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Σχολή Θετικών και Εφαρμοσμένων Επιστημών

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Design of a mobile application prototype: A tool for measuring the degree of manipulation of the Cypriot user from social media information

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ΛΕΥΚΗ ΣΕΛΙΔΑ

Περίληψη

Σύμφωνα με τον Αμερικανό κοινωνιολόγο Joseph P. Overton, στο εκάστοτε κοινωνικό σύνολο υπάρχουν ιδέες στις οποίες υπάρχει το λεγόμενο "παράθυρο δυνατοτήτων" (Overton window) που περιλαμβάνει μια προσέγγιση συστηματικής στρατηγικής που περιλαμβάνει μια σειρά μη αποδεκτων ιδεων που μετατοπίζονται βήμα προς βήμα προς την νομιμοποίηση απο την κοινή γνώμη. Η θεωρία του Όβερτον περιγράφει μια συγκεκριμένη ακολουθία ενεργειών από ειδικούς των Μέσων Μαζικής Ενημέρωσης προκειμένου να ξεκινήσει δημόσια συζήτηση για κάποιο θέμα που θεωρεί αδιανόητο η κοινωνία. Βήμα προς βήμα το «παράθυρο δυνατοτήτων» μετατοπίζεται αλλάζοντας την κοινή γνώμη από το στάδιο του αδιανόητου και απορριπτέου στο στάδιο της τρέχουσας πολιτικής ή επικαιρότητας. Σε αυτό το στάδιο το θέμα ήδη συζητείται ευρέως και έχει καθιερωθεί στις συνειδήσεις όπου οδηγείται στο τελικό επιζητούμενο στάδιο της νομιμοποίησης. Σκοπός της διατριβής είναι ο σχεδιασμός πρωτοτύπου εφαρμογής για κινητά τηλέφωνα βασιζόμενη στη θεωρία του Overton με προσέγγιση ανθρωποκεντρικού σχεδιασμού, για την υποδείξει του βαθμού αλλαγής ή μη της κοινής γνώμης των Κύπριων χρηστών (σε διαδικτυακό περιβάλλον) σε θέματα που θεωρούνται εντελώς απαράδεκτα σε διαδικτυακό περιβάλλον.

Summary

The American sociologist Joseph P. Overton, theorized that, in each society there is a so-called window of discourse (Overton Window) which includes a systematic strategy approach that includes a set of unacceptable ideas that are shifting towards legalisation by the public opinion. Overton's theory describes a specific sequence of actions made by media specialist in order to start a public discussion of any matter originally considered unthinkable by the society. Step by step the window of discourse is shifting and the public opinion is changing. At this stage of changing public opinion, the matter has already been widely discussed and has established itself in the consciousness of the citizens', which will in turn lead to the final desired stage that of "legalisation". The aim of the thesis is to design a mobile application prototype that is based on the Overton theory, which indicates the degree of change or not in the opinions of Cypriot users (In an online environment) on matters considered completely unacceptable.

Acknowledgements

I would first like to express my sincere gratitude to my Thesis advisor Dr. Alexandros Yeratziotis for his guidance and immense knowledge during the research and writing of this Thesis. I would also like to thank the participants who were involved in this research who without their participation the survey could not have been successfully conducted. Finally, I must express my gratitude to my family, my friends and my partner Giannis, for their support and encouragement through the writing of this Thesis.

Thank you.

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Chapter 1

Introduction

1.1 Background

According to the American sociologist Joseph P. Overton, in each society there is a so-called window of discourse (Overton Window) which includes a range of unacceptable ideas, which systematically can shift towards legalisation by the public opinion. The theory describes a specific sequence of actions made by media specialist in order to start a public discussion of any matter previously considered unthinkable by the society. Step by step the window of discourse is shifting and changing the public opinion. At this stage the matter has already been widely discussed and has established itself in the consciousness of the citizens', which will in turn leads to the final desired stage that of legalisation. According to Russell (2006) the essence of the theory is that between the ends of each idea or policy lays a graduation of ideas from one extreme to the other. It is argued that only those ideas that are initially within the window of possibilities have a high possibility to succeed in changing the public opinion. The main goal is the constant circulation of alternative policies, thus keeping them alive until the unacceptable becomes politically acceptable. Lehman (2010), who is the president of the Mackinac Center for Public Policy[1], suggests that the imposition of ideas to the public by the model of the Overton Window may cause moral arguments and debates concerning the origin and motivation behind each social movement created in order to archive major changes in public opinions. According to Lehman (2010), no matter what topic is presented to the public, if it's adjusted to the mechanism described by Overton (1990) employing a strong social movement it will become eventually politically embraced and consolidated in the public opinion.

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[1] https://www.mackinac.org

About 6-in-10 Americans get news from social media

% of U.S. adults who get news on a social networking site …

62% get news on social media

Often 18%

Never 38%

Sometimes 26%

Hardly ever 18%
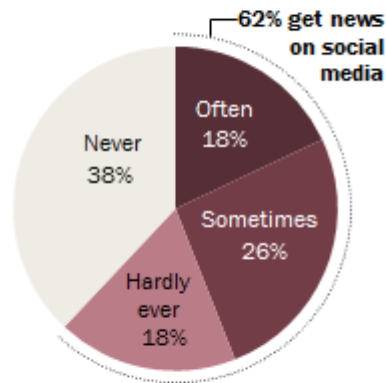
Source: Survey conducted Jan. 12-Feb. 8, 2016.
"News Use Across Social Media Platforms 2016"

PEW RESEARCH CENTER

Figure 1: News Use across Social Media Platforms 2016. Pew Research Center (2016)

The online social media have become the main tool for massive news feds to the public. According to the Pew Research Center (2016)[2] users tend to rely on the network consuming large amount of information, leading to unprecedented opportunities for media owners. According to a research on Media coverage in time of political crisis, the mass media have become an important broadcast medium for politicians. It rays the question whether they actually reproduce the news in a bias way to match their personal agendas. Fortuny, De Smedt, Martens and Daelemans, (2012) research indicates that there exists a coverage bias throughout the mass media and expert systems can be a viable strategy for political research. According to Edmond (2013), the use of biased information for manipulation outcomes depends on the way that the users filter the information that they receive. A tool that can record user's public opinions on unacceptable issues and also inform them of the degree of manipulation that their opinions are experiencing from social media over a period of time on these same issues is an example of such a means that can protect them.

The aim of the thesis is to design a mobile application prototype that is based on the Overton theory, which indicates the degree of change in the opinions of Cypriot users on matters that are presently considered completely unacceptable by most members of the Cypriot society. The mobile application prototype will be used as a personal identification and measurement tool of the extent of manipulation that the Cypriot user may or may not experiences over a period of time within different contexts. The potentials of social media from a technological standpoint are constantly expanding. Hence, substantial experimentation is in going to determine new ways of information manipulation in order to generate desirable outcomes, such as the propaganda model outlined by Herman and Chomsky (1988). The focus is on the inequality of wealth and power and the behavioral patterns in relation to mass media production. A trace root of

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[2] http://www.journalism.org/2016/05/26/news-use-across-social-media-platforms-2016/

power and money filter news flow on behalf of private interests and governments controlling the public opinion. Klaehn (2002) best describes the method of approach of media in order to promote and legitimize dominant class interests. One of the main questions is if the nature of the information affects the user's ability in objectively formulating opinion. Redlawsk (2002) tests the effects of motivated reasoning on decision making and claims that independent of any other important factor concerning targeted negative information released to the public, its nature of origin will lead users to discount important cues leading to low quality decision.

As a result of these phenomena the mobile application prototype will be created with the Cypriot user at the center of the design process and it aims at awakening these users, providing awareness and protection from misinformation and/or manipulation by online social media.

1.2 Problem statement

The problem that this research study investigates is the extent of the awareness of the effect that Cypriot users, who are subjected to by social media opinion manipulation techniques. During the course of interaction with social networks, Cypriot users construct what appears to be their own opinion based on the most influential ideas presented to them by the media. The outcome is often users with limited judgment on important public matters. This leads to the need to re-educate Cypriot users on how to evaluate the content of the information that they receive through their interaction with social media.

1.2.1 Research questions

The main research question of this study is the following:

How can we design a mobile application prototype that measures the degree of manipulation that Cypriot users experience by social media?

The secondary research questions that will support the main research question are:

1. Which user-centered design methods should be applied to develop a prototype that is usable and addresses the requirements of a mobile application prototype that measures the degree of manipulation that users experience by social media?

2. Which methodology should be applied for the examination of the extent of the awareness of the effect that Cypriot users are submitted to by social media

opinion manipulation techniques in order to address the gap from previous research?

3. How can the data collected from the measurement of the degree of change in Cypriot user's public opinions be incorporated into the design of the mobile application prototype?

1.2.2 Necessity and importance of the research study

According to the Italian writer and philosopher Umberto Eco (2015) "social media gives legions of idiots the right to speak when they once only spoke at a bar after a glass of wine, without harming the community. Then they were quickly silenced, but now they have the same right to speak as a Nobel Prize winner does. It's the invasion of the idiots." With the constant growth of the Internet and the overflow of information through social networks the users are overloaded with negative consequences. Savigny (2002) claims that mass media and internet are well established and play a constantly growing role in opinion formation. This means that people tend to rely on people who manage information on social networks and accept all kind of information as such without further study of the validity or the source. The social networks can be a powerful tool without physical or geographical limitations for the exploitation and manipulation of the user for legitimate or illicit purposes. The Pew Research Center (2015) concluded that half of the Web users tend to get informed about politics and government on Facebook, a platform that tends to hold strong influence over users views and opinions. The way in which each "administrator" whoever that may be, will interact with the users on social networks depends on his/her moral barriers. The aim of the mobile application prototype is the personal identification and measurement of the extent of manipulation that the Cypriot user experiences over a period of time within different contexts. As a result the mobile application prototype aims at awakening these users, providing awareness and protection from misinformation on matters considered completely unacceptable.

1.2.3 Scope of research

The scope of this thesis is to examine the possibility of opinion manipulation of Cypriot users on several specific topics including political and religious subjects and social. To this end, we use a questionnaire created based on the theory of the so-called window of

discourse (Overton Window). The aim is to use the collected data for the design of a lo-fi mobile application prototype.

1.3 Review of Literature

The theoretical framework concerning the research necessary for the design of the new mobile application prototype is being presented in this segment. Theories of public manipulation by think tanks[3] are being presented by the "Overton Window of Political Possibilities". In addition similar manipulation methods of opinion making are detected from the use of Social Engineering which focuses on the combination of science and social communication. Hadnagy (2014) reveals the technical aspects of the use of non-verbal communications behaviors combined with social engineering with scamming skills. The main goal is to build feelings of trust with the target user in order to influence them to behave in ways that are not in their best interest. In relation to these methods, the "Barnum effect" explains the case of widespread acceptance of vague beliefs and practices. These lead to the propaganda model framework for manufacturing consents as described by Chomsky and Herman (1988). The regularity of media participation in propaganda campaigns has been impressive over the times, Herman (2003) tried to analyze and understand how the main stream media works and the reasons behind them. However, given the complex nature of the media and its relationship to society, another view is that the aim should be not to find the reasons of manipulation but to find ways and means to be protected from such techniques and mechanisms, which are constantly being created.

The mobile application prototype will be created with the Cypriot user at the center of the design process combined with the main principles of the window of discourse (Overton Window) and Human-Computer Interaction (HCI) principles. Grounding the study in Human computer interaction ensures that the needs of the users will be supported in the new technology. Tomayess and Andrew (2010) argue the importance of taking into consideration the principles of usability and Human Computer Interaction in order to avoid user's errors and reduce their frustration. The goal is to meet user's requirements concerning the level of approach and friendliness combined with

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[3] "An institute, corporation, or group organized to study a particular subject (such as a policy issue or a scientific problem) and provide information, ideas, and advice…" [online]. Available at: https://www.merriam-webster.com/dictionary/think%20tank

heuristics developed from the experience of analyzing real generally recognized problems as presented by Nielsen and Molich (1990).

1.3.1 List of Chapters

1. **Chapter 1:** Introduction. Presentation of the subject of inquiry based on the theory of the Overton Window, the research methodology to be followed, the aims and objectives of the study.

2. **Chapter 2:** Public Manipulation Tactics. Exploration of the existing literature that is relevant to the development of a conceptual framework concerning the assumptions of public manipulations tactics. Additionally the reader will be introduced to the mechanism of the Overton Window, similar techniques of information manipulation and achievements of media propaganda. The impact by the use of manipulation within the environment of social networks will also be discussed.

3. **Chapter 3:** Human-Computer Interaction. Exploration of Human-Computer Interaction in relation to mobile human computer interaction. Human-Computer Interaction will be discussed from the aspect of which user-centered design methods should be applied to develop a prototype that is usable and addresses the requirements of Cypriot users. This chapter will focus on the argumentation for the importance of the acknowledgment of the necessity to study the way users interact with computer systems from a variety of aspects such as usability, learnability, efficiency, memorability etc.

4. **Chapter 4:** Research Methodology. A detailed review of the research methodology applied by the introduction of quantitative and qualitative methods employed to collect data for analysis which will contribute to the design of the mobile application prototype. As part of the qualitative methodology current findings from different literature reviews on manipulation techniques will be used as a secondary source for the preparation of the questionnaire to be used and tested on the participants.

5. **Chapter 5:** Questionnaire results: Presentation and analysis of the questionnaire results.

6. **Chapter 6:** Mobile Application Prototype: Presentation of the design of the Lo-Fi mobile application prototype with extensive analysis of the procedures.

7. **Chapter 7:** Conclusions. An overview of the research that was undertaken in order to answer the research questions that were originally posed will be provided as will the justification of the conclusions. Contributions of research, future developments and likely impacts will be mentioned.

1.4 Research methodology

During this study the necessary data for the design of the mobile application prototype will be collected using a mixed method approach, a combination of qualitative and quantitative research methods. As part of the qualitative methodology current findings from different literature reviews on manipulation techniques will be used as a secondary source for the preparation of the material to be used and tested on the participants. The aim is to understand in-depth the stability of views of adult Cypriot users concerning political, religious and social maters. Purposeful sampling will be used in order to obtain a result representing the whole population in order to investigate the human behavior and explore Cypriot user's reactions and engagement in the environment of social media. The quantitative methodology will include questionnaire and statistical analysis. The methods that will be used are interviewing focus groups in order to reduce any possibility of the risk of researcher bias. Participants will be chosen from different social backgrounds, political and religious beliefs. They will be asked to answer via the online survey software "QuestionPro" (https://www.questionpro.com) a questionnaire created based on the mechanism described by Joseph. P. Overton, about their opinion concerning the following matters:

1. Demographic Questions
2. Mass Media Information
3. Child adoption by homosexual couples.
4. Cooperation of DISY (Conservative Christian Democratic Party) and AKEL (The Progressive Party of Working People) in forthcoming presidential elections or referendum, with a jointly supported candidate.
5. Orthodox Christening in infant-hood.

The data obtained from the questionnaire will be incorporated into "Design Science Research" which will provide the necessary knowledge to explain and evaluate the current main problem that of how to design a mobile application prototype that measures the degree of manipulation that Cypriot users experience by social media?

Additional to the "Design Science Research" a user-centered framework of processes will be applied for the design of the mobile application prototype. At each stage of the prototype design the user's requirements will be considered and included by the use of prototype usability testing in order to analyze the behavioral possible curve of reactions of the user after the use interaction with the mobile application prototype.

Research questions	Type (main or secondary)	Research methodology
How to design a mobile application prototype that measures the degree of manipulation that Cypriot users experience by social media?	Main	Combined qualitative and quantitative research methods
Which user-centered design methods should be applied to develop a prototype that is usable and addresses the requirements of a mobile application prototype that measures the degree of manipulation that users experience by social media?	Secondary	Prototyping and Narrative research
Which methodology should be applied for the examination of the extent of the awareness of the effect that Cypriot users are submitted to by social media opinion manipulation techniques in order to address the gap from previous research.	Secondary	Triangulation: Combination of questionnaires interviews and focus groups
How the collected data from the measurement of the degree of change in Cypriot user's public opinions can be incorporated into the design of the mobile application prototype?	Secondary	Design Science Research, Ethics and Anonymity

In the next chapter the basic methodology of the mechanism of "Overton Window" will be presented and discussed. Based on the examination of the mechanism named "Overton Window", and other similar technics, this chapter will examine the types of manipulation tactics used in Social Networks and their level of impact on users' opinions.

Chapter 2

Public Manipulation Tactics

2.1 Introduction

The purpose of this chapter is the exploration of the existing literature that is relevant to the development of a conceptual framework concerning the assumptions of public manipulations tactics affecting media credibility. Users worldwide including Cypriots are constantly subjected to different kinds of mass media opinion manipulation techniques through the interaction with the constantly increasing complex social media platforms because of a difficulty to retain high numbers of audience. Pew research (2015) claim a trend of dropping ratings across media credibility despite the new possibilities that the social media offer concerning the transmission of news. According to the research 78% of adult users are exposed to news on Facebook. This high rate of public exposure to digital news raises questions concerning the implications on matters of trust and opportunities of abuse.

Jonnalagedda, Gauch, Labille and Alfarhood (2016) mention that the majority of users are focusing on the use of real-time social platforms such as Facebook, Twitter and Google Plus in order to be informed about the most popular current news. The reason of the popularity of the specific social media is their ability to provide instantly a massive amount of information. This is achieved by the use of news recommender systems which like Jonnalagedda, et al., (2016) analyze are divided based on the type of recommendation into two categories. The first is the popularity based news recommendations where the articles are ranked according to their popularity identification from the social networking websites. The second is the profile based news recommendations that is based on the users' interests. Additionally some platforms also use intelligent information agents, which filter the actions of the users and recommend similar items that will match the contents from each user profile. Despite the positive benefits from the use of recommendations because of their unmoderated nature the quality of the information may vary and a question is raised concerning the ethics

behind these systems. How high is the possibility of the recommended systems to have a hidden agenda and take advantage of the users in order to provide them specific news? Townend's (2016) research indicates that for year's non-governmental organizations during periods of crises tended to influence the work of journalists by the use of funding creating a perceived conflict of interest, altering the validity of the news.

Based on the examination of the mechanism named Overton Window, and other similar techniques, this chapter will examine the types of manipulation tactics used in Social Networks and their level of impact on users' opinions. The aim of the thesis is to design a mobile application prototype that is based on the Overton theory, which indicates the degree of change or not in the opinions of Cypriot users on matters considered completely unacceptable. Focus will therefore be devoted to investigating the possibility of limited judgment on public matters from the Cypriot users, as a result from their interaction with Social Networks. Furthermore, this research is interested in the probability of measurement of the degree of influence that Cypriot users are subjected to from the Social Networks. This chapter is divided into the following sections:
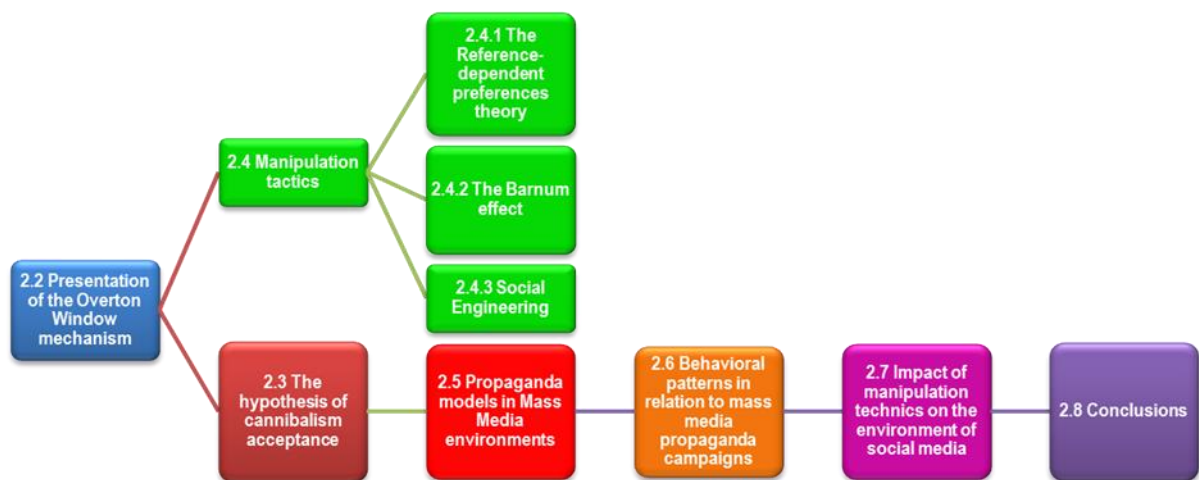
Figure 1: Chapter 2 diagram of sections.

2.2 Presentation of the Overton Window mechanism

American sociologist Joseph P. Overton (4 January 1960 – 30 June 2003) was Senior Vice President of the Mackinac Center for Public Policy responsible for the establishment of the center as a powerful think tank in the area of public policy. He is mostly known for conceptualing of the theory of Overton Window, a so-called window of discourse of public policy change. Overton died at the age of 43, from injuries after his single-seat

lightweight aircraft crashed. Since he passed away the idea of Overton Window of Political Possibility, has been promoted by the center in order to raise awareness concerning the power of think tanks to shift and arrange public policies.

The theory is explained by Lehman, J., G. (2010), the president of Mackinac Center, as a specific sequence of actions made by media specialist in order to start a public discussion of any matter considered unthinkable by the society. In other words in each society there is a theory that describes a so-called window of discourse which includes a range of unacceptable ideas systematically shifted towards legalization by the public opinion. A specific sequence of actions is made in order to start a public discussion of a matter considered unthinkable by the public. Step by step the window of discourse is shifting and changing the public opinion. At this stage the matter has already been widely discussed and has established itself in the consciousness of the citizens', which will in turn lead to the final desired stage that of legalization. According to Nathan (2006) the Overton Window of Possibilities can be easily explained by imagining a yardstick with extreme policy actions at each end. Between the two ends we can find a gradation of policies from one end to the other end. For each particular matter its full political spectrum is represented by the yardstick, a so-called window of discourse, which includes a range of unacceptable ideas by the two ends systematically shifted towards acceptance by the public opinion. Based on the theory the essence of the success lies in the fact than only ideas within the window of the politically possible will be met with success. Ideas outside the window will be rejected. Figure 2 shows the yardstick with gradation of policies from one end to the other end. Step by step the window of discourse is moving within the gradation until it reaches legalization.
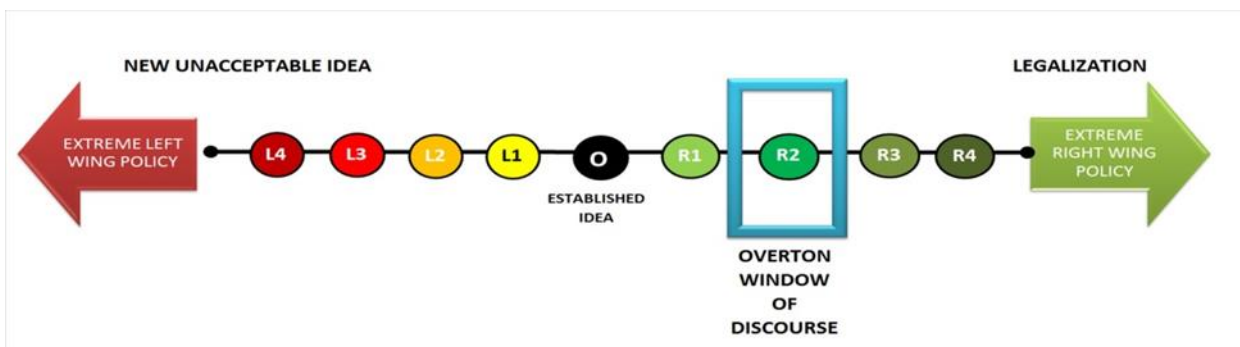
Figure 2: Diagram of the Overton Window of Discourse

In order to better understand this theory and how the mechanism of window of discourse works in real settings, Overton used to present the example of Michigan school during the 1980s and 1990s (Nathan, 2006). During the 1980s in the state of

Michigan in the United States, the option concerning the choice of education, so called "school choice" was limited. The yardstick as presented in Figure 2 consisted of extreme policy actions at each end. In this case it consisted of two radical ideas at each end, the idea of full parental choice concerning the type of education at one end and on the other total control of schooling by the government. The idea of home schooling or Charter schools that operate without regulations imposed upon them was considered by the politicians to be out of bounds. The only minor changes they were willing to accept were the choice of private schools. The window of discourse which included a range of educational choices started to shift towards acceptance by the public opinion as soon as parents became aware of the alternative education options and their success in other states. This left no other choice to the politicians than to examine the possibility of home schooling under a more objective per spectrum and a window of political possibility was therefore opened. At this point Michigan politicians began to successfully support home schooling or Charter schools. The result was the two ends of the yardstick to move each one to the other direction achieving the legislation of alternative education in Michigan but with restrictions on the freedoms that were gained.
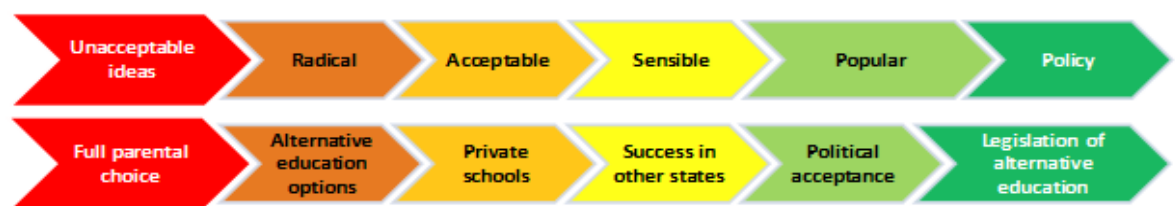
Figure 3: Examples of the mechanism of Overton Window

As Nathan (2006) quotes the case of Michigan is a "Credit- another Overton innovation – a situation that was unthinkable just ten years ago".

2.3 The hypothesis of cannibalism acceptance

A more common example presented for the explanation of the Overton window of discourse mechanism is the extreme hypothesis of cannibalism acceptance by the public. At the first stage the goal is to move the idea of human cannibalism from the category of unacceptable to the stage of a radical idea. With the argumentation of the freedom of speech scientists are called to discuss in public cases of cannibalism throughout the history of human civilization, thus giving to the subject a scientific status. For example McAllister (2012) in his article claims that what is "human" is a matter of conjecture. His

argumentation is based on the historical medicinal cannibalism in Europe. The consumption of fresh human blood was a common treatment of epilepsy since Ancient Roman times (Gaius Plinius Secundus AD23 – August 25 AD 79) until the age of exploration (15th century until 17th century). During the same period human Mummies were provided by the Paracelsians to medical practitioners graduate from Harvard as a cure from all diseases. McAllister (2012) argues that medical cannibalism continues until today by the consumption of semen, placentas and fetuses for medical purposes. By accepting the existence of medical cannibalism the result is a movement of the window from a total negative position on a taboo subject towards a grey area.

The second stage is the replacement of the name cannibalism into a more friendly term that of "anthropophagy" from the Latin anthropophagus and the Greek word anthrōpophagos (man eating) which at the sound of it the public does not relate it directly to the idea of consuming human flesh. With the change to a friendlier name the process of legitimization of the idea with the references of historical or mythological cases create an acknowledgment of the existence of the problem. Hence, it has moved the window to the third stage, that of the acknowledgment of the problem of "anthropophagy".

At the fourth stage the goal is to propagate in the mass media the idea of an underground culture coming out in the light by discussions in talk shows, news, movies and TV series with friendlier figures of cannibals. Documentaries are shown with cases similar to the 1972 Andes plane crash (Daily Mail 2012) where the survivors eat dead human bodies in order to stay alive. At the same time people admit that they too have tried human meat like in the case of the Japanese Mao Sugiyama (Daily Mail 2012) who cooked his own genitalia at a dinner party with 70 people. Five of the guests paid £160 each in order to eat Sugiyamas genitalia garnished with mushrooms and parsley. According to the police the incident was fully legitimate. Modern Paracelsians may claim that in some cases "anthropophagy" is the solution for the hunger problem in Africa like the Urban Death Project (2016) a system for turning dead human bodies into soil-building material to be used as fertilizer for urban food production. The 1973 movie Soylent Green (IMDb 2016), placed in the year 2022 in New York City, were people consume high-nutrient processed food made out of dead human bodies doesn't sounds like science fiction anymore and the window of opportunity is already at the stage of being a popular subject moving forwards to the fifth stage that of the sphere of politics. The society has been manipulated and prepared to tolerate the existence of

"Anthropophilia" destroying the immunity of the public against the destruction of human norms with the legalization of cannibalism.
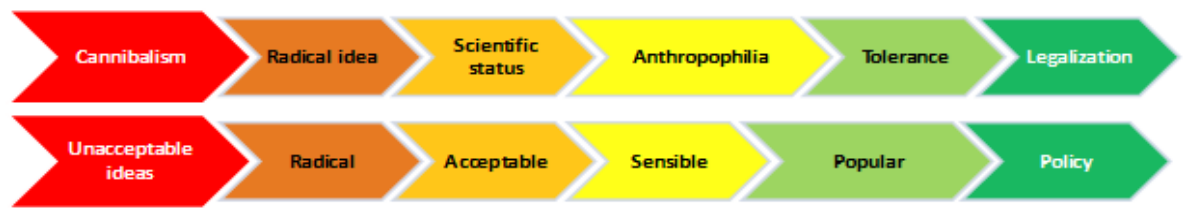
Figure 4: Examples of the mechanism of Overton Window

Comparing the two examples of Michigan school (Figure 2) and Cannibalism (Figure 3), it appears that even if the new idea that is proposed aims in offering alternative knowledge or a distractive behavior towards humans, it can be transformed in to a policy. All that is needed is a strategy or a mechanism of manipulation like the Overton window. As Milton Friedman (2002) p.14 quotes: "That, I believe, is our basic function to develop alternatives to existing policies, to keep them alive and available until the politically impossible becomes politically inevitable".

2.4 Manipulation tactics

Manipulation tactics are not a modern phenomenon, they have existed throughout history. The Florentine politician, philosopher and founder of modern political science Niccolo Machiavelli (Marriott 2006) in a 16th-century treatise wrote: "But it is necessary to know well how to disguise this characteristic, and to be a great pretender and dissembler; and men are so simple, and so subject to present necessities, that he who seek to deceive will always find someone who will allow himself to be deceived".

Regardless the historical period the tactics basically remain the same: a series of specific techniques put into action throughout communication channels that evolved over time. In sections' 2.1 and 2.2 respectively the Michigan school case and Cannibalism were mentioned as examples to illustrate the Overton Window mechanism in action. In this section, similar manipulation methods of opinion making will be presented. Manipulation can be detected throughout various examples, thus putting into question the public opinion consistency of views.

2.4.1 The Reference-dependent preferences theory

Manipulation has a direct connection with human psychology and framing. Waytz and Elpley (2012) suggest that socially connected people, in comparison to those less

connected may enjoy benefits physical and mental fitness, but at the same time they are more likely to dehumanize others outside their social circle and use them like objects or means to an end. The Nobel Prize winners Kahneman and Tversky (1981) are considered pioneers in the field of psychological framing, which plays a key role in public judgment and decision making. Their study (1981) shows the importance of question formulation in how information is presented to the public, the so called psychology rooted framing. Kahneman and Tversky (1981) researched people's responses in the context of a hypothetical extreme problem. The participants were given a hypothetical outbreak of a rare deadly Asian disease in the United States and had to choose between two options. Two groups participated in the experiment. The first group was given two options. The first option was to adopt program A that will save 200 people (72%) with 100% certainty, while the second option was to adopt program B, where there was a 1/3 probability of 600 people being saved and a 2/3 probability of no-one being saved (28%).
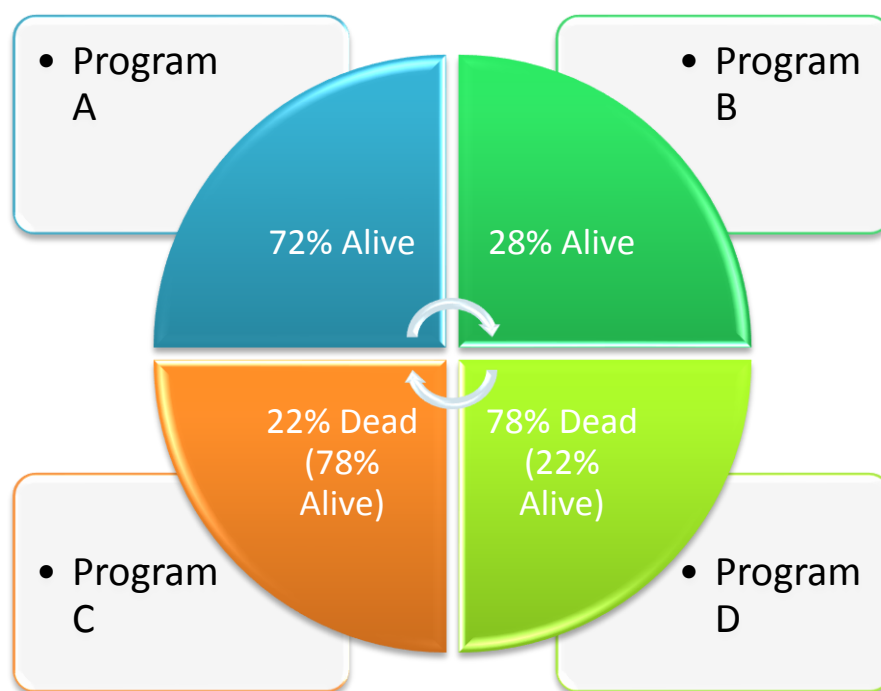
Figure 5: The four given options to the scenario of hypothetical outbreak of a rare deadly Asian disease described in the experiment of Kahneman and Tversky (1981)

The first group was opposed to taking risks and found the prospect of saving 200 people a more attractive choice than the high risk prospect of equally expected value of a 1/3 chance to save 600 people. The second group was given the same hypothetical scenario

but with different formulation of the two options. According to program C, 400 people will die (22%) and according to program D there is a 1/3 chance that no one will die and 2/3 probability that 600 people will die (78%). Based on the results Kahneman and Tversky (1981) concluded that people evaluate outcomes under the prospectus of gain or loss in relation to a neutral reference point. In other words, according to the experiment peoples' choice depends on the formulation of the given choices rather than the real meaning of them. Although there is no fundamental difference between the given choices the reactions vary. The majority of the first group adopted the choice of program A, indicating a more risk averse option. The majority of second group adopted the choice of program D, indicating a more risk seeking option. If information is presented from the viewpoint of lives saved percentage, people tend to hesitate to choose a high risk choice but if the same information is presented from the viewpoint of lives lost percentage people tend to choose a more risky choice. The study shows that the percentage of successful opinion formulation depends from the language formulation and presentation to the public. A widespread acceptance by the public can be achieved simply by the "correct" or more desirable presentation of the information. Stokke (2016) emphasize on the differentiation between misleading language formulation and lying. The same sentence can be used to say different things depending on the question and the grammatical structure of the sentence.

2.4.2 The Barnum effect

Dickson and Kelly (1985) investigated the "Barnum effect" in order to explain the case of widespread acceptance by the masses of vague beliefs and practices. "Barnum effect" was named after an American circus entertainer P.T. Barnum (1810-1891) who used to attract large crowds at his circus attractions with the claim that they will experience a unique experience. The reality was that he had limited attractions but the public continued to believe otherwise. The Barnum Effect makes us believe in the existence of connections where none exist. Even if the evidence is vague and ambiguous people tend to accept them as the truth. They tend to believe that they have total control over their thoughts and emotions ignoring the fact that the Barnum Effect also known as Forer Effect has the ability to exploit their subjective validation. Subjective validation is the ability of the brain to manufacture connections between unrelated vague facts while interpreting the actual information. It was first published by Forer (1949) as a result of an experiment conducted on 39 psychology students. According to the article the

students were given a personality test, but the answers given by them were ignored and each student a week later was given an evaluation grade from 0 to 5 (5 meaning excellent). What students ignored was that they had all received exactly the same evaluation. The result of the rating was 4.26, demonstrating the gullibility and tendency of people to accept vague statements as true. The Barnum Effect is directly associated with astrology, medium, faith healers e.g. According to Rogers and Soule (2009) no matter how many times the experiment is tested the result is always the same a rating between 4 and 5. Their study found similar results between Westerners and Chines, proving the universal nature of the Barnum Effect.

