Facebook, a total of 2.511 likes were collected. On the contrary, when Aylan's video was uploaded on YouTube, it gathered a lower number of likes (1.209). Although the audience sizes may vary between the two platforms, this may possibly also be an indication that Facebook users are more likely to choose "like", on unpleasant images, as compared to YouTube users.
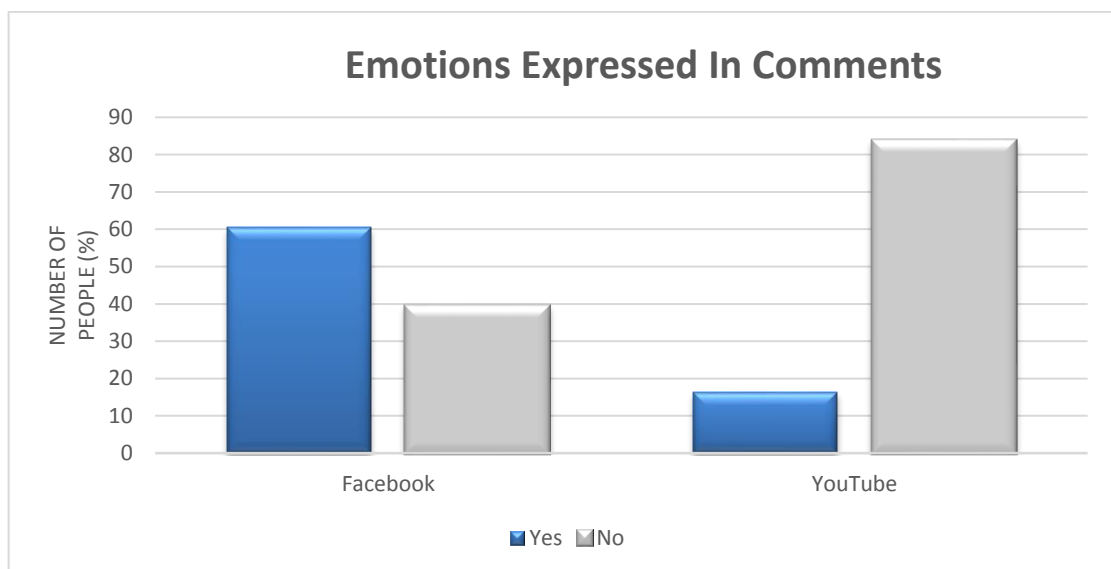
Figure 12 Emotions expressed in comments on Facebook and YouTube.

Apart from likes though, there is also a big difference regarding the emotions expressed between the two platforms. It is clearly shown in Figure 12, that, Facebook users share their emotions (60.40%) a lot more than YouTube users (16.20%). Meaning that, Facebook users are more likely to express emotions than YouTube users.

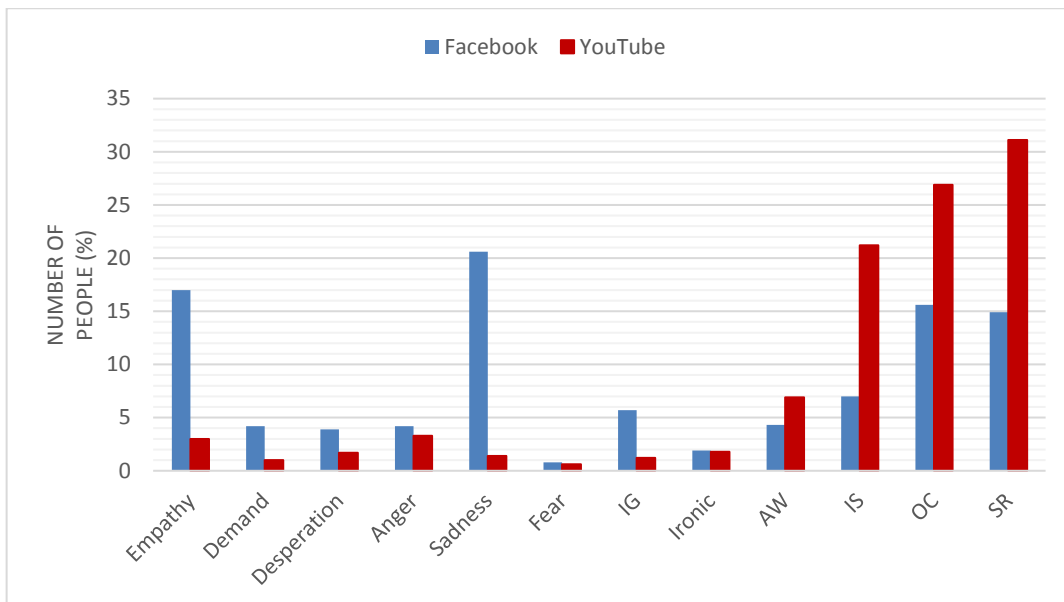|	Facebook	YouTube
Mean	188.4166667	241.6666667
Known Variance	23168.63	105840.8
Observations	12	12
Hypothesized Mean Difference	0	
z	-0.51356983	
P(Z<=z) one-tail	0.303776387	
z Critical one-tail	1.644853627	
P(Z<=z) two-tail	0.607552774	
z Critical two-tail	1.959963985	

