A new transparency

The expensive and expansive cultural dimension of user interfaces

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There is a difference between what is *comprehensible* to a culture and what is *acceptable*.

Stephen Boor, 1993

And before a child of our time finds his way clear to opening a book, his eyes have been exposed to such a blizzard of changing, colorful, conflicting letters that the chances of his penetrating the archaic stillness of the book are slight.

Walter Benjamin, 1926
A new transparency

It would not be very original to assert that computers are not like other machines, not anymore. Three decades ago, when they were just enormous calculation machines, their status was very much different. Nowadays, they are a different kind of entities, interacting in a very particular way, and their impact in everyday life is tremendous. Although these facts are not new, it is important to remind that all that became possible with a tangible way of reaching the inner secrets of the computer: the user interface (UI). They changed a lot in the past twenty years, from perforated cards and to sophisticated Graphical User Interfaces (GUI). The consequences, however, are not clear. Sherry Turkle, in Life on the Screen, highlights that the GUIs changed the way we understand “transparency”: not anymore understanding the actual mechanisms inside the machine, but rather map the functionalities into the real world through an interface and forget about the deep understanding of the real physical and logical components of the computer.

Today the computer is an actor in a struggle between modern and postmodern understandings. This struggle is often fought out between those who put their faith in reductive understanding (open the box, trust what you can see, and analyze completely) and those who proclaim such ideas bankrupt or at least impractical. [...] the 1984 introduction of the Macintosh’s iconic style presented the public with simulations (the icons of file folders, a trash can, a desktop) that did nothing to suggest how their underlying structure could be known. [...] We have learned to take things at the interface value. [TURKLE1995]

The importance of understanding how we relate to common GUIs – and how companies produce them – is that computational creatures (such as dolls, games, animatronics etc.) also have an interface, yet not only graphical, but reaching all the senses. In a way, they are even less transparent than GUIs. The way companies will produce and evolve these interfaces will follow many paths that are already present – their priorities, their marketing strategy, their financial needs). The new “Macintosh” concept of the GUI has been a great success for more than a decade. Computers, PDAs and cell phones vastly use the “folder” metaphor, as well as the “copy-paste” concept. The extent of this domination is so vast that we
tend to believe that they are, in a way, universal: there would be no better way of representing computer artifacts but as files, folders, scissors, desktops etc. In fact, the cultural differences are so enormous among countries or continents that it would be impossible to have a common set of metaphors. Although it true that, as Turkle states, computers support different styles and cultures, as they can be approached in so many ways, it seems that the economic equation for software developers has not included “cultural differences” as an important variable. But are GUIs, indeed, a better way to interact with the computer? Unlike the command prompt interface, which has just text and a blinking cursor, graphical interfaces contain much more elements, as images, sounds, colors, metaphors etc. That makes them a much more complex semiotic system, with much more deep cultural roots.

Icons: just another pretty face?

The study of Elissa Smilowitz [SMILOWITZ] tries to address the question in an experimental way. She tested different kinds of user interfaces with 40 undergraduate students of the New Mexico State University, performing various tasks. The first experiment consisted in using a “library” metaphor for the interface of a web browser (World Wide Web as a library, “history” as a stack of viewed books, “document” as a book etc.), as we can see in Figure 1.
The results were surprising: although the presence of the metaphor was important for users, the icons were not at all, as we can observe in the following graph:

According to Smilowitz,

All three dependent measures showed a similar pattern of results, suggesting that the use of a metaphor provides a large advantage in initial performance. Based on this data, the use of metaphor appears to facilitate performance. Furthermore, it appears that the effect of the metaphor is provided through the terminology (i.e., function labels) and not at all through the graphics (i.e., icons). It is surprising that the icons did not appear to have any effect at all as shown by the icon/no icon manipulation. Future research needs to be performed to better
understand this lack of icon effect. Perhaps, the icons were not compelling enough or meaningful enough to aid in task performance.

Her second experiment tried to access the impact of integral vs. composite metaphors. The integral one was still the “library”, and the composite tried to use elements of the “travel” metaphor as well.