2.4.3 Social Engineering

Similar manipulation methods can be detected from the use of Social engineering which focuses on the combination of science and social communication. According to Bhakta and Harris (2015) it's the art of people manipulation for the extortion of confidential information. Social engineering it's a stratagem scam as an attempt to gain confidence in order to defraud the target which can be a group or an individual. With the help of technology as another Trojan horse, a subversion introduced from the outside, social engineering exploits the nature of humanity and kindness of the public in order to manipulate them. According to Hadnagy (2014) social engineering is the act that influences someone to take an action that may or may not be in his/her best interest. Hadnagy (2014) reveals that social engineering combines the technical aspects of communications behaviors with scamming skills. The main goal is to build feelings of trust with the target user in order to influence them to give up confidential information and behave in ways that are not in their best interest. In recent years the main tool is the power of the internet to easily obtain very large quantities of data. Secondary tool is the ability of pretext, to act as someone else by the use of body language, clothing and behavior creating an identity to be used as a manipulation tool to elicit useful information. Hadnagy (2014) explains that clothing, body language (facial expressions, gestures and body posture) as a nonverbal communication in combination with good knowledge will play the most important role in making a pretext believable. It's the art of getting answers without asking questions.

Dreeke (2011) presents 10 effective methods of building rapport as a tool of social engineering:

1. **Artificial time constraints:** Informing people that you will bother them for a brief period of time. By setting time limit to the conversation this makes people feel not threatened from a conversation with a stranger.
2. **Accommodating nonverbal:** Nonverbal communication is the use of wordless clues such as body language which is important to match the words spoken.
3. **Slower rate of speech:** In order to avoid looking nervous you must speak slow
4. **Sympathy themes:** Using thrashes like "Can you help me?"
5. **Ego suspension:** Letting others be right even if they are not
6. **Validation:** The use of genuine accommodation of a person's knowledge.
7. **Asking how, when, or why questions:** The use of questions that elicit long responses.
8. **Quid pro quo:** Sharing small information to make the other person feel comfortable to share theirs.
9. **Reciprocal altruism:** In order to get a gift you give a gift. In other words if a person performs an altruistic act it is expected that he will be receiving an altruistic act in return.
10. **Manage expectations:** Do not be greedy. It's important to realize in advance when something does not work and undertake a change in course of action.

One of the most famous examples of a Social Engineering scams is the story of Mark Rifkin, a computer expert in the late 70s who managed to rob $10.2 million dollars from the Security Pacific National Bank without ever touching the money. According to the TIME's (1978), he operated from his personal computer at home where he claimed to be a representative of a legitimate company named Coast Diamond Distributors. He managed to persuade a well-known diamond dealer named Lon Stein to place an order with Russalmaz for millions of dollars' worth of diamonds. According to the FBI he sent a message under the name of Mr. Nelson to the Security Pacific National Bank, informing Russalmaz that Lon Stein was a representative of Coast Diamond Distributors, a company with big financial resources. Later on, the so-called Mr. Nelson informed the company that Mr. Stein will visit them in order to inspect the diamonds. Next step Rifking talked his way into a wire transfer room at the Pacific National Bank and managed to learn the secret code numbers for transferring money. Under the fictional name of Mike Hansen, he claimed to be from the international division of the Bank and with the use of the security codes ordered and transferred $10.2 million dollars in to a

personal account. Two men, one of them identified as Stein purchased from Russalmaz 43.200 carats of diamonds to the value of $8.1 million. The Bank realized that it had been robbed eight days later after it was informed by the FBI. According to The Human Factor report (2016) the number one favorite attack technique is social engineering. Banker Trojans programs, designed to steal from online banking and payment systems, were the most popular Social Engineering scam in 2015. Banker Trojans programs trick users by sending them emails with fake bank statements and invoices persuading them into running codes which infect their computers.
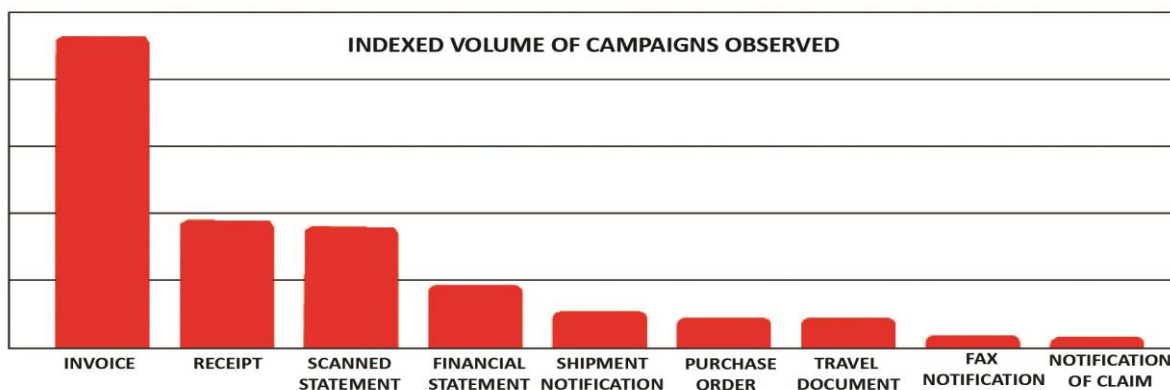
Figure 6: Most common email lures in document attachment campaigns
obtained from The Human Factor Report (2016)

All the effective methods of establishing rapport, mentioned above will provide the social engineer with the ability to make someone believe that it is his/her decision what the social engineer is actually making them do. This raises the question concerning the level of awareness of the people subjected to these tactics. If a person is informed that he/she is a "victim" of a manipulation tactic, will that person develop a safety net against others that will attempt to prevent repeated deceptive behaviors against him/her? Can a personal record that measures the degree of change in Cypriot user's public opinions (presented via the mobile application prototype) overturn the theory of the window of discourse? Can a mobile application monitor users' opinions on public matters and contribute to the prevention of manipulation that they can experience from social media in Cyprus?

2.5 Propaganda models in Mass Media environments

Often associated with psychological mechanisms of manipulation, propaganda models are used to promote selective facts in order to alter the public's opinion concerning

specific views, usually political. O'Shaughnessy (2004) explains the definition of propaganda as a mean of mass communication that manipulatively uses irrational and emotional appeals with the purpose of convincing the public of something. The ideal environment for propaganda is provided by the mass media since their supposed objectivity creates an ideal supportive argument for any misleading information. Herman (2003) presents the mass media environment as a "specialized class" which has the ability to control and exploit the short-sighted perspectives of the masses. The main tool is that of propaganda usually sponsored by a small group of economic elite or a political lobby. Chomsky and Herman (2002) identify ownership, advertising and information sourcing as filters through which information will pass and will appear to the public as news. The information that will be released through the filters is designed to be reproduced in the environment of mass media with ultimate goal to serve the interests of the corporate and political elite. The economic elite of a society are represented by a powerful minority which can be found in high positions in corporations, foundations or in think tanks. Usually they represent business interests, which give them the ability to impact on governments by sponsoring them financially election periods and after. Chomsky and Herman (2002) identify elite as the upper social class of the society with economic, political and military power. Political lobbies are groups of private interest outside legislative chambers, concentrating on the influence of voters towards predefined policies. The mechanism of the media will serve their sponsors by presenting to the public the news and debates within the parameters of the sponsor's interests. The mass media mobilize a mechanism of misleading information that aims to create an informational misunderstanding in order to cause the apathy of the public. Resold programs and legislations that benefit the elite are therefore put forward without any reaction from the public. Herman's (2003) research indicates that in the United States when it comes to policy change due to the strong status quo, even when the majority of citizens disagree with elites and organized interest, they lose. This leads once again to the propaganda model framework for manufacturing consents as described by Chomsky and Herman (2002) where the mass media is a powerful instrument that functions as a supporting tool for special interests.

2.6 Application to the present study

From the review of the literature it is evident that there is a lack of research that offers practical solutions, which enables Cypriot users to question the possibility of being

manipulated by social media. This research aims to address this gap and extend on previous research by examining the extent of the awareness of the effect that Cypriot users are subjected to by social media opinion manipulation techniques in order to design a mobile application prototype that measures the degree of manipulation that Cypriot users experience by social media. Cypriot users during the course of interaction with social networks construct what appears to be their own opinion based on the most influential ideas presented by the media.

Media news people in the name of supposed professional integrity support the interests of the elite by interpreting the news not on the basis of objective professional values but according to the interests of ownership. Privately–owned Cypriot mass media may serve the political interests of their holders and by the use of the social media they have a powerful instrument that functions as a supporting tool of political interests. According to the PIO news website (2016) the following media are owned by Cypriot political parties or politicians:

1. **Newspaper Alithia:** Publisher Frixos N. Koulermos, founding member of the political party DHSY and for 12 years member of the political bureau of DISY. (Stockwach 2016)

2. **Dialogos Media Group (which includes Newspaper Haravgi and radio station Astra)**: Expressive organ of political party AKEL. Executive Chairman Eleni Mavrou, 2006-2011 Mayor of Nicosia, 2001 - 2006 member of the House of Representatives of Cyprus, 2012 Minister of Interior (AKEL 2016).

3. **Newspaper Mahi**: Owned by the family of Nicos Sampson the de facto president of Cyprus after the military coup in July 1974 (The Telegraph 2016) his daughter Mina Sampson and wife Vera Sampson. His son Sotiris Sampson was elected member of the House of Representatives of Cyprus.

4. **SPP MEDIA (which includes 8 magazines, 2 newspapers, 2 radio stations, 1 television and 7 mass media sites):** CEO Dimitris Lottides communication advisor of President Glafkos Clerides for 10 years and communication manager during the election campaigns of 1998 and 2003. And currently his sister in-law

Maria Stylianou-Lottidis is the Ombudsman of President Nicos Anastasiades (SPP Media 2016)

These are the media groups and journalist that will "evolve" in the media system. The potential danger is that the outcome is a diversified collection of media technologies that reach large audience with limited judgment on important public maters. The Media have developed in to modular companies which include not only publishing companies but also large advertising agencies owned by wealthy shareholders or political parties. Between the media and the economic elite or a political lobby there's a dependent relationship as an information source. This gives the power to the elite to determine which news will be treated with sympathetic or negative emotions, which will be promoted or will be diverted from the public opinion. This leads to the need to re-educate Cypriots users how to evaluate the content of the information they receive through the interaction with social media.

2.7 Manipulation patterns in relation to mass media propaganda campaigns

Chomsky (1997) claims that the United States has invented the public relations industry in order to be used as a tool to control public opinion. Public relations campaigns with the help of mass media are continuously bombarding the public with propaganda campaigns. For example the only purpose in life is portrayed as that lived by rich families in the TV sitcoms that people watch: the American dream. Another necessity as described by Chomsky (1997) is the completely distortion of history. Facts and truth are replaced by lies and enemies are constructed to be always available to serve an agenda in order to keep the public opinion attention away from what is really going on around them. The media are a powerful instrument that mobilizes to serve and protect the interests of the elite. Klaehn (2002) best describes the method of approach of media as to promote and legitimize dominant class interests. The goal is to promote or suppress news or politics thru the channels of the media based on the criteria of the best interest of the dominant social institutions and not that of the common well of the public. In order to serve best the political interests the mechanism of propaganda campaign will set the boundaries and limitations concerning each topic, thus determining which

subjects are allowed to be discussed. Positive or negative emotions will serve as a diversion of the public opinion attention from specific news towards other news. This leads to a discussion concerning the impact on the quality of the social media environment by the manipulation technics.

2.8 Impact of manipulation techniques on the environment of social media

There is little previous research that concerns the raising of citizens awareness when potentially being manipulated by social media. This research aims to address this gap and extend on previous research by examining the impact of the Overton window mechanism as manipulation techniques on the environment of social media focusing on the Cypriot user. Chomsky and Herman (2002) have described the rapid penetration of the newspapers and media conglomerates into Internet environment which has resulted to the transformation of the journalism and the quality of news. Over the last years with the rapid spread of Internet and social media, journalism has totally changed. The vast Internet environment improved the procedure of collecting and reporting news by increasing the speeds of getting the information from the source directly to the public. Chomsky and Herman (2009) refer to advertising as a tool in the hands of political forces that have pushed media into greater dependence on advertising. They claim that the resold is journalists focusing on the product placements and not on investigating reporting with negative impact on the quality of news. At a first glance someone may argue that the social media with their immediacy are transmitting objective news from first hand witnesses, but if examined deeper informative companies are profit – seeking organizations, funded mostly by advertisers whose main objective is maximum income from advertising sales. Chomsky and Herman (2009) explain that globalization has intergraded in commercial mass media as a funding advertising force, making the Propaganda Model effectively applicable on the society. But it has to be evaluated in each case differently because of the cultural differences between users. This research aims to achieve understanding as to the level of propaganda penetration on Cypriot users and address the gap from previous research by examining the extent of the awareness of the levels of intervention in the area of social constructions of values, ideas, opinions and views of the world for which media play a vital role. Social constructionism examines the realities of each society that are shaped through

interaction with others. It focuses on the investigation of how knowledge is comprehended and initially constructed. According to Andrews (2012) social constructionism emphasize on everyday communication between people and the language that they use to construct their reality. The rapid development of internet had an impact on people's communication effecting their ideas and opinions. Traditional mass media have addressed the news within specific technological and geographical boundaries. With the evolution of traditional mass media to internet mass media it has become a global medium of communication without limitations were instantaneous exchange of information is taking place at any part of the world, raising questions about the nature of the news content. According to Gans (2011) Facebook is providing to anyone the ability to become reporter, editor or publisher and has transformed into a news organization with unlimited scale that uses news to grab attention and then sells that attention to advertising companies. For media companies high ratings equal high advertising sales. The Internet environment is mainly used to produce material that is attractive to the user, ignoring the quality of the content with direct impact on the integrity of journalism. The corporate power increases and centralize the media so that the decline of newsrooms make them totally depended from corporate lobbying. Winstown Churchill (1984)[4] took the view that "There is no such thing as public opinion. There is only published opinion". The social media where the majority of the societies consume their free time are now controlled and over flooded by bad journalism, since anyone can claim any information to us as true, ignoring the basic principles of journalism: The code of Ethics by the Society of Professional Journalists (2014). According to the code Journalists should:

1. **Seek truth and report it:** Avoiding intentional distortion of information, supporting the exchange of opinions and fact – checking practice.
2. **Minimize Harm:** Protecting the privacy of individuals
3. **Independence:** Avoiding conflicts of interest by collaboration with advertising agencies and interests group to influence the news
4. **Be accountable:** Exposing media unethical tactics accepting criticism and correcting mistakes.

Unfortunately the focus tends not to be on the quality of information but on the marketing and advertising of it, which as Chomsky and Herman (2002) claim has caused the displacement of the political public sphere by a depoliticized consumer culture. More

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[4] Winstown Churchill (1984) As quoted in: Time, Volume 123, p.155

and more people are spending their free time in virtual worlds build by advertising companies in order to sell goods and divert the public from important political matters.

2.9 Summary

Throughout this chapter the basic methodology of the mechanism of "Overton Window" was examined. A specific sequence of actions systematically shifted towards legalization of a matter considered unthinkable by the public. This research aims to understanding the effect of the mechanism of "Overton Window" on Cypriot users and address the gap from previous research by examining the extent of the awareness of the effect that Cypriot users are subjected to by social media opinion manipulation techniques. To what extent are users aware of the constantly subjection to manipulation techniques by social media? While the example of the hypothesis of cannibalism acceptance by the public sounds extreme, many other forms of manipulation tactics have always existed and are part of everyday life. Various examples can be found through the interaction with social media putting into question the consistency of public opinion. From elaborate reference-dependent preferences theories, complicated combinations of science and social communication in Social Engineering to a more simple subjective validation of the Barnum Effect, a personal record presented via a mobile application can serve as a measurement tool which will re-educate Cypriots users to better evaluate the information they are submitted providing awareness and protection from misinformation and/or manipulation by online social media.

In the next chapter, a background on Human-Computer Interaction will be provided as well as a discussion of which user-centered design methods should be applied to develop a prototype that is usable and addresses the requirements of Cypriot users.

Chapter 3

Human-Computer Interaction

3.1 Introduction

The purpose of this chapter is the exploration of the key principles of Human-Computer Interaction in relation with mobile human computer interaction. The review of the HCI literature will focus on identifying which aspects of user-centered design methods should be applied to develop a prototype that is usable and addresses the requirements of Cypriot users. This chapter will focus on the argumentation for the importance of the acknowledgment of the necessity to study the way users interact with computer systems from a variety of aspects such as usability, learnability, efficiency, memorability etc. Since the first computer in 1930s, the ABS Athanasoff Berry, (Edwards J. 2010) technology developed rapidly leading to a mass production of affordable home computers in the 1970s. From then on, there has been a fast growth in the area of computer technology leading to the rapid increase of demand for personal computer creating the need for a better understanding of the human factors that influence the usability of at that time new technology. Each new technological development while presenting greater possibilities to the user, then again brought to the surface problems such as ineffectiveness and difficulties for their use by the average users. The main goal of HCI is to produce technology designed to understand and serve effectively users' needs ensuring a successful repeated interaction.

3.2 What is Human-Computer Interaction: How do users interact with technology and computers?

Human computer interaction (HCI) was first presented in the early 1980s, in order to ensure the needs of the users concerning a constantly developing new technology. Grudin (2012) describe the early years of computer use were three main roles can be detected, the manager responsible for the design, development, operation, the scientist

and engineer responsible for the scripture of programs. For the operation of Electronic Numerical Integrator and Computer (ENIAC) six women were needed with a program being loaded for days with constant errors. The high number of operational activities needed eventually led to the need for exploration surrounding the better understanding and design computers. With the manufacturing of personal computers a large market with potential buyers/users suddenly emergences creating the need for improvements of the new communication channel. According to Nielsen and Molich (1990) people were starting to use the computer as a communicational tool for interaction with other users transforming the new technology in to what would eventually become known as "social computing". This lead to a set of design rules initially created by Nielsen and Molich (1990) and later updated by Nielsen and Mack (1994) to be used for the heuristic evaluation of the user' interface. Johnson (2014) explains that user interface design rules are a list of heuristics laws developed and applied by designers with good understanding throughout their personal experience of interaction based on the human psychology. The main purpose is the application of the design guidelines for the resolution of problems based on user behavior emerging from their ability to perceive, remember and transform their intentions into action. According to Sharp, Preece, and Rogers (2015) during the design process there are involved four main areas that inform and supplement each other:

1. **Establishment Requirements:** Understanding what the mobile application should do in order to meet the needs for the design of a program or application.
2. **Designing alternatives:** From the aspect of design creativity it's important to investigate alternative or similar design solution.
3. **Prototyping:** Fast designed and low cost, prototypes are samples of the product to be designed to be used during unlimited test interactions.
4. **Evaluating:** The main purpose is the constant evaluation of the designed products for the resolution of problems based on user's behavior emerging from their interaction with the prototype during each phase of the design process.

The goal is to create a shortcut, a list of heuristics developed from the experience of analysis of authentic, generally recognized problems as presented by Nielsen and Molich (1990) and later updated by Nielsen (1995):

1. **Visibility of system status:** Users must always be informed by appropriate feedback about what's happening.
2. **Match between system and the real world:** Replacing the system engineering terms with simple everyday user's language. The information must be natural with words, phrases familiar to each user.
3. **User control and freedom:** When a mistake is made by the user a support undo and redo is needed as fast and simple "emergency exit" avoiding extended dialogues and steps. The user must be able to get out quickly from parts of the system that doesn't interest them without causing any damage.
4. **Consistency and standards:** Users need to follow platform conventions with ought wondering whether different words or actions have the same meaning.
5. **Error prevention:** When an error message is written the user is able to ask if the error can be avoided. Clear error message about a problem present to users with a confirmation option before they commit to the action. A careful design can prevent a problem from occurring in the first place.
6. **Recognition rather recall:** Minimize user memory load by keeping needed information on the screen so that the user doesn't have to remember steps from one action to another. Users can avoid unnecessary messages and long dialogs by visible instructions for easily retrieval whenever necessary.
7. **Flexibility and efficiency of use:** The use of accelerators (unseen by the basic user) can speed up the interaction for experienced users.
8. **Aesthetic and minimal design:** Dialogues with only necessary contains. Additional information in a dialogue competes with the relevant units of information and diminishes their relative visibility.
9. **Help users recognize, diagnose and recover from errors:** Clear error message in plain language about the problem and suggestions how to fix it.
10. **Help and documentation:** In some cases it's necessary to provide help and documentation with a system. The information should be easy to search and short with concrete steps for the user to carried out.

Since the list of heuristics was presented by Nielsen and Molich computer technology has rapidly developed leading to a necessity for a user centered design were the user is involved from the beginning of the design and creation of each new technology or program. The goal is a user-friendly approachable technology that will meet the user's

requirements. According to Shackel (2009) the desirable users interaction with technology and computers is based on their capacity to easily and effectively use functional terms, after being given specified training support in order to be able to fulfill specified range of tasks within a range of scenarios. No matter what the technology is a website, a web/mobile application or desktop software the desirable is a positive user experience during the interaction with technology and computers. The understanding of this principle led to the acknowledgment of the involvement of the user during the design and development process making a user centered design approach, a necessity.

3.3 Necessity for user centered design

With the rapidly progressive computer technology, which has transformed a complicated static medium into a rich interactive experience, emerged the need for user centered design. According to Gube (2010) no matter how the technology and design has evolved the most important question to be asked is how users perceive it. This led to the need for a User Experience (UX) evaluation methods and tools. A methodology first described by Norman (2013), aiming to answer the question how the user feels during his/her interaction with a system. The rules described are characterized by their simplicity so that the user can be easily guided "to the right action on the right control at the right time". According to the International Organization for Standardization-ISO (2010) the definition of UX is "a person's perceptions and responses that result from the use or anticipated use of a product, system or service". HCI involves the constant study and evaluation of users' expectations concerning the visual design, the efficiency of the process of interaction and the ease of use. It's the collaboration with the user during the process of designing and production.

The ISO 9241 (2010) requires a specific framework for user centered design: "Whatever the design process and allocation of responsibilities and roles adopted, a human-centered approach should follow the principles listed below (and described in 4.2 to 4.7):

a) The design is based upon an explicit understanding of users, tasks and environments (see 4.2)

b) Users are involved throughout design and development (see 4.3)

c) The design is driven and refined by user – centered evaluation (see 4.4)

d) The process is iterative (see 4.5)

e) The design addresses the whole user experience (see 4.6)

f) The design team includes multidisciplinary skills and perspectives (see 4.7)

Products, systems and services should be designed to take account of the people who will use them as well as other..." In consequence based on the ISO 9241 (2010) requirements, all related to the system users or stakeholder groups must be identified at the beginning of the design process in order to avoid or minimize system failures.

According to Issa and Turk (2010) a goal of HCI is the understanding of the necessity of user centered design in order to achieve effectiveness and efficiency. From the first stage of the creation of a new system, it should be defined what the system will be, how it will work, the level of involvement of the user not only at the stage of the design and the system usability requirements. Issa and Turk (2010) claim that when designing a new system it should be taken into consideration the need for low cost in relation to high quality throughout the process of prototyping, scenarios, and storyboards. Research in the field of HCI is aiming to develop methods that will help users interact with computers by easily identifying and understanding information from available data. These methods are important for the achievement of effective communication between user, designer and application that will lead to an efficient final product. According to Adams and Nash (2016) during the process of designing new ideas it's important to have them repetitive tested throughout user interaction making focus on the experience and needs of the user.

These can be achieved by prototyping were various concepts coming up from brainstorming can be tested and lead to the ideal solution to satisfy user's needs. During the designing process several methods are used in order to find blind spots that may affect the quality of the system. Such methods are storyboards, scenarios, and prototyping and user personas.

3.3.1 Storyboards

Storyboards are sequence of drawings sometimes accompanied by dialogue showing scenes of action representing a story. They are used in user centered design during the development process for representation of a sequence of steps that the user will take during his/her interaction with the devise or application.
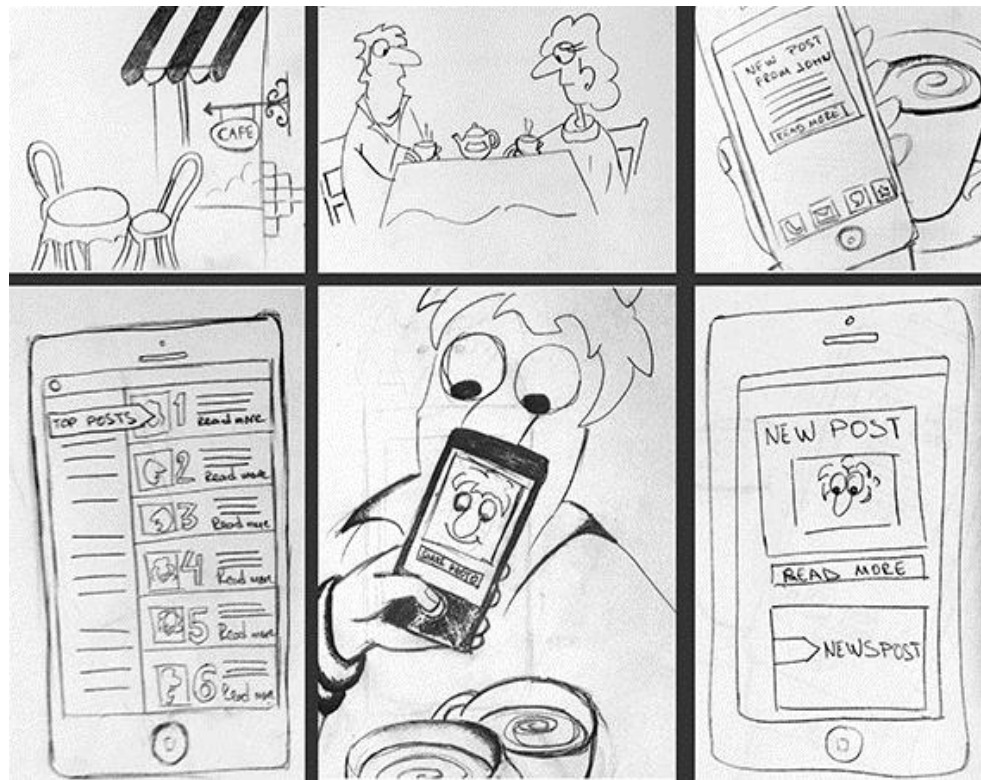
Figure 1: Example of mobile application storyboard.

The main goal is to clarify the steps of use of the system to be designed. Haesen, Meskens, Luyten, Conin, (2010) explain that people easily comprehend messages described by a picture in comparison with a written message that needs to be decoded in order to be understood. With the use of storyboard can be tested how the user comprehends the steps needed to be taken during the interaction. A gap can occur during the process making it difficult to pass directly the information that a designer wants the user to understand in order to obtain a uniform idea among all the interested parties. Truong, Hayes and Abowd (2006) explain that story boards combine specific interface of computing technology with user's emotions and motivations. The storyboard should help the users to have a better understanding of the context, environment of use and the emotional reaction of the user during the interaction.

3.3.2 Prototyping

Prototyping is the method that uses the technique of low and high fidelity prototyping (lo-fi and hi-fi). Lo-fi prototyping are simple quickly sketches on paper that test broad concepts. The Lo-fi prototype usually has some of the target final product characteristics with limited interaction and function. They are created in order to test them with real users during the early stages of development process.

Figure 2: Example of mobile application lo-fi prototyping.

According to Harel, Gill, Loudon and Lewis (2013) the aim of low fidelity prototypes is to supply reliable data at the early stages of the design process. User's trials are essential and reliable tool that will supply important data for the project techniques. Lo-fi paper prototypes are low cost and fast designed giving the ability to create as many as needed for unlimited test interactions. Each time users interact with a lo-fi prototype they give feedback to the developers for improvement and errors correction. The Lo-fi prototyping will help to monitor the progress through a task using the application.

3.3.3 Scenarios

The method of scenarios is used because it helps designers to provide the user with all the necessary facts that may be missed in storyboards or low – fidelity prototypes. Scenarios are short stories about users and their activities during the interaction with the system or application. The scenarios are media for interaction with the users in order to collect important information for the functionality of the system during the early stages of design process. The characteristics of the scenarios are a setting environment, work objects and human factors. For a scenario to be successful it must define factors and goals that will describe various aspects of the design system or application in order to reveal the process to all interested stakeholders. Carroll (2000) presents scenarios us a "compel attention to the use that will be made of the design product". The main goals are to identify situations at different levels and perspectives to help the designers to coordinate various conditions during the process of the development. These situations can appear from (Carroll 2000):

1. The implementation of goals from the appearance and behavior of the system
2. What users try to achieve with the system
3. Which interpretations users give to the given tasks

The main questions to be asked in a good scenario are Who, What, How and Why. According to Butler (2014) it's important to include the users' knowledge into to design process, in order to have the best possible final outcome based on the user's needs. Therefore the scenario will specify who the user is, what he/she needs and why the user needs it. An example of a hypothetical scenario based on the principles described by Butler (2014) is the following:

> John 48 years old and Anna 40 years old are married with a child. They live in Cyprus where the majority of population is Christian Orthodox and their daughter, who is one year old has still not been baptized. John believes that their daughter shouldn't be baptized until she reaches an age that she can decide by herself. On the contrary Anna feels that it's important to baptize children in infant-hood in order to avoid negative reactions from their social environment. John disagrees and insists that Anna's religious beliefs are influenced by her environment and by the social media such as Facebook were she spends much of her free time. Anna denies this and argues with John that baptism is not a social norm that is influencing her opinion, but it's an act of divine incorporation into a Christian Church. John then asks Anna whether she will agree (if he agrees to have their child baptize) to have a gay couple to be their child's godfathers?
>
> Anna's hesitation to give a positive answer gives John the chance to propose to experiment with a new mobile application that he found, which records the user's fluctuation of views based on social media information. They decide to try the application for a period of 3 months during which they remain interested on topics related to gay marriage and baptism by reading about it on social media. Every 2 weeks they discuss the topics and record the updated opinions.
>
> At the end of the experiment John uses the results given by the mobile application to prove to Anna the high level of influence of social media on what she believes to be her personal opinion. Anna is troubled with the diversification of her views during the period of last 3 months and decides to continue the use of the application in order to analyze the level of effect of manipulation from their religious social environment.

3.4 User Experience (UX)

With the rapid technological progress and development websites and applications are becoming more and more complex and complicated making the interaction a multiform process. The factor that does not change is how the user perceives it. According to Gube (2010) the most important questions to be asked from the user perspective is the level of the given value, the usability and if it's pleasant to use. These questions will play an important role in terms of whether a first time user will become a regular user. User personas are the evaluation of the user's emotions during the interaction with the system. The methodology used for the measurement and evaluation of the UX can be a combination of methods such us interviews, surveys and storytelling which will indicate the level of effectiveness of users interaction with the new technology. Marcus (2015) explains that the UX is a useful framework essential for a positive design outcome. The design process enables the development of necessary experience reflecting the user's emotions during interactions. The users experience of use with similar technologies play an important role during the design process concerning the usability. In other words the users experience has advisory role during the design process of a system that at its final stage must offer great experience to the users. During the creation process the interaction that occurs must guarantee accessible final product that will offer maximum positive experience. By good knowledge of who will be the final recipients and their needs the system or application is created by taking in to account the given feedbacks of users for a functional product which will continue to meet their needs before and after design process. Taking in mind the important role of user experience it should be noted that experience by and of itself cannot guarantee a successful new system, other factors effecting technological usability must be taken into consideration.

3.5 Human factors affecting technological usability

From the first electronic digital computer created in 1930s, to the innovated idea of Vannevar Bush's in the 1960 of the computer as a communication device, until the 21st century the rapid development of internet technology has led to the emerge of social computing. Social media are widely used for interaction through computer and smartphones changing the trend and structure of initially created new technology. According to Grudin (2012) computer shifted from the field of corporate computing

towards social computing changing the existed structure of top-down in to bottom up. Users are provided cheap computing resources to interact with a constantly growing range of social media and applications making impact on social structure and public opinion. As stated by Hadnagy (2014) "information is the lifeblood of the social engineer" and by the power given by internet and social computing someone can easily gather personal information about other users such us interests, locations, photos. Some of the most well-known social computing platforms are Facebook, Google+, Twitter, Pinterest, Periscope, LinkedIn, Wikipedia with various cultural, educational and political impacts effecting the technological usability. The more information someone gathers from such social networks the more understanding he has about the subject being investigated strengths and weaknesses.

According to Hadnagy (2014) "even the littlest pieces of information can go a long way into the success of an engagement". As was mentioned in the introduction of Chapter 2 (see section 2.1) by Jonnalagedda, Gauch, Labille and Alfarhood (2016) the majority of users are focusing on the use of real-time social platforms such as Facebook, Twitter and Google Plus in order to be informed about the most popular current news. In combination with the ability of social computing to provide instantly a massive amount of information increases their popularity. This is achieved by the use of news recommender systems which like Jonnalagedda, et al., (2016) analyze are divided based on the type of recommendation into two categories: The first is the popularity based news recommendations where the articles are ranked according to their popularity identification from the social networking websites. The second is the profile based news recommendations, which is based on the users' interests. Social computing raised a new technological need for methodologies that will research information systems questions posed by human factors. The main goal is to apply principles and methods into the design in order to achieve high system performance with optimize user satisfaction concerning usability. The ISO (9241:2010) defines usability as the 'extend to which a system, product or service can be used by specified users to achieve specified goals with effectiveness, efficiency and satisfaction in a specified context of use'. According to Hertzum (2016) usability is divided in to universal, situational, perceived, hedonic, organizational and cultural with each part represented as a partial view of usability with different perspectives. Additional to usability it's important that each new system, product or service that is designed can be easily accessed, used and understood substantially by all users despite ability or disability, age or size. In order to achieve

these during the design process must be taken into account the seven principles of Universal Design. According to the National Disability Authority (2017) the principles of Universal Design were created in 1997 in the North Carolina State University, by a group led by late Ronal Mace as a guiding line focusing on:

1. Equitable use
2. Flexibility in use
3. Simple and Intuitive use
4. Perceptible Information
5. Tolerance for error
6. Low Physical effort
7. Size and Space for Approach and use

Although Usability principles involve Universal Design for the purposes of this thesis no further analysis was made on the seven principles of Universal Design as this was not the focus of the study. Focus was made on the usability testing process, early in the design process, where emphasis was given on what the users were thinking and feeling. The users were asked to think out loud while they interacted with the system in order to guarantee a user centered design which can only be achieved with their involvement and a good understanding from the designer how the user react and the reasons of the reaction.

3.6 User's computer interaction and its socio-cultural implications

One socio-cultural implication from computer interaction is the understanding that the users behaviors are affected from factors such as customs, beliefs, lifestyle, values and practices that may characterize his/her society. The factors may vary based from nationality, education or other factors that exist within a population such as religion, economic status, attitudes and politics. The socio-cultural factors can affect the quality and objectivity of a technological usability testing with implications being either beneficial or harmful. The tests are aiming to detect and prevent problems in a system based on users experience and emotions, at early stage that may degrade the quality and efficiency of the final system. Focusing on identifying problems may cause its own problems because as Hertzum (2016) explains that there is a possibility that evaluators

who analyze the same usability test may identify substantially different sets of usability problems. The cause of these may be the cultural factors that make some users more conscious of their online quality and security than others or the credibility and objectiveness of the person that is collecting the data.

A successful system must understand and support its user delivering them a desired performance. If the developer of the system has other goals these will raise questions concerning the implications on matters of trust and opportunities of abuse.