Table 20 z- Test: Two Sample for Means

In order to see if these differences are statistically significant, a Z-test of population proportion was conducted. Z-test is a type of hypothesis test were one can figure out if results from a test are valid or repeatable[14].

Hence, the results collected, after performing the Z-test, show, that z is less than the critical value (z= -0.51356983 /z Critical two-tail=1.959963985). Meaning that, differences are statistically significant and Facebook users are more likely to express emotions than YouTube users. Therefore there is an important difference regarding the express of emotion when commenting between the two platforms.

In relation to the emotion expressed, there are not major differences between the two platforms (Figure 13), since the categories with the highest rates are almost the same (OC, SR, S, E). What needs to be noted, is the difference in terms of the frequencies. The categories that occupy the highest numbers on YouTube are, Statement/Random Thoughts (Y=31.10%, F=14.90%) and Opinion/Complains (Y=26.90%, F=15.60%). While in Facebook, are Sadness (Y=1.40%, F=20.60%) and Empathy (Y=3.00%, F=17.00%). Information sharing, Awakening/Wake up Call, Ironic, Invoking God, Fear, Anger, Demand and Desperation are the less frequently occurring categories for both platforms.

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[14] Z Test: Definition & Two Proportion Z-Test. (n.d.). Statistics How To. Retrieved from http://www.statisticshowto.com/z-test/ [Accessed 17 June 2017]

Figure 13 Percentage of total comments belong to each categories on Facebook and YouTube.

Below, are presented the six main categories that have the highest frequencies on both platforms.
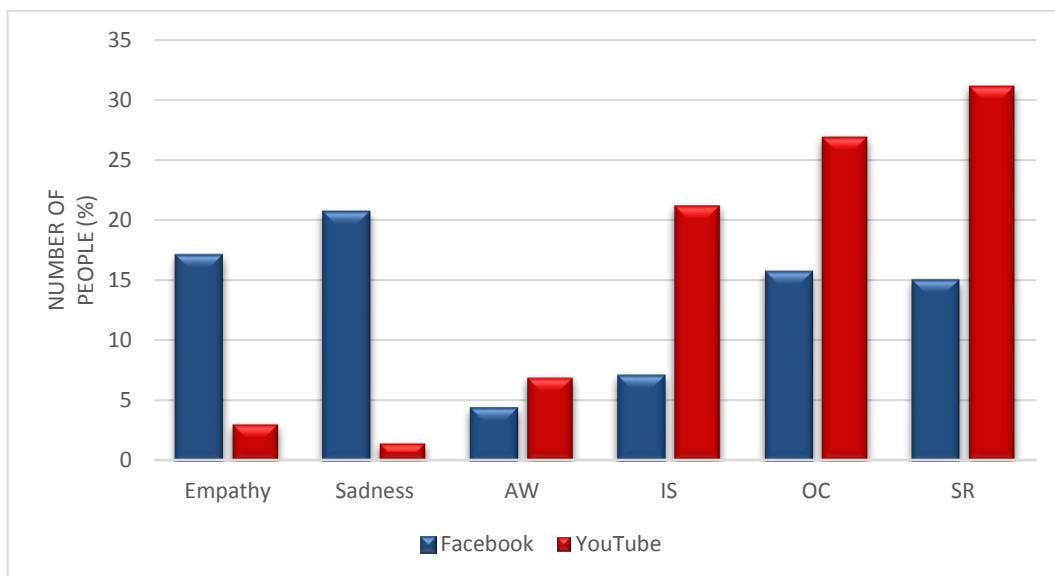
Figure 14 Main categories of emotions expressed on Facebook and YouTube.

