A FRAMEWORK TOWARDS UNDERSTANDING INFLUENCES ON THE TYPOGRAPHIC QUALITY OF TEXT

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ABSTRACT

In an electronic society the production of texts is increasingly enabled or at least mediated through Information Technologies. Text is also more and more often displayed on electronic devices and screen media. Existing typographic text research seems to focus on isolated, rule-formulating studies, often not taken up by practitioners. Our proposed framework aims to overcome these problems, and provide as complete and holistic explanation of a typographic quality in an emerging e-society as possible. Five field studies were conducted in various locations in Sydney, from September to December 2005. The participants were documenting their experiences with examples of typographic text encountered during their visit. A technique called photo-elicitation was used in subsequent interviews. The results of data analysis supported by the literature led to the formation of a framework that synthesises the influences on the quality of typographic text. The quality that is finally perceived by the reader/viewer/aser is affected by the typographical texts form and content (or the legibility and readability), its immediate context (the media, the social and the physical surrounding), as well as the antience's own personal background and the purpose behind their reading activity

KEYWORDS

computer-mediated communication, text in new electronic media, HCI, typography

1. INTRODUCTION

Typography is the task of choosing, combining and arranging typefaces to communicate a text that becomes through it meaningful for an audience. Technological advances have caused the move beyond the printed page as the primary medium for typographic text. In an electronic society the production of texts is increasingly enabled or at least mediated through Information Technologies, and text is more and more often displayed on electronic devices and screens. Typographic design in such a society becomes a concern not only for specialists, but for all members who are actively involved in the production of texts.

New forms of electronic media have added to the possibility of meaning creation: the moving type, scrolling texts and the serial visual representation of textual information on a screen have to be acknowledged as a major change of how we consume text today. To understand the role of typographic text and its use in an emerging e-society, we propose a framework that will explain both traditional forces affecting typography, but also the emerging influences of Information Technologies.

2. PROBLEM STATEMENT AND SIGNIFICANCE OF OUR RESEARCH

While typographic research has been undertaken for more than a century now, its focus has traditionally been on legibility and readability, and the enhancement of effectiveness and efficiency of both. This research has been grounded in classic linear reading, and a summarised overview of such existing research can be obtained from our previous study (Bachfischer, 2004). The move to new forms of typography on screens has

seen the same approach adapted to the new media, with legibility and readability remaining the core concerns in such research. Whereas integrating several factors (technical, semantic, human, etc.) in typographic research would be desirable, the most common approach, as described above, is seeing reading as a deciphering process. It mainly involves examining distinct attributes of fonts in isolation such as size, colour, weight, word spacing, length of line, or others (Bachfischer, 2004).

Because the examination of these specific influential factors is taking place in isolation, a number of problems are apparent. First of all, it may not be clear if some influences on typographic text perception are not overlooked, and whether some important factors that should be taken into account in text design are not ignored. Our research used a range of methods to make sure that the typographic quality framework is as comprehensive as possible, and that all the influential factors are discovered. The various methods ensured that as many perspectives as possible have been taken into account.

Secondly, a problem with the current approach is that by studying the typographic influences in isolation, text use is not explained in full, and such studies provide just partial explanations of typographic text design and use. For example, the over-retiance on rules creates the false impression to be perfectly safe (or right) with the designer's decision made during their design process regarding typographic text. What seems to be underestimated on the other hand is the quality of text that can actually be achieved when not only following such rules, but also taking into account the surroundings or the context of the text's appearance.

Furthermore, whereas the scientific method in legibility and readability research has yielded measurable results over many years, practitioners in the field of typography developed a strong belief that design practices through 500 years of typesetting history have somehow preceded the outcome of research undertaken anyway (Papazian, 2005; Lund, 1999; McLean, 1980). In other words: scientific research on readability/legibility has not come up with something typographic designers have not already known. Practitioners seem to cater in their work for factors beyond the scientific world of rule-based typography.

What seems to be missing in the existing research is a holistic framework that would overcome the above mentioned problems of isolated rule-formulating studies that often have little impact on typographic practice. Such a framework would help to better explain text design for both researchers and practitioners, and bridge the gap between the two communities, making typographic knowledge accessible for the day to day business of text design in private homes, educational institutions, and offices alike.

