

EXTENDING A SEMANTIC DATA BROWSER WITH CULTURAL PROMPTS

A THESIS SUBMITTED TO THE
SCHOOL OF COMPUTING
OF
UNIVERSITY OF LEEDS

BY
GAYE EDİBOĞLU

IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE
OF
MASTER OF SCIENCE
IN THE DEPARTMENT OF ENGINEERING

LEEDS, 2012

ABSTRACT

Encountering cultural diversity in daily life is becoming inevitable in the global world. Thus, the importance of being aware of other cultures is rapidly increasing. In respect to significance of being aware of other cultures, this study pointed out the lack of consideration of cultural aspect in one semantic data browser which uses user generated data from social spaces, and proposed a way of enriching the browser with cultural prompts in order to raise user's awareness on gestures, greetings, artefact and personal space aspects in different cultures. In order to achieve that, it was necessary to measure user's cultural exposure level. Thus, some Theoretical Models of Culture were analysed and two of those were adapted. In addition to those, two cultural clustering mechanisms were also proposed and adapted in the project. Besides, a study set up was conducted in order to gather user information and content in real-world experiences. Therefore, analysing the data collected from the forms, cultural prompts were designed and implemented. To evaluate the prompts, a user evaluation was conducted. Participants of the evaluation agreed that the proposed prompts were generally helpful. However, some of the user-generated comments were found confusing.

ACKNOWLEDGEMENTS

In this part of the work, I would like to express my thanks to the following persons who provided me great support throughout the project:

Dr. Vania Dimitrova who is my supervisor, for her invaluable support, guidance, expertise, feedback, great effort and for her infinite patience all way through the project,

Dr D. Thakker, who is my secondary supervisor, for his excellent assistance, great effort and support and again for his infinite patience all way through the project,

Without **Dr. Vania Dimitrova's** and **Dr. D. Thakker's** precious support, I would not be able to accomplish the most of it.

Dr. B. Bennett, for his helpful advice and ideas during the progress meeting and interim report,

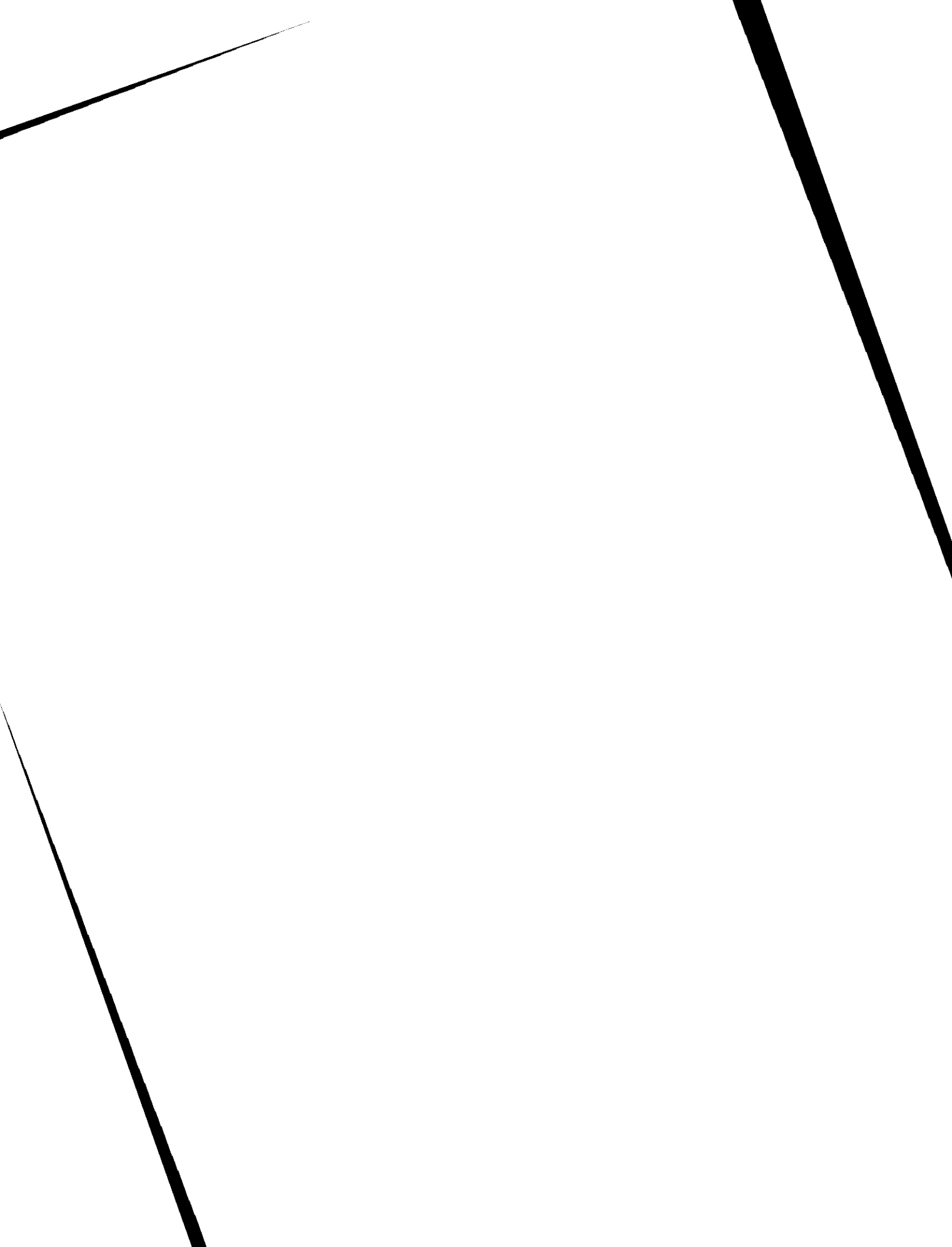
Participants of my study set up and user evaluation, who had an indispensable contribution in the project,

IMASH Team, for their guidance and contribution to project evaluation,

And also to **my family** for their endless encouragement and support.

TABLE OF CONTENTS

1. Project Outline	1
1.1. The Aim of the Project	1
1.2. Minimum Requirements and Deliverables	2
1.3. Research Methodology	2
1.4. Schedule and Progress	3
2. Background Research	4
2.1. Immersive Reflective Experience-based Adaptive Learning (ImREAL).....	4
2.2. Intelligent Content Assembly Workbench (I-CAW).....	5
2.2.1. User Interaction	7
2.2.2. Strengths of I-CAW	8
2.2.3. Weaknesses of I-CAW	9
2.2.4. Conclusion.....	9
2.3. Theoretical Models of Culture.....	9
2.3.1. Hofstede's Model	10
2.3.2. GLOBE Project	13
2.3.3. Hall's Model.....	15
2.3.4. Clusters Proposed by Ronen and Shenkar	16
2.3.5. Implications for This Project.....	17
3. Content Collection.....	18
3.1. Selecting YouTube Videos.....	18



3.2.	Collecting Digital Traces with User Comments	20
3.2.1.	Pilot	20
3.2.2.	Study Set Up.....	21
3.2.3.	Analysis of the Forms	22
4.	Design and Implementation of Prompts	24
4.1.	Architecture	24
4.2.	User Model Generator	25
4.2.1.	Country information and Cultural Clusters:	26
4.2.2.	User Model Generator Structure.....	29
4.2.3.	Output: User Model	30
4.3.	Prompt Generator	31
4.3.1.	Inputs of User Model Generator	31
4.3.2.	Prompt Structure.....	34
4.4.	Prompt Model	34
4.4.1.	Overview	34
4.4.2.	Prompts to Create Awareness of Cultural Aspects (1):	37
4.4.3.	Prompts to Expand Awareness of Cultural Aspects (2).....	45
4.4.2.	Prompts to Reflect on Cultural Awareness (3)	46
4.5.	Implementation	46
4.5.1.	Programming Examples.....	46
5.	Evaluation.....	48

5.1. User Evaluation	48
This section will describe the user evaluation. Firstly the participants of the evaluation will be described, subsequently, evaluation method will be explained. Lastly, the carried out analyse of the user evaluation will be given.....	
5.1.1. Evaluation Participants	48
5.1.2 Evaluation Method.....	48
5.1.3. Analysis of Evaluation Forms	49
5.2. Overall Project Evaluation	52
6. Conclusion.....	54
6.1. Future Directions.....	54
6.2. Closing.....	55
BIBLIOGRAPHY.....	56
Appendix A - Personal Reflection.....	59
Appendix B- Interim Report	60
Appendix 1	62
Appendix 2	63
Appendix 3	73
Appendix 4	74
Appendix 5	75
Appendix 6	76
Appendix 7	77
Appendix 8	79

Appendix 9	80
APPENDIX 10.....	84
APPENDIX 11.....	Error! Bookmark not defined.

LIST OF FIGURES

Figure 1: The main components of I-CAW [5].	5
Figure 2: Keyword nervous and the concept of nervousness [6].	7
Figure 3: Tagged content and tags [6].	7
Figure 4: Contradictory Prompt in green box [6].	8
Figure 5: A synthesis of country clusters proposed by Ronen and Shenkar (1985) [16].	16
Figure 6: YouTube video selection process.	19
Figure 7: Distribution of 29 users. Each user's country of origin is indicated with a red dot.	22
Figure 8: Number of countries visited by each user.	23
Figure 9: Prompt Architecture.....	25
Figure 10: Data Schema of the USER MODEL GENERATOR.....	30
Figure 11: An example about how interaction focus can be used.	33
Figure 12: DB Schema of Prompt Generator.	34
Figure 13: Prompt model.....	35
Figure 14: Calculating exposure level to Hofstede Clusters.	47
Figure 15: Calculating exposure level to GLOBE Clusters.	47
Figure 16: Assessor's comments on Interim Report.	60
Figure 17: Supervisor's comments on Interim Report.	61
Figure 18: Number of countries visited by users.....	73
Figure 19: Distribution of users' according to Hall's Theory of Culture.....	74
Figure 20: Age range distribution of users.....	75

Figure 21: Relationships of the database tables	76
Figure 22: Screen grab of clusters proposed by WEKA (k=10).....	79
Figure 23: Generated 4 clusters based on Uncertainty Avoidance Dimension of the countries.	80
Figure 24: Generated 4 clusters based on Masculinity Dimension of the countries.....	81
Figure 25: Generated 4 clusters based on Power Distance Dimension of the countries.	82
Figure 26: Generated 4 clusters based on Individualism Dimension of the countries.	83
Figure 27: IMASH Presentation Slides.	84
Figure 28: IMASH Presentation Slides	85

LIST OF TABLES

Table 1: Country clusters proposed by Hofstede (1980) [16].	12
Table 2: GLOBE Project Clusters [25].	14
Table 3: Information about used YouTube videos.	19
Table 4: Clusters of countries generated by using the tool WEKA (k=10).....	27
Table 5: Clusters generated using Hofstede Dimensions.	27
Table 6: Cultural Theories Database Table.	28
Table 7: Raw User Data Database Table.....	29
Table 8: Countries Visited Database Table.	29
Table 9: Countries Database Table.....	29
Table 10: User Model Database table.	30
Table 11: Content from I-CAW DB Table.....	31
Table 12: Videos DB Table.....	31
Table 13: Comments DB Table.....	31
Table 14: Tags DB Table.	32
Table 15: Interaction Focus DB Table.	32
Table 16: Country Feedback Data DB Table.	33
Table 17: Cluster Feedback Data DB Table.....	33
Table 18: Summary of the feedback forms.	49
Table 19: Feedback on helpfulness of the prompts.	50

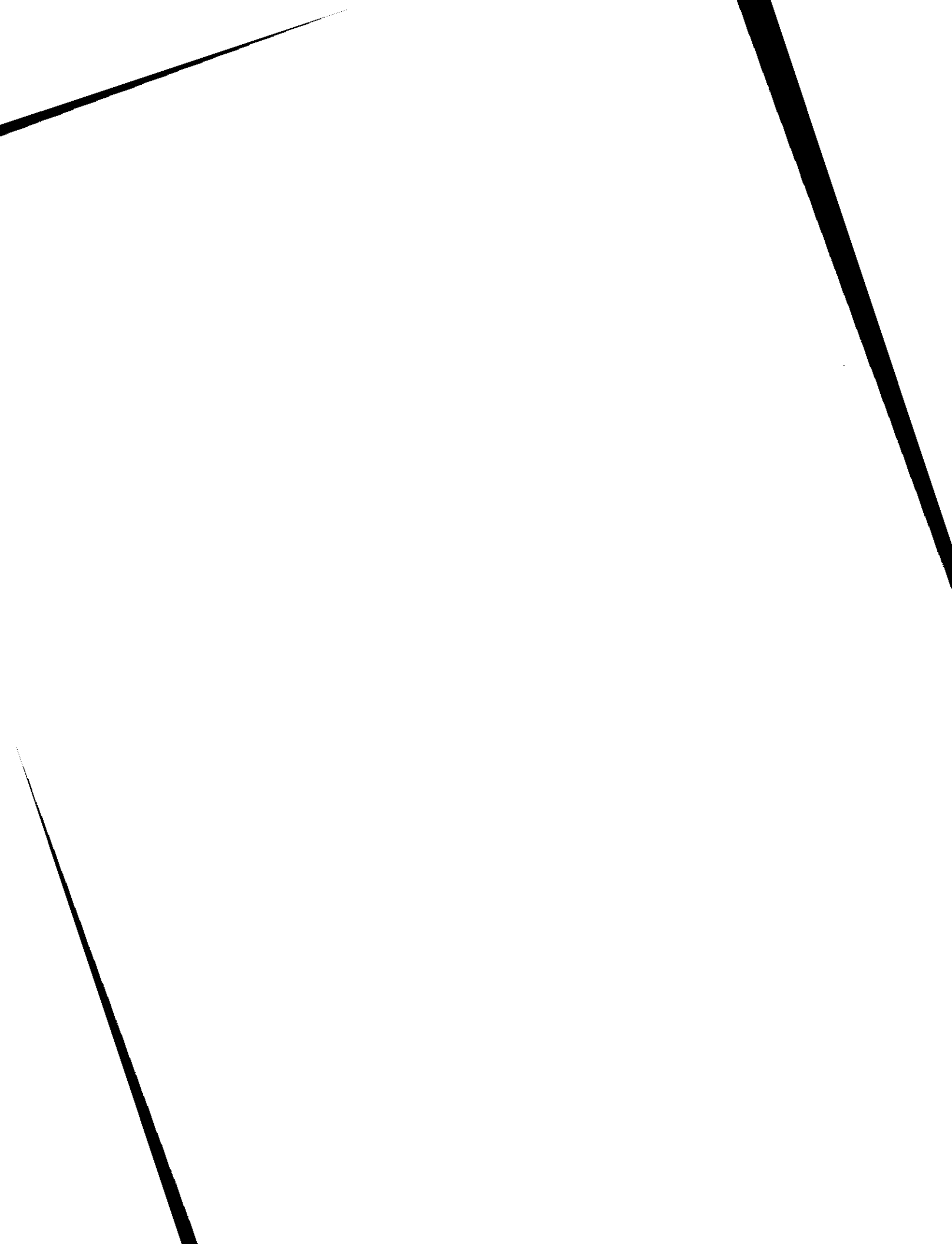


TABLE OF ABBREVIATIONS

Abbreviation	Definition
AMOn	Activity Model Ontology
DTs	Digital Traces
ERASMUS	European Region Action Scheme for the Mobility of University Students
IE	Information Extraction
ImREAL	Immersive Reflective Experience-based Adaptive Learning
I-CAW	Intelligent Content Assembly Workbench
PDI	Power Distance Index
IDV	Individualism versus Collectivism
MSI	Masculinity versus Femininity
UAI	Uncertainty avoidance index
DB	Database

Chapter 1

Extending a Semantic Data Browser with Cultural Prompts

1. Project Outline

Having a large amount of user generated content in social media brought the researchers about adapting this dynamic data source for training purposes. Correspondingly, the EU founded project Immersive Reflective Experience-based Adaptive Learning (ImREAL¹) adapted user-generated content in order to train adults on job interview activities. Therefore, as a part of ImREAL project, a semantic data browser was developed-called as Intelligent Content Assembly Workbench (I-CAW). In the twenty first century, intercultural communications became an indispensable part of modern social and economic life. In respect to that point, this project addressed the need in consideration of cultural aspects in I-CAW. Therefore, this project proposed a solution by offering a model and prototype to provide prompts aimed at raising users' awareness on the cultural aspects. To this end, the theoretical models of culture has been analysed in the first place for this project. Hereafter, the cultural aspect to be focused and the measurements of cultural exposure were selected amongst defined cultural theories. Alongside those measurements, two other measurements were suggested. At the second phase, data for prototype was collected by delivering forms to 29 participants. Design and the implementation of the cultural prompts were accomplished consequently.

1.1. The Aim of the Project

Developing a model and a prototype to provide prompts aimed at raising the users' awareness on the cultural aspects by focusing on different gestures, greetings, artefacts and personal space in different cultures.

¹ <http://www.imreal-project.eu>

1.2. Minimum Requirements and Deliverables

The predetermined minimum requirements for the project are given below:

- Recommendations for adding the cultural awareness aspect to existing semantic data browser I-CAW.
- Content collection for cultural aspects to use in the prototype.
- Development of the prototype with two variant of cultural prompts.
- Evaluate the work of the model and prototype.

Successfully completion of these requirements will accomplish the project aim.

1.3. Research Methodology

This project will propose a solution for including cultural aspects in I-CAW, yet the proposal will be limited only by implicit insertion of those aspects into I-CAW. A separate model and prototype will also be provided. Therefore, throw away prototyping method was adopted for this project. In order to select appropriate cultural aspects and models, theoretical models of culture which have been determined by the team of ImREAL Project have been scrutinised and consequently four cultural aspects and two cultural models were chosen. Additional clustering mechanisms are also proposed within this system. The two clustering mechanisms were generated by using Machine Learning tool WEKA.

The literature reviews included books, journal articles, conference proceedings, workshop proceedings, and web pages. Finally, for the content collection, a form containing seven YouTube videos were distributed to twenty nine users and their comments were collected. For ethical reasons, the users' data will be kept anonymously. The measurement of the project will include user evaluation and checking if the final project fulfils the expectations mentioned in minimum requirements section.

1.4. Schedule and Progress

(See Appendix 1 for the Gantt chart showing the milestones of the project.). The project follows the schedule below:

- Literature Review
- Identify Cultural Models to Use
- Writing interim Report
- Collecting Content to use in the Prototype
- Prototype Design and Implementation
- Evaluation
- Report write up

By the time I submit the interim report, literature review, selection of theoretical models of culture will be finished. At the same time, content collection will be started. Writing up the interim report took me longer than I predicted because I did not take notes from the literature I reviewed. In the end, I needed to read most of the literature twice. Overall, analysing the cultural models took the longest part of my report due to not being familiar with those cultural studies.



Chapter 2

2. Background Research

The literature reviewed for this project covers the following areas:

- Introducing ImREAL Project with respect to this project.
- Providing sufficient information about Intelligent Content Assembly Workbench (I-CAW)
- Discussing fundamental theoretical models of culture in terms of their adoptability in this project.

This chapter is divided into three sections following the outline of the background topics stated above, starting with an introduction to the ImREAL Project.

2.1. Immersive Reflective Experience-based Adaptive Learning (ImREAL)

The ImREAL Project aims at developing a simulated learning environment to provide a virtual platform based on “real-world” experiences, by focusing on interpersonal communication in multicultural environments that responds to users’ behaviour, and adapts accordingly to the user model [2]. The source of “real-world” practices are social spaces where the users leave traces about their experiences. Therefore, these digital traces (DTs) from social media (mostly from selected YouTube comments) can be embedded into an intelligent learning environment by developing a number of techniques [3]. For the ImREAL Project, in particular, the process of job interviews has been chosen as the main activity in order to study difficulties in interpersonal communications, taking into consideration different viewpoints of the activity and focusing on the emotions and body language signals concepts. It is particularly important to distinguish between the ImREAL vision of a virtual learning environment than the current practise of virtual learning environments. In commonly used job interview simulations, limited content is being practised due to including merely the content provided. However in real life the situation may occur in a richer environment with potentially ignored aspects such as cultural backgrounds or the interviewer’s previous experience [3]. The ImREAL intelligent services developed a middleware which connects real world job practices with simulated environment in which learners can improve their interpersonal skills and abilities in order to set learning strategies and goals, while trainers can become aware of ‘real-world’ job practice and training needs. In the

ImREAL environment, learners can also contribute by writing their exposure about job experiences or adding semantic tags to existing stories to connect to a gradually evolving real world activity model. Therefore, an effective ‘coach/mentor’ will offer positive encouragement and feedback, help learners identify alternative techniques, and encourage learners to reflect on their experiences in the simulated environment and relate this experience to real world job practices. Similarly, trainers can also add content or create semantic tags, or provide feedback to tune the environment [3].

In the ImREAL Project, body languages and emotions are considered as the main concepts. However, as our study aims at enriching the intelligent learning environment by extending it with cultural prompts, this project will also take into consideration the concept of the country, regardless of the activity. The next section will explain the intelligent data browser developed in the ImREAL Project.

2.2. Intelligent Content Assembly Workbench (I-CAW)

An Intelligent Content Assembly Workbench (I-CAW) is developed as a part of the ImREAL Project and is a semantic data browser with intelligent features that facilitate informal learning [5]. I-CAW collects and organises DTs using Ontological Underpinning and Semantic Augmentation & Querying which will be explained in this section. In addition, it provides nudges and prompts for a more personalised and directed browsing experience. The above mentioned components of I-CAW are shown in Figure 1.

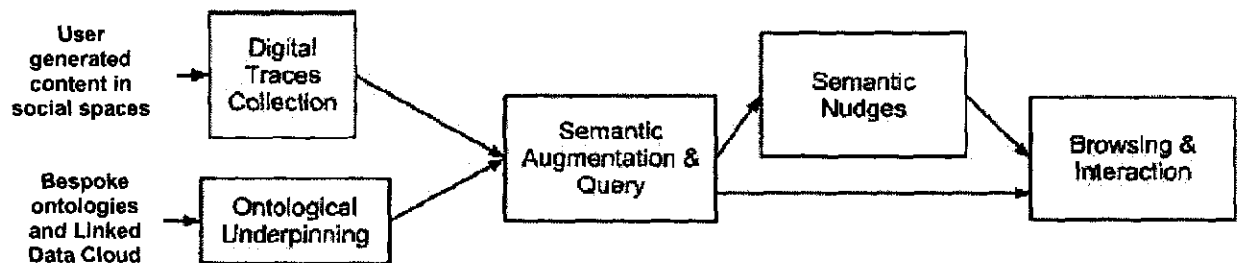


Figure 1: The main components of I-CAW [5].

The following discusses the various components of I-CAW in more detail:

Digital Traces Collection is carried out from YouTube comments and personal stories (from web blogs and stories collected from the users) by using the web APIs. Therefore, it offers a simulated learning environment based on those DTs. It also allows users to contribute with their personal experiences.

The Ontological Underpinning is indispensable for combining DTs on a particular activity, since key aspects of that activity are described using ontology [5]. Activity Model Ontology (AMOn) is used in order to collect structured or semi structured DTs on an activity, and it is applied in ImREAL [28]. I-CAW utilises AMOn, Linked Data Cloud (mainly DBPedia) and public ontologies (WordNet-Affect and Senti-WordNet). These ontologies are then used by the rest of I-CAW components [5].

Semantic Augmentation & Query: These semantic services are used to annotate content contribution, denoting its relevance to the domain among a wide range of potential learning activities, and to provide guidance to users on the search process and on the relevant context [5].

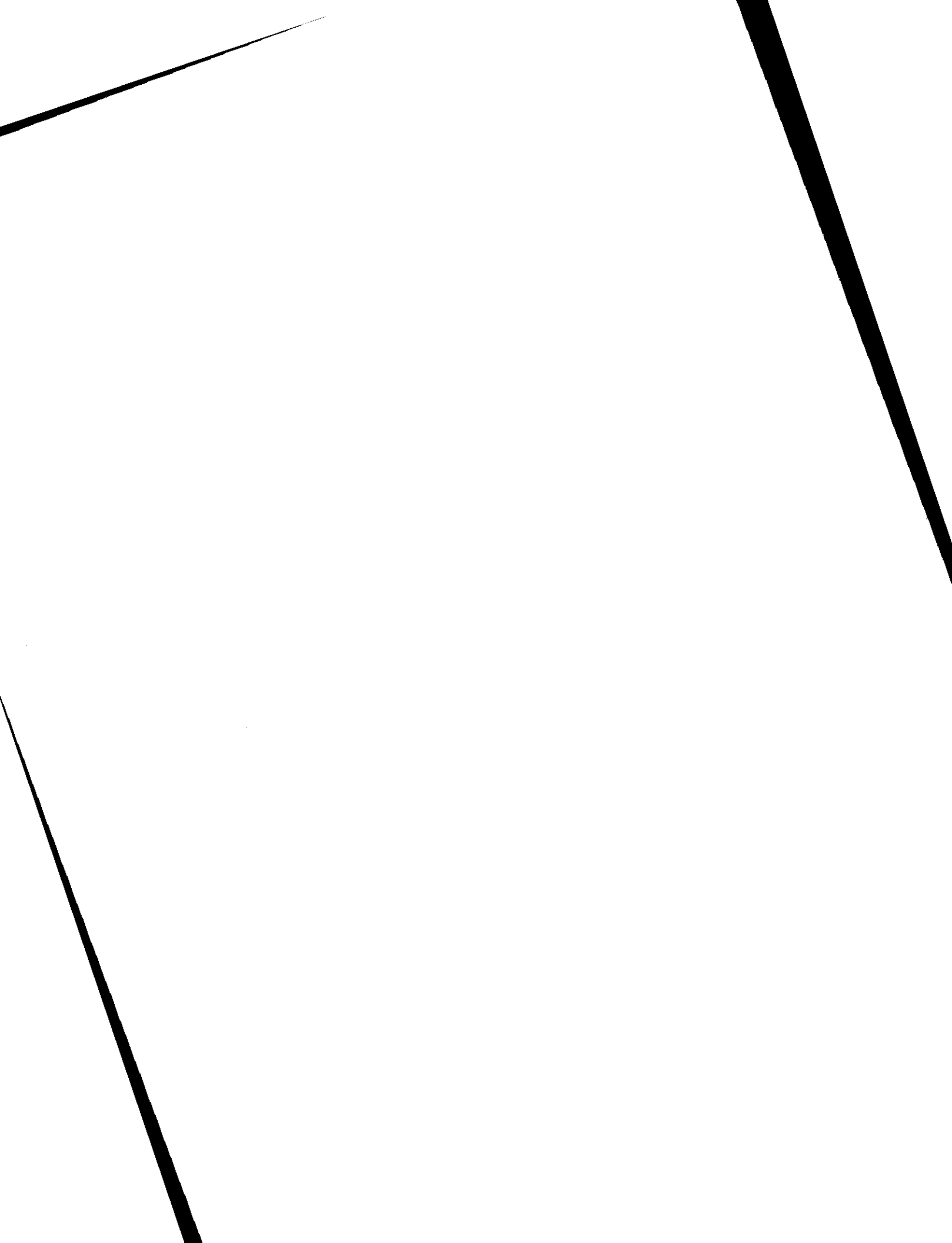
Semantic Augmentation Service are “services to link content with the concepts from the ontological knowledge bases in order to fully benefit from the reasoning capabilities of semantic technologies” [33]. By using AMOn, the content becomes suitable for semantic augmentation. The adapted service takes the text and provides the semantic augmentation of the text as an output.

Semantic Querying Service: The service allows querying and browsing of the semantically augmented content. The service takes term(s) or concept(s) and using the query processor finds related and relevant concept(s) or content(s) from the semantic repository and finally outputs the information relating to the matching concept(s) and content(s) [5].

Semantic Nudges: I-CAW uses a “novel approach - nudges –“ based on Sunstein and Thaler’s choice architecture [5, 30]. The responsibility of this choice of architecture is to organise the context in which people make decisions. Particularly, in I-CAW a nudge is used to change users’ behaviours in a controlled way and this way it allows users to get the most of the I-CAW. Namely, Signposting and Prompts are the two kinds of nudges used in I-CAW.

Signposting: A list of known facts from ontological knowledge bases are usually shown in the semantic data browsers [5]. While user is browsing, the entire list of the facts is available and the user may discover any facts given. This kind of nudges will not be adapted in our study.

Prompts: Use of prompts provide guidance to users of I-CAW by presenting non- invasive suggestions on similar and/or contradictory learning objectives [5]. An example of use of prompts will be provided with a scenario in section 2.2.1. The prompts used in this project aim at three main purposes. The first purpose is creating awareness of cultural aspects which refers to introducing unfamiliar cultures and some aspects to users. The second purpose is expanding users’ awareness of these cultural aspects. To achieve such purpose, user’s awareness on certain cultures and some of their aspects which user has low exposure will be identified and more examples of those cultures will be provided to the user [1]. And the third



purpose is reflecting on the cultural awareness of users' by focusing at the cultures that user has high level of awareness.

2.2.1. User Interaction

This section will provide a scenario in order to explain above mentioned components of I-CAW and use of those components in the browser. Tom is the user of I-CAW. He searches for the keyword "nervous" and gets some information on the keyword "nervous" and on the concept of nervousness for example, "nervousness is an emotion and it can be explained by presented body language signals such as forced laughter". The browsing can be seen in the Figure 2.

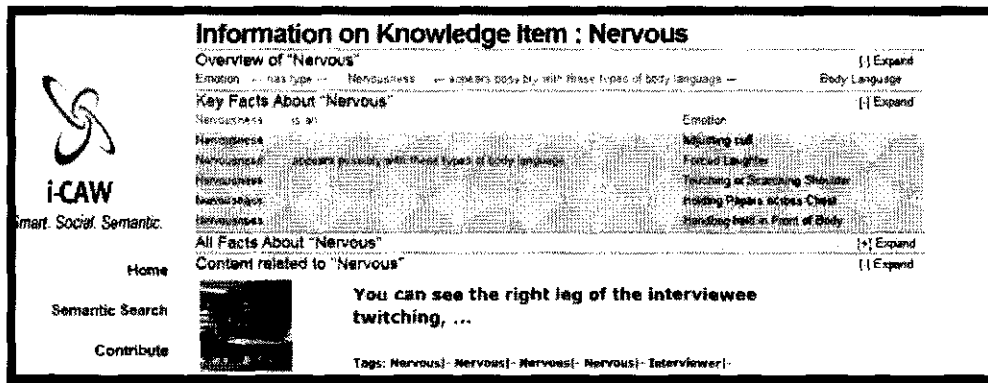


Figure 2: Keyword nervous and the concept of nervousness [6].

Furthermore, Tom also can see the content that has been tagged with the semantic concepts. He can click on any of this content to view further. Clicking on a video Tom may get a visible comment telling him that twitching of legs also indicates nervousness. A screenshot of I-CAW is provided in Figure 3 below.

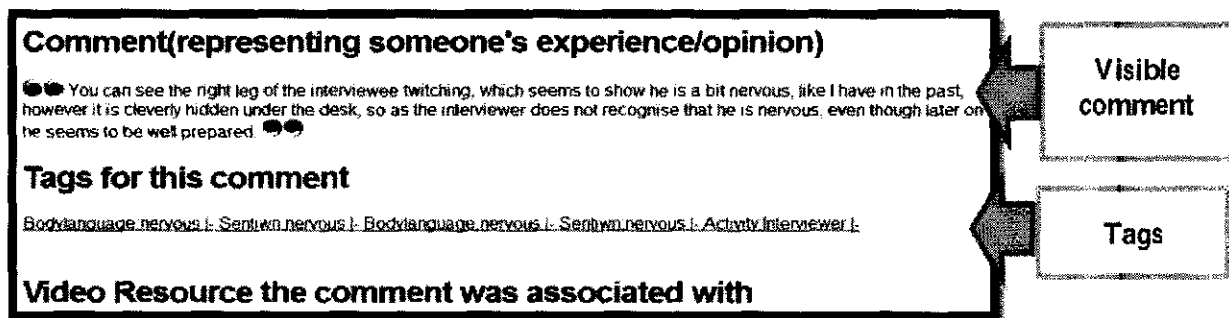


Figure 3: Tagged content and tags [6].

During his browsing process, Tom may get prompts offering him similar or contradictory knowledge items. An example prompt (in green box) is shown in Figure 4 below.

The screenshot displays the I-CAW interface with a sidebar on the left containing the logo and navigation links: Home, Semantic Search, and Contribute. The main content area is titled "Information on Knowledge Item : Aggression". It includes an "Overview of 'Aggression'" section with a table showing relationships like "Emotion -- has type -- Aggressive" and "Body Language". Below this is a "Key Facts About 'Aggression'" section with a table listing facts such as "Aggression is an Emotion" and "Aggression appears possibly with this types of body language". A "Content related to 'Aggression'" section follows, featuring two items: "The applicant is clearly most moved when discussing herself and ..." and "Pointers# don't put everything in the resume, make is short ...". A green box at the bottom right contains a prompt: "There are further examples of Contradictory emotions to 'Aggression' which will be useful for you to explore. Click on one of the following to explore further." Below the prompt is a button labeled "POSITIVE EMOTION - CALM -".

Figure 4: Contradictory Prompt in green box [6].

2.2.2.Strengths of I-CAW

As briefly mentioned in this section, I-CAW provides a unique way of learning as it is not dependent on the domain. In other words, the concept can be used for any domain in the future or basically new aspect for the current domain can be added. This feature is a strong side of I-CAW as it allows easy adoptability for any domain and aspect. For instance, this project is going to adopt features of I-CAW and add more aspects regardless of the domain. The second strength is related with adaptation of data from social media. Considering that there is a significant amount of real life data on the social media, I-CAW proposes a new solution on experience based learning. It is also possible to say that I-CAW is an innovative way of learning which provides a cheap solution for experience based learning. It also allows users to learn from different people and different experiences which can be considered as a rich way of learning [7]. The third strength is use of prompts which provides a deeper understanding of the content. This way user is guided to learn more than he/she attempted to do. Overall, I-CAW provides a unique, cost effective, guided experience based learning.

2.2.3. Weaknesses of I-CAW

This section will point out the weaknesses of I-CAW. Some of the drawbacks were pointed out by the users in their feedback forms. According to users' feedbacks, adaptation of user generated content resulted in content not always being reliable. Moreover, it was more likely to mislead the users. Likewise, some users pointed out some problems related with the provided overview. Two users found I-CAW not being intuitive and some claimed that it was not providing the right information [5]. Those drawbacks are also potential disadvantages of our system as both systems use user generated content and same semantic services.