What the bar chart reveals, is that the most dominant categories on both platforms are, Awakening Call, Information Sharing, Opinion/Complaint and Statement/Random Thoughts. What is also observed from the graph, is that there are differences regarding the expression of emotion between these two platforms. Specifically, in Facebook, there appears to be greater number of people expressing their sadness (F=17%, Y=3%) and empathy (F=20.6%, Y=1.4%) unlike YouTube that there is a greater number of users

posting Statement/Random Thoughts (F=14.9%, Y=31.1%), Opinions/Complaints (F=15.6%, Y=26.9%) and share information regarding the refugee crisis and Aylan's story (F=7%, Y=21.2%).

Therefore, what is exposed by comparing these two platforms, is that Facebook users are more likely to express their emotions when commenting. Also, through the collected data, in Facebook, it is verified that a picture stimulates feelings, such as sadness and empathy; this proves that Huxford's (2004) statement was accurate and that real individuals and events are presented can produce emotions and if a negative event appears can produce Equivalent sentiments.

Additionally in YouTube the most common expressions by users were opinion/complain and statements/random thought. Yet again, Huxford's (2004) statements can be proved that a picture confounds the distance of time and space between the object represented and the observer is the witness of the event allowing him to judge, express opinions and suggest penalties for those responsible.

As already been said, most comments mainly express, Opinion/Complains, Information and Statements. Listed below are some samples that show, the content of the comments:

Information Sharing	Opinion/Complain	Statement/Random Thoughts
"This refugee family is Kurdish from KOBANE city which is destroyed by ISIS gangs.	"Where is the USELESS UN in all this?? Do they have any plan??"	"Down to Sharia Law."

Table 21 Sample of comments from the three leading categories.

The comments presented in table 21, illustrate the informal communication between users but also the intensity of users' expressions. It is detected that, some of the users have strong opinions against refugees while others are supportive of their plight. Still others leave racist and/or politically charged comments. This can verify Reeves and Nass (1996), statement; the simplest story that is close to real people, places and things activate social and natural reactions.

Chapter 5
Discussion and Conclusions

The present study is an observational study, based on people's reactions to the image of Aylan Kurdi. What was performed in order to carry out the presented research was an analysis of the content of messages posted by individuals on Facebook and YouTube based on Naaman, et al. (2010) research of Message Content in Social Awareness Streams. This study aimed to understand how an audio-visual or a picture of Kurdi, posted CNN, NBC and CBS, can generate emotional expression on two popular social platforms, Facebook and YouTube.

5.1. Discussion

The data analysis of the content of comments posted on each social network by individuals, supports the notion that these are social awareness stream services (Naaman, et al., 2010). In particular, one can distinguish two out of three types of communication. Through commenting on videos and images, the public nature of communication is observed, as users share their emotions, thoughts and opinions, on the Facebook page and YouTube channel, on three of the most popular news channels. Another type of communication that can be distinguished is that both networks consist a highly connected social space (Naaman, et al., 2010). There, all of the information shared is supported by written words. As previously mentioned, Walther (2007) stated that communication in social networks is mostly executed in written text. The characteristic of communication on social awareness stream services, which is not detected in these two platforms is the brevity of the comments that were posted. From the data retrieved, it is observed that

most of comments posted were relatively long messages, particularly on YouTube. Although users had the possibility to post short messages, the majority of them preferred to express their opinions, thoughts and to share information by posting long messages.

