Chapter 4

Findings

4.1 Introduction

The findings are discussed in the sequence in which they answer the research questions. The instruments that have yielded the best information to answer these questions are *observation* and *analysis* of the web designs as well as of the contents. At the opening of each chapter, I have summarized Hofstede's definition of each dimension, before presenting Marcus' interpretations of how this dimension can affect the user interface and design of a website. I have summarized the reflections of these aspects on ORT school websites, proceeding with a detailed discussion of each element. I have then examined whether Marcus' hypotheses are applicable to them. I have used relevant examples and screen shots from the websites, tables and graphs to illustrate my findings.

The observations of the ORT school websites are focused on three layers of website architecture: user interface, services offered by the websites, and accessibility of information.

I have organized this chapter into four sections, according to Hofstede's four cultural dimensions:

4.1   How is *Power Distance* reflected on the design and user interface of ORT school websites?

4.2   How is *Collectivism* vs. *Individualism* reflected on the design and user interface of ORT school websites?

4.3   How is *Masculinity* vs. *Femininity* reflected on the design and user interface of ORT school websites?

4.4   How is *Uncertainty Avoidance* reflected on the design and user interface of ORT school websites?

4.2 Research question 1

How is power distance reflected on the design and user interface of ORT school websites:

To what extent do the less powerful members' expectations and acceptance of unequal power distribution within a culture reflect the following aspects of ORT websites' user interface and design, as defined by Marcus (2001):

- **Access to information**: highly (high PD) vs. less-highly (low PD) structured.

- **Hierarchies in mental models**[1]: tall vs. shallow.

- **Emphasis on the social and moral order** (e.g., nationalism or religion) and its symbols: significant/frequent vs. minor/infrequent use.

- **Focus on expertise, authority, experts, certifications, official stamps, or logos**: strong vs. weak.

- **Prominence given to leaders vs. citizens, customers, or employees**.

- **Importance of security and restrictions or barriers to access**: explicit, enforced, frequent restrictions on users vs. transparent, integrated, implicit freedom to roam.

- **Social roles used to organize information** (e.g., a managers' section obvious to all but sealed off from non-managers): frequent vs. infrequent

According to Hofstede's (1991) classic study of cultures in organizations, Israel is a country with low power distance (PD), with a score index of 13.

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[1] Mental Model: "refers to a representation in working memory that can be 'run' by the learner to understand a system, solve problems, or predict events" (Alessi & Trollip 2001, p. 28).

A country with low PD, says Hofstede (1991), tends to view **subordinates** and **supervisors** as closer together and more **interchangeable**, with **flatter hierarchies**. Parents and children, and teachers and students, **may view themselves more as equals**. **Equality is expected** and generally desired.

These PD differences are reflected on ORT websites as follows:

- **Access to information**

An examination of ORT school websites supports these findings, both regarding content and site design. The first version of the Clickit platform enables schools to upload their information in three areas: The title area, the side bar and the main area.

Figure 4.2.1- ORT Hanna Senesh school home page as an example of Clickit

  platform.

This gives the site an asymmetric shape, with two different areas from which information can be accessed.

Access to information on the school website is less structured.

One would assume that since ORT schools form an integral part of the ORT organization, the school sites would present a highly structured access to information,

being subject to the same organization policy. Yet my findings show that there is no structured information access. Furthermore, each school has created its own version of access to information according to its priorities and policies. The sites' contents and design reflect the main values of each school.

Clickit's flexible platform allows each school to organize its information differently, both in content and design, thus making access to information less structured. For example:
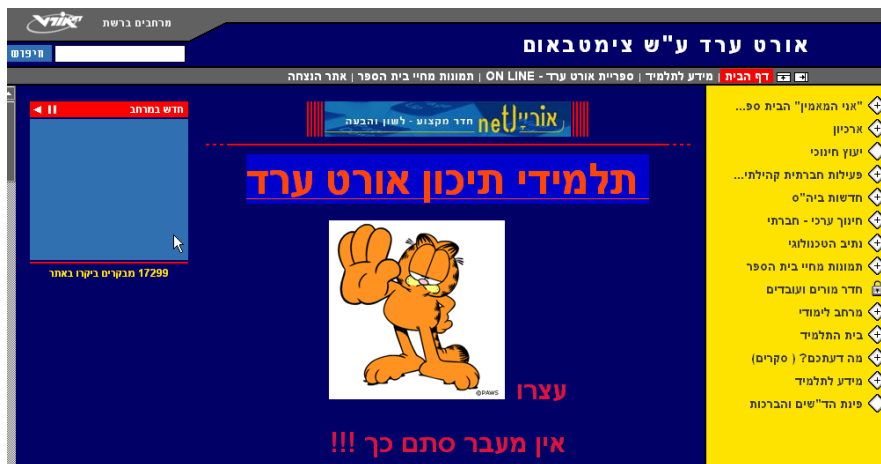

Figure 4.2.2: ORT Technikum, Giva'tim School's website.

Figure 4.2.3: ORT Arad School's website.

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There was initially some evidence of high PD with more structured access to information in the first version of the **Clickit** platform, where a template consisting of 5 different areas was given to schools.

Figure 4.2.4- Access to information in 5 different areas as presented on the ORT Afek School home page.

However, the second version of the **Clickit** platform is more flexible and schools' webmasters can design the home page screen without any prescribed template. The new version allows for design flexibility and personal style to be applied. The low PD, characteristic of Israeli society, is reflected in the planning of the platform, resulting in a variety of different school websites with less structured access to information.

- **Hierarchies in mental models**

  The term *'mental models hierarchies'* refers to the organization of data, functions, tasks, roles, and individuals in groups in different organizational environments. In the context of websites, it is intended to convey the organization perceived

within the user interface, which is assumed to be learned and understood by users (Marcus, Armitage, & Frank 1999).