Prompts provided by I-CAW are increasing awareness towards particular emotions and body language. However there appear to be no prompts towards the cultural aspect of the content. The information provided about emotions and body language might be adequate but in a broad viewpoint the lack in consideration of cultural aspects indicates inadequacy of the information provided for the job interviews. In the real life situations, the importance of being aware of different cultures would create a difference both for the interviewer and interviewee. This project will try to raise users' awareness on culture by using appropriate prompts at an appropriate time. In order to achieve such purpose, differently from I-CAW, our system will keep track of user's data.

2.2.4. Conclusion

In section 2.2 ImREAL Project and I-CAW are explained. The following will describe the relation of these concepts and how they are applied to this project. As mentioned before, this project was emerged from ImREAL Project and aims at expanding I-CAW with cultural prompts. Therefore, in this project existing intelligent features of I-CAW will be adopted and domain free cultural aspects, namely greetings, gestures, personal space and artefacts, will be proposed to be inserted in I-CAW. The selection of these aspects will be explained in the next section.

2.3. Theoretical Models of Culture

As mentioned in Chapter 1, this project aims at raising users' cultural awareness. We first need to define the term "culture" in terms of this study. Hofstede (1980) defines culture as "the collective programming of the human mind that distinguishes the members of one human group from those of another. Culture in this sense is a system of collectively held values." [21]. According to him, "national culture" is fundamental for distinguishing the people of one country from people of other countries [21, 27]. Another definition of culture is "the learned and shared behaviour of a community of interacting human beings" [32]. With respect to those definitions of culture, there are different

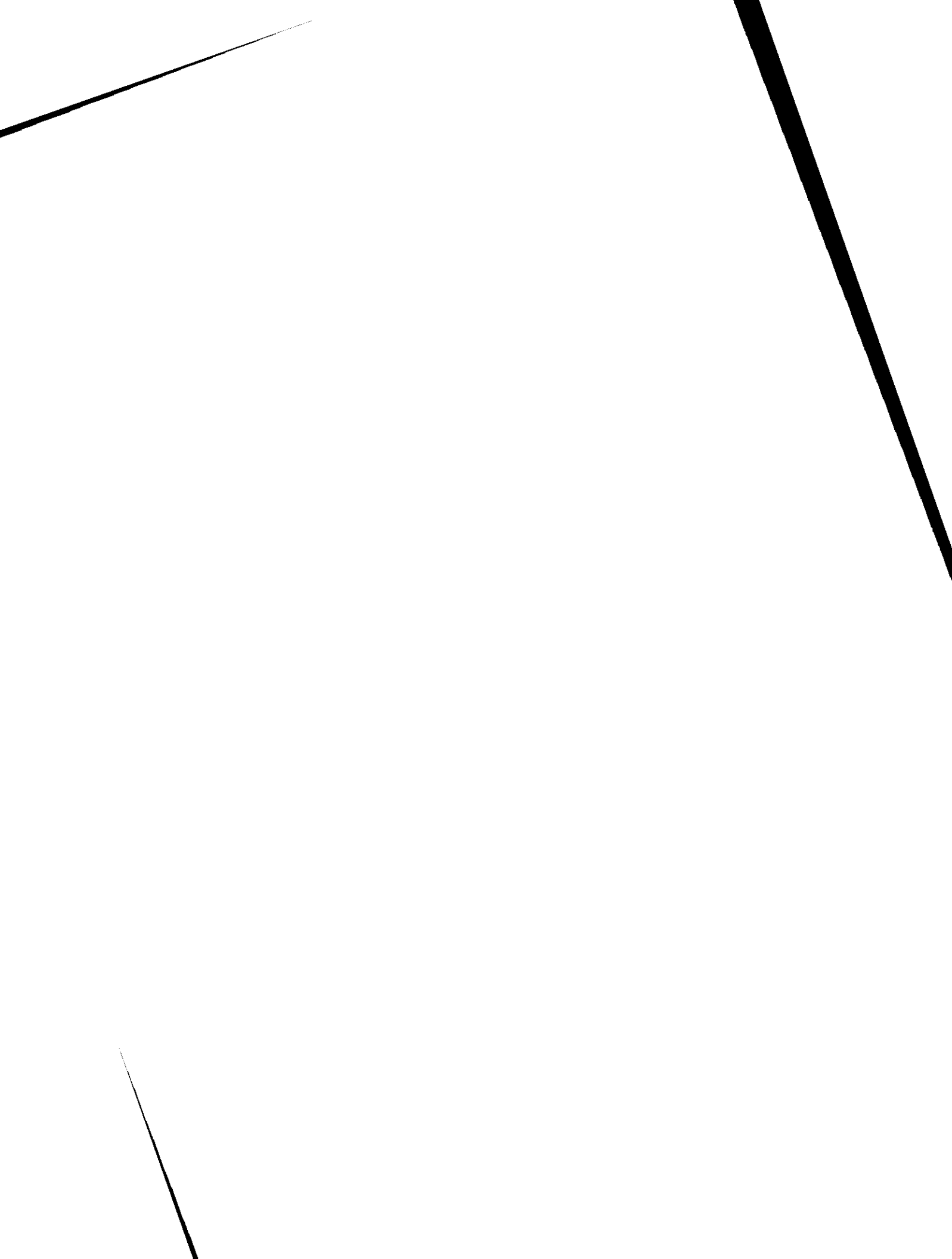
cultures existing and in a global world and being aware of other cultures may ease international relationships. Having used the term “cultural awareness”, it is also necessary to explain it. Awareness is defined as “knowledge that something exists, or understanding of a situation or subject at the present time based on information or experience” [29]. According to this definition, it is possible to say that awareness does not necessarily occur by experience. In terms of cultural awareness in this project, being aware of a culture will refer to understanding some key facts about a particular culture. Additionally, it will be assumed that cultural awareness may emerge based on experience or merely information. On the other hand cultural exposure refers to experience of certain cultures.

As it is a wide social study, it was not possible in our case to measure cultures and then use these measurements in our system. Therefore, in this study, we will use Theoretical Models of culture which provide information on different cultures and different cultural aspects. Theories that are adapted were chosen amongst well known cultural theories. Moreover, the other criterion on choosing cultural theories to adapt was having cultural analysis on country level in order to compare and contrast different countries. Cultural clusters will also be used to group, compare and contrast different countries and calculate users’ cultural exposure level in a higher level than merely country level. In this section, some Theoretical Models of culture and cultural clusters proposed by those models will be introduced.

2.3.1. Hofstede’s Model

As mentioned above, Hofstede’s approach to culture is on National level. He argues that cultures differ from each other in terms of four aspects: symbols, heroes, rituals and values [21]. According to him, symbols are “words, gestures, pictures or objects that carry a particular meaning which is only recognized by those who share the culture” [21]. Since it is a differentiating factor between cultures, gestures and symbols (artefacts) in general will be used in this project as two of the four cultural aspects. The other aspect adapted in our study is called rituals by Hofstede. He defines rituals as “are collective activities, technically superfluous in reaching desired ends, but which, within a culture, are considered as socially essential: they are therefore carried out for their own sake” [21]. In this project we will only consider the greeting part of the rituals since it is an easier to observe aspect of culture.

Hofstede conducted international research on the culture of IBM employees in over 70 different countries. His research pointed out common problems for all the countries and he collected solutions from different countries. The solutions differed from country to country. The selected problems were about social inequality, the relationship between individuals and groups, concepts of masculinity and femininity, and ways of dealing with uncertainty and ambiguity [24]. Those problems are represented



as dimensions of culture in Hofstede's model. Dimensions are numeric values that can be measured relative to other cultures. Numeric values only show the difference between cultures; otherwise those numbers on their own do not mean anything [24]. Dimensions of culture are Power Distance (PDI), Individualism vs. Collectivism (IDV), Masculinity vs. Femininity (MAS) and Uncertainty Avoidance (UAI). These dimensions will be explained below.

Power Distance Index (PDI): The first dimension, Power Distance, is defined by Hofstede as "the degree to which the less powerful members of a society accept and expect that power is distributed unequally" which is also the extent that citizens accept hierarchical inequity [23]. Societies scoring high on PDI are more likely to accept the inequity. On the contrary, societies with low PDI scores feel that there is equality amongst the society regardless of social status. Looking at the countries and their PDI scores, it is possible to say that countries such as United Kingdom and Germany score low on PDI compared to Arabic countries such as Kuwait or South American countries such as Mexico and Venezuela. This means that in Mexico, people have more formal superior-subordinate relationships than people living in the UK.

Individualism versus Collectivism (IDV): The second dimension comprises of Individualism and its opposite Collectivism. Individualism is defined as "preference for a loosely-knit social framework in which individuals are expected to take care of themselves and their immediate families only" and its opposite collectivism is defined as "a preference for a tightly-knit framework in society in which individuals can expect their relatives or members of a particular in-group to look after them in exchange for unquestioning loyalty" by Hofstede (1980) [21]. In Hofstede's list of countries, countries scoring high are more individual than countries scoring low in IDV index. Looking at IDV scores of countries, USA has the highest score on IDV which means they are highly individual in USA whereas; most of the Latin American countries score below 20 in IDV index. This means there is great contrast between Latin Americans and people from USA in terms of individualism.

Masculinity versus Femininity (MAS): According to Hofstede, masculinity dimension refers to "a preference in society for achievement, heroism, assertiveness and material reward for success" [22]. Femininity, on the other hand, is "a preference for cooperation, modesty, caring for the weak and quality of life." [22]. Societies scoring high in MAS are more masculine than those societies scoring low in their MAS index. Looking at the country list and their MAS scores, the lowest scoring countries are Scandinavian countries while, on the other hand Japan scores the highest in its MAS score. This means that Japanese culture is more masculine than Scandinavian Culture.

Uncertainty avoidance index (UAI): According to Hofstede uncertainty avoidance refers to the "degree to which the members of a society feel uncomfortable with uncertainty and ambiguity" [22]. In other words, how societies deal with uncertainty: do they try to control it or do they accept and let

everything happen [22]. Societies scoring low on this dimension tend to be more comfortable with uncertainty than those societies scoring high. Looking at UAI scores of countries, it is possible to say that people from Singapore with UAI score of “8” deal with uncertainty better than people from Greece with UAI value of “112”.

Hofstede expanded the coverage of his research both in terms of number of countries and number of dimensions. However, recently added two dimensions (long-term orientation and indulgence versus restraint) have yet to be applied to all countries. This project only considers the countries and dimensions which are covered in his main study. Despite being one of the most famous studies on national culture [26], Hofstede’s Model has been highly criticised for considering the entire nation as the same. In other words, his research is on national level. GLOBE Project theory of culture is less criticised than Hofstede’s in terms of not having stereotypes.

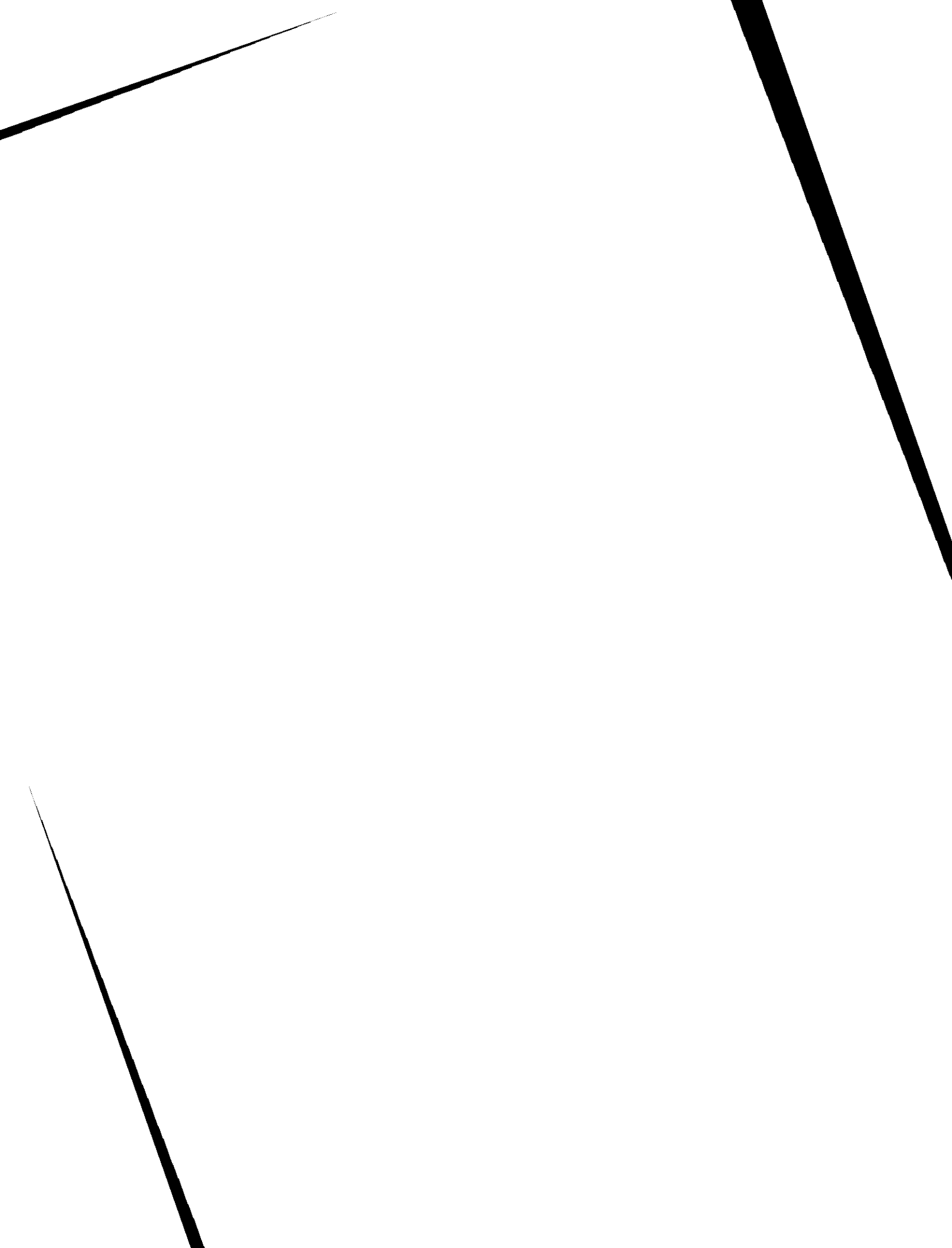
Clusters proposed by Hofstede: Hofstede (1980) proposed eight clusters of countries which are shown in the table below [21].

Table 1: Country clusters proposed by Hofstede (1980) [16].

Cluster Name	Countries
More Developed Latin	Belgium, France, Argentina, Brazil, Spain, Italy
Less Developed Latin	Colombia, Mexico, Venezuela, Chile, Peru, Portugal
More Developed Asian	Japan
Less Developed Asian	Pakistan, Taiwan, Thailand, Hong Kong, India, Philippines, Singapore
Near Eastern	Greece, Iran, Turkey, Yugoslavia
Germanic	Austria, Israel, Germany, Switzerland
Anglo	Australia, Canada, Britain, Ireland, New Zealand, USA, South Africa
Nordic	Denmark, Finland, Netherlands, Norway, Sweden

There are some issues to discuss regarding Hofstede’s clustering mechanism. It is noticeable even at first glance, that the clustering is not up to date. For example, there were countries at that time, such as Yugoslavia, which no longer exists [17]. Another issue to consider is the poor coverage of countries. This clustering only covers 39 countries. Moreover, there are no examples of any African or Arabic countries in any of those clusters (apart from South Africa).

Looking at the literature about Hofstede clustering, most of the literature is from the 1980s and is not highly cited. It is fair to say that Hofstede clustering is not widely used these days. Even though;



Hofstede still does cultural studies, there is no evidence to prove that he had any attempt to update his clustering method. Due to the above mentioned issues, in this project, the Hofstede clustering method will not be adopted. Instead, other clusters generated on Hofstede's Theory will be adopted in the project. These clusters will be further explained in section 4.2.1.

2.3.2.GLOBE Project

GLOBE (Global Leadership and Organizational Behavior Effectiveness) is the name of a research program focusing on culture and leadership in 61 nations [19]. GLOBE Researchers came up with nine cultural dimensions in order to observe cultural similarities and differences [20]. Those dimensions are based on other dimensions suggested by researchers such as Hofstede (1980), Schwartz (1994) and Inglehart (1997). These dimensions are namely; performance orientation, future orientation, assertiveness, power distance, humane orientation, institutional collectivism, in-group collectivism, uncertainty avoidance and gender egalitarianism [19]. These dimensions will briefly be explained in the following:

Performance Orientation dimension refers to a degree to which a society encourages and rewards group members for improvement of performance and excellence [20].

Future orientation dimension is related to how much societies encourage individuals to engage with future related activities such as planning and investing in the future [31].

Assertiveness dimension is to extent to which individuals are confrontational, assertive, tough and aggressive [20].

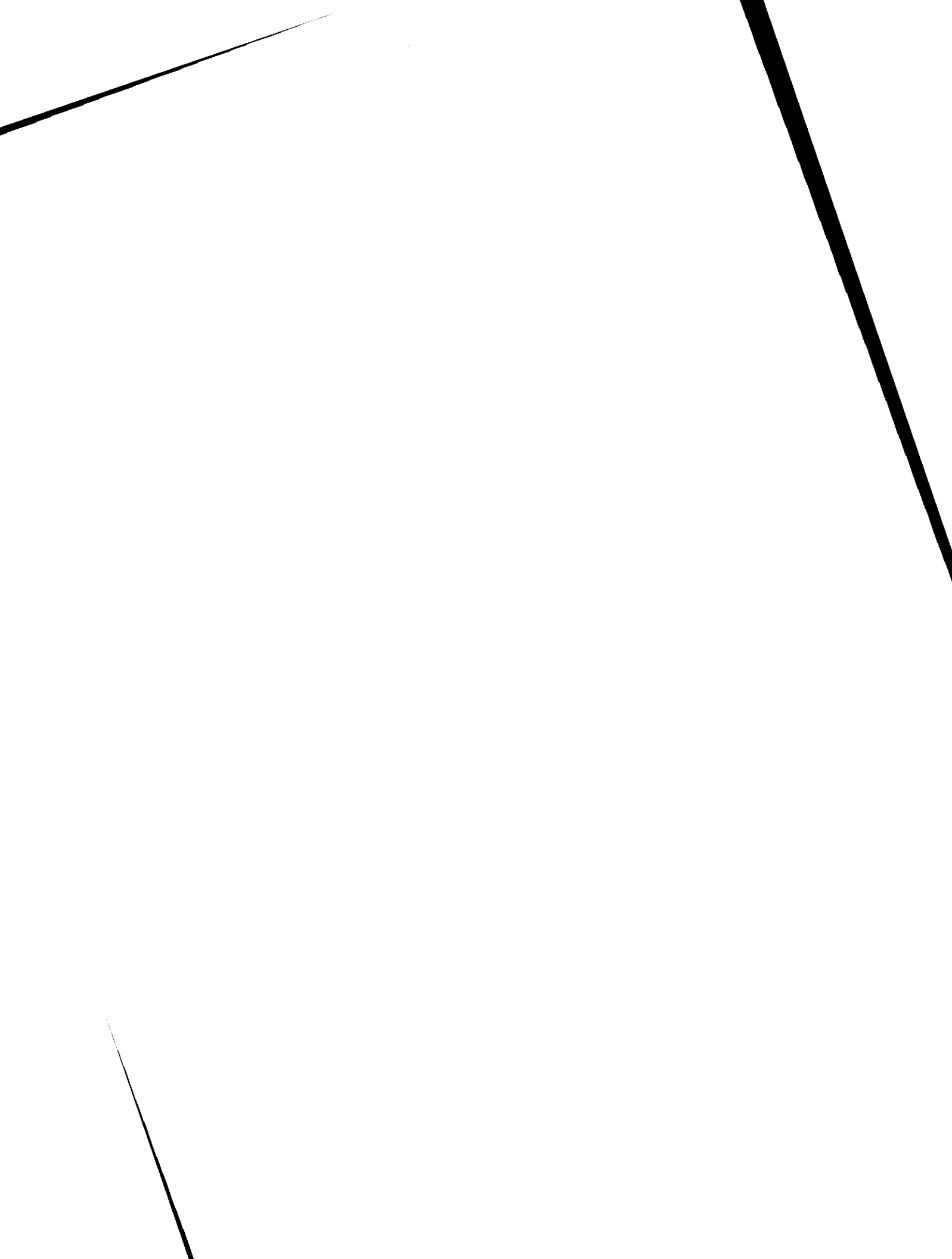
Power Distance dimension is very similar to Hofstede's Power Distance dimension. It is defined as the degree to which society expects power to be distributed equally by Hoppe (2007) [20].

Humane Orientation dimension is the degree; to which society encourages members for being fair, altruistic, generous, caring and kind to other members [19].

Institutional Collectivism is the degree that institutions support individuals "to be integrated into broader entities with harmony and cooperation as paramount principles at the expense of autonomy and individual freedom." [19]. It is also similar to Hofstede's Individualism dimension.

In-group Collectivism dimension is related to, how much pride, loyalty and cohesiveness individuals express to their families and in their organisations [31].

Uncertainty Avoidance dimension is closely related with Hofstede's Uncertainty Avoidance dimension. It is how much societies expect orderliness, consistency, and structure [19].



Gender egalitarianism dimension is the extent to which people support gender equality [19] and it is similar to Hofstede's Masculinity dimension.

Even though; they had similar dimensions with Hofstede, GLOBE researchers used seven step rating scale dimension, unlike the numeric scaling that Hofstede used in his model [13]. For example, in the GLOBE Model, rating 7 at assertiveness dimension refers to high level of assertiveness and, rating 1 refers to low level of assertiveness. Unlike Hofstede's study, this research is more on society level than national level. Instead of addressing every country as a whole, for some countries they address to sub-cultures as well. For example, in GLOBE Research, the country of Switzerland was addressed into two categories: Switzerland French speaking and Switzerland (English speaking). It is possible to say that, considering sub-cultures provides a better coverage to study as countries are not treated the same. Likewise, Alwood (1985) mentions that language is an important factor that affects cultures [8].

Clusters proposed by GLOBE Project: As an output of GLOBE Research, "societal cultures" were created. They covered 62 instances (countries and sub-cultures) and came up with 10 clusters (Table 2).

Table 2: GLOBE Project Clusters [25].

Cluster Name	Countries
Anglo	England, Australia, South Africa (White Sample), Canada, New Zealand, Ireland, USA
Latin Europe	Israel, Italy, Portugal, Spain, France, Switzerland (French Speaking)
Nordic Europe	Finland, Sweden, Denmark
Germanic Europe	Austria, Switzerland, The Netherlands, Germany
Eastern Europe	Hungary, Russia, Kazakhstan, Albania, Poland, Greece, Slovenia, Georgia
Latin America	Costa Rica, Venezuela, Ecuador, Mexico, El Salvador, Colombia, Guatemala, Bolivia, Brazil, Argentina
Sub-Saharan Africa	Namibia, Zambia, Zimbabwe, South Africa (Black Sample), Nigeria
Middle East	Qatar, Morocco, Turkey, Egypt, Kuwait
Southern Asia	India, Indonesia, Philippines, Malaysia, Thailand, Iran
Confucian Asia	Taiwan, Singapore, Hong Kong, South Korea, China, Japan

Looking at the 9 dimension values of each cluster, there are some clear distinctions between clusters [25]. For example, the Latin European cluster has a low performance orientation, institutional collectivism, and humane orientation. In addition, Latin America is characterized by its high power distance, and low performance orientation, uncertainty avoidance, future orientation, and institutional collectivism [25]. Hence, GLOBE Project clusters are on country level and they have a good coverage of countries. Clusters proposed by GLOBE Project clusters are going to be adopted in this study.

2.3.3.Hall's Model

Hall focused on cross-cultural differences in communication and developed a cultural typology, in which there are three core components namely: context, time, and space [9]. In the following section, these components will be further explained.

Context: Hall presented the terms `high context culture` and `low context culture`. High context culture refers to cultures in which members are bonded to each other for a long time period. On the other hand, low context culture refers to more rule oriented, short time communications. According to his model, American culture is considered as a sample of a low-context culture, whereas Turkish culture is considered as a high context culture [10]. This aspect can also be used for clustering countries and is applicable to this project since it already has assigned cultures into two categories: low context and high context cultures. Adopting Hall's clusters would provide a better coverage for cultures by reason of clustering based on two dimensions. However, as Hall does clusters the cultures on country level, it is not possible to use this model with the other two models based on countries. Therefore, Hall's model will not be applied to our prototype.

Time: Hall also propounded two cultural dimensions in terms of time, namely, monochronic and polychronic time. Monochronic time refers to doing something at a time which means being programmed and punctual. On the other hand, polychronic people are more flexible on timing. It is possible to say that monochronic people are more likely to be low context and polychronic to be higher context [10].

Space: Space is an important cultural aspect. A person's external boundaries are used as space in Hall's study [9]. For some cultures, a person's territory reflects personal belongings as well as power. In a culture that is highly territorial, people become protective of many spatial aspects of their lives and become uncomfortable if others violate their space. As it is an important part of a culture, the space aspect of Hall's Model will be adopted in our project and it will be referred to "personal space" for the rest of the project.

2.3.4. Clusters Proposed by Ronen and Shenkar

An alternative clustering method is suggested by Ronen and Shenkar (1985) [16]. They had a synthesis of nine studies including Hofstede's clustering (1980). Amongst those 9 studies, some of the studies are updated versions of the same study; while others are suggested by the same researchers in cooperation with different researchers. The synthesis proposed by Ronen and Shenkar (1985) is shown in Figure 5 below [16].

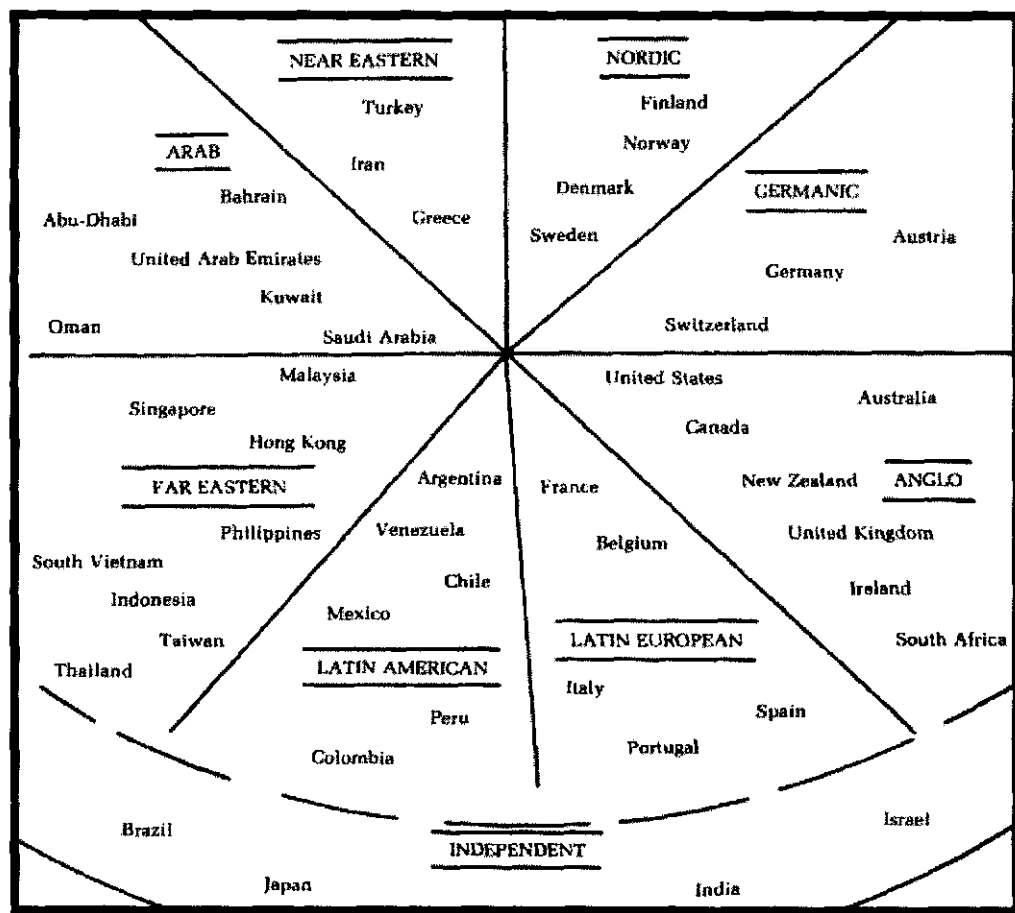


Figure 5: A synthesis of country clusters proposed by Ronen and Shenkar (1985) [16].

Ronen and Shenkar (1985) made a synthesis of totally different and independent studies [16]. This brings about the question of how accurate a synthesis of different theories on different aspects of culture would be. Another point to raise is the latest study amongst those nine studies is Hofstede's study which was conducted in 1980. Even though, the synthesis has a very good coverage of countries, it is again possible to mention its datedness. Because of the above mentioned reasons, this clustering will not be adopted for this study.

2.3.5.Implications for This Project

In this section, Theoretical Models of Culture are introduced. As mentioned in the chapter, amongst these models, only Hofstede's Model and GLOBE Project's Model will be adopted in this project. There are some advantages of using more than more models. By using more than one models, we increased the number of countries covered. More precisely, GLOBE Model includes 59 countries whereas Hofstede Model covers 58 countries. Considering the overlaps, we covered 76 countries by adapting both models. Expanding the number of countries covered was the first advantage of using more than one model. Second benefit to mention is improving the quality. Downsides of both models were mentioned in the chapter. Adaptation of both helps us overcome those disadvantages.

These models will be used to determine users' cultural exposure level. Obtaining each user's country of origin, country of residence and countries visited, these input will be analysed according to these countries and clusters of countries provided by these models. Moreover, the explanations given for these countries and clusters will also be used to increase users' cultural awareness. Finally, by looking at each user's cultural exposure level, appropriate prompts will be generated and presented to the user.

Chapter 3

3. Content Collection

As mentioned in Chapter 2, digital traces were collected in order to use in I-CAW. This Chapter will explain the collection of DTs for this project. In this project, the term “*content collection*” refers to the collection of DTs about real world experiences on intercultural communications.

This project aims to raise the user’s awareness on specific cultural aspects by using other people’s experiences in order to point to cultural variations; corresponding DTs with such variations are needed. Therefore, collecting such DTs about intercultural communications is crucial for this project. In this project, we considered the same means of content collection as ImREAL, namely, YouTube comments and personal stories. In addition, we also considered using personal web blogs as a source of DTs. Having the sources of content collection chosen, we started collecting content on intercultural communications from these three sources. Browsing through several web blogs, we choose three in which there is a rich content about culture. In addition, we also selected several YouTube videos which will further be explained in the next section. After a supervision meeting, we decided to use merely YouTube comments. There were two main reasons why we decided to use YouTube. Firstly, using the content from web blogs; we would need approval of the writers to use their data. Not to have ethical crashes we decided to eliminate use of web blogs. Secondly, YouTube had already been used in I-CAW before and this would make semantic augmentation easy to implement. The next section will further explain the process of selecting appropriate YouTube videos to use.

3.1. Selecting YouTube Videos

Selecting target YouTube videos was a challenging part of this project as, there is a great number of culture related videos on YouTube. We split the entire selection process into three steps (see Figure 9). The first step was selection of keywords to search for. This started with videos related to “*intercultural communications*”, “*cultural differences*”, “*cultural gaffes*”, “*gestures culture*”, “*greetings culture*”, “*personal space culture*” and “*culture shock*”. In total, over 100 videos were watched on YouTube. This provides us a general viewpoint to YouTube videos related to culture.

The second step was filtering the retrieved videos. While watching the videos I decided to choose those related to gestures, greetings, personal space and artefacts aspects of culture. The selection of

the four aspects was mentioned in the section 2.3 (Theoretical Models of Culture). Eventually, taking into consideration of cultural aspects, I narrowed down the videos to the target set videos (18 videos).

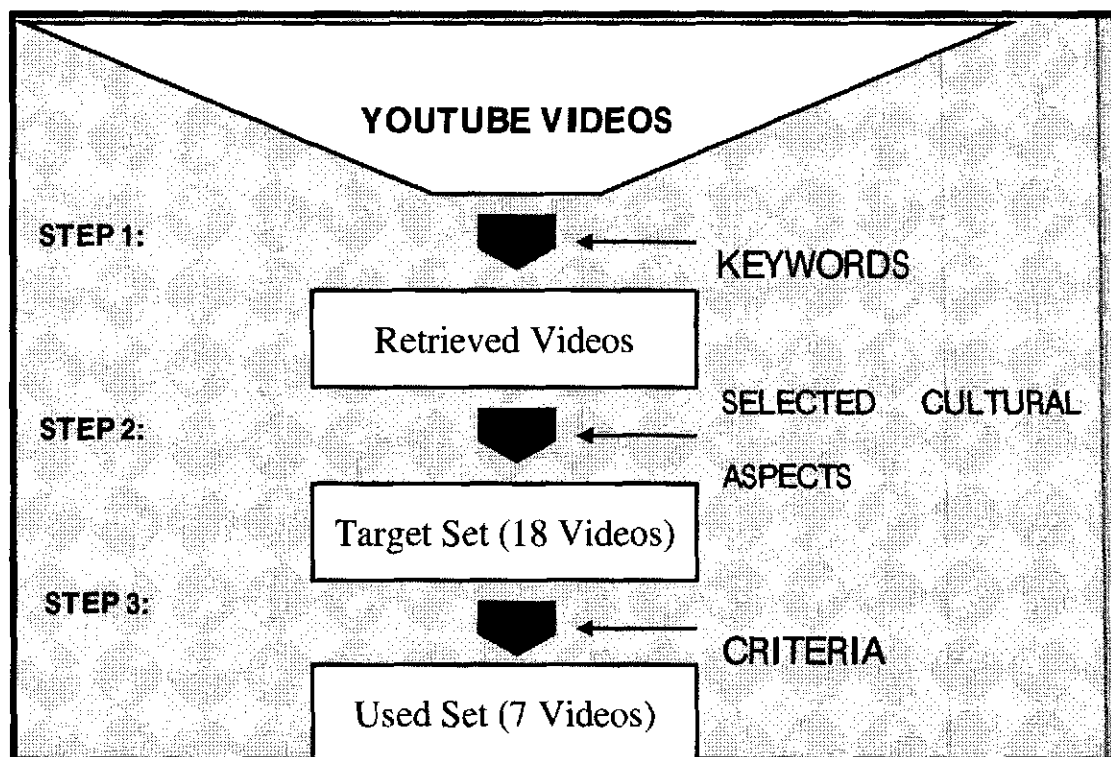


Figure 6: YouTube video selection process.