![Figure 4: The composite metaphor interface](image)

Again, the results were very significant:

[…] results suggest that integral metaphors are better than composite metaphors when the metaphor is good, but does not matter when the metaphor is bad. […] [one possibility is that] mixing of the metaphors in the composite condition, resulted in the dilution of the good metaphor, thus making the composite significantly worse than the library, but the dilution of the poor metaphor (travel metaphor) resulted in minimizing the poor performance of the travel metaphor.

User interfaces, in their present state, are the result of an accumulation of many different metaphors and ideas, created by many teams in various companies. The “folder” metaphor dates from the first Macintosh computers, and was combined with many others in order to accommodate new features of various software. Commercial and marketing pressures became certainly much more important dur-
ing the last decade regarding user interface and its design. Some features seem to be much more graphically than usability-oriented. The website of Isys Information Architects [IARCHITECT], host of the “Interface Hall of Shame”, has an pertinent comment about the lack of disabled buttons (i.e. grayed-out) in MS-Word toolbar, even when their functions are not available to the user:

We know that Microsoft's developers are certainly capable of dynamically changing the appearance of toolbar images; it's not all that different than changing the appearance of a standard command button. Our only guess is that the graphics artists at Microsoft simply didn't like the look of disabled toolbar buttons, regardless of the extra information the disabled appearance provides to the user. Unfortunately for the user, interface design at Microsoft is now the responsibility of graphics artists rather than interface designers. It should come as no surprise then, that Microsoft is far and away the most frequent contributor to the Interface Hall of Shame.

One of the cases described by Simone (one of the people interviewed in Brazil) demonstrates that this is really an issue in everyday work. She describes a problem that happens with the SAP software, a famous German package for company-wide management:

There is no “undo” button. There is a similar arrow, that looks like the “undo” icons in Word, but that’s the “exit” icon in SAP. Many people get mad when they want to undo something, press the button and exit the screen, losing all the information. The position is the same as the undo button. [SIMONE]

It is understandable how the composite interface can be confusing for end users. Not only matters the fact that it is composite, but also that different software have different metaphors, but may share the same graphics signs. What is more, the greater the distance from the country that designed the interface, the less meaningful those signs are. The consequence is that, losing all connections with the real world, the interface become a language in itself, in between a representation of the real world and the logic of the software. Instead of facilitating the interaction (by establishing analogies with everyday objects - this is their claim), most GUIs just create almost random associations between confusing graphical signs and their functionality. Although random association can also work, the discourse of the software companies, both in marketing and conceptual terms, focus very
much on a “user-friendly” interface that, for many cultures, is just not the case. In semiotic terms, we could say that computer “icons” are becoming just symbols, losing their similarity with the referent. In fact, it looks like that the relationship in exactly the opposite, mainly considering non-American cultures: instead of connection to the real world, the interface is creating its own set of signs and metaphors, communicating ideas about how we should organize our work, our time, our schedule, structure our texts, communicate etc.

Observing the first two icons of MS-Word interface, we realize a clear inconsistency.

In the first icons, “File Open”, the is an arrow, indicating the action of opening the folder. However, to save a file is also an action, and there is no arrow pointing to the floppy disk in the second icon. What is more, floppy disks have almost disappeared from everyday life, and It is still the “classical” icon for “File Save”.

In the same “Hall of Shame” we can find a good example of composite metaphors. Normally we consider that a button in the toolbar should be a shortcut to a single command. However, the new version of MS Internet Explorer (5.0) turned it into a menu item as well (see Figure 6). This double behavior, in fact, make it redundant to have two entities with the same exact function in the interface.
Here we find again an important relationship with the interviews.

I already got used to all the icons, but I never noticed that some didn’t make much sense, as the “File Open” icon. I realized that I have never used that kind of object to put files. […] I often bypass the cursor over the icon to see what it is, and then it begin making some sense. There are some icons that I don’t know what they are for. [SIMONE]

When you start to play it is quite easy. I think the icons have a relationship to what they do. But I prefer to go to the menu file, open to open a file. I prefer to use the menu items, probably by habit. Maybe that’s because when I first learned to use the computer I learned like this, to use the menu items […] Which icons are more familiar? The first are quite easy. But I would not necessarily know that this one is “paste”. The pictures are too too small.. [EMMA]

I find it easier with icons. In the first time, I didn’t know how to identify their functions. I didn’t have a clue of what was that. [ELEN]

Some of them are very good, the printer, save, but as I go from left to right, the get more obscure. […] Just by sight? Probably not. Now that I know what they are... [DAVID]
Icons are something that people are used to. Some people prefer the menus, so they can read the command. I wouldn’t say the menu structure is the best way to do, but it is the most obvious way. How do you structure the commands? [ROGER]

This “File Open” icon, for instance, derives from a vastly used object in the USA: the folder of Figure 7.