Our proposed framework therefore aims to provide as complete and holistic explanation of typographic quality as possible. It frames and organises existing knowledge, but at the same time it helps to understand all separate perspectives with their distinct issues. Furthermore, its originality lies in the fact that it also looks at how various perspectives affect and influence each other.

The impact of such a framework is manifold. An obvious benefit for designers is a better understanding of typography, which will lead to better textual displays. They can better comprehend all the influential forces that can affect the final quality of their text designs. Although at this initial stage we present a high-level framework that reveals the influences and their interplay only, our further research will explain each influential factor in more detail. Designers, by referring to particular studies within our framework, will then be able to better understand and learn more details about particular issues, such as new qualities of text, design for various media, the importance of context, and others. Furthermore, they can see how the various factors can synergise to create the most effective visual display.

For researchers, the framework can be used to organise and condense existing research, to illustrate what various perspectives need to be studies, and to reveal current gaps in the literature. Researchers studying specific issues can also more appreciate other factors than can impact on their researched areas.

3. METHODOLOGY

As the first step, an extensive literature review was conducted to identify existing findings in the area of typography, reported in Bachfischer & Roberston (2004, 2005). Main themes and issues from various studies were collated, which provided a starting point for our tramework, indicating some initial influences on typographic quality. Our assumption however was that the literature may not fully represent all the various issues and factors that affect textual display. Therefore, we also looked at a variety of existing examples of typographic text use reported in literature and case studies, the results of which are summarised in our recent work (Bachfischer et al., 2006).

Even more importantly, we decided to look at typographic text use in real life, from the perspective of those for whom it is intended - the readers. Five field studies were conducted in various locations in Sydney, from September to December 2005. The locations of these qualitative studies included a science museum, and several shopping centres. The participants were all asked to document their experiences with examples of typographic text encountered by them during their visit. Each user spent about half an hour wandering about the location, using a provided digital camera for documentation of real world text use. To make their visit more realistic, we gave them specific tasks, such as getting to the shopping centre's post office, for example.

The photos taken by our participants were used to make it easier for them to recall their views and comments in subsequent face-to-face interviews. The interviews were structured according to the photos that the participants chose to comment on. This technique, named 'photo-elicitation', was guided by procedures proposed by Hurworth (2003), Caillier (2002) and Pink (2001). Giving the participants autonomy in the photo-making process not only facilitates the interview, but provides them with the power to describe their experiences on their terms (Caillier, 2002). Further details about the suitability of this visual research method in typographic research will be reported in a separate paper.

The aim of the follow-up interviews was to discover what mattered to the participants in textual displays, what they noticed about them, what made them like a specific piece of text, what made the displays useful in a particular situation, or what attracted their attention. The answers helped us to complete the proposed framework by revealing real-world influences onto typographic text from a user's perspective. Our data analysis revealed a number of issues that have not been discussed in the literature before. As for the factors that have been reported in the literature, our research provided some new perspectives and insights

Various analytic techniques proposed by Yin (1989) were reviewed to help analyse the collected data. Interpretational analysis refers to examining the data for constructs, themes, and patterns that can be used to describe and explain the phenomenon studied (Leedy, 1997). A technique that seemed particularly suitable for this study, which primarily aims at discovering influential factors, was creating a matrix of factors and placing the evidence within these categories (Yin, 1989).

Furthermore, a procedure proposed by Pare (2002) was applied to ensure the reliability of the coding process, and therefore the reliability of this study. Two coders individually assigned the issues discussed by the respondents to a suitable category. The results were subsequently compared, and the few differences discussed and resolved.

Another strategy employed to promote validity of this qualitative research was using low inference descriptors, which are descriptions phrased very close to the participants' accounts and researchers' field notes (Johnson, 1997). Verbatims (direct quotes) are a commonly used type of low inference descriptors, and this paper also utilizes direct quotes from the subjects to improve validity of the research. Such examples of data not only validate the conclusions, but also provide rich illustrations of the topic.