An analysis of the ORT school websites must in my opinion distinguish between the *Clickit* software as it was built by the ORT IT developers and the manner in which it is shaped by the school users, and the different patterns used to present and organize the contents on the websites.

There are different ways in which hierarchy and organization of information is built into the *Clickit* software. For instance,

- There is a distinction between the space destined to advertise the ORT organization itself, and the space dedicated to each school's contents. The space attributed to the ORT organization can be interpreted as an expression of high PD.   However, since this space is a dynamic framework used to publish new pedagogical activities and courses developed by the ORT organization, the emphasis is placed on the expansion of the use of the website.

- The upper bar and the side bar on the website have different uses in organizing information: while the upper bar's available space is limited and linked to main subjects according to each school's specifications, the number of folders and sub-folders that may be included in the side bar is unlimited.

- Another expression of hierarchy and information organization in the *Clickit* software is the manner in which it determines the order in which the different folders are organized (the default is the alphabetical order of the folders' names or numerically).

The design of school websites carried out by the school teachers and staff is characterized by hierarchy in mental models. This hierarchy does not necessarily reflect the schools' organizational structure (principals, teachers, age groups, etc.).

One may say that the hierarchic structure of each school is shaped by its needs. The folders and links on the upper and side bars reflect the hierarchy and specific needs of each school. For instance, the ORT Holon School attaches great importance to school administrative information (school events and timetables), social forums and the memorial for Israelis fallen during the wars.

Figure 4.2.5: ORT Holon's school website.

Therefore, an analysis of each school website will reveal the hierarchy in its mental models.

- **Emphasis on social and moral order**

  As opposed to Marcus' (2001) attribution of minor and infrequent emphasis on social and moral order, I have found that social and moral order such as nationalism and religion play a major role in ORT school websites and are frequently used.

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Social and moral order can be seen in the following folders:

- Animal rights
- Environmental issues
- Compulsory community projects
- New immigrants
- Student council
- Drug prevention programs
- Assistance to the elderly
- Sexual education
- School counselor

- Violence prevention
- Parties
- School trips
- School spirit
- Ties with the community
- Social education
- Students' radio station
- Road safety
- Picture gallery

Nationalism and religious order can be seen in the following folders:

- Army orientation
- Rabin memorial
- Memorial
- Delegation to Poland
- Jewish holidays
- Tradition and values
- Roots and origins
- Jewish Diaspora
- Site colors

The following table illustrates the emphasis placed by ORT school websites on social and moral order, including nationalism and religion.

Note that each school website can have more than one folder in each of these subjects.

Subject	Number of appearances in Schools
Moral order / Social order	158
Nationalism	63
Religion	42
Total	263

Table 4.2- Number of schools featuring moral/social order, nationalism, and religion on their website.

The table above clearly shows that social and moral order, nationalism and religion play a major role in ORT school websites and are frequently used. In average each of the 54 school websites has between 4 and 5 folders on these subjects.

- **Focus on expertise - authority, experts, certifications, official stamps, or logos: strong vs. weak.**

  In ORT, there is no focus on expertise, nor are the sites organized according to social roles. There is however a use of logos - national, school logos, cartoons, etc - on most of the sites, which will be discussed in the answer to the next research question – Collectivism vs. Individualism.
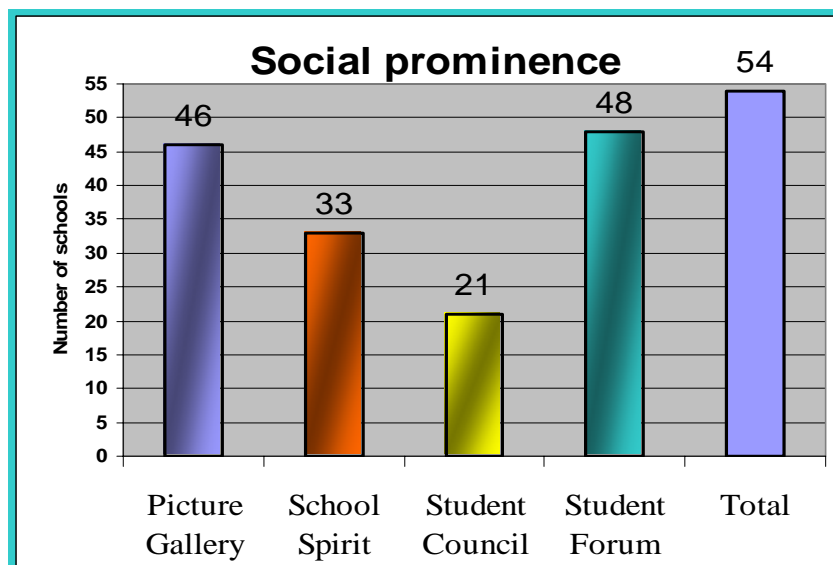
- **Social prominence**

  The educational process is student-centered in ORT school websites, with an emphasis on student initiative.

  Students are regarded as the sites' main customers. Information is directed at them, and the website is their place of self-expression. Students are encouraged to participate, and I found that they often freely express disagreement and criticism,

sometimes even failing to show respect towards their teachers in this open environment.

The *'picture gallery'*, *'school spirit'*, *'student council'*, and *'student forum'* folders illustrate this, as follows. Of the 54 ORT school websites that were analyzed,

- 46 websites have a *'picture gallery'* folder, which consists of student pictures taken at various school events.

- 33 websites have a *'school spirit'* folder, which includes texts describing various school spirit activities.

- 21 websites have a *'student council'* folder. This illustrates best the website's focus on students as its main customers (for example – ORT Afridar-Ronson Ashkelon student council elections).

- 48 websites have a *'student forum'* folder – This dynamic element is characterized by direct dialogue between students and teachers, school administration and fellow students.