![Figure 7](image)

The typical folder used in the USA

It is a very common object in American offices, but it simply do not exist in many countries, as we observed in Brazil, for instance. The folder used in everyday life have a different shape, color and functionality. The trashcan is another classic example:

Because a trash can in Thailand may look like this [see Figure 8], a Thai user is likely to be confused by this image popular in Apple interfaces. [...] The US trash can also confused British users who indicated it looked much more like a postal box than a British trash can. [MARCUS1999]

![Figure 8](image)

The common trashcan in Thailand and the one used in the first Mac interface
We observe here what was an almost unanimous declaration by all the inter-
viewed people: they didn’t know about the icons until they got to know what they
did. The only exception was Ig [IG], who is himself a Linguist, and maybe more
inclined to consider the importance of the icons. Even though, he admitted that
they started meaning anything for him as soon as someone explained them.

It was easier when there where icons. The small yellow thing for the
email, the globe for the internet, that made things easier for me. Gen-
erally they are meaningful, of course you need a certain context. [...] Once you know what they are, it easier [IG]

The problems with localization are not just related to images that have different
meanings, but also to language, as Boor exemplifies in his seminal article “How
fluent is your interface? Designing for international users”:

The student from Indonesia did not understand “software” and trans-
lated it as “underwear” [...] [in Cantonese], the word “menu” was trans-
lated as “list of food items” [...] English terms such as “diskette”, “zoom-
ing” and “panning” have no direct translation in the Thai language.
[BOOR1993]

The main reason to translate is that the commands in English make it
difficult for Thai people to program. Some software have a bad interface,
and kids are frustrated. Not only the localized version has the Thai
commands, but also a better interface. In Microworlds, you can name
the variables in Thai. I also added color coding, translated the com-
mands, the error messages. Before, error messages were in English and
people ignored them at all. Before, it looked like kids didn’t go very
deep. English was definitely one big factor. [ROGER]

Or, also, to very traditional cultural traces that often software developers are not
even aware of, thousands of kilometers away:

Business cards hold a particular meaning in the American culture [...] In
Japan they are used to establish seniority so an interaction can proceed
appropriately. If a business card icon is used to represent users on a
network it may be recognized, but the meaning will vary between cul-
tures” [BOOR1993]

In the first interview, with Emma, in Ireland, the conversation diverged to rela-
tionship in the workplace: she complained about competition among women
(she used to work in a fashion design studio) and people that send emails even being physically close to the other person.

When women are working together, it’s much more competitive than men. Women are more aggressive. Women are more aggressive towards other women […] Competition for women is based on aesthetics. For men it’s more on their jobs. […] If I want to get things done, I’d phone the person. In Ireland there is an oral tradition. […] You can’t say, “I didn’t get the email” when you phone. […] They can pretend they didn’t get the email […] On the phone it’s more personal […] In Ireland people use a lot of cellular phones. There are more phones than fixed phones. [EMMA]

That issue became a question to all the other interviewed people.

My boss sends email being just beside me. He knows we both got the same message, but instead of talking to me about, he prefers to forward the email to me. We work very close. I don’t like it. […] I think that women use email to communicate with each other, while men use just to “use technology”, to show off a little bit, to feel that they are “using” technology. Going and talking to the person works better and faster, but when we do it by email it’s documented, and sometimes people deny that they spoke to you over the phone about a certain subject. [SIMONE]

However, David, American, also an assistant working in a university, had a very different approach.

I prefer email. Because it allows me to say exactly what I want. They can do it on their own time, here is a chance that I interrupt. The email I know it is in their mailbox. When they have time, they will eventually reply. [DAVID]

This simple example – even with no statistical value – demonstrates how different cultures have a really different attitude towards communication. Probably, if email it was invented in Japan or Brazil, the concept, the protocol and the context of usage would be very much different. Interestingly enough, we observe from the interviews that, outside the USA, people had a critical view of some of these tools, but are not aware of all the assumptions underlying them.
Going global, pero no mucho...