The third and final step of selecting videos was completed with the help of my secondary supervisor. We watched all of the 18 target set videos and decided the ones to use. The following criteria were used to select videos: easy to understand, provocative (so that the users can comment on them) and containing as many cultures as possible. After the meeting I narrowed down the target set to seven videos for use in the study (See Table 3 and see Appendix 7 for the entire table).

Table 3: Information about used YouTube videos.

Video Number	Related Cultural Aspect	Information About Video	Reasons To Be Chosen	
Video 1	Gestures	Several examples of different gestures from different countries	Includes a lot of cultures, a gives a clear understanding of the meaning of gestures.	
Video 2	Gestures	Several examples of different gestures from different countries	Includes a lot of other cultures and an entertaining video.	
Video 3	Greetings	Role playing example between South Korean and American cultures.	An entertaining video also the message in it is very clear.	
Video 4	Greetings	Includes several examples of greetings and	Has a very rich content about	

		two different kinds of role playing.	greetings in different cultures.
Video 5	Artefacts	Difference between German and French people in terms of taking care of their cars and other possessions.	An entertaining video also the message in it is very clear.
Video 6	Artefacts	Gives the message: different flowers may have different meanings in different countries and this may lead to misunderstandings.	An entertaining video also the message in it is very clear.
Video 7	Personal Space	A role playing example between Italian and Swedish cultures in terms of personal space.	There is a bit of exaggeration in the video and it triggers users to talk about it. Also it is very entertaining.

3.2. Collecting Digital Traces with User Comments

In the previous chapter about I-CAW, the need for DTs was explained. However, the existing DTs were not adequate because they did not particularly contain information about intercultural communication nor did they contain information about the users². In order to acquire data on intercultural communications, we needed specific information (nationality, age range, countries visited and country of residence) about people commenting on the videos trigger them to comment on the aspects we wanted them to talk about. For this reason, in this study we collected comments from users in a specific way.

3.2.1. Pilot

In order to test and improve the form we piloted the form on two users. The forms were sent and received back via e-mail. Both users did not have any problems with the format of the form. According to pilot users, completing the form took approximately 20 minutes. After analysing the two pilot forms, we came up with three concerns:

Concern 1: According to User 1's answers, videos about Artefact could not trigger the user to talk about the artefacts. Instead user mostly talked about the videos and the particular artefacts. On the other hand, User 2 gave answers according to the triggering sentence.

² Users of I-CAW and people commenting on YouTube videos.

Change 1: After noticing this, we had two changes. The first change was slightly changing the triggering sentence and secondly, we included two additional examples on cultural artefacts in the form.

Concern 2: The second concern was put forward by User 2. In the feedback, the user indicated that Video 5 and Video 6 were so similar in their messages that there was no need to write separate comments on them.

Change 2: According to User 2's experience, we decided to collect only one comment after watching Video 5 and Video 6. We redesigned the form and the section "Artefacts" had only one place to comment on both videos.

Concern 3: Users did not share any personal experience related to the content in the videos they watched.

Change 3: We decided to add a triggering sentence which would remind them that they could share their personal experiences.

In conducting the pilot and modifying it according to emerging concerns, the pilot was successfully completed. Only one missing issue arose after the completion of pilot. When we actually delivered the forms to users, some users were not able to see the videos in the form due to not having Microsoft Office Word 2007 or newer. This problem was solved quickly by creating a Microsoft Office Word 2003 version of the form.

3.2.2. Study Set Up

Goal of study set up: The study was conducted in order to collect real world experiences of people from different cultures.

Users: Users of this study were selected according to some criteria. The main criterion was speaking English. However, that was not the only criterion for the selection of users. The second criterion was choosing people from different countries and different cultures. The third and final criterion was being exposed to least one other culture by visiting the country of that culture.

Materials and Procedure:

In order to collect people's comments on selected YouTube videos, we decided to create a Microsoft Office Word document containing seven YouTube videos. In order to crop the videos in a meaningful way, we first downloaded the seven videos from YouTube using an open source video downloading programme. Secondly, we cropped the unnecessary parts of the videos using the Windows Movie

Maker programme and then added directing sentences at the end of each video using the same programme. Thirdly, we uploaded the edited versions of the videos back to YouTube. Finally, videos were ready to be embedded into the form.

The form consists of two sections. Section 1 includes the information about user (Nationality, Age range, Country of Residence and Countries Visited) and Section 2 contains the seven embedded YouTube videos (See Appendix 2 for the form) and subsections for user comments.

The form was delivered and received back via e-mail. The collection of the completed forms took approximately ten days and we received 29 forms back. While analysing the completed forms, we discovered some issues. The first issue to mention is that most of the users were between the ages of 22 and 28. Having users in a limited age group may lead to less accurate results in the future. Secondly, as expected, there was no standard way of commenting among users. For example, instead of naming the countries, User 19 numbered the gestures he/ she saw in the video and commented like "similar: 1,2, 5, 6, 8, 11, 12". Thirdly, instead of writing the name of the culture, most of the users just wrote "in my culture" which may cause a problem identifying the cultures. Apart from the abovementioned concerns, we collected enough information on intercultural communications to finally develop a prototype.

3.2.3. Analysis of the Forms

This section will provide overall information about the forms received. As mentioned in the previous section, we collected 29 forms from 29 users from 23 different countries. The distribution of the users' country of origin is shown in Figure 7.

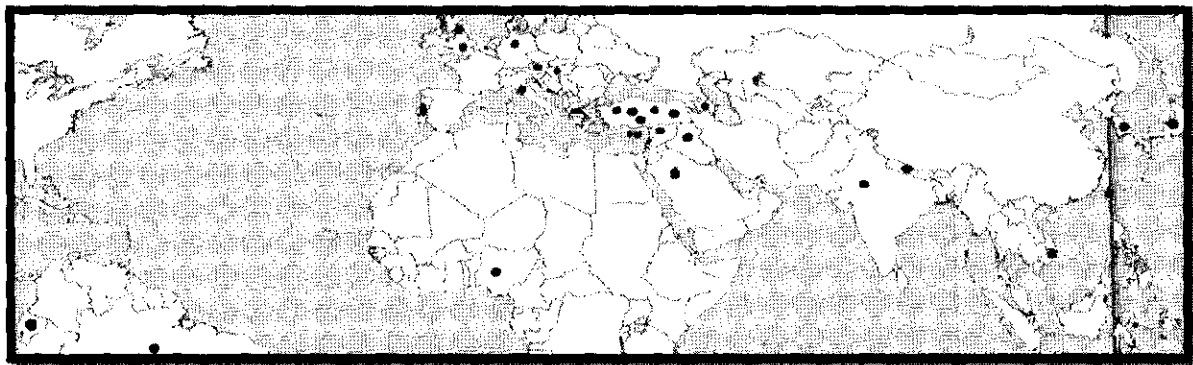


Figure 7: Distribution of 29 users. Each user's country of origin is indicated with a red dot.

In addition, Figure 8 represents the number of countries visited by each user:

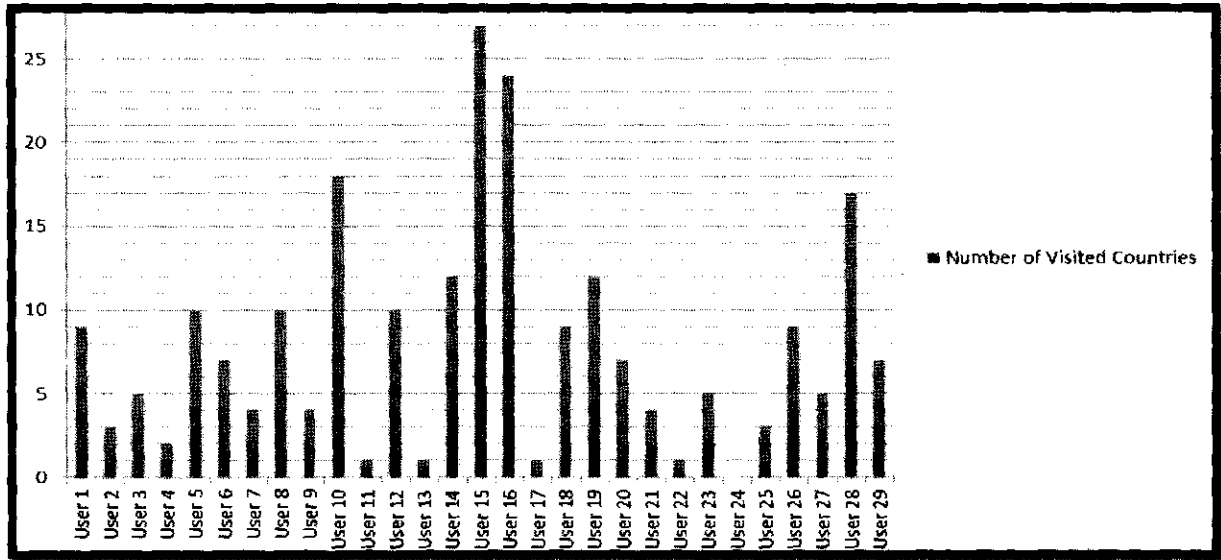


Figure 8: Number of countries visited by each user.

Among the users only five have visited less than three countries and 16 of them have visited more than five countries. We further analysed the counties visited in terms of the cultural similarities and differences between visited countries and country of origins of users. Two users have only been to similar countries whereas all the remaining 27 users have been exposed to at least one different culture in terms of Hall's Theory. In addition, only three users have been almost all over the world which provides us a rich content. For further analysis of the forms see Appendix 3, 4 and 5.

In terms of the content collected approximately 170 comments and 70 experiences were collected related to four cultural aspects chosen for the project. Amongst these, were several noisy contents and which were ignored in this project.

In this chapter, content collection for the system is explained. In the following chapter, design and implementation of the prompts will be explained and the collected content will be adapted to the system.

Chapter 4

4. Design and Implementation of Prompts

As explained in Chapter 2, prompts used in I-CAW are used in order to change users' behaviours in a controlled way so that users could get the most of the system while browsing. Collecting adequate content of the users in previous chapter, this chapter will present the design and implementation of the prompts. To serve the purpose, prompt architecture and main components of design will be explained one by one. Thereafter, information of the components will be clarified. In the implementation phase, tools that are used will be explained and codes generated for implementation will be demonstrated.

4.1. Architecture

The proposed prompt mechanism has 2 main programming components which are namely, User Model Generator and Prompt Generator. Both of programming components use some Database (DB) tables as can be seen in Figure 9. A brief description of each component in the architecture is given below:

a) User Model Generator: User Model Generator uses data from three DB tables and using data from those tables, it calculates users' cultural exposure levels and saves the output into another DB table.

- **Cultural Clusters DB Table:** This table contains cultural clusters mentioned in Chapter 2.
- **User Input:** It represents 3 DB tables which contain information about users.
- **User Model DB Table:** This table contains analyses of user input according to cultural theories.

b) Prompt Generator: This programming component uses data from three DB tables and using data from those tables it generates appropriate prompts.

- **Content from I-CAW DB Table:** This table stores all the comments, URLs of the videos and tags.

- **Interaction Focus DB Table:** This table stores data on visible comment.
- **Content for Feedback DB Tables:** This table stores additional information on GLOBE and Hofstede to provide explanation for some of the prompts.

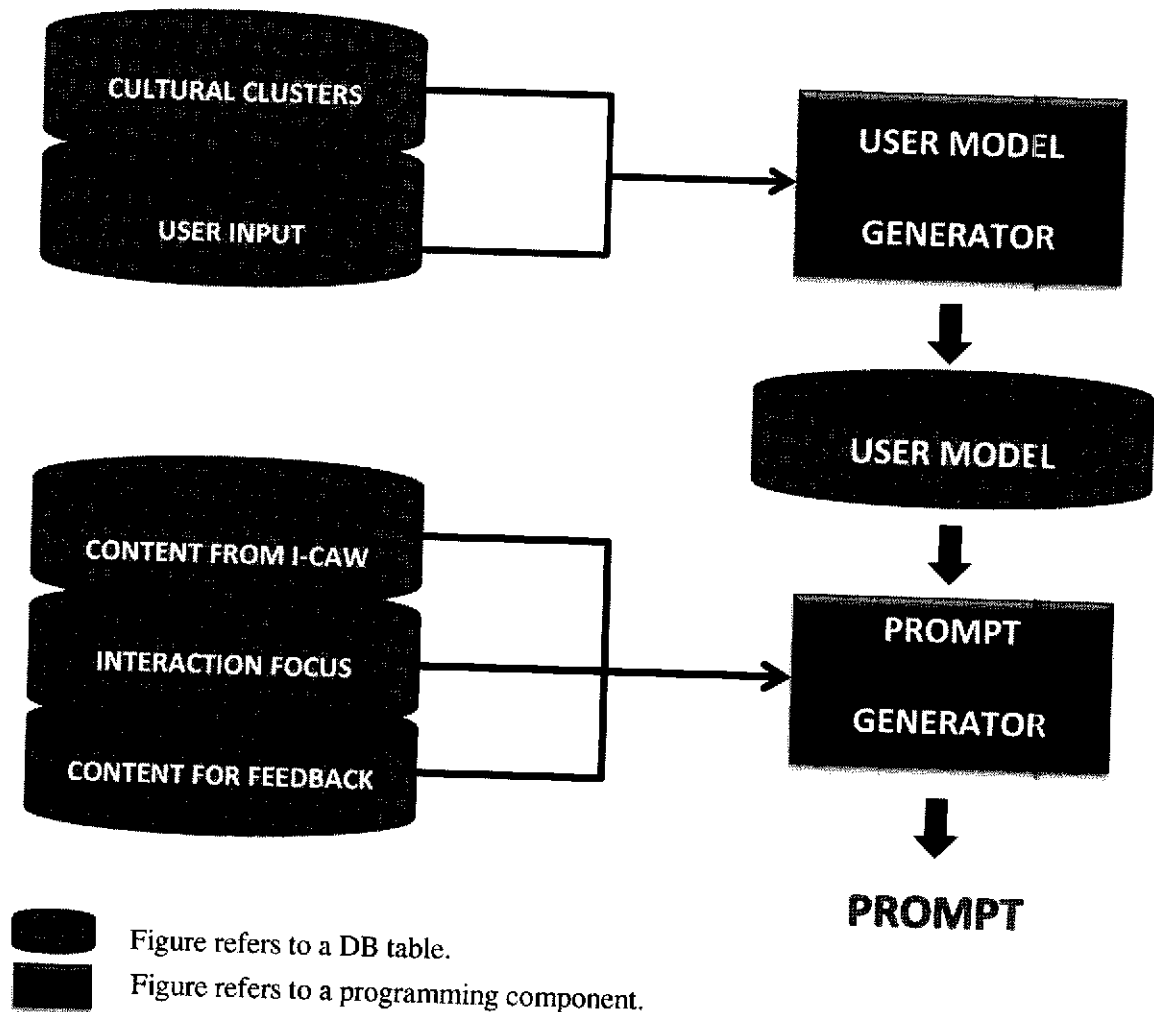
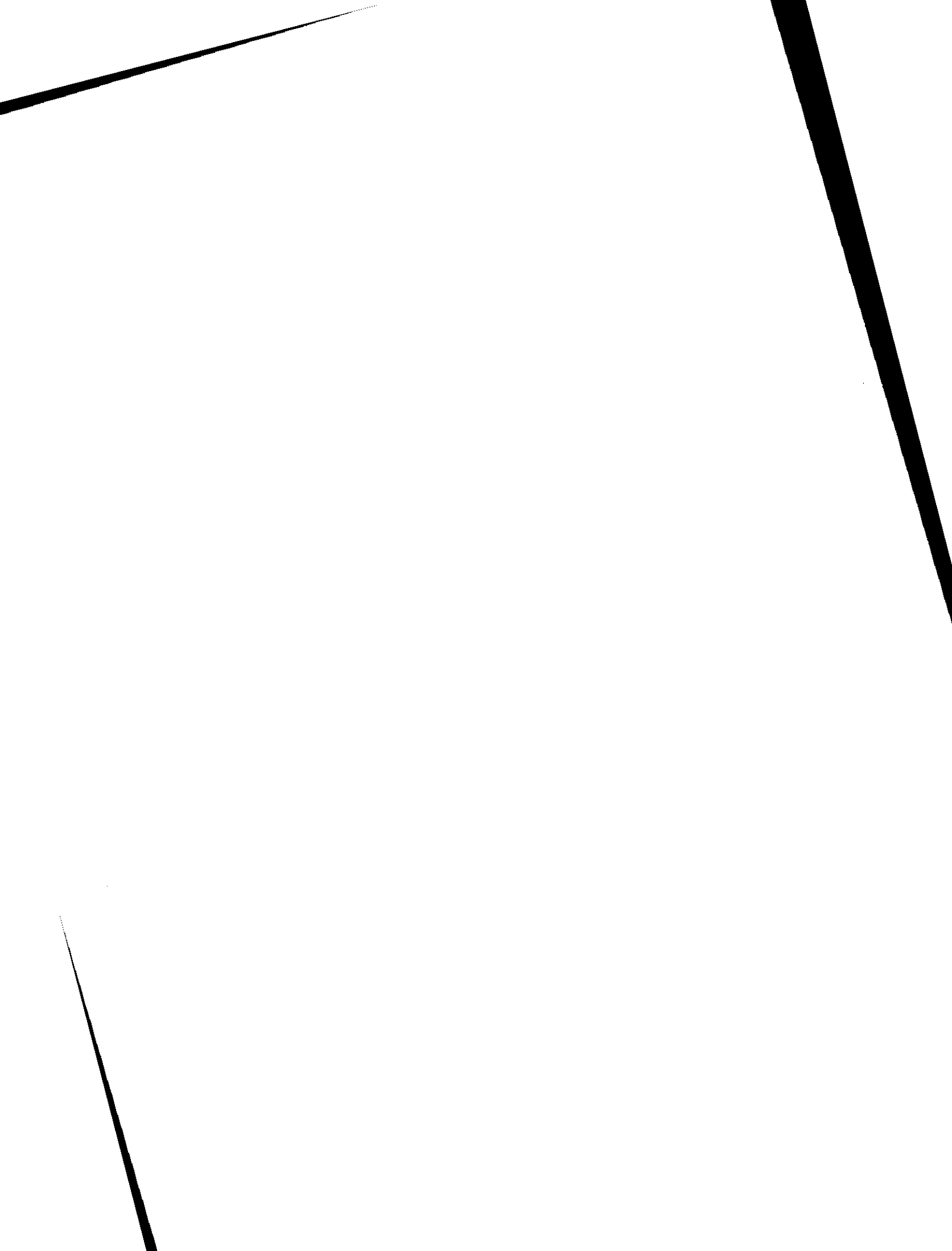


Figure 9: Prompt Architecture

4.2. User Model Generator

User Model Generator is the first programming component of the architecture. This section will explain the process of the generating User Model. Inputs of the generator will first be explained and later on, DB schema of the tables used will be provided. Lastly, the output of the generator will be explained.



4.2.1. Country information and Cultural Clusters:

This section represents the inputs of the User Model Generator which are namely Cultural Clusters and User Input. As mentioned in Chapter 2, in this study two different clustering mechanisms were generated according to Hofstede's Theory of Culture. Firstly, those clustering mechanisms will be introduced and secondly, input DB tables will be explained.

An alternative to Hofstede clustering (1980) or synthesis of the clusters created by Ronen and Shenkar (1985), we generated our own clusters using Hofstede's country list. As mentioned earlier, Hofstede has given numerical values for four dimensions for each country. Every country has a numeric value for power distance, individualism, masculinity and uncertainty avoidance dimensions. In this project those countries and their numerical values were used as instances to create two different clustering mechanisms. For both mechanisms, the tool WEKA is used in order to generate clusters.

In the first mechanism Hofstede Countries and scores of four dimensions for each country are used as input. To find the optimum number of clusters, firstly we used X-means clustering which gives an efficient estimation of the number of clusters. In our case, it was not efficient because our criteria was having culturally similar countries in the same clusters rather than having the optimum number of clusters. For example, we aimed to get all Arabic countries which have the same numerical values in one cluster and Scandinavian countries together in another cluster and other similar countries in different clusters. And the clustering suggested by X-means did not provide the expected clusters. So secondly, we tried to cluster those countries by using simple k-means algorithm which clusters the dataset into defined k number of clusters. For this project, 15 different numbers of clusters were tried to see if any of those clusters would meeting our expectations. We first started with two clusters and tried all the numbers until 16 clusters and also each cluster was tried with three different seed values. The seed value is used in generating a random number which is used for making the initial assignment of instances to clusters. Using different seed values will be necessary for cluster evaluation. We stopped trying new k values after 15, because after 15 clusters, we started getting some clusters with a lot of instances meanwhile others with only one or two and none of them had a good coverage in terms of expected countries.

The validity of clusters was checked by looking at two criterions. First one is as mentioned before, having particular countries together in a cluster. Second one is matching the generated clusters with GLOBE Model clusters. Looking at those criterions, we achieved the best coverage with k value 10. There was a good clustering of Arab countries, Scandinavian countries and other countries. The only issue was Asian and African countries were mixed in one cluster. Besides, clusters got closest to

GLOBE Model clusters with k value 10. The clusters generated with k value 10 can be seen below (see Appendix 8 for WEKA output of the clusters).

Table 4: Clusters of countries generated by using the tool WEKA (k=10).

Cluster Name	Countries
Cluster 1	Netherlands, Norway, Sweden, Denmark, Finland
Cluster 2	El Salvador, Turkey, Chile, Portugal, Uruguay, Greece, Spain,
Cluster 3	China, Indonesia, Ghana, Nigeria, Singapore, Hong Kong, Kenya
Cluster 4	Malaysia, Philippines, India
Cluster 5	Panama, Mexico, Venezuela, Ecuador, Colombia,
Cluster 6	Egypt, Iraq, Kuwait, Lebanon, Libya, UAE, Saudi Arabia, Brazil, Iran
Cluster 7	France, Poland, Belgium, Czech Republic, Japan, Italy, Argentina, Hungary
Cluster 8	USA, Australia, UK, Ireland, New Zealand
Cluster 9	South Africa, Germany, Switzerland, Austria
Cluster 10	Peru, Thailand, Pakistan, Taiwan, South Korea

In order to label the dimension scores “low, medium and high” the second clustering mechanism was proposed. Unlike the first mechanism, in second clustering mechanism, four dimensions were used as separate inputs. In the end, four clusters for four different dimensions were generated. The reason of having k=4 instead of having k=3 (low, medium and high) was acquiring a clear distinction between low score and high score. By having the k=4, we eliminated having similar scores on low level and high level.

Applying the input into WEKA, we generated the clusters (see Appendix 9 for WEKA outputs) as shown in the Table 5.

Table 5: Clusters generated using Hofstede Dimensions.

Cluster No	PDI Range	IDV Range	MAS Range	UAI Range
Cluster 1 (low)	11-40	8-20	5-26	8-35
Cluster 2 (med)	46-58	23- 35	28-46	36-59



Cluster 3 (med)	60-69	41- 60	48-61	64-76
Cluster 4 (high)	74-104	63- 91	62-95	80-112

As can be seen from having the $k=4$ was a sound decision. This way, the difference between Cluster 1 and Cluster 4 became distinctive (minimum 30 scores). Thus, there became a clear distinction between low and high scores as expected.

Having explained the clusters proposed, inputs of the user model generator will be explained below:

Cultural Theories: As mentioned before, GLOBE Project Clusters and clusters generated according to Hofstede's Cultural Theory and clusters generated based on Hofstede Dimensions are used to decide on users' cultural exposure level. In this DB table, each country will be assigned into clusters so that according to countries the user visited, the system will calculate user's cultural exposure level. The fields and descriptions of those fields are given below:

Table 6: Cultural Theories Database Table.

Field Name	Data Type	Description
Country_ID	Integer	ID of each country
PDI_SCORE	String	Power Distance Index Score (Low/Medium/High)
IDV_SCORE	String	Individualism Dimension Score (Low/Medium/High)
MAS_SCORE	String	Masculinity Dimension Score (Low/Medium/High)
UAL_SCORE	String	Uncertainty Avoidance Score (Low/Medium/High)
HOFSTEDE_CL	Integer	Hofstede Cluster Number (values between 1-10)
GLOBE_CL	Integer	GLOBE Project Cluster Number (values between 1-10)

In this project, countries to be included was decided by looking at Hofstede Model, GLOBE Project and the countries mentioned by 29 users of our study set up. Therefore, some countries mentioned by the users of study set up belong to neither of the clusters. Those countries will be ignored due to limited coverage of adopted cultural models.

User Input: User input is stored in three different DB tables namely, Raw_User_Data, Countries_Visited and Countries. Raw User Data table stores data about user in 4 fields, whereas Countries Visited and Countries table only stores 2 fields (see Table 7, Table 8 and Table 9). In this project, users of study set up (explained in Chapter 3) will be presumed as users of the prototype. Thus, user data will be taken from the user set up forms and will be stored in these three DB tables.

Table 7: Raw User Data Database Table.

Field Name	Data Type	Description
USER_ID	Integer	ID of user
CNTRY_ORGN	String	Country of Origin
CNTRY_RES DNC	String	Country of Residence
AGE_RANGE	String	Age range

Table 8: Countries Visited Database Table.

Field Name	Data Type	Description
USER_ID	Integer	ID of user
Country_ID	Integer	ID of countries

Table 9: Countries Database Table.

Field Name	Data Type	Description
Country_ID	Integer	ID of countries
Country_Name	String	Name of the countries

As explained in Chapter 3, in content collection form, nationality of users were collected instead of country of origin. One assumption will be made referring to nationality of users. For analysing purposes, instead of nationality of users, country of origin will be used. For instance, User 10 indicated that he/she is Hungarian and it will be assumed that User 10 is from Hungary. Because, in most of the cultural theories are based on country instead of nationality. So, in order to have applicable data for the cultural theories, country of origin of users will be used instead of nationality of users.

4.2.2. User Model Generator Structure

In the schema shown below, all relationships between four DB tables used for User Model Generator are shown. As can be seen in Figure 10, each table is connected to each other.

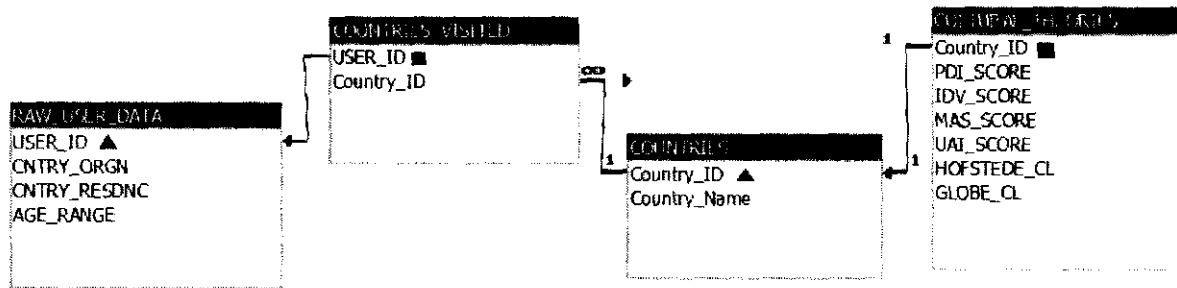


Figure 10: Data Schema of the USER MODEL GENERATOR.

(Primary keys of the tables are indicated with a triangle shape and square shapes refer to foreign keys.)

4.2.3. Output: User Model

User Model is a DB table containing users' cultural exposure level to each cluster. In other words, it is the output from User Model Generator. This table contains each user's cultural exposure level to GLOBE and generated Hofstede Clusters. The description of the table can be seen below.

Table 10: User Model Database table.

Field Name	Data	Description
USER_ID	Integer	ID of the user
GLOBE_CL1_EX	Integer	User's exposure level to GLOBE Cluster 1 (values between 0 and 100)
GLOBE_CL2_EX	Integer	User's exposure level to GLOBE Cluster 2 (values between 0 and 100)
...	Integer	User's exposure level to GLOBE Cluster 3,4,5,6,7,8,9 (values between 0 and 100)
GLOBE_CL10_EX	Integer	User's exposure level to GLOBE Cluster 10 (values between 0 and 100)
HFS_CL1_EXP	Integer	User's exposure level to generated Hofstede Cluster 1 (values between 0 and 100)
HFS_CL2_EXP	Integer	User's exposure level to generated Hofstede Cluster 2 (values between 0 and 100)
...	Integer	User's exposure level to generated Hofstede Cluster 3,4,5,6,7,8,9 (values between 0 and 100)
HFS_CL10_EXP	Integer	User's exposure level to generated Hofstede Cluster 10 (values between 0 and 100)

Each cell has a numeric value between 0 and 100 because in the prompt, those values will be considered as percentages. The next section will introduce the other programming component of the system.

4.3. Prompt Generator

This programming component will generate the prompts by looking at different input. Inputs and outputs of this component will be explained in this section.

4.3.1. Inputs of User Model Generator

Inputs of the Prompt Generator component will be explained below:

User Model: This table is explained in last section as an output of the other programming component and it will be used as an input for Prompt Generator. Algorithm behind the generator will look at the numeric values in User Model table and according to those, it will decide which way (create cultural awareness, expand cultural awareness, reflect on cultural awareness) and how to prompt user.

Content from I-CAW: This input consists of 4 different DB tables. Those tables stores all the videos, comments and tags (see Table 11, 12, 13, 14).

Table 11: Content from I-CAW DB Table.

Field Name	Data Type	Description
ID	integer	ID
VIDEO_ID	integer	ID of each video
COMMENT_ID	integer	ID of each comment
TAG_ID	integer	ID of each tag

Table 12: Videos DB Table

Field Name	Data Type	Description
VIDEO_ID	integer	ID of each video
VIDEO_URL	string	URL of the video

Table 13: Comments DB Table

Field Name	Data Type	Description
COMMENT_ID	integer	ID of each comment
COMMENT	string	Actual comment



Table 14: Tags DB Table.

Field Name	Data Type	Description
TAG_ID	integer	ID of each tag
Emotions	string	Tags on emotions
Body language	string	Tags on body language
DBPedia	string	Tags on countries

I-CAW tags body languages, emotions and countries (DBPedia). Each type of the tag is a field in the Tags DB table.

Interaction Focus: Interaction focus table stores data on visible comment (see Table 15). Countries from DBPedia, body language and emotions will be tagged in the selected YouTube comment. Thus, some triggers will be generated according to those tags. Comment ID, comments and tags will be the three fields of the two DB tables generated for Interaction Focus.

Table 15: Interaction Focus DB Table.

Field Name	Data Type	Description
ID	integer	ID
VIDEO_ID	integer	ID of the video that visible comment belongs.
COMMENT_ID	integer	ID of visible comment.
TAG_ID	integer	ID of the tags on the visible comment.

Data from these tables will both be used as triggers (condition on using the prompt) and the actual content of the prompt. For example, as can be seen from the screenshot below (Figure 12), if country “Korea” is tagged in the comment, user can be directed to another comment mentioning “Korea”. In this situation, the tag about “Korea” is the criteria on deciding what to prompt with. And the comment on “Korea” is used as a prompt.



Figure 11: An example about how interaction focus can be used.

Content for Feedback: This consists of two different DB tables. The first one stores additional information on GLOBE and Hofstede clusters and the second one stores additional information provided by Hofstede on countries (see Table 16, 17)). If there is a need to expand users' cultural awareness, prompt may direct the user to the data stored in this table.

Table 16: Country Feedback Data DB Table.

Field Name	Data Type	Description
Country_ID	integer	ID of the country
Feedback	string	Information on the country

Table 17: Cluster Feedback Data DB Table.

Field Name	Data Type	Description
Cluster_ID	integer	ID of the Cluster
Feedback	string	Information on the cluster

4.3.2. Prompt Structure

This section will provide a better understanding of Prompt Structure components and explain the relationships between the DB tables (Table 13). Generating prompt process has many conditions to consider. First of all, the condition to prompt the user should be decided. Those conditions are also called triggers. Triggers can be generated based on either User Model of a particular user or Interaction Focus (tags on YouTube Comments). For example, looking at User's exposure level to specific cluster, the system can prompt the user according to exposure level to that cluster. Assuming that user has "0" exposure to that cluster, the system generates a prompt in order to create cultural awareness on the user.

Deciding on the conditions, secondly what to prompt with should be decided. An existing comment can be shown to user from CONTENT FROM I-CAW table or data about a particular culture can be shown to user by using COUNTRY_FEEDBACK_DATA table. In the next section, more detailed information of prompt generation will be provided.

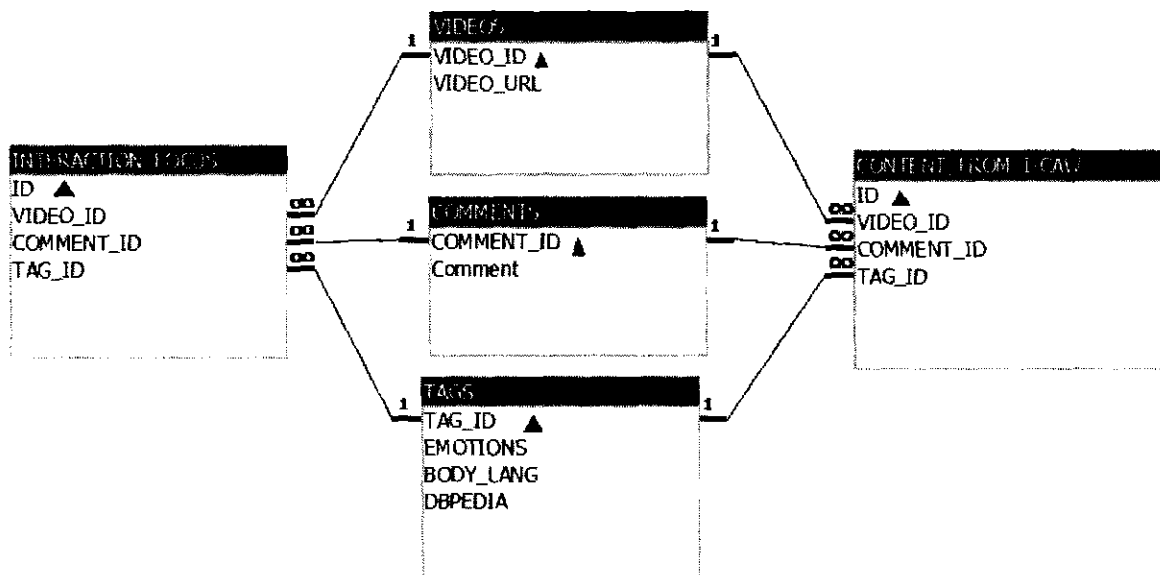


Figure 12: DB Schema of Prompt Generator.