It can be said that YouTube represents a simple social awareness stream model, as users can communicate publicly with their messages to be available to everyone, they can post from short to large messages and can watch, share and comment on videos without subscribing to a channel. It can be considered an asymmetric contact network where one user does not need to be a subscriber to watch a video from another user. As for Facebook, social awareness streams communication types are limited to the public nature of communication and this concerns only public pages and groups, as users on Facebook can set their privacy preferences by keeping their updates and personal information available only to friends and followers. It can also be added, that there is an interpersonal communication between users in both networks.

In the extended analysis, in which the aggregate set of comments was considered and compared across the two networks, it was shown that Facebook users differ with regards to the way they express themselves when commenting, as compared to YouTube users. Users in Facebook tended to express more their emotions on the sight of an unfortunate event. Sadness and Empathy are the sentiments that were expressed most frequently. Moreover, it is observed that women are driven more by sharing their emotions while men tend to share more information, thoughts and opinions. From this, someone can conclude that women tend to express a lot more their sentiments on Facebook than men. On the contrary, YouTube users prefer to share their Opinions/Complaints and Statements/Random Thoughts. Opinion/Complain and Statements/Random Thoughts groups, the most dominant groups in YouTube, are more likely to be more conversational by using informal speech. This can lead to the assumption that Opinion/Complain and Statements/Random Thoughts groups, are more interesting and attract more users. Thus, it is more possibly that these groups include more opinion leaders, who, with their opinion, information, attitude, beliefs and behaviour influence the public. This leads to Do Kyun (2007), statement that opinion leaders, with social media and online communication are more accessible.

What is also identified in both networks but in a greater level in YouTube is the absence of a high level of common ground between users. According to the Grounding Framework (Brennan & Lockridge, 2006) it was expected a more civilized conversation among users, meaning, that it was more predictable to express their opinions, complains, sentiments and thoughts in an educational level. Instead, users were sharing their opinions, complaints and thought without any concern of producing confrontations. In other words, users' communication revealed a lack of politeness tactics. Another important point to mention is that when users were sharing information, the content that were revealing with respect to their selves and their identities was limited. Therefore, through impression management, they presented only one of the aspects of themselves; mostly their origin or personal experiences regarding Aylan's story or refugee crisis.

Findings also confirm that visual content often stimulates viewers to witnesses and evoke negative or positive emotions in their reactions to that content. Aylan's picture and video, aroused mostly negative emotions and drew in public's attention. Some of the comments that were collected and express negative emotions are; "It is one of the saddest pictures I have ever seen... How can a 3 year old boy be lying dead and alone on a cold beach and not warm and safe in a nice bed by his parents???", "I dreamt of these kids tdy ...my heart is so sore .....plz god help ...how i wish i was rich so i can help some of those kids", "They were in a safe country - TURKEY not in Syria when decided to go by sea - so this is TOTALLY PARENTS FAULT, as in that case they were moving for better jobs/profits - immigrants, not refugees anymore. They put in risk their children life for better jobs/money etc.!!!", "This refugee family is Kurdish from KOBANE city which is destroyed by ISIS gangs .Turkish government and politicians caused this picture." Obviously here, Reeves and Nass (1996) statement can be confirmed, that stories that are close to real people, places and things, activate social and natural reactions.

5.2. Conclusion

The present research, is an observational case study of the Aylan Kurdi photo and concerns a very specific aspect of the Refugee Crisis. It is based on people's reactions to the image of Aylan Kurdi and studies how an image like Aylan's can generate emotional expression on two popular social platforms, Facebook and YouTube.

Users comments, shared on Aylan Kurdis image, were analysed extensively and the observed emotional reactions are mostly empathy and sadness. The majority of people tent to express their sadness and empathy with respect to Aylan's image and story as well to the refugee crisis. These emotions are mostly seen in Facebook whereas in YouTube users preferred to express their opinion and complains. However, further research could examine different images or aspects of the Crisis using the same methodology so as to confirm whether the same feelings are expressed or not.