To sum up, the framework was created as follows. Existing literature findings revealed some initial factors, such as Physical or Social Context from Falk & Dierking's 'Interactive Experience Model' (1992), or Purpose from Sellen & Harper's study (2001). Subsequent examination of case studies of text use uncovered some additional elements of our framework, such as the distinction between Reader, Viewer and User. Finally, the analysis of our interviews demonstrated some new influences that have not been accounted for in previous studies (such as the Quality itself), or suggested modifications or extensions to earlier proposed factors (such as Personal Context).

4. DATA ANALYSIS: FORMULATING THE FRAMEWORK

The following sections report on our findings, organised within the identified factors of the framework, illustrating how each factor was discovered/explained/better understood. This includes findings both from literature, and our empirical studies.

4.1 Reader/Viewer/User

The reader, who must be the final recipient of all typographically designed texts, is represented in our framework as a 'reader', a 'viewer' or a 'user' of text. The distinction between 'reading', 'viewing' and 'using' was informed by the conclusions of our previous research (Bachfischer et al., 2005, 2006). Reading

involves attending to a consecutive text, with the reader immersed in its content. This 'reader' is scarcely aware of the typographic form of the text, as long as it does not interfere with the immersive state of reading. This typographic form is used to improve both legibility and readability, although it happens in the background, without the reader being aware of it. When the 'reader' starts viewing a text, the formal aspects of it overpower the content, taking centre stage. The formal aspects of a text begin to interpret and therefore affect the textual content. The 'viewer' not only reads the text but also views the form of it, attending a typographic performance. Finally, using a text happens when the audience can actively control it, being able to interact with the text and decide how to read it. The 'user' controls both spatial and temporal movement.

Our studies support the distinction between the 'reader' and the 'viewer' where participants would become either the former or the latter, depending on their choice of text that they were documenting during the study. When the subjects read textual signs for navigation, they were focused on the content and the information they were able to access. On the other hand, some displays that they liked just attracted their attention, even though they did not provide any meaningful information. In such cases, the respondents were much more aware of the form of the display. In our studies, they were no cases of using text, which may suggest that this type of experience with text is the least common one in this particular context.

The emergence of a 'user' of text is however both reported by literature (Lupton, 2005, Triggs, 2002), and increasingly confirmed in published case studies of technology designs including textual display. Lupton (2005) for instance suggested the 'birth of the user' in context of typography, defined as someone who places the 'usefulness' of a text above its content, e.g. "someone clicking here to go over there" or "someone who hought this also hought that" (Lupton, 2005, p.73) Lupton bases her assertion on the use of new media, especially on interactive media such as the World Wide Web, and draws from HCI studies as well as social studies, e.g. the impatience of the digital reader seen as cultural not technical.

Case studies have also been reported in literature supporting the notion of a 'user' of text rather than only a reader/viewer. One such example is the Xerox PARC prototype, 'Speeder Reader', based on RSVP (Rapid Serial Visual Representation). It allows people to navigate a text space using the driving wheel metaphor (Back et al., 2002). The steering wheel acts as navigational tool to switch from one lane - one stream of text to the next. An accelerator pedal controls display speed, subchapter navigation is mapped onto the gear stick. The reader here is much more than that - he becomes a user, who is in control of both spatial and temporal movement of text.

In the 'Stream of Consciousness' project, later developed into an art installation called 'Interactive Poetic Garden' (White & Small, 1988), the interaction or the 'using' activity becomes even more apparent. The creators combined the possibilities of a computer and a garden environment with stones, water and plants. The text (single words) is meant to mimic the physical behaviour of objects floating in a real fountain. As the pool circulates, old words are removed, so that over time the words in the water are the words that have been chosen as interesting. The user, thanks to the movement capabilities of text, can therefore not only control the form of the 'layout', but also the content of the read text.

The importance of differentiating between the three instances of a reader in our framework stems from the fact that for each of them the remaining influences discussed in our model can manifest themselves differently, or be of different significance.

4.2 Typographic Text

In our research, whether the activity involves reading, viewing, or using, it always involves a typographic text in its centre. It has long been established that this typographic text is made up of a core literal contentits deeper meaning, embodied in a physical form - the visual appearance of a text (Tchichold 1991; Gill, 1991; Aicher & Rommen, 1988; McLean, 1980; Warde 1955), both transporting and influencing meaning creation. There is no 'pure content' in a textual representation (on paper or on screen) since texts always appear in a certain formal way. This form is (or should be) rather invisible when we talk about a 'reader' of a text; on the other hand, the formal aspect of a text becomes more visible when we talk about 'viewing' rather than 'reading', as described above.