4.4. Prompt Model

4.4.1. Overview

In this section description to prompts to be used is going to be provided. In this project, three different types of prompts are used. The first type aims at creating awareness of a particular culture which

means, if a user has no exposure to a particular culture or cultural cluster, this type of prompts will try to create awareness on non-exposed cultures. The second type aims at expanding awareness on particular culture. This type of prompts provides more information on such cultures which user has limited awareness. The third and the last type of prompts aim at reflecting on existing cultural awareness. Prompt taxonomy can be seen in Figure 14 below.

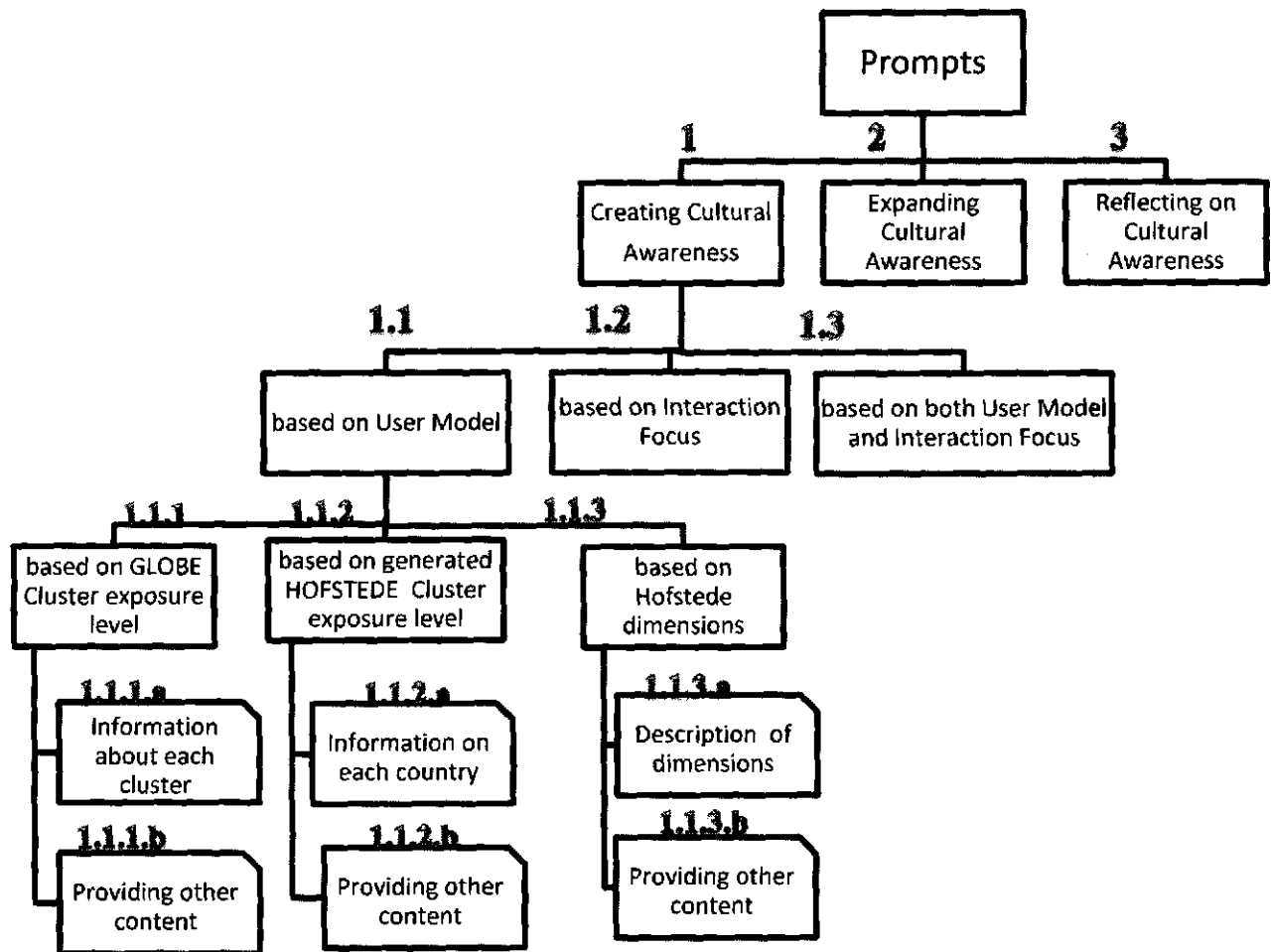


Figure 13: Prompt model.

As can be seen from the figure above, for each type of prompts, 3 sub-types will be used: user model, interaction focus and both user model and interaction focus. They will be explained below:

Based on User Model: As mentioned in the previous section, user model calculates user's cultural exposure level. This type of prompts will only be generated based on user's cultural exposure level.

Based on Interaction Focus: This type of prompts will be generated by only considering interaction focus. As mentioned earlier Interaction Focus is the tags given for the visible comment.

Based on both User Model and Interaction Focus: The last sub-type of prompts is generated based on user's exposure level and the tags given for the visible comment.

For each sub-type of prompts, three different kinds of conditions will be considered. Those conditions are explained below:

GLOBE Cluster Exposure Level: As mentioned earlier, GLOBE Researchers proposed ten clusters of countries. In this stage, according to user's exposure level on each cluster ("0" or "<θ" or ">θ"), either information about clusters or other comments containing countries from clusters will be presented to user.

Exposure Level on Generated Hofstede Clusters: As mentioned earlier, we generated ten clusters of countries based on Hofstede countries and dimensions. In this level, according to user's exposure to those clusters ("0" or "<θ" or ">θ") information on Hofstede countries or another comment containing countries from the clusters will be given to user.

Exposure Level on Hofstede Dimensions: By looking at the scores of user's country of origin or country of residence on Hofstede Dimension (Low-Medium- High), a country which scores contrary to that country will be presented to the user.

Functions used within prompt generation process are given below.

a) globe_cluster_exposure (U, A) = exposure level (number)

This function takes User Number and Cluster Number as inputs, and provides the exposure level in numbers as output.

b) generated_hofstede_cluster_exposure (U, A) = exposure level (number)

This function takes User Number and Cluster Number as inputs, and provides the exposure level in numbers as output.

c) country_level_exposure(C, Dimension) = low ∨ medium ∨ high

This function takes Country and Dimension as inputs and provides that countries score on that dimension as output. The output is indicated as low, medium or high.

d) get_country_dimension= (dimension, level) = (C)

This function provides a country according to given dimension and score expected.

e) **country_visible_comment** (V, t) = {C1, C2,...,Cn}

This function takes the video no and tag no of the visible comment and provides other country (DBPedia) tags of the particular comment.

f) **content_country** (t) = <V, comment>

This function takes a country as input and provides other comments containing the same country.

g) **clusuter_which_country** (A) = {C1, C2,...,Cn}

This function takes a cluster number and provides countries in that cluster as output.

h) **country_which_cluster** (C) = (A)

This function takes a country as input and provides that countries cluster number.

4.4.2. Prompts to Create Awareness of Cultural Aspects (1):

This section will provide prompt models for “*Creating Cultural Awareness*”. And for each sub-type at least one example will be provided. And for each example, generic goal, specific-goal, input type, trigger used and templates of the prompt will be provided.

Create Awareness- User Model (1.1)

For the first sub-type, all three triggers (based on GLOBE clusters, based on generated Hofstede clusters, based on generated Hofstede dimensions clusters) will only look at user model data of the user. The first trigger is if user has had “0” exposure to any of GLOBE Clusters. The first form of the first type will provide more information about “0” exposed cluster. You can see the first form below (variables in the goal and template will be represented in “<>”):

1.1.1.a	Generic Goal: Create awareness of cultural aspects. Input: User Model for user U. Condition: Here exists Cluster A such that GLOBE Clusters contain A and globe_cluster_exposure (U, A) = 0. Functions used: globe_cluster_exposure (U, A) = exposure level (number) Specific-goal: Give information about Cluster <A>. Template: I see you have not been to countries from <A> Cluster. These countries have some common characteristics; you can read about
---------	---

	them here .
1.1.1.b	Generic Goal: Create awareness of cultural aspects. Input: User Model for user U. Condition: Here exists Cluster A such that GLOBE Clusters contain A and globe_cluster_exposure (U, A) = 0. Functions Used: globe_cluster_exposure(U, A)= exposure level (number) clusuter_which_country (A) = {C₁, C₂,...,C_n} content_country (t) = <V, comment> Specific-goal: Give information about Cluster <A>. Template: I see you have not been to countries from <A> Cluster. here you can see another comment mentioning countries from <A> Cluster.

As can be seen in the table above, the second form (1.1.1.b) of the first trigger type will be based on the same conditions but instead of providing information on non-exposed cluster, the second form will direct the user to other comments including countries from non-exposed cluster.

The prompts generated based on the second trigger- generated Hofstede Clusters- can be seen below:

1.1.2.a	Generic Goal: Create awareness of cultural aspects. Input: User Model for user U. Condition: Here exists Cluster A such that generated Hofstede Clusters contain A and generated_hofstede_cluster_exposure(U, A)= 0. Functions Used: clusuter_which_country (A) = {C₁, C₂,...,C_n} generated_hofstede_cluster_exposure (U, A) = exposure level (number) Specific-goal: Give information about Cluster <A> countries. Template: You have not been to <{C₁, C₂, C_n}> that are related in terms of : PDI: The degree to which the less powerful members of a society accept and expect that power is distributed unequally. IDV: A preference for a loosely-knit social framework in which individuals are expected to take care of themselves and their immediate families only MAS: Preference for achievement, heroism, assertiveness and material reward for success. UAI: The degree to which the members of a society feel uncomfortable with uncertainty and ambiguity. You can read more about these countries and if you click here.
1.1.2.b	Generic Goal: Create awareness of cultural aspects. Input: User Model for user U. Condition Here exists Cluster A such that generated Hofstede

	Clusters contain A and generated_hofstede_cluster_exposure(U, A)= 0. Functions Used: clusuter_which_country (A) = {C₁, C₂, ..., C_n} generated_hofstede_cluster_exposure (U, A) = exposure level (number) content_country (t) = <V, comment> Specific-goal: Give information about Cluster <A>. Template: I see you have not been to any countries from Cluster <A>. <Here> you can see more videos with tagged with countries belonging to Cluster <A>.
--	--

This type of prompts is generated if user's exposure to any of generated Hofstede Clusters is "0". Then, the first form (1.1.2.a) of the second trigger type will provide information about those countries belonging to cluster and the second form (1.1.2.b) will direct the user to other comments mentioning countries from the non-exposed cluster. Both forms can be seen above.

The last type of the prompts on user model are generated if user's country of origin or country of residence scores either low or high on any of generated Hofstede dimensions cluster (trigger three). Then the first form (1.1.3.a) of the third trigger type, introduces a country from a different end of the cluster (dimension) and provides information on the particular cluster (dimension). And the second form (1.1.3.b) directs the user to another comment mentioning the country from the opposing end of the cluster (dimension). Both forms can be seen below.

1.1.3.a	Generic Goal: Create awareness of cultural aspects. Input: User Model for user U. Condition: Here exists A such that country_of_origin (U)=A or country_of_residence=A and country_level_exposure(A,Dimension)= low v high Functions Used: country_level_exposure(C, Dimension) = low v medium v high get_country_dimension= (dimension, level) = (C) Specific-goal: Give information about <A> and dimensions of it. Template: <C> is a country which has contrary characteristics to <A> in terms of <Dimension> dimension of culture according to Hofstede. <Here> you can read about <Dimension> and meaning of those scores in terms of <Dimension> dimension.
1.1.3.b	Generic Goal: Create awareness of cultural aspects. Input: User Model for user U. Condition: Here exists A such that country_of_origin (U)=A or country_of_residence=A and country_level_exposure(A,Dimension)= low v high Functions Used: country_level_exposure(C, Dimension) = low v medium v high

	get_country_dimension= (dimension, level) = (C) content_country (t) = <V, comment> Specific-goal: Give information about <A> and dimensions of it. Template: <C> is a country which has contrary characteristics to A in terms of <Dimension> dimension of culture according to Hofstede. <u><Here></u> you can see more videos with tagged with <C>.
--	---

Create Awareness- Interaction Focus (1.2)

The second type of creating awareness aimed prompts is generated based on Interaction Focus which is the tags on the visible comment as mentioned before. In this sub-type, as well as the other sub-types, three types of triggers will be adopted namely exposure on GLOBE Clusters, generated Hofstede clusters and generated Hofstede dimension clusters. The first trigger is if any of the country tags belong to any GLOBE Cluster. If yes, there are two forms proposed, the first form (1.2.1.a) gives information on particular GLOBE Cluster and the second form (1.2.1.b) directs the user to other comments mentioning other countries belonging to the same cluster.

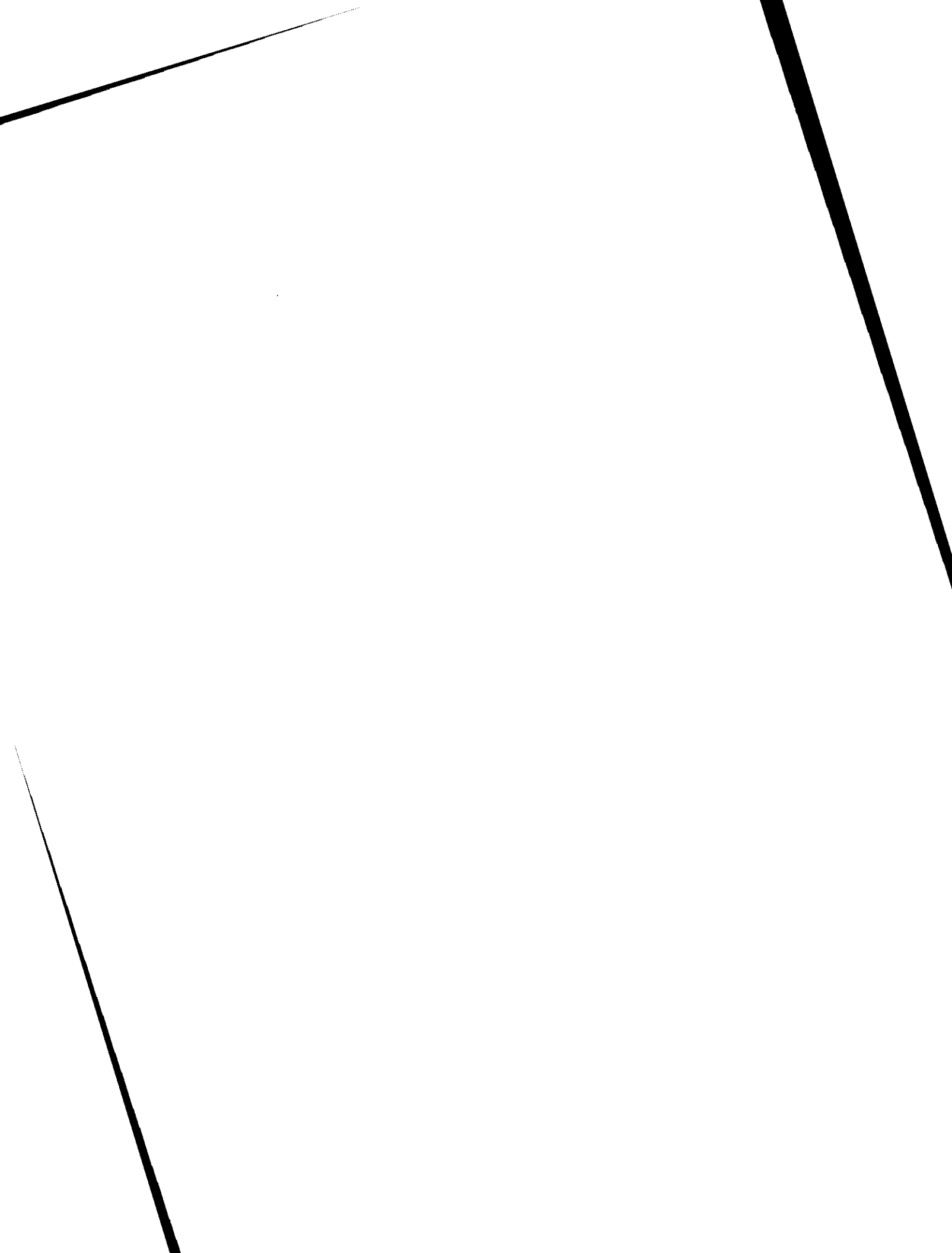
1.2.1.a	Generic Goal: Create awareness of cultural aspects. Input: Interaction Focus. Condition: Here exists Tags t on video V such that t contains {C1, C2,...,Cn} countries. content_country (t) = <V, comment> Functions used: content_country (t) = <V, comment> country_visible_comment (V, t) = {C₁, C₂,...,C_n} country_which_cluster (C) = (A) Specific-goal: Give information about Cluster <A>. Template: In the comment <Cx>is mentioned and <Cx> belongs to Cluster <A> countries according to GLOBE Project. Click <u><here></u> read more about Cluster <A> countries.
1.2.1.b	Generic Goal: Create awareness of cultural aspects. Input: Interaction Focus. Condition: Here exists Tags t on video V such that t contains {C1, C2,...,Cn} countries. Functions Used:globe_cluster_exposure(U, A)= exposure level (number) content_country (t) = <V, comment> country_visible_comment (V, t) = {C₁, C₂,...,C_n} country_which_cluster (C) = (A) Specific-goal: Give information about Cluster <A>. Template: In the comment <Cx> is mentioned and <Cx> belongs to Cluster <A> countries according to GLOBE Project. <u><Here></u> you can see more videos tagged with Cluster <A> countries.

The second trigger is quite similar to the first one, Instead of checking GLOBE Clusters exposure, it checked if any of country tags belongs to generated Hofstede Clusters. If yes, the first form (1.2.2.a) gives examples of Hofstede dimensions of the countries from the particular cluster. On the other hand, the second form (1.2.2.b) directs the user to other comments mentioning one of the countries from the particular cluster. Those prompts can be seen in the table below:

1.2.2.a	Generic Goal: Create awareness of cultural aspects. Input: Interaction Focus. Condition: Here exists Tags t on video V such that t contains {C1, C2,...,Cn} countries. Functions used: content_country (t) = <V, comment> country_visible_comment (V, t) = {C₁, C₂,...,C_n} country_which_cluster (C) = (A) Specific-goal: Give information about <Cx>. Template: In the comment <Cx> is mentioned and <Cx> belongs to Cluster <A> countries according Hofstede clusters that have been created in this project. Click here read more about countries belonging to Cluster <A>.
1.2.2.b	Generic Goal: Create awareness of cultural aspects. Input: Interaction Focus. Condition: Here exists Tags t on video V such that t contains {C1, C2,...,Cn} countries. Functions used: content_country (t) = <V, comment> country_visible_comment (V, t) = {C₁, C₂,...,C_n} country_which_cluster (C) = (A) Specific-goal: Give information about <Cx>. Template: In the comment <Cx> is mentioned and <Cx> belongs to Cluster <A> countries according Hofstede clusters that have been created in this project.Here you can see more videos tagged with countries belonging to Cluster <A>.

The third trigger checks if any of the tagged countries score either low or high in any Hofstede Dimensions. If yes, the first form (1.2.3.a) gives information on the dimension and that county's score on that dimension. However, the second form (1.2.3.b) directs the user to another content mentioning the particular country. Those prompts are provided in the table below:

1.2.3.a	Generic Goal: Create awareness of cultural aspects. Input: Interaction Focus. Condition: Here exists Tags t on video V such that t contains {C1,
---------	--



	C2,...,Cn} countries. Functions used: content_country (t) = <V, comment> country_visible_comment (V, t) = {C₁, C₂,...,C_n} country_level_exposure(C, Dimension) = low v medium v high Specific-goal: Give information about Hofstede Dimensions. Template: <C1> is mentioned in the comment and <C1> scores <low v medium v high> in <Dimension> dimension according to Hofstede's dimensions. <Here> you can read about <Dimension> and meaning of those scores in terms of <Dimension> dimension.
1.2.3.b	Generic Goal: Create awareness of cultural aspects. Input: Interaction Focus. Condition: Here exists Tags t on video V such that t contains {C1, C2,...,Cn} countries. Functions Used: content_country (t) = <V, comment> country_visible_comment (V, t) = {C₁, C₂,...,C_n} country_level_exposure(C, Dimension) = low v medium v high Specific-goal: Give information about Hofstede Dimensions. Template: <C1> is mentioned in the comment and <C1> scores <low v medium v high> in <Dimension> dimension according to Hofstede's dimensions. <Here> you can see more videos tagged with countries have <low v medium v high> <Dimension> scores.

Create Awareness- Both User Model and Interaction Focus (1.3)

The last type of the prompts is based on both User Model and Interaction Focus. The first trigger is again on GLOBE Project Cluster exposure but this time, if the user has ne exposure to a particular cluster and a country from that particular cluster is tagged in the video, and then the first form (1.3.1.a) gives information on countries belonging to that cluster. However, the second form (1.3.1.b) directs the user to another comment mentioning any of the countries from that particular cluster. You can see those prompts below:

1.3.1.a	Generic Goal: Create awareness of cultural aspects. Input: Both User Model and Interaction Focus for user U. Condition: Here exists Tags t on video V such that t contains {C1, C2,...,Cn} countries And here exists Cluster A and C1 such that GLOBE Clusters contain A and A contain C1 and globe_cluster_exposure (U, A) = 0. Functions used: globe_cluster_exposure (U, A) = exposure level (number)
---------	---

	country_visible_comment (V, t) = {C₁, C₂, ..., C_n} clusuter_which_country (A) = {C₁, C₂, ..., C_n} country_which_cluster (C) = (A) Specific-goal: Give information about Cluster <A>. Template: Country <C1> is mentioned in the visible comment. And <C1> belongs to <A> Cluster according to GLOBE Project. I see that you have not been to any <A> Cluster Countries. Click here read more about Cluster <A> countries.
1.3.1.b	Generic Goal: Create awareness of cultural aspects. Input: Both User Model and Interaction Focus for user U. Condition: Here exists Tags t on video V such that t contains {C1, C2, ..., Cn} countries And here exists Cluster A and C1 such that GLOBE Clusters contain A and A contain C1 and globe_cluster_exposure (U, A) = 0. Functions used: globe_cluster_exposure (U, A) = exposure level (number) country_visible_comment (V, t) = {C₁, C₂, ..., C_n} clusuter_which_country (A) = {C₁, C₂, ..., C_n} country_which_cluster (C) = (A) content_country (t) = <V, comment> Specific-goal: Give information about Cluster <A>. Template: Country <C1> is mentioned in the visible comment. And <C1> belongs to <A> Cluster according to GLOBE Project. I see that you have not been to any <A> Cluster Countries. Here you can see more videos tagged with Cluster <A> countries.

The second trigger is not being exposed to one of generated Hofstede Clusters and having a tag of one of the countries belonging to that particular cluster. The first form (1.3.2.a) provides more information about countries from that particular cluster and the second form (1.3.2.b) directs user to another comment mentioning one of the countries from that cluster. The prompts are given below:

1.3.2.a	Generic Goal: Create awareness of cultural aspects. Input: Both User Model and Interaction Focus for user U. Condition: Here exists Tags t on video V such that t contains {C1, C2, ..., Cn} countries And here exists Cluster A and C1 such that generated Hofstede Clusters contain A and A contains C1 and generated_hofstede_cluster_exposure(U, A)= 0. Functions used: generated_hofstede_cluster_exposure(U, A)= exposure level (number) country_visible_comment (V, t) = {C₁, C₂, ..., C_n} clusuter_which_country (A) = {C₁, C₂, ..., C_n}
---------	---

	country_which_cluster (C) = (A) Specific-goal: Give information about Cluster <A>. Template: <C1> is mentioned in the visible comment. I see that you have not been to <C1> and <C1> belongs to Cluster <A> according Hofstede clusters that have been created in this project. Cluster <A> countries have common characteristics in terms of: PDI: The degree to which the less powerful members of a society accept and expect that power is distributed unequally. IDV: A preference for a loosely-knit social framework in which individuals are expected to take care of themselves and their immediate families only MAS: Preference for achievement, heroism, assertiveness and material reward for success. UAI: The degree to which the members of a society feel uncomfortable with uncertainty and ambiguity. You can read more about these countries and if you click <here>.
1.3.2.b	Generic Goal: Create awareness of cultural aspects. Input: Both User Model and Interaction Focus for user U. Condition Here exists Cluster A such that generated Hofstede Clusters contain A and generated_hofstede_cluster_exposure(U, A)= 0. Functions Used: clusuter_which_country (A) = {C₁, C₂, ..., C_n} generated_hofstede_cluster_exposure (U, A) = exposure level (number) content_country (t) = <V, comment> Specific-goal: Give information about Cluster <A>. Template: I see you have not been to countries from Cluster <A> and Cluster <A> also contains <C₁>, which is also mentioned in the tag. To see more videos tagged with Cluster <A> countries click <u><here></u>.

The last trigger is having a tag of a country which has contrary characteristics in terms of one of the four Hofstede dimensions to user's country of origin or country of residence. Then, the first form (1.3.3.a) provides information on that particular dimension and scores of those two countries mentioned. On the other hand, the second form (1.3.3.b) directs user to another comments mentioning the country which has contrary characteristics to user's country of origin. You can see those prompts below:

1.3.3.a	Generic Goal: Create awareness of cultural aspects. Input: Both User Model and Interaction Focus for user U. Condition: Here exists A such that country_of_origin (U)=A or country_of_residence=A and country_level_exposure(A, Dimension)= low A high
---------	--

	Functions Used: country_level_exposure(C, Dimension) = low v medium v high get_country_dimension= (dimension, level) = (C) Specific-goal: Give information about <A> and dimensions of it. Template: You read a comment mentioning <C>. <C> is a county which has contrary characteristics to <A> in terms of <Dimension> dimension of culture according to Hofstede. <u><Here></u> you can read about <Dimension> and meaning of those scores in terms of <Dimension> dimension.
1.3.3.b	Generic Goal: Create awareness of cultural aspects. Input: Both User Model and Interaction Focus for user U. Condition: Here exists A such that country_of_origin (U)=A or country_of_residence=A and country_level_exposure(A,Dimension)= low A high Functions Used: country_level_exposure(C, Dimension) = low v medium v high get_country_dimension= (dimension, level) = (C) content_country (t) = <V, comment> Specific-goal: Give information about <A> and dimensions of it. Template: You read a comment mentioning <C>. <C> is a county which has contrary characteristics to <A> in terms of <Dimension> dimension of culture according to Hofstede. <u><Here></u> you can see more videos with tagged with <C>.

4.4.3. Prompts to Expand Awareness of Cultural Aspects (2)

This section will provide prompt models for “Expanding *Cultural Awareness*” and in this section only one example prompt will be provided as the rest are very similar to prompts in previous section. The main difference is, instead of having no exposure to a particular cluster, triggers are based on having some awareness on particular cluster. An example can be seen below:

2.1.1.a	Generic Goal: Expand awareness of cultural aspects. Input: User Model for user U. Condition: Here exists Cluster A such that GLOBE Clusters contain A and globe_cluster_exposure (U, A) < θ. Functions used: globe_cluster_exposure (U, A) = exposure level (number) Specific-goal: Give information about Cluster <A>. Template: I see that you have been to some of the <A> Cluster countries. These countries have some common characteristics; you can
---------	---

	read about them <u><here></u> .
--	---------------------------------------

4.4.2. Prompts to Reflect on Cultural Awareness (3)

Prompts which are aimed at “Reflection on Cultural Awareness” are provided unless user has well exposure to a particular cluster. In this section only one example will be provided as they are similar to other prompt models provided above.

3.1.1.a	Generic Goal: Reflect on awareness of cultural aspects. Input: User Model for user U. Condition: Here exists Cluster A such that GLOBE Clusters contain A and $\text{globe_cluster_exposure}(U, A) > \theta$. Functions used: $\text{globe_cluster_exposure}(U, A) = \text{exposure level (number)}$ Specific-goal: Collect user's experience on Cluster <A>. Template: You are well exposed to <A> Cluster countries and they have some common characteristics defined <u><here></u>. Have you noticed any of these characteristics during your exposure to these cultures? Write down your comments here. _____.
---------	---

4.5.Implementation

Implementation of design will be presented in pseudo code. And Microsoft Access 2010 was used as the database tool because I was the most familiar DB tool for the writer.

4.5.1.Programming Examples

This section will provide pseudo codes for calculating user's exposure level to those cultural theories. As mentioned before, when a user enters his/ her data to the system, then according to country of origin and countries visited by the user, User Model calculates the user's cultural exposure to each cluster in each model.



```

H= {Cl1, Cl2, Cl3, Cl4, Cl5, Cl6, Cl7, Cl8, Cl9, Cl10}
for each Clx in H
nx = total number of countries in Clx
countx=0;
  for each y in COUNTRIES_VISITEDuser // y is a Country_ID
  IF y ∈ Clx THEN
    Increment countx by 1;
Valuex= (countx/ nx) * 100;
Output: <Clx, Valuex>

```

Figure 14: Calculating exposure level to Hofstede Clusters.

```

G= {Cl11, Cl12, Cl13, Cl14, Cl15, Cl16, Cl17, Cl18, Cl19, Cl20}
for each Clx in G
nx = total number of countries in Clx
countx=0;
  for each y in COUNTRIES_VISITEDuser // y is a Country_ID
  IF y ∈ Clx THEN
    Increment countx by 1;
Valuex= (countx/ nx) * 100;
Output: <Clx, Valuex>

```

Figure 15: Calculating exposure level to GLOBE Clusters.

In this chapter, design and implementation of the prototype were explained. The next chapter will provide the evaluation process and results of user evaluation.

Chapter 5

5. Evaluation

This chapter will describe the evaluation phase of the project. The importance and benefits of involving users in the design and evaluation of adaptive systems has been advocated for a long time [33, 34, 35, 36, 37, 38, 39]. Thus, this project involved user evaluation of the proposed system. In addition to user evaluation, overall review of the project including the evaluation of content collection will also be presented in this chapter.

Ideally this work is supposed to be embedded into I-CAW as a new feature, therefore in this project there was no need for an interface design or the design of the whole system. For that reason only the collected content, selected theoretical models of culture and prompts will be evaluated.

5.1. User Evaluation

This section will describe the user evaluation. Firstly the participants of the evaluation will be described, subsequently, evaluation method will be explained. Lastly, the carried out analyse of the user evaluation will be given..

5.1.1. Evaluation Participants

Evaluation of the prompts was carried out with four users of the study (U1, U10, U12, and U17). These users were set up in order to observe what they thought of different types of prompts.

5.1.2 Evaluation Method

The evaluation method involved four users completing a feedback form. The form consisted of screen grabs of the system and they were designed in an interactive way in the form. User could click on the prompt and get the explanation mentioned in the prompt. As the system is a user adaptive system, each form for each user was designed according to user's data which was collected in the study set up (see Appendix 11 for an example of feedback form). After seeing each prompt and its explanation the user was asked to answer two feedback questions.

The first question was regarding whether the user found the prompt to be helpful or not. Therefore the options were either yes or no. Additionally the user was asked to specify his, or her, the reasons for their decision.

The second question was asking the users to characterise the prompt and the options were misleading, confusing, overwhelming, trivial, trustworthy, relevant, reassuring, informative and other. The user was asked to specify the other option and he/she could choose more than one option in the second question.

The feedback forms consist of two sections. The first section included prompts aimed at creating cultural awareness and the second section contained prompts aimed at expanding cultural awareness. There were no prompts aimed at reflecting on the cultural awareness because none of the four users were sufficiently exposed to any culture. For this reason, it was not possible to evaluate prompts reflecting on the cultural awareness.

In the first section only those prompts providing extra information were presented (a type of each prompt model, see section 4.4.2).

5.1.3. Analysis of Evaluation Forms

In the table below, the summary of the feedback forms are given.

Table 18: Summary of the feedback forms.

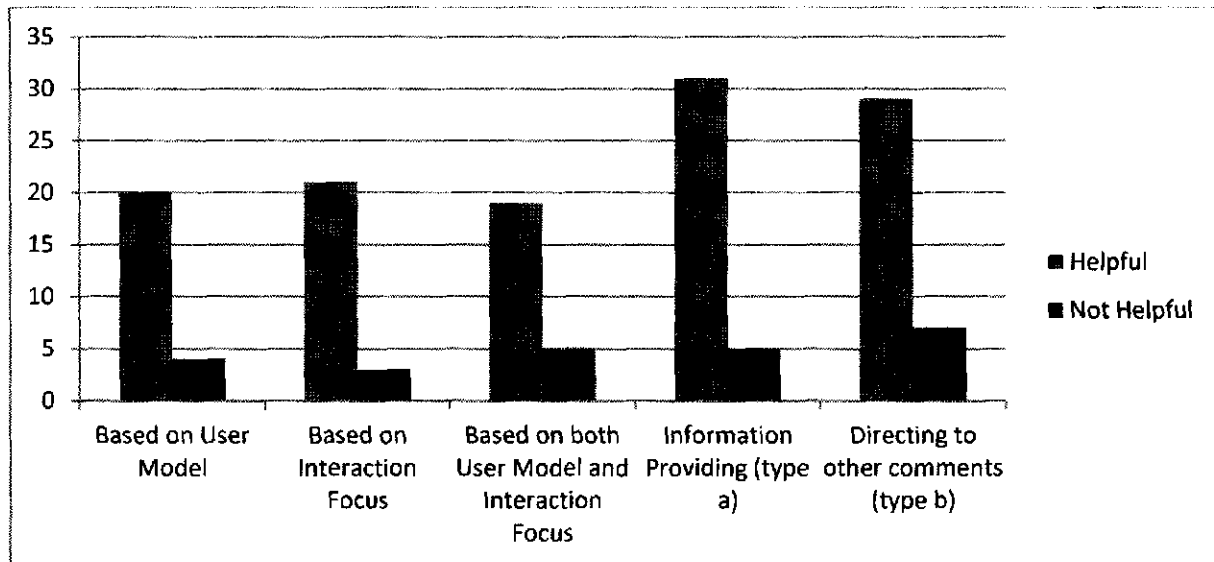
PROMPT TYPE	Helpful	Not Helpful	Informative	Relevant	Trustworthy	Trivial	Confusing	Misleading
Based on User Model	20	4	10	11	5	4	3	0
Based on Interaction Focus	21	3	13	11	8	2	2	0
Based on both User Model and Interaction Focus	19	5	12	9	3	1	3	1
Information Providing (a type of each model)	31	5	19	19	12	2	3	1
Directing to other comments (b type of each model)	29	7	16	12	4	5	5	0

It can be seen from the Table 11 that most of the prompts were found helpful by the participants. Especially, prompts based on interaction focus and providing information on particular cultures were pointed out as the most useful ones. Besides the findings, one participant included his/her opinion about information providing prompts:

“I believe those prompts that contain data based on research are more convincing and useful than those containing personal opinions and experiences.”