Graph 4.2.1 – Number of schools featuring social prominence aspects.

Students are perceived as partners in building the space / site (for example:
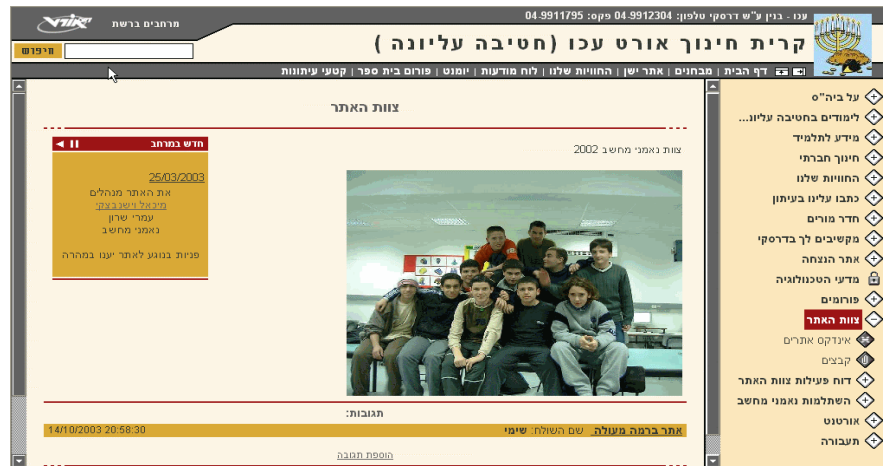
ORT Gutman, ORT Acre)

Figure 4.2.6- *'Behind the scenes'* – the team of students at ORT Acre who are

responsible for building and maintaining their school website.

• **Important security**

The Clickit software used on school websites addresses the issue of security by

offering the option of restricting access. However, I have found that most ORT

school websites are characterized by transparency, and an implicit freedom to

roam and move about. Teachers post their lesson plan openly for all to see.

Quoting one of the teachers: "Welcome to Phillip's Material… Feel free to use

it…" (ORT Yad Leibowitz). An exception is the 'Teacher's Forum,' which

requires a password to access.

Figure 4.2.7   ORT Yad Leibowitz: folder of the English teacher

- **Social roles**

  ORT school websites did not reveal any emphasis on social roles. The only example of social role used to organize information is the '*teachers' forum*' folder, which is restricted by user name and password.

The table below summarizes Marcus' seven aspects that are affected by PD, following an analysis of ORT school websites. The + symbol indicates that this aspect is reflected in the school websites, while the – symbol indicates that it is not.

Marcus' 7 aspects of user interface and design affected by PD	Aspects present in ORT school websites
Access to information	+
Hierarchies in mental models	+
Emphasis on social and moral order	-
Focus on expertise	+
Social prominence	+
Important security	+
Social roles	-

Table 4.1 - Marcus' 7 aspects of user interface and design affected by
PD as presented in ORT school websites. (Marcus 2001)

The table above confirms that ORT school websites display characteristics of a country with low power distance (PD).

While Marcus (2001) chose websites that best illustrate his 7 aspects of power distance, in my research, I have applied them to all ORT school websites. Therefore, not every aspect may be applicable to all websites.

4.3 Research question 2

How is collectivism vs. individualism reflected on the design and user interface of ORT school websites:

In Israel, which Hofstede (1991) defines as a society characterized by both collectivism and individualism (with a score of **47/48**), how are these characteristics reflected on the design and user interface of ORT school websites?

"*Individualism pertains to societies in which the ties between individuals are loose: everyone is expected to look after himself or herself and his or her immediate family. Collectivism as its opposite pertains to societies in which people are integrated from birth into strong, cohesive groups which throughout people's lifetime continue to protect them in exchange for unquestioning loyalty.*" (Hofstede 1991 p. 50)

Based on this definition, Marcus (2001) introduces the following aspects of user-interface and web design which may be affected by individualism and collectivism.

- Motivation based on personal achievement: maximized (expect the extra-ordinary) for individualist cultures vs. underplayed (in favor of group achievement) for collectivist cultures.

- Images of success: demonstrated through materialism and consumerism vs. achievement of social-political agendas.

- Rhetorical style: controversial/argumentative speech and tolerance or encouragement of extreme claims vs. official slogans and subdued hyperbole and controversy.

- Prominence given youth and action vs. aged, experienced, wise leaders and states of being.

- Importance given individuals vs. products shown by themselves or with groups.

- Underlying sense of social morality: emphasis on truth vs. relationships.

- Emphasis on change: what is new and unique vs. tradition and history.

- Willingness to provide personal information vs. protection of personal data differentiating the individual from the group.

In general, ORT school websites are characterized by elements of a **collectivist society,** as opposed to an individualist society.

- **Motivation based on group achievement**

A majority of ORT school websites display the achievements of a group of students from the school. It is common to find messages such as: "*The school's ….. team won first place in the .… national competition" or "congratulations to the high number of grade 5 students who volunteered at the .… pediatric section of the … hospital"* (ORT Tiv'on).

Personal achievement is very seldom recognized on the sites. Therefore, the websites clearly reflect a society characterized by collectivism.

- **Images of success**

The images of success are demonstrated through group achievement of social-political agendas. Images, texts, and slogans found on the websites deal with socio-

political issues such as: animal rights, drugs, assistance to the sick and the elderly, the environment and tolerance.

- Out of the 54 ORT school websites, 20 deal with more than 4 different issues (in different folders), and display student group activities involving these issues.
- 8 additional websites deal with at least 3 issues.
- An additional 19 sites deal with one to two issues.

In conclusion, all ORT school websites display images of success based on a socio-political agenda.