As was mentioned in the introduction of Chapter 2, the aim of the thesis is to design a mobile application prototype that is based on the Overton theory, which indicates the degree of change or not in the opinions of Cypriot users on matters considered completely unacceptable. Focus will therefore be devoted to investigating the possibility to build feelings of trust with the target user in order to influence them to give up confidential information and behave in ways that are or not in their best interest. The main tool is the power of the internet to easily obtaining very large quantities of data. The secondary tool is the ability of pretext, to act as someone else by the use of body language, clothing and behavior creating an identity to be used as a manipulation tool to elicit useful information. It's the combination of science and social communication which enables Social Engineering. Bad usability evaluation may raise assumptions of public manipulations tactics affecting the credibility of the final system that will not be designed in a way that supports the social-cultural needs of the user. Even if there is no direct purpose of manipulation the absence of efficient usability evaluation may still lead to potential manipulation or negative reactions. According to Tuch and Hornbaek (2015) avoiding usability problems cannot be the same as reaching good usability just as the absence of dissatisfaction cannot be equal with satisfaction. The goal is the satisfaction of the users' expectations from the system and not the designers, if the opposite occurs then we have a case of specific sequence of actions systematically shifted towards achieving a manipulation of users.

3.7 Guidelines for the design of mobile applications

As was mentioned in the conclusions of Chapter 2 (see section 2.8), a personal record presented via a mobile application can serve as a measurement tool which will re-educate users to better evaluate the information to which they are subjected. The mobile application prototype will be created with the Cypriot user at the center of the design process combined with the main HCI principles. A tool that can record user's public

opinions on unacceptable issues and also inform them of the degree of manipulation that their opinions are experiencing from social media over a period of time is an example of such a mean that can protect them. In this study, this tool will be in the form of a mobile application Lo-Fi prototype. The Lo-Fi mobile prototype application will be designed based on a shortcut rule of methods: a list of heuristics developed from the experience of analyzing real generally recognized problems as presented by Nielsen and Molich (1990) and later updated by Nielsen (1995):

1. **Visibility of system status**
2. **Match between system and the real world**
3. **User control and freedom**
4. **Consistency and standards**
5. **Error prevention**
6. **Recognition rather recall**
7. **Flexibility and efficiency of use**
8. **Aesthetic and minimal design**
9. **Help users recognize, diagnose and recover from errors**
10. **Help and documentation**

The aim of the thesis is to design a mobile application prototype that is based on the Overton Theory, which indicates the degree of change or not in the opinions of Cypriot users on matters considered completely unacceptable. The mobile application Lo-Fi prototype will be designed to archive maximum possible impact and reach on users. To actualize these will be taking into consideration the "Eight Golden Rules of Interface Design" a list of strategies described by Shneiderman (2015):

1. **Strive for consistency:** Similar situations require consistent sequences
2. **Enable frequent users to use shortcuts:** If user desires to reduce the number of interactions shortcuts should be provided.
3. **Informative feedback:** System feedbacks for every operation action
4. **Design dialog to yield closure:** Organized groups for sequences of actions with a beginning middle and end.
5. **Simple error handling:** Limitation of serious errors by the user
6. **Permit of easy reversal actions:** The knowledge that errors can be undone reduces user's anxiety.
7. **Support internal locus of control:** Design systems which make experienced users initiators of operation actions.

8. **Reduce short-term memory load:** Displays must kept simple due to the limitation of user information processing in short-term memory.

Taking in to consideration the heuristics described by Nielsen (1995) and the list of strategies described by Shneiderman (2015) mobile application prototype will be designed that is based on the Overton theory, with emphasis on the bellow factors:

1. Legible icons and text combined with elements of negative space, bright highlight color and typography graphics in order to achieve clarity during the interaction with the user.

2. Balanced background design filling free space that won't compete with content.

3. General aesthetic appearance integrating with application functions with the use of visual layers crating a playful feeling during the interaction when the user navigates through contents of the application.

4. Consistency during the different levels and tasks with standard graphic design and typography that will create a uniform environment for the user to interact.

5. Feedback actions and results that will inform the user during his/her interaction in order to inform or clarify in cases of progress indicators or waiting operations so that the user won't feel any stress.

3.8 Summary

This chapter examined the key principle of Human-Computer Interaction in relation to mobile human computer interaction. The examination of HCI focuses on which user-centered design methods should be applied to develop a prototype that is usable and addresses the requirements of Cypriot users. It was argued that it is necessary to study the way users interact with computer systems and the effect of the computer ease-of-use. In the next chapter a detailed review of the research methodology to be applied in this research study will be presented. Quantitative and qualitative methods that will be employed to collect and analyze the data for the design of the mobile application prototype will be introduced. Participants' profiles based on interviews and questionnaires used to collect the data will also be presented. How the collected data will be incorporated into the design of the mobile application prototype will likewise be mentioned.

Chapter 4

Research Methodology

4.1 Introduction

The aim of the thesis is to design a mobile application prototype that is based on the Overton Theory thus addressing the gap in previous research by the examination of the extent of awareness of the effect that Cypriot users are submitted to by social media opinion manipulation techniques. Therefore the purpose of this chapter is the review of the research methodology used, a detailed review of the research methodology applied by the introduction of quantitative and qualitative methods employed to collect data for analysis which will contribute to the design of the mobile application prototype. As part of the qualitative methodology current findings from different literature reviews on manipulation techniques will be used as a secondary source for the preparation of the questionnaire to be used and tested on the volunteers. The aim is to understand in-depth the stability of views of adult Cypriot users concerning political, religious and social maters. A purposive sampling will be used in order to investigate the human behavior and explore Cypriot user's reactions and engagement in the environment of social media. The quantitative methodology will include questionnaires and statistical analysis. In addition participants' profiles based on interviews and questionnaires that were used to collect data are presented and incorporated into the design of the mobile application prototype.

4.2 Review of the research methodology

Research methodology is the process used during data collection for the purpose of calculating a specific result to be applied in specific case. It's the methodology that is used to investigate the given problem, that of the extent of awareness of the effect on users, exerted by social media opinion manipulation techniques. According to Mackey and Gass (2015) research methodology is the "procedures of a systematic approach in order to find answers to specific questions or problems. The research problem emerges

from the outcome of the user's interaction with social networks". Users during the course of interaction with social networks construct what appears to be their own opinion based on the most influential ideas presented by the media. The outcome is users with limited judgment on important public maters. This leads to the need to re-educate users as to how to evaluate the content of the information they receive through the interaction with social media. Users tolerance over manipulation techniques exerted on them are analyzed and the obtained findings will be used in the design process of a mobile application prototype that measures the degree of manipulation that users experience by social media in order to overcome the effect of manipulation by the mechanism of the Overton Window.

The main research question of this study on which the research methodology is based is the following:

1. How to design a mobile application prototype that measures the degree of manipulation that Cypriot users experience by social media?

The secondary research questions that will support the main research question are:

2. Which user-centered design methods should be applied to develop a prototype that is usable and addresses the requirements of a mobile application prototype that measures the degree of manipulation that users experience by social media?
3. Which methodology should be applied for the examination of the extent of the awareness of the effect that Cypriot users are submitted to by social media opinion manipulation techniques in order to address the gap from previous research.
4. How the collected data from the measurement of the degree of change in Cypriot user's public opinions can be incorporated into the design of the mobile application prototype?

According to Ackland (2013) qualitative methods are used during the process of concept exploration. It's "generally inductive, where the researcher starts with the observation's and identifies patterns that can be generalized to a particular theory". In contrary quantitative methods focus on answering specific, pre-determined questions, often through the study of population samples using statistical techniques. For the data collection a mixed method approach was chosen that is combining qualitative and quantitative research methods.

The aim was to understand in-depth the stability of views of users concerning political, religious and social maters. A purposive sampling was applied in order to investigate the human behavior and explore user's reactions and engagement in the environment of social media. The quantitative methodology includes questionnaires and statistical analysis. Participants were chosen from different social groups, including those based on their political and religious beliefs. They were asked to answer an online questionnaire concerning the 4th research question that was mentioned above. The framework of processes of the mobile application prototype design is user-centered. At each stage of the prototype design the user's requirements were considered and included by the use of prototype usability testing in order to analyze the behavioral possible curve of reactions of the user when interacting with the mobile application prototype.

4.3 Design Science Research

Design Science Research is the creative process that aims to produce an innovative information system product. According to Van Aken (2005) Design Science Research aims to develop knowledge that is to be used by professionals for designing solutions for field problems. For the purpose of this thesis the design science research will provide the necessary knowledge to explain and evaluate the current problem that of the examination of the extent of awareness of the effect that Cypriot users are submitted to by social media opinion manipulation techniques. According to Hevner (2004) "Design science, as the other side of the IS research cycle, creates and evaluates IT artifacts intended to solve identified organizational problem's". This is achieved by the application of the Seven Guidelines of Hevner (2004):

Hevner's Seven Guidelines (2004)	Application of Guideline in this Research Study
1. **Design as an Artifact:** The result of design science research has a purpose to produce a viable created to address an important problem.	1. Mobile application prototype that measures the degree of manipulation of the Cypriot user from social media information

2. **Problem Relevance:** By the use of justification theories through the process of development the goal is to acquire knowledge and understanding for the design of a technology based solution.	2. Developing of a mobile application prototype that is based on the Overton theory, which indicates the degree of change or not in the opinions of Cypriot users on matters considered completely unacceptable and by considering a UCD approach in the design.
3. **Design Evaluation:** Evaluation is an important and crucial factor during a research for the provision of useful, high quality and efficient design artifact.	3. Evaluating the current problem that of the examination of the extent of awareness of the effect that Cypriot users are submitted to by social media opinion manipulation techniques by evaluation methods.
4. **Research Contributions:** The contributions in the areas of the design artifact, design foundations and design methodologies must be provided clear and verifiable.	4. This research aims to address the gap from previous research by examining the extent of the awareness of the effect that Cypriot users are submitted to by social media opinion manipulation techniques. The mobile application prototype will contribute as an easily accessed tool to be used to measure potential manipulation by online social media. During this research the main difficulty was the lack of previous similar researches for these reason the current questionnaire created for the purposes of these Thesis can be re-used by other researches for further investigation of Cypriot user's behavior towards manipulation technics or partially for specifically

	topics such as political, religious or homosexuality matters.
5. **Research Rigor:** Design science research requires thoroughness during the conduction and evaluation of the designed artifact.	5. Literature reviews combined with quantitative and qualitative methods were employed by the use of questionnaires to collect data. Additional data were obtained by focus groups interviews with the use of scenario for analyze for the design of mobile application prototype.
6. **Design as a Search Process:** The search for effective design strategy requires utilizing available means to reach desired goals.	6. This research is interested in the probability of measurement of the degree of influence that Cypriot users are subjected to from the Social Networks. The measurement is conducted by the use of questionnaires and prototypes. Questionnaire was initially used for an attempt to manipulate users based on the Overton Window of discourse theory and to collect data for further analysis. Narrative Research was used to test the understanding ability of the user concerning the steps needed to be taken during the interaction with the Lo-Fi mobile application system to be designed. This was achieved by the use of scenarios and focus groups interviews.

| 7. **Communication of Research:** It's important the design science research to be presented to technology oriented audients as well as management oriented audients in such manner as to achieve a desired result. | 7. The research will be communicated through a Thesis. Furthermore it is my intention to submit a paper in future discussing the results from the questionnaires and how the UCD methods were used to drive the design process of the prototype. |

The main goal was to apply the Seven Guidelines of Hevner (2004) during the process and therefore obtain the necessary knowledge that would provide specific guidelines for the evaluation of the results in order to ensure the design of an innovated mobile application prototype that would address the research problem but also the needs of the Cypriot user.

4.4 Quantitative and qualitative methods

The online survey software "QuestionPro" (https://www.questionpro.com) was used as part of the quantitative content analysis in order to guarantee high percentages of valid and reliable conclusions. Quantitative content analysis method is usually used as a method by which participants answers will be analyzed and classified for further analysis. Inhwa and Jasna (2010) described that quantitative content analysis is used due to advantages that ensure the investigation of a large quantity of data concentrating on the artefact of communication and not on the individual directly. Therefore the research guarantees high percentages of a valid and reliable conclusion. Due to the limited resources of this research purposive sampling technique was used as part of the qualitative research methodology for the selection of participants based on their relative ease of access. Purposive sampling technique is effective for the selection of a sample based on the purpose of this thesis for the selection of participants with certain characteristics:

1. Volunteers with voting rights aged 18-65+ years
2. Experience with computer use (or self-assessed Digital literacy)
3. Politicized volunteers representing the main political parties in Cyprus.

According to Patton (2002) the benefit of applying purposeful sampling lies in the selection of information-rich cases for in depth investigation.

4.4.1 Questionnaires

By the use of purposive sampling technique an attempt was made for an in-depth understanding of the awareness of the degree of manipulation that Cypriot users experience. Random Facebook friend requests were sent to Cypriot users strangers among them for the creation of a list of possible volunteers to participate in the survey. The online survey was sent by email and posted on Facebook and participants were chosen from different social groups, political and religious beliefs and were asked throughout online survey questionnaire to state their opinion concerning the following matters:

1. Child adoption by homosexual couples.
2. Cooperation of DISY (Conservative Christian Democratic Party) and AKEL (The Progressive Party of Working People) in forthcoming presidential elections or referendum, with joint candidate.
3. Orthodox Christening in infant-hood.

According to Rife, Cate, Kosinski and Stillwell (2014) the Internet can be a fertile ground for researches making Facebook a popular platform for participant's recruitment for the purpose of data collection. Since the aim of this thesis is to design a mobile application prototype which indicates the degree of change or not in the opinions of Cypriot users in an online environment, Facebook's social nature can provide easily obtained participants or data that can add to the overall validity of the research. During the process of quantitative content analysis, although the main questions remains the same, a wide range of questions were given with different phraseology (based on the mechanism described by Joseph. P. Overton) combined with relevant information from social networks in order to observe any possible reactions or change of opinion from the users. Additionally as part of the methodology, information was decoded from the extracted data in order to study the Cypriot social construction though mass/digital media, as was mentioned in Chapter 2 (see section 2.8), for this reason qualitative research was also included and findings from different literature reviews on manipulation techniques were used as a secondary source for the preparation of the material used and tested on the volunteers. Creswell (2007) described that qualitative

research is based on the views of the participants collected by a combination of observation collection methods such as biographies, focus groups and interviews. Qualitative methodology provides a wide dynamic dimension that allows examination of the volunteers from a dynamic process of their social life. By the use of it, the objective was to approach the possibility of manipulation by Overton mechanism as a whole phenomenon focusing on the main question's how to design a mobile application prototype that measures the degree of manipulation that Cypriot users experience by social media. During the process of collection and data analysis a variety of observation methods were adopted, such as focus groups, interviews and narrative research where needed by presenting real-life cases related with the main questions to be asked in questionnaire, in order to strengthen the qualitative research methodology.

4.4.2 One–on-one Interviews

With the use of qualitative interviews a variety of factors influencing the participants' interaction with the Lo-Fi mobile application system were explored. During the interviews an attempt was made for a deeper understanding of the user's point of view concerning the use of a mobile application that will serve as a measurement tool which will re-educate Cypriots users to better evaluate the information they receive and eventually, re-educate them to identify potential manipulation tactics and learn to evaluate the validity of the source behind on line news. With a combination of open and closed questions the users provided a framework for the aims and objectives of the Lo-Fi mobile application system to be designed. There are two types of questions, open and closed. According to Kubacki and Rundle (2017) in order to achieve a deeper understanding of users existing behaviors open or closed ended questions are used in order to obtain honest answers to sensitive information. Closed-ended questions require yes or no answers. According to Friborg and Rosenvinge (2013) open ended questions provide in-depth information which requires more complex answers. Due to the aim of the research to investigate the extent of the awareness of the effect that users worldwide and specifically Cypriot users are submitted to by social media opinion manipulation techniques, more focus was made on the open ended questions that required complex answers. Five selected participants from the survey were sent an invitation by messenger to participate in individual interview session for a postgraduate work which aims to investigate a mobile application prototype as a personal identification and measurement tool of the extent of manipulation that the

Cypriot user may or may not experiences over a period of time within different contexts. The participants were informed that the interview session is anonymous and all the information collected will be used strictly confidentially and solely for research needs for the design of a mobile application prototype. The only aspects of the identity of the participants obtained were gender and age. During the process of interviews an attempt was made to estimate the volunteer's ability to recognize attempts of manipulation. An attempt was made to understand whether the participants realized that the given questions of the questionnaire have been formulated with particular wording in order to shift their opinion concerning specific questions towards opposite opinion. The participants which were interviewed are referred as Man A, B, C… or Woman A, B, C…

4.4.3 Focus group session

Upon completion of the interviews focus group was used as a supportive methodology for the investigation of the extent of awareness of the effect that Cypriot users are submitted to by social media opinion manipulation techniques. By the use of focus group an attempt was made to investigate the Cypriot user perception, beliefs and opinion towards political, social and religious concepts. During the research process a focus group of five participants was selected for the provision of a discussion about the purpose of the study and the importance of the design of the Lo-Fi mobile application system to be designed.

4.4.4 Prototyping

The Lo – Fi prototypes are effective tools for the presentation of new ideas with the use of limited and low cost funds at the early stage of the development or research. According to Rettig (1994) creating a Lo-Fi prototype is a technique that can dramatically increase the quality. It's fast, it brings results early in development, and allows the construction team to generate as many ideas as possible to ensure the high quality of the final product. Lo-Fi is paper prototyping, with a simple mock up design. It gives the opportunity before the writing of the program code or development of the final product to test it and identify possible usability problems. The focus group in addition with the Lo-fi prototype was given a hypothetical scenario based on the principles described by Butler (2014) as was mentioned in Chapter 4 (see section 4.3.2) in the "Necessity for user centered design", for better understanding of the context, environment of use and the emotional reaction of the user during the interaction with

the Lo-Fi mobile application system to be designed. The current Lo-Fi prototype will be presented in Chapter VI.

4.4.5 Narrative research

The narrative research methodology constitutes a number of approaches focusing on the evaluation of specific individuals. Narrative methods can be considered "real world measures" that are appropriate when "real life problems" are investigated. In a basic linear approach, they encompass the study of the experiences of single individual embracing stories of the life and exploring the learned significance of those individual experiences. However, in most cases one will be creating an aggregate of narratives each bearing on the others. Narratives described from a first-person perspective a story or a chronological sequence of events by the use of key facts or events. With the use of narratives one can test the understanding ability of the user concerning the steps needed to be taken during the interaction with the Lo-Fi mobile application system to be designed. According to Andrews, Squire and Tamboukou (2013) there is a wide range of materials that can be incorporated into narrative research and researches may use a wide number of records such us "oral, written and visual texts, field notes, participants and their own commentaries, alongside related cultural representations and records of important realities in their one and their interviewees lives". A scenario presenting real or imaginary experience of past or future time will serve as inquiry tool to be used. According to Patterson (2008) a narrative can be explained as a plot consisted of a sequence of events. The plot or scenario can be a combination of text with images presenting a sequence of events answering specific question. A gap can occur during the process of design making it difficult to pass directly the information that a designer wants the user to understand in order to obtain a uniform idea among all the interested parties. As was mentioned in Chapter 3, in the 3.3.3 Scenario section, the main questions to be asked in a good scenario are Who, What, How and Why, based on the principles described by Butler (2014) according to whom it's important to include the users' knowledge into the design process, in order to have the best possible final outcome based on the user's needs. Therefore the results exacted from the discussion at focus group of the hypothetical scenario of Johns and Anna's dilemma concerning the baptizing of their daughter will be presented in Chapter VI. The exacted conclusions with the use of "Design Science Research" will provide a better understanding of the possible level of manipulation effect by the comprehension of emotional reactions

during the interaction with the Lo-Fi mobile application prototype that measures the degree of manipulation that Cypriot users experience by social media.

4.5 Participants' profiles

The examination of the effect of Overton Window Mechanism theory on Cypriot users in this paper was carried out by the analysis of the data collected and analyzed by the method of questioners. The aim of the thesis is to design a mobile application prototype that is based on the Overton theory, which indicates the degree of change or not of the opinions of Cypriot users on matters considered completely unacceptable by Cypriot society:

1. Child adoption by homosexual couples.
2. Cooperation of DISY (Conservative Christian Democratic Party) and AKEL (The Progressive Party of Working People) in forthcoming presidential elections or referendum, with joint candidate.
3. Orthodox Christening in infant-hood.

By the use of questionnaires this research aims to understand the effect of the mechanism of "Overton Window" on Cypriot users and address the gap from previous research by examining the extent of the awareness of the effect that Cypriot users are submitted to by social media opinion manipulation techniques. The chosen participants were asked to take part to the research throughout the interaction with on-line questioner created on the online survey software tool "QuestionPro". The participants were purposive chosen from the whole district of Cyprus based on the following profile criteria:

4. Participants with voting rights aged 18-65+ years
5. Experience with computer use (self-assessed Digital literacy)
6. Politicized volunteers representing the main political parties in Cyprus.

For the conduction of personal interviews and focus group discussion five participants were selected based on the same criteria. Focus was made on the investigation of the level of judgment on public matters from Cypriot users as a result from their interaction with Social Networks. This thesis is examine the measurement of the degree of influence

that Cypriot users are subjected to though mass/digital media, formulating their social construction.

4.6 Collected data incorporated into the design of the mobile application prototype

The collected data incorporated in to the design of the mobile application prototype serve as a measurement tool which will encourage Cypriots users to better evaluate the information they receive and eventually, overcome the effect of manipulation by the mechanism of the Overton Window. Purposive sampling was used in order to obtain a result for the investigation of the human behavior and explore Cypriot user's reactions and engagement in the environment of social media. The quantitative methodology included questionnaire and statistical analysis using descriptive statistics. According to Connelly (2008) during a research a pilot study with a 10% sample should be conducted before the actual study.

Pilot questionnaire were given to three participants to be answered. The questions were in the form of statement and the participants were asked to express their feeling using a 5-degree scale. The questionnaire was divided in four thematically sections:

1. Demographic Questions including internet awareness
2. Mass Media Information
3. Child adoption by homosexual couples.
4. Cooperation of DISY (Conservative Christian Democratic Party) and AKEL (The Progressive Party of Working People) in forthcoming presidential elections or referendum, with joint candidate.
5. Orthodox Christening in infant-hood.

The main purpose of the pilot study was the detection of any potential flaws in the questionnaire concerning the attempted to use the theory of Overton Window in the formulation of the questions used. Musil (2011) states the importance of pilot as a necessary step before a larger scale study. It's possible that additional information that had not been considered at that point may become apparent. Although the questions were remaining the same each time the phraseology was different (based on the mechanism described by Joseph. P. Overton) combined with relevant information from

social networks in order to observe any possible reactions from the users on the attempt of manipulation of their opinions.

All the extracted data presented in the next Chapter 5 were analyzed in order to serve as feedback for the processes of the mobile application prototype design. At each stage of the prototype design the user's requirements is considered and included by the use of prototype usability testing in order to analyze the behavioral possible curve of reactions of the user after the use interaction with the mobile application prototype.

4.7 Validity and Reliability

Essential for the evaluation of the quality research findings, the results must be valid and reliable. Validity defines the accuracy of the extent to which research measurements prove the believability of the research. According to Brains, Willnat, Manheim, Rich (2011) validity determine the extent to which measurements are consistent with what a specific theory attempts to prove. Validity can be divided into internal and external. Internal validity represents the quality measurement tools to be used during the research process referring to how well the experiment is executed. External validity is the range outsight the research to which specific results could also appeal. Reliability has direct relationship with the repeatability of the research findings. In order to have reliability repeated tests or questionnaires, within a short period of time, should provide very similar results. According to Silverman (2016) validity and reliability are defining the credibility and objectivity of a research. Reliability assures the accuracy of data and validity tests the credibility of the analysis. During any phase of a research there is a danger for a bias to occur. Researchers could encourage specific behaviors or one outcome over other. An attempt is made to protect the research bias by the use of Design Science Research guidelines and Triangulation.

4.7.1 Design Science Research Guidelines

Design Science Research is the development of a product or system the main aim is the improvement of the performance functions of the mobile application prototype. According to Hevner (2007) design science research goal is the better understanding of a problem domain by the creation of an application of the designed artifact. It's a design

process that main goal is the creation of an innovative product created by applying specific guidelines.

Hevner (2004) describes seven Design Science Research guidelines:

1. **Design as an artifact:** The final mobile application prototype must be usable software by the average user.

2. **Problem relevance:** The creation of a solution based on technology for relevant crucial problems. The final mobile application prototype will indicate the degree of change or not in the opinions of Cypriot users on matters considered completely unacceptable.

3. **Design evaluation:** Well-executed evaluation methodology of the created design by cross verification of different methodologies such as interviews, focus groups and questionnaires.

4. **Research contributions:** Successful Design Science Research must provide verifiable results that will contribute in the field of the design artifact that of the investigation of the Theory of "Window of Discourse" by applying the mechanism of "Overton Window" in a new context, that of a mobile application prototype which aims to awaken the users providing them awareness and protection from misinformation by social media.

5. **Research rigor:** Design Science Research depends upon a strict execution of Quantitative and qualitative methods during all phases of the design process.

6. **Design as a search process:** A series of actions and means that guaranty desired ends that of a mobile application prototype which will satisfy laws in the problem environment, how to measure the degree of change in Cypriot user's public incorporated into the design of the mobile application prototype.

7. **Communication of research:** Design Science Research must be introduced and understood sufficiently to all users both technology oriented and management oriented. Focus was therefore devoted to study the way users interact with computer systems and the effect of the computer ease-of-use by the use of scenarios and focus group interaction with the mobile application prototype.

The guidelines were applied in this research study to ensure that the research problem is understood in depth and to ensure that the proposed design artifact, an innovative mobile application prototype, is a suitable solution to address the problem.

4.7.2 Triangulation

Methodological triangulation determines if minimum two methods or more can provide the same results. By cross verification of different methodologies such as interviews, focus groups and questionnaires for the investigation of the main research question of this thesis, how to design a mobile application prototype that measures the degree of manipulation that Cypriot users experience by social media, the goal is validated the data through cross triangular verification. According to Altricheter, Feldman, Posch and Somekh (2008) by the use of triangulation during a research study can result in the achievement of a detailed and balanced picture of the situation being examined. Triangulation can be used for the validation of quantitative methodology and for inquiry purposes in qualitative methodology. For the purposes of this thesis triangulation was applied by the combination of methods in order to overcome potential biases which could pose a potential hazard for the credibility of the results if only one methodology was used. At first participants were purposefully selected to participate in a questionnaire. The questionnaire will serve as a form of concept proof to test whether Cypriot users respond to the mechanism of Overton Window. The obtained answers were analyzed and initially used for the creation of a scenario to be used as a supporting tool during focus groups interviews. The main goal of the interviews was the verification of the questionnaires results which will indicate whether there is a need for the design of the mobile application prototype which indicates the degree of change or not in the opinions of Cypriot users (In an online environment) on matters considered completely unacceptable. The combination of analyses data, conclusions acquired after interviews and Design Science Research, were used for the design of the mobile application prototype main functions. Narrative research was applied on a focus group, in the form of hypothetical scenario, to be used on repeated participant's interaction with lo-fi mobile application prototype for the verification of the mobile application prototype usability.

4.8 Ethics and Anonymity

When performing research it's important to protect participant's right of anonymity and to confidentiality. According to Mirko and Schafer (2017) dealing with the use of digital methods in research can raise questions about methods and ethics and researchers must take all possible precautions for the protection of the data collected confidentiality. As

was mention in Chapter 2, in the 2.4.1 The Reference-dependent preferences theory, manipulation has a direct connection with human psychology and framing. Waytz and Elpley (2012) suggest that socially connected people may benefit physically and mentally but at the same time will increase the tendency to dehumanize others outside their social circle and use them like objects or means to an end. This research aims to examine by the use of questionnaire, at what extend Cypriot users are aware of the constantly submission of opinion manipulation techniques by social media. During the research process an attempt was made to investigate the Cypriot user perception, beliefs and opinion towards political, social and religious concepts and in order to protect the participants from potential psychological harm or distress emphasis was made on the anonymity. It's important in research when individuals are involved to eliminate any risk of privacy invasion or breach of confidentiality by maintaining anonymity and confidentiality of the participants. In order to protect the participant's right of anonymity and confidentiality as was mentioned in section 4.3.2, the online survey was sent using purposeful sampling to participants from Facebook by messenger. The participants were informed that the questionnaire is anonymous and all the information collected will be used strictly confidential and sorely for research needs for the design of a mobile application prototype. The only identification of the participants collected was their gender and age. Smaller number of participants were sent by messenger a second invitation to participate in focus groups to be interviewed and were referred to as "Man A,B,C"… or "Woman A,B,C"… in contrast to the researcher of these Thesis whose identity was informed to the participants additionally with a contact information. All five participants that volunteered to participate were given written informed consent forms to sign for the participation in the interview process and in the focus groups sessions. Contact information was given so that the participants could contact if needed for further clarification concerning the research purpose or for a request of access to the results of the survey and the final mobile application prototype to be designed. Due to the difficult issues that were addressed during the interviews and the focus group in the consent forms and during the interviews and focus groups it was stated that the participants may refuse to take part in the research or withdraw from the interview at any time without penalty. Their participation was completely voluntary and they were explained in the consent forms and during the interviews and focus groups that they are not being evaluated, the mobile application prototype is being evaluated.

By giving access to the research results and mobile application prototype participants are given the opportunity to benefit from their participation by being informed about the extent of manipulation they may or may not experience within different contexts providing awareness that will serve as a protection mechanism from misinformation by online social media. From the 200 participants that were invited to take part in the survey only one male participant contacted back requesting further information for the identity of the sender and purpose of the research. All questions were answered and the participant claimed that he would participate in the survey.

4.9 Summary

This chapter reviewed the research methodology that was applied in this study. It discussed the quantitative and qualitative methods that were employed to collect data, which once analyzed, contributed to the design of mobile application prototype. Based on the questionnaire answers and the conducted interviews analysis was formulated a Cypriot user profile to be incorporated into the design of the mobile application prototype. Focus was made on argumentation for the importance for the investigation of the given problem, that of the extent of awareness of the effect on users, submitted by social media opinion manipulation techniques. The research problem emerges from the outcome of the user's interaction with social networks and the importance of the acknowledgment of the necessity to investigate the level of judgment on public matters from Cypriot users as a result from their interaction with Social Networks. During the research process a focus group from the participants was selected for the provision of a discussion about the purpose of the study the results of which will be incorporated into the design of the mobile application prototype that will be presented in Chapter VI. In the next chapter the results discovered from the given questionnaire will be examined and evaluated in order to be applied for the design and creation of the Lo-Fi mobile application prototype that is based on the Overton theory, which indicates the degree of change or not in the opinions of Cypriot users on matters considered completely unacceptable.

Chapter 5

Questionnaire results

5.1 Introduction

In this chapter the results from the questionnaire are presented and analyzed. These will inform the design and creation of the Lo-Fi mobile application prototype that is based on the Overton theory, which indicates the degree of change or not in the opinions of Cypriot users on matters considered completely unacceptable. The questionnaire was conducted in order to be used as a backbone on which the prototype will be designed. The findings will serve as argumentation for the use of mobile application prototype during the preparation of the interviews and focus group scrips. The aim is to transform the questionnaire with the findings from the interviews and focus group process into the main function of the mobile application prototype that will measure the degree of manipulation by Mass Media.

For the research the online survey software "QuestionPro" (https://www.questionpro.com) was used as part of the quantitative content analysis in order to guarantee high percentages of valid and reliable conclusions. The online survey was sent using purposeful sampling to Facebook users by email and also posted on Facebook. The aim was to collect a variety of Cypriots respondents ensuring that the sample consists of people from different social layers, political and religious beliefs. The participants that accepted the invitation to participate were asked anonymously to state their opinions concerning the following matters:

1. Demographic Questions
2. Mass Media Information
3. Child adoption by homosexual couples.
4. Cooperation of DISY (Conservative Christian Democratic Party) and AKEL (The Progressive Party of Working People) in forthcoming presidential elections or referendum, with joint candidate.
5. Orthodox Christening in infant-hood.

Because the participants were exclusively Greek –Cypriots, the questionnaire was carried out in the official language of Cyprus, Standard Greek. It was decided to test the participants on their native language in order to guarantee high levels of reading comprehension. The questions have been formulated with particular wording as an attempt of manipulation in order to shift the participant's original point of view towards opposite opinion. For the purpose of this chapter the questions have been translated to English.

5.2 Results and analysis on demographic characteristics

Of the 128 (81%) participants in the study, 31 (19%) volunteers did not answer all the questions and stopped before completing the questionnaire, 63.95% completed the questionnaire. Response distribution: 97.67% Cypriots and 2.33% Greek.
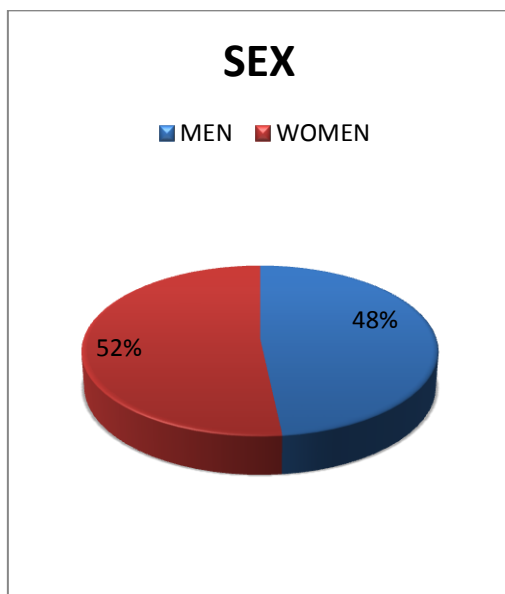
Graph 1 Demographic Sex Questions
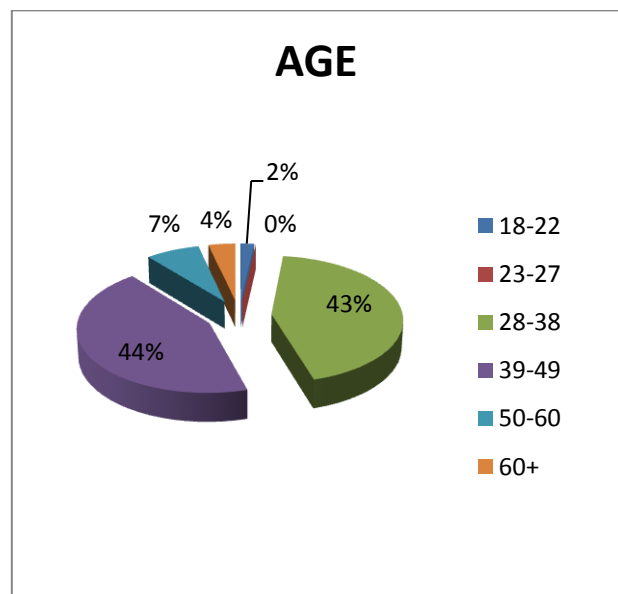
Graph 2 Demographic Age groups

The volunteers were almost equally divided into men (48%) and women (52%), with majority age group being 39-49 years old. The level of education was high about 82% were College or University graduates.

- Primary school graduate 1.82%
- High school graduate 16.36%
- Higher education 41.82%
- Master's degree / Doctoral degree 40.00%

5.2.1 Questions on Internet use in regard to mass media information

This research aims to understand the effect of the mechanism of "Overton Window" on Cypriot users and address the gap from previous research by examining the extent of the awareness of the effect that Cypriot users are submitted to by social media opinion manipulation techniques. In the first part of the questionnaire participants were asked questions concerning their personal internet usage frequency, information sources that they prefer using and their extent of awareness on public matters. In order to test the extreme policy actions concerning matter considered unthinkable by the Cypriot society was necessary at first to establish the participant's state of opinion concerning mass media information, political and social institutions such as:

1. Child adoption by homosexual couples.
2. Cooperation of DISY (Conservative Christian Democratic Party) and AKEL (The Progressive Party of Working People) in forthcoming presidential elections or referendum, with joint candidate.
3. Orthodox Christening in infant-hood.