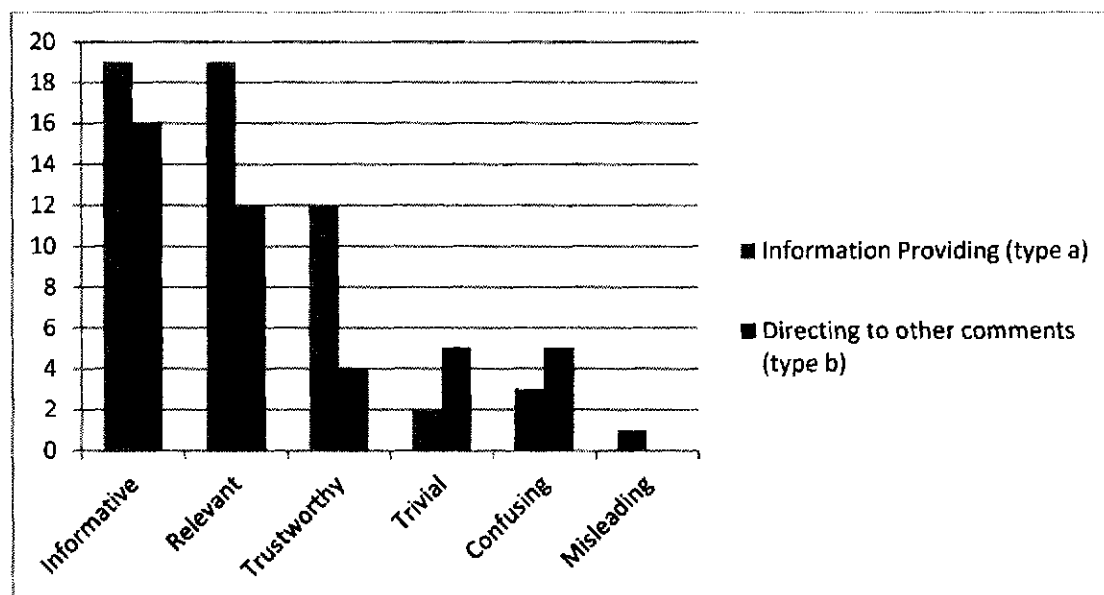
The full evidence on helpfulness of different prompts can be seen below:

Table 19: Feedback on helpfulness of the prompts.



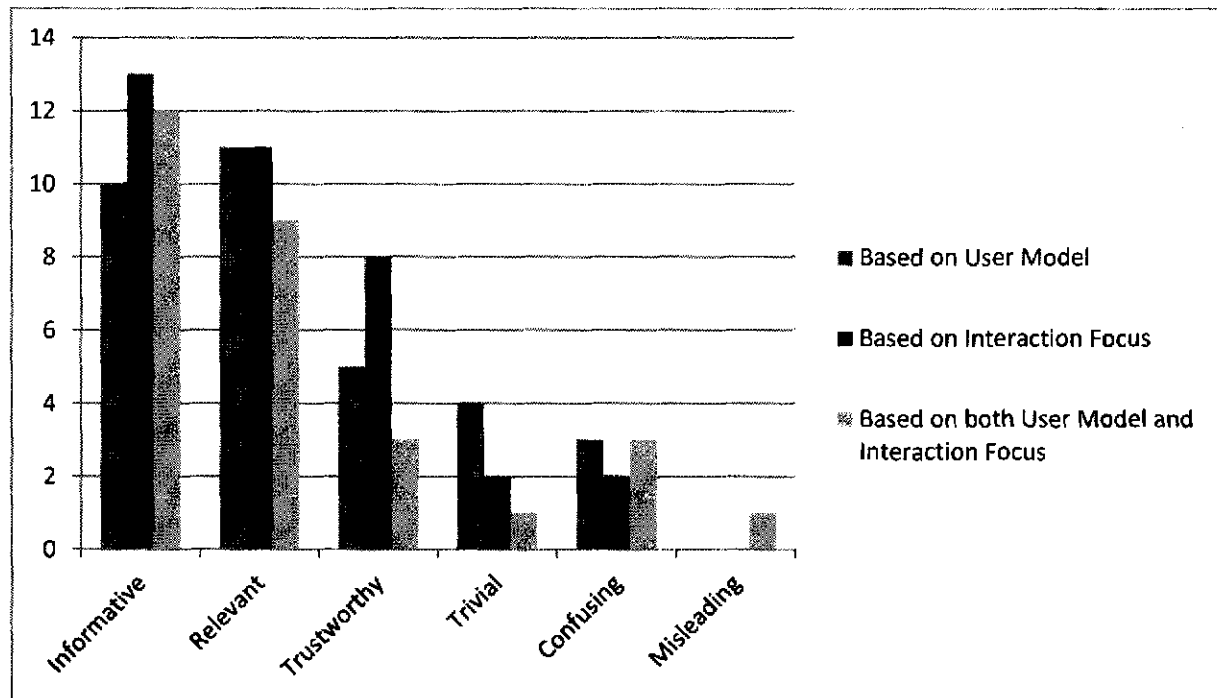
Apart from helpfulness of the prompts, characteristics were also questioned in the form. The findings are given below in two different tables. The first table indicates the characteristics assigned to information providing prompts and directing to other comments prompts. It can be seen that information providing prompts are found more informative, relevant and trustworthy than the directing prompts. Likewise, directing prompts were found more confusing (see Table 13).

Table 20: Feedback on the characteristics of the information providing (type a) and directing to other comments (type b) prompts.



In addition to that, the second table presents characteristics of prompts according to the base of the prompts. Looking at the Table 14, prompts based on interaction focus are found more informative and trustworthy. On the other hand, prompts based on both user model and interaction focus were found the most confusing and misleading.

Table 21: Feedback on the characteristics of prompts according to their base.



Overall, looking at the feedback forms it is possible to say that prompts were found helpful and one participants highlighted that information provided by the prompts may even be useful in real life:

"It seems applicable." [U10]

"Important to know." [U10]

However, there were two issues to raise. Firstly, two of the participants indicated that two of the prompts directing to other comments were not clear for them:

"It's not clear for me what it's about." [U10]

"Didn't get the point of the prompt." [U17]

This was an expected feedback on user-generated content as mentioned in section 2.2.3. Even though, the comment from the YouTube video contains some information about certain culture, it can be misleading, inaccurate or incomprehensible. In fact, associating these drawbacks with only two of thirty six prompts can be considered as a positive result. Which results in, the rest of the prompts directing to other comments were not found confusing.

Secondly, there was another issue worth mentioning. Two of the users wrote comments pointing out the inaccuracy and datedness of some information given to them which were adopted from Hofstede's Cultural Theory [22]:

"The information is not what is there in real life situation." [U17]

"In Ecuador the people are changed, I know are inequalities among the people, it is relevant when you talk about the ranking of the people, the role in the society but now much less relevant when you talk about the race, origin, gender or age. For example football players in Ecuador even some of them are African American the people treat them as they are very important. *Other example in Ecuador is more migrants than before doesn't matter some of them are white, they have lower ranking.*" [U12]

Overall, there is evidence proving that participants of evaluation extended their cultural awareness while filling the feedback form:

"It was fun to participate in that research and learn some information about the cultural differences and how simple gestures can convey different meanings for different peoples from around the world." [U17]

5.2. Overall Project Evaluation

Overall, the proposed prompts function properly. However; there are some issues to bring about during the process of generating prompts. In this section, the overall project evaluation including the content collection and used theoretical models of culture will be demonstrated. Starting with content collection, content collection method met its expectations. Nevertheless, application of the method took more time than we expected which also resulted in a shift in the project schedule.

In terms of interpretation of the collected data, there are some issues to mention. First of all, our system assumed that a user from a particular country is exposed to that culture even though the user lives in another country. In real life, it is likely to happen that a person from a certain nationality is not exposed to the culture of his/ her nationality. This assumption in our system, may limit the accuracy of the system. Likewise, the system assumes that if a person has visited a certain country, the user has been exposed to that culture. However, visiting a country does not necessarily result in exposure of that culture. This feature also brings a limit to accuracy of the system. Solutions to those downsides will be provided in future work section.

Looking at the theoretical models of cultures adapted, adaptation and combination of Hofstede's and GLOBE Project's Models of Culture turned out to be a good choice because together they covered over 70 countries and provided information not only on each country but also on cultural clusters.

However, in the feedback collected, there were some users mentioning inaccuracy and datedness of Hofstede's Model.

As mentioned before, the tagging mechanism was adopted from I-CAW. In general, the tags worked successfully in this system as we only looked at country tags from DBPedia. However, if we needed to consider other tags as well, the existing mechanism would be inadequate as they missed some important aspects such as tagging artefacts.

In order to complete the evaluation, a presentation to IMASH Group was given. The points mentioned at the end of the presentation are given below (presentation slides can be seen in Appendix 10):

- The reasons for choosing those cultural models
- The reasons for generating 10 clusters.
- How we could determine that visiting a country results in the exposure of that culture?

Considering the suggestions from the presentation, explanations for the first two suggestions were included into the project. However, for the third point, we could not present a solution.

Chapter 6

6. Conclusion

This project has successfully created prompts directing users to raise their awareness on the cultural aspects by focusing on different gestures, greetings, artifacts and personal space in different cultures. Overall, this project has met its aim and minimum requirements (see section 1.1.)

6.1. Future Directions

Several tasks were achieved in this project. However, there still are plenty of improvements that could be done. This section will offer possible future improvements for this project.

- In this project, the track of user's browsing history was not kept. In the future work, it would be beneficial to keep users browsing history.
- In this project, prompts based on Interaction Focus only considered the country tags (DBPedia) and ignored the emotions and body language tags. Future work may generate prompt son those tags alongside as the county tags.
- In this project, the latest update from Hofstede was not adapted, thus, new dimensions have not been applied to all the countries by Hofstede. However, Long Term Orientation Dimension covers most of the countries. This dimension can be adapted to close the gap in the future works and additional dimensions namely Indulgence versus Restraint can be adopted when it is applied to most of the countries.
- Another suggestion on Hofstede's Theory would be following updated version for the study. Because, some of the participants pointed out the inaccuracy and datedness of some information provided by Hofstede in their evaluation forms. Alternatively, a wider literature review can be conducted in order to replace Hofstede's Theory of Culture.
- In this study visiting a country was enough to be counted as being exposed to that culture. However, in real life, visiting a country may not necessarily result in real exposure to that

culture. Other measures can be used to measure the exposure level. Such as using social media track of user.

- In this study, it was assumed that users' primary culture was the native culture of his/her nationality. In real life, nationality does not necessarily refer to the primary culture of the user. Alternatively, for those users who have different country of origin and residence, an extra question can be asked to determine users' primary culture. Moreover, information on the length of stay in the country of origin as well as the length of stay in other countries (abroad) could also be beneficial. It might give information about the exposure to other cultures.
- To finish with, User 1 suggested a new type of prompt. That prompt can also be adapted in the future work:

“More importantly, I would also like to learn the observations (example) of from someone, who either from the same country or at least from the same culture with me. *For example, I' m not in the position to say that I know everything about my own culture.* Putting such information into the software would have secondary (added value) by teaching the individual his/her own culture.”

6.2. Closing

The author, found this project very enjoyable and instructive despite the challenges. It will be interesting to see the integration of the provided system into I-CAW.

BIBLIOGRAPHY

1. Ferro, M.V., et al., *Friendly Incremental Prototyping*. 1995.
2. Pannese, L., S. Hetzner, and R. Hallmeier. *Augmenting the learning experience with virtual simulation systems*. 2011. ACM.
3. ImREAL Project. [cited 2012 14 June]; Available from: <http://www.imreal-project.eu/index.php>.
4. Ammari, A., V. Dimitrova, and D. Despotakis, *Semantically Enriched Machine Learning Approach to Filter YouTube Comments for Socially Augmented User Models*.
5. Thakker, D., et al., *Taming Digital Traces for Informal Learning: A Semantic- driven Approach*. unpublished.
6. Thakker, D. 2012 [cited 2012 12 June]; Available from: <http://imash.leeds.ac.uk/imreal/wp3/icaw.html>.
7. Dimitrova, V., D. Thakker, and L. Lau, *Aggregating Digital Traces into a Semantic-enriched Data Cloud for Informal Learning*, 2012.
8. Allwood, J., *Intercultural communication*. *Papers in anthropological linguistics*, 1985. **12**.
9. Hall, E.T. and M.R. Hall, *Understanding cultural differences*. 1990, Yarmouth,: Intercultural Press, Inc.
10. Anon. *Hall's cultural factors*. 14 June 2012; Available from: http://changingminds.org/explanations/culture/hall_culture.htm.
11. Shi, X. and J. Wang, *Interpreting Hofstede Model and GLOBE Model: Which Way to Go for Cross-Cultural Research?* *International Journal of Business and Management*, 2011. **6**(5).
12. Khastar, H., et al., *Levels of Analysis and Hofstede's Theory of Cultural Differences: The Place of Ethnic Culture in Organizations*, in *International Conference on Financial Management and Economic* 2011: Singapore.
13. Grove N., C. *Introduction to the GLOBE Research Project on Leadership Worldwide*. 2005 [cited 14 June 2012]; Available from: <http://www.grovetwell.com/pub-GLOBE-intro.html>.
14. Venaik, S. and P. Brewer. *Contradictions in national culture: Hofstede vs GLOBE*. 2008.
15. Schwartz, H.S., *Beyond Individualism/Collectivism: New Cultural Dimensions of Values* 1994: Sage.

16. Ronen, S. and O. Shenkar, Clustering Countries on Attitudinal Dimensions: A Review and Synthesis. *Academy of Management Review*, 1985. **10**(3): p. 435-454.
17. Molina, A.F. *Critically Consider Geert Hofstede's Contribution to Intercultural Communication*. 2005.
18. Inglehart, R., *Modernization and Post-Modernization: Cultural, Economic, and Political Change in 43 Societies* 1997, Princeton: Princeton University Press.
19. House, R., et al., Understanding cultures and implicit leadership theories across the globe: an introduction to project GLOBE. *Journal of World Business*, 2002. **37**(1): p. 3-10.
20. Hoppe, M.H. GLOBE summary. 2007.
21. Hofstede, G., *Culture's consequences: international differences in work-related values* 1980, London: Sage Publications.
22. Hofstede, G. 05 June 2012]; Available from: <http://geert-hofstede.com/national-culture.html>.
23. Bochner, S. and B. Hesketh, Hesketh Powerdistance, individualism/collectivism, and job-related attitudes in a culturally diverse workgroup *Journal of Cross-cultural Psychology*, 1994. **25**: p. 233-257.
24. Hofstede, G., G.J. Hofstede, and M. Minkov, *Cultures and organizations: Software of the mind*. 3rd edition ed 2010, New York: McGraw-Hill.
25. Gupta, V., P.J. Hanges, and P. Dorfman, Cultural clusters: methodology and Findings. *Journal of World Business*, 2002(37): p. 11-15.
26. Khastar, H., et al., Levels of Analysis and Hofstede's Theory of Cultural Differences: The Place of Ethnic Culture in Organizations, in *International Conference on Financial Management and Economics* 2011, IACSIT Press: Singapore.
27. Davidson, M. Exploring culture in international learning. Learning from internationalisation Inclusive teaching across cultures [Accessed 22 August 2012]; Available from: <http://www.nottingham.ac.uk/pesl/internationalisation/docs/Internationalisation-Exploring-culture-in-international-learning.pdf>.
28. Thakker, D., et al., A priori ontology modularisation in ill-defined domains, in *Proceedings of the 7th International Conference on Semantic Systems* 2011, ACM: Graz, Austria. p. 167-170.
29. Cambridge. Cambridge Online Dictionary. 2011 [Accessed: 22 August 2012]; Available from: http://dictionary.cambridge.org/dictionary/british/exposure_1?q=exposure.

30. Sunstein, C., Thaler, R: *Nudge: Improving Decisions about Health, Wealth, and Happiness*. New York: Penguin Books. (2009)
31. *Culture and Leadership*. 2006 [Accessed: 28 August 2012]; Available from: <http://jethrolmi.com/admin/uploads/attachment-13-J-0010.pdf>.
32. Useem, J., R. Useem, and J. Donoghue, Men in the middle of the third culture: The roles of American and non-Western people in cross-cultural administration. *Human Organization*, 1963. 22(3): p. 169.
33. ImREAL. Semantic Augmentation service [Accessed: 02 August 2012]; Available from: <http://imash.leeds.ac.uk/imreal/wp3/augment.html>.
34. Chin, D. (2001). Empirical evaluation of user models and user-adapted systems. *User Modeling and User-Adapted Interaction*, 11(1-2), 181-194.
35. Weibelzahl, S. (2001). Evaluation of adaptive systems. In: 8th International Conference on User Modeling, LNCS 2109, Berlin: Springer, pp. 292-294.
36. Weibelzahl, S. (2005). Problems and pitfalls in evaluating adaptive systems. In: 4th Workshop on the Evaluation of Adaptive Systems at UM'05, Edinburgh, UK, pp. 57-66.
37. Masthoff, J. (2002). The evaluation of adaptive systems. In: N. Patel (Ed.), *Adaptive Evolutionary Information Systems*, London: Idea Group Publishing, pp. 329-347.
38. Gena, C. (2005). Methods and techniques for the evaluation of user-adaptive systems. *The Knowledge Engineering Review*, 20(1), 1-37.
39. Gena, C., & Weibelzahl, S. (2007). Usability engineering for the adaptive web. In P. Brusilovsky, A. Kobsa, & W. Nejdl (Eds.), *The adaptive web: Methods and strategies of web personalization*, Berlin: Springer, pp. 720-762.

Appendix A - Personal Reflection

In the very first supervision meeting my supervisor asked my background and the areas that I am interested in. According to those criterions, we shaped the project and this way despite all the troubles I had throughout the duration of the project, I almost never had motivation problems.

To begin with, the project was a new experience as I did not write a dissertation in my undergraduate. Writing a dissertation for the first time was a great challenge for me. For instance, it took me quite a lot of time to complete literature review section because I needed to read all the literature twice as I did not take notes at the first place. Overall, the write up part of the project thought me a lot about academic writing and I believe I still have a lot to learn about academic writing.

Involving users to the project was also a great experience. However, trying to access to the same users for evaluation was extremely challenging. Despite asking for an appointment for the evaluation form, there were severe delays in delivery of the forms. I would strongly recommend others, to take into account of possible delays. As well as collection of the user forms, generating cultural clusters was another time consuming activity within my project. As mentioned in the report, trying and evaluating 15 different cluster numbers was extremely time consuming.

I found working during summer more challenging than working in duration of the terms. Nevertheless, knowing that some of the supervisors were away during the summer, I consider myself lucky as I could meet with my supervisor almost every week.

Overall, I found the project very helpful as it introduced me new areas such as semantic web and user adaptive systems. On the other hand, it also helped me improve my academic skills such as research and academic writing.

Appendix B- Interim Report

Assessor's comments on the Interim Report

The report describes an interesting and rather general area of research.

Clearly cultural factors may influence the interpretation of body movement; however, the way in which this could be incorporated into an information browsing system was not clear to me.

I presume that you are not actually analysing videos to find body movements but are looking primarily at textual annotations of videos. Have you found examples of these culturally relative terms in video annotations?

From your ~~general~~ report I had difficulty imagining exactly what functionality you are intending to implement. I suggest you consider a small number of specific examples and work out how they would fit in with your more general idea. This will make your aim more specific.

Brandon

Figure 16: Assessor's comments on Interim Report.

Supervisor's comments

The project report covers the required sections and topics but suffers from lack of good explanation of the project topic and the plan of the work. For the remaining duration of the project, the candidate should plan their work to formulate a better report and outcome.

The project outline & aims does not give a clear picture of what this project is about. The explanation misses coherent story line. The motivation ("WHY" this research) is not clearly laid out (from being involved in this project I know how exciting the work is but I am not sure if that comes out from the report). Some of the concepts, topics or subjects are introduced without minimal necessary introduction of them.

- When discussing existing approaches (in your case existing tool- I-CAW) and its weakness, it is not clearly articulated why cultural prompts are potentially useful (see page 10, 3.2.6).

The conclusion in 3.2.7 does not at all relate to what you are going to do (but only summarises what you have found)

There is a big jump from section 3.2 to 3.3 – i.e. goal of the section is missing.

Regarding the plan of the work, there is a good deal of technologies involved in the project hence the understanding of relevant technologies has to be developed at early stages and in parallel with the research. This should be reflected in the plan of work.

Other comments:

1. The abbreviation "Digital Traces" to "DT" may not be necessary.
2. Many formatting issues with spacing between paragraphs, alignments etc.
3. On page 4, do not expect users to understand the figures 1 and 2 themselves. Walk them through and contextualise it for your own project.
4. Page 6, line 1 & 2, it should be "content" instead of "context". +
5. Page 6, mention of [4] is incorrect in the second para. It is actually [5]. +
6. Page 7, again [4] is not the correct reference. This sort of incorrect referencing is repeated throughout. +
7. Figures 5 & 6 on page 8 are not mentioned within text, which they should be. +
8. On page 10, first line, is it proven (unique, cost-effective) or is it potential? +
9. On page 10, weaknesses of I-CAW sections, I fail to see how the first three weaknesses relate to the topic of this project or work. +

Figure 17: Supervisor's comments on Interim Report.

Appendix 1

Table 22: Project schedule.

Months		March			April			May			June			July			August			Sept	
Activity	Weeks	1			2			3			4			1			2			1	
		Start			Finish																
Aim and Minimum Requirements Form		05/03/12	09/03/12																		
Literature Review		12/03/12	15/06/12																		
Easter Break		16/03/12	13/04/12																		
Exam Term		14/05/12	23/05/12																		
Identify Cultural Models to Use		23/05/12	18/06/12																		
Interim Report		30/05/12	15/06/12																		
You Tube Video Selection		18/06/12	25/06/12																		
Pilot Project		25/06/12	26/06/12																		
Break		26/06/12	29/06/12																		
Study Set Up		29/06/12	10/07/12																		
Design and Implementation of the Prototype		10/07/12	27/08/12																		
Evaluation		27/08/12	04/08/12																		
Report Write Up		30/05/12	06/09/12																		

Yellow colour indicates breaks and blue indicates the progress.

Appendix 2

Extending a Semantic Data Browser with Cultural Prompts

About this research

This research aims to create cultural awareness while using a semantic data browser. The browser has already been developed as a part of the EU founded project ImREAL³ (Immersive Reflective Experience-based Adaptive Learning). In this project we aim to **raise users' awareness on the cultural aspects by focusing on different gestures, greetings, artifacts and personal space in different cultures.**

To achieve such goal, comments on YouTube videos are going to be used as the main source of data. The data collected will then be processed and integrated into a semantic data browser. In the end, the user browsing in I-CAW will be able to raise his/ her awareness on cultural differences/ similarities based on other people's real- life experiences.

Your Contribution to the project

We need your help to generate the user generated content that we can use to experiment. **Please note that the data you provide to us will be kept anonymous.**

You are expected to watch the videos and write down any comments and answers to the questions after each video. We expect you to write down your comments on this sheet, after each video, under the "your comments" title. You can include any cultural similarities, differences, personal experiences, observations in your comments.

There are some example comments given below. If you have similar opinions to the example comments, you can write them as well. Every single experience is crucial for our research.

"When I first visited Italy, I felt quite uncomfortable because of people touching my shoulder while talking and I also was shocked by the number of scooters they have in the city centre."

³ <http://www.imreal-project.eu/>

"Yes I also had a similar experience. It is always difficult for me to greet a person who is not from my culture. I never know if I should kiss them or if I kiss them, I am not sure about the number of kisses expected."

Thank you very much for your contribution.

Section 1

Section 1 is about the personal data of applicants. We need your nationality, age, the country you currently live in and the countries you have been to. Please **be rest assured that your personal data will be kept anonymous.**

Please fill in the form below.

Nationality:							
Country of residence:							
Age Range: (bold the range)	(21 and under)	(22-28)	(29-34)	(35-44)	(45-54)	(55-65)	(65 and over)
Countries visited:							

Section 2

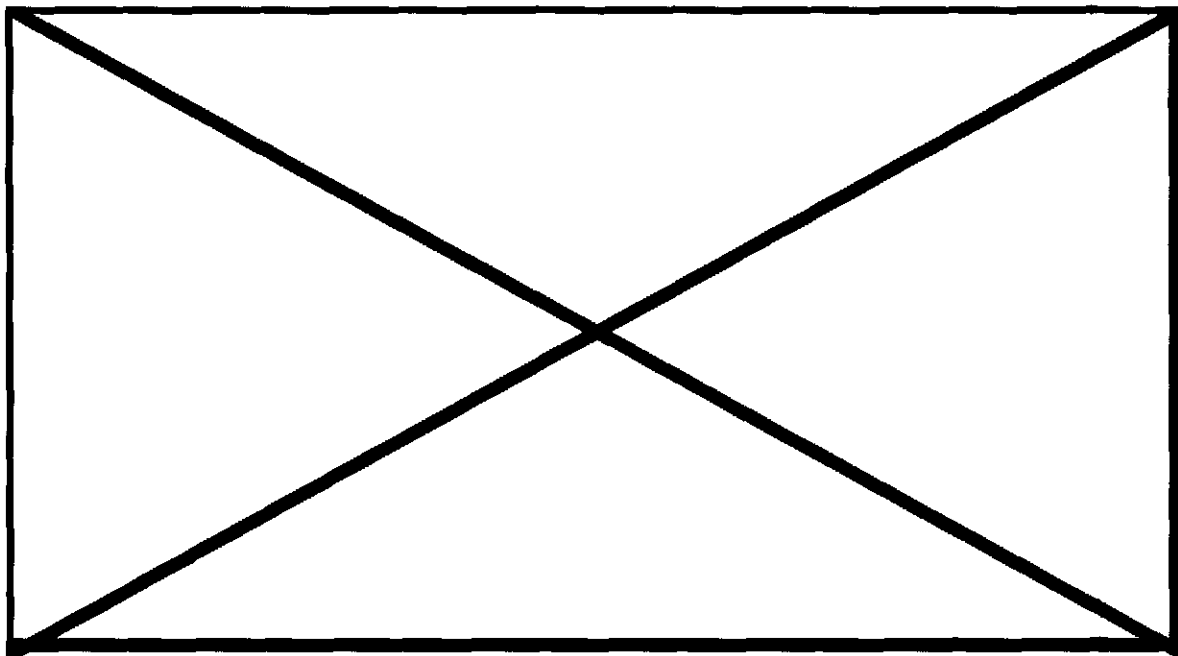
In this section you are going to watch seven videos in total. They are divided into four categories in terms of their topic. At the end of each video, there will be a question given to direct you on your comment. As we mentioned above, you can always include any additional comment.

Please watch the videos and provide comments according to the questions at the end of each video. There are also directing sentences given under **"Your Comments"** section that allows you to share any possible personal experience you had.

Gestures

Video 1:

In the first video you will see people from different countries talking about cultural hand signs. Please watch it carefully and comment.

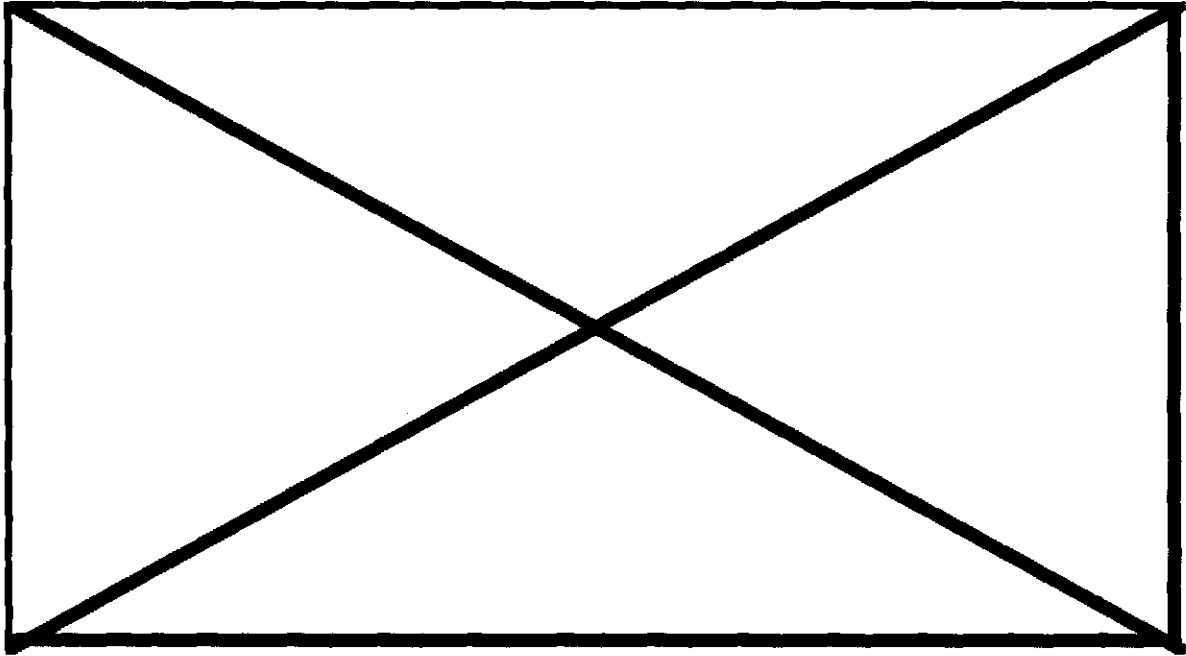


Your Comments

Did ***the examples*** you saw in the video in any way relate to any of the situations you have been part of in the past. If yes, ***How?***

Video 2:

In the second video you will see different gestures from different countries. Please watch it carefully and comment.



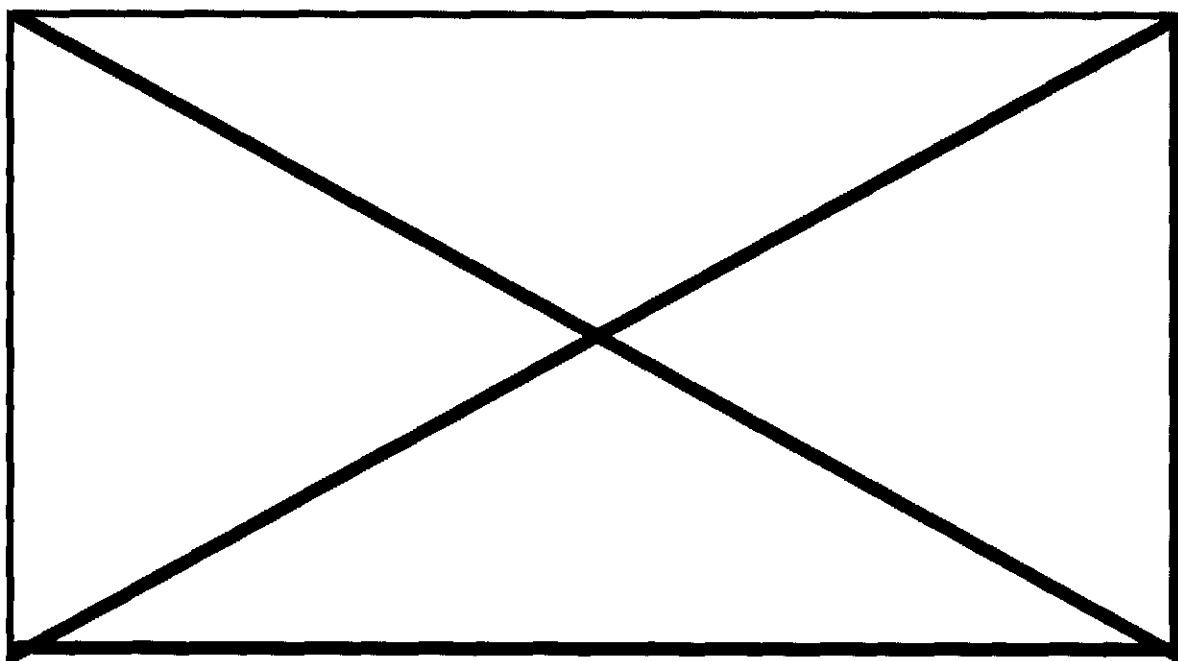
Your Comments

*“Did **the examples** you saw in the video in any way relate to any of the situations you have been part of in the past. If yes, **How?**”*

Greetings

Video 3:

The third video is about an American boy being greeted by a Korean friend. Please watch it carefully and comment.

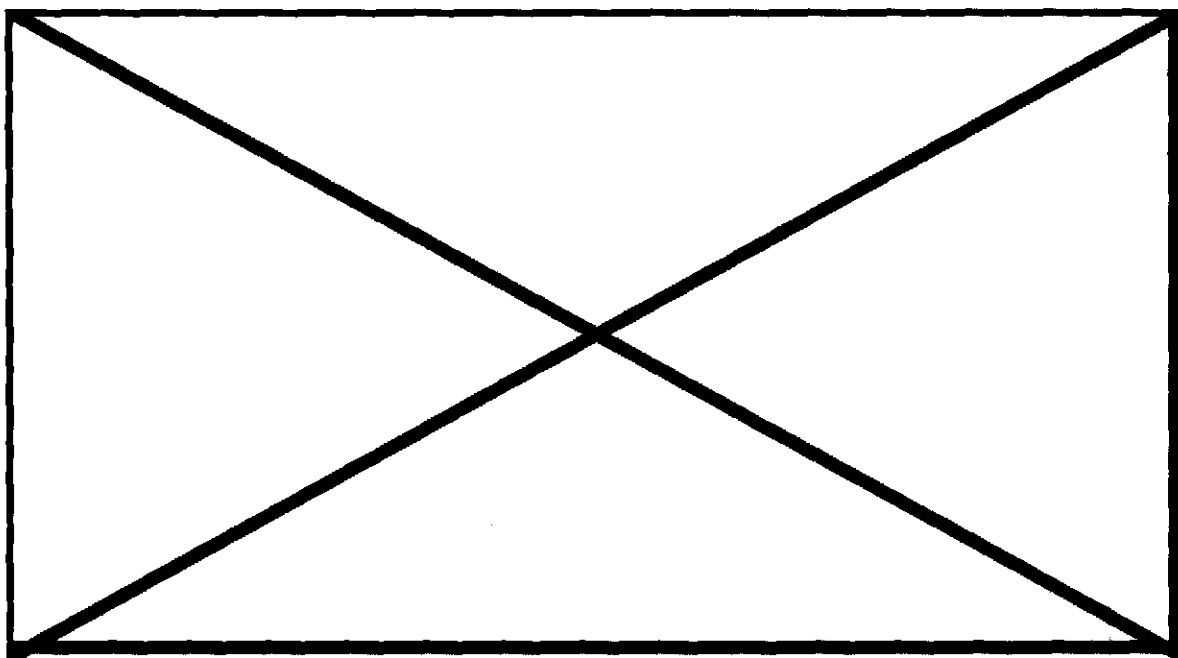


Your Comments

Did **the example** you saw in the video in any way relate to any of the situations you have been part of in the past. If yes, **How?**

Video 4:

The forth video is giving a general idea of greetings all over the world with some particular examples. Please watch it carefully and comment.