As of the differences between Facebook and YouTube, the study presents that users on Facebook are significantly more emotional as compared to comments on related content posted at YouTube. Women tent to post more emotional comments on Facebook as compared to men. On the contrary users when posting in YouTube tent to express more their opinion, complaints and thoughts rather than sharing their emotions. This remark leads to the conclusion that a new channel's choice of platform and the character of its audience appear to be correlated to the expression of emotions.

As of the content of the comments posted on the image and the video, it appears to be lack of politeness tactics. Using Brennan and Lockridge (2006) term, there is an absence of common ground between users. What was expected to be revealed through the comments, was the express of emotion or opinion in a civilized conversation. Instead, there are disputes, intense conversations and aggressive comments.

Regarding the infamous Facebook study (Kramer, et al., 2014), emotions are known to escalate in online environments. Although, contagion hasn't been examined in the current study, it does appear that conditions are disposed for contagion, particularly at Facebook. This means that further research is needed in order to understand whether such sensitive discussions are susceptible to emotional contagion, and if so, what news channels should do about this, if are indeed vulnerable.

Keeping in mind that news channels are increasingly using social media and people these days are engaging more with news and information sources via social media, broadcasting channels but also individuals should keep in mind that, people who uses the social media spaces of news channels, gets informed and also shares thoughts and opinions with others. News channels, might also like to keep aware of the content they are sharing on

social media, as an overwhelmingly negative or positive announcement could be seen as undesirable or unpleasant, resulting in leading the audience to other news outlets or doubt on their objectivity and reliability.

Additionally, the research findings could be used as a starting point for further research by advertising agencies. That is, they can carry out further, studies with respect to the images or the audio visual content they use, in order to discover in what sentiments should aim to motivate the public in buying or using a product through social networks.

Another area that this research can contribute is in the field of prevention. After validating that visual content can actually affect positively or negatively, users when commenting, depending on the content, this research can be considered, from the local authorities, such as police, ministry of education etc., as a foundation for further research on what content they should use, either in images or in audio visual material in order to alert the public, from the very very young to the elderly people, with regards to drugs, accidents, health, environment and so on. And as social networks are used as a means of instant communication, such images and videos could be promoted through social platforms, so as to reach directly the public and have immediate results.

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Annexes
Analyzed Data

A.1 Facebook Comment Analysis
A. 1.1 Express of Emotion

Express_of_Emotion

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	525	39.5	39.6	39.6
	Yes	801	60.3	60.4	100.0
	Total	1326	99.8	100.0	
Missing	System	3	.2		
Total		1329	100.0		

A.1.2 Express of Emotion According to Gender

Express_of_Emotion * Gender Crosstabulation

% within Gender

		Gender			Total
		0	Male	Female	
Express_of_Emotion	No	100.0%	44.3%	32.8%	39.6%
	Yes		55.7%	67.2%	60.4%
Total		100.0%	100.0%	100.0%	100.0%

A.1.3 Chi-Square Test

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	19.439[a]	2	.000
Likelihood Ratio	19.933	2	.000
Linear-by-Linear Association	18.617	1	.000
N of Valid Cases	1326		

a. 2 cells (33.3%) have expected count less than 5. The minimum
expected count is .40.

A1.4 Emotions Expressed

$Emotions Frequencies

		Responses		Percent of
		N	Percent	Cases
Emotions_Expressed[a]	Empathy	385	17.0%	30.1%
	Demand	94	4.2%	7.3%
	Desperation	88	3.9%	6.9%
	Anger	94	4.2%	7.3%
	Sadness	465	20.6%	36.3%
	Fear	17	.8%	1.3%
	IG	128	5.7%	10.0%
	Ironic	44	1.9%	3.4%
	AW	98	4.3%	7.7%
	IS	159	7.0%	12.4%
	OC	353	15.6%	27.6%
	SR	336	14.9%	26.2%
Total		2261	100.0%	176.5%

a. Dichotomy group tabulated at value 1.