Those kind of problems are well-known by many software companies. Internationalization and localization are, in fact, each time more important for them. Even in 1991, as reported by Boor [BOOR1993], 50% of the income of the five biggest software companies in the USA derived from international sales.

Almost every book, article and manual about the subject highlights the economical importance of the international market [PALM2000, SIMULTRANS1996, INTERCONSULTING1999, AMIGA1996, LANGUAGEPARTNERS1996, MICROS1995, PORTANIERT]. A much smaller number of papers, nevertheless, can be found about an increasingly important issue: the Cultural User Interface (CUI):

The CUI is a user interface that is intuitive to a particular culture [...] [it] takes advantage of the shared or common knowledge of a culture which could be defined by country boundaries, language, cultural conventions, race, shared activities or workplace. [YEO1996]

Although the term CUI is not used frequently by most authors, the concept remains the same for many: the computer, ubiquitous as it is nowadays, requires an extra effort on redesigning its interface to other cultures:

“To successfully build bridges between worlds, user interface designers must increase their awareness of cross-cultural differences, and make changes to the traditional software development process [...] As computer markets become more international, the CHI community must think about user interfaces in more global terms that include cultural awareness.” [BOOR1993]

Nevertheless, localization remains a field dominated by computer scientists, as we can observe in the website of Microsoft Ireland, its worldwide center for localization. The two excepts below were extracted from the “Jobs” section, the first for a Portuguese localizer and the second for a Norwegian terminologist.

“Responsibilities:
Translating software and packaging for Microsoft Windows products for the Portuguese Market.
Researching and defining the latest computer and operating system terminology for the Portuguese Language.
Investigating and fixing bugs in the software.

Requirements:
You should be a native Portuguese speaker.
You should have an information Technology related qualification and/or relevant experience. You should have knowledge of Microsoft operating systems and Office products, preferably Microsoft Windows NT/Windows 2000. Previous experience in software localisation industry is an advantage, but not a necessity.

“Requirements:
Norwegian native speaker with excellent Norwegian and excellent English skills.
Excellent computer skills.
Degree in Linguistics, Translation or Computer Science.
Previous experience as Linguist, Localiser or Technical Translator an advantage.
Quality Management and terminology management experience an advantage.
Excellent organisation, communication and problem solving skills.
Detail and service minded.
Able to work under continual deadline constraints.
Good at communicating, negotiating, and working in a team.
Flexible.

[MSIRELAND2000]

The other positions available in the website, as well the overall structure, is dominated by people from Computer Sciences and fluent in foreign languages. However, even a fluent Portuguese speaker will lack the necessary knowledge to translate culturally an interface, as well as to be aware of all the possible acceptable and unacceptable problems with metaphors, icons and phrases. Some ideas that may look interesting from a computer scientist’s point of view could be disastrous in some situation, as the one described by Boor:

As in Japan dates kept in years of the Emperor. The Lotus team thought it would be a good idea to allow the user to change the Emperor name (and so start recounting the years), but the Japanese team promptly said that it would mean to question the Emperor immortality. [BOOR93]

Nevertheless, it is a fact that people relate better to software in their own language:

Griffiths et al. (1994) reports that people who can interact with computers in their own language, learn and progress faster. For example, Bulgarian children only painted and drew but did not write in software in English. However, by providing software in their mother-tongue, the
children attempted to write creatively and explore all potential of the software [YEO].

... Indians relate more easily to the concept of bookshelf, books or notebooks, chapters or sections, and pages than the desktop, file folders, and files with multiple pages. [MARCUS1998]

Many studies tried to understand in qualitative and quantitative terms the cultural traces of different countries. A very quantitative yet practical approach was proposed by Hofstede, who conducted a careful analysis in 53 countries and rated them with indices for each of his five dimensions, normalized to values (usually) of 0 to 100. His five dimensions of culture are:

- Power-distance
- Collectivism vs. individualism
- Femininity vs. masculinity
- Uncertainty avoidance
- Long- vs. short-term orientation

Power distance, for instance, refers to the extent to which less powerful members expect and accept unequal power distribution within a culture. An interesting example is the paper by Aaron Marcus [MARCUS2000], that brings many cases regarding the interfaces of websites. One of them tries to exemplify the consequence of different power distance approaches, in Holland and Malaysia.
The differences in the two groups of Websites are clear: the Malaysian (where the Power Distance index is very high) has strong axial symmetry, focusing on the official seal of the university, faculty or administration leaders conferring degrees and monumental buildings in which people play a small role. The Dutch (where
the PD index is low) has an almost opposite approach, emphasizing the students and informality.