4.2.1 Factor: Content

Content of text is the focus of studies about readability. In the 'Universal Principles of Design' (Lidwell et al., 2003) readability is defined as "[...] the degree to which prose can be understood, based on the

complexity of words and sentences" (p.162). Readability is sometimes described in contradicting ways in the literature reviewed (White, 2005; Aicher & Rommen, 1988; McLean, 1980), however it is usually associated with making content understandable.

Semantics as part of linguistics is the field which studies meaning embedded in words. Semantics come into play when typography starts to interpret content, emphasising particular parts of a given text, creating hierarchies in the text, assigning values, and therefore influencing the meaning creation process. For example, by putting 'quotation marks' around a particular word, it is set apart from the rest of a sentence; by italizising it, the same can be achieved.

Some of the participants in our study suggested particular content that was missing on the signs encountered: "More names could be on this one sign, there are so many places in this mall". Apart from semantic mark-up of a given text, participants often commented on the structure of it, on the typographically expressed hierarchy, or on the order in a text, including the use of categories: "All shops are clearly divided into categories. But when I wanted to find the jewellery shop I knew, I didn't know which category to look under. So it took me a while ... scanning 'fashion', 'gifts', and others ... it was finally under 'accessories'."

4.2.2 Factor: Form

Our literature review revealed a number of formal aspects of texts that matter in typographic designs for print as well as for screens. Most of the literature in the field of typography assigns importance to the typeface used, whether it is a serif or sans serif font, the slant of a character (if it is an 'italic' font), the x-height of a font (the height of a lowercase 'x' compared to the rest of the characters), type size, weight, width, upper-and lowercase treatment, the spacing between characters, the word spacing, the line length, the line spacing, the paragraph alignment, and the placement in space (White, 2005; Jury, 2004; Turtschi, 1995; Aicher & Rommen, 1988; McLean, 1980). Some of the experts in the field paid attention to technicalities of typographic use, for instance resolution or surface (Willberg & Forssman, 1997; Tschichold, 1991; Weidemann, 1994), while others condensed formal aspects into design categories, for instance 'contrast' - weight, size, colour, etc. (Dair, 1967), or 'colour of text' - meaning the visual impression of a block of text, comprised of type size, weight, width, spacing, etc. (Bringhurst, 2002).

The term that encompasses those formal aspects of a text is legibility. Legibility is defined as "[...] the visual clarity of text, generally based on the size, typeface, contrast, text block, and spacing of the characters used." (Lidwell et al., 2003, p.124). As revealed in the previous paragraph, this description lacks several variables in terms of what constitutes legibility. It does associate legibility with visual factors however. Tinker (1963) refers to legibility as "[...] factors affecting ease and speed of reading [...]" (p.4) therefore referring to the deciphering of signs.

The deciphering of signs and how meaning is created from them, is also focus in the field of semiotics. Whereas the question when a sign becomes a letter in our perception remains ambiguous, many of the formal aspects of typography enable the identification of letters, and therefore influence the reading and deciphering process.

Our studies have shown which of the known formal aspects were valued, or more visible to our participants. Data analysis also revealed the different influences of those formal aspects on the reader as opposed to the viewer. When the subjects were reading text for understanding, to find out for example how to get somewhere, they were less often commenting on the form of the texts in the interviews. They were able to state "it was OK...", "nothing good or bad about it" etc. This is in line with what Beatrice Warde (1955) describes in her essay 'The Crystal Goblet' as 'transparent' or 'invisible typography'. In this invisible typography, the formal aspects of a typeface and its treatment are used to improve legibility of a text, but without the reader being aware of it. In such cases, the type should ideally become such an invisible container for content. It should become what Warde describes as 'a non-intrusive servant', aimed to improve effortless reading, not interruptive to the reading process (Warde, 1955). According to this approach, the form of typographic text should be invisible.

When the users' effortless reading was interrupted by formal aspects of the typeface used, they became more aware of those aspects: "Don't like it that it's all black and white with just one icon in orange. It should all stay black and white. Because it's confusing."