As soon as the participant's state of opinion was established, the next step was to place him or her on the imagined yardstick (the graduated scale of policy acceptance from one end to the other end. For each particular matter its full political spectrum is represented by the yardstick, a so-called window of discourse, which includes a range of unacceptable ideas by the two ends systematically shifted towards acceptance by the public opinion. The goal is to test the mechanism of Overton Window theory on Cypriot participants with the use of the

Graph 3 Information Questions

questionnaire. Question by question an attempt is made to move the window of discourse and change the public opinion on each of the above categories. The participants were informed that the aim of the questionnaire is to record the users of
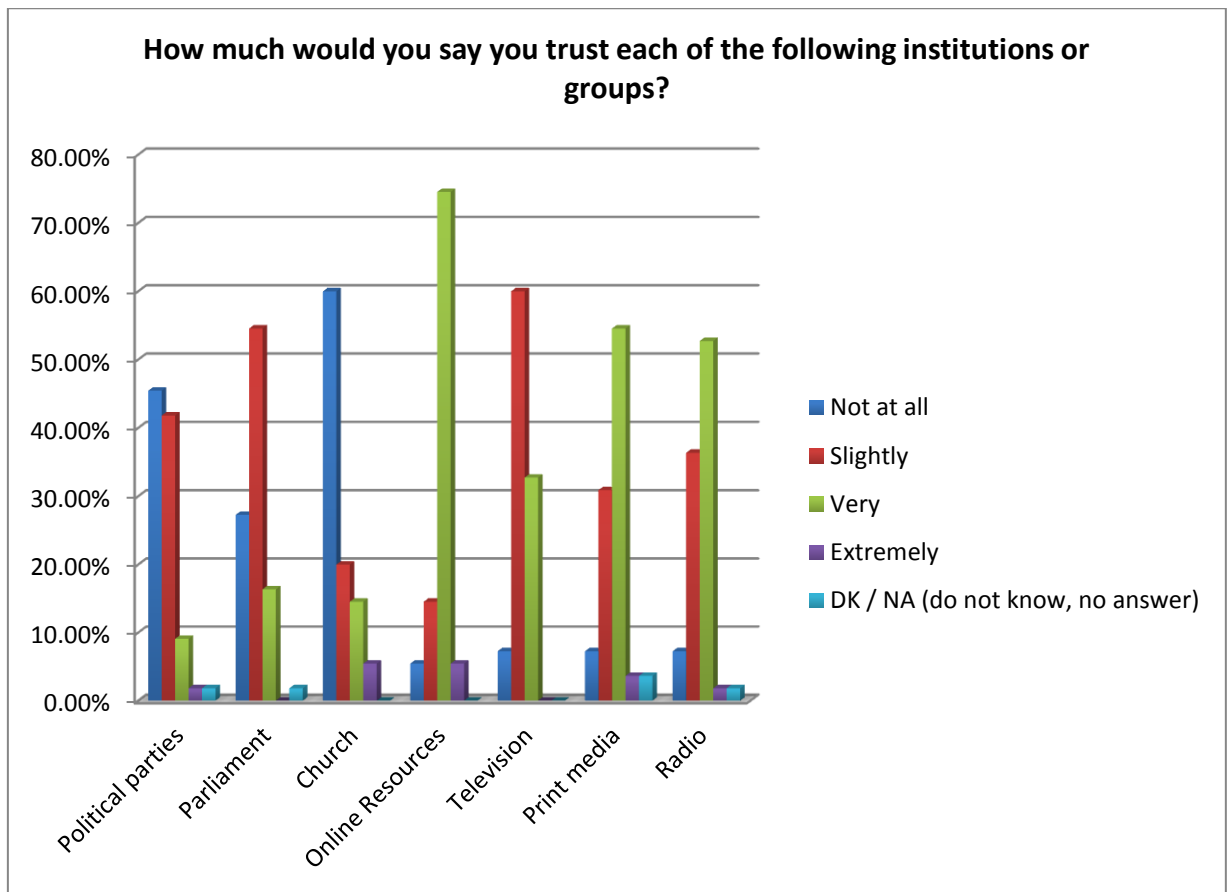
Graph 4 Information Questions

Internet for information purposes and only 3% of the participants commented that the content of the questionnaire was irrelevant to the title. As was presented in Chapter 2 (section 2.4.1) Kahneman and Tversky (1981) concluded that peoples' choice depends from the formulation of the given choices rather than the real meaning of them, the so called "Reference-dependent preferences theory". Based on this theory the questions have been formulated with particular wording in an attempt to manipulate the participants in order to shift their original point of view towards opposite opinion. Based on this scenario on the question 5 "How often do you use the internet" (Πόσο συχνά χρησιμοποιείτε το Διαδίκτυο;) the majority of 94.55% answered "every day" and on the question 6 "Do you trust your knowledge concerning what is happening in the world"(Πόσο εμπιστεύεστε τις γνώσεις σας για το τι συμβαίνει στον κόσμο;) 20% answered extremely and 67% answered very. On the question 7 "How much would you say you trust each of the following institutions or groups?" (Πόσο πολύ θα λέγατε ότι εμπιστεύεστε καθέναν από τους παρακάτω θεσμούς ή ομάδες;) the results showed that the online resources have the higher percentage of trust 74.55% followed by Print media (54.55%) and Radio (52.73%). On the contrary 60% stated that they do not trust the
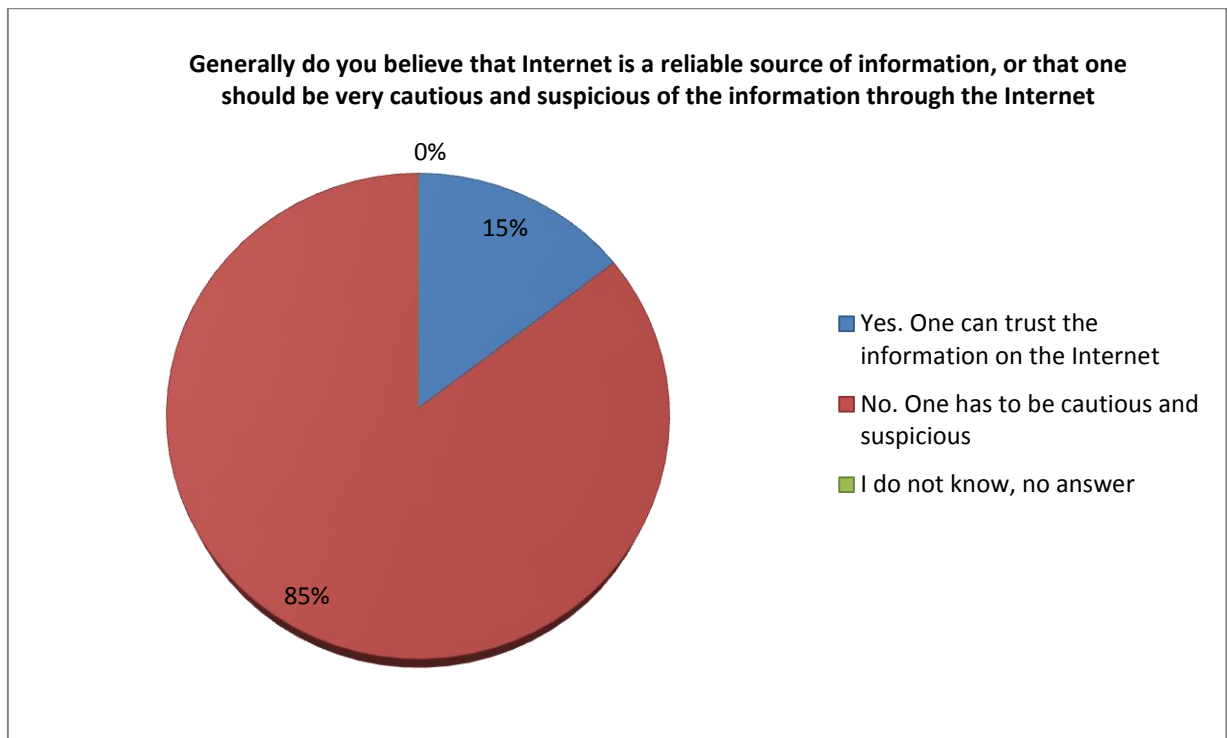
Graph 5 Media Information Questions

Church at all followed by 54.45% the Political parties and 60% they trust slightly the television. At this stage the majority claims that they consider themselves as well informed concerning public matters and that they mostly choose the online for information, but when they are asked the next question 8 concerning internet as medium of information: "Generally do you believe that Internet is a reliable source of information, or that one should be very cautious and suspicious of the information through the Internet?"(Γενικά πιστεύετε ότι η ενημέρωσή μέσω του Διαδικτύου είναι αξιόπιστη ή ότι πρέπει κανείς να είναι πολύ προσεκτικός και καχύποπτος ως προς την ενημέρωσή μέσω του Διαδικτύου.) It is evident that the so-called "window of discourse" is moving and instead of the expected response that they trust the Internet there is a high percentage of 85% claiming that they don t trust Internet sources and that one has to be cautious and suspicious. In other words the participant's opinion changes quite easily according to question formulation.

5.2.2 Results and analysis on child adoption by homosexual couples

On the question 9 "Do you believe that all people are equal regardless of their ethnicity, gender, sexual orientation and religion?"(Πιστεύετε ότι όλοι οι άνθρωποι είναι ίσοι μεταξύ τους ανεξαρτήτως εθνικότητας, φύλου, σεξουαλικού προσανατολισμού και θρησκείας;) almost all of the participants (90.91%) answered positively. At question 10
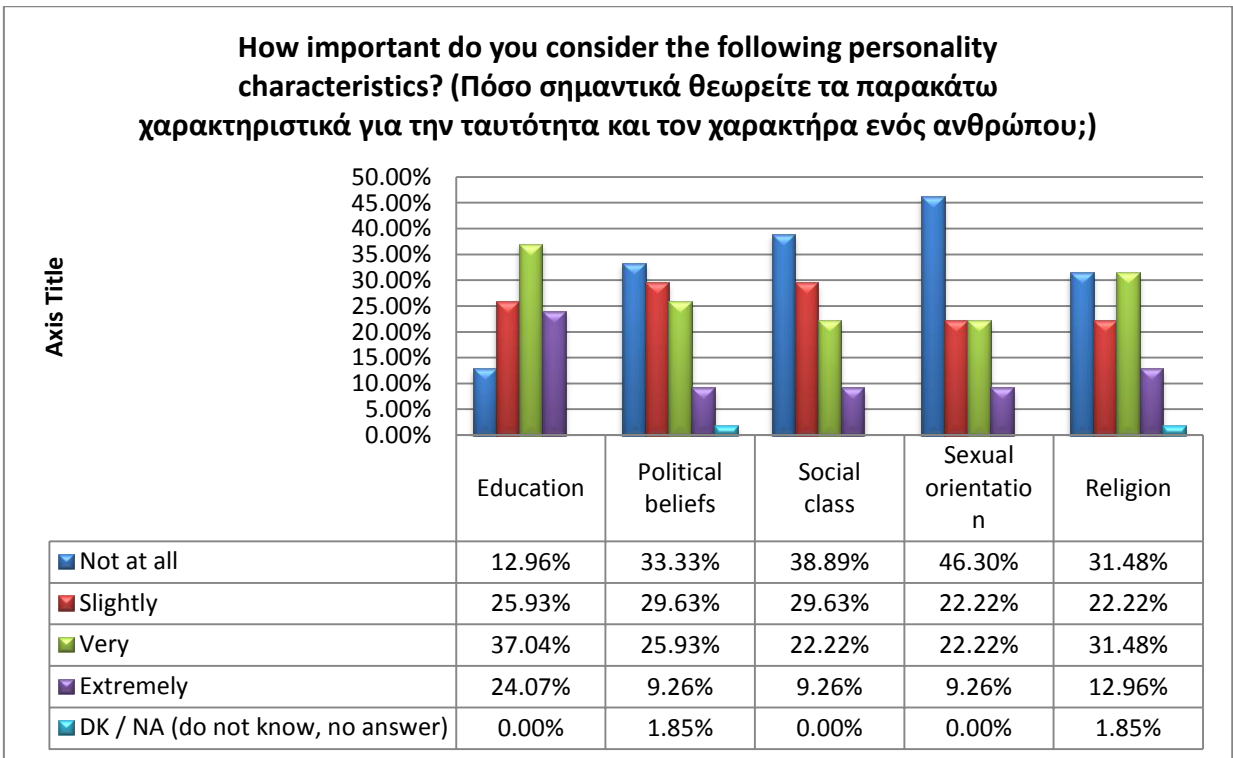
Graph 6 Based on what criteria should two people be allowed to adopt a child

	Education	Political beliefs	Social class	Sexual orientation	Religion
Not at all	12.96%	33.33%	38.89%	46.30%	31.48%
Slightly	25.93%	29.63%	29.63%	22.22%	22.22%
Very	37.04%	25.93%	22.22%	22.22%	31.48%
Extremely	24.07%	9.26%	9.26%	9.26%	12.96%
DK / NA (do not know, no answer)	0.00%	1.85%	0.00%	0.00%	1.85%
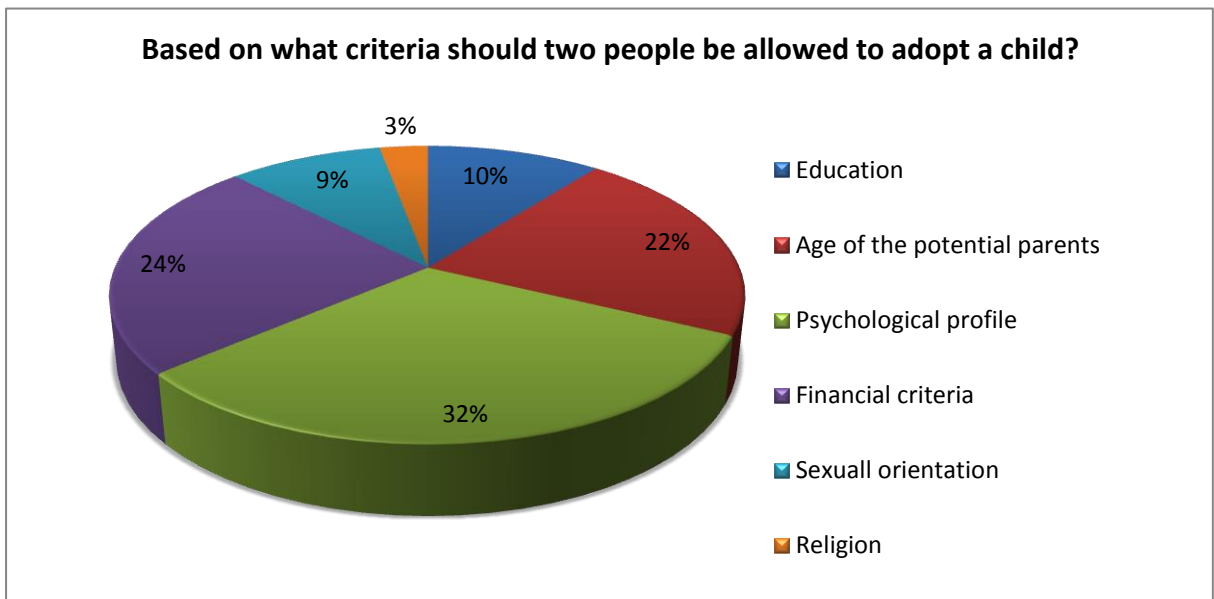
Graph 7 Child adoptions by homosexual couples

"Do you believe that LGBT (Lesbian, gay, bisexual, and transgender people facing discrimination on sexual orientation and identity of gender) have the same opportunities as other members of society? (Πιστεύετε ότι τα ΛΟΑΤ άτομα (που αντιμετωπίζουν διάκριση σχετικά με τον σεξουαλικό προσανατολισμό τους και την ταυτότητα του φύλου τους) έχουν τις ίδιες ευκαιρίες με τα υπόλοιπα μέλη της κοινωνίας;) The opinions are almost divided in half with 45.45% having answered "Yes" and 54.55% having answered "No". Concerning the personality characteristics (Graph 6)

Children that grow up with parents that are not represented by both sexes, are confused concerning the developing of their sexual identity and behavior in relation to sex?

- Strongly Agree — 14%
- Agree — 24%
- Undecided / Neutral — 20%
- Disagree — 22%
- Strongly Disagree — 11%
- DK / NA (do not know, no answer) — 9%
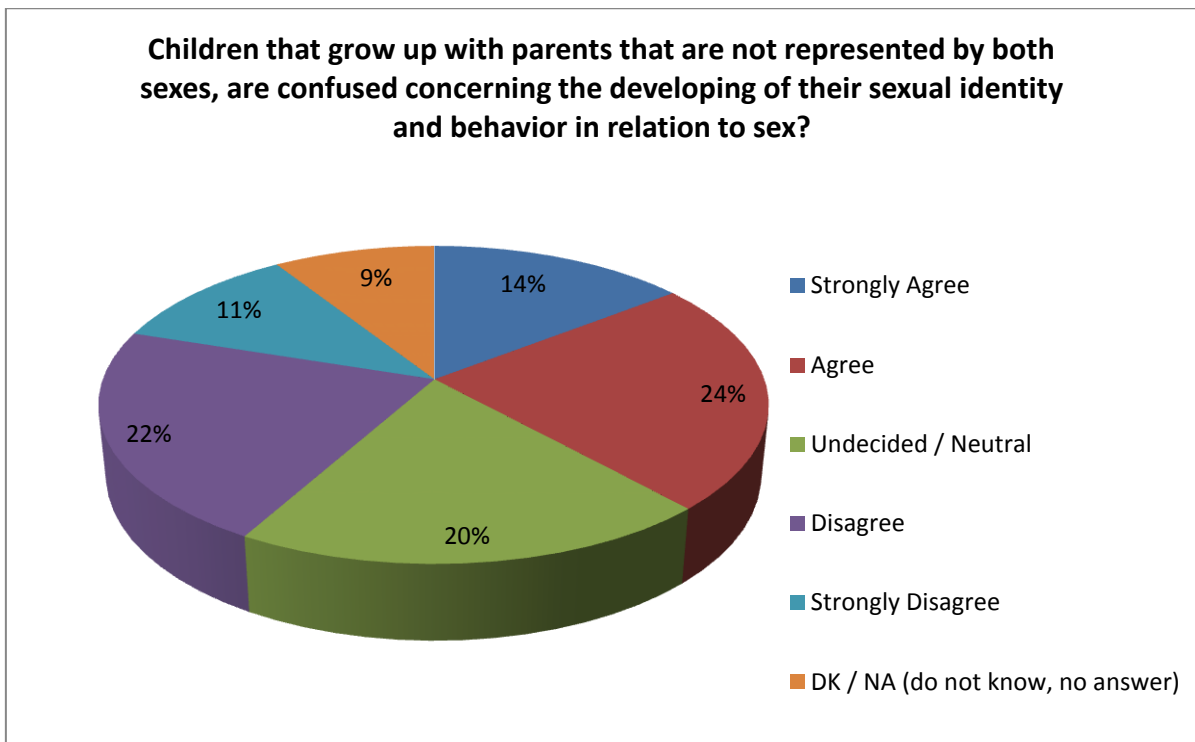
Graph 8 Child adoptions by homosexual couples

the results indicate that sexual orientation is the least not important with 46.30%, most important while education (37.04% Very and 24.07% extremely) was considered most important. Based on what criteria should two people be allowed to adopt a child (Με βάσει ποια κριτήρια πρέπει να επιτρέπεται σε δύο ανθρώπους να γίνουν θετοί γονείς ενός παιδιού) the most important criteria is the psychological profile. Sexual orientation had a very low percentage of 9%. On question 13 "Children learn about the differences between men and women from parenting models. The mother-father relationship provides children with a relationship model - the most substantial and lasting relationship that the vast majority of people will have during their lifetime" Do you agree or Disagree? (Τα παιδιά μαθαίνουν για τις διαφορές ανδρών και γυναικών από τα γονεϊκά πρότυπα. Η γονεϊκή σχέση μητέρας-πατέρα παρέχει στα παιδιά ένα μοντέλο σχέσης – την πιο ουσιαστική και διαρκή σχέση που η συντριπτική πλειοψηφία των ατόμων θα έχουν κατά τη διάρκεια της ζωής τους. Συμφωνείτε ή διαφωνείτε;) the majority of participants 43.64% Agree and 20% strongly agree. For the question 14 "Do children have confusion in developing their sexual identity and gender behavior when they grow up from parents who are not represented by both sexes?" (Έχουν τα παιδιά σύγχυση στην ανάπτυξη της σεξουαλικής ταυτότητας τους και στη συμπεριφορά σε σχέση με το φύλο, όταν μεγαλώνουν από γονείς οπού δεν εκπροσωπούνται και απο τα δύο φύλα;) the opinions were spread with 38% stating that they agree, 20% are undecided, 33% disagree and about 9% didn't answer the question.

This is repeated at the next question 15: "Being straight is the only normal and socially acceptable in terms of adoption rights?" (Το να είσαι ετεροφυλόφιλος είναι το μόνο φυσιολογικό και αποδεκτό από το κοινωνικό σύνολο όσον αφορά του δικαιώματος τεκνοθεσίας;) with participants that answered Agree and Disagree showing the same percentage of 23.64%. The answers continue to almost be equally spread and for question 16: "With the legalization of the right to marry homosexual couples should be recognized with the right of adoption?" (Με την νομιμοποίηση του δικαιώματος γάμου μεταξύ ομοφυλόφιλων ζευγαριών θα πρέπει να αναγνωριστεί και το δικαίωμα υιοθεσίας;)

"With the legalization of the right to marry homosexual couples should be recognized with the right of adoption?"	
Strongly Agree	23.64%
Agree	14.55%
Undecided / Neutral	20.00%
Disagree	20.00%
Strongly Disagree	20.00%
DK / NA (do not know, no answer)	1.82%

At this stage it was established that the public opinion of the Cypriot population sample represented by the participants concerning Child adoption by homosexual couples, can be shifted as was presented in Chapter 2 at the presentation of the Overton Window theory. According to Lehman (2010) there is a specific sequence of actions made by media specialists in order to start a public discussion of any matter considered unthinkable by the society. In other words in each society there is a so-called window of discourse which includes a range of unacceptable ideas systematically shifted towards legalization by the public opinion. When media specialists take the specific actions as described by Lehman (2010), step by step the window of discourse is shifting and changing the public opinion. At this stage the matter has already been widely discussed and has established itself in the consciousness of the citizens', which will in turn lead to the final desired stage that of legalization. The following questions were formulated with particular wording in order to shift the volunteers that expressed negative opinion concerning child adoption by homosexual couples towards opposite opinion.

"In adoption cases often raises the question which candidates are suitable parents or are "best suited" compared to others. Which of the following parameters you believe should be considered"?	
The ability of parents to meet the basic needs of the child	13.78%
The parent's ability to protect the child from significant harm or risk	12.16%
The parent's ability to recognize and respond to the emotional needs of the child	13.51%
The ability to provide learning stimulation and education	11.35%
The parent's ability to set rules and limits on child behavior	10.81%
To provide a stable environment which differs from consistency	12.97%
The parent's ability to support the child in the autonomy-independence	11.08%
Parents mental health	14.32%

For the question 17 "Adoption cases often raise the question of which candidates are suitable parents or are the "best suited" as compared to others. Which of the following parameters you believe should be considered"? (Σε υποθέσεις υιοθεσίας τίθεται συχνά το ερώτημα ποιοι υποψήφιοι γονείς είναι κατάλληλοι ή «καταλληλότεροι» των άλλων. Ποιοί απο τους πιο κάτω παραμέτρους πιστέυετε οτι πρέπει να εξετάζονται) There were equally spread responses concerning: If the candidate's parents for adoption meet the above requirements, should the sexual orientation of the applicant be used alone as a criterion for approving an adoption? (Οι υποψήφιοι γονείς για υιοθεσία μπορεί να πληρούν όλα τα παραπάνω κριτήρια. Τίθεται, λοιπόν το ερώτημα εάν ο σεξουαλικός προσανατολισμός των υποψήφιων γονέων μπορεί να είναι από μόνος του κριτήριο για την έγκριση μιας υιοθεσίας.) With this question, based on the given answers to the previous questions, the so-called window of discourse starts to slowly shift. When we compare the results in the question 9 (about people being considered equals regardless of ethnicity, gender, sexual orientation and religion where almost all of the participants (90.91%) answered positively) with question 11 (where only 9% consider sexual orientation as a criterion

Graph 9: Sexual orientation

66

Do you agree or disagree with Dawn Stefanowicz

- Strongly Agree — 26%
- Agree — 31%
- Undecided / Neutral — 18%
- Disagree — 16%
- Strongly Disagree — 9%
- DK / NA (do not know, no answer) — 0%
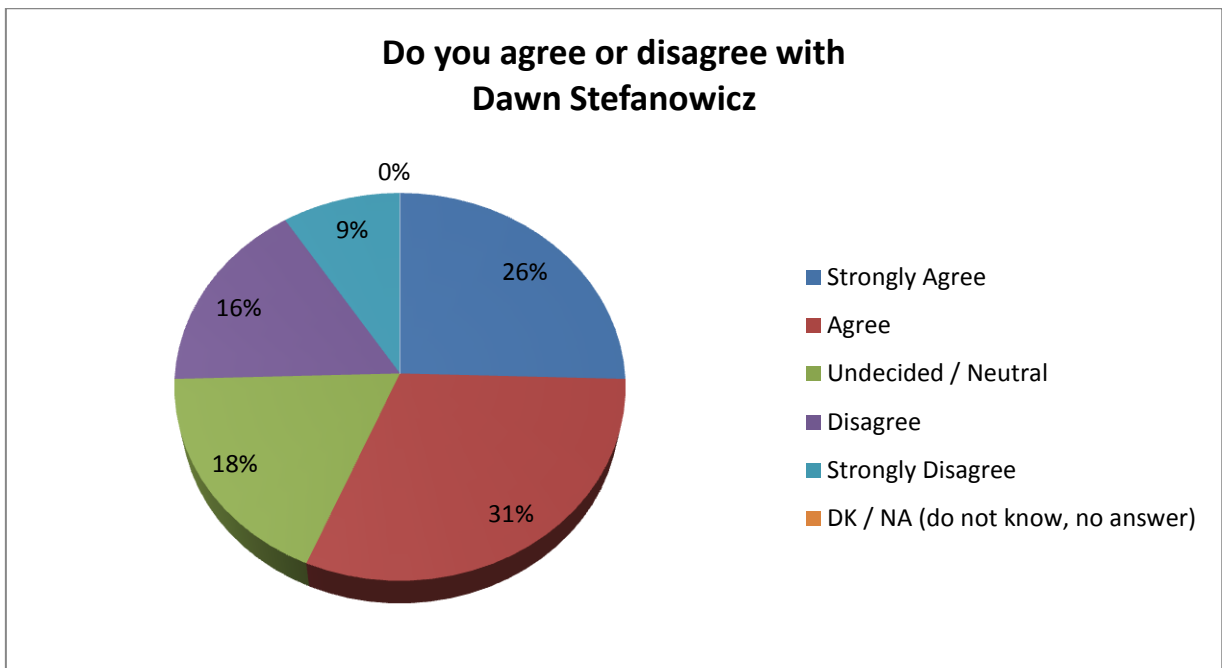
Graph10: Child adoptions by homosexual couples

on whether two people should be allowed to adopt a child and 46.30% that indicate that sexual orientation is the least important characteristic) we can see that phraseology used effects participants responses significant. When sexual orientation is stated alone as a criterion for adoption (see Graph 9), the above numbers change to 32% in the category "total agree" or strongly agree, 47% in total disagree or strongly disagree and 21% are undecided.

In order to test the degree of change or not of opinion of the participants they were given a real-life story of a child, Dawn Stefanowicz who grew up in homosexual family. The story was used as a tool of psychology framing. Psychology framing was presented in section 2.4.1, in the Reference-dependent Preferences Theory were Waytz and Elpley (2012) suggest that socially connected people may benefit physically and mentally but at the same time will increase the tendency to dehumanize others outside their social circle and use them like objects or means to an end. In question 19, Dawn Stefanowicz (daughter of a gay father who died from AIDS) is an internationally recognized speaker and author. She is member of the Committee Testimony of the Institute of Child Rights. In her book: The Influence of Gay Parents she says: "Vulnerable children need both a father and a mother who will love them and protect them, they should not be used as instruments of social experimentation by narcissistic people who seek sexual satisfaction and identity outside the traditional family» (Reality, Jan-Feb. 2009, p 10). (H Dawn Stefanowicz (κόρη ενός γκέι πατέρα που πέθανε από AIDS) είναι μία διεθνώς

αναγνωρισμένη ομιλήτρια και συγγραφέας. Είναι μέλος της Επιτροπής Μαρτυρίας του Ινστιτούτου Δικαιωμάτων του Παιδιού. Στο βιβλίο της: Η Επίδραση των Ομοφυλόφιλων Γονέων αναφέρει ότι «Ευάλωτα παιδιά χρειάζονται τόσο έναν πατέρα όσο και μια μητέρα που θα τα αγαπούν και θα τα προστατεύουν. Δεν πρέπει να χρησιμοποιούνται ως όργανα ενός κοινωνικού πειραματισμού από ναρκισσιστικά άτομα που αναζητούν την σεξουαλική ικανοποίηση τους και την ταυτότητά τους έξω από την παραδοσιακή οικογένεια»(Reality, Jan-Feb. 2009, p10). Κατά πόσο συμφωνείτε ή διαφωνείτε;) Participants were asked to state whether they agree or disagree with Dawn Stefanowicz in order to test the importance of question formulation which based on the Nobel Prize winners Kahneman and Tversky's (1981) study of the so called psychology rooted

Archbishop over anti-gay comments

- Strongly Agree
- Agree
- Undecided / Neutral
- Disagree
- Strongly Disagree
- DK / NA (do not know, no answer)

0%
6%
9%
11%
47%
27%
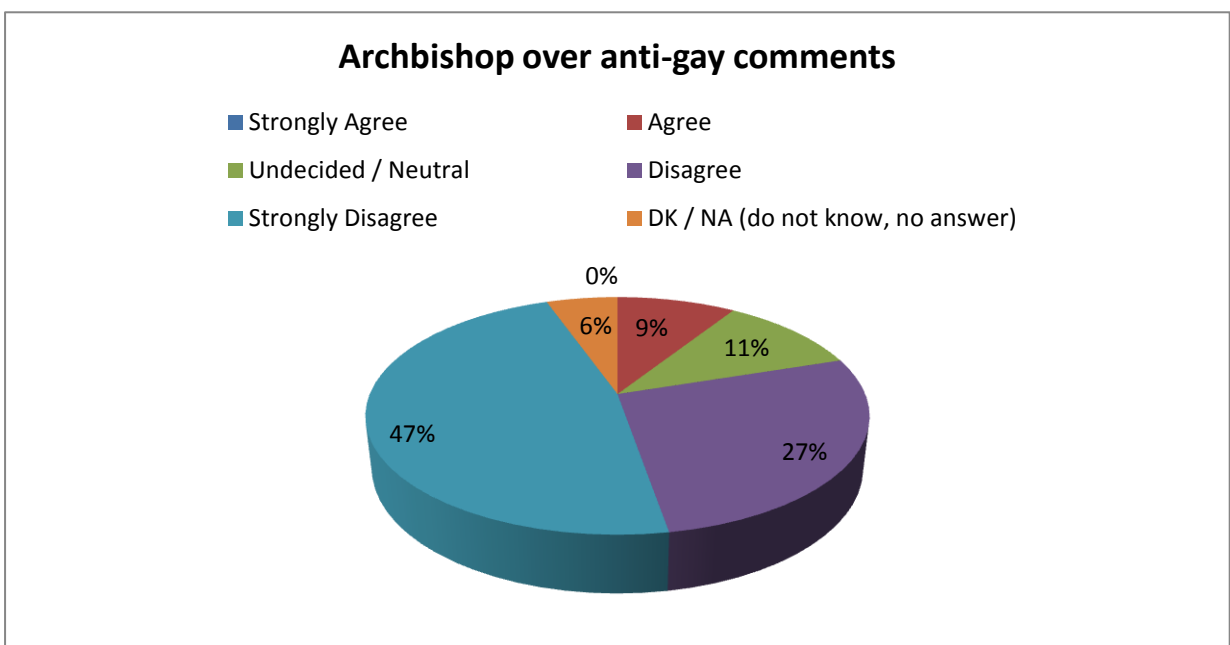
Graph11: Child adoptions by homosexual couples

framing. When presented with a real life example the volunteers with their answers again change their statement concerning sexual orientation and parenting with the majority of 57% in total agree or strongly agree with Dawn Stefanowicz, 18% stated undecided and only 25% in total disagree or strongly disagree. At this point the majority of participants have a negative opinion towards adoption by homosexual couples and state that they agree with Dawn Stefanowicz who considers gay parents «narcissistic people who seek sexual satisfaction and identity outside the traditional family». Participants were are asked to adopt a position on whether they agree or disagree with the statement (question 20): "Archbishop Chrysostomos has announced that the Church has plans to establish ten kindergartens and two years later it would

also establish two primary schools, followed by two secondary education schools six years after that. We will demand that proper people come out of them (schools), complete personalities, to help the country and to lead exemplary lives." (Ο προκαθήμενος της κυπριακής εκκλησίας δήλωσε την πρόθεσή του να δημιουργήσει νηπιαγωγεία και σχολεία για να καταπολεμήσει την ομοφυλοφιλία. Θα ετοιμαστούν δέκα νηπιαγωγεία με στόχο μέσα σε δύο χρόνια να γίνουν δημοτικά και σε έξι έτη γυμνάσια και λύκεια, στα οποία θα δίνεται μία υποδειγματική εκπαίδευση με ορθές κατευθύνσεις στους μαθητές, από τους οποίους θα έχουν την απαίτηση να βγαίνουν σωστοί άνθρωποι που να είναι παράδειγμα προς μίμηση[5]. The results are again changing from being negative towards homosexuals into being positive with the majority disagreeing (74.54%) with the statement of Archbishop Chrysostomos. A final question 21 examines if stronger sanctions on the Cypriot Church should be introduced against hate speech towards homosexuals and that the church should show greater understanding on diversity matters. The majority of participants continue to disagree with negative opinions concerning homosexuals although in question 19 the majority was against Child adoption by homosexual couples. In detail the results:

Tougher sanctions on Cypriot Church should be introduced against hate speech towards homosexuals and that the church should show greater understanding on diversity matters:

Strongly Agree	**45.45%**
Agree	**38.18%**
Undecided / Neutral	**10.91%**
Disagree	**3.64%**
Strongly Disagree	**1.82%**
DK / NA (do not know, no answer)	**0.00%**

5.2.3 Results concerning cooperation of DISY (Conservative Christian Democratic Party) and AKEL (The Progressive Party of Working People) in forthcoming presidential elections or referendum, with joint candidate

The progressive Party of Working People AKEL (2017) was founded in 1926 and is "a contemporary communist party guided by the ideology of Marxism – Leninism which is

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[5] http://cyprus-mail.com/2016/11/01/church-establish-schools-give-children-principles-preach-homosexuality-archbishop-says/).

Graph12: Results concerning cooperation of DISY and AKEL
in forthcoming presidential elections or referendum, with joint candidate

developing with the continuous progress of knowledge and economic and political development." In the presidential elections of 2008 the General Secretary of the party was elected president of the Republic of Cyprus. The Conservative Christian Democratic Party DISY (2017) was founded on 4th of July 1976 by late politician Glafkos Klerides and is a conservative nationalist and anti-communist party in Cyprus led by Nicos Anastasiades the current elected president of the Republic of Cyprus. The two parties have always been in rival political camps and never until now collaborated with a joint candidate in elections. The possibility of cooperation of DISY and AKEL in forthcoming presidential elections or referendum with joint candidate can be stated as "unacceptable idea" by Cypriot society. Participants were asked in question 22, to state their general interest in politics in Cyprus and the world (Γενικά μιλώντας, πόσο θα λέγατε ότι ενδιαφέρεστε για την πολιτική στην Κύπρο και τον κόσμο γενικότερα; Θα λέγατε ότι ενδιαφέρεστε) with the majority 36.36% stating that they are extremely interested, 27.27% very interested, 20% slightly interested and the remaining 16.36% not at all interested. Subsequently they were asked if they agree or disagree with the cooperation of DISY and AKEL in the forthcoming presidential elections of 2018 with a common candidate (Συμφωνείτε ή διαφωνείτε όσον αφορά την συνεργασία στις προσεχείς προεδρικές εκλογές 2018, του ΔΗΣΥ και του ΑΚΕΛ με κοινό υποψήφιο). The majority

40% stated undecided, followed by 23.64% which strongly disagree, 12.73% did not answer, 10.91% agree, 9.09% disagree and only the 3.64% agree with such possibility. Although the two political parties are ideologically opposed when the participants were asked in question 25: We have become accustomed to the fact that one of the two poles DISY or AKEL, collaborate with one or both parties of the center (DIKO, EDEK), do you agree or disagree on the potential cooperation between the two poles in case of positive progress in the negotiations with Turkey - for the solution of Cyprus problem after the Turkish invasion of 1974 and illegal occupation of the Northern area of the island – (Εχουμε συνηθίσει στο ότι ένας απο τους δύο πόλους ΔΗΣΥ ή ΑΚΕΛ συνεργάζεται με ένα ή και τα δύο κόμματα του ενδιάμεσου χώρου (ΔΗΚΟ, ΕΔΕΚ) κατά πόσο συμφωνείτε ή διαφωνείτε όσον αφορά την πιθανότητα συνεργασίας των δύο πόλων αν υπάρχει θετική πρόοδος στις διαπραγματεύσεις του Κυπριακού;) the majority positioned positively.