$Most_Popular_Emotions Frequencies

		Responses		Percent of
		N	Percent	Cases
Most_Popular_Emotions[a]	Empathy	385	25.0%	33.2%
	Sadness	465	30.2%	40.1%
	OC	353	22.9%	30.4%
	SR	336	21.8%	28.9%
Total		1539	100.0%	132.6%

a. Dichotomy group tabulated at value 1.

A.2 YouTube Comment Analysis

A2.1 Express of Emotion

Express_of_Emotion

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	1422	83.8	83.8	83.8
	Yes	275	16.2	16.2	100.0
	Total	1697	100.0	100.0	

A2.2 Emotions Frequencies

$Emotions Frequencies

		Responses		Percent of Cases
		N	Percent	
Emotions_Expressed[a]	Empathy	87	3.0%	5.3%
	Demand	28	1.0%	1.7%
	Desperation	49	1.7%	3.0%
	Anger	95	3.3%	5.7%
	Sadness	41	1.4%	2.5%
	Fear	16	.6%	1.0%
	IG	34	1.2%	2.1%
	Ironic	53	1.8%	3.2%
	AW	201	6.9%	12.1%
	IS	614	21.2%	37.1%
	OC	780	26.9%	47.1%
	SR	902	31.1%	54.5%
Total		2900	100.0%	175.2%

a. Dichotomy group tabulated at value 1.

$Most_Popular_Categories Frequencies

		Responses		Percent of Cases
		N	Percent	
Most_Popular_Categories[a]				
	Anger	95	3.4%	6.0%
	AW	201	7.2%	12.6%
	IS	614	22.1%	38.5%
	OC	780	28.1%	49.0%
	SR	902	32.5%	56.6%
Total		2778	100.0%	174.4%

$Emotions Frequencies

		Responses		Percent of
		N	Percent	Cases
Emotions_Expressed[a]	Empathy	87	3.0%	5.3%
	Demand	28	1.0%	1.7%
	Desperation	49	1.7%	3.0%
	Anger	95	3.3%	5.7%
	Sadness	41	1.4%	2.5%
	Fear	16	.6%	1.0%
	IG	34	1.2%	2.1%
	Ironic	53	1.8%	3.2%
	AW	201	6.9%	12.1%
	IS	614	21.2%	37.1%
	OC	780	26.9%	47.1%
	SR	902	31.1%	54.5%
Total		2900	100.0%	175.2%

a. Dichotomy group tabulated at value 1.

A.3 Facebook and YouTube Comment Analysis

A3.1 Emotions Expressed on Facebook and YouTube

Emotions	Facebook	YouTube
Empathy	17.00%	3.00%
Demand	4.20%	1.00%
Desperation	3.90%	1.70%
Anger	4.20%	3.30%
Sadness	20.60%	1.40%
Fear	0.80%	0.60%
IG	5.70%	1.20%
Ironic	1.90%	1.80%
AW	4.30%	6.90%
IS	7.00%	21.20%
OC	15.60%	26.90%
SR	14.90%	31.10%

A.3.2 Emotions Expressed on CNN's Facebook page and YouTube channel.

Emotions	Facebook	YouTube
Empathy	30.58%	3.98%
Sadness	38.66%	26.46%
Opinion/Complains	25.25%	48.94%
Statements /Random thoughts	23.97%	35.78%
Demand	7.90%	9.44%
Desperation	7.53%	3.10%
Anger	7.90%	3.48%
Fear	1.56%	7.95%
Invoking God	11.11%	4.72%
Ironic	2.57%	0.87%
Awakening/Wake up call	7.71%	2.24%
Information sharing	10.28%	5.84%

A3.3 Emotions Expressed on NBC's Facebook page and YouTube channel.