- **Rhetorical style**

    The element of rhetorical style is best observed on the bulletin boards, news flashes, and school forums, where teachers and students may freely express themselves. When examining ORT school websites, one can find both rhetorical styles: on one hand, controversial, argumentative, and sometimes even aggressive speech is used, while on the other, official slogans and subdued overstatements and controversies can be found.

- **Prominence given youth and action vs. aged, experienced, wise leaders and states of being.**

    As I have previously mentioned, ORT school websites are youth-oriented; the emphasis is placed on youth and actions, as is reflected in the student council activities, young leadership programs, picture galleries, school trips, parties, etc.

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The study material and pedagogical program are posted on the site by teachers. However, there is no emphasis placed on the teachers as experienced, wise leaders. Although ORT school websites reflect a collectivist society, some exceptions can be found, such as this aspect, which is more characteristic of individualistic societies. These findings support Hofstede's description of Israel as a society with both collectivist and individualist aspects.

- **Importance given individuals vs. products shown by themselves or with groups.**

As mentioned above, an emphasis is placed on group achievements and products, rather than on individuals. For example, the website of ORT Kiryat Bialik features a folder on its young leadership program, with an emphasis on group achievement.

Figure 4.3.1 - ORT Kiryat Bialik: young leadership program.

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- **Underlying sense of social morality**

  ORT school websites attach great importance to relationships in building a sense of social morality. Folders such as the following reflect this approach:

  - Relationships with the community

  - Building a bridge between generations (genealogy)

  - Relationships with school graduates

  - Joint projects with other schools in Israel and abroad

- **Emphasis on change**

  This aspect illustrates best the Israeli society as a society with both collectivist and individualist aspects. The schools' dynamic spaces display the contradicting forces prevailing in the Israeli society: on one hand, there is the desire for change and uniqueness; while on the other hand, there is an emphasis on tradition, religion, nationalism, and shared history as a basis for the identity of the collective, and as an integral part of the school's educational goals.

  Subjects such as Israeli holidays, traditions, values, delegations to Poland,[2] army preparation, memorials, roots and Jewish communities worldwide underline the desire to preserve the past and to define an Israeli identity.

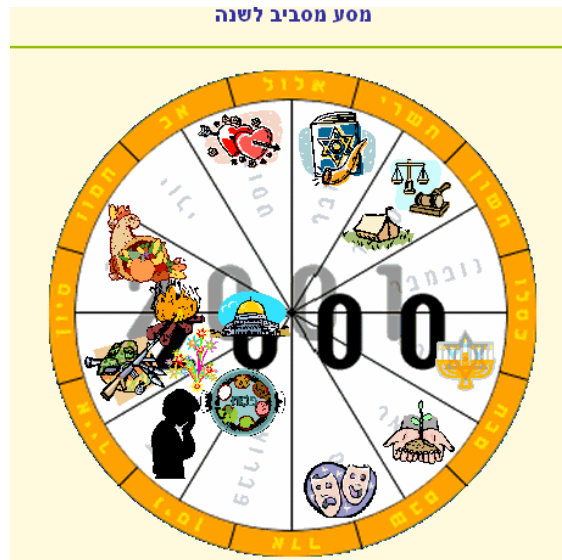[2] Every year, youth delegations from Israel set out to tour the extermination camps in Poland.

Figure 4.3.2- Israeli holidays displayed on the ORT Gutman School website.

The annual journey to Poland of high school youths clearly reflects the aim and desire to strengthen the Jewish identity and heritage: its collectivity.

Figure 4.3.3 – ORT Afula students on their journey to Poland in 2003.

ORT school websites are increasingly used by pupils in connection with the journey to Poland: to prepare for the trip, document it, and process the experiences after their return to Israel.

The following table displays the number of folders created regarding the issues above in all 54 ORT school websites.

Subject	Number of sites
Memorial	20
Jewish holidays	19
Delegation to Poland	15
Roots and origins	13
Army service orientation	7
Tradition and values	5
History of Jewish Diaspora	5

Table 4.4 - Number of schools featuring folders on tradition, roots, religion, and Jewish history.

At the same time, the websites emphasize the desire for innovation and originality. In 2002, the ORT Development Center reported a sharp increase in teachers' requests for further training on the Clickit platform (Amit & Kaplan 2003). This is an indication of a prevailing willingness to change.

- **Willingness to provide personal information**

As mentioned previously, ORT school websites are open, transparent, and readily provide personal information, particularly in forums. This is used to encourage

relationships to be formed. Although ORT school websites promote group

activities, this aspect reflects a more individualistic approach.

Following an analysis of ORT school websites, the table below summarizes the 8

collectivism vs. individualism aspects as they are reflected on the sites. The + symbol

indicates that this aspect is reflected in the school websites.

Subject	Collectivism	Individualism
Motivation based on personal/ group achievement.	**+**	
Images of success.	**+**	
Rhetorical style.	**+**	
Prominence given youth and action vs. aged, experienced, wise leaders and states of being.		**+**
Importance given individuals vs. products shown by themselves or with groups.	**+**	
Underlying sense of social morality.	**+**	
Emphasis on change.	**+**	
Willingness to provide personal information.		**+**

Table 4.3- Collectivism vs. individualism aspects reflected on ORT school websites.

The table above confirms that ORT school websites display more characteristics of a

country with collectivism features, with the exception of the subjects of *'prominence*

given youth and action vs. aged, experienced, wise leaders and states of being' and

'willingness to provide personal information'.

4.4 Research question 3

How is Masculinity vs. Femininity reflected on the design and user interface of ORT school websites:

In Israel, which Hofstede defines as a society characterized by both masculinity and femininity (with a score of 47), how are these characteristics reflected on the design and user interface of ORT school websites?