Your Comments

Did ***the examples*** you saw in the video in any way relate to any of the situations you have been part of in the past. If yes, ***How?***

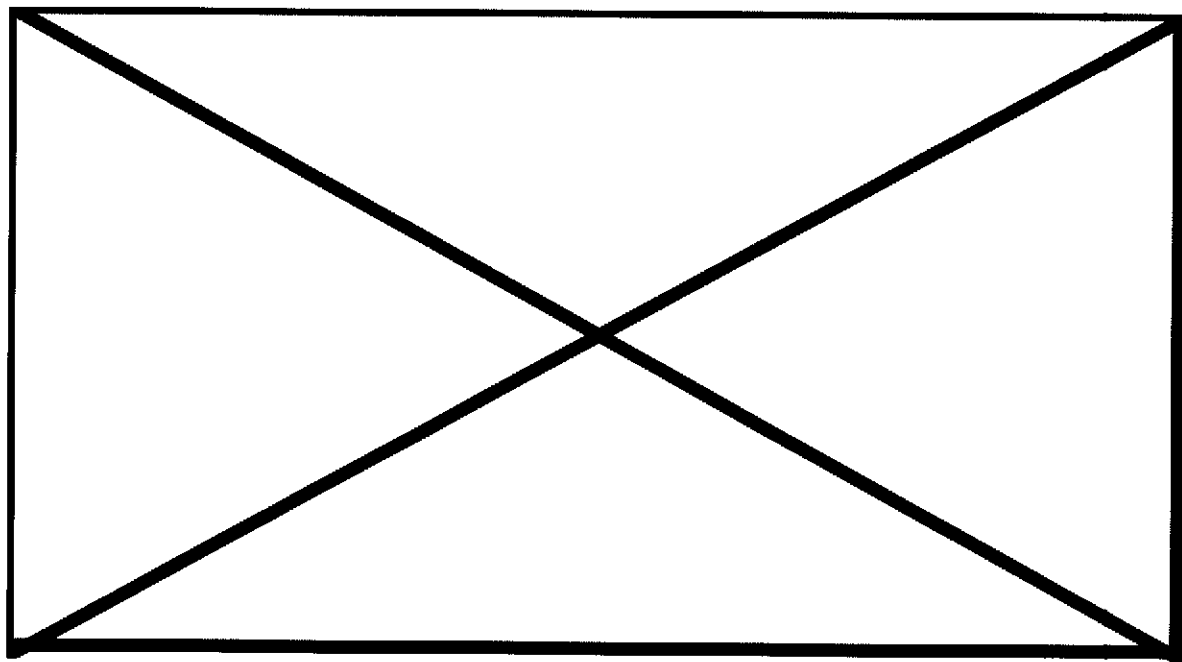
Artifacts

To help you understand the term “**cultural artifact**” you will find two examples below:

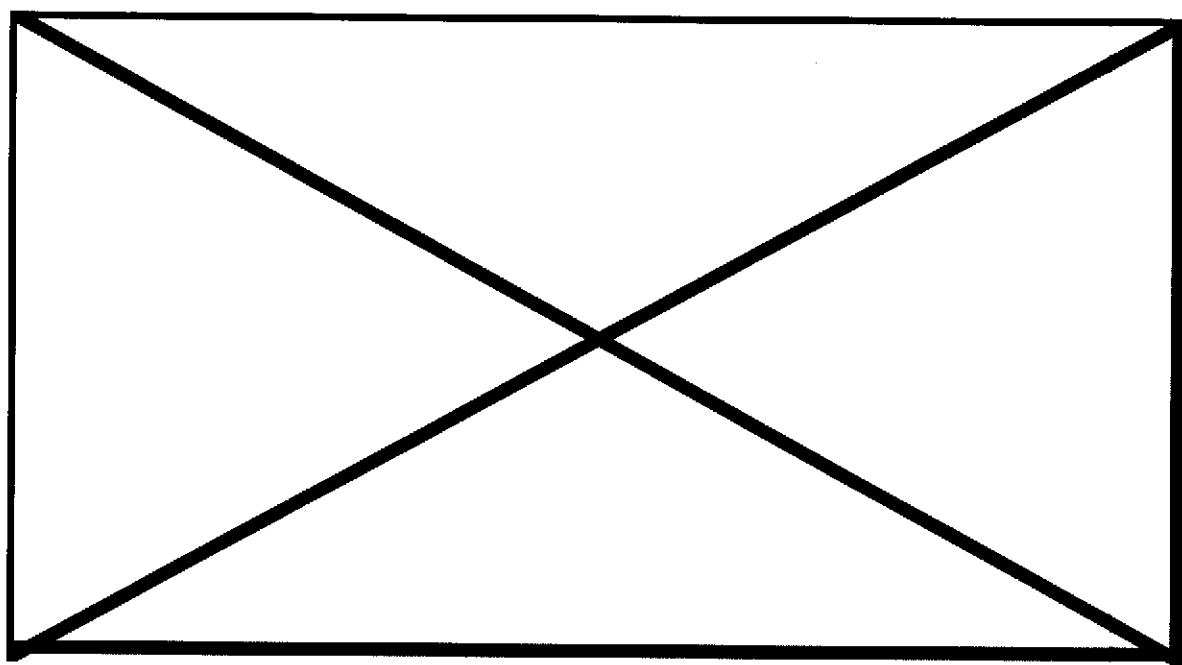
- In some cultures, there are certain kinds of drinks that are only prepared when a member of the family gives birth. And that particular drink is associated with giving birth.
- In some cultures, it is a custom to wear rings made of different stones according to your horoscope.

Video 5 and **Video 6** are about the artifacts and how they are used in different cultures. Please watch both of them carefully and comment.

Video 5 :



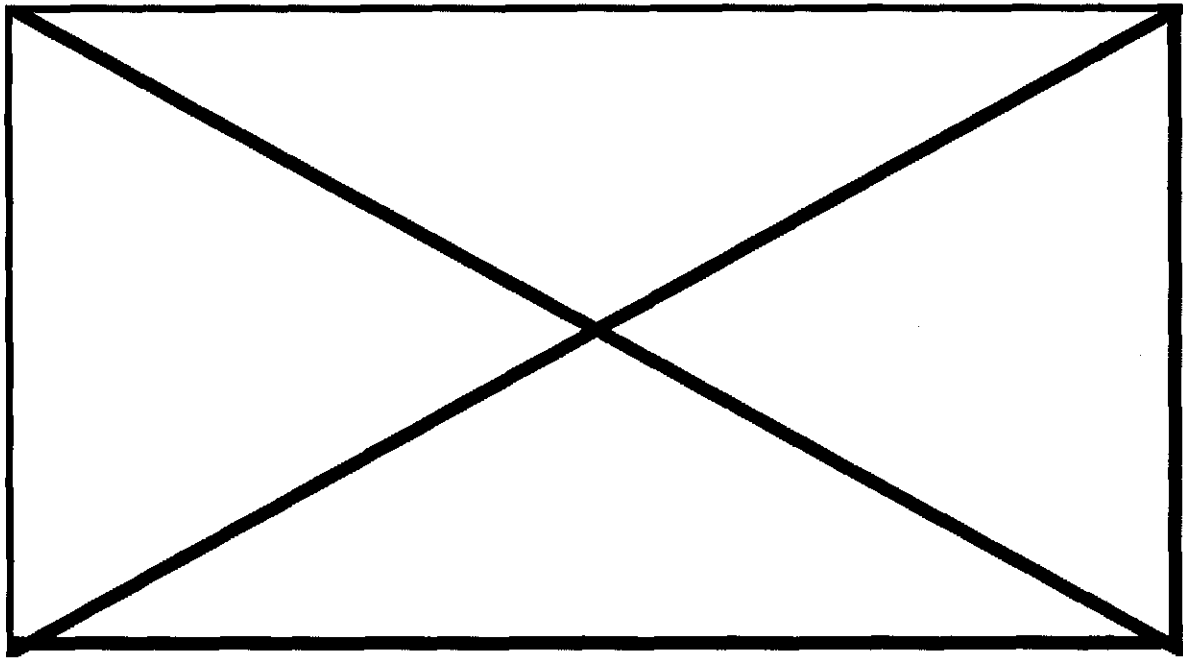
Video 6:



Personal Space

Video 7:

The last video is about how personal space can differ in different cultures. Please watch it carefully and comment..



Your Comments

Did **the examples** you saw in the video in any way relate to any of the situations you have been part of in the past. If yes, **How?**

This is the end of the form. Thank you very much for your contribution.

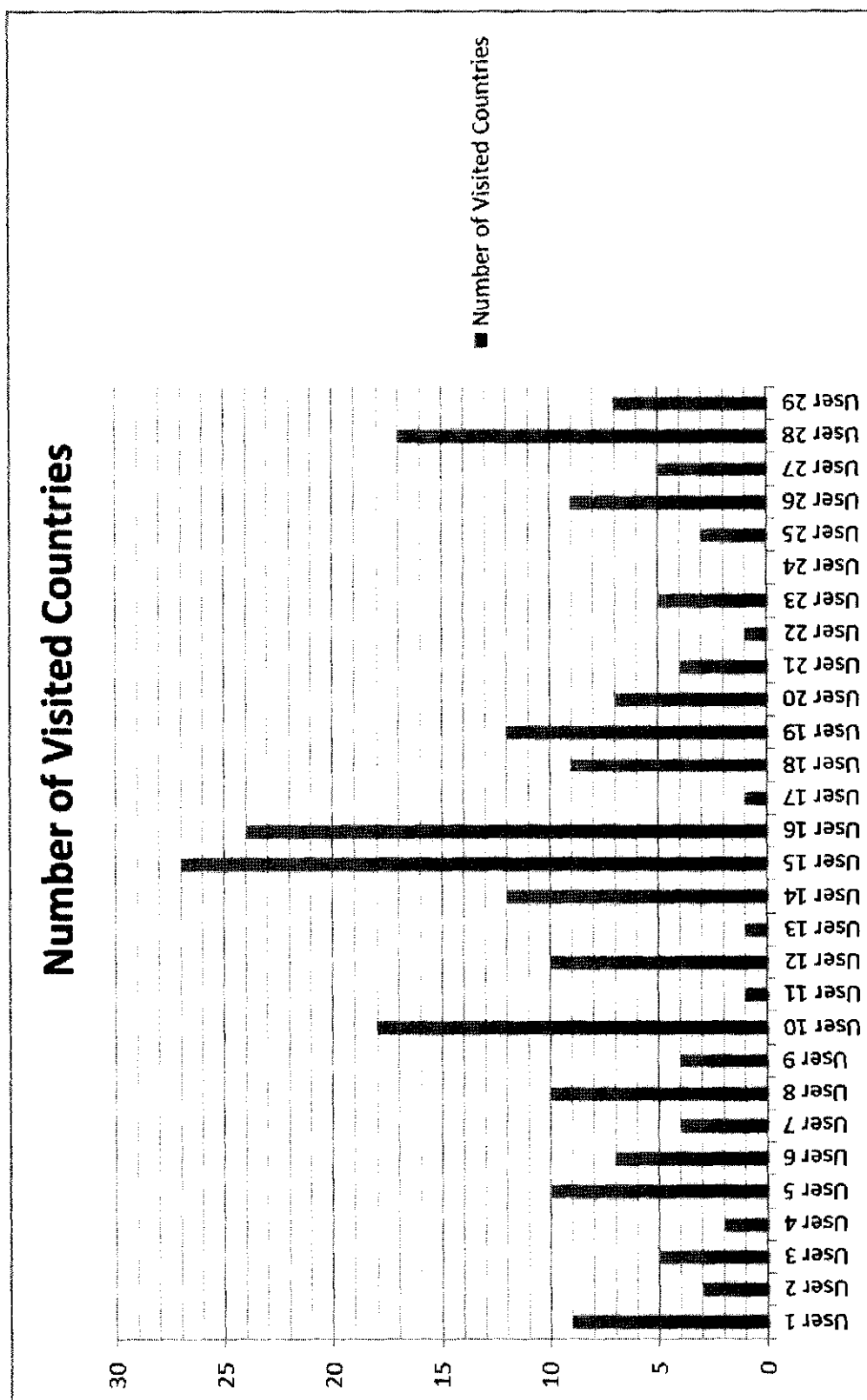


Figure 18: Number of countries visited by users.

Appendix 4

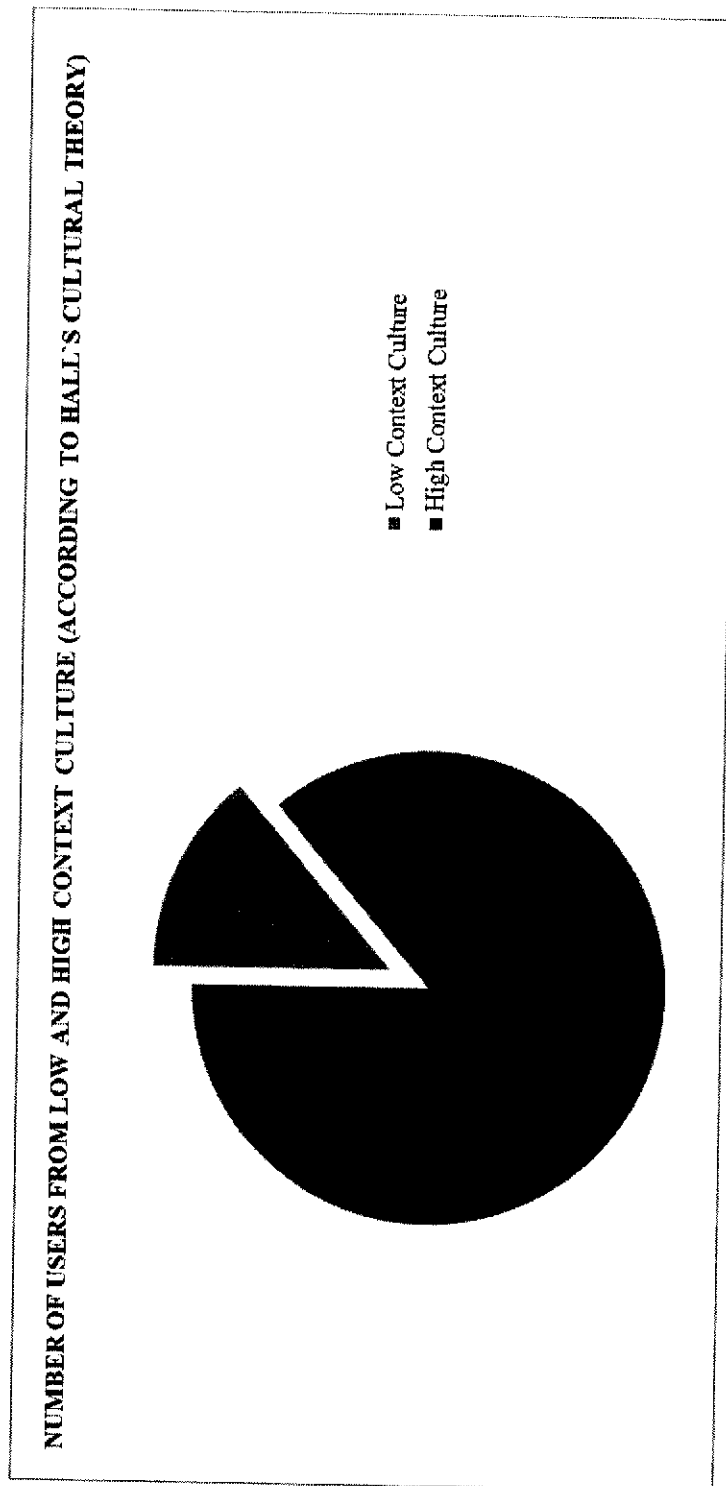


Figure 19: Distribution of users' according to Hall's Theory of Culture.

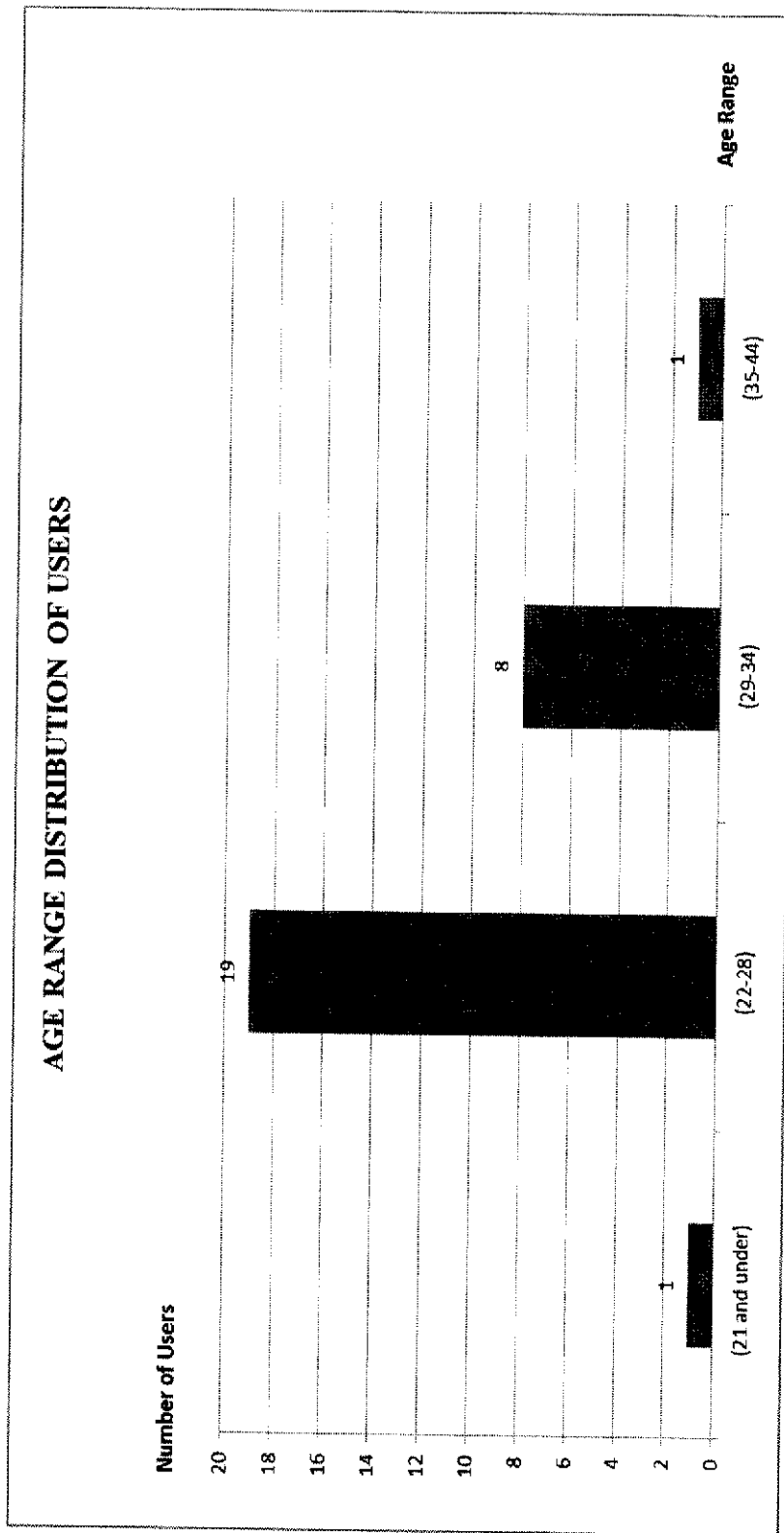


Figure 20: Age range distribution of users.

Appendix 6

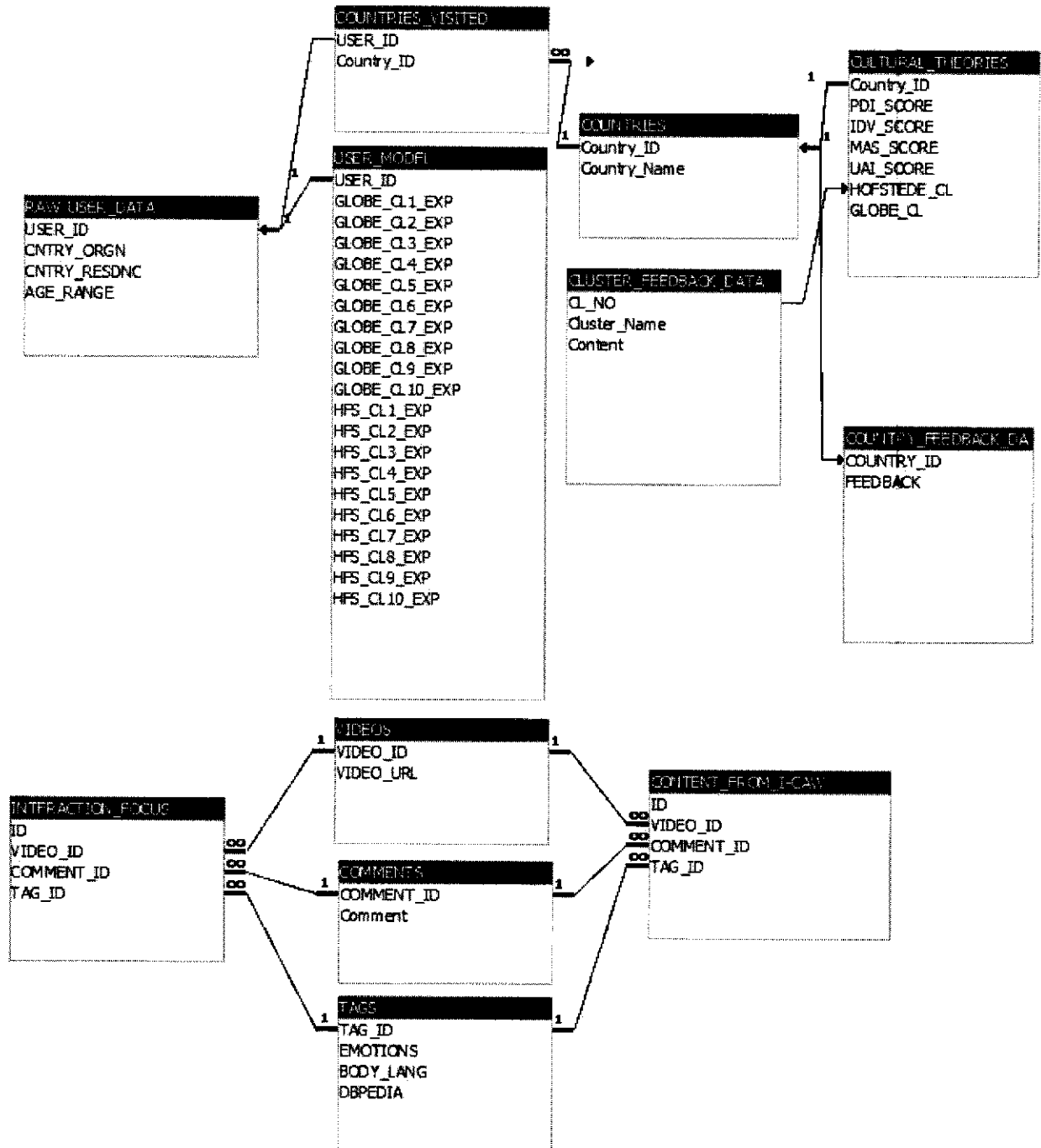


Figure 21: Relationships of the database tables

Appendix 7

Table 23: Detailed information on used seven videos.

	Gestures	Several examples of different gestures from different countries	Includes a lot of cultures, a gives a clear understanding of the meaning of gestures.	
	https://www.youtube.com/watch?v=0e8i0r0pzk			
Original video	Category: Comedy Licence: Standard YouTube Licence http://www.youtube.com/watch?v=CWUcGgSolw4&feature=BFa&list=PLD31CC5FF9675A66D			
	Gestures	Several examples of different gestures from different countries	Includes a lot of other cultures and an entertaining video.	
	https://www.youtube.com/watch?v=Ar2XqzHw-t4			
Original video	Category: Education Licence: Standard YouTube Licence http://www.youtube.com/watch?v=RX3eBScTONQ&feature=BFa&list=WLF002A6B4D97C5B0			
	Greetings	Role playing example between South Korean and American cultures.	An entertaining video also the message in it is very clear.	
	https://www.youtube.com/watch?v=N2Qtgipveb4			
Original video	Category: Entertainment Licence: Standard YouTube Licence http://www.youtube.com/watch?v=4YFfNUWJs8o&feature=BFa&list=WLF002A6B4D97C5B0			
	Greetings	Includes several examples of greetings and two different kinds of role playing.	Has a very rich content about greetings in different cultures.	
	https://www.youtube.com/watch?v=IRbNeVBU7q8&feature=relmfu			
Original video	Category: Education Licence: Standard YouTube Licence			

	http://www.youtube.com/watch?v=pcVZM2i2HZQ&feature=BFa&list=WLF002A6B4D97C5B0		
	Artefacts	Difference between German and French people in terms of taking care of their cars and other possessions.	An entertaining video also the message in it is very clear.
	https://www.youtube.com/watch?v=UGLv4fleVsM		
Original video	Category: Education Licence: Standard YouTube Licence http://www.youtube.com/watch?v=mUCODUvKbzE		
	Artefacts	Gives the message: different flowers may have different meanings in different countries and this may lead to misunderstandings.	An entertaining video also the message in it is very clear.
	https://www.youtube.com/watch?v=cuzOsx0UVAk		
Original video	Category: Education Licence: Standard YouTube Licence http://www.youtube.com/watch?v=mUCODUvKbzE		
	Personal Space	A role playing example between Italian and Swedish cultures in terms of personal space.	There is a bit of exaggeration in the video and it triggers users to talk about it. Also it is very entertaining.
	https://www.youtube.com/watch?v=okBTsmD_Z-k		
Original video	Category: Education Licence: Creative Commons Attribution licence (reuse allowed) http://www.youtube.com/watch?v=IbfkgyFSodc		

Appendix 8

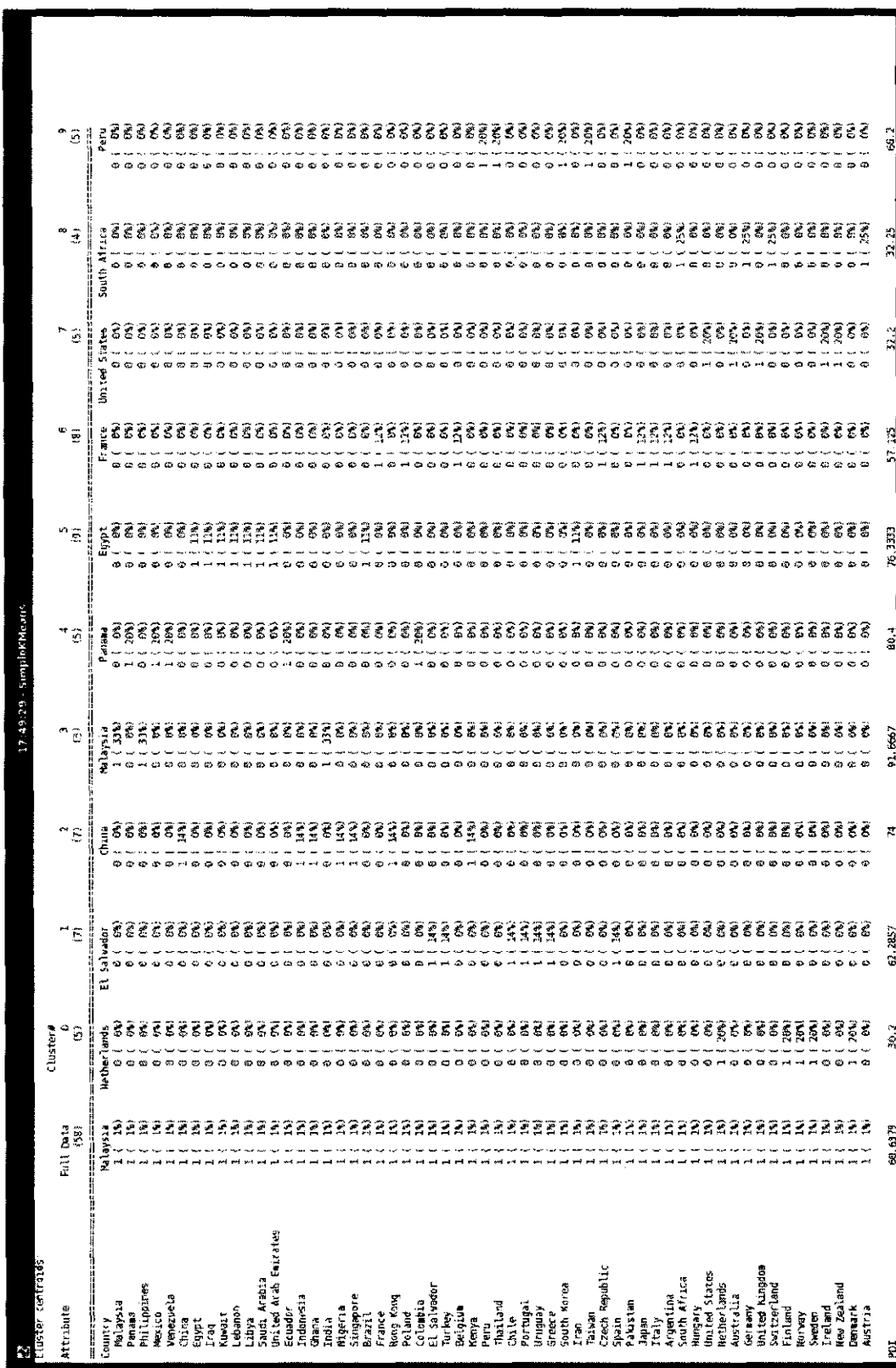


Figure 22: Screen grab of clusters proposed by WEKA (k=10).

Appendix 9

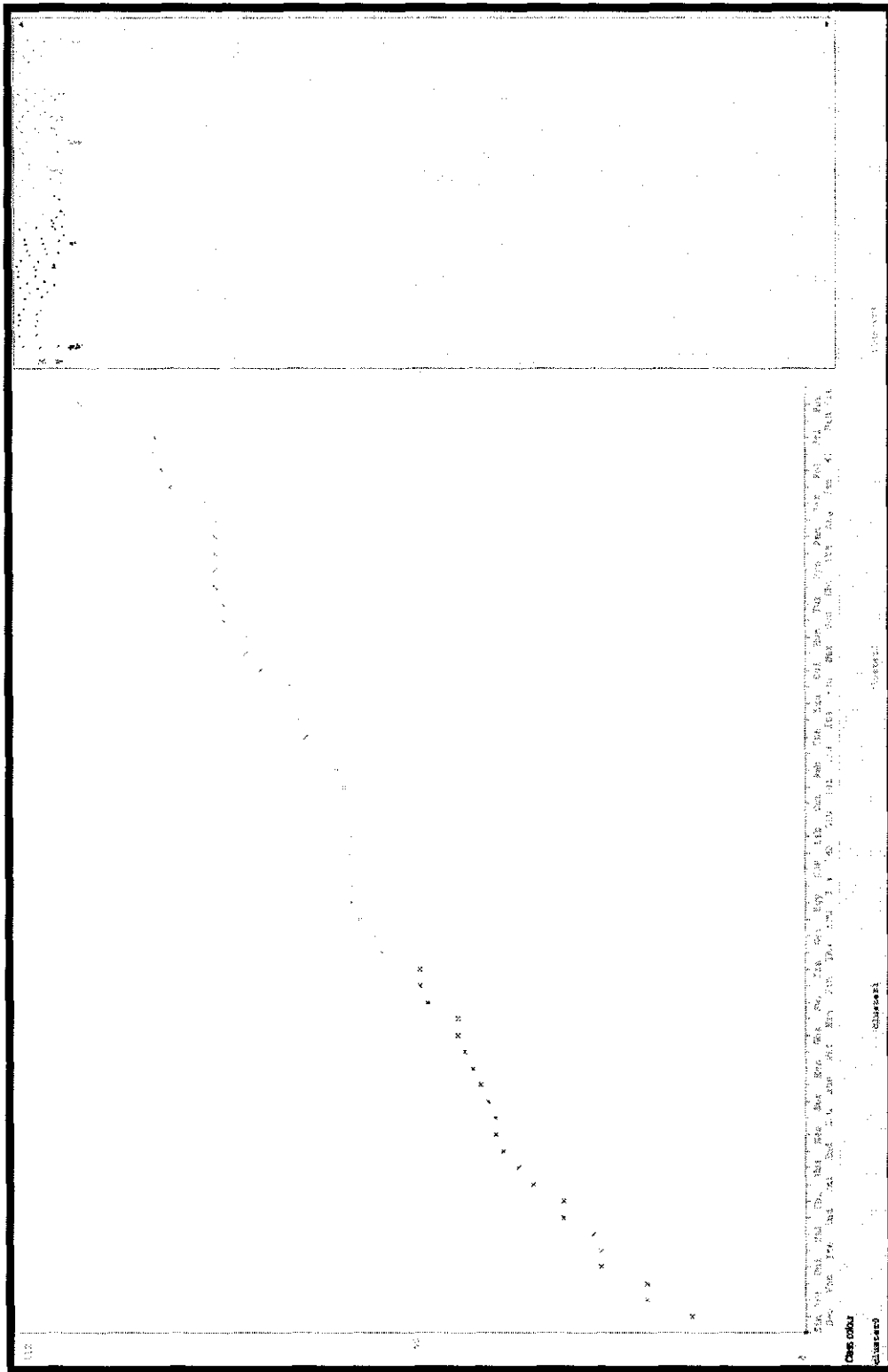


Figure 23: Generated 4 clusters based on Uncertainty Avoidance Dimension of the countries.