Potential cooperation between the two poles in case of positive progress in the negotiations with Turkey

- Strongly Agree
- Agree
- Undecided / Neutral
- Disagree
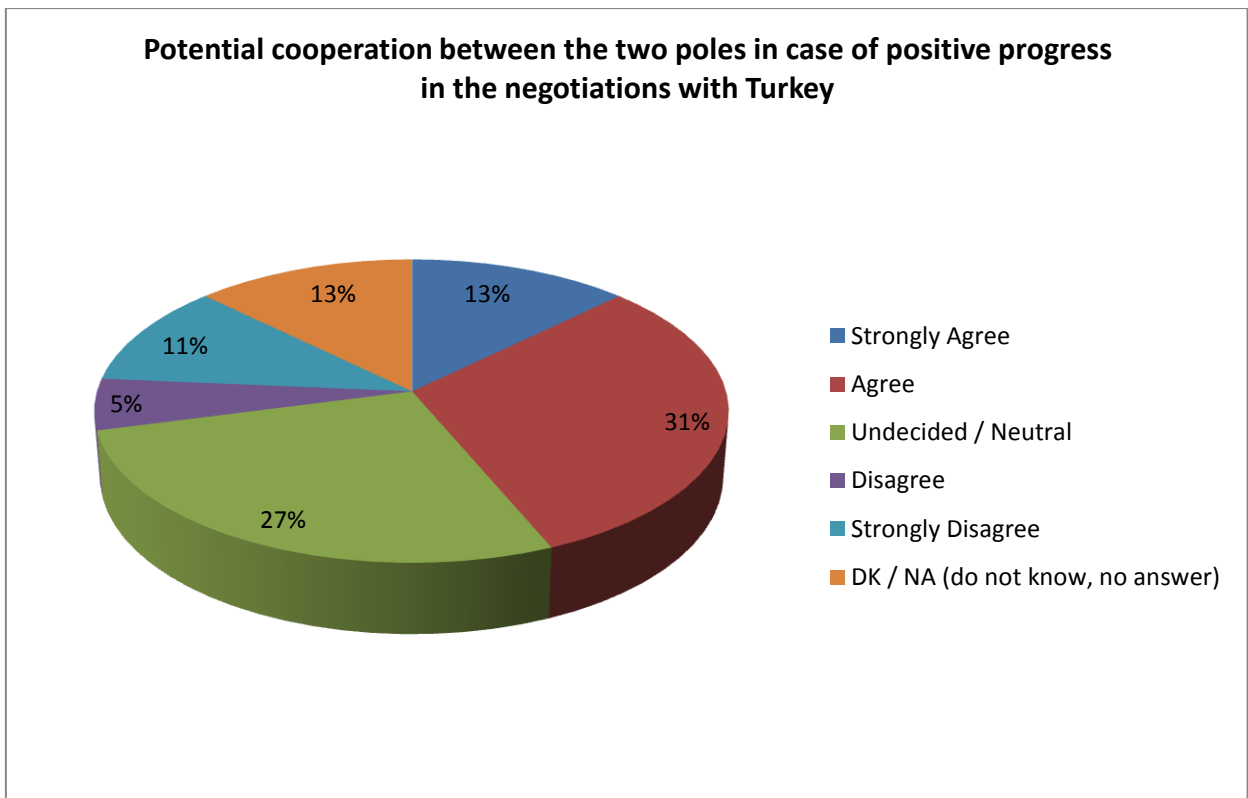- Strongly Disagree
- DK / NA (do not know, no answer)

Graph13: Results concerning cooperation of DISY and AKEL
in forthcoming presidential elections or referendum, with joint candidate

For the question 26: The way the "Cyprus Problem" is projected by the media do you believe it has contributed to the positive public opinion towards finding a solution? (Ο τρόπος προβολής του Κυπριακού ζητήματος από τα ΜΜΕ πιστεύετε πως έχει συντελέσει στην θετική εικόνα που έχει ένα μεγάλο μέρος της Κυπριακής κοινής γνώμης όσων αφορά πιθανότητα εξεύρεσης λύσης;) The participants answered that:

Strongly Agree	**5.45%**
Agree	**36.36%**
Undecided / Neutral	**21.82%**
Disagree	**20.00%**
Strongly Disagree	**5.45%**
DK / NA (do not know, no answer)	**10.91%**

The high percentage in of 21.82% that selected "undecided" indicates the possibility of a limited judgment on an important public mater. The specific users seem to be unable to evaluate the extent of media projection concerning important public matters. Continuing with the following question 27: The deputy chairman and MEP of DISY's Lefteris Christoforou estimated that the conference on Cyprus was "a positive step" because he said Nikos Anastasiadis "achieved its objectives, the submission for the first time after 43 years(from the Turkish invasion and occupation), the positions of Turkey on the territorial and security matters. "Do you agree or disagree? (Ο αναπληρωτής πρόεδρος και ευρωβουλευτής του ΔΗΣΥ, Λευτέρης Χριστοφόρου, εκτίμησε ότι στη διάσκεψη για το Κυπριακό έγινε «ένα θετικό βήμα», διότι όπως είπε ο Νίκος Αναστασιάδης «πέτυχε τους στόχους του, δηλαδή να κατατεθούν για πρώτη φορά, εδώ και 43 χρόνια, οι θέσεις της Τουρκίας στο εδαφικό και στα θέματα εγγυήσεων και ασφάλειας». Συμφωνείτε ή διαφωνείτε;) The answers are almost equally divided between those who agree and disagree.

Strongly Agree	**1.82%**
Agree	**21.82%**
Undecided / Neutral	**38.18%**
Disagree	**16.36%**
Strongly Disagree	**7.27%**
DK / NA (do not know, no answer)	**14.55%**

The same question 28 was repeated this time with the statement from the opposition party: Spokesman and member of AKEL, Stephanos Stephanou said that "it is good that during the first meeting both sides (Cypriot president and Representative of the Turkish Cypriot community) simultaneously submitted maps, which create conditions for concrete negotiation and agreement on the territorial." Do you agree or disagree? (Ο εκπρόσωπος Τύπου και βουλευτής του ΑΚΕΛ, Στέφανος Στεφάνου, δήλωσε ότι «είναι

θετικό το γεγονός ότι στη διάσκεψη για πρώτη φορά οι δύο πλευρές κατέθεσαν ταυτόχρονα χάρτες, που δημιουργεί τις προϋποθέσεις για συγκεκριμένη διαπραγμάτευση και επίτευξη συμφωνίας στο εδαφικό». Συμφωνείτε ή διαφωνείτε;)

Strongly Agree	**1.82%**
Agree	**27.27%**
Undecided / Neutral	**38.18%**
Disagree	**10.91%**
Strongly Disagree	**9.09%**
DK / NA (do not know, no answer)	**12.73%**
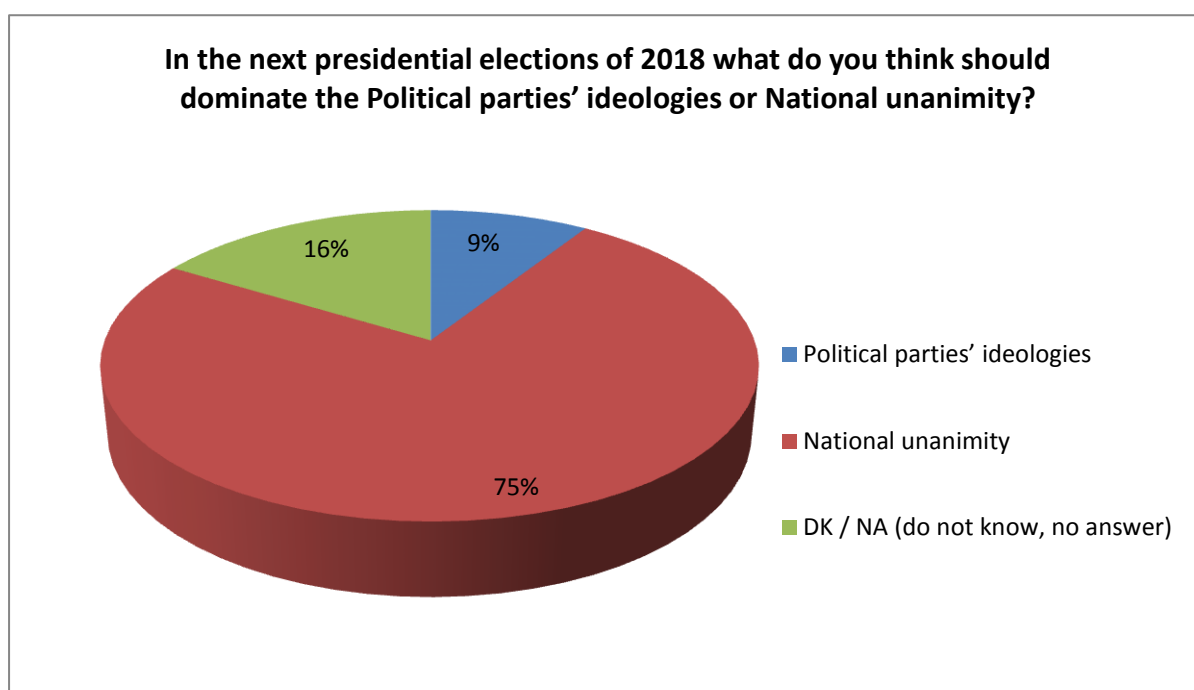
Graph14: Question 30

The answers are almost identical with the previous question and equally divided between those who agree and disagree suggesting that the participants when asked their opinion on the main political parties from the perspective of a National importance matter do not distinguish them from each other. In order to further investigate Cypriot user's awareness they were asked to state their opinion on the statement of AKEL representative Stephanos Stephanou (question 29) that AKEL "will continue with responsibility, seriousness and patriotism to support the negotiations, trying to reach a solution". Do they believe statement is a direct support to the face of the President of the Republic Nicos Anastasiades? (Η δήλωση του εκπρόσωπου Τύπου και βουλευτή του ΑΚΕΛ, Στέφανου Στεφάνου ότι το ΑΚΕΛ «θα συνεχίσει με υπευθυνότητα, σοβαρότητα
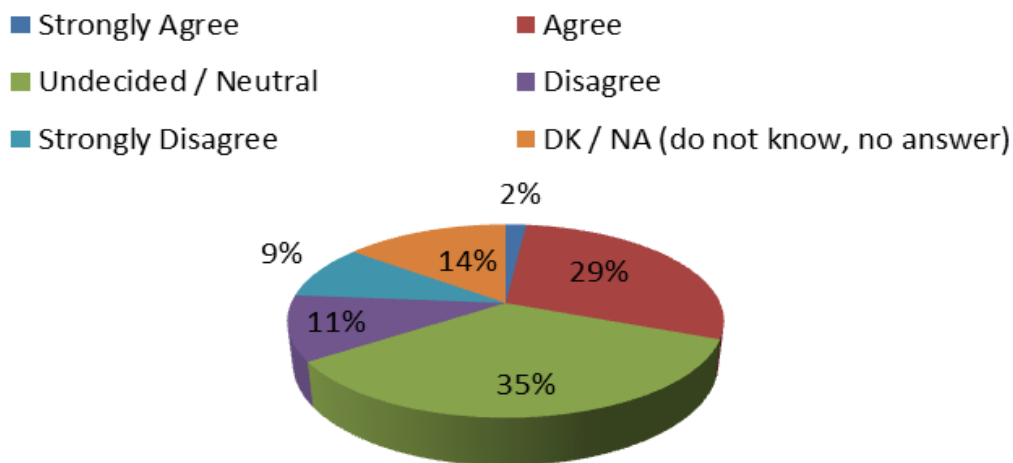
Graph14: Question 31

και πατριωτισμό να στηρίζει τις διαπραγματεύσεις και την προσπάθεια για επίτευξη λύσης», είναι στήριξη στο πρόσωπο του προέδρου της Δημοκρατίας Νίκου Αναστασιάδη;) The majority of 35% continued to be unable to decide followed by 29% who agreed with the opinion that the two opposite parties have the same position on the negotiations for the Cyprus problem. This became even more apparent in the following question 30: In the next presidential elections of 2018 what do you think should dominate the political parties' ideologies or national unanimity? (Στην περίπτωση των προεδρικών εκλογών του 2018 τι πιστεύετε ότι πρέπει να κυριαρχήσει οι κομματικές ιδεολογίες ή η εθνική συνεννόηση;) The overwhelming majority, despite their political beliefs, has chosen national unanimity.

For the last question 31 in this category: If talks on the Cyprus Problem have reached a particular crucial point and the President Anastasiades is determined to continue this effort. With further progress in the process of peace talks do you agree or disagree that a change of the Greek Cypriot interlocutor due to the presidential elections may affect the progress of the peace talks? (Οι συνομιλίες στο Κυπριακό έχουν φτάσει σ' ένα ιδιαίτερα κομβικό σημείο και ο Πρόεδρος Αναστασιάδης δείχνει σήμερα να είναι αποφασισμένος να συνεχίσει την όλη προσπάθεια. Με περαιτέρω πρόοδο στην διαδικασία των συνομιλιών συμφωνείτε ή διαφωνείτε ότι αλλαγή συνομιλητή λόγω προεδρικών εκλογών πιθανών να επηρεάσει την ομαλή ροή των συνομιλιών;) The majority of 34.55% agrees (1.82% strongly agree) with the choice of national unanimity over

parties' ideology, although equally high percentage of 34.55% continues to be unable to decide. The percentage that disagrees reaches the 12.73%, strongly disagrees the 5.45% and 10.91% didn't answer.

5.2.4 Results concerning Christening in infant-hood

The Cypriot society (Cyprus 20017) is mostly members of the Autocephalous Greek Orthodox Church of Cyprus (73.2%), the Turkish Cypriots are officially Sunni Muslims (25.3%), and there are also small percentages of Anglican Protestants, Roman Catholic, Maronite and Armenian Apostolic communities. In the last section of the questionnaire an attempt was made to manipulate the judgment of Cypriots concerning Christening. The participants were asked in question 33: Do you agree or disagree with the possible enactment prohibiting the baptism of children in infancy and allowing it only after the age of 18? Συμφωνείτε ή διαφωνείτε με πιθανή νομοθέτηση που θα απαγορεύει τις βαπτίσεις των παιδιών σε βρεφική ηλικία και να τις επιτρέπει μόνο μετά τα 18). The given answers are almost equally divided. In continuation the question 34 asked whether, given that the christening implies the acquisition of religion, baptism should be a conscious act rather than imposed by religious organizations. (Η βάπτιση, κατά πάγια νομολογία, έχει σκοπό την κτήση θρησκεύματος άρα το βάπτισμα θα πρέπει να είναι μια πράξη συνειδητή αντί να επιβάλλεται από θρησκευτικές οργανώσεις.) The majority 63.64% agrees in contrary with 14.55% that disagrees and 9.09% who strongly disagree. The percentage that remained undecided was 12.73%. For question 35: "There is no testimonial of infant baptizing by Jesus or his followers in the New Testament. The custom of infant baptism shortly after birth was widely spread in the 10° and 11° century and became generally accepted in the 13° century. Would implementing this "Sacred Mystery" be best executed at the age of 30 as in the case of Jesus? (Δεν υπάρχει

Choose what religion you follow

Other 7%
Irreligion 20%
Islam 0%
Christianity 73%

Graph 15: Religion in Cyprus

Baptism at the age of 30

- Strongly Agree
- Agree
- Undecided / Neutral
- Disagree
- Strongly Disagree
- DK / NA (do not know, no answer)

16% · 16% · 33% · 22% · 7% · 6%

Graph 16: Question 33

Do you agree or disagree with the possible enactment prohibiting the baptism of children in infancy and allowing it only after the age of 18?

- Strongly Agree
- Agree
- Undecided / Neutral
- Disagree
- Strongly Disagree
- DK / NA (do not know, no answer)

0% · 24% · 29% · 16% · 18% · 13%

Graph 17: Question 34

κανένα παράδειγμα ότι εβαπτίσθη νήπιο υπό τον Ιησού ή των μαθητών του στην Καινή Διαθήκη. Το έθιμο του νηπιοβαπτισμού σύντομα μετά τη γέννηση του νηπίου διαδόθηκε ευρύτερα κατά τον 10° και 11° αιώνα και έγινε γενικότερα αποδεκτό κατά τον 13° αιώνα. Η εκτέλεση αυτού του Ιερού Μυστηρίου θα ήταν ορθότερο να εκτελείται στην ηλικία των 30 όπως στην περίπτωση του Ιησού.) Despite the high percentages in previous question in favor to the possibility of baptism at the age of 18, when the

Do you agree or disagree that Christianity adopted the particular baptism ritual from ancient Greeks?

- Strongly Agree — 15%
- Agree — 45%
- Undecided / Neutral — 22%
- Disagree — 0%
- Strongly Disagree — 2%
- DK / NA (do not know, no answer) — 16%
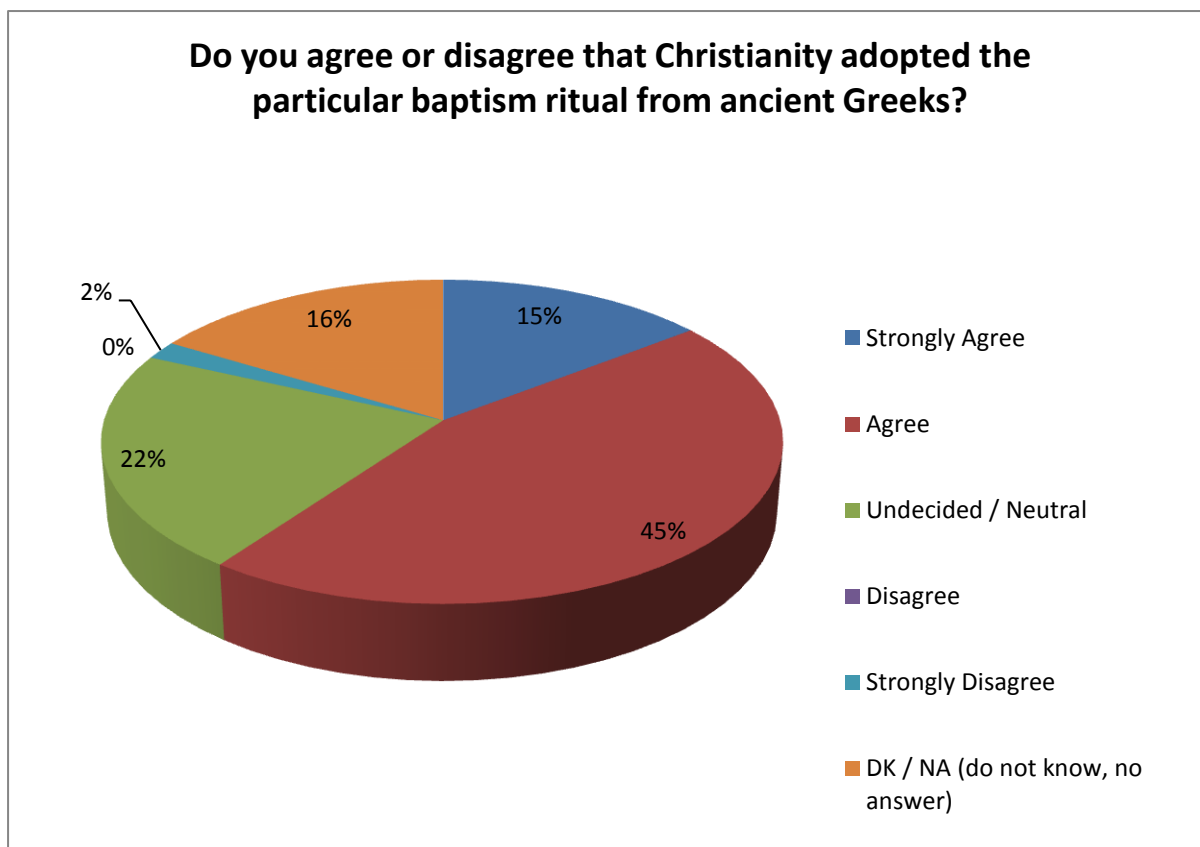
Graph 18: Question 37

formulation of question 35 changes a very low percentage of only 16% agree with baptism at the age of 30. When the participants were asked to answer the following question: When infants are baptized they cannot understand or act upon free will in order to accept the particular faith, (Κατά τον νηπιοβαπτισμό τα βρέφη, δεν μπορούν να κατανοήσουν και να ενεργούν σύμφωνα με την ελεύθερη βούληση προκειμένου να αποδεχθούν μια συγκεκριμένη πίστη) the majority of 43.64% strongly agree and the 34% agree. The percentage of undecided reached 12.73% and very low percentage choses to disagree 3.64% and strongly disagree 1.82%.

A small number of 3.64% did not answer the question. The following questions have been formulated with particular wording in order to shift the participants one step closer towards disagreeing with the tradition of Christening in infant-hood. In question 37, according to Dr.P. I. Kyriakopoulos (2015) the baptism of the stem (boy or girl) had a festive character in ancient Greece where relatives and friends would attend dressed in white with gifts and white candles. The Priest of Zeus sang greetings while the father spread the child with olive oil from sacred olive trees of Athena and walked three times around the alter speaking out loud the name of the child. The father would throw a tiny stalk of the child's hair in the sacred fire. To complete the baptism the father would

Do you agree or disagree that an infant must be cleansed by baptism from the violations of ethical standards?

- Strongly Agree — 7%
- Agree — 6%
- Undecided / Neutral — 20%
- Disagree — 25%
- Strongly Disagree — 36%
- DK / NA (do not know, no answer) — 6%
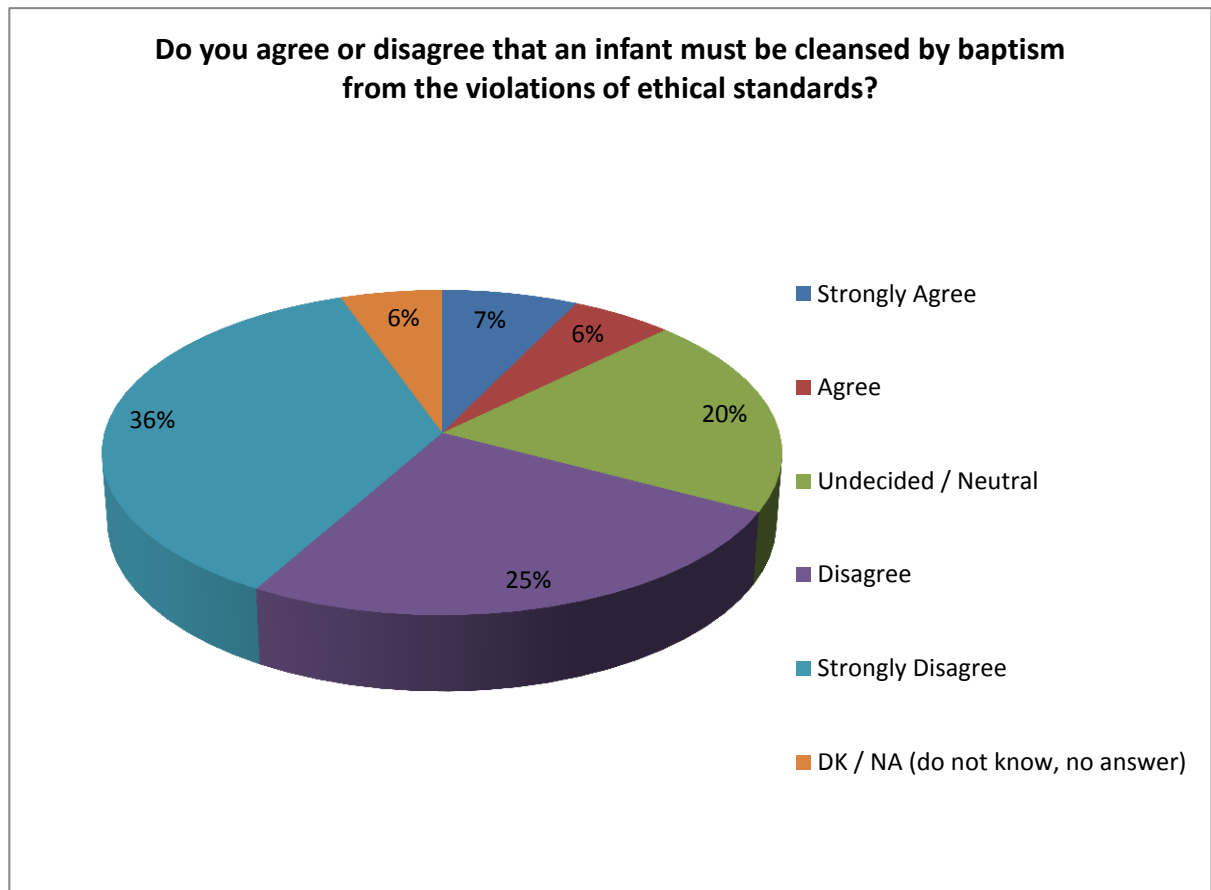
Graph 19: Question 38

baptize the child in the baptismal font with water brought from the "Fountain of Kallirrois"…Do you agree or disagree that Christianity adopted the particular baptism ritual from ancient Greeks? (Η ονομασία (βάπτιση) του βλαστού (αγοριού η κοριτσιού) ελάμβανε πανηγυρικό χαρακτήρα στην αρχαία Ελλάδα όπου προσκαλούνταν συγγενείς και φίλοι με δώρα και λευκές λαμπάδες, λευκοφορούντες, όπως και οι γονείς. Ενώπιον τω ιερέως του Διός του Τελείου, που έψαλλε καθιερωμένες ευχές, ενώ ο πατέρας αλείφοντας το νεοελθόν στο φώς του ήλιου τέκνο του με λάδι απο «ελαίαν μορίαν» - δηλαδή προερχόμενο από τις ιερές ελιές της Αθηνάς, το περιέφερε τρεις φορές γύρω από τον βωμό της Εστίας εκφωνώντας το όνομα του, και αφού έρριχνε μικρό βόστρυχο από τα μαλλάκια του παιδιού στο εξαγνιστικό και ζωοποιό, (από τον ουρανό μεταφερθέν κατά την πιστή τους) ιερό πύρ της Εστίας το «εκάθαρε» εμβαπτίζοντας το μέσα σε ειδικό αμφορέα (κολυμπήθρα), που περιείχε χλιαρό νερό, φερμένο από την «Κρήνη της Καλλιρρόης»… Συμφωνείτε ή διαφωνείτε ότι ο Χριστιανισμός υιοθέτησε το συγκεκριμένο τελετουργικό βάπτισης;). The results show a majority of 60% agreeing with the statement (15% Strongly agree, 45% Agree), 22% remained undecided / neutral, 16% did not anwser and only a small persendage of 15% disagreed. In the final question 38, the volunteers were asked if they believe that: In baptism the infant is

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extracted from the original and any personal sin through the water, symbolizing the blood of Jesus Christ. Do you agree or disagree that an infant must be cleansed by baptism from the violations of ethical standards? (Με το βάπτισμα το νήπιο αποκαθαίρεται από το προπατορικό και κάθε προσωπικό αμάρτημα μέσω του νερού, το οποίο συμβολίζει το αίμα του Ιησού Χριστού. Συμφωνείτε ή διαφωνείτε οτι ένα νήπιο επιβάλλεται να εξαγνιστεί μέσον της βάπτισης από τις παραβιάσεις ηθικών κανόνων;) The answers showed again high rates of disagreement 61% disagree with the idea of cleansing infants (36% Strongly disagree, 25% disagree), 20% remained undecided / neutral, 6% didn't anwser and only a small persendage of 13% agree that a child should be cleansed by baptism from the violations of ethical standards. Although the majority stated that they are members of the Autocephalous Greek Orthodox Church of Cyprus (73.2%), each time the questions were with particular wording in order to shift the participants one step closer towards disagreeing with the tradition of Christening in infant-hood, the effort to manipulate succeeded with high percentages disagreeing with the main purpose of the infant baptism, the cleansing from violations of ethical standards.

5.3 Implications of questionnaire results for the study

The evaluation of the results discovered from the interaction of the participants with the questionnaire will be used for the creation of a mobile application prototype that will investigate the so-called window of discourse on specific matters in order to investigate the possibility of limited judgment on public matters from the Cypriot users, as a result from his/her interaction with social networks.

The questionnaire had a high response rate of 63.95% which helps us to extract useful data to be used in the design of the mobile application prototype. Findings suggest a tendency of limited judgment on important public maters on behalf of the participants when manipulation techniques are applied. The aim of the questionnaire was at first to test the theory of the Overton window mechanism so that it can be applied in a new context that of a mobile application prototype and secondary to test the questionnaire itself as the main function of the mobile application prototype. The findings of the questionnaire will help during the design process to establish the requirements of what the mobile application should do, in order to meet the needs for the design of a mobile application prototype: a tool for measuring the degree of manipulation of the Cypriot

user from social media information. The mobile application prototype will represent the yardstick described by Nathan (2006) with opposite statements on each end. The user will interact by submitting his/her profile information and will be asked to answer questions similar to the given questionnaire, formulated based on the theory of Overton. The main function of the mobile application prototype will be an attempt to indicate the degree of change or not in the opinion of the user.

5.4 Summary

In this chapter the results from the questionnaire were examined. The questionnaire aimed at investigating the extent to which users are aware of the manipulation techniques to which they are often subjected. For the purpose of this research study the online survey software "QuestionPro" was used as part of the quantitative content analysis in order to guarantee high percentages of valid and reliable conclusions. The participants that accepted the invitation to participate were asked to anonymously state their opinions concerning the following matters:

1. Demographic Questions
2. Mass Media Information
3. Child adoption by homosexual couples.
4. Cooperation of DISY (Conservative Christian Democratic Party) and AKEL (The Progressive Party of Working People) in forthcoming presidential elections or referendum, with joint candidate.
5. Orthodox Christening in infant-hood.

The questions were formulated based on the theory of the American sociologist Joseph P. Overton, the so-called window of discourse (Overton Window) which includes a range of unacceptable ideas systematically shifted towards legalisation by the public opinion. The questions were presented in a specific sequence and wording in order to manipulate the volunteers so that the window of discourse can be shifted as described by Overton. The results showed that each time the formulation of the question changed the participants were unable to recognize that the meaning of the contents remained the same and tend to change their opinion. Cypriot users during the course of interaction with social networks construct what appears to be their own opinion based on the most influential ideas presented by the media. As previously mentioned, the potentially dangerous outcome is users with limited judgment on important public maters. This leads to the need to re-educate Cypriots users

how to evaluate the content of the information they receive through the interaction with social media.

In the next Chapter 6, will be presented the results from the interviews, the conducted focus group session and the design of the Lo-Fi mobile application prototype based on the Overton Theory which will indicate degree of change or not in the opinions of Cypriot users on matters considered completely unacceptable.

Chapter 6

Mobile Application Prototype

6.1 Introduction

In Chapter 5 the results discovered from the given questionnaire was presented and analyzed in order to be applied to the design and creation of the Lo-Fi mobile application prototype that is based on the Overton Theory, which indicates the degree of change or not in the opinions of Cypriot users on matters considered completely unacceptable. In this Chapter 6 the design of the Lo-Fi mobile application prototype is presented with extensive analysis of the procedures that were used for the design. Description, display and evaluation of the results discovered from the interaction of the participants with the prototype are also presented. A lo-fi prototype is used in the early stages of the design process for the evaluation of the new mobile application prototype. Prototyping is the method that uses the technique of low and high fidelity prototyping (lo-fi and hi-fi). According to Hare, Gill, Loudon, Lewis (2013) as was mentioned in Chapter 3 (see section 3.3.2), the aim of low fidelity prototypes is to supply reliable data at the early stages of the design process. User trials are essential and reliable tools which will supply important data for the project techniques. Lo-fi prototypes are simple quickly produced sketches on paper that test broad concepts.

The Lo-fi prototype presented in this chapter will have some of the target final product characteristics with limited interaction and function. The specific Lo-Fi was created in order to be tested with real users, during the early stages of development process. As mentioned the aim is to design a mobile application prototype that is based on the Overton Theory, which indicates the degree of change or not in the opinions of Cypriot users on matters considered unacceptable. According to Nathan (2006) the Overton Window of Possibilities can be illustrated as a yardstick with extreme policy actions at each end. Between the two ends we can find a gradation of policies from one end to the other end. For each particular matter its full political spectrum is represented by the yardstick, a so-called window of discourse, which includes a range of unacceptable ideas by the two ends systematically shifted towards acceptance by the public opinion. Step by

step the window of discourse is moving and changing the public opinion. At this stage the matter has already been widely discussed and has established itself in the consciousness which will lead to the final desired stage that of legalization. Based on the theory the essence of the success lies in the fact that only ideas within the window of the politically possible will be met with success. The aim is therefore to create a mobile application prototype that will investigate the so-called window of discourse on specific selected by the user matters in order to investigate the possibility of limited judgment on public matters from the Cypriot users, as a result from their interaction with Social Networks.

6.2 Types of Prototyping

A Lo-Fi prototype was designed to be used in the early stages of the design process for the evaluation of the new mobile application based on the Overton Window of Possibilities that will investigate the so-called window of discourse of Cypriot users. Lo-Fi paper prototypes are low cost and quickly designed, giving the ability to create as many as needed for unlimited test interactions. Each time users interact with a Lo-Fi prototype they give feedback to the developers for improvement and errors correction. According to Rogers, Sharp and Preece (2015) Low fidelity prototyping has advantages and disadvantages. Some of the advantages are (Rogers, Sharp and Preece 2015):

1. **Lower development cost:** During the process of the development at the early stages the emphasis is on the goal of the product and not on the form. The Lo-Fi prototypes can be easily created in short time period usually with low or nonexistent cost.

2. **Evaluation of multiple design concepts:** Rapid prototyping gives the advantage of continual design concepts feedback.

3. **Useful communication device:** Lo-Fi prototypes are rough approximations of the final product giving the opportunity to users during the interaction process to submit creative ideas.

4. **Address screen layout issues:** Sketchy Lo-Fi prototypes help users to focus not on the appearance but on the content.

5. **Useful for identifying market requirements:** Right from the start of the design process Lo-Fi prototypes present preliminary versions of the product or system giving

the needed flexibility to re-design potential problems in order to satisfy user's requirements.

6. **Proof of concept:** From the very early stages of the design Lo-Fi prototypes provide evidence that the design or concept is feasible.

Disadvantages of Low fidelity prototyping:

1. **Limited error checking:** Opposed to digital screens paper prototypes have limitations concerning animations and transition creating limitations in fault detection.

2. **Poorly detailed specification to code to:** Using paper prototypes requires from the users to be able to imagine the different steps and interactions.

3. **Limited utility after requirements established:** Paper prototyping do not have a polished look creating limitations concerning usefulness.

4. **Limited usefulness for usability tests:** Thorough planning is required for the presentation on paper concerning the navigation on paper for the presentation of each step.

5. **Navigational and flow limitations:** Paper prototyping has limitation concerning transition and animation creating the need for a trained user to be able to interact efficiently.