In defining cultures with masculinity and femininity, Hofstede focuses on gender roles; in other words, the traditional allocation of assertiveness, competition, and toughness to masculine roles, and orientation to home and children, people, and tenderness to feminine roles. A unique aspect of masculine cultures is that the traditional distinctions are strongly maintained, while in feminine cultures, distinctions tend to collapse and overlap gender roles. For instance, Marcus states that "both men and women can exhibit modesty, tenderness, and a concern with both quality of life and material success" (Marcus, 2001). Earnings, recognition, advancement, and challenge are traditional masculine work goals, while management, cooperation, living conditions, and employment security are traditional feminine work goals.

In summary, Hofstede's definitions of masculinity and femininity focus on the balance between *roles* and *relationships*.

Based on these definitions, Marcus introduces the following different emphases of user-interface and web design which may be affected by masculinity vs. femininity.

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"Masculine cultures would focus on the following user-interface and design elements:

- Traditional gender/family/age distinctions

- Work tasks, roles, and mastery, with quick results for limited tasks

- Navigation oriented to exploration and control

- Attention gained through games and competitions

- Graphics, sound, and animation used for utilitarian purposes

Feminine cultures would emphasize the following user-interface elements:

- Blurring of gender roles

- Mutual cooperation, exchange, and support, (rather than mastery and winning)

- Attention gained through poetry, visual aesthetics, and appeals to unifying values"(Marcus, 2001)

- **Traditional gender/family/age distinctions.**

Gender-based roles are blurred on ORT school websites.   An examination of the websites did not reveal any gender-based information. However, age is reflected through the different folders (*teachers' folders, parents' folders, students' folders according to grade*, etc). This is a reflection of the traditional structure of schools, which consists of age groups and classes.

Age-based folders help the users find relevant information, such as announcements posted on the school bulletin board: "***To all grade 8 students…***"

Since the Hebrew language differentiates between masculine and feminine through spelling, I have analyzed the websites' language in an attempt to reveal traditional gender.

My findings indicate a blurring of traditional gender. In some cases, the website edirors stress equality between the sexes, by combining feminine and masculine form in the same word such as: תלמיד/ה

An exception that stands out is the use of masculine מנהל

or feminine מנהלת spelling when referring to the school principal.

- In 27 out of 54 websites - "statement by the (feminine) principal"

- In 13 out of 54 websites – "statement by the (masculine) principal"

- In 3 out of 54 websites – "statement by the management"

- 11 of the websites do not include any of the above.

The use of masculine or feminine spelling when referring to the school principal.
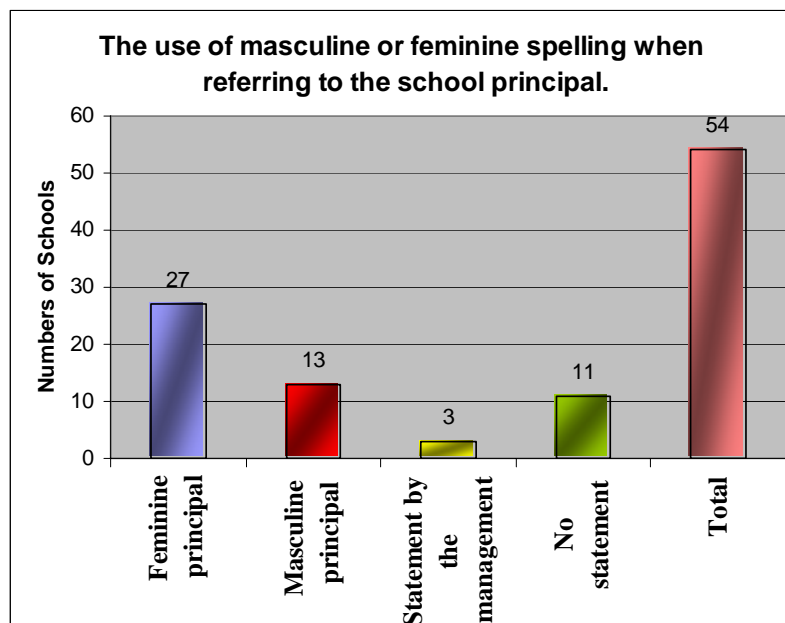
Graph 4.4.1 Number of schools using masculine or feminine spelling when referring to the school principal.

An analysis of the figures – feminine or masculine - appearing on the website (particularly on the home page) reveals that:

- In 15 of the 54 ORT school websites a dominant masculine figure appears on the site's home page.

- In 11 of the ORT school websites a feminine figure appears.

In most of the ORT school websites, a picture of the school premises appears, without any emphasis on the gender of the students attending these premises. This gives weight to the blurring of gender roles aspect presented by Marcus, regardless of the distinction between genders which is built in the Hebrew language, where the gender is always defined by the different spelling.

- **Work tasks, roles, and mastery, with quick results for limited tasks**

It is common to find in most websites short tasks with quick results. For example, the task given by the English teacher at ORT Gutman to answer 8 multiple-choice questions on the use of the future tense. This might not necessarily be tied to masculine characteristics: in my opinion, short tasks are typical of the internet environment (click, drag and drop, short answer, etc).
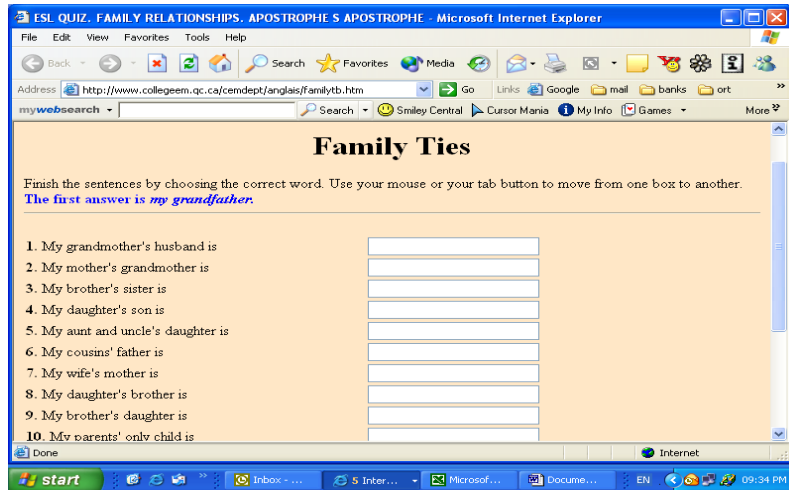
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Figure 4.41 - ORT Gutman School website: examples of short tasks.