The form becomes much more apparent when 'viewing' the text. When the participants reported texts that attracted their attention and that they viewed, rather than read, they were also able to comment more about the formal aspects of text: "The 'Welcome' sign [in the shopping centre] seems promising. Its white on yellow contrast makes it hard to read, but it is not something you read!"

4.3 Immediate Surrounding of Typographic Text

The previous section discussed the two inseparable dimensions of text itself: its form and content. This section deals with the immediate surrounding of a text: the physicality of it, the media involved, but also the social environment which cannot be changed by the reader/viewer.

In their seminal work 'The Museum Experience', Falk & Dierking (1992) proposed a model for structuring the individual experiences during a museum's visit. An experience, as they describe it in their work, cannot be tied to one aspect of the museums visit, for instance just the physical properties of the space and its design (exhibition design). The individual experience emerges, in their view, out of three overlapping factors, each of them contributing, though not necessarily in equal proportions, to the quality of this experience: a) the personal context, b) the social context, and c) the physical context.

Although we have used their approach as a base for structuring the experience of typographic qualities in a similar way, we extend and refine their model to suit the particular characteristics of the typographic text experience. In our proposed framework, the 'physical context' of a typographic text has already been already divided into the formal and content aspects, and is now further extended towards the physical surrounding where the text is visible, and the technology or media which delivers the text. The 'social context' is defined as the social environment present at the particular location. These three factors (physical surroundings, media, and social context) cannot be directly influenced by the reader/viewer, although they greatly affect the experience of typographic text.

The 'personal context' of Falk & Dierking's (1992) model is differentiated for each individual, and does not belong to the text's immediate surroundings. Therefore it is discussed in section 4.4 which focuses on those factors than are influenced by the reader/viewer. These include the personal background (experience and attitudes), and the purpose of the activity of reading.

4.3.1 Factor: Physical Surrounding

By reading/viewing we engage with the form and the content of a given text. A text however is also displayed somewhere, it is printed on something, and it is generally part of our experience of being in the world. This real world surrounding of texts constitutes the next factor which influences how a typographic text is perceived. We focus in this category on the physical context of a typographically treated text, its surrounding and the physical circumstances in which we are engaging with the text.

Our study confirmed the significance of the real word surrounding, or the context in which a text is on display: "I remember I wanted to show that when you enter into the shopping area there is so much text to be read everywhere [...]. Too much to read [...]. Too much fuzz all around."

Our participants, for example, pointed out the importance of text displays in the car park being colour-coordinated with the rest of the particular car park level (walls, columns, doors, etc.), which allowed them to better orient themselves. They would also comment, for example, on the small size of a font used in an elevator, which would make it hard to read for people standing further back. From our observations it seemed that font sizes were usually between 12 and 20mm which is the appropriate size found in typographic literature for signs (Ruder, 1967; Turtschi, 1995), but, because of a visually cluttered surrounding present, they often seemed not large enough for our participants.

In addition our participants noticed that some typographic text was too small in relation to its physical position on a display (e.g. a map), so they had to bend or squat to read it: "[What about the size of the map?] Perfect... even though it was just perfect for me because mine was level 5 [on eye-level]. But if it was on level 1 [much lower, closer to the ground], I wouldn't bother to squat in front of it."

This illustrates that textual displays should not be studied in isolation, but rather in the surroundings in which they will finally be located.

4.3.2 Factor: Media

The means of delivery of a typographic message are classically divided into old (print) and new (screen) media. In line with McLuhan's 'media is the message' doctrine (1964), all media have an existence of their own, and come with connotations surrounding their functionality or proper use.

Media for which a text is intended influence both the typographic treatment of the text, and the way it is perceived. The former could be for example by different formal possibilities of various media (such as

moving type or hyper-linking possibilities on screens), and the latter can happen when the audience has certain expectations towards the textual display because of the media used.

Participants in our study displayed expectations concerning the use of text on a particular medium, such as a participant questioned about an interactive kiosk system in the museum: "It was very limited, like my [printed] map, nothing more". They were confused or delighted if a particular medium translated well into a different one: "It's the same map as the one I had in my hand, just a cooler way to look at it ... you could choose a level and there was a voice reading names." They were sometimes even drawn to a medium by its sheer existence or size: "[1] saw a big screen/a kiosk/a sign and walked towards it."