Prototyping is an important part of the design process preceding the programming. Prototypes can offer answers to questions that will give support to the designer at the early phase of creation of a new program or system. They can offer evaluation of the technical feasibility, giving clarification to possible vague requirements by the user testing evaluation of the design compatibility. Low Fidelity prototypes are low cost draft versions of the final product to be designed and usually there are paper based hand drawn printouts and mock ups evaluated by usability tests. The prototypes are applied during the process of Interaction design, were the user is enable to achieve specific objectives by interaction with the product. According to Cooper, Reimann, Cronin (2007) interaction design creates products, systems or services focusing on user's behavior investigating possible interactions with it. There are different kinds of prototypes to be used during interaction design (Rogers, Sharp and Preece 2015):

1. **Screen sketches:** Are rapidly drown preliminary pencil sketches with essential features without details. Is a quick visualization of each interaction steps.

2. **Storyboards:** Are a sequence of illustrations with dialogues and directions for the purpose of representation of a story.

3. **Card based prototypes:** Are pencil screen sketches representing interaction steps.

4. **Wizard of Oz prototypes:** Named after the book of Frank Baum, Wizard of Oz is represented by the designer which controls remotely each next step of the user. The users during the interaction are not aware that someone is controlling and simulating the systems responses.

For the purpose of this thesis a combination of card based prototypes and screen sketches were used. For the testing of the Lo-Fi prototype a scenario was given to the users as an additional tool for the explanation of the application usage.

6.3 Scenarios

Scenarios are short stories describing potential users and their behavior during their interaction with a website or application. They describe the outline of a plot describing character of the user and what his/her motivation for the interaction is. Scenarios present users activities exploring their objectives and goals. According to Rogers et al., (2015) scenarios have a continuing role in the design process "generated during workshop or interview sessions to help explain or discuss some aspect of the user's goal". Taking in mind the important role of scenarios in the design process of the mobile application prototype that is based on the Overton theory a hypothetical scenario was used in the design process. Random invitation were send to the participants of the questionnaire and from them five participants volunteered to be interviewed, to take part in focus group for the usability testing of the Lo-Fi prototype.

6.4 Interview results

The findings of the interviews and focus group will help during the design process to establish important requirements of what the mobile application should do.

As was mentioned in Chapter 4 (see section 4.8) all five participants that volunteered to participate were given written consent forms to sign for the participation in the interview and in focus group proses. Due to the difficult issues that were addressed during the interviews and the focus group in the consent forms and during the

interviews and focus groups it was stated that the participants may refuse to take part in the research or withdraw from the interview at any time without penalty. All five participants answered all questions and were present until the end of the proses of interaction and focus group discussion.

Interview participants are referred to as "Man A,B and "Woman A,B,C". Two men and three women were interviewed individual and were informed that all collected information collected will be used strictly confidential and sorely for research needs of the thesis. The average time of each interview was one hour.

The participants were asked the following questions:

- Age
- Occupation
- Religious beliefs
- Family status
- Political orientation

	AGE	OCCUPATION	RELIGIOUS BELIEFS	FAMILY STATUS	POLITICAL ORIENTATION
1. Man A	37	Public servant	Christian Orthodox	Married	LEFT
2. Man B:	33	Programmer	Atheist	Single	COMMUNIST
3. Woman A:	41	Teacher	Christian Orthodox	Single	NONE
4. Woman B:	40	Philologist	Christian Orthodox	Single	NONE
5. Woman C:	45	Accountant	Christian Orthodox	Divorced	RIGHT

Next they were asked if they completed the questionnaire, all five stated yes. They were asked their opinion concerning the following questions:

	GENERAL OPINION	WHAT YOU THINK IS THE SUBJECT OF THE QUESTIONNAIRE	HAVE YOU NOTICE THAT THE SUBJECT OF THE QUESTIONNAIR IN THE INVITATION IS DIFFERENT FROM THE CONTENT?
1. Man A	Interesting	Public opinion	NO
2. Man B:	Interesting	I don't know	NO
3. Woman A:	Unusual	I don't know	NO
4. Woman B:	Interesting	About Cypriot society	NO
5. Woman C:	Confusing	I don't know	NO

Since all five participants didn't notice that on purpose the given subject is different from the content ("The purpose of the questionnaire is to record the participation of the users on the Internet for information purposes by the mass media") they were asked again what they believe is the purpose and they all answered that they don't know. Man A, Woman A and Woman B stated that at some questions concerning the adoptions by homosexual couples they felt that an attempt was made to provoke their reaction. Man B didn't notice anything unusual. Woman C, in contrast to the other participants, reacted aggressively during the interview and she felt the need to defend her beliefs concerning family and religion. None of the five participants had any knowledge of the Overton Window theory.

They were explained the basics concerning the theory and that the purpose of the questionnaire is to use it for the design of a mobile application prototype that measures the degree of manipulation that Cypriot users experience by social media.

They were then asked the following questions:

	DO YOU BELIEVE THAT CYPRIOT USER IS MANIPULATED BY THE MASS MEDIA?	DO YOU BELIEVE THAT YOU ARE A VICTIM OF MANIPULATION BY THE MASS MEDIA?	WILL YOU USE A MOBILE APPLICATION THAT MEASURES THE DEGREE OF MANIPULATION BY THE MASS MEDIA?
Man A	**DEFINITELY**	**A FEW TIMES**	**YES**
Man B:	**IMPORTANT PERCENTAGE OF CYPRIOT POPULATION**	**NO**	**YES**
Woman A:	**DEFINITELY**	**RARELY**	**YES**
Woman B:	**SOME PEOPLE**	**RARELY**	**YES**
Woman C:	**SOME PEOPLE**	**NO**	**MAYBE**

Finally they were presented with the scenario of "John and Anna" as was presented in Chapter 3 (see section 3.3) and were asked for what reason they will use the specific mobile application prototype Man A said that he would use it as a "protection" from possible attempts of manipulation although he believes that he can identify potential manipulations. Man B, Woman A, Woman B and Woman C claimed that they would use the application mostly out of curiosity because they believe that they can identify possible manipulation attempt by the Mass Media.

6.4.1 Focus group

The same participants that were interviewed agreed to participate in a focus group. They were informed again that the usability testing is anonymous and all the information collected will be used strictly confidential and sorely for research needs of the thesis. The usability test took place in the presence of all five participants and lasted two hours. The participants at first they were given the following hypothetical scenario of "John and Anna" as was presented in Chapter 3 (see section 3.3):

John 48 years old and Anna 40 years old are married with a child. They live in Cyprus where the majority of population is Christian Orthodox and their daughter, who is one year old, has still not been baptized.

John believes that their daughter shouldn't be baptized until she reaches an age at which she can decide by herself. On the contrary Anna feels that it's important to baptize children in infant-hood in order to avoid negative reactions from their social environment. John disagrees and insists that Anna's religious beliefs are influenced by her environment and by the social media such as Facebook where she spends much of her free time. Anna denies this and argues with John that baptism is not a social norm that is influencing her opinion, but it's an act of divine incorporation into a Christian Church.

John then asks Anna whether she will agree (if he agrees to have their child baptize) to have a gay couple to be their child's godfathers? Anna's hesitation to give a positive answer gives John the chance to propose to experiment with a new mobile application that he found, which records the user's fluctuation of views based on social media information.

They decide to try the application for a period of 3 months during which they remain interested in topics related to gay marriage and baptism by reading about it on social media.

Every 2 weeks they discuss the topics and record the updated opinions. At the end of the experiment John uses the results given by the mobile application to prove to Anna the high level of influence of social media on what she believes to be her personal opinion.

Anna is troubled with the diversification of her views during the period of last 3 months and decides to continue the use of the application in order to analyze the level of effect of manipulation from their religious social environment.

The participants were asked to identify themselves with "John" or "Anna" regardless sex and state their opinion on the matter.

	AGE	OCCUPATION	RELIGIOUS BELIEFS	FAMILY STATUS	POLITICAL ORIENTATION	John Or Anna
Man A	37	Public servant	Christian Orthodox	Married	LEFT	Anna
Man B:	33	Programmer	Atheist	Single	COMMUNIST	John
Woman A:	41	Teacher	Christian Orthodox	Single	NONE	Anna
Woman B:	40	Philologist	Christian Orthodox	Single	NONE	John
Woman C:	45	Accountant	Christian Orthodox	Divorced	RIGHT	Anna

Man B and Woman B stated the opinion that baptizing children in infant-hood is just a social norm and that personally they don't intend to baptize their future children. Woman C continued to react aggressively and passionately defend her beliefs concerning religion. Man A and Woman A although chosen to identify themselves with "Anna" stated that they agree with the opinion of "John" but they choose "Anna" because it's only acceptable by society according to their personal opinion. Next step all five participants were asked to interact with the prototype mobile application as "John" or "Anna".

6.5 Low fidelity Mobile Application Prototype

During the design process focus was made on interface design rules and heuristics laws that were mentioned in Chapter 3 (see section 3.2). According to Rogers et al., (2015) there are four main areas involved during the interaction design process which inform and supplement each other:

1. **Establishment Requirements:** Understanding what the mobile application should do in order to meet the needs for the design of a mobile application prototype: a tool for measuring the degree of manipulation of the Cypriot user

from social media information. The requirements were established based on the data analysis from the questionnaire presented in Chapter V (section 5.3): The mobile application prototype will represent the described by Nathan (2006) yardstick with opposite statements on each end. The user will interact by submitting his/her profile information and by answering at questions similar to the given questionnaire. The aim is the attempt to indicate the degree of change or not in the opinion of the user.

2. **Designing alternatives:** From the aspect of design creativity it's important to investigate alternative or similar design solution. During this research it appears to be a gap in the area of research on the effect of the mechanism of "Overton Window" on Cypriot users creating a limitation in comparison with alternatives designs.

3. **Prototyping:** Card based screen prototypes were used for the creation of a low fidelity mobile application prototype. Screens of mobile interfaces were created on a template of a smart phone representing basic steps of interactions according to the given scenario mentioned above. Users were asked to use the mobile application in order to investigate the possibility of limited judgment on topics related to baptism as a result from their interaction with Social Networks.

4. **Evaluating:** The main purpose is the constant evaluation of the prototype mobile application for the resolution of problems based on user's behavior emerging from their interaction with the prototype during each phase of the design process. Users were asked to study the given scenario and based on it to interact with the card based screen prototypes. Based on the users interviews after the interaction the prototypes were improved by re-design thus following an iteration cycle.

At first the participants were again reminded that all the information collected will be used strictly confidential and sorely for research needs for the design of a mobile application prototype. The participants will be referred as Man A,B, and Woman A,B,C. It was explained to the participants that privacy concerns are taken into consideration by the application of various security mechanisms such us Log on procedures and passwords required for access to the application. Special identity confirmation might be required from time to time in order to eliminate unauthorized access. Additionally all personally identifiable information, collected during the interaction will be protected

and secured by the use of encryption and stored on a server. With the deactivation or delete of the account of the mobile application all their personal information will be removed. Finally participants were explained that what is required from them is to interact with the mobile application and that they had the right at any time of the interaction or interview not answer or to withdraw from the process. All five participants completed the process.
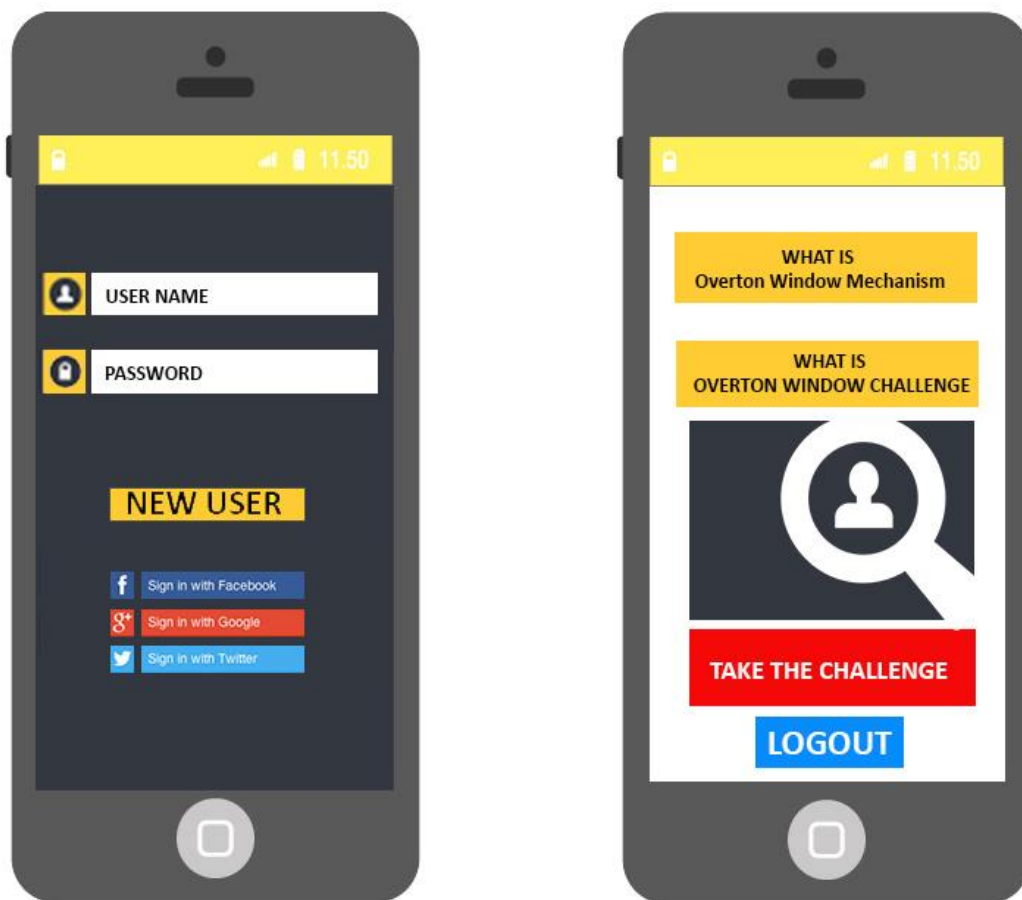
Figure 1: First two card based screen prototypes of Lo-Fi mobile application prototype

The Lo-Fi mobile application prototype was designed based on the Overton Window of Possibilities. The mobile application prototype represents the described by Nathan (2006) yardstick with opposite statements concerning baptizing on each end. By the interaction at first the user is informed about the Overton Window of Possibilities basic information and is asked to submit his/her profile information. Additional to the basic profile information such as:
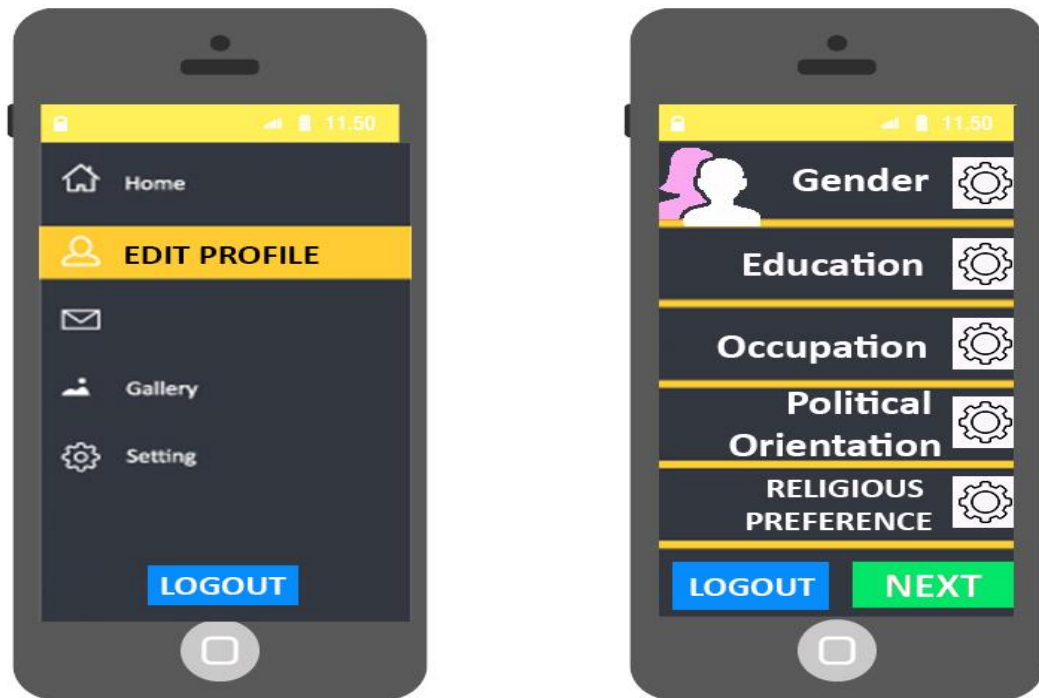
Figure 2: Steps three and four, card based screen prototypes
of Lo-Fi mobile application prototype

- Gender
- Education
- Occupation

The user is required to state his/her:

- Political orientation
- Religious preferences.

Next step is to select a category witch the user wishes to test such as politics, religion, social or a random selection by the application. After a category is selected it's required by the user to answer a similar questioner such as the one presented in chapter V. The questions were presented in a specific sequence and wording in order to manipulate the participants so that the window of discourse can be shifted as described by Overton. At this phase the user profile is formulated and stated as a benchmark to be examined for the possibility of limited judgment on the chosen matter as a result from the interaction

Figure 3: Steps five and six card based screen prototypes of Lo-Fi mobile application prototype

Figure 4: Steps seven and eight card based screen prototypes of Lo-Fi mobile application prototype

Figure 5: Steps nine and ten card based screen prototypes of Lo-Fi mobile application prototype with Social Networks. The aim of the designed mobile application is the attempt to indicate the degree of change or not in the opinion of the user. The user is given the opportunity to select the duration of the use from days to months with maximum a year. Additionally the user is requested to specify the source from where the data will be collected for the analysis, Facebook, Twitter or Google. By the choice of Facebook each interaction with direct or indirect relation to the given subject in the scenario (baptism in infanthood) will be collected and analyzed by the mobile application. The user is given the option to follow his/her progress on a weekly basis by the presentation of data analysis from the interaction on Facebook.

The data analyses are presented by a variety of statistical charts and the user is given the choice to repeat the survey for comparison purposes to the initial statements of the user on baptism in infanthood. With the completion of the analysis a personal window of discourse on the selected subject of baptism in infanthood is presented to the user with analytical report on the possibility of limited judgment on the matter as a result of the interaction with social networks. The application can be reused as many times as the user wishes on a variety of categories.
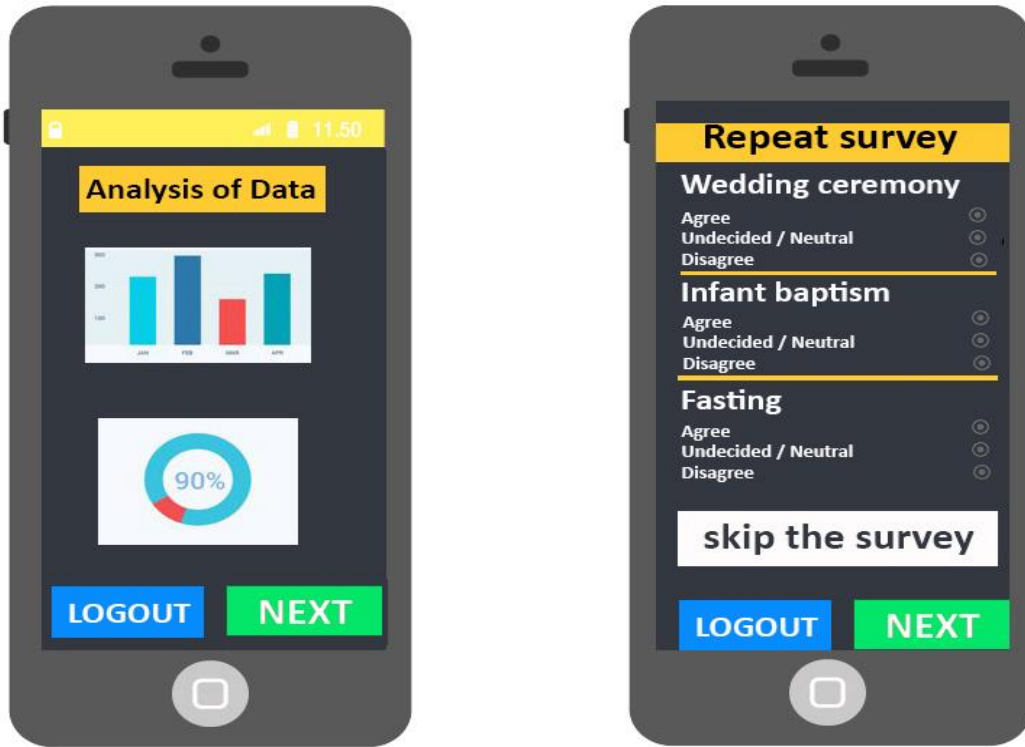
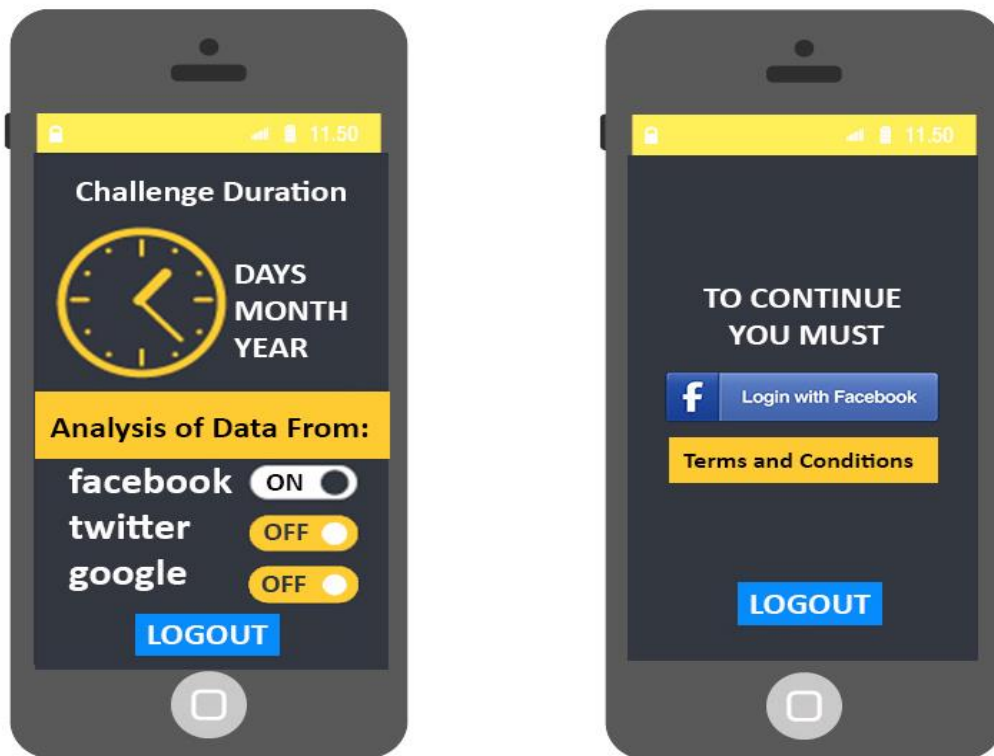Figure 6: Steps eleven and twelve card based screen prototypes of Lo-Fi mobile application
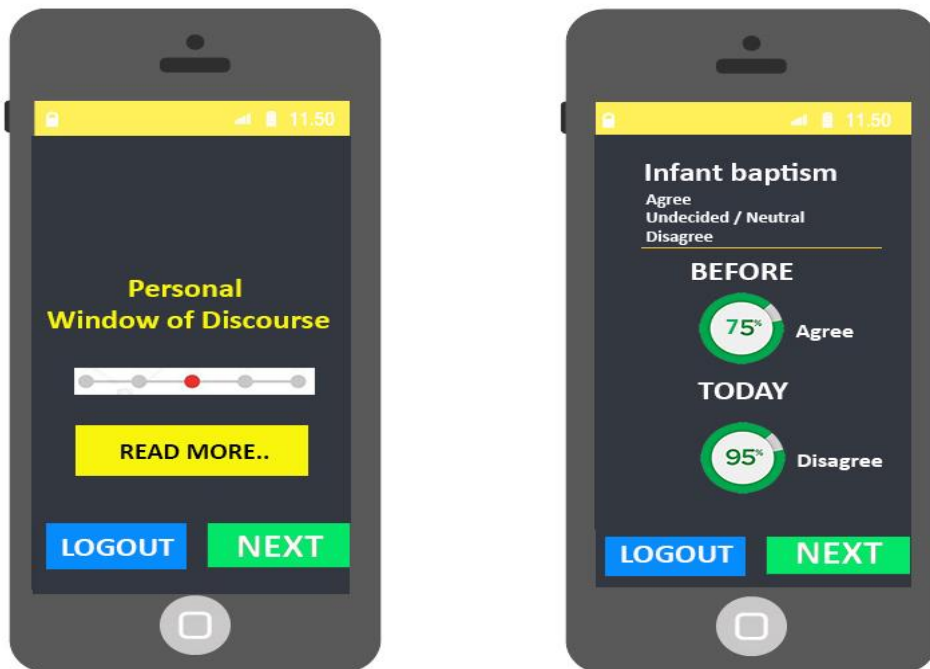
Figure 7: Steps thirteen and fourteen card based screen prototypes
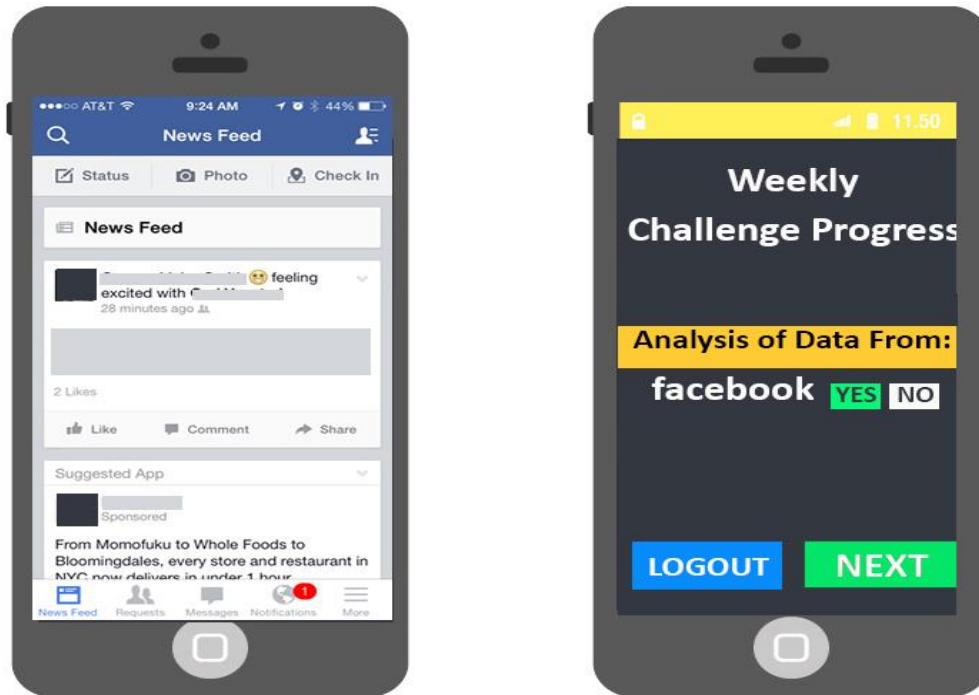of Lo-Fi mobile application prototype

6.6 User Interaction

Printed templates (created by the use of Adobe Photoshop) of a smart phone screens interfaces of the Lo-Fi mobile application representing basic steps of interactions according to the given scenario were given to the five participants of the focus group for interaction.
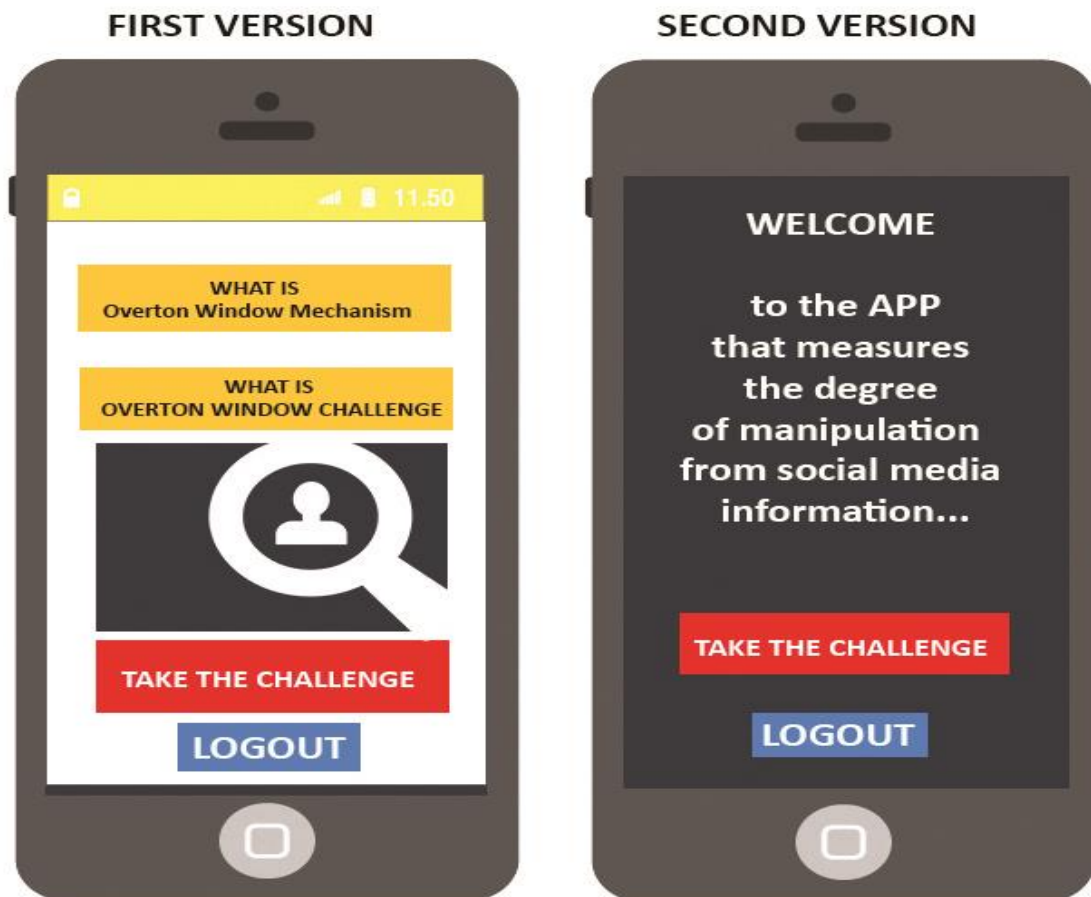
Figure 8: Improved Version card based screen prototypes
of Lo-Fi mobile application prototype

 User's trials are essential and reliable tools which will supply important data for the project techniques. The main goal is to clarify the steps of use of the system to be designed and according to Nielsen (2012) five users are able to identify approximately 85% of usability problems. The five users (three women and two men) were introduced to the scenario of John and Anna and were asked to identify themselves as "John" or "Anna" regardless sex and interact with the paper prototypes. Each user interacted in the presence of the designer and based on the feedback during the interviews for their impressions from the application some minor problems emerged with the
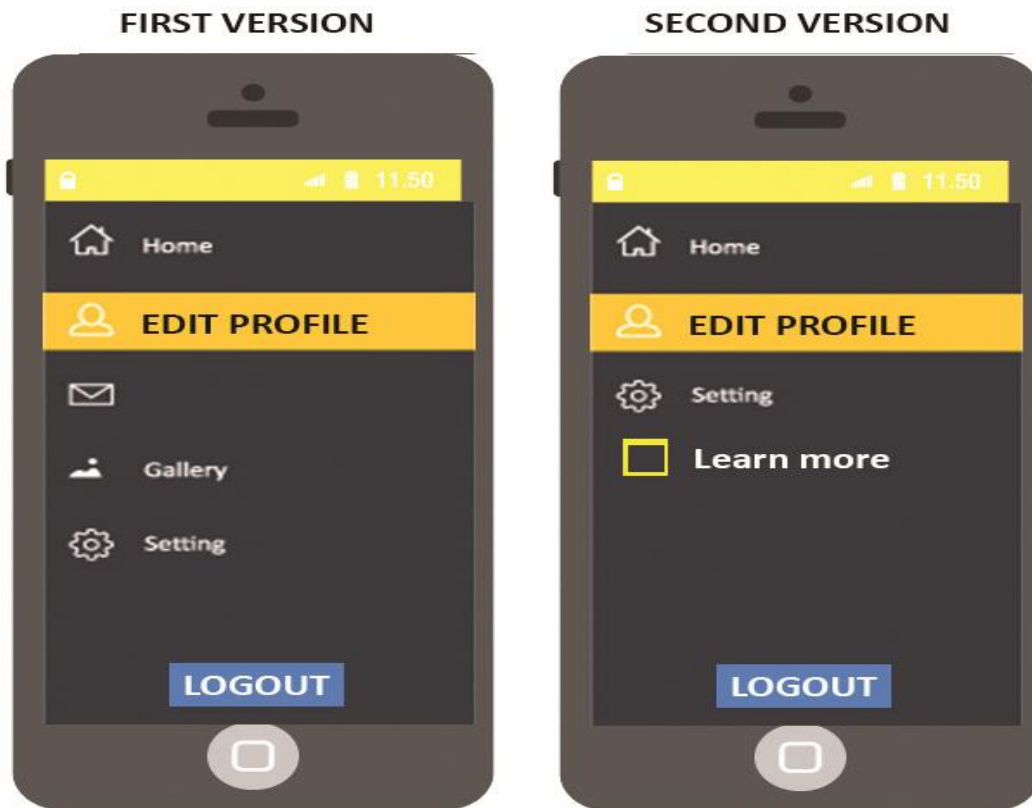
Figure 9: Improved Version card based screen prototypes
of Lo-Fi mobile application prototype

prototype usability that required improvement. All five users at first focused on the religious aspect that was used as an example in the scenario rather on the main function of the mobile application prototype. At this point it was explained to them that the given subject in the scenario (baptism in infanthood) was just one of many subjects that could be measured for opinion manipulation by the application. During the interaction all five users were confused with the fields indicated as "What is Overton Window Mechanism" and "What is Overton window challenged". They were unable to understand the use of them and the connection with the application. When the users were given the second version where the two fields are replaced with a welcome text describing the main function of the application two of them requested to learn more about the application use and for this reason a "learn more" button was added. When the users reached step nine, three of them found it confusing how to proceed. For these reason step nine was improved by the addition of two fields, the "return to the application" that indicates the connection of Facebook with the application use and the field "analyze collected data" which makes focus on the main function of the application that of the analysis of collected data.
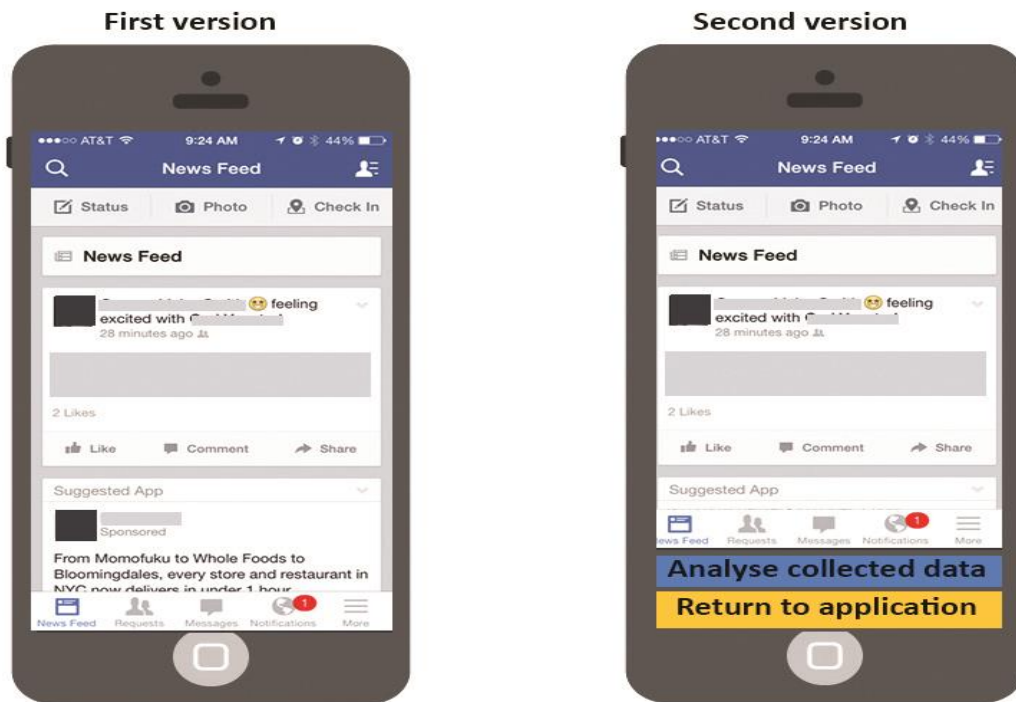
Figure 10: Improved Version card based screen prototypes
of Lo-Fi mobile application prototype

Usability problem	Screen (Version 1)	Improvement (Version 2)
Unable to understand the use of the fields "What is Overton Window Mechanism" and "What is Overton window challenged" and the connection with the application.	Screen 2	The two fields are replaced with a welcome text describing the main function of the application.
Ignorance of the Overton Window theory	Screen 3	Learn more button was added.
Confused as to how to proceed	Screen 9	Addition of two fields, the "return to the application" that indicates the connection of Facebook with the application use and the field "analyze collected data".