- **Navigation oriented to exploration and control**

Information on the '*Clickit*' software can be accessed through the side bar as well as the upper bar, and is displayed at the center of the screen.

The websites' structure and organization (within the side and upper bars) are determined by the school management and the site managers. The organizational structure and the titles given to folders and sub-folders determine in large part the accessibility of information on the website.

The complexity of the websites is another factor that differentiates one website from another. In 18 of the 54 websites, more than 15 major folders are found in the side bar.

Pop-up windows, various types of interface controls, and information available through scrolling further amplify the complexity of the websites' content and choices.

An exception is the ORT Gutman school website, in which the site managers dictate to the users which path to follow in order to access the site. The home page presents only 5 folders, 5 paths through which the user can enter the site.

Since this home page is relatively new, and was created only after the completion of the school website, (and onto the old home page), one may ask, what moved the site managers to choose this approach? Does the fact that the website manager is a male student results in the large number of masculine symbols on the site?

- **Attention gained through games and competitions**

Games and/or competitions are seldom used in ORT school websites to attract the students' attention. Of 54 sites, only 15 have folders with games, consisting mainly of information on games websites on the internet. Of these 15 sites, only 8 have (weekly/monthly) riddle competitions, whose participants are school students.

- **Graphics, sound, and animation used for utilitarian purposes**

An examination of the graphic aspect as described by Marcus (2001) shows that ORT school websites reflect both feminine and masculine symbols. These elements support Hofstede's (1991) definition of Israel - with an index of 47 – as a country consisting of both feminine and masculine characteristics.

Most ORT school websites use graphics, sound, and animation in order to attract attention, to present visual aesthetics, as well as to appeal to unifying values.

Contrary to Marcus' article, no gender-specific symbols are found in the graphic design of ORT school websites.

Of the 54 ORT school websites, 30 display a picture of the school on the home page. In part of the sites, the picture is placed at the centre of the page, and some have even created a flash file with changing pictures presenting different angles of the school premises and its surroundings (ORT Hanna Senesh, ORT Afek, ORT Kiryat Tiv'on, and ORT Technikum).

Some of the websites have chosen to display a small picture of the school on the left-hand side of the home page (ORT Holon).

Symbols are an important element in the creation of group identity (Israeli 2003).

One of these unifying symbols is the logo. The *'Clickit'* software used in ORT school websites includes a permanent logo of the ORT Israel educational organization on the upper left corner. This logo remains on all the site pages and is linked to the ORT Israel home website.

The upper right corner of the website provides space to add an additional logo, to be determined by the schools.

From an analysis of the ORT school websites, it emerges that 4 main types of logo appear in this space on the home page:

No.	Type of Logo	School name	Example
A	ORT logo + name of the school.	**ORT Sharet**	
B	Logo of national/religious character. e.g. displays the Israeli flag.	**ORT Megadim**	
	Logo of religious significance.	**ORT Sara Herzog**	
C	Name of the school illustrated by a drawing. For example, of a tree.	**ORT Kramim**	
D	Logo without any significance, e.g. a smiley	**ORT Bait Shean**	

Table 4.6 - Types of logo on ORT school websites.

Of the 54 ORT school websites:

- **A.** 19 display the ORT logo with the name of the school.
- **B.** 12 display the name of the school illustrated by a drawing as their   logo.
- **C.** 5 display a logo of a nationalist / religious character.
- **D.** 3 display a logo of no particular significance.
- **E.** 15 additional schools do not have any logo.

The above illustrate the predominance of feminine symbols on the website which emphasize unity – the sense of belonging and solidarity with the ORT Israel organization, connection to the school, and national or religious unity.

Feminine cultures emphasize the following user-interface elements:

- **Blurring of gender roles**

As mentioned before, since there is no emphasis on gender roles in ORT school websites, there appears to be a blurring of gender roles.

- **Mutual cooperation, exchange, and support, (rather than mastery and winning)**

The examination of the contents of school websites provides examples of cooperation, exchange, support and willingness to provide personal information, as seen particularly in 'forums'. For example:

"*In this forum you are going to get all the help you need in order to carry out your project properly. I will answer your questions on Tuesdays and weekends You may also help each other by giving tips or advice*" [(ORT Lod)](.).

- **Attention gained through poetry, visual aesthetics, and appeals to unifying values"(Marcus, 2001)**

Although the '*Clickit*' software provides a platform that places an emphasis on practicality rather than aesthetics, ORT schools do make an effort to make the sites visually pleasing.

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For instance, on the occasion of the onset of winter storms, the ORT Megadim

website features a picture of a rainstorm in the Galilee, accompanied by poems on
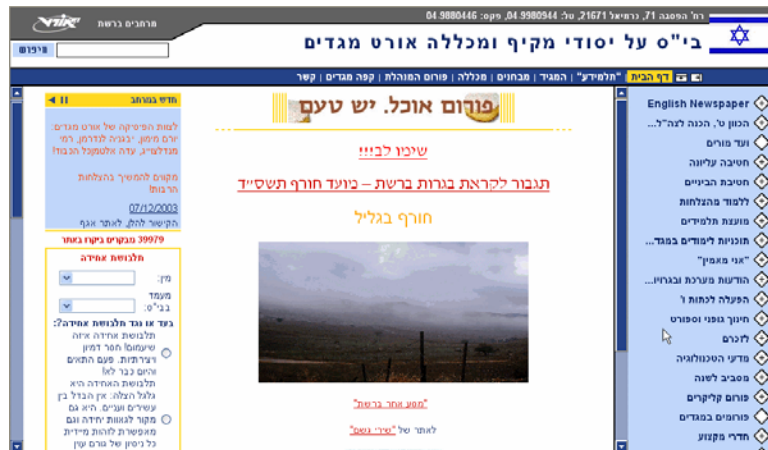
rain and grey winter days.