Whereas in classic typography the media was often reduced to the quality of its surface (e.g. paper surfaces and colours) or its 'feel' as an artefact such as a book, the new electronic media for text display are far more versatile in their influence on text, and introduce for instance new textual display possibilities such as movement or interactivity.

4.3.3 Factor: Social Context

The social context frames reading as an individual or social activity - either by the environment where it is taking place (public place in contrast to private space), or by the activity itself as being conducted by a group or influenced by others - by immediately verbalised opinions of others for instance. Although the influence of others on typographic quality perception was not taken into account before conducting the studies, therefore not catered for in providing a task which would involve social interaction, this factor did emerge during the interviews.

The participants' attention was guided by other people's behaviour: "Somebody is using the kiosk - must work."; their information gathered from reading was also influenced by others' input, either being explained better or clarified, or even contradicted: "/participant after spotting an Admission sign] I assume Admission is to pay but I'm told [by a staff member] that I need to go to Information."

4.4 Individual Influence

The previous sections discussed the form and content components of text and its immediate surroundings (physical surroundings, media, and social context). Additionally, our studies revealed that the reader/viewer themselves can influence the experience of a typographic text. These influences include the reader/viewer's personal background, as well as the specific purpose behind their reading activity.

4.4.1 Factor: Personal Background

In the 'Interactive Experience Model' (Falk & Dierking, 1992), the personal context covers such issues as the different experiences of first time visitors, frequent visitors, subject novices, or subject experts. The experiences of the same situation are different for each individual, depending on their personal background. This personal background comprises of a number of factors that influence what a given person knows at a time of reading a text: their previous experience, knowledge, culture, skills, aptitudes, interests, and preferences. The personal background creates their own perspective, affecting their attitudes towards a text, and often building certain expectations surrounding a text: "There should be a keyboard and you enter the name what you are looking for, say 'post office' and automatically there should be lights blinking where it is in the directory and on the map, that would be perfect." Their experience with similar settings of text use directly affects their understanding: "[about car park signs colour-coordinated with walls: Why do you know it's a colour code?] Because it's the same as the walls. That's what usually happens in all shopping centres. Each level has a different colour so you remember where your car is."

The change from the term 'personal context' (Falk & Dierking, 1992) to 'personal background' is meant to better illustrate that the experience and knowledge are something that is attached to the reader/viewer, as opposed to a context that applies to a particular situation.

4.4.2 Factor: Purpose

Apart from the personal background, another influence on text experience coming from the reader/viewer himself is the purpose of their reading activity. The experience of text is affected by why a person is reading a text in the first place. The same text can be perceived differently by someone who, for example, searches

for information, compared to someone who reads for entertainment. Reading is never just performed for its own sake, and there is always an intention, or a purpose behind it.

This factor has been informed by the seminal work of Sellen and Harper at Xerox PARK (2001) which discussed their study of "reading in the real world" (p.79). Reading from paper and from screens was examined closely and, among other results, yielded a set of different purposes and motivations behind the reading activity. These included reading for one's own entertainment, to self-inform, to learn, to identify, for cross-referencing, to edit or critically review texts, to search for answers to questions, to support listening, to support discussion and to remind.

Comparisons with typographic literature (Willberg & Forssman, 1997) found similar design approaches catering for particular reading purposes. On one side of the spectrum, the side of the classic reader, reading is conducted in a linear fashion, for information and differentiation; reading can also break-up this linear process when it is conducted as a consulting activity or in a selective manner. Activating typography or expressive typography as a design approach are intended for a viewer rather than a reader of a text. In all cases the purposes of reading are indeed manifold, and are in fact one of the factors differentiating a reader from a viewer and a user.

In our studies, reading was often utilised for searching for particular information: "[Would you read the whole list of names of shops?] Not all of it, just look at it quickly and figure out where I am and where I have to go."; sometimes the purpose was more individual: "For me the best would be directions showing me the route that would assure that I cover everything on this floor [in the museum], kind of 'follow the pink arrows'. And first I would walk all the way following these arrows, and then I would come back to the places I liked – kind of knowing how much time I can spend at each, and what's worth it".