Marcus poses other questions that may come up by analyzing this kind of information about different countries, and relating to website interfaces:

- Does the objective of distance learning change what can be learned in individualist vs. collectivist cultures? Should these sites focus on tradition? Skills? Expertise? Earning power?
- How should online teachers or trainers act - as friends or gurus?
- Would job sites differ for individualist vs. collectivist cultures?
- How much advertising hyperbole could be tolerated in a collective culture focused on modesty? [MARCUS2000]

## Ideolects

Only in the last three years, mainly motivated by market and consumer pressures, that the user interface began to receive an special attention from software developers. In fact, with mature office software packages, the main investment now is the creation of a user interface that could allow the user to explore information and functionalities.

The classification and hierarchy of commands in a “menu” structure is also product of computer scientists’ work and point of view and not user-interface designers. Let’s consider the “Options” dialog box in MS Word 2000.
We can observe that tenths of items are grouped in the same dialog box, as a computer programmer normally creates a separate file or set of variables for user preferences. For the user, it would be more intuitive to have a “formatting options” command in the “format” menu, and a “file options” command in the “file” menu. Also, idea of having a series of check boxes to enable or disable certain options is also very much a Computer Science metaphor: for the user, probably, it would be easier to have classifications based on everyday use of the software, and not on the process of software development. The evolution of the menu structure and the “Options” dialog box is almost an archeological testimony of the technical evolution of the software, and not a conscious concern of usability. It does not mean that this concern have not existed, but the commercial and industrial pressures have prevailed. As new features are added, programmers need space for them in the menus, and in the “Options” dialog box as well. The result is that the interface gets overcrowded and, as all the interviews illustrated, people have many difficulties in going further than the very basic features. As states Taylor apud Stephen Boor,
Within the CHI community [...] we consider the social dynamics of interaction when we design software for collaboration, and we consider the unique perspectives an interdisciplinary team can provide when we engage in participatory design. However, as a community we have not always extended our view to include cultural awareness as an aspect of user awareness [...] Properly localized software applications, just as properly localized automobiles, toasters, beverages, and magazines, reflect the values, ethics, morals and language (or languages) of the nation in question. [BOOR1993]

**Back to the future**

In a recent article in Newsweek magazine, Steven Levy points out to the death of the user interface as we know it.

... the traditional GUI has persisted long past its expiration date. It was perfect in the days when computers were self-contained objects with 20 or 30 files that would be shuttled in and out on floppy disks. The original tidy metaphor of an office with a few papers on the desk doesn’t work so well when the average person has more files than the Social Security office. But the real blow came with the Internet. [...] Not to make a federal case of it, but should the browser be an adjunct to the interface—or should it become the interface itself? “Once the Web became popular, it was clear that the old Mac style outlived its usefulness,” says usability guru Jakob Nielsen. [LEVY2000]

It would not be a surprise to realize that the latest developments in user interface point to a completely different approach: instead of a profusion of icons and symbols, the old... command prompt, now with another name “universal type-in line”:

Creating this requires solutions that haven’t been discovered yet. How does the computer understand when to supply spreadsheet functions and when to supply word-processing functions? Microsoft thinks that the answer might lie in a “universal type-in line,” an always-active blank space that intelligently processes what the user wants to do at a given moment—whether its a recalculation command, a URL address, a search query or the beginning of an e-mail composition. (Gates is well aware of the irony—the old command line, left for dead, is back!) [LEVY2000]
Email, ma non troppo

Inspired by Emma, who declared that she didn’t like to type her essays at college and that handwrote all of them, this became also a question to the other interviewed people: regarding personal communication would you rather receive emails (or printed letters) or handwritten ones?