6.7 Summary

Throughout this chapter was presented the results from the interview, the focus group and the design of the Lo-Fi mobile application prototype, with extensive analysis of the procedures followed. The Lo-Fi prototype was designed as printed templates of a smart phone screens interfaces of the mobile application representing basic steps of interactions according to the given scenario of "John and Anna". The prototype was used in the early stages of the design process for the evaluation of the new application based on the Overton Window of Possibilities that will investigate the so-called window of discourse of Cypriot users. Focus was placed on the importance of the acknowledgment of the necessity to study the way users interact with computer systems and the effect of the prototype application ease-of-use. Collected data from the analysis of the questionnaire results and participants interviews were applied in the design. Description, display and evaluation of the results discovered from the interaction of the participants with the prototype were also presented.

An overview of the research that was undertaken in order to answer the research questions that were originally posed will be provided as will the justification of the conclusions will be presented in the next final chapter. Future developments and likely impacts will be also mentioned.

Chapter 7
Conclusions

7.1 Research objectives and questions

The main research objective of this thesis was to design a mobile application prototype: a tool for measuring the degree of manipulation of the Cypriot user from social media information. With the rapid evolution of technology and the constantly increasing complexity of social media platforms, users worldwide by their preference towards online sources of information are being exposed to potential manipulation and abuse by whomever has access to the internet without physical or geographical limitations. Despite the possibilities that the social media offer concerning the transmission of news and a constantly growing role in opinion formation there is a trend of dropping ratings across media credibility. The literature review revealed a gap concerning previous research and limited bibliography concerning manipulation techniques used on Cypriot users by social media. Therefore there was a need for the investigation of the Cypriot user's tendency to rely or not on social networks and accept all kinds of information as such without further investigation of the validity or the source. The aim was to design a mobile application prototype that would enable the user to provide his or her personal identification as well as to measure the extent of manipulation that he/she experiences over a period of time within different contexts. We therefore believe that the designed mobile application prototype that measures the degree of manipulation that Cypriot users experience by social media can be an effective mean for the re-education of the user to identify potential manipulation tactics and learn to evaluate the validity of the source behind on line news. Consequently by the chosen research of methodology we believe that we achieved to give answers' to the following questions:

Research questions	Type	Research methodology	Answers to research questions
How to design a mobile application prototype that	Main	Combined qualitative and quantitative	Questionnaire created on the Online survey software "QuestionPro" was used as a

measures the degree of manipulation that Cypriot users experience by social media?		research methods	tool combining qualitative and quantitative research methods which has been the backbone on which the prototype was designed.
Which user-centered design methods should be applied to develop a prototype that is usable and addresses the requirements of a mobile application prototype that measures the degree of manipulation that users experience by social media?	Secondary	Prototyping and Narrative research	The use of narrative by the investigation of "real life problems" selected by the researcher helped with the testing during the interviews sessions, of the level of understanding ability and knowledge of the Cypriot user concerning the steps needed to be taken during the interaction of focus group with the Lo-Fi mobile application system that was designed
Which methodology should be applied for the examination of the extent of the awareness of the effect that Cypriot users are submitted to by social media opinion manipulation techniques in order to address the gap from previous research.	Secondary	Triangulation: Combination of questionnaires interviews and focus groups	The obtained answers from the questionnaire were analyzed and used for the creation of a scenario that was used during focus groups and interviews which vivificated the questionnaires results. Finally the combination of analyses data, conclusions acquired after interviews and Design Science Research, were used for the design of the mobile application prototype.
How the collected data from the measurement of the degree of change in Cypriot user's public opinions can be incorporated into the design of the mobile application prototype?	Secondary	Design Science Research, Ethics and Anonymity	Design Science Research guidelines ensured that the research problem was understood in depth and by the protection of the participant's right of anonymity and confidentiality by consent forms, the collected data were used as possible user reaction to each step of the mobile application prototype

7.2 Contribution of research

In this thesis an effort was made to:

- Investigation of the Theory of "Window of Discourse" by applying the mechanism of "Overton Window" in a new context, that of a mobile application prototype which outcome is to awaken the users providing them awareness and protection from misinformation by social media.

- Implement the theoretical principle of "window of discourse", which main outcome is the legalization of matters considered unthinkable by the society, in the form of a questionnaire to be applied as a measurement tool of the level of manipulation on Cypriot user public opinion.

- Fill the gap in the previous research. The lack of previous research concerning the measurement of manipulation technics on Cypriot users lead to the design of a questionnaire based on various manipulation theories which can be reused as prototype for further future research.

- Provide a possible solution to the problem of misinformation by on line news by re-educating users to challenge the validity of the received information which can be achieved by the use of an easily accessed mobile application.

7.3 Further research and likely impacts

The initially stated aim of this thesis was the investigation of Cypriot users during the course of interaction with social networks that constructs what appears to be their own opinion based on the most influential ideas presented by the media. The potentially dangerous outcome is users with limited judgment on important public maters. We have developed and tested this theory leading to the need to re-educate Cypriots users how to evaluate the content of the information they receive through the interaction with social media. The mobile application prototype presented by this Thesis aims to record Cypriot user's public opinions on public matters and inform them of the degree of manipulation that their opinions are experiencing from social media over a period of time.

7.3.1 Limitations

In this thesis, from the early stages, the main difficulty was the gap from previous research and the limited bibliography concerning manipulation techniques submitted on Cypriot users by social media. Social media dictate the real time news feeds in an interconnected environment through various social media platforms. High numbers of users are exposed to digital news raising questions concerning the implications on matters of trust and opportunities of abuse by manipulation tactics affecting the media credibility. From the research it is evident that Cypriots users are vulnerable to manipulation techniques but little information was provided about their behavior after a long term interaction with the mobile application which tests the level of manipulation that they are subjected by social media. There is a lack of research that enables Cypriot users to question the possibility of being manipulated by social media creating the need for further investigation and evaluation of the user's opinion on public matters emerging from his/her long term interaction with social media that they are subjected to. The limitations in previous research and absence of similar questionnaires indicate a clear need for more research and further testing of the created questionnaire.

7.3.2 Recommendations for further research

From the beginning of this research it emerged that there is a big gap in the previous research concerning the theory of Overton Window and our knowledge of the manipulation effects on Cypriot user's public opinion. For these reason we believe that further investigation would be beneficial and might take the following directions:

- Creation of Hi-Fi mobile application prototype for further exploration of Cypriot user's interaction with more elaborated features focusing on manipulation techniques.
- Additional methodological research on other public matters concerning Cypriot society and in deep technical research for the addition of more social media sources from which the application will collect data for analysis.
- Development of the mobile application for a long term study of users' behaviors.
- Creation of a version of the mobile application for Russians users for the investigation of the Overton Window theory on matters consider unacceptable by Russian society. According to Cyprus Mail (2017) is estimated that 40.000 Russians live in Cyprus out of the total population of 800.000. There are three Cyprus based Russian newspapers and three radio stations. Russians can claim

residency rights and apply for Cypriot citizenship by the purchase of property making them a growing minority that can affect the demographics of Cypriot society.

- Comparison of findings concerning Russian user's vs Cypriot users for the comprehension of the effect of manipulation of the public opinion on different societies and their level of resistance.

In conclusion, we take inspiration in the words of Mark Twain:

"There are laws to protect the freedom of the press's speech, but none that are worth anything to protect the people from the press" (Neider C. 2000, The Complete Essays of Mark Twain)

Annex A

A.1 Interview consent form

Purpose:

You are invited to participate in this important interview session that aims to investigate the mobile application prototype as a personal identification and measurement tool of the extent of manipulation that the Cypriot user may or may not experiences over a period of time within different contexts. The overall objective of the research study is to design a mobile application prototype that is based on the Overton theory, which indicates the degree of change or not in the opinions of Cypriot users on matters considered completely unacceptable.

This study is being conducted at the Open University of Cyprus by Philippidou K. Christianna, under the supervision of Dr. Alexandros Yeratziotis.

Procedure:

You will be interviewed as a:

- Participant of the conducted survey by the use of questionnaire
- User of the mobile application prototype.

There will be a moderator who will ask questions and facilitate the discussion, and the session will be recorded. You will be asked questions relating to your experiences with the questionnaire and the mobile application prototype. Please keep in mind that we are not evaluating you, we are evaluating the mobile application prototype.

Session duration:

It is estimated that the duration will be 1 hour. It should also be noted that joining the session will commence 10 minutes prior to the scheduled session time to deal with any administration.

Participation:

Your participation in this interview session is completely voluntary. You may refuse to take part in the research or withdraw from the interview at any time without penalty.

Benefits:

There is opportunity to receive indirect benefits from participating in this research study. Your responses will help us to learn more about the mobile application prototype from the users' perspective. By gaining your thoughts and opinions, and empathising with your experiences, areas of improvement can be determined that would positively impact on the design of the mobile application prototype.

Risks:

There are no foreseeable risks associated with your participation in this research study.

Confidentiality:

The interview session will be recorded. Data from this research will be reported only in the aggregate and your information will be coded. No one will be able to identify you or your answers, and no one will know whether or not you participated in the study. Study records, including this consent form, may be inspected by the administrators. The results of this study may be presented in publications; however, your identity will not be disclosed. All information obtained in this study will be kept strictly confidential.

Contact:

If you have any questions or concerns about this study, please contact Philippidou K. Christianna, as the main researcher of the study, at: **christianna.philippidou@st.ouc.ac.cy**

If you feel you have not been treated according to the descriptions in this consent form, or that your rights as a participant in the research study have not been honoured during the course of this study, or you have any questions, concerns, or complaints that you wish to address to someone other than the main researcher, you may contact Open University of Cyprus via e-mail at info@ouc.ac.cy

Consent:

If you are still in agreement to participate in the interview session please complete your details below and sign. By doing this, you are indicating that you have read and fully understand the above information, you voluntarily agree to participate in the interview session and you are 18 years of age or older.

I agree to participate in the interview session.

Name:……………………………………………………………

Signature:……………………………………………………

Date:……………………………………………………………

Thank you for your participation in the research study. It is valued.

A.2 Focus group consent form

Purpose:

You are invited to participate in this important focus group session that aims to investigate the mobile application prototype as a personal identification and measurement tool of the extent of manipulation that the Cypriot user may or may not experiences over a period of time within different contexts. The overall objective of the research study is to design a mobile application prototype that is based on the Overton theory, which indicates the degree of change or not in the opinions of Cypriot users on matters considered completely unacceptable.

This study is being conducted at the Open University of Cyprus by Philippidou K. Christianna, under the supervision of Dr. Alexandros Yeratziotis.

Procedure:

The focus group will involve up to 5 research participants and the moderator. You are asked to only use your first name in the focus group. There will be a moderator who will ask questions and facilitate the discussion, and the session will be recorded. You will be asked to interact with a mobile application prototype and to participate in discussion concerning the use and benefits from a mobile application which indicates the degree of change or not in the opinions of Cypriot users on matters considered completely unacceptable. Please keep in mind that we are not evaluating you, we are evaluating the mobile application prototype.

Session duration:

It is estimated that the duration will be 2 hours. It should also be noted that joining the session will commence 10 minutes prior to the scheduled session time to deal with any administration.

Participation:

Your participation in this focus group session is completely voluntary. If any questions make you feel uncomfortable, you do not have to answer them. You may leave the group at any time for any reason.

Benefits:

There is opportunity to receive indirect benefits from participating in this research study. Your responses will help us to learn more about the mobile application prototype from the users' perspective. By gaining your thoughts and opinions, and empathizing with your experiences, areas of improvement can be determined that would positively impact on the design of the mobile application prototype.

Risks:

There are no foreseeable risks associated with your participation in this research study.

Confidentiality:

The focus group session will be recorded. Data from this research will be reported only in the aggregate and your information will be coded. No one will be able to identify you or your answers, and no one will know whether or not you participated in the study. Study records, including this consent form, may be inspected by the administrators. The results of this study may be presented in publications; however, your identity will not be disclosed. All information obtained in this study will be kept strictly confidential until they are destroyed. The other participants in the group will be asked keep what we talk about private, but this cannot be assured.

Contact:

If you have any questions or concerns about this study, please contact Philippidou K. Christianna, as the main researcher of the study, at: **christianna.philippidou@st.ouc.ac.cy**

If you feel you have not been treated according to the descriptions in this consent form, or that your rights as a participant in the research study have not been honored during the course of this study, or you have any questions, concerns, or complaints that you wish to address to someone other than the main researcher, you may contact Open University of Cyprus via e-mail at info@ouc.ac.cy

Consent:

If you are still in agreement to participate in the focus group session please complete your details below and sign. By doing this, you are indicating that you have read and fully understand the above information, you voluntarily agree to participate in the focus group session and you are 18 years of age or older.

I agree to participate in the focus group session.

Name:………………………………………………………………

Signature:…………………………………………………………

Date:………………………………………………………………

Thank you for your participation in the research study. It is valued.

Α.3 Ερωτηματολόγιο / Questionnaire

Το παρόν «Ερωτηματολόγιο» αναπτύχθηκε στο πλαίσιο μεταπτυχιακής εργασίας της σπουδάστριας Χριστιάννας Κ. Φιλιππίδου, του Προγράμματος «Κοινωνικά Πληροφοριακά Συστήματα» του Ανοικτού Πανεπιστημίου Κύπρου, σε συνεργασία με τον καθηγητή Δρ.

Αλέξανδρο Γερατζιώτη. Στόχος του ερωτηματολογίου είναι η καταγραφή της συμμετοχής των χρηστών στο διαδίκτυο για σκοπούς ενημέρωσης από τα Μέσα Μαζικής Ενημέρωσης. Το ερωτηματολόγιο είναι ανώνυμο και όλες οι πληροφορίες που συλλέγονται θα χρησιμοποιηθούν ως αυστηρώς εμπιστευτικές και αποκλειστικά για τις ανάγκες της έρευνας που αφορά «Σχεδιασμό πρωτότυπης κινητής εφαρμογής».

Δεν υπάρχουν σωστές ή λάθος απαντήσεις, αρκεί να είστε απολύτως ειλικρινείς. Θα σας παρακαλούσαμε να μην αφήσετε καμία ερώτηση αναπάντητη.

Επικοινωνία:

- **Χριστιάννα Κ. Φιλιππίδου: christianna.philippidou@st.ouc.ac.cy**
- **Δρ. Αλέξανδρος Γερατζιώτης: alexandros.yeratziotis@ouc.ac.cy**

ΜΕΡΟΣ Α - Βιογραφικά στοιχεία

1. **Φύλο**
   - Άνδρας …………
   - Γυναίκα …………

2. **Ηλικία**

   - 18-22 …………
   - 23-27 …………
   - 28-38 …………
   - 39-49 …………
   - 50-60 …………
   - 60+ …………

3. **Επίπεδο εκπαίδευσης**

   - Απόφοιτος πρωτοβάθμιας εκπαίδευσης …………
   - Απόφοιτος δευτεροβάθμιας εκπαίδευσης …………
   - Απόφοιτος τριτοβάθμιας εκπαίδευσης …………
   - Κάτοχος μεταπτυχιακού/δοκτοράτου …………

ΜΕΡΟΣ Β – Χρήση Διαδικτύου και ενημέρωση

1. **Πόσο συχνά χρησιμοποιείτε το Διαδίκτυο;**

   - Καθημερινά …………
   - 4-6 φορές την εβδομάδα …………
   - 1-3 φορές την εβδομάδα …………

- 2-3 φορές το μήνα …………
- Μια φορά το μήνα …………

2. **Πόσο εμπιστεύεστε τις γνώσεις σας για το τι συμβαίνει στον κόσμο;**

- Πολύ …………
- Αρκετά …………
- Λίγο …………
- Καθόλου …………
- ΔΞ/ΔΑ *(Δεν ξέρω, δεν απαντώ)* …………

3. **Χρησιμοποιώντας μια κλίμακα από το «0» έως το «10», όπου το «0» αντιστοιχεί στη μηδενική εμπιστοσύνη και το «10» στην πλήρη, πόσο πολύ θα λέγατε ότι εμπιστεύεστε καθέναν από τους παρακάτω θεσμούς ή ομάδες;**

	0	1	2	3	4	5	6	7	8	9	10	ΔΞ*
Κυβέρνηση												
Πολιτικά Κόμματα												
Βουλή												
Εκκλησία												
Πηγές στο διαδίκτυο												
Τηλεόραση												
Έντυπο τύπο												
Ραδιόφωνο												

Δεν ξέρω, δεν απαντώ

4. **Γενικά πιστεύετε ότι η ενημέρωσή μέσω του Διαδικτύου είναι αξιόπιστη ή ότι πρέπει κανείς να είναι πολύ προσεκτικός και καχύποπτος ως προς την ενημέρωσή μέσω του Διαδικτύου. Εάν το «1» αντιπροσωπεύει την πρώτη περίπτωση και το «5» τη δεύτερη, εσείς πού θα τοποθετούσατε τον εαυτό σας;**

1 Μπορεί κανείς να εμπιστευτεί την ενημέρωσή μέσω του Διαδικτύου	2	3	4	5 Πρέπει κανείς να είναι προσεκτικός και καχύποπτος	ΔΞ/ΔΑ

ΜΕΡΟΣ Γ – Σεξουαλικός προσανατολισμος και τεκνοθεσία

5. **Πιστεύετε ότι όλοι οι άνθρωποι είναι ίσοι μεταξύ τους ανεξαρτήτως εθνικότητας, φύλου σεξουαλικού προσανατολισμού και θρησκείας;**

- Ναι   …………
- Όχι   …………
- Αν όχι,γιατί;_____

6. **Πιστεύετε ότι τα ΛΟΑΤ άτομα (που αντιμετωπίζουν διάκριση σχετικά με τον σεξουαλικό προσανατολισμό τους και την ταυτότητα του φύλου τους) έχουν τις ίδιες ευκαιρίες με τα υπόλοιπα μέλη της κοινωνίας;**

- Ναι   …………
- Όχι   …………
- Αν όχι,γιατί; _____

7. **Πόσο σημαντικά θεωρείτε τα παρακάτω χαρακτηριστικά για την ταυτότητα και τον χαρακτήρα ενός ανθρώπου; Χρησιμοποιήστε μια κλίμακα όπου το 1 σημαίνει καθόλου σημαντικό, το 2 λίγο σημαντικό, το 3 αρκετά σημαντικό και το 4 πολύ σημαντικό.**

	Καθόλου σημαντικό	Λίγο Σημαντικό	Αρκετά Σημαντικό	Πολύ σημαντικό	ΔΞ/ΔΑ
Μορφωτικό επίπεδο					
Πολιτικές πεποιθήσεις					
Κοινωνική Τάξη					
Σεξουαλικός προσανατολισμός					
Θρησκεία					

8. **Κατά πόσο συμφωνείτε ή διαφωνείτε με την υιοθεσία παιδιών από ομοφυλόφιλα ζευγάρια:**

- Συμφωνώ απόλυτα   …………
- Συμφωνώ   …………
- Ούτε συμφωνώ Ούτε διαφωνώ   …………
- Διαφωνώ   …………
- Διαφωνώ απόλυτα   …………
- ΔΞ/ΔΑ   …………

9. **Με βάσει ποια κριτήρια πρέπει να επιτρέπεται σε δύο ανθρώπους να γίνουν θετοί γονείς ενός παιδιού:**

- Μορφωτικό επίπεδο   ………….
- Ηλικία των υποψηφίων θετών γονέων   ………….
- Ψυχολογικό προφίλ   ………….
- Τα οικονομικά και εισοδηματικά κριτήρια του υποψήφιου θετού γονέα   ………….
- Κοινωνική Τάξη   ………….
- Σεξουαλικός προσανατολισμός   ………….
- Θρησκεία   ………….

10. **Το να είσαι ετεροφυλόφιλος είναι το μόνο φυσιολογικό και αποδεκτό από το κοινωνικό σύνολο όσον αφορά του δικαιώματος τεκνοθεσίας;**

- Συμφωνώ απόλυτα   ………….
- Συμφωνώ   ………….
- Ούτε συμφωνώ Ούτε διαφωνώ   ………….
- Διαφωνώ   ………….
- Διαφωνώ απόλυτα   ………….
- ΔΞ/ΔΑ   ………….

11. **Με την νομιμοποίηση του δικαιώματος γάμου μεταξύ ομοφυλόφιλων ζευγαριών θα πρέπει να αναγνωριστεί και το δικαιωμα υιοθεσίας;**

- Συμφωνώ απόλυτα   ………….
- Συμφωνώ   ………….
- Ούτε συμφωνώ Ούτε διαφωνώ   ………….
- Διαφωνώ   ………….
- Διαφωνώ απόλυτα   ………….
- ΔΞ/ΔΑ   ………….

12. **Τα παιδιά μαθαίνουν για τις διαφορές ανδρών και γυναικών από τα γονεϊκά πρότυπα. Η γονεϊκή, η σχέση μητέρας-πατέρα παρέχει στα παιδιά ένα μοντέλο σχέσης – την πιο ουσιαστική και διαρκή σχέση που η συντριπτική πλειοψηφία των ατόμων θα έχουν κατά τη διάρκεια της ζωής τους;**

- Συμφωνώ απόλυτα   ………….
- Συμφωνώ   ………….
- Ούτε συμφωνώ Ούτε διαφωνώ   ……….
- Διαφωνώ   ………….
- Διαφωνώ απόλυτα   ………….

- ΔΞ/ΔΑ   …………

13. **Ο προκαθήμενος της κυπριακής εκκλησίας[6] δήλωσε την πρόθεσή του να δημιουργήσει νηπιαγωγεία και σχολεία για να καταπολεμήσει την ομοφυλοφιλία. Θα ετοιμαστούν δέκα νηπιαγωγεία με στόχο μέσα σε δύο χρόνια να γίνουν δημοτικά και σε έξι έτη γυμνάσια και λύκεια, στα οποία θα δίνεται μία υποδειγματική εκπαίδευση με ορθές κατευθύνσεις στους μαθητές, από τους οποίους θα έχουν την απαίτηση να βγαίνουν σωστοί άνθρωποι που να είναι παράδειγμα προς μίμηση. Θα λέγατε ότι:**

- Συμφωνώ απόλυτα   …………
- Συμφωνώ   …………
- Ούτε συμφωνώ Ούτε διαφωνώ   …………
- Διαφωνώ   …………
- Διαφωνώ απόλυτα   …………
- ΔΞ/ΔΑ   …………

14. **Πρέπει να θεσπιστούν αυστηρότερες κυρώσεις ενάντια στη ρητορική μίσους προς τους ομοφυλόφιλους και πως η εκκλησία πρέπει να δείξει μεγαλύτερη κατανόηση σε θέματα διαφορετικότητας;**

- Συμφωνώ απόλυτα   …………
- Συμφωνώ   …………
- Ούτε συμφωνώ Ούτε διαφωνώ   …………
- Διαφωνώ   …………
- Διαφωνώ απόλυτα   …………
- ΔΞ/ΔΑ   …………

15. **Έχουν τα παιδιά σύγχυση στην ανάπτυξη της ταυτότητας φύλου τους και στη συμπεριφορά σε σχέση με το φύλο, όταν μεγαλώνουν απο γονείς με ομοερωτική σχέση οπού δεν εκπροσωπούνται και τα δύο φύλα;**

- Συμφωνώ απόλυτα   …………
- Συμφωνώ   …………
- Ούτε συμφωνώ Ούτε διαφωνώ   …………
- Διαφωνώ   …………
- Διαφωνώ απόλυτα   …………
- ΔΞ/ΔΑ   …………

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[6] https://politis.com.cy/article/archiepiskopos-gia-omofilofilia-frouto-pou-prepi-na-antimetopisti

16. Σε υποθέσεις υιοθεσίας τίθεται συχνά το ερώτημα ποιοι υποψήφιοι γονείς είναι κατάλληλοι ή «καταλληλότεροι» των άλλων. Ποιοί απο τους πιο κατώ παραμέτρους πιστέυετε οτι πρέπει να εξετάζονται:

- Η δυνατότητα του γονέα να καλύψει τις βασικές ανάγκες του παιδιού (φαγητό, ένδυση, στέγη)
- Η ικανότητα του γονέα να προστατεύει το παιδί από σημαντική βλάβη ή κίνδυνο
- Η ικανότητα του γονέα να αναγνωρίζει και να ανταποκρίνεται στις συναισθηματικές ανάγκες του παιδιού
- Η ικανότητά του να παρέχει ερεθίσματα και εκπαίδευση
- Η ικανότητα του γονέα να θέτει κανόνες και όρια στη συμπεριφορά του παιδιού
- να παρέχει σταθερό περιβάλλον που θα διακρίνεται από συνέπεια
- Η ικανότητα του γονέα να στηρίζει το παιδί στην αυτονόμηση-ανεξαρτησία
- Η ψυχική υγεία του γονέα.

17. Οι υποψήφιοι γονείς για υιοθεσία μπορεί να πληρούν όλα τα παραπάνω κριτήρια. Τίθεται, λοιπόν το ερώτημα εάν ο σεξουαλικός προσανατολισμός των υποψήφιων γονέων μπορεί να είναι από μόνου του κριτήριο για την έγκριση μιας υιοθεσίας.

- Συμφωνώ απόλυτα   ………….
- Συμφωνώ   ………….
- Ούτε Συμφωνώ Ούτε διαφωνώ ………….
- Διαφωνώ   ………….
- Διαφωνώ απόλυτα   ………….
- ΔΞ/ΔΑ   ………….

18. Η Dawn Stefanowicz[7] (κόρη ενός γκέι πατέρα που πέθανε από AIDS) είναι μία διεθνώς αναγνωρισμένη ομιλήτρια και συγγραφέας. Είναι μέλος της Επιτροπής Μαρτυρίας του Ινστιτούτου Δικαιωμάτων του Παιδιού. Στο βιβλίο της: Η Επίδραση των Ομοφυλόφιλων Γονέων αναφέρει ότι «Ευάλωτα παιδιά χρειάζονται τόσο έναν πατέρα όσο και μια μητέρα που θα τα αγαπούν και θα τα προστατεύουν. Δεν πρέπει να χρησιμοποιούνται ως όργανα ενός κοινωνικού πειραματισμού από ναρκισσιστικά άτομα που αναζητούν την σεξουαλική ικανοποίηση τους και την ταυτότητά τους έξω από την παραδοσιακή οικογένεια» (Reality, Jan-Feb. 2009, p 10). Κατά πόσο συμφωνείτε ή διαφωνείτε

- Συμφωνώ απόλυτα   ………….
- Συμφωνώ   ………….
- Ούτε συμφωνώ Ούτε διαφωνώ ………….
- Διαφωνώ   ………….
- Διαφωνώ απόλυτα   ………….

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[7] http://www.dawnstefanowicz.org/

- ΔΞ/ΔΑ ....

ΜΕΡΟΣ Δ – Πολιτική

19. **Γενικά μιλώντας, πόσο θα λέγατε ότι ενδιαφέρεστε για την πολιτική στην Κύπρο και τον κόσμο γενικότερα; Θα λέγατε ότι ενδιαφέρεστε**

- Πολύ   ....
- Αρκετά   ....
- Λίγο   ....
- Καθόλου   ....
- ΔΞ/ΔΑ   ....

20. **Στην πολιτική έχουν επικρατήσει οι έννοιες της «αριστεράς» και «δεξιάς» ιδεολογίας. Σε μια κλίμακα όπου το «0» αντιστοιχεί στην «αριστερά» και το «10» στη «δεξιά», πού θα τοποθετούσατε τον εαυτό σας ιδεολογικά;**

0 1	2	3	4	5	6	7	8	9	10	Κανένα
Αριστερά									Δεξιά	ΝΑΙ

21. **Συμφωνείτε ή διαφωνείτε όσον αφορά την συνεργασία στις προσεχής προεδρικές εκλογές 2018, του ΔΗΣΥ και του ΑΚΕΛ με κοινό υποψήφιο;**

- Συμφωνώ απόλυτα   ....
- Συμφωνώ   ....
- Ούτε συμφωνώ Ούτε διαφωνώ   ....
- Διαφωνώ   ....
- Διαφωνώ απόλυτα   ....
- ΔΞ/ΔΑ   ....

22. **Ο τρόπος προβολής του Κυπριακού ζητήματος από τα ΜΜΕ πιστεύετε πως έχει συντελέσει στην θετική εικόνα που έχει ένα μεγάλο μέρος της Κυπριακής κοινής γνώμης όσων αφορά πιθανότητα εξέυρεσης λήσης;**

- Συμφωνώ απόλυτα   ....
- Συμφωνώ   ....
- Ούτε συμφωνώ Ούτε διαφωνώ   ....
- Διαφωνώ   ....
- Διαφωνώ απόλυτα   ....
- ΔΞ/ΔΑ   ....

23. ‘Έχουμε συνηθίσει στο ότι ένας απο τους δύο πόλους ΔΗΣΥ ή ΑΚΕΛ συνεργαζόταν με ένα ή και τα δύο κόμματα του ενδιάμεσου χώρου (ΔΗΚΟ, ΕΔΕΚ) κατά πόσο συμφωνείτε ή διαφωνείτε όσον αφορά την πιθανότητα συνεργασίας των δύο πόλων εαν υπαρξη θετική προόδος στις διαπραγματεύσεις του Κυπριακού;

- Συμφωνώ απόλυτα ………….
- Συμφωνώ ………….
- Ούτε συμφωνώ Ούτε διαφωνώ ………….
- Διαφωνώ ………….
- Διαφωνώ απόλυτα ………….
- ΔΞ/ΔΑ ………….

24. Ο αναπληρωτής πρόεδρος και ευρωβουλευτής του ΔΗΣΥ, Λευτέρης Χριστοφόρου[8], εκτίμησε ότι στη διάσκεψη για το Κυπριακό έγινε «ένα θετικό βήμα», διότι όπως είπε ο Νίκος Αναστασιάδης «πέτυχε τους στόχους του, δηλαδή να κατατεθούν για πρώτη φορά, εδώ και 43 χρόνια, οι θέσεις της Τουρκίας στο εδαφικό και στα θέματα εγγυήσεων και ασφάλειας». Συμφωνείτε ή διαφωνείτε;

- Συμφωνώ απόλυτα ………….
- Συμφωνώ ………….
- Ούτε συμφωνώ Ούτε διαφωνώ ………….
- Διαφωνώ ………….
- Διαφωνώ απόλυτα ………….
- ΔΞ/ΔΑ ………….

25. Ο εκπρόσωπος Τύπου και βουλευτής του ΑΚΕΛ, Στέφανος Στεφάνου[9], δήλωσε ότι «είναι θετικό το γεγονός ότι στη διάσκεψη για πρώτη φορά οι δύο πλευρές κατέθεσαν ταυτόχρονα χάρτες, που δημιουργεί τις προϋποθέσεις για συγκεκριμένη διαπραγμάτευση και επίτευξη συμφωνίας στο εδαφικό». Συμφωνείτε ή διαφωνείτε;

- Συμφωνώ απόλυτα ………….
- Συμφωνώ ………….
- Ούτε συμφωνώ Ούτε διαφωνώ ………….
- Διαφωνώ ………….
- Διαφωνώ απόλυτα ………….
- ΔΞ/ΔΑ ………….

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[8] https://www.efsyn.gr/arthro/i-antipoliteysi-plin-akel-epikrinei-ti-geneyi

[9] https://www.efsyn.gr/arthro/i-antipoliteysi-plin-akel-epikrinei-ti-geneyi

26. Η δήλωση του εκπρόσωπου Τύπου και βουλευτή του ΑΚΕΛ, Στέφανου Στεφάνου ότι το ΑΚΕΛ «θα συνεχίσει με υπευθυνότητα, σοβαρότητα και πατριωτισμό να στηρίζει τις διαπραγματεύσεις και την προσπάθεια για επίτευξη λύσης», είναι στήριξη στο πρόσωπο του προέδρου της Δημοκρατίας Νίκου Αναστασιάδη;

- Συμφωνώ απόλυτα   ………….
- Συμφωνώ   ………….
- Ούτε συμφωνώ Ούτε διαφωνώ   ………….
- Διαφωνώ   ………….
- Διαφωνώ απόλυτα   ………….
- ΔΞ/ΔΑ   ………….

27. Στην περίπτωση των προεδρικών εκλογών του 2018 τι πιστεύετε οτι πρέπει να κυριαρχήσει οι κομματικές ιδεολογίες ή η εθνική συνεννόηση;

- **Κομματικές ιδεολογίες**   ………….
- **Εθνική συνεννόηση**   ………….
- **ΔΞ/ΔΑ**   ………….

28. Οι συνομιλίες στο Κυπριακό έχουν φτάσει σ' ένα ιδιαίτερα κομβικό σημείο και ο Πρόεδρος Αναστασιάδης δείχνει σήμερα να είναι αποφασισμένος να συνεχίσει την όλη προσπάθεια. Με περαιτέρω πρόοδο στην διαδικασία των συνομιλιών συμφωνείτε ή διαφωνείτε ότι αλλαγή συνομιλητή λόγο προεδρικών εκλογών πιθανών να επιρεάσει την ομαλή ροή των συνωμιλιών

- Συμφωνώ απόλυτα   ………….
- Συμφωνώ   ………….
- Ούτε συμφωνώ Ούτε διαφωνώ   ………….
- Διαφωνώ   ………….
- Διαφωνώ απόλυτα   ………….
- ΔΞ/ΔΑ   ………….

ΜΕΡΟΣ Ε – Νηπιοβαπτισμός

29. Επιλέξτε ποιο θρήσκευμα ακολουθείτε

- Χριστιανισμός   ………….
- Ισλαμισμός   ………….
- Αθρησκεία   ………….
- Άλλο   ………….

30. Συμφωνείτε ή διαφωνείτε με πιθανή νομοθέτηση που θα απαγορεύει τις βάφτισεις των παιδιών σε βρεφική ηλικία και να τις επιτρέπει μόνο μετά τα 18.

- Συμφωνώ απόλυτα   …………
- Συμφωνώ   …………
- Ούτε συμφωνώ Ούτε διαφωνώ   …………
- Διαφωνώ   …………
- Διαφωνώ απόλυτα   …………
- ΔΞ/ΔΑ   …………

31. Η βάπτιση, κατά πάγια νομολογία, έχει σκοπό την κτήση θρησκεύματος, άρα το βάπτισμα θα πρέπει να είναι μια πράξη συνειδητή αντί να επιβάλλεται από θρησκευτικές οργανώσεις.