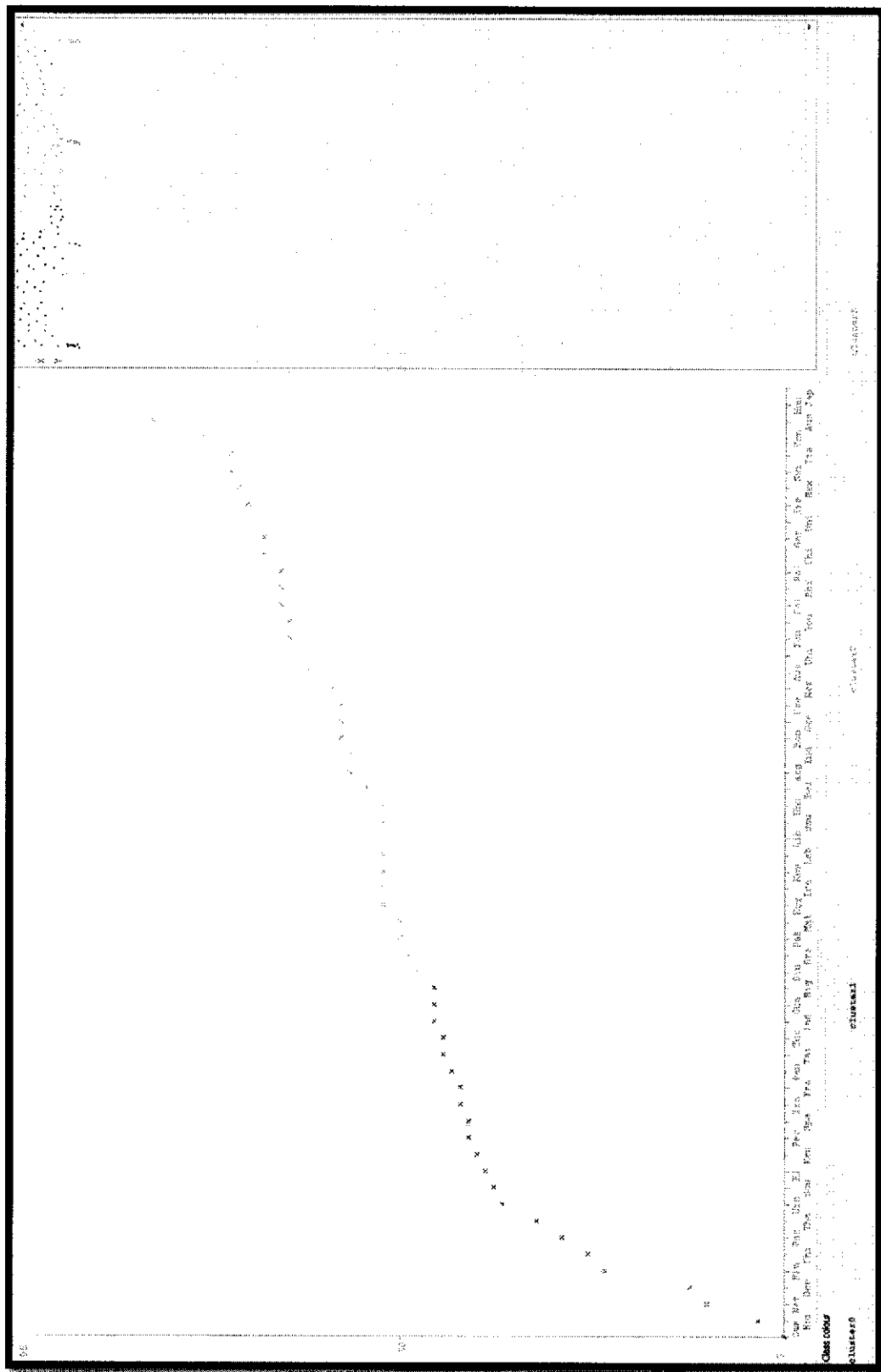


Figure 24: Generated 4 clusters based on Masculinity Dimension of the countries.

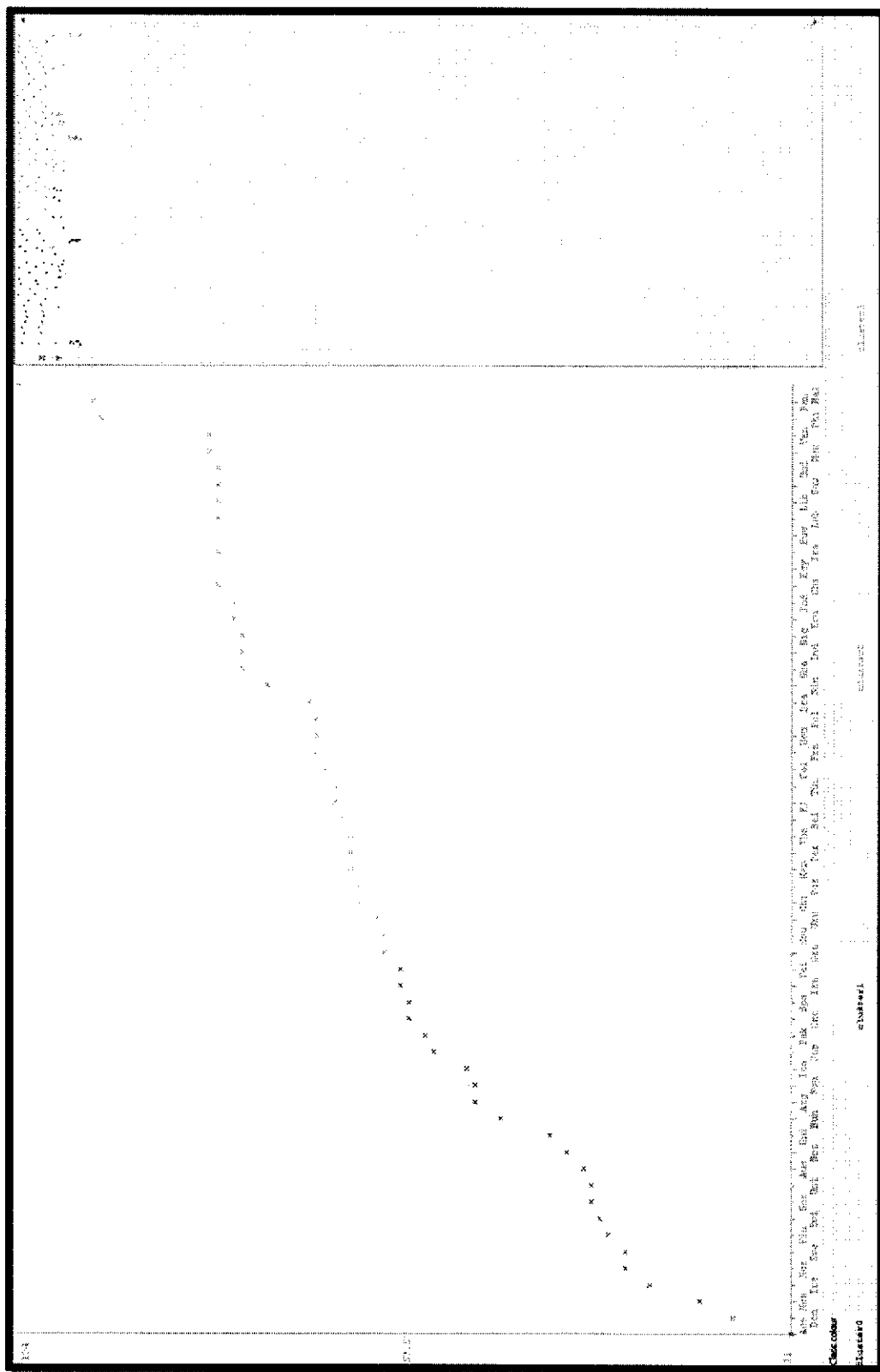


Figure 25: Generated 4 clusters based on Power Distance Dimension of the countries.

APPENDIX 10

Slide 1: Extending a Semantic Data Browser with Cultural Prompts

- What I have done
 - Literature Review
 - Content Collection
 - Prototype
- What is going to be done
 - Completion of the Prototype
 - Evaluation

Slide 2: ImREAI

- "How of being a templated learning environment to provide a virtual environment based on 'real-world' experiences"
- "RealWorld" experience?
 - Use of labels when the user has interacted with the experience
- A new approach for learning which is accomplished on the knowledge of the learner's knowledge

Slide 3: Intelligent Content Assembly Workbench (I-CAW)

- The semantic data browser with intelligent features that facilitate interactive learning
- Collects and organizes Digital traces (logs) using Ontological Understanding and Semantic Augmentation for Querying and using metadata and prompts

Slide 4: Intelligent Content Assembly Workbench (I-CAW)

- guides users while their browsing of most organic DPs, and nudges and highlights tags and prompts to guide users

Slide 5: Intelligent Content Assembly Workbench (I-CAW)

- No information about user
- No cultural aspects involved

Slide 6: Extending a Semantic Data Browser with Cultural Prompts

- Develop a model and a prototype to provide prompts aimed at helping users' power based on the cultural aspects, focusing on different geographies, events, artifacts and personal space in different cultures
- By inserting cultural prompts into CAW

Slide 7: Content Collection

- To achieve, such as comments on YouTube videos are going to be used as they are source of data. The data collected is then processed and integrated into I-CAW.
- YouTube Comments ☒
- Blog ☒
- Personal Stories ☒

Slide 8: Selecting YouTube Videos

Diagram showing a flow from 'YouTube Videos' to 'Selected Videos'.

Slide 9: Used 7 Videos

Video ID	Video Title	Video Description	Video URL
1	1. The first video is about the history of the world.	The first video is about the history of the world.	https://www.youtube.com/watch?v=1
2	2. The second video is about the history of the world.	The second video is about the history of the world.	https://www.youtube.com/watch?v=2
3	3. The third video is about the history of the world.	The third video is about the history of the world.	https://www.youtube.com/watch?v=3
4	4. The fourth video is about the history of the world.	The fourth video is about the history of the world.	https://www.youtube.com/watch?v=4
5	5. The fifth video is about the history of the world.	The fifth video is about the history of the world.	https://www.youtube.com/watch?v=5
6	6. The sixth video is about the history of the world.	The sixth video is about the history of the world.	https://www.youtube.com/watch?v=6
7	7. The seventh video is about the history of the world.	The seventh video is about the history of the world.	https://www.youtube.com/watch?v=7

Slide 10: Creation of the Form

- As a coach Office Word document containing 7 used YouTube videos
- The form contains information and details that are related to your user interaction experience. Users can interact and learn from the form and can also use it to create a new form. The form is created using the form builder tool.
- Sending and working back via email

Slide 11: Study Set Up

- 2 pilot total: 29 people from 23 different countries and different cultures.

Country	Number of Participants
USA	1
Canada	1
UK	1
France	1
Germany	1
Italy	1
Spain	1
Japan	1
China	1
India	1
Brazil	1
Australia	1
South Africa	1
Argentina	1
Chile	1
Colombia	1
Costa Rica	1
Cuba	1
Dominican Republic	1
Ecuador	1
El Salvador	1
Guatemala	1
Honduras	1
Kenya	1
Malaysia	1
Mexico	1
Nigeria	1
Peru	1
Russia	1
South Korea	1
Taiwan	1
Thailand	1
USA	1
UK	1
France	1
Germany	1
Italy	1
Spain	1
Japan	1
China	1
India	1
Brazil	1
Australia	1
South Africa	1
Argentina	1
Chile	1
Colombia	1
Costa Rica	1
Cuba	1
Dominican Republic	1
Ecuador	1
El Salvador	1
Guatemala	1
Honduras	1
Kenya	1
Malaysia	1
Mexico	1
Nigeria	1
Peru	1
Russia	1
South Korea	1
Taiwan	1
Thailand	1

Slide 12: Prompt Model

- Interaction Focus: Content from I-CAW
- User Model

Slide 13: Interaction Focus: Content from I-CAW

- DBpedia: Countries
- Body Language: Body signals, body tags
- Emotion: Emotions

Slide 14: User Model

- User Data
- Exposure level (number)
- GLOBE clusters Exposure
- Hofstede Exposure
- Hall Exposure
- Exposure Level

Slide 15: Prompt Model

- Input from DB

Slide 16: User Model: User Data

Participant	Country of Origin	Country of Residence	Age	Gender
1	USA	USA	25	Male
2	USA	USA	25	Female
3	USA	USA	25	Male
4	USA	USA	25	Female
5	USA	USA	25	Male
6	USA	USA	25	Female
7	USA	USA	25	Male
8	USA	USA	25	Female
9	USA	USA	25	Male
10	USA	USA	25	Female
11	USA	USA	25	Male
12	USA	USA	25	Female
13	USA	USA	25	Male
14	USA	USA	25	Female
15	USA	USA	25	Male
16	USA	USA	25	Female
17	USA	USA	25	Male
18	USA	USA	25	Female
19	USA	USA	25	Male
20	USA	USA	25	Female
21	USA	USA	25	Male
22	USA	USA	25	Female
23	USA	USA	25	Male
24	USA	USA	25	Female
25	USA	USA	25	Male
26				

Figure 27: IMASH Presentation Slides.



APPENDIX 11

Extending a Semantic Data Browser with Cultural Prompts

About this research

In this project we aim to **raise users' awareness on the cultural aspects by focusing on different gestures, greetings, artifacts and personal space in different cultures**. To achieve this aim, a semantic data browser is used which was developed as a part of as a part of the EU founded project ImREAL¹ (Immersive Reflective Experience-based Adaptive Learning). The browser contains **user-generated content** to raise awareness on culture which is people's comments on YouTube videos. The user-generated content was collected in the previous form. In this project, **prompts** are generated which are aimed at directing users through their browsing process according to their cultural exposure.

Your Contribution to evaluation

We need your help to evaluate how well our prompts meet their goal- **directing users to raise their awareness on the cultural aspects by focusing on different gestures, greetings, artifacts and personal space in different cultures**. You can help answering questions about usefulness of prompts.

In this form, there are several questions. For each question in the form, you will receive a screenshot of the data browser and you will be expected to write your feedback on the prompt provided. In the screenshots you will see a visible comment and tags from the comment on the top of the screenshot. Under visible comment and tags, you will see YouTube video and other comments on the video. On the right hand side of the screenshot, you will see the prompt provided in a red box. You can click at the prompt then your explanation will appear. After reading the explanation then you will get 2 feedback questions. You are expected you answer those feedback questions. After filling the form, you can go to the next question by clicking the button on the left bottom of the page. These are explained in the next page on example screenshots.

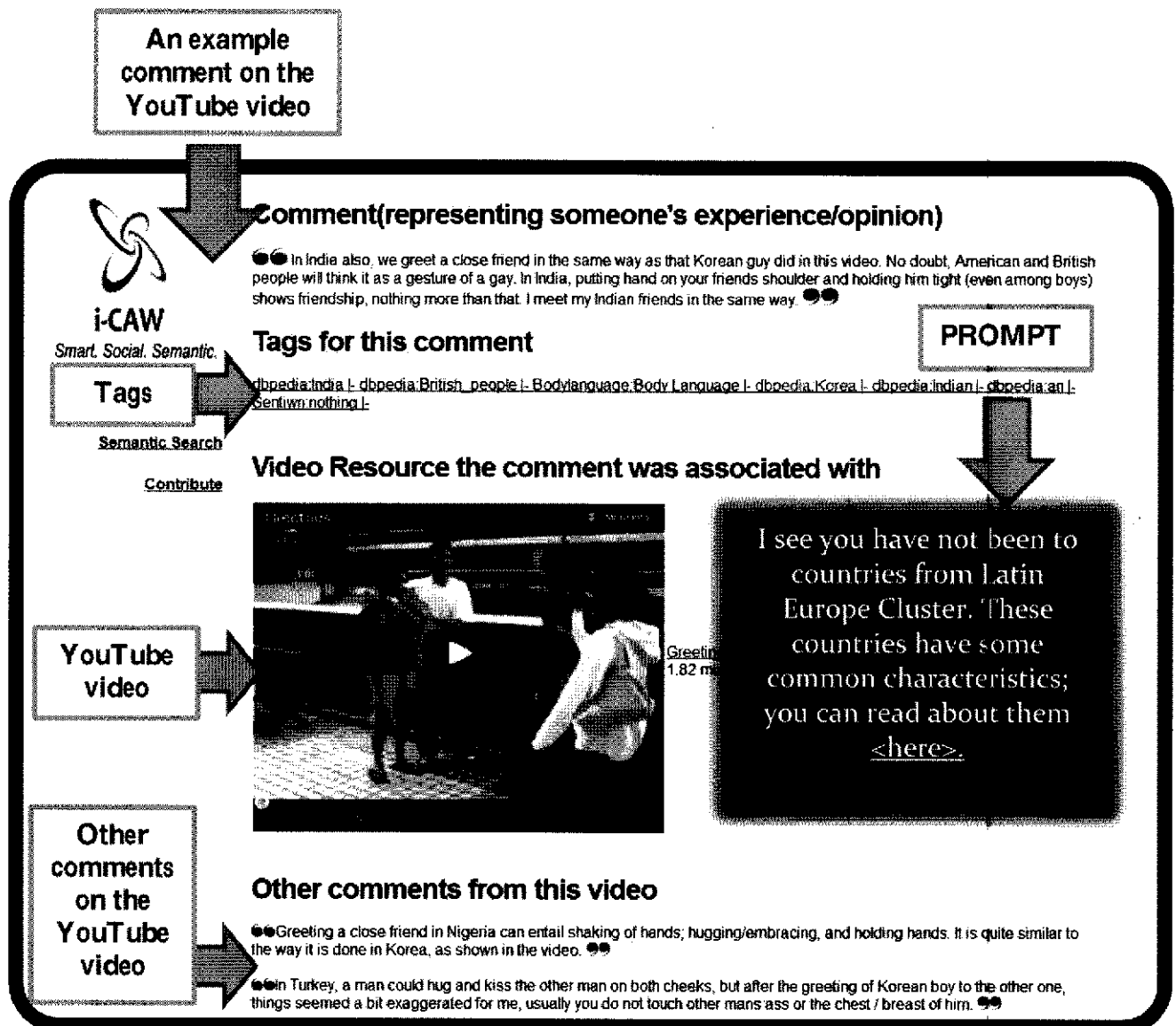
Scenario

Imagine that you are willing to raise your cultural awareness. In order to achieve this, you start browsing through our data browser. Before you start browsing, the system would ask for your country of origin, country of residence, age range and countries you have visited. As we already have your data from the previous form, you will directly be directed to the browsing process.

¹ <http://www.imreal-project.eu/>

In the browser, there is a **knowledge pool** that contains examples of comments about different cultures which can help you learn from other people's experience. At the end of each video, a prompt will appear and give you suggestions for your next browsing. This way, you can browse through that content and become aware of other cultures and aspects.

Explanation of an example screenshot



Explanation of an example feedback

Answer 1

The Nordic Europe cluster, which includes Denmark, Finland, and Sweden, exhibited several distinctive characteristics. This cluster scored high on future orientation, gender egalitarianism, institutional collectivism, and uncertainty avoidance and low on assertiveness, in-group collectivism, and power distance.

The Nordic people place a high priority on long-term success. Women are treated with greater equality. The Nordic people identify with the broader society and far less with family groups. In Nordic Europe, rules, orderliness, and consistency are stressed. Assertiveness is downplayed in favor of modesty and tenderness, and power is shared equally among people at all levels of society. Cooperation and societal level group identity are highly valued by the Nordic people.

a) Did you find the prompt helpful and why? (choose one):

- ☐ Yes
- ☐ No

Please specify why:

b) How would you characterize the prompt in the screenshot above? (choose all that apply):

- ☐ Misleading
- ☐ Confusing
- ☐ Overwhelming
- ☐ Trivial
- ☐ Trustworthy
- ☐ Relevant
- ☐ Reassuring
- ☐ Informative
- ☐ Other _____

Go to Question 2

Explanation
provided

Your
feedback
on
particular
prompt

Button for
the next
question

Feedback on the Prompts- Section 1

Question 1



i-CAW

Smart. Social. Semantic.

[Home](#)

[Semantic Search](#)

[Contribute](#)

Comment(representing someone's experience/opinion)

☺☺ Greeting a close friend in Nigeria can entail shaking of hands; hugging/embracing, and holding hands. It is quite similar to the way it is done in Korea, as shown in the video. ☺☺

Tags for this comment

[dbpedia:Nigeria](#) | [Bodylanguage:hands](#) | [dbpedia:Korea](#) |

Video Resource the comment was associated with



Greetings
1.82 min. | 0

I see you have not been to countries from Nordic Europe Cluster. These countries have some common characteristics; you can read about them

Other comments from this video

☺☺In Turkey, a man could hug and kiss the other man on both cheeks, but after the greeting of Korean boy to the other one, things seemed a bit exaggerated for me, usually you do not touch other mans ass or the chest / breast of him. ☺☺

☺☺In Turkey, a man could hug and kiss the other man on both cheeks, but after the greeting of Korea boy to the other one, things seemed a bit exaggerated for me, usually you do not touch other mans ass or the chest / breast of him. ☺☺

☺☺In Cyprus, we would hug them and kiss them twice on cheeks and offer them drinks or food. But the Korea greeting is too uncomfortable to be used in my culture. Especially the touching part. ☺☺

Question 2



i-CAW

Smart. Social. Semantic.

[Home](#)

[Semantic Search](#)

[Contribute](#)

Comment(representing someone's experience/opinion)

●● In Cyprus, we would hug them and kiss them twice on cheeks and offer them drinks or food. But the Korea greeting is too uncomfortable to be used in my culture. Especially the touching part. ●●

Tags for this comment

[Activity:Culture](#) | [dbpedia:Korea](#) | [Bodylanguage:cheeks](#) | [dbpedia:Cyprus](#) |

Video Resource the



Other comments from

●● Greeting a close friend in Nigeria of the way it is done in Korea, as shown in

●● In Turkey, a man could hug and kiss things seemed a bit exaggerated for me

●● In Turkey, a man could hug and kiss things seemed a bit exaggerated for me

You have not been to South Korea, Taiwan, Thailand, Peru, Pakistan that are related in terms of:

Power Distance (PDI): The degree to which the less powerful members of a society accept and expect that power is distributed unequally.

Individualism (IDV): A preference for a loosely-knit social framework in which individuals are expected to take care of themselves and their immediate families only.

Masculinity (MAS): Preference for achievement, heroism, assertiveness and material reward for success.

Uncertainty Avoidance (UAI): The degree to which the members of a society feel uncomfortable with uncertainty and ambiguity.

You can read more about these countries and if you click [<here>](#).

Question 3



i-CAW

Smart. Social. Semantic.

[Home](#)

[Semantic Search](#)

[Contribute](#)

Comment(representing someone's experience/opinion)

☹☹ In Cyprus, we would hug them and kiss them twice on cheeks and offer them drinks or food. But the Korea greeting is too uncomfortable to be used in my culture. Especially the touching part. ☹☹

Tags for this comment

[Activity:Culture](#) | [dbpedia:Korea](#) | [Bodylanguage:cheeks](#) | [dbpedia:Cyprus](#) |

Video Resource the comment was associated with



Greetings
1:52 min

Ireland is a country which has contrary characteristics to Hungary in terms of Uncertainty Avoidance dimension of culture according to Hofstede.

<Here> you can read about Uncertainty Avoidance dimension and the meaning of those scores in terms of Uncertainty Avoidance dimension.

Other comments from this video

☹☹Greeting a close friend in Nigeria can entail shaking of hands; hugging/embracing, and holding hands. It is quite similar to the way it is done in Korea, as shown in the video. ☹☹

☹☹In Turkey, a man could hug and kiss the other man on both cheeks, but after the greeting of Korean boy to the other one, things seemed a bit exaggerated for me, usually you do not touch other mans ass or the chest / breast of him. ☹☹

☹☹In Turkey, a man could hug and kiss the other man on both cheeks, but after the greeting of Korea boy to the other one,

Question 4



i-CAW

Smart. Social. Semantic.

[Home](#)

[Semantic Search](#)

[Contribute](#)

Comment(representing someone's experience/opinion)

●●● In Cyprus, we would hug them and kiss them twice on cheeks and offer them drinks or food. But the Korea greeting is too uncomfortable to be used in my culture. Especially the touching part. ●●●

Tags for this comment

[Activity: Culture](#) | [dbpedia: Korea](#) | [Body language: cheeks](#) | [dbpedia: Cyprus](#) |

Video Resource the comment was associated with



In the comment Korea is mentioned and Korea belongs to Confucian Asia Cluster countries according to GLOBE Project. Click [<here>](#) read more about Confucian Asia Cluster countries.

Other comments from this video

●●● Greeting a close friend in Nigeria can entail shaking of hands; hugging/embracing, and holding hands. It is quite similar to the way it is done in Korea, as shown in the video. ●●●

●●● In Turkey, a man could hug and kiss the other man on both cheeks, but after the greeting of Korean boy to the other one, things seemed a bit exaggerated for me, usually you do not touch other mans ass or the chest / breast of him. ●●●

●●● In Turkey, a man could hug and kiss the other man on both cheeks, but after the greeting of Korea boy to the other one, things seemed a bit exaggerated for me, usually you do not touch other mans ass or the chest / breast of him. ●●●

Question 5



i-CAW

Smart. Social. Semantic.

[Home](#)

[Semantic Search](#)

[Contribute](#)

Comment(representing someone's experience/opinion)

●● In India also, we greet a close friend in the same way as that Korean guy did in this video. No doubt, American and British people will think it as a gesture of a gay. In India, putting hand on your friends shoulder and holding him tight (even among boys) shows friendship, nothing more than that. I meet my Indian friends in the same way. ●●

Tags for this comment

[dbpedia:India](#) | [dbpedia:British_people](#) | [BodyLanguage:Body Language](#) | [dbpedia:Korea](#) | [dbpedia:Indian](#) | [dbpedia:an](#) | [Sent:nothing](#) |

Video Resource the comment was associated with



In the comment India is mentioned and India belongs to Cluster 4 countries which are "Malaysia, Philippines, India" according to Hofstede clusters that have been created in this project. Click [here](#) read more about countries belonging to Cluster 4.

Other comments from this video

●● Greeting a close friend in Nigeria can entail shaking of hands, hugging/embracing, and holding hands. It is quite similar to the way it is done in Korea, as shown in the video. ●●

●● In Turkey, a man could hug and kiss the other man on both cheeks, but after the greeting of Korean boy to the other one, things seemed a bit exaggerated for me, usually you do not touch other mans ass or the chest / breast of him. ●●

Question 6



i-CAW

Smart. Social. Semantic.

[Home](#)

[Semantic Search](#)

[Contribute](#)

Comment(representing someone's experience/opinion)

●● In India also, we greet a close friend in the same way as that Korean guy did in this video. No doubt, American and British people will think it as a gesture of a gay. In India, putting hand on your friends shoulder and holding him tight (even among boys) shows friendship, nothing more than that. I meet my Indian friends in the same way. ●●

Tags for this comment

[dbpedia:India](#) | [dbpedia:British_people](#) | [Bodylanguage:Body Language](#) | [dbpedia:Korea](#) | [dbpedia:Indian](#) | [dbpedia:an](#) | [Sentiwn:nothing](#) |

Video Resource the comment was associated with



India is mentioned in the comment and India scores high in Power Distance dimension according to Hofstede's dimensions. [Here](#) you can read about Power Distance and meaning of those scores in terms of Power Distance dimension.

Other comments from this video

●● Greeting a close friend in Nigeria can entail shaking of hands; hugging/embracing, and holding hands. It is quite similar to the way it is done in Korea, as shown in the video. ●●

●● In Turkey, a man could hug and kiss the other man on both cheeks, but after the greeting of Korean boy to the other one, things seemed a bit exaggerated for me, usually you do not touch other mans ass or the chest / breast of him. ●●

Question 7



[Home](#)

[Semantic Search](#)

[Contribute](#)

Comment(representing someone's experience/opinion)

☺☺ Greeting a close friend in Nigeria can entail shaking of hands, hugging/embracing, and holding hands. It is quite similar to the way it is done in Korea, as shown in the video. ☺☺

Tags for this comment

[dbpedia:Nigeria](#) | [Bodylanguage:hands](#) | [dbpedia:Korea](#) |

Video Resource the comment was associated with



Greeting
1.82 min.

Country Nigeria is mentioned in the visible comment. And Nigeria belongs to Sub- Saharan Africa Cluster according to GLOBE Project. I see that you have not been to any Sub- Saharan Africa Cluster Countries. Click [<here>](#) read more about Cluster Sub- Saharan Africa countries.

Other comments from this video

☺☺ In Turkey, a man could hug and kiss the other man on both cheeks, but after the greeting of Korean boy to the other one, things seemed a bit exaggerated for me, usually you do not touch other mans ass or the chest / breast of him. ☺☺

☺☺ In Turkey, a man could hug and kiss the other man on both cheeks, but after the greeting of Korea boy to the other one, things seemed a bit exaggerated for me, usually you do not touch other mans ass or the chest / breast of him. ☺☺

☺☺ In Cyprus, we would hug them and kiss them twice on cheeks and offer them drinks or food. But the Korea greeting is too uncomfortable to be used in my culture. Especially the touching part. ☺☺

Question 8



i-CAW

Smart. Social. Semantic.

[Home](#)

[Semantic Search](#)

[Contribute](#)

Comment(representing someone's experience/opinion)

●● Young boys like the Korean one could do the same to greet a friend in Brazil. ●●

Tags for this comment

[dbpedia:Brazil](#) [dbpedia:Korea](#)

Video Resource the comment was associated with



Brazil is mentioned in the visible comment. I see that you have not been to Brazil and Brazil belongs to Cluster 6 according Hofstede clusters that have been created in this project. Cluster 6 countries have common characteristics in terms of:

Power Distance (PDI): The degree to which the less powerful members of a society accept and expect that power is distributed unequally.

Individualism (IDV): A preference for a loosely-knit social framework in which individuals are expected to take care of themselves and their immediate families only

Masculinity (MAS): Preference for achievement, heroism, assertiveness and material reward for success.

Uncertainty Avoidance (UAI): The degree to which the members of a society feel uncomfortable with uncertainty and ambiguity.

You can read more about these countries and if you click <here>.

Other comment

●●Greeting a close friend the way it is done in Korea, ●●

●●In Turkey, a man could have things seemed a bit exaggerated

●●In Turkey, a man could have things seemed a bit exaggerated

Question 9



i-CAW

Smart. Social. Semantic.

[Home](#)

[Semantic Search](#)

[Contribute](#)

Comment(representing someone's experience/opinion)

- During my first year in the UK as a student, greeting people from very different backgrounds was a chore as each person had a different interpretation, but generally open to the experience. ●●

Tags for this comment

[dbpedia UK](#)

Video Resource the comment w



You read a comment mentioning UK. UK is a country which has contrary characteristics to Hungary in terms of Uncertainty Avoidance dimension of culture according to Hofstede. [Here](#) you can read about Uncertainty Avoidance and meaning of those scores in terms of Uncertainty Avoidance dimension.

Other comments from this video

- Greeting a close friend in Nigeria can entail shaking of hands; hugging/embracing, and holding hands. It is quite similar the way it is done in Korea, as shown in the video. ●●
- In Turkey, a man could hug and kiss the other man on both cheeks, but after the greeting of Korean boy to the other one things seemed a bit exaggerated for me, usually you do not touch other mans ass or the chest / breast of him. ●●

Feedback on the Prompts- Section 2

Question 10



i-CAW

Smart. Social. Semantic.

[Home](#)

[Semantic Search](#)

[Contribute](#)

Comment(representing someone's experience/opinion)

●●● In Cyprus, we would hug them and kiss them twice on cheeks and offer them drinks or food. But the Korea greeting is too uncomfortable to be used in my culture. Especially the touching part. ●●●

Tags for this comment

[Activity:Culture](#) | [dbpedia:Korea](#) | [Bodylanguage:cheeks](#) | [dbpedia:Cyprus](#) |

Video Resource the comment was associated with



I see that you have been some of the Middle East Cluster countries which are "Qatar, Morocco, Turkey, Egypt, Kuwait" assigned by GLOBE Project.

To see more videos tagged with Middle East Cluster countries click [<here>](#).

Other comments from this video

●●●Greeting a close friend in Nigeria can entail shaking of hands; hugging/embracing, and holding hands. It is quite similar to the way it is done in Korea, as shown in the video. ●●●

●●●In Turkey, a man could hug and kiss the other man on both cheeks, but after the greeting of Korean boy to the other one, things seemed a bit exaggerated for me, usually you do not touch other mans ass or the chest / breast of him. ●●●

●●●In Turkey, a man could hug and kiss the other man on both cheeks, but after the greeting of Korea boy to the other one, things seemed a bit exaggerated for me. usually you do not touch other mans ass or the chest / breast of him. ●●●

Question 11



i-CAW

Smart. Social. Semantic.

[Home](#)

[Semantic Search](#)

[Contribute](#)

Comment(representing someone's experience/opinion)

●● In Cyprus, we would hug them and kiss them twice on cheeks and offer them drinks or food. But the Korea greeting is too uncomfortable to be used in my culture. Especially the touching part. ●●

Tags for this comment

[Activity](#) [Culture](#) [I- dbpedia](#) [Korea](#) [I- Bodylanguage](#) [cheeks](#) [I- dbpedia](#) [Cyprus](#) [I-](#)

Video Resource the comment was associated with



I see you have been some of the countries from Cluster 2 which are "El Salvador, Turkey, Chile, Portugal, Uruguay, Greece, Spain" according to the clustering mechanism generated in this project. [<Here>](#) you can see more videos with tagged with countries belonging to Cluster 2.

Other comments from this video

●●Greeting a close friend in Nigeria can entail shaking of hands; hugging/embracing, and holding hands. It is quite similar to the way it is done in Korea, as shown in the video. ●●

●●In Turkey, a man could hug and kiss the other man on both cheeks, but after the greeting of Korean boy to the other one, things seemed a bit exaggerated for me, usually you do not touch other mans ass or the chest / breast of him. ●●

●●In Turkey, a man could hug and kiss the other man on both cheeks, but after the greeting of Korea boy to the other one, things seemed a bit exaggerated for me, usually you do not touch other mans ass or the chest / breast of him. ●●

Question 12



i-CAW

Smart. Social. Semantic.