Figure 4.4.2 **– ORT Megadim homepage:** example of feminine characteristics
(pictures, poems, etc.)

Other examples are the homepages of the ORT Rose Acre website, which features

roses, and of ORT Oren Afula, where a picture of a pine tree (Oren in Hebrew)

painted on the school's wall is displayed.

Figure 4.4.3 - ORT Rose homepage: example of feminine characteristics
(flowers, poems, etc.)

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Figure 4.4.4 - ORT Oren Afula: example of feminine characteristics (tree painting, stylized text, etc.)

The table below summarizes the aspects of masculine and feminine cultures, following an analysis of ORT school websites. The + symbol indicates that this aspect is reflected on the school websites, while the – symbol indicates that it is not.

Subject	Masculine cultures	Subject	Feminine cultures
Traditional gender/family/age distinctions	**-**	Blurring of gender roles	**+**
Work tasks, roles, and mastery, with quick results for limited tasks	**+**	Mutual cooperation, exchange, and support, (rather than mastery and winning)	**+**
Navigation oriented to exploration and control	**?**	Attention gained through poetry, visual aesthetics, and appeals to unifying values	**+**
Attention gained through games and competitions	**-**		
Graphics, sound, and animation used for utilitarian purposes	**+**		

Table 4.5 - Feminine and masculine aspects reflected on ORT school websites.

The table above substantiates Hofstede's findings (Israel with an index of 47). ORT school websites are characterized by both masculine and feminine elements, with an emphasis on feminine elements.

4.5 Research question 4

How is Uncertainty Avoidance reflected on the design and user interface of ORT school websites:

In Israel, which Hofstede defines as a society characterized by strong uncertainty avoidance (with a score of 81), how is this aspect reflected in the design and user interface of ORT school websites?

"*Cultures vary in their avoidance of uncertainty, creating different rituals and having different values regarding formality, punctuality, legal-religious-social requirements, and tolerance for ambiguity*," (Marcus, 2001) just as people feel various degrees of anxiety towards uncertain or unknown situations.

According to Hofstede, cultures with high uncertainty avoidance are characterized by more formal rules in the business environment, longer career commitments, and focus on tactical operations rather than strategy. "*These cultures tend to be expressive; people talk with their hands, raise their voices, and show emotions*" (Marcus, 2001). In addition, people tend to be active, emotional, even aggressive, and avoid ambiguous situations. Structure is expected to pervade in organizations, institutions, and relationships to help make events clearly interpretable and predictable. Teachers are regarded as experts. "*In high UA cultures, what is different may be viewed as a threat, and what is 'dirty' (unconventional) is often equated with what is dangerous*" (Marcus, 2001).

Based on these definitions, Marcus introduces the following different aspects of user-interface and web design which may be affected by high uncertainty avoidance.

- Simplicity, with clear metaphors, limited choices, and restricted amounts of data.

- Attempts to reveal or forecast the results or implications of actions before users act.

- Navigation schemes intended to prevent users from becoming lost.

- Mental models and help systems that focus on reducing "user errors".

- Redundant cues (color, typography, sound, etc.) to reduce ambiguity.

However, I would like to also introduce characteristics of **low uncertainty avoidance** cultures, as these were also taken into account and analyzed on ORT school websites.

- Complexity with maximal content and choices.

- Acceptance (even encouragement) of wandering and risk, with a stigma on "over-protection".

- Less control of navigation; for example, links might open new windows leading away from the original location.

- Mental models and help systems might focus on understanding underlying concepts rather than narrow tasks.

- Coding of color, typography, and sound to maximize information (multiple links without redundant cueing).

- **Simplicity, with clear metaphors, limited choices, and restricted amounts of data.**

Determining whether school websites reflect 'simplicity' or 'complexity' depends on the definition and interpretation of these two terms. Since Marcus' definition of these terms is vague, I have chosen to analyze the ORT school websites according to the sites' architecture, by examining three layers: the user interface, the services offered by the sites, and the accessibility to information.

ORT '*Clickit*' is a simple, user-friendly platform. The site's template is uniform, with folders on the upper bar and on the side bar. This uniformity is preserved on all the site's pages, on all the school websites, thus allowing the different users (teachers, students and parents) to navigate all the sites with ease.

This uniformity is also preserved through the use of recognized symbols (folders, files, forum, dictionary, navigation buttons graphics, etc.) The services offered by the sites are also uniform. All sites can make use of texts, forums, news flashes, surveys, pictures galleries, etc.

In this regard, ORT school websites reflect the simplicity and clear metaphors characteristic of HUA environments. On the other hand, the complexity of the site is determined by the site management, whose design of the website affects the accessibility of the information. A basic question raised by the user would be: *'how much time will it take me to obtain the information I need*?'

The variations among the different websites take form through the folders'

different names and different ways in which they are organized, and reflect a LUA

environment. See, for instance, the different names given to folders dealing with

pedagogy: 'study subjects', 'subjects', 'specialization', compulsory studies', 'subject

matter', 'pedagogical corner', etc.