Handwriting is more personal. I’d prefer to handwrite a letter – it’s more personal. It is not a business-like. [EMMA]

I’d rather handwrite. Why? Well, it’s personal. I think the whole idea of copying and pasting... it’s very generic. You can write one letter and paste it a hundred times. [DAVID]

I prefer to receive letters, it’s his handwriting, he touched the paper, he went to the post office. [SIMONE]

In fact, I prefer the email, it will come faster. But... I think I prefer a letter, handwritten. The letter is more intimate, it is the person, he/she wrote it... it his/her handwriting... it is nicer, it is stronger. [ELEN]

To send and receive handwritten letters is more coherent with the speed of the human actions. The fact that an email or fax demand an immediate answer is constraining. There is the mystic of the manual writing, it seems that the person gave a lot of attention to it, it seems that it really belongs to him, even if is a photocopy. I think it is just like the first film of the Lumière brothers, people ran out of the theater fearing the train. We were not born with the computer. Who was born with the computer won’t suffer that impact. [IG]

The terms used are revealing: “personal”, “intimate”, “touch”, it is the person”. It seems that handwriting is closely related to a ritual, to ideas as time, attention, relationship. Even being time-consuming and more difficult, they were unanimous to affirm that they would rather receive a handwritten message as a personal communication. Elen added an interesting comment:

When it’s something related to business, to get a handwritten message seems like the person didn’t gave much attention to it [...] it’s like the person was not being professional. [ELEN]
The conclusion is that there seems to be a very different perception when people are considering business and personal communications. In the work environment, the author is less important – apparently, what is important is the message. However, communication has at least six functions [GUIRAUD1978] and they are present simultaneously in every communication process. The idea that professional communication comprises only the referential function, and that personal messages are just related to the emotive function (which must be left outside the work environment) echoes an ideology and values of a culture. Bullets and numbered lists, for instance, are typical elements in business communications. The idea of dividing files into folders accordingly to its type, and not the context or the content (My Documents, My Images, My Videos – the default folder structure of MS-Windows) also expresses a determined way to use and relate to the computer. All those elements emerge in the context of a specific professional group or social class or, in Bakhtin’s words, within an ideolect:

“Only polyglossia fully frees consciousness from the tyranny of its own language and its own myth of language”. [Bakhtin apud BROCK] [...] ...hence the value of polyglossia, the contestation of languages, hence ways of thinking [BROCK]

Still another, related way of understanding UIs is to think of them as the most complex form of “interactive, immersive cinema” that civilization has created. As computers become ever faster and smaller [...] user interfaces will become more and more like virtual or augmented-reality experiences. What will always survive is “ritual” or shared symbolism. [MARCUS1999]

**Learning**

Another question asked in the interviews was about learning: how do people learn how to use MS-Word and other applications?

Pretty much by doing, trying things. [...] I usually ask someone. [...] It’s nice to see someone else do. [DAVID]

Word and Excel are not difficult to learn, even for me that I’m not a technical person [...] Word is fairly easy to use. I hate Excel. Even if I do a table, I don’t do it in Excel. I don’t like the way it appeals to me. The
grids and all. [...] If there is something I really do not understand I prefer
to go around and ask for help, rather than going through and looking
for help in the computer. I think it is easier if somebody shows how to
do something, than actually reading. Sometimes the person can show
you in two minutes. I prefer to watch someone do it.

Sometimes Word did things by itself, things that I didn’t want him to do.
It changed the font size, the text style, I felt like a fool. I had to do the
same thing twenty times. It gave me the impression that the computer
had its own will. Sometimes I still think the same. [...] My brother was
monitor of the computer room. I asked to my brother. The help never
help much. It is much easier to ask to somebody than look in the help.
[Simone]

The first contact was about five years ago, when I noticed that could
type a text in the computer instead typewriting. Who gave me orienta-
tion was my son. He told me to use the computer as a typewriter. Print-
ing was another adventure. Then, I learned to print in two different
printers, the inkjet or the laser. After some months, I learned how to
send emails. Today I am capable of writing a text, printing it or attaching
to a message. That was a five-year process. I badly know myself after
those five years. The great motivating element for me is the possibility
to change, to exclude, insert, makes the computer an very interesting
tool. The great obstacle for the production of texts is fear. Now people
can write any kind of text, wrong, badly structured, then he/she goes
over on the text, cutting, correcting, changing, without fear of mistakes.
I think it is a great revolution. [...] To learn, my first movement is to ask
for somebody. Maybe it is a generation thing, I prefer that somebody
guides me. I am afraid of taking initiative in front of the computer. I
don’t know what can result of pressing such button. [Ig]