[Home](#)

[Semantic Search](#)

[Contribute](#)

Comment(representing someone's experience/opinion)

☹☹ In Cyprus, we would hug them and kiss them twice on cheeks and offer them drinks or food. But the Korea greeting is too uncomfortable to be used in my culture. Especially the touching part. ☹☹

Tags for this comment

[Activity:Culture](#) [I-dbpedia:Korea](#) [I-Bodylanguage:cheeks](#) [I-dbpedia:Cyprus](#) [I-](#)

Video Resource the comment was associated with



Green
1.82

UK is a country which has contrary characteristics to Hungary in terms of Uncertainty Avoidance dimension of culture according to Hofstede. [<Here>](#) you can see more videos with tagged with UK.

Other comments from this video

☹☹Greeting a close friend in Nigeria can entail shaking of hands; hugging/embracing, and holding hands. It is quite similar to the way it is done in Korea, as shown in the video. ☹☹

☹☹In Turkey, a man could hug and kiss the other man on both cheeks, but after the greeting of Korean boy to the other one, things seemed a bit exaggerated for me. usually you do not touch other mans ass or the chest / breast of him. ☹☹

☹☹In Turkey, a man could hug and kiss the other man on both cheeks, but after the greeting of Korea boy to the other one, things seemed a bit exaccorated for me. usually you do not touch other mans ass or the chest / breast of him. ☹☹

Question 13



i-CAW

Smart. Social. Semantic.

[Home](#)

[Semantic Search](#)

[Contribute](#)

Comment(representing someone's experience/opinion)

●● The way boys greet each other in Greece is a bit different, they shake one hand and they hit one the other in the back or in some cases they would hug each other. ●●

Tags for this comment

[dbpedia.Greece](#) | [dbpedia.Granitsa](#) |

Video Resource the comment was associated with



In the comment Greece is mentioned and Greece belongs to Cluster Eastern Europe countries according to GLOBE Project.

[<Here>](#) you can see more videos tagged with Cluster Eastern Europe countries.

Other comments from this video

●●Greeting a close friend in Nigeria can entail shaking of hands, hugging/embracing, and holding hands. It is quite similar to the way it is done in Korea, as shown in the video. ●●

●●In Turkey, a man could hug and kiss the other man on both cheeks, but after the greeting of Korean boy to the other one, things seemed a bit exaggerated for me, usually you do not touch other mans ass or the chest / breast of him. ●●

●●In Turkey, a man could hug and kiss the other man on both cheeks, but after the greeting of Korea boy to the other one, things seemed a bit exaggerated for me, usually you do not touch other mans ass or the chest / breast of him. ●●

Question 14



i-CAW

Smart. Social. Semantic.

[Home](#)

[Semantic Search](#)

[Contribute](#)

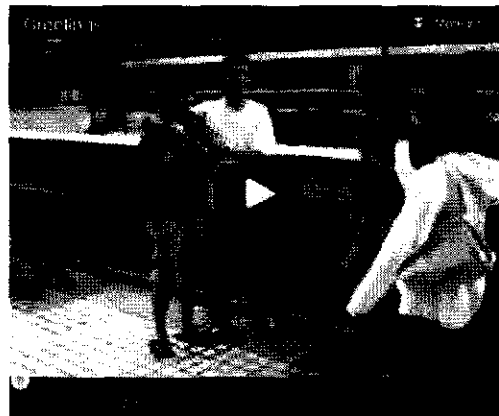
Comment(representing someone's experience/opinion)

●● Young boys like the Korean one could do the same to greet a friend in Brazil. ●●

Tags for this comment

[dbpedia:Brazil](#) | [dbpedia:Korea](#) |

Video Resource the comment was associated with



In the comment Brazil is mentioned and Brazil belongs to Cluster 6 countries according Hofstede clusters that have been created in this project. [<Here>](#) you can see more videos tagged with countries belonging to Cluster 6.

Other comments from this video

●●Greeting a close friend in Nigeria can entail shaking of hands, hugging/embracing, and holding hands. It is quite similar to the way it is done in Korea, as shown in the video. ●●

●●In Turkey, a man could hug and kiss the other man on both cheeks, but after the greeting of Korean boy to the other one, things seemed a bit exaggerated for me, usually you do not touch other mans ass or the chest / breast of him. ●●

●●In Turkey, a man could hug and kiss the other man on both cheeks, but after the greeting of Korea boy to the other one, things seemed a bit exaggerated for me, usually you do not touch other mans ass or the chest / breast of him. ●●

Question 15



[Home](#)

[Semantic Search](#)

[Contribute](#)

Comment(representing someone's experience/opinion)

●● Just say hi in Japan! And waving a hand. We usually don't hug even with close friends. ●●

Tags for this comment

[dbpedia:Japan](#):

Video Resource the comment was associated with



Japan is mentioned in the comment and Japan scores high in Uncertainty Avoidance dimension according to Hofstede's dimensions. [Here](#) you can see more videos tagged with countries have high Uncertainty Avoidance scores.

Other comments from this video

●●Greeting a close friend in Nigeria can entail shaking of hands, hugging/embracing, and holding hands. It is quite similar to the way it is done in Korea, as shown in the video. ●●

●●In Turkey, a man could hug and kiss the other man on both cheeks, but after the greeting of Korean boy to the other one, things seemed a bit exaggerated for me, usually you do not touch other mans ass or the chest / breast of him. ●●

●●In Turkey, a man could hug and kiss the other man on both cheeks, but after the greeting of Korea boy to the other one, things seemed a bit exaggerated for me, usually you do not touch other mans ass or the chest / breast of him. ●●

Question 16



i-CAW

Smart. Social. Semantic.

[Home](#)

[Semantic Search](#)

[Contribute](#)

Comment(representing someone's experience/opinion)

●● In Austria people would feel uncomfortable or even harassed, especially in a situation between man and woman. That doesn't mean that in my culture such situations are unknown. They do happen but mostly because of crudity ●●

Tags for this comment

[dbpedia Austria](#)

Video Resource the comment was



Country Austria is mentioned in the visible comment. And Austria belongs to Germanic Cluster according to GLOBE Project. I see that you have been to some of Germanic Cluster Countries. [<Here>](#) you can see more videos tagged with Cluster Germanic countries.

Other comments from this video

●●Greeting a close friend in Nigeria can entail shaking of hands; hugging/embracing, and holding hands. It is quite similar the way it is done in Korea, as shown in the video. ●●

●●In Turkey, a man could hug and kiss the other man on both cheeks, but after the greeting of Korean boy to the other one things seemed a bit exaggerated for me, usually you do not touch other mans ass or the chest / breast of him. ●●

Question 17



Comment(representing someone's experience/opinion)

●● Just say hi in Japan! And waving a hand. We usually don't hug even with close friend. ●●

Tags for this comment

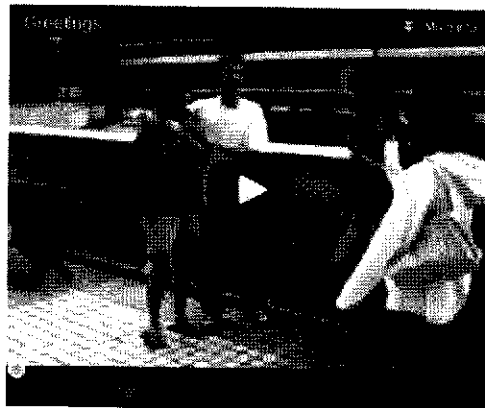
[dbpedia:Japan:](#)

[Home](#)

[Semantic Search](#)

[Contribute](#)

Video Resource the comment was associated with



I see you have been to some of the countries from Cluster 7 and Cluster 7 also contains Japan which is also mentioned in the tag. To see more videos tagged with Cluster 7 countries click [<here>](#).

Other comments from this video

●●Greeting a close friend in Nigeria can entail shaking of hands, hugging/embracing, and holding hands. It is quite similar to the way it is done in Korea, as shown in the video. ●●

●●In Turkey, a man could hug and kiss the other man on both cheeks, but after the greeting of Korean boy to the other one, things seemed a bit exaggerated for me, usually you do not touch other mans ass or the chest / breast of him. ●●

●●In Turkey, a man could hug and kiss the other man on both cheeks, but after the greeting of Korea boy to the other one, things seemed a bit exaggerated for me, usually you do not touch other mans ass or the chest / breast of him. ●●

Question 18



i-CAW

Smart. Social. Semantic.

[Home](#)

[Semantic Search](#)

[Contribute](#)

Comment(representing someone's experience/opinion)

- During my first year in the UK as a student, greeting people from very different backgrounds was a chore as each person had a different interpretation, but generally open to the experience.

Tags for this comment

[dbpedia UK](#)

Video Resource the comment was associated with



I see that you have been to UK and you read the visible comment mentioning UK in this video. UK is a country which has contrary characteristics to Hungary in terms of Uncertainty Avoidance dimension of culture according to Hofstede. [Here](#) you can see

Other comments from this video

- Greeting a close friend in Nigeria can entail shaking of hands; hugging/embracing, and holding hands. It is quite similar the way it is done in Korea, as shown in the video.
- In Turkey, a man could hug and kiss the other man on both cheeks, but after the greeting of Korean boy to the other one things seemed a bit exaggerated for me, usually you do not touch other mans ass or the chest / breast of him.

Answer 1

The Nordic Europe cluster, which includes Denmark, Finland, and Sweden, exhibited several distinctive characteristics. This cluster scored high on future orientation, gender egalitarianism, institutional collectivism, and uncertainty avoidance, and low on assertiveness, in-group collectivism, and power distance. Those dimensions are explained below:

Future orientation dimension is related with how much societies encourage individuals to engage with future related activities such as planning and investing in future.

Assertiveness dimension is to what extent individuals are confrontational, assertive, tough and aggressive

Power Distance is defined as the degree to which society expect power to be distributed equally.

Institutional Collectivism is the degree that institutions support individuals "to be integrated in to broader entities with harmony and cooperation as paramount principles at the expense of autonomy and individual freedom".

In-group Collectivism dimension is related with, how much pride, loyalty and cohesiveness individuals express to their families and in their organisations.

Uncertainty Avoidance dimension is how much societies expect orderliness, consistency, and structure.

Gender egalitarianism dimension is related with to what extent people support gender equality.

The Nordic people place a high priority on long-term success. Women are treated with greater equality. The Nordic people identify with the broader society and far less with family groups. In Nordic Europe, rules, orderliness, and consistency are stressed. Assertiveness is downplayed in favour of modesty and tenderness, and power is shared equally among people at all levels of society. Cooperation and societal level group identity are highly valued by the Nordic people.

a) Did you find the prompt helpful and why? (choose one):

☐ Yes

☐ No

Please specify why.

b) How would you characterize the prompt in the screenshot above? (choose all that apply):

☐ Misleading

☐ Confusing

☐ Overwhelming

☐ Trivial

☐ Trustworthy

☐ Relevant

☐ Reassuring

☐ Informative

☐ Other _____

Go to Question 2

Answer 2

For instance, Taiwan scores high on PDI (score of 58) which means that people accept a hierarchical order in which everybody has a place and which needs no further justification. Hierarchy in an organisation is seen as reflecting inherent inequalities, centralization is popular, subordinates expect to be told what to do and the ideal boss is a benevolent autocrat. Challenges to the leadership are not well-received.

On the other hand, Thailand scores 34 on MAS and is thus considered a feminine society. Thailand has the lowest Masculinity ranking among the average Asian countries of 53 and the World average of 50. This lower level is indicative of a society with less assertiveness and competitiveness, as compared to one where these values are considered more important and significant. This situation also reinforces more traditional male and female roles within the population.

In addition, with a value of 16 IDV Peru shows a very collectivistic score, in line with most other Latin American countries. Among other consequences, it is interesting to highlight that in general people here find large companies attractive and that, particularly among blue collar workers, the involvement with the company is moral – and not calculative.

c) Did you find the prompt helpful and why? (choose one):

☐ Yes

☐ No

Please specify why.

d) How would you characterize the prompt in the screenshot above? (choose all that apply):

☐ Misleading

☐ Confusing

☐ Overwhelming

☐ Trivial

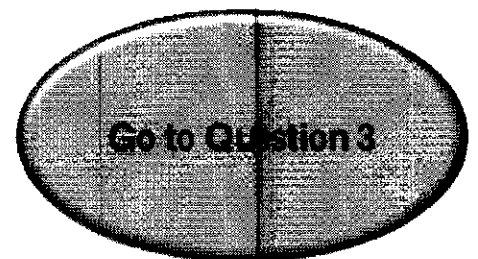
☐ Trustworthy

☐ Relevant

☐ Reassuring

☐ Informative

☐ Other _____



Answer 3

The dimension Uncertainty Avoidance has to do with the way that a society deals with the fact that the future can never be known: should we try to control the future or just let it happen? This ambiguity brings with it anxiety and different cultures have learnt to deal with this anxiety in different ways. **The extent to which the members of a culture feel threatened by ambiguous or unknown situations and have created beliefs and institutions that try to avoid these** is reflected in the UAI score.

Hungary scores 82 on this dimension and thus has a preference for avoiding uncertainty. Countries exhibiting high uncertainty avoidance maintain rigid codes of belief and behaviour and are intolerant of unorthodox behaviour and ideas. In these cultures there is an emotional need for rules (even if the rules never seem to work) time is money, people have an inner urge to be busy and work hard, precision and punctuality are the norm, innovation may be resisted, security is an important element in individual motivation.

At 35 Ireland has a low score on uncertainty avoidance. Ideas are important, being imaginative is appreciated. Irish businesses embrace creativity and are always looking for new ways to approach problems. Making a point with practical facts is more appreciated than the use of too much technical language.

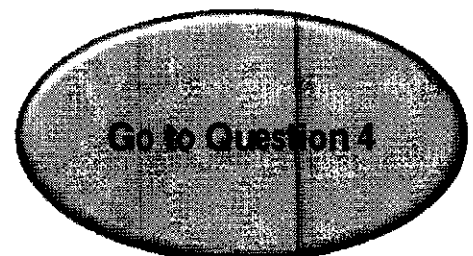
e) Did you find the prompt helpful and why? (choose one):

- ☐ Yes
- ☐ No

Please specify why.

f) How would you characterize the prompt in the screenshot above? (choose all that apply):

- ☐ Misleading
- ☐ Confusing
- ☐ Overwhelming
- ☐ Trivial
- ☐ Trustworthy
- ☐ Relevant
- ☐ Reassuring
- ☐ Informative
- ☐ Other _____



Answer 4

This cluster, which includes Singapore, Hong Kong, Taiwan, China, South Korea, and Japan, exhibited high scores in performance orientation, institutional collectivism, and in-group collectivism. These countries are result-driven, and they encourage the group working together over individual goals. People in these countries are devoted and loyal to their families. Above mentioned dimensions are explained below:

Performance Orientation dimension refers to a degree to which a society encourages and rewards group members for improvement of performance and excellence.

Institutional Collectivism is the degree that institutions support individuals "to be integrated into broader entities with harmony and cooperation as paramount principles at the expense of autonomy and individual freedom".

In-group Collectivism dimension is related with, how much pride, loyalty and cohesiveness individuals express to their families and in their organisations.

g) Did you find the prompt helpful and why? (choose one):

☐ Yes

☐ No

Please specify why.

h) How would you characterize the prompt in the screenshot above? (choose all that apply):

☐ Misleading

☐ Confusing

☐ Overwhelming

☐ Trivial

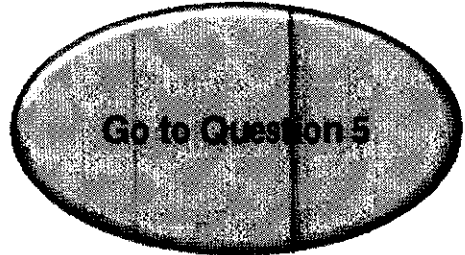
☐ Trustworthy

☐ Relevant

☐ Reassuring

☐ Informative

☐ Other _____



Go to Question 5

Answer 5

Cluster 4 countries are Malaysian, Philippines and India. Some examples on Cluster 4 countries are given below:

Malaysia scores very high on Power Distance Dimension (score of 104) which means that people accept a hierarchical order in which everybody has a place and which needs no further justification. Hierarchy in an organisation is seen as reflecting inherent inequalities, centralization is popular, subordinates expect to be told what to do and the ideal boss is a benevolent autocrat. Challenges to the leadership are not well-received.

The **Philippines**, with a Individualism Dimension score of 32, is considered a collectivistic society. This is manifest in a close long-term commitment to the member 'group', be that a family, extended family, or extended relationships. Loyalty in a collectivist culture is paramount, and over-rides most other societal rules and regulations. The society fosters strong relationships where everyone takes responsibility for fellow members of their group. In collectivist societies offence leads to shame and loss of face, employer/employee relationships are perceived in moral terms (like a family link), hiring and promotion decisions take account of the employee's in-group, management is the management of groups.

India scores 40 on **Uncertainty avoidance dimension** and thus has a medium low preference for avoiding uncertainty. In India there is acceptance of imperfection; nothing has to be perfect nor has to go exactly as planned. India is traditionally a patient country where tolerance for the unexpected is high; even welcomed as a break from monotony. People generally do not feel driven and compelled to take action-initiatives and comfortably settle into established rolls and routines without questioning. Rules are often in place just to be circumvented and one relies on innovative methods to "bypass the system". A word used often is "adjust" and means a wide range of things, from turning a blind eye to rules being flouted to finding a unique and inventive solution to a seemingly unsurmountable problem. It is this attitude that is both the cause of misery as well as the most empowering aspect of the country. There is a saying that "nothing is impossible" in India, so

i) Did you find the prompt helpful and why? (choose one):

☐ Yes

☐ No

Please specify why.

j) How would you characterize the prompt in the screenshot above? (choose all that apply):

☐ Misleading

☐ Confusing

☐ Overwhelming

☐ Trivial

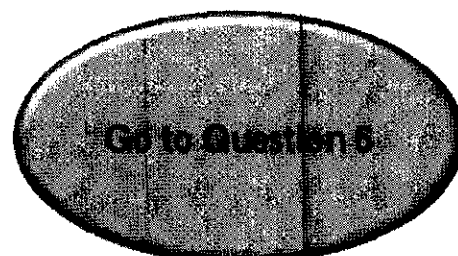
☐ Trustworthy

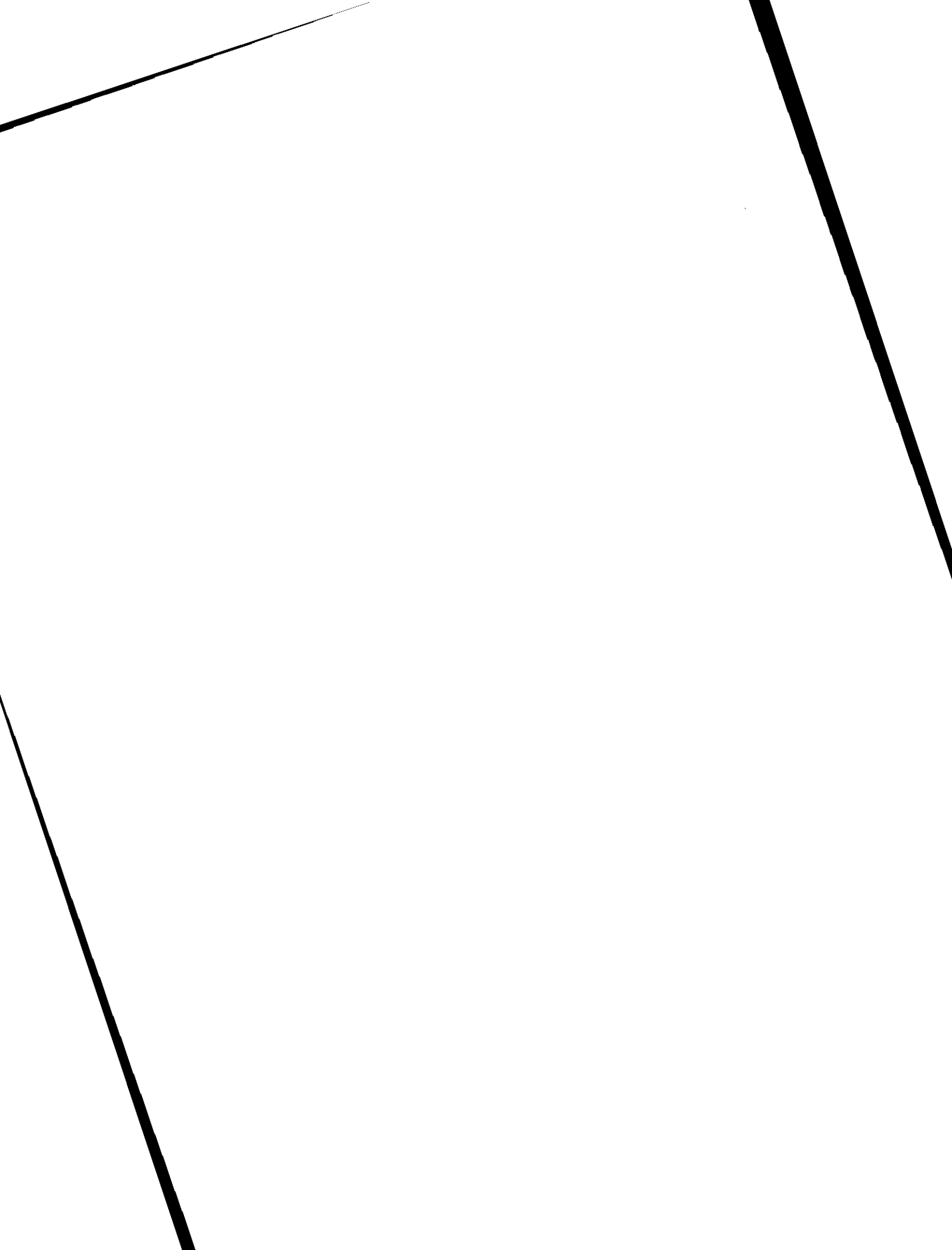
☐ Relevant

☐ Reassuring

☐ Informative

☐ Other _____





Answer 6

Power Distance dimension deals with the fact that all individuals in societies are not equal – it expresses the attitude of the culture towards these inequalities amongst us.

Power distance is defined as the extent to which the less powerful members of institutions and organisations within a country expect and accept that power is distributed inequally.

India scores high on this dimension, 77, indicating an appreciation for hierarchy and a Top – Down Structure in society and Organizations. If one were to encapsulate the Indian attitude, one could use the following words and phrases : dependent on the boss or the powerholder for direction, acceptance of unequal rights between the power-privileged and those who are lesser down in the pecking order, immediate superiors accessible but one layer above less so, paternalistic leader, management directs, gives reason / meaning to ones work life and rewards in exchange for loyalty from employees.

k) Did you find the prompt helpful and why? (choose one):

☐ Yes

☐ No

Please specify why.

l) How would you characterize the prompt in the screenshot above? (choose all that apply):

☐ Misleading

☐ Confusing

☐ Overwhelming

☐ Trivial

☐ Trustworthy

☐ Relevant

☐ Reassuring

☐ Informative

☐ Other _____

Go to Question 7

Answer 7

The Sub-Saharan Africa cluster consisted of Zimbabwe, Namibia, Zambia, Nigeria, and South Africa (Black sample). These countries expressed high scores on humane orientation. In Sub-Saharan Africa, people generally are very concerned and sensitive to others. Concern for family and friends is more important than concern for self. Humane Orientation is explained below:

Humane Orientation dimension is the degree, to which society encourages members for being fair, altruistic, generous, caring and kind to other members

m) Did you find the prompt helpful and why? (choose one):

☐ Yes

☐ No

Please specify why.

n) How would you characterize the prompt in the screenshot above? (choose all that apply):

☐ Misleading

☐ Confusing

☐ Overwhelming

☐ Trivial

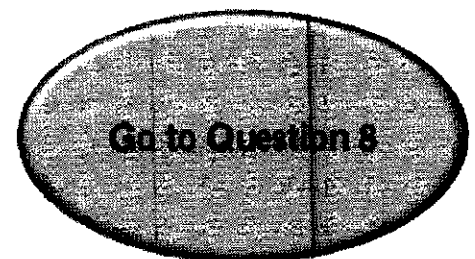
☐ Trustworthy

☐ Relevant

☐ Reassuring

☐ Informative

☐ Other _____



Answer 8

Cluster 6 countries are Egypt, Iraq, Kuwait, Lebanon, Libya, UAE, Saudi Arabia, Brazil and Iran. For example, Egypt, Iraq, Kuwait, Lebanon, Libya, Saudi Arabia score very similar and they score high on PDI (score of 80) which means that people accept a hierarchical order in which everybody has a place and which needs no further justification. Hierarchy in an organization is seen as reflecting inherent inequalities, centralization is popular, subordinates expect to be told what to do and the ideal boss is a benevolent autocrat.

On the other hand, Brazil scores 49 on MAS, really in the middle. The softer aspects of culture such as leveling with others, consensus, sympathy for the underdog are valued and encouraged. Conflicts are avoided in private and work life and consensus at the end is important. Status is shown, but this comes more out of the high PDI.

And Iran scores 59 on UAI and thus has a high preference for avoiding uncertainty. Countries exhibiting high uncertainty avoidance maintain rigid codes of belief and behaviour and are intolerant of unorthodox behaviour and ideas. In these cultures there is an emotional need for rules (even if the rules never seem to work) time is money, people have an inner urge to be busy and work hard, precision and punctuality are the norm, innovation may be resisted, security is an important element in individual motivation.

o) Did you find the prompt helpful and why? (choose one):

☐ Yes

☐ No

Please specify why.

p) How would you characterize the prompt in the screenshot above? (choose all that apply):

☐ Misleading

☐ Confusing

☐ Overwhelming

☐ Trivial

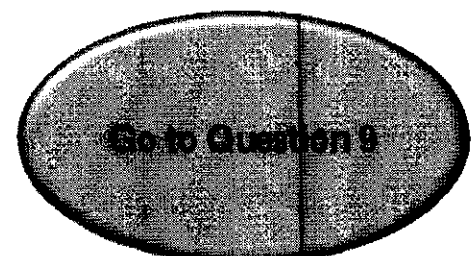
☐ Trustworthy

☐ Relevant

☐ Reassuring

☐ Informative

☐ Other _____



Answer 9

The dimension Uncertainty Avoidance has to do with the way that a society deals with the fact that the future can never be known: should we try to control the future or just let it happen? This ambiguity brings with it anxiety and different cultures have learnt to deal with this anxiety in different ways. **The extent to which the members of a culture feel threatened by ambiguous or unknown situations and have created beliefs and institutions that try to avoid these** is reflected in the UAI score.

At 35 the UK has a low score on uncertainty avoidance which means that as a nation they are quite happy to wake up not knowing what the day brings and they are happy to 'make it up as they go along' changing plans as new information comes to light. As a low UAI country the British are comfortable in ambiguous situations - the term 'muddling through' is a very British way of expressing this. There are generally not too many rules in British society, but those that are there are adhered to (the most famous of which of of course the British love of queuing which has also to do with the values of fair play).

In work terms this results in planning that is not detail oriented - the end goal will be clear (due to high MAS) but the detail of how we get there will be light and the actual process fluid and flexible to emerging and changing environment. Planning horizons will also be shorter.

Hungary scores 82 on this dimension and thus has a preference for avoiding uncertainty. Countries exhibiting high uncertainty avoidance maintain rigid codes of belief and behaviour and are intolerant of unorthodox behaviour and ideas. In these cultures there is an emotional need for rules (even if the rules never seem to work) time is money, people have an inner urge to be busy and work hard, precision and punctuality are the norm, innovation may be resisted, security is an important element in individual motivation.

q) Did you find the prompt helpful and why? (choose one):

☐ Yes

☐ No

Please specify why.

r) How would you characterize the prompt in the screenshot above? (choose all that apply):

☐ Misleading

☐ Confusing

☐ Overwhelming

☐ Trivial

☐ Trustworthy

☐ Relevant

☐ Reassuring

☐ Informative

☐ Other _____

Go to Question 10

Answer 10

"I remember having a little crisis about "kissing 3 times" with one of my friends in Poland. We kiss 2 times in Turkey.."

s) Did you find the prompt helpful and why? (choose one):

☐ Yes

☐ No

Please specify why.

t) How would you characterize the prompt in the screenshot above? (choose all that apply):

☐ Misleading

☐ Confusing

☐ Overwhelming

☐ Trivial

☐ Trustworthy

☐ Relevant

☐ Reassuring

☐ Informative

☐ Other _____

Go to Question 11

Answer 11

“The way boys greet each other in Greece is a bit different, they shake one hand and they hit one the other in the back or in some cases they would hug each other. ”

u) Did you find the prompt helpful and why? (choose one):

☐ Yes

☐ No

Please specify why.

_____.

v) How would you characterize the prompt in the screenshot above? (choose all that apply):

☐ Misleading

☐ Confusing

☐ Overwhelming

☐ Trivial

☐ Trustworthy

☐ Relevant

☐ Reassuring

☐ Informative

☐ Other _____.

Go to Question 12

Answer 12

"I can't really think of anything specific from the UK. There are things which are symbols of good or bad luck (horse shoes, rabbit's feet, black cats, etc = good. Ladders, broken mirrors, etc = bad).

When people turn 21 it is/was customary to give them a large key representing the key to the door of life. And if you buy someone a purse, wallet or handbag then you should put a penny in it before you give it to them.

It's customary, slightly clichéd, to take flowers and grapes when visiting someone in hospital."

w) Did you find the prompt helpful and why? (choose one):

☐ Yes

☐ No

Please specify why.

x) How would you characterize the prompt in the screenshot above? (choose all that apply):

☐ Misleading

☐ Confusing

☐ Overwhelming

☐ Trivial

☐ Trustworthy

☐ Relevant

☐ Reassuring

☐ Informative

☐ Other _____

Go to Question 13

Answer 13

"The way of crossing oneself in Poland resembles the way of crossing oneself in all Roman Catholic countries as far as I know (also my own country). For me it's unusual that man hug each other when they meet. In my country that is only appropriate for woman, even then not very common. The gestures for having a drink made me wonder, if in Poland the side of the hand touching the throat doesn't rather mean that someone is already drunk (I was told so) and not wanting a drink or even offering one. In general I'm not sure if these gestures are really so established as is shown in the video. Some (the polish way of asking for a fight at the beginning I've never seen in Poland whereas I can imagine some similar gesture in Germany or Austria) seem to me rather subjective and not necessarily typical for a specific country."

y) Did you find the prompt helpful and why? (choose one):

☐ Yes

☐ No

Please specify why.

_____.

z) How would you characterize the prompt in the screenshot above? (choose all that apply):

☐ Misleading

☐ Confusing

☐ Overwhelming

☐ Trivial

☐ Trustworthy

☐ Relevant

☐ Reassuring

☐ Informative

☐ Other_____.

Go to Question 14

Answer 14

“When families meet suitors for their daughters, it is a custom to have the daughter make and serve the drinks and dessert (Syria).

Eating without any utensils during feasts and large banquets takes place (Saudi Arabia), and asking for utensils is ‘weird’ ”

aa) Did you find the prompt helpful and why? (choose one):

☐ Yes

☐ No

Please specify why.

_____.

bb) How would you characterize the prompt in the screenshot above? (choose all that apply):

☐ Misleading

☐ Confusing

☐ Overwhelming

☐ Trivial

☐ Trustworthy

☐ Relevant

☐ Reassuring

☐ Informative

☐ Other _____.

Go to Question 15

Answer 15

"In Greece we greet each other by shaking hands or kiss each other twice. Mostly the second way is used for women but not always there are many cases in which men do so."

cc) Did you find the prompt helpful and why? (choose one):

☐ Yes

☐ No

Please specify why.

dd) How would you characterize the prompt in the screenshot above? (choose all that apply):

☐ Misleading

☐ Confusing

☐ Overwhelming

☐ Trivial

☐ Trustworthy

☐ Relevant

☐ Reassuring

☐ Informative

☐ Other _____

Go to Question 16

Answer 16

"The kissing on the cheek is a tradition in the country in that I live now, but it's also getting more and more common among a certain group of people (mostly students, young women) in Austria. But it's not really something well-rooted in my homecountry, so it's optional, whereas in Poland, where I live, it seems to be more established. I find it hard to find out if kissing is necessary or not, and it also depends on my mood if I feel like having close body contact to a friend or an acquaintance.

In Poland it happens to me all the time that in such greeting procedures little "accidents" happen: kissing the wrong cheek first so that the noses touch each other or giving the wrong number of kisses. I prefer to shake hands and kiss my friends because I want to kiss them. "

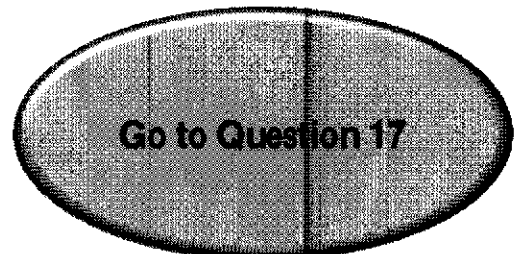
ee) Did you find the prompt helpful and why? (choose one):

- ☐ Yes
- ☐ No

Please specify why.

ff) How would you characterize the prompt in the screenshot above? (choose all that apply):

- ☐ Misleading
- ☐ Confusing
- ☐ Overwhelming
- ☐ Trivial
- ☐ Trustworthy
- ☐ Relevant
- ☐ Reassuring
- ☐ Informative
- ☐ Other _____



Answer 17

"The double kiss on the cheeks is how I usually greet people in Italy. Although I use to just shake hands in other European countries like England, so that people don't feel uncomfortable in meeting me for the first time".

gg) Did you find the prompt helpful and why? (choose one):

- ☐ Yes
- ☐ No

Please specify why.

hh) How would you characterize the prompt in the screenshot above? (choose all that apply):

- ☐ Misleading
- ☐ Confusing
- ☐ Overwhelming
- ☐ Trivial
- ☐ Trustworthy
- ☐ Relevant
- ☐ Reassuring
- ☐ Informative
- ☐ Other _____

Go to Question 18

Answer 18

"Yes. When I first came to UK I've been warned by the "two" sign and what does it mean if one flips the palm around, which was surprising for me, but after I knew the origin of it, it made sense afterwards."

ii) Did you find the prompt helpful and why? (choose one):

- ☐ Yes
- ☐ No

Please specify why.

_____.

jj) How would you characterize the prompt in the screenshot above? (choose all that apply):

- ☐ Misleading
- ☐ Confusing
- ☐ Overwhelming
- ☐ Trivial
- ☐ Trustworthy
- ☐ Relevant
- ☐ Reassuring
- ☐ Informative
- ☐ Other _____.

This is the end of the form. Please read the section below.

Overall Feedback

If you have anything extra to mention please write it here.

Feedback on Future Improvement

Would you suggest any improvement for prompts which can help meet their primary goal: - directing users to raise their awareness on the cultural aspects by focusing on different gestures, greetings, artifacts and personal space in different cultures?