- **Attempts to reveal or forecast the results or implications of actions before users act.**

The new homepage of ORT Gutman is a good example of these attempts. The

opening page offers the user only 5 options: subjects, projects, forums, memorials,

and fun activities. An additional sixth option – entitled 'entrance' leads to the old

homepage.

Figure 4.5.1– ORT Guttmann's new homepage

This page's resemblance to the one presented by Marcus as an example of this aspect in his article (Marcus 2002) is remarkable.
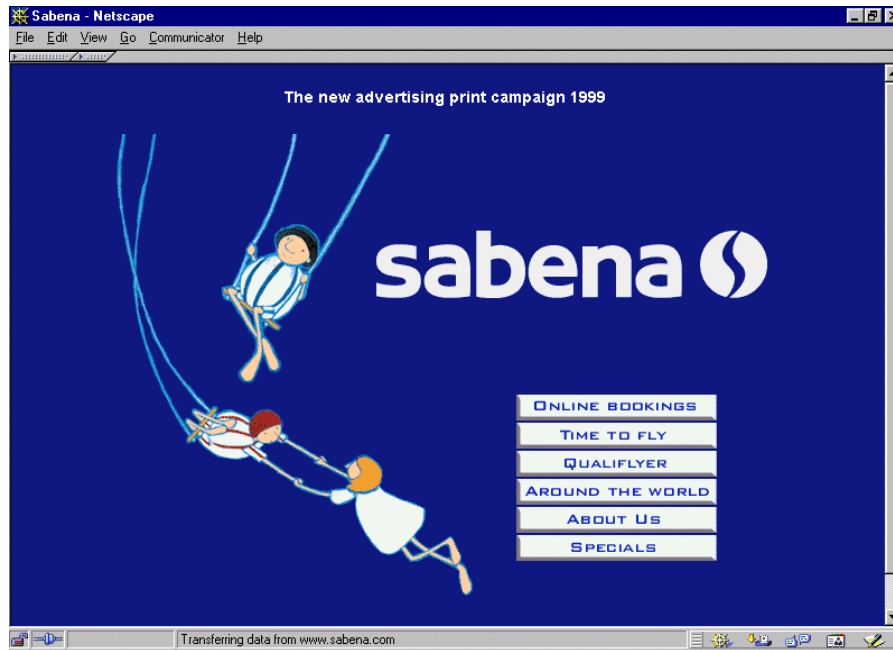

Figure 4.5.2 – Sabena's homepage as presented by Marcus (2001) in his article (note that this company has ceased to exist).

However, it is important to note that ORT Guttmann's homepage is atypical, as the other 53 ORT school websites encourage wandering through the website without necessarily following a direct path, as opposed to 'over-protection'.

For example, the ORT Megadim website has more than 20 main folders on the side bar, each folder containing several sub-folders; this is in addition to the upper bar.

Figure 4.5.3 - ORT Kiryat Bialik new homepage: example of complex site.

Although navigation on the website is simple, a lot of information is available on the opening page, making it a complex page. Navigation in the site sometimes requires the use of the scroll to reach all the information on the page. This contradicts the HUA and reflects acceptance of wandering and risk, with less control of navigation, which Marcus sees as characteristics of LUA on website design and interface.

- **Navigation schemes intended to prevent users from getting lost.**

One can assume that the architectural structure of ORT school websites is aimed at preventing users from getting lost. Yet, the '*Clickit*' software allows the opening of empty folders, thus increasing the sense of uncertainty. Errors on the site could increase the impression of the uselessness of the site. Furthermore, the use of links,

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which weaken navigation control, could open windows leading away from the original location.

Therefore, and contrary to Marcus' views, I believe that although Israeli culture is characterized by HUA (according to Hofstede), ORT school websites reflect LUA.

- **Mental models and help systems that focus on reducing "user errors".**

The clear and simple structure of the '*Clickit*' platform, which can be found in all ORT school websites, reflects a clear mental model which diminishes user error.

Yet, there is no '*help*' option, and only a small number of schools have handled this weakness by creating a folder with help guides on how to work with the website.

- **Redundant cues (color, typography, sound, etc.) to reduce ambiguity.**

As previously mentioned, ORT school websites use little redundant cues to reduce ambiguity.

These last two aspects indicate a HUA in ORT school websites, and support Hofstede's findings and Marcus' interpretation of the subject.

The table below summarizes the aspects of uncertainty avoidance as defined by Marcus, following an analysis of ORT school websites. The + symbol indicates that this aspect is reflected in the school websites, while the – symbol indicates that it is not.

Subject	High uncertainty avoidance	Subject	Low uncertainty avoidance
Simplicity, with clear metaphors, limited choices, and restricted amounts of data.	+	Complexity with maximal content and choices.	+
Attempts to reveal or forecast the results or implications of actions before users act.	+	Acceptance (even encouragement) of wandering and risk, with a stigma on "over-protection".	+
Navigation schemes intended to prevent users from becoming lost.	+	Less control of navigation; for example, links might open new windows leading away from the original location.	+
Mental models and help systems that focus on reducing "user errors".	+	Mental models and help systems might focus on understanding underlying concepts rather than narrow tasks.	-
Redundant cues (color, typography, sound, etc.) to reduce ambiguity.	+	Coding of color, typography, and sound to maximize information (multiple links without redundant cueing).	-

Table 4.7- Aspects of uncertainty avoidance reflected on ORT school websites.

The table above highlights an apparent contradiction. ORT school websites are characterized by both LUA and HUA with regards to the first 3 aspects introduced by Marcus (2001). For instance, while clear metaphors, limited choices, and restricted amounts of data can be found, complexity with maximal content and choices is also present on the websites. In the mental models and redundant cues aspects, ORT school websites reflect HUA.

This contradiction highlights the ambiguity existing in Marcus' (2001) definition of UA aspects. In my opinion, it is difficult to determine aspects that reflect UA on websites.