The first contact was with the software they used in the [clothing] store,
about three years ago. It was rather easy. Everything that I know today I
learned by using the computer. I never took any course. To learn, I ask
somebody. If my friends are around, I prefer to ask to them. I worked in
a publishing company, with Pagemaker, Quark etc. The basic features
are easy. Some are difficult. I’m afraid of doing something wrong, just
by trying things. [Elen]

The common phenomenon about learning how to use the computer, surprisingly
enough, is that everyone prefer the help of a person instead of the help or
agents, like the MS-Office paper clip agent:

I find the paperclip irritating. And I also think that someone that needs
help to write a letter... there is something wrong with it. [Emma]
I found it stupid. It offered help that I didn't want. I close it when I don't want it. Now sometimes I find it useful. [SIMONE]

In other words, the help of a person seems not to bother anyone, but the help of a computer-generated creature is very upsetting. There was a general feeling, during the interviews, that these creatures are out of the context of the interface: a funny animated creature in a ocean of formal metaphors. This contradiction is probably one of the reasons why people tend to hide or upset themselves with the presence of the agent. Another agent – the spelling checker – is rarely remembered as something useless of bothering. Although having a formal interface, the spelling checker does not pop up as a animated character and say “Hey, you misspelled the word ‘book’, do you want me to correct it for you?”. Maybe the “paperclip” is a trial to make the interface more “human” – but what does that mean for an American, a Brazilian or an Irish person?

The main issue seems to be that the interface fails to address some important rituals: the learning process, writing a letter, talking to people etc. What is more, computer scientists are trying to create human-like relationships that wind up not being appealing – although graphically sophisticated. People still feels “stupid” talking or learning from a computational creature, and some also feel a disempowered:

[...] My vocabulary has deteriorated with the computer, with spell checker and all that. That’s the downside of the computer. We rely too much on technology. I find definitely that people spend too much time in the computer. I’d prefer to read a book or whatever. I think your vocabulary and your knowledge expand, not like surfing on the internet. […] Many words the spelling checker do not recognize. In my last job I always had a dictionary beside my desk […] It’s just me. It’s not against it. I’d better read a book. I cannot understand people spending hours and hours surfing the net. I think it’s mindless a lot of the information that you get there. I have a degree in English, and my spelling has deters-
iorated, just by relying in the computer for the spelling checker. [EMMA]

The ritual also can be understood with the help of Walter Benjamin analysis of the work of art:

The situations into which the product of mechanical reproduction can be brought may not touch the actual work of art, yet the quality of its presence is always depreciated. [...] The presence of the original is the prerequisite to the concept of authenticity. [...] The technique of reproduction detaches the reproduced object from the domain of tradition. [...] In other words, the unique value of the ‘authentic’ work of art has its basis in ritual, the location of its original use value. [BENJAMIN1935]

Written in 1935, these words help us understand that concepts as authorship, authenticity and tradition are still alive, and that user interfaces, trying to simulate them in a simple and ‘childish’ way, without any deep cultural or psychological analysis (also because these kinds of analysis do not belong to the ideolcct of the professional group that makes software), end up failing and frustrating people.

Pleasure, art and transparency

The user interfaces of most “office” software, like MS-Word, are designed for productivity. Their metaphors are inspired on objects of an office, a professional environment. Analyzing the interviews made in three countries, it is possible to point out that the relationship with the GUIs is not as strong as the relationship with the computer itself - customizations, “skins”, changes in the toolbar were never used, the icons are not especially meaningful, the composite metaphors were confusing and people were afraid to explore the software by themselves. The problem is even more relevant in other countries (specially in Brazil and Thailand), because the metaphors are not localized.