- Συμφωνώ απόλυτα   …………
- Συμφωνώ   …………
- Ούτε συμφωνώ Ούτε διαφωνώ   …………
- Διαφωνώ   …………
- Διαφωνώ απόλυτα   …………
- ΔΞ/ΔΑ   …………

32. **Δεν υπάρχει κανένα παράδειγμα ότι εβαπτίσθη νήπιο υπό τον Ιησού η των μαθητών του στην Καινή Διαθήκη. Το έθιμο του νηπιοβαπτισμού σύντομα μετά τη γέννηση του νηπίου διαδόθηκε ευρύτερα κατά τον 10° και 11° αιώνα[10] και έγινε γενικότερα αποδεκτό κατά τον 13° αιώνα. Η εκτέλεση αυτού του Ιερού Μυστηρίου θα ήταν ορθότερο να εκτελείται στην ηλικία των 30 όπως στην περίπτωση του Ιησού.**

- Συμφωνώ απόλυτα   …………
- Συμφωνώ   …………
- Ούτε συμφωνώ Ούτε διαφωνώ   …………
- Διαφωνώ   …………
- Διαφωνώ απόλυτα   …………
- ΔΞ/ΔΑ   …………

33. Κατά των νηπιοβαπτισμό τα βρέφη, δεν μπορούν να κατανοήσουν και να ενεργούν σύμφωνα με την ελεύθερη βούληση προκειμένου να αποδεχθούν μια συγκεκριμένη πίστη.

- Συμφωνώ απόλυτα   …………
- Συμφωνώ   …………

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[10] Encyclopedia of Religion (Second ed.), 2004, Publ. Macmillan Reference, Volume 2, p.782

- Ούτε Συμφωνώ Ούτε διαφωνώ ………….
- Διαφωνώ   ………….
- Διαφωνώ απόλυτα   ………….
- ΔΞ/ΔΑ   ………….

34. **Η ονομασία (βάπτιση) του βλαστού (αγοριού η κοριτσιού)[11] ελάμβανε πανηγυρικό χαρακτήρα στην αρχαία Ελλάδα όπου προσκαλούνταν συγγενείς και φίλοι με δώρα και λευκές λαμπάδες, λευκοφορούντες, όπως και οι γονείς. Ενώπιον τω ιερέως του Διός του Τελείου, που έψαλλε καθιερωμένες ευχές, ενώ ο πατέρας αλείφοντας το νεοελθόν στο φώς του ήλιου τέκνο του με λάδι απο «ελαίαν μορίαν» -δηλαδή προερχόμενο απο τις ιερές ελιές της Αθηνάς, το περιέφερε τρείς φορές γύρω από τον βωμό της Εστίας εκφωνώντας το όνομα του, και αφού έρριχνε μικρό βόστρυχο απο τα μαλλάκια του παιδιού στο εξαγνιστικό και ζωοποιό, (από τον ουρανό μεταφερθέν κατά την πιστή τους) ιερό πύρ της Εστίας το «εκάθαρε» εμβαπτίζοντας το μέσα σε ειδικό αμφορέα (κολυμπήθρα), που περιείχε χλιαρό νερό, φερμένο από την «Κρήνη της Καλλιρρόης»… Συμφωνείτε ή διαφωνείτε οτι ο Χριστιανισμός υιοθέτησε το συγκεκριμενο τελετουργικό βάπτισης;**

- Συμφωνώ απόλυτα   ………….
- Συμφωνώ   ………….
- Ούτε Συμφωνώ Ούτε διαφωνώ ………….
- Διαφωνώ   ………….
- Διαφωνώ απόλυτα   ………….
- ΔΞ/ΔΑ   ………….

35. **Με το βάπτισμα το νήπιο αποκαθαίρεται από το προπατορικό και κάθε προσωπικό αμάρτημα μέσω του νερού, το οποίο συμβολίζει το αίμα του Ιησού Χριστού. Συμφωνείτε ή διαφωνείτε οτι ένα νήπιο επιβάλεται να εξαγνιστεί μέσον της βάπτισης απο τις παραβίασεις ηθικών κανόνων;**

- Συμφωνώ απόλυτα   ………….
- Συμφωνώ   ………….
- Ούτε συμφωνώ Ούτε διαφωνώ ………….
- Διαφωνώ   ………….
- Διαφωνώ απόλυτα   ………….
- ΔΞ/ΔΑ   ………….

Προσθέστε οποιαδήποτε άλλα σχόλια (προαιρετικά)

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[11] Δρ.Π. Ι. Κυριακόπουλος (2015) Αρχαίο Ελληνικό Δίκαιο. Η μεγάλη άγνωστη κληρονομιά μας ΣΥΓΧΡΟΝΗ ΕΚΔΟΤΙΚΗ Ε.Π.Ε.

- _____

- _____

Σας ευχαριστούμε πολύ για τη συνεργασία!

A.4 Interview questions

	………………….. (PARTICIPANT ANWSERS)
1. **AGE**	
2. **OCCUPATION**	
3. **RELIGIOUS BELIEFS**	
4. **FAMILY STATUS**	
5. **POLITICAL ORIENTATION**	
6. **GENERAL OPINION**	
7. **WHAT YOU THINK IS THE SUBJECT OF THE QUESTIONNAIRE**	
8. **HAVE YOU NOTICE THAT THE SUBJECT OF THE QUESTIONNAIR IN THE INVITATION IS DEFFERENT FROM THE CONTENT?** ("**The purpose of the questionnaire is to record the**	

participation of the users on the Internet for information purposes by the mass media"	
9. WHAT DO YOU KNOW ABOUT OVERTON WINDOW THEORY?	
10. DO YOU BELIEVE THAT CYPRIOT USER IS MANIPULATED BY THE MASS MEDIA?	
11.DO YOU BELIEVE THAT YOU ARE A VICTIM OF MANIPULATION BY THE MASS MEDIA?	
12.WILL YOU USE A MOBILE APPLICATION THAT MEASURES THE DEGREE OF MANIPULATION BY THE MASS MEDIA?	
13. PRESENTATION OF SCENARIO	
14. FOR WHAT REASON WOULD YOU USE THE SPECIFIC MOBILE APPLICATION?	

A.5 QuestionPro Survey Report

Q2 Φύλο

Άνδρας	28	50.91%
Γυναίκα	27	49.09%
Total	55	

Mean	**1.49**
Standard Dev.	0.50
Variance	0.25

Q3 Ηλικία

18-22	1	1.92%
23-27	0	0.00%
28-38	22	42.31%
39-49	23	44.23%
50-60	4	7.69%
60+	2	3.85%

Total	52
Mean	3.67
Standard Dev.	0.86
Variance	0.73

Q4 Επίπεδο εκπαίδευσης

Απόφοιτος πρωτοβάθμιας εκπαίδευσης	1	1.92%
Απόφοιτος δευτεροβάθμιας εκπαίδευσης	9	17.31%
Απόφοιτος τριτοβάθμιας εκπαίδευσης	23	44.23%
Κάτοχος μεταπτυχιακού/δοκτοράτου	19	36.54%

Total	52
Mean	3.15
Standard Dev.	0.78
Variance	0.60

Q5

ΜΕΡΟΣ Β

Πόσο συχνά χρησιμοποιείτε το Διαδίκτυο;

Καθημερινά	49	94.23%
4-6 φορές την εβδομάδα	2	3.85%
1-3 φορές την εβδομάδα	1	1.92%
2-3 φορές το μήνα	0	0.00%
Μια φορά το μήνα	0	0.00%
Total 52		

Mean	1.08
Standard Dev.	0.33
Variance	0.11

Q6

Πόσο εμπιστεύεστε τις γνώσεις σας για το τι συμβαίνει στον κόσμο;

Πολύ	10	19.23%
Αρκετά	36	69.23%
Λίγο	6	11.54%
Καθόλου	0	0.00%
ΔΞ/ΔΑ (Δεν ξέρω, δεν απαντώ)	0	0.00%
Total 52		

Mean	1.92
Standard Dev.	0.55
Variance	0.31

Q7

Πόσο πολύ θα λέγατε ότι εμπιστεύεστε καθέναν από τους παρακάτω θεσμούς ή ομάδες;

Κυβέρνηση

Καθόλου	12	23.08%
Ελάχιστα	29	55.77%
Αρκετά	11	21.15%

Απόλυτα		0	0.00%
Δεν ξέρω, δεν απαντώ		0	0.00%
Total	52		

Mean	1.98
Standard Dev.	0.67
Variance	0.45

Πολιτικά Κόμματα

Καθόλου		24	46.15%
Ελάχιστα		21	40.38%
Αρκετά		5	9.62%
Απόλυτα		1	1.92%
Δεν ξέρω, δεν απαντώ		1	1.92%
Total	52		

Mean	1.73
Standard Dev.	0.87
Variance	0.75

Βουλή

Καθόλου		15	28.85%
Ελάχιστα		27	51.92%
Αρκετά		9	17.31%
Απόλυτα		0	0.00%
Δεν ξέρω, δεν απαντώ		1	1.92%
Total	52		

Mean	1.94
Standard Dev.	0.80
Variance	0.64

Εκκλησία

Καθόλου		31	59.62%
Ελάχιστα		10	19.23%

Αρκετά	8	15.38%
Απόλυτα	3	5.77%
Δεν ξέρω, δεν απαντώ	0	0.00%

Total   52

Mean	1.67
Standard Dev.	0.94
Variance	0.89

Πηγές στο διαδίκτυο

Καθόλου	3	5.77%
Ελάχιστα	8	15.38%
Αρκετά	38	73.08%
Απόλυτα	3	5.77%
Δεν ξέρω, δεν απαντώ	0	0.00%

Total   52

Mean	2.79
Standard Dev.	0.64
Variance	0.41

Τηλεόραση

Καθόλου	4	7.69%
Ελάχιστα	30	57.69%
Αρκετά	18	34.62%
Απόλυτα	0	0.00%
Δεν ξέρω, δεν απαντώ	0	0.00%

Total   52

Mean	2.27
Standard Dev.	0.60
Variance	0.36

Έντυπο τύπο

Καθόλου	4	7.69%
Ελάχιστα	16	30.77%
Αρκετά	28	53.85%
Απόλυτα	2	3.85%
Δεν ξέρω, δεν απαντώ	2	3.85%
Total	52	

Mean	2.65
Standard Dev.	0.84
Variance	0.70

Ραδιόφωνο

Καθόλου	4	7.69%
Ελάχιστα	19	36.54%
Αρκετά	27	51.92%
Απόλυτα	1	1.92%
Δεν ξέρω, δεν απαντώ	1	1.92%
Total	52	

Mean	2.54
Standard Dev.	0.75
Variance	0.57

Q8

Γενικά πιστεύετε ότι η ενημέρωση μέσω του Διαδικτύου είναι αξιόπιστη ή ότι πρέπει κανείς να είναι πολύ προσεκτικός και καχύποπτος ως προς την ενημέρωσή μέσω του Διαδικτύου.

Ναι. Μπορεί κανείς να εμπιστευτεί την ενημέρωσή μέσω του Διαδικτύου	8	15.38%
Οχι. Πρέπει κανείς να είναι προσεκτικός και καχύποπτος	44	84.62%
Δεν ξέρω, δεν απαντώ	0	0.00%
Total	52	

Mean	1.85

| Standard Dev. | 0.36 |
| Variance | 0.13 |

Q9

ΜΕΡΟΣ Γ

Πιστεύετε ότι όλοι οι άνθρωποι είναι ίσοι μεταξύ τους ανεξαρτήτως εθνικότητας, φύλου, σεξουαλικού προσανατολισμού και θρησκείας;

Ναι	48	92.31%
Όχι	4	7.69%
Total	52	

Mean	1.08
Standard Dev.	0.27
Variance	0.07

Q10

Πιστεύετε ότι τα ΛΟΑΤ άτομα (που αντιμετωπίζουν διάκριση σχετικά με τον σεξουαλικό προσανατολισμό τους και την ταυτότητα του φύλου τους) έχουν τις ίδιες ευκαιρίες με τα υπόλοιπα μέλη της κοινωνίας;

Ναι	23	44.23%
Όχι	29	55.77%
Total	52	

Mean	1.56
Standard Dev.	0.50
Variance	0.25

Q11

Πόσο σημαντικά θεωρείτε τα παρακάτω χαρακτηριστικά για την ταυτότητα και τον χαρακτήρα ενός ανθρώπου;

Μορφωτικό επίπεδο

| Καθόλου σημαντικό | 7 | 13.73% |
| Λίγο Σημαντικό | 12 | 23.53% |

Αρκετά Σημαντικό	19	37.25%
Πολύ Σημαντικό	13	25.49%
ΔΞ/ΔΑ	0	0.00%
Total 51		

Mean	2.75
Standard Dev.	1.00
Variance	0.99

Πολιτικές πεποιθήσεις

Καθόλου σημαντικό	15	29.41%
Λίγο Σημαντικό	16	31.37%
Αρκετά Σημαντικό	14	27.45%
Πολύ Σημαντικό	5	9.80%
ΔΞ/ΔΑ	1	1.96%
Total 51		

Mean	2.24
Standard Dev.	1.05
Variance	1.10

Κοινωνική Τάξη

Καθόλου σημαντικό	19	37.25%
Λίγο Σημαντικό	15	29.41%
Αρκετά Σημαντικό	12	23.53%
Πολύ Σημαντικό	5	9.80%
ΔΞ/ΔΑ	0	0.00%
Total 51		

Mean	2.06
Standard Dev.	1.01
Variance	1.02

Σεξουαλικός προσανατολισμός

Καθόλου σημαντικό	22	43.14%
Λίγο Σημαντικό	12	23.53%
Αρκετά Σημαντικό	12	23.53%
Πολύ Σημαντικό	5	9.80%
ΔΞ/ΔΑ	0	0.00%
Total 51		

Mean	2.00
Standard Dev.	1.04
Variance	1.08

Θρησκεία

Καθόλου σημαντικό	15	29.41%
Λίγο Σημαντικό	11	21.57%
Αρκετά Σημαντικό	17	33.33%
Πολύ Σημαντικό	7	13.73%
ΔΞ/ΔΑ	1	1.96%
Total 51		

Mean	2.37
Standard Dev.	1.11
Variance	1.24

Q12

Με βάσει ποια κριτήρια πρέπει να επιτρέπεται σε δύο ανθρώπους να γίνουν θετοί γονείς ενός παιδιού:

Μορφωτικό επίπεδο	17	10.56
Ηλικία των υποψηφίων θετών γονέων	35	21.74
Ψυχολογικό προφίλ	51	31.68
Τα οικονομικά και εισοδηματικά κριτήρια του υποψήφιου		
θετού γονέα	38	23.60
Σεξουαλικός προσανατολισμός	15	9.32%
Θρησκεία	5	3.11%
Total 161		

Mean	3.09
Standard Dev.	1.24
Variance	1.53

Q13

Τα παιδιά μαθαίνουν για τις διαφορές ανδρών και γυναικών από τα γονεϊκά πρότυπα. Η γονεϊκή σχέση μητέρας-πατέρα παρέχει στα παιδιά ένα μοντέλο σχέσης – την πιο ουσιαστική και διαρκή σχέση που η συντριπτική πλειοψηφία των ατόμων θα έχουν κατά τη διάρκεια της ζωής τους;

Συμφωνώ απόλυτα	10	19.23%
Συμφωνώ	24	46.15%
Ούτε συμφωνώ Ούτε διαφωνώ	11	21.15%
Διαφωνώ	4	7.69%
Διαφωνώ απόλυτα	3	5.77%
ΔΞ/ΔΑ	0	0.00%
Total	52	

Mean	2.35
Standard Dev.	1.06
Variance	1.13

Q14

Έχουν τα παιδιά σύγχυση στην ανάπτυξη της σεξουαλικής ταυτότητας τους και στη συμπεριφορά σε σχέση με το φύλο, όταν μεγαλώνουν απο γονείς οπού δεν εκπροσωπούνται και απο τα δύο φύλα;

Συμφωνώ απόλυτα	7	13.46%
Συμφωνώ	12	23.08%
Ούτε συμφωνώ Ούτε διαφωνώ	11	21.15%
Διαφωνώ	11	21.15%
Διαφωνώ απόλυτα	6	11.54%
ΔΞ/ΔΑ	5	9.62%
Total	52	

Mean	3.23
Standard Dev.	1.52
Variance	2.30

Q15

Το να είσαι ετεροφυλόφιλος είναι το μόνο φυσιολογικό και αποδεκτό από το κοινωνικό σύνολο όσον αφορά του δικαιώματος τεκνοθεσίας;

Συμφωνώ απόλυτα	8	15.38%
Συμφωνώ	12	23.08%
Ούτε συμφωνώ Ούτε διαφωνώ	9	17.31%
Διαφωνώ	11	21.15%
Διαφωνώ απόλυτα	11	21.15%
ΔΞ/ΔΑ	1	1.92%
Total	52	

Mean	3.15
Standard Dev.	1.45
Variance	2.09

Q16

Με την νομιμοποίηση του δικαιώματος γάμου μεταξύ ομοφυλόφιλων ζευγαριών θα πρέπει να αναγνωριστεί και το δικαιωμα υιοθεσίας;

Συμφωνώ απόλυτα	13	25.00%
Συμφωνώ	7	13.46%
Ούτε συμφωνώ Ούτε διαφωνώ	11	21.15%
Διαφωνώ	9	17.31%
Διαφωνώ απόλυτα	11	21.15%
ΔΞ/ΔΑ	1	1.92%
Total	52	

Mean	3.02
Standard Dev.	1.54
Variance	2.37

Q17

Σε υποθέσεις υιοθεσίας τίθεται συχνά το ερώτημα ποιοι υποψήφιοι γονείς είναι κατάλληλοι ή «καταλληλότεροι» των άλλων. Ποιοί απο τους πιο κατώ παραμέτρους πιστέυετε οτι πρέπει να εξετάζονται:

Η δυνατότητα του γονέα να καλύψει τις βασικές ανάγκες του παιδιού (φαγητό, ένδυση, στέγη)	48	13.75%
Η ικανότητα του γονέα να προστατεύει το παιδί από σημαντική βλάβη ή κίνδυνο	42	12.03%
Η ικανότητα του γονέα να αναγνωρίζει και να ανταποκρίνεται στις συναισθηματικές ανάγκες του παιδιού	47	13.47%
Η ικανότητά του να παρέχει ερεθίσματα και εκπαίδευση	40	11.46%
Η ικανότητα του γονέα να θέτει κανόνες και όρια στη συμπεριφορά του παιδιού	38	10.89%
να παρέχει σταθερό περιβάλλον που θα διακρίνεται από συνέπεια	45	12.89%
Η ικανότητα του γονέα να στηρίζει το παιδί στην αυτονόμηση-ανεξαρτησία	39	11.17%
Η ψυχική υγεία του γονέα.	50	14.33%
Total	349	

Mean	4.49
Standard Dev.	2.36
Variance	5.56

Q18

Οι υποψήφιοι γονείς για υιοθεσία μπορεί να πληρούν όλα τα παραπάνω κριτήρια. Τίθεται, λοιπόν το ερώτημα εάν ο σεξουαλικός προσανατολισμός των υποψήφιων γονέων μπορεί να είναι από μόνος του κριτήριο για την έγκριση μιας υιοθεσία

Συμφωνώ απόλυτα	9	18.00%
Συμφωνώ	7	14.00%
Ούτε Συμφωνώ Ούτε διαφωνώ	11	22.00%
Διαφωνώ	10	20.00%
Διαφωνώ απόλυτα	13	26.00%

| ΔΞ/ΔΑ | 0 | 0.00% |

Total   50

Mean	3.22
Standard Dev.	1.45
Variance	2.09

Q19

Η Dawn Stefanowicz (κόρη ενός γκέι πατέρα που πέθανε από AIDS) είναι μία διεθνώς αναγνωρισμένη ομιλήτρια και συγγραφέας. Είναι μέλος της Επιτροπής Μαρτυρίας του Ινστιτούτου Δικαιωμάτων του Παιδιού. Στο βιβλίο της: Η Επίδραση των Ομοφυλόφιλων Γονέων αναφέρει ότι «Ευάλωτα παιδιά χρειάζονται τόσο έναν πατέρα όσο και μια μητέρα που θα τα αγαπούν και θα τα προστατεύον. Δεν πρέπει να χρησιμοποιούνται ως όργανα ενός κοινωνικού πειραματισμού από ναρκισσιστικά άτομα που αναζητούν την σεξουαλική ικανοποίηση τους και την ταυτότητά τους έξω από την παραδοσιακή οικογένεια»(Reality, Jan-Feb. 2009, p 10). Κατά πόσο συμφωνείτε ή διαφωνείτε;

http://www.dawnstefanowicz.org/

Συμφωνώ απόλυτα	13	25.00%
Συμφωνώ	16	30.77%
Ούτε συμφωνώ Ούτε διαφωνώ	10	19.23%
Διαφωνώ	8	15.38%
Διαφωνώ απόλυτα	5	9.62%
ΔΞ/ΔΑ	0	0.00%

Total   52

Mean	2.54
Standard Dev.	1.29
Variance	1.67

Q20

Ο προκαθήμενος της κυπριακής εκκλησίας δήλωσε την πρόθεσή του να δημιουργήσει νηπιαγωγεία και σχολεία για να καταπολεμήσει την ομοφυλοφιλία. Θα ετοιμαστούν δέκα νηπιαγωγεία με στόχο μέσα σε δύο χρόνια να γίνουν δημοτικά και σε έξι έτη γυμνάσια και λύκεια, στα οποία θα δίνεται μία υποδειγματική εκπαίδευση με ορθές

κατευθύνσεις στους μαθητές, από τους οποίους θα έχουν την απαίτηση να βγαίνουν σωστοί άνθρωποι που να είναι παράδειγμα προς μίμηση. Θα λέγατε ότι:

https://politis.com.cy/article/archiepiskopos-gia-omofilofilia-frouto-pou-prepi-na-antimetopisti

Συμφωνώ απόλυτα	0	0.00%
Συμφωνώ	5	9.62%
Ούτε συμφωνώ Ούτε διαφωνώ	5	9.62%
Διαφωνώ	14	26.92%
Διαφωνώ απόλυτα	25	48.08%
ΔΞ/ΔΑ	3	5.77%
Total 52		

Mean	4.31
Standard Dev.	1.06
Variance	1.12

Q21

Πρέπει να θεσπιστούν αυστηρότερες κυρώσεις ενάντια στη ρητορική μίσους προς τους ομοφυλόφιλους και πως η εκκλησία πρέπει να δείξει μεγαλύτερη κατανόηση σε θέματα διαφορετικότητας;

Συμφωνώ απόλυτα	23	44.23%
Συμφωνώ	21	40.38%
Ούτε συμφωνώ Ούτε διαφωνώ	5	9.62%
Διαφωνώ	2	3.85%
Διαφωνώ απόλυτα	1	1.92%
ΔΞ/ΔΑ	0	0.00%
Total 52		

Mean	1.79
Standard Dev.	0.91
Variance	0.84

Q22

ΜΕΡΟΣ Δ

Γενικά μιλώντας, πόσο θα λέγατε ότι ενδιαφέρεστε για την πολιτική στην Κύπρο και τον κόσμο γενικότερα; Θα λέγατε ότι ενδιαφέρεστε

Πολύ	18	34.62%
Αρκετά	14	26.92%
Λίγο	11	21.15%
Καθόλου	9	17.31%
ΔΞ/ΔΑ	0	0.00%
Total	52	

Mean	2.21
Standard Dev.	1.11
Variance	1.23

Q24

Συμφωνείτε ή διαφωνείτε όσον αφορά την συνεργασία στις προσεχής προεδρικές εκλογές 2018, του ΔΗΣΥ και του ΑΚΕΛ με κοινό υποψήφιο;

Συμφωνώ απόλυτα	2	3.85%
Συμφωνώ	6	11.54%
Ούτε συμφωνώ Ούτε διαφωνώ	21	40.38%
Διαφωνώ	4	7.69%
Διαφωνώ απόλυτα	12	23.08%
ΔΞ/ΔΑ	7	13.46%
Total	52	

Mean	3.75
Standard Dev.	1.40
Variance	1.96

Q25

Εχουμε συνηθίσει στο ότι ένας απο τους δύο πόλους ΔΗΣΥ ή ΑΚΕΛ συνεργαζόταν με ένα ή και τα δύο κόμματα του ενδιάμεσου χώρου (ΔΗΚΟ, ΕΔΕΚ) κατά πόσο συμφωνείτε ή διαφωνείτε όσον αφορά την πιθανότητα συνεργασίας των δύο πόλων εαν υπαρξη θετική πρόοδος στις διαπραγματεύσεις του Κυπριακού;

Συμφωνώ απόλυτα	6	11.54%
Συμφωνώ	15	28.85%
Ούτε συμφωνώ Ούτε διαφωνώ	15	28.85%
Διαφωνώ	3	5.77%
Διαφωνώ απόλυτα	6	11.54%
ΔΞ/ΔΑ	7	13.46%
Total 52		

Mean	3.17
Standard Dev.	1.58
Variance	2.50

Q26

Ο τρόπος προβολής του Κυπριακού ζητήματος από τα ΜΜΕ πιστεύετε πως έχει συντελέσει στην θετική εικόνα που έχει ένα μεγάλο μέρος της Κυπριακής κοινής γνώμης όσων αφορά πιθανότητα εξεύρεσης λύσης;

Συμφωνώ απόλυτα	3	5.77%
Συμφωνώ	20	38.46%
Ούτε συμφωνώ Ούτε διαφωνώ	10	19.23%
Διαφωνώ	10	19.23%
Διαφωνώ απόλυτα	3	5.77%
ΔΞ/ΔΑ	6	11.54%
Total 52		

Mean	3.15
Standard Dev.	1.45
Variance	2.09

Q27

Ο αναπληρωτής πρόεδρος και ευρωβουλευτής του ΔΗΣΥ, Λευτέρης Χριστοφόρου, εκτίμησε ότι στη διάσκεψη για το Κυπριακό έγινε «ένα θετικό βήμα», διότι όπως είπε ο Νίκος Αναστασιάδης «πέτυχε τους στόχους του, δηλαδή να κατατεθούν για πρώτη φορά, εδώ και 43 χρόνια, οι θέσεις της Τουρκίας στο εδαφικό και στα θέματα εγγυήσεων και ασφάλειας». Συμφωνείτε ή διαφωνείτε;

https://www.efsyn.gr/arthro/i-antipoliteysi-plin-akel-epikrinei-ti-geneyi

Συμφωνώ απόλυτα	1	1.92%
Συμφωνώ	12	23.08%
Ούτε συμφωνώ Ούτε διαφωνώ	19	36.54%
Διαφωνώ	8	15.38%
Διαφωνώ απόλυτα	4	7.69%
ΔΞ/ΔΑ	8	15.38%
Total	52	

Mean	3.50
Standard Dev.	1.39
Variance	1.94

Q28

Ο εκπρόσωπος Τύπου και βουλευτής του ΑΚΕΛ, Στέφανος Στεφάνου, δήλωσε ότι «είναι θετικό το γεγονός ότι στη διάσκεψη για πρώτη φορά οι δύο πλευρές κατέθεσαν ταυτόχρονα χάρτες, που δημιουργεί τις προϋποθέσεις για συγκεκριμένη διαπραγμάτευση και επίτευξη συμφωνίας στο εδαφικό». Συμφωνείτε ή διαφωνείτε;

https://www.efsyn.gr/arthro/i-antipoliteysi-plin-akel-epikrinei-ti-geneyi

Συμφωνώ απόλυτα	1	1.92%
Συμφωνώ	14	26.92%
Ούτε συμφωνώ Ούτε διαφωνώ	19	36.54%
Διαφωνώ	6	11.54%
Διαφωνώ απόλυτα	5	9.62%
ΔΞ/ΔΑ	7	13.46%
Total	52	

Mean	3.40
Standard Dev.	1.39

Variance   1.93

Q29

Η δήλωση του εκπρόσωπου Τύπου και βουλευτή του ΑΚΕΛ, Στέφανου Στεφάνου ότι το ΑΚΕΛ «θα συνεχίσει με υπευθυνότητα, σοβαρότητα και πατριωτισμό να στηρίζει τις διαπραγματεύσεις και την προσπάθεια για επίτευξη λύσης», είναι στήριξη στο πρόσωπο του προέδρου της Δημοκρατίας Νίκου Αναστασιάδη;

Συμφωνώ απόλυτα	1	1.92%
Συμφωνώ	15	28.85%
Ούτε συμφωνώ Ούτε διαφωνώ	17	32.69%
Διαφωνώ	6	11.54%
Διαφωνώ απόλυτα	5	9.62%
ΔΞ/ΔΑ	8	15.38%
Total 52		

Mean	3.44
Standard Dev.	1.45
Variance	2.09

Q30

Στην περίπτωση των προεδρικών εκλογών του 2018 τι πιστευετε οτι πρέπει να κυριαρχήσει οι κομματικές ιδεολογίες ή η εθνική συνεννόηση;

Κομματικές ιδεολογίες	5	9.62%
Εθνική συνεννόηση	39	75.00%
ΔΞ/ΔΑ	8	15.38%
Total 52		

Mean	2.06
Standard Dev.	0.50
Variance	0.25

Q31

Οι συνομιλίες στο Κυπριακό έχουν φτάσει σ' ένα ιδιαίτερα κομβικό σημείο και ο Πρόεδρος Αναστασιάδης δείχνει σήμερα να είναι αποφασισμένος να συνεχίσει την όλη

προσπάθεια. Με περαιτέρω πρόοδο στην διαδικασία των συνωμιλιών συμφωνείτε ή διαφωνείτε ότι αλλαγή συνομιλητή λόγω προεδρικών εκλογών πιθανών να επιρεάσει την ομαλή ροή των συνωμιλιών;

Συμφωνώ απόλυτα	1	1.92%
Συμφωνώ	18	34.62%
Ούτε συμφωνώ Ούτε διαφωνώ	18	34.62%
Διαφωνώ	6	11.54%
Διαφωνώ απόλυτα	3	5.77%
ΔΞ/ΔΑ	6	11.54%
Total	52	

Mean	3.19
Standard Dev.	1.34
Variance	1.81

Q32

ΜΕΡΟΣ Ε

Επιλέξτε ποιο θρήσκευμα ακολουθείτε

Χριστιανισμός	37	71.15%
Ισλαμισμός	0	0.00%
Αθρησκεία	11	21.15%
Άλλο	4	7.69%
Total	52	

Mean	1.65
Standard Dev.	1.06
Variance	1.13

Q33

Συμφωνείτε ή διαφωνείτε με πιθανή νομοθέτηση που θα απαγορεύει τις βάφτισεις των παιδιών σε βρεφική ηλικία και να τις επιτρέπει μόνο μετά τα 18.

Συμφωνώ απόλυτα	12	23.08%
Συμφωνώ	14	26.92%

Ούτε συμφωνώ Ούτε διαφωνώ	9	17.31%
Διαφωνώ	10	19.23%
Διαφωνώ απόλυτα	7	13.46%
ΔΞ/ΔΑ	0	0.00%

Total   52

Mean	2.73
Standard Dev.	1.37
Variance	1.89

Q34

Η βάπτιση, κατά πάγια νομολογία, έχει σκοπό την κτήση θρησκεύματος άρα το βάπτισμα θα πρέπει να είναι μια πράξη συνειδητή αντί να επιβάλλεται από θρησκευτικές οργανώσεις.

Συμφωνώ	33	63.46%
Ούτε συμφωνώ Ούτε διαφωνώ	6	11.54%
Διαφωνώ	8	15.38%
Διαφωνώ απόλυτα	5	9.62%
ΔΞ/ΔΑ	0	0.00%

Total   52

Mean	1.71
Standard Dev.	1.05
Variance	1.11

Q35

Δεν υπάρχει κανένα παράδειγμα ότι εβαπτίσθη νήπιο υπό τον Ιησού η των μαθητών του στην ΚαινήΔιαθήκη. Το έθιμο του νηπιοβαπτισμού σύντομα μετά τη γέννηση του νηπίου διαδόθηκε ευρύτερα κατά τον 10° και 11° αιώνα και έγινε γενικότερα αποδεκτό κατά τον 13° αιώνα. Η εκτέλεση αυτού του Ιερού Μυστηρίου θα ήταν ορθότερο να εκτελείται στην ηλικία των 30 όπως στην περίπτωση του Ιησού.

Encyclopedia of Religion (Second ed.), 2004, Publ. Macmillan Reference, Volume 2, p.78

Συμφωνώ απόλυτα	8	15.38%
Συμφωνώ	9	17.31%

Ούτε συμφωνώ Ούτε διαφωνώ	17	32.69%
Διαφωνώ	11	21.15%
Διαφωνώ απόλυτα	4	7.69%
ΔΞ/ΔΑ	3	5.77%
Total 52		

Mean	3.06
Standard Dev.	1.36
Variance	1.86

Q36

Κατά των νηπιοβαπτισμό τα βρέφη, δεν μπορούν να κατανοήσουν και να ενεργούν σύμφωνα με την ελεύθερη βούληση προκειμένου να αποδεχθούν μια συγκεκριμένη πίστη.

Συμφωνώ απόλυτα	23	44.23%
Συμφωνώ	17	32.69%
Ούτε Συμφωνώ Ούτε διαφωνώ	7	13.46%
Διαφωνώ	2	3.85%
Διαφωνώ απόλυτα	1	1.92%
ΔΞ/ΔΑ	2	3.85%
Total 52		

Mean	1.98
Standard Dev.	1.24
Variance	1.55

Q37

Η ονομασία (βάπτιση) του βλαστού (αγοριού η κοριτσιού) ελάμβανε πανηγυρικό χαρακτήρα στην αρχαία Ελλάδα όπου προσκαλούνταν συγγενείς και φίλοι με δώρα και λευκές λαμπάδες, λευκοφορούντες, όπως και οι γονείς. Ενώπιον τω ιερέως του Διός του Τελείου, που έψαλλε καθιερωμένες ευχές, ενώ ο πατέρας αλείφοντας το νεοελθόν στο φως του ήλιου τέκνο του με λάδι απο «ελαίαν μορίαν» - δηλαδή προερχόμενο απο τις ιερές ελιές της Αθηνάς, το περιέφερε τρείς φορές γύρω από τον βωμό της Εστίας εκφωνώντας το όνομα του, και αφού έρριχνε μικρό βόστρυχο απο τα μαλλάκια του

παιδιού στο εξαγνιστικό και ζωοποιό, (από τον ουρανό μεταφερθέν κατά την πιστή τους) ιερό πύρ της Εστίας το «εκάθαρε» εμβαπτίζοντας το μέσα σε ειδικό αμφορέα (κολυμπήθρα), που περιείχε χλιαρό νερό, φερμένο από την «Κρήνη της Καλλιρρόης»... Συμφωνείτε ή διαφωνείτε οτι ο Χριστιανισμός υιοθετησε το συγκεκριμενο τελετουργικό βάπτισης;

Δρ.Π. Ι. Κυριακόπουλος (2015) Αρχαίο Ελληνικό Δίκαιο. Η μεγάλη άγνωστη κληρονομιά μας ΣΥΓΧΡΟΝΗ ΕΚΔΟΤΙΚΗ Ε.Π.Ε.

Συμφωνώ απόλυτα	8	15.38%
Συμφωνώ	24	46.15%
Ούτε Συμφωνώ Ούτε διαφωνώ	10	19.23%
Διαφωνώ	0	0.00%
Διαφωνώ απόλυτα	1	1.92%
ΔΞ/ΔΑ	9	17.31%
Total	52	

Mean	2.79
Standard Dev.	1.65
Variance	2.72

Q38

Με το βάπτισμα το νήπιο αποκαθαίρεται από το προπατορικό και κάθε προσωπικό αμάρτημα μέσω του νερού, το οποίο συμβολίζει το αίμα του Ιησού Χριστού. Συμφωνείτε ή διαφωνείτε οτι ένα νήπιο επιβάλεται να εξαγνιστεί μέσον της βάπτισης απο τις παραβίασεις ηθικών κανόνων;

Συμφωνώ απόλυτα	4	7.69%
Συμφωνώ	3	5.77%
Ούτε συμφωνώ Ούτε διαφωνώ	10	19.23%
Διαφωνώ	12	23.08%
Διαφωνώ απόλυτα	20	38.46%
ΔΞ/ΔΑ	3	5.77%
Total	52	
Mean	3.96	
Standard Dev.	1.33	
Variance	1.76	

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