

Typography on the Web  
**Direct Movement as an Element  
of Information Structuring**

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College of Imaging Arts and Sciences  
School of Design  
Department of Graphic Design

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of the College of Imaging Arts and Sciences  
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Master of Fine Arts

by **Yueh-fang Wu**  
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**For My Family**



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## Thesis Project Definition

The profession of graphic design is in the process of dramatic change. More frequently, graphic designers are breaking the print media boundaries and are starting to explore design through the World Wide Web. The WWW dictates many new influences. The goal of the thesis is to identify direct movement as a new influence on web typography and to explore its function in information structuring.

The study begins with analysis of how web typography is influenced by typography development in the past, namely, Modernism's idea of new typography and the constructional use of space. Then the study reviews the changes brought to typography by current computer technology. Direct movement as a new influence on typography is critically observed and its function is examined. The thesis study concludes with the design of a web site, ***Typography on the Web: Direct Movement as an Element of Information Structuring***. The web site serves as a vehicle to promote the thesis study and simultaneously demonstrates the use of direct movement as an element of information structuring.



## Research

### Typographic Influences in the history of graphic design

As the distinguished design historian Philip Meggs once said, the history of graphic design begins with the development of typography. The importance of typography as a visual form of communication has long been recognized. By studying the development of typographic design, the study will be able to uncover the pattern and find logical explanation to the changes in typography today.

The first influential incident of modern typography was the invention of Gutenberg's movable type in Europe during the middle of the fifteenth century. For the next three hundred fifty years, the focus of typography had been on the availability and accessibility of hand press and hand set type (Carter 17).

The advance of typography came with the Industrial Revolution in the 19th century. Designers were drawn to the dynamic expression of typeface design. Along with the innovation of printing techniques, an outpouring of new approaches such as Egyptian typefaces, sans serif type, reversed-type and perspective type, contributed to the popularity of wood-type posters and broadsides in America and Europe. Many type-setting devices, such as linotype, monotype, and chromolithography, were invented in the late 19th century as a result of the booming graphic arts business.

In the early twentieth century, the Modernist movement took an incredibly significant step in shaping the identity of modern typography. In Europe, the Dada and Futurist experimented with typographic form and syntax which led to the study of rhetorical roles in typography. The theorists of New Typography and Constructivism looked to the use of space in layout to bring order to information. They stressed the idea *form follows function* while at the same time provided aesthetic principles of clarity, precision, and continuity. These principles were brought to America by the émigrés of the second world war from Europe and established the roots of modern typography.

## Research

### The Role of the World-Wide Web in Graphic Design

The Modernist idea of typography was adopted by the the New York School in the USA in the first half of the century. The rise of the Post-modern era started with the New Wave Typography and questioned absolute order and cleanness. The San Francisco School in the 1980s went one step further by embracing the artist's need for elaboration of decorative texture, pattern, surface, color and playful geometry of type. Function had become secondary. The Retro and Vernacular typography became figurative, animated and expressive which surpassed the old image of typography.

The invention of Apple computer in 1984 brought revolutionary possibilities of designing customized typefaces and creating complex, layered, vernacular, and hybrid typographic forms. Graphic designers with or without the new equipment challenged the conventional notions of typographic syntax and visual hierarchy. Yet in less than ten years, typography went through another transformation with the introduction of the WWW.

When the internet was first introduced in the 1960s, the idea was to use hypertext for storage and retrieval of non-linear, associative linking schemes of information. The internet was not popularized until the innovation of an easy to use, predominantly graphical interface – the WWW in 1994. Typography has not