It would be interesting to relate that to the Habermas concept of colonization of the lifeworld. The computer, providing an interface that uses metaphors from the world of work, and being oriented to efficiency and task accomplishment (also a trace of the American culture), rather than collaboration, creativity or real personalization, contribute to that. Many of the projects of introducing computers in schools are, in every way, totally bureaucratic.
Habermas believes that today the primary threat to man and society is not economic exploitation [...] or political dictatorships [...], but rather the encroachment of bureaucratic authorities in social relationships which will lose their characteristic human qualities and become formalizes. He calls this process the “colonization of the lifeworld”. Habermas points to the increasing intervention of politics, laws and bureaucratic authorities into family life. Thus, children are confronted at ever younger ages with school and education; they are becoming the object of legal rulings increasingly early. [HORSTER1992]

Boaventura Santos, Portuguese sociologist, reminds us that the family and the home are becoming again an economic nucleus [BOAVENTURA1995], with an increasing number of professionals working at home - and the changes in the structure of the family and in the kind and nature of ‘tools’ that every house will have.

A huge concern about the near future of computational creatures is they reproduce the same vices that we observe in user interfaces: using specific metaphors that expect to be universal, letting a subculture (or ideolect) of computer scientists dominate the conception of physical creatures with behaviors that would ultimately influence how people (especially children) behave and relate to other people. Also, the pretentious claim that computer scientists and designers make about building “user-friendly” and “easy” interfaces could be dangerously extended to these new “toys”, that would be “human-like”, as the user interface of Windows or the Macintosh are “office-like”. The process of appropriation of signs and meanings from one world and applying it to another, hence creating a new, parallel semiotic system, should be absolutely transparent (both in the sense of Sherry Turkle’s “first” transparency - understanding the mechanisms - as well as understanding the presence of the artificial interface). In the case of user interface for personal computers, it is still obvious that the “folder” icon does not pretend to be a real folder. However, when we start to build animatronics or highly anthropomorphic videogames (as “The Sims”), the limits start to blur. The relationship is not transparent at all. What are the internal rules of “The Sims”? What is the model of a relationship, of communal life, of love? How should “My real baby” react to us? What rules and cultural traces are embedded?
As we saw with user interfaces, the full cultural localization is not economically interesting for most software companies, despite the huge misunderstandings and problems generated by that poorly translated commands and meaningless icons.

It is kind of hard to translate the LOGO commands and keep it meaningful. The structure of the language is different. For instance, the command “repeat”: in Thai, it should be at the end of the block. It was too hard to change that. You will have to change the structure of the software. So I let Thai people adjust to it. [ROGER]

With animated creatures, probably the same (or worse) will happen. What will be the impact to a Latin-American child to play with a doll that reacts like well-fed American computer scientists designed it to? How would the doll behave when there is no food in the house?

To an ever greater degree the work of art reproduced becomes the work of art designed for reproducibility. […] But the instant the criterion of authenticity ceases to be applicable to artistic production, the total function of art is reversed. Instead of being based on ritual, it begins to be based on another practice - politics.

Julian Scaff, British philosopher, adds a frightening yet realistic remark:

The digital reproduction of art in our society is not intended for political or even social action, but for economic action. We are witnessing another practice that Benjamin did not acknowledge (or did not wish to acknowledge) - art for the practice of money. [SCAFF1999]

Or, in the words of Maria Ercilia, a young and bright Brazilian journalist,

The computer is rapidly becoming a central component of global capitalism. It is a machine totally devoted to productivity, to the continuous and inumanous work. The computer is an ugly and banal machine. Web art creates island of uselessness, pleasure and aesthetic fruition. It invades an environment where everything has a function, a goal, nothing is left randomly […] Web art gives us back the pleasure of losing time and save us from pure efficiency - we will badly need it in the next century”. [ERCILIA1998]

As well as pleasure and art, we need a new transparency.
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[DAVID] **David**, 27 years, assistant, American, works in a university.

[ELEN] **Elen**, 23 years, Bachelor in Education, works in a clothing store.

[EMMA] **Emma**, 25-30 years, assistant, Bachelor in English, Irish, works in an University.

[IG] **Ig**, 62 years, PhD in Linguistics, brazilian, professor.

[ROGER] **Roger**, 26 years, Bachelor in Computer Sciences, Thai, graduate student at the MIT.

[SIMONE] **Simone**, 25 years, engineer, works in a multinational company.