4.5 Quality of Experience

The form and content of a text, its immediate surroundings, as well as individual reader/viewer's background and purpose all affect the experience of typographic text. These factors together influence the way how a person will finally perceive a given textual display: "[What about the colour and the position?] Ugly - like those computers in old times. It should be some nice colour, e.g. blue like in Windows."; "This sign is also nice, I didn't need it for finding this post office, but it just looks nice, fits well with the look of this mall, and it's very simple and easy to read. But don't know if it's useful".

The final 'quality' that our respondents perceived in the typographic texts was articulated in their own words as being "nice", "cool", "expensive-looking", "normal", "nothing special", "nothing bad about it", "it's all the same", "I don't mind", "appropriate", "weird", "don't like them", or "easy to read".

5. CONCLUSIONS AND FURTHER RESEARCH

The framework for understanding the typographic quality of text in its current stage focuses on the user side of textual perception. In the centre of our framework (see figure 1) is the typographically designed *text*, where *form* and *content* are unified through the choice of a typeface as well as its particular treatment and its arrangement on a given surface. Depending on whether the receiver of the typographic text is a *reader* in the classic sense, or rather a *viewer* or a *user*, their focus will be the content or the form of the text. Participants commented on both content and form, although in different situations one of the factors was accentuated.

The immediate surrounding of the typographic text, as depicted in our framework (figure 1), includes the *media* through which the text is communicated, the *physical surrounding* in which this media is consumed, as well as the *social context*, all of which cannot be influenced directly by the reader/viewer. Although typographic rules exist for specific media where the text will be used, they rarely extend to the surroundings where the typographic text will be consumed.

Having explained the typographic text through its content and form, as well as its immediate surrounding, we also acknowledge the influences that come from the reader/viewer/user's side of the framework. The individual's influences include the *purpose* of the reading activity as well as the *personal background*, comprised of previous experiences, knowledge base, culture, skills, aptitudes, interests, and preferences in reading/viewing/using a typographic text. Because the individual's influences are somehow 'attached' to the

reader/viewer/user, they originate on their side of the communication process (figure 1) and influence the perception of a typographic text.

To sum up the proposed framework synthesises the influences on the quality of typographic text. The quality that is finally perceived by the reader/viewer/user is affected by the typographical text's form and content (or the legibility and readability) as well as its immediate context (the media, the social as well as the physical surrounding). In addition the quality perceived is individually coloured through the audience's own personal background and the purpose behind their reading.

This quality is the most immediate and tangible effect of typographic text that a reader/viewer perceives, often without being aware of the factors that contributed to their experience. It is this quality that we are hoping to improve with our framework, by making the various influential factors more accessible and therefore more understandable to the creators of typographic texts.

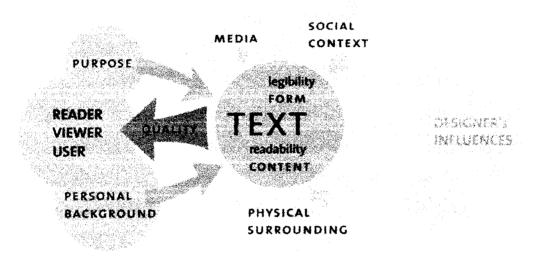


Figure 1. Influences on the quality of typographic text

The framework by itself does not yet fully explain text usage, as each influence category needs to be further studied in detail; rather, it provides a structure on which to build upon, building blocks to be used, and directions on how to build on it. Our further research, aided by this framework, will aim to examine in more detail the various influences, as well as the relations between them.

As figure 1 indicates, we have for now left out the designer's perspective in our framework. The designer's view and the influences that affect their work are the focus of our current study, and will extend the current framework into the fuzzy grey area of the designer's side, an area that is not visible to the reader/viewer/user of typographic text. We have intentionally divided the work into two parts since both of them require different research subjects (the reader vs. the designers). The readers of text do not know and should not know about the designer's process, and they are not aware of how their final perception of text is shaped by the creators of it - in other words: what happens inside the fuzzy grey area. Similarly, designers could only assume what matters most to the audience, so we relied on the readers themselves to provide input into this very important part of the framework.

Combining the both perspectives will hopefully provide a truly holistic and well-balanced explanation of influences on the quality of typographic text.

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