Emotions	Facebook	YouTube
Empathy	22.16%	8.06%
Demand	3.08%	1.13%
Desperation	1.54%	0.42%
Anger	0.51%	0.28%
Sadness	17.95%	2.83%
Fear	0%	0.28%
Invoking on God	2.56%	0.85%
Ironic	3.08%	1.41%
Awakening/Wake up call	2.56%	0.71%
Information sharing	13.85%	18.25%
Opinion/Complains	30.26%	49.08%
Statements /Random thoughts	27.18%	39.89%

A3.4 Emotions Expressed on CBS's Facebook page and YouTube channel.

Emotions	Facebook	YouTube
Empathy	21.42%	5.43%
Demand	4.76%	1.63%
Desperation	7.14%	0%
Anger	16.67%	10.35%
Sadness	19.05%	5.98%
Fear	0%	0.54%
Invoking God	4.76%	1.63%
Ironic	7.14%	3.26%
Awakening/Wake up call	21.43%	0.54%
Information sharing	47.62%	21.74%
Opinion/Complains	45.24%	29.35%
Statements /Random thoughts	52.38%	56.52%

B. Instructions for the emotion annotation task

Emotion Annotation Task

The following task, composes part of an observational study which aims to discover how individuals respond through their commenting when facing the image of Aylan Kurdi on pages of news channels on Facebook as well as on a video of the same event by news channels on YouTube.

Data were downloaded using Facebook API (Application Programming Interface) and YouTube Data Tool in order to collect digital traces from global news channels, such as CNN, NBC and CBS. The data consists of:
- o   Facebook: 1,326 comments
- o   YouTube: 1,697 comments

Process
Followed by quantitative examination and message coding based on Naaman, Boase and Lai's (2010), digital traces will be analysed from the accounts of CNN, NBC and CBS in both platforms, Facebook and YouTube.

More specifically what will be analysed is:
- a.   What do comments have to say (i.e., the content of the comment)?
- b.   Which emotional reactions (e.g. anger, fear, sadness) are people expressing on the refugee crisis and Aylan Kurdis image?
- c.   If there are any differences between the two platforms. Are there differences with respect to the emotion expressed or is there a difference in terms of the number of reactions expressed to the same content, as posted to Facebook or YouTuber?

Participation in the analysis of the content:
In the initial phase of the research process, assistance will be needed due to a large amount of content. Therefore, comments will be distributed equally to independent annotators to ensure impartiality.

Hence, each person has to code 50 Facebook posts and 180 YouTube posts. For each post, you should decide, depending on the context in which of the following categories belongs: express of emotion, has an impact on users, empathy, demand, desperation, anger, sadness, fear, invoking god, ironic, awakening/wake up call, information sharing, complains/opinion and statement/random thoughts.

To perform the coding, you will have to select between the numbers "1" and "0". You choose "1" in the relevant cell, if the comment fits a certain category and "0" if it doesn't. Note that, categories are not mutually exclusive (i.e. one post can belong to one or more categories).

Below, you can find examples showing the process that it is required for you to follow:
Examples:

Facebook comments:

COMMENTS	Express of Emotions	Has an impact on users	Empathy	Demand	Desperation	Anger	Sadness	Fear	Invoking God	Ironic	Awakening/ wakeup call	Information sharing	Complains /opinion	Statement / random thoughts
sleep in peace baby. tragic photo. sad story.	1	1	1	0	0	0	1	0	0	0	0	0	1	0
Why don't go to Arabic countries???closer and safer…and members of the same religion…why go to infidels lands???as they believe for Christians…	1	0	0	0	0	0	0	0	0	1	0	0	1	0

YouTube comments:

COMMENTS	Express of Emotions	Has an impact on users	Empathy	Demand	Desperation	Anger	Sadness	Fear	Invoking God	Ironic	Awakening/ wakeup call	Information sharing	Complains /opinion	Statement / random thoughts
I do feel sorry for the child, he didn't have to be put in that dangerous situation by his father. I feel sorry for the child, but not the father and imo he's to blame for the child's premature and unnecessary death.	1	1	1	0	0	0	1	0	0	0	0	0	1	1
Even the ocean doesn't want immigrants.⬜	0	0	0	0	0	0	0	0	0	1	0	0	1	0

Thank you for your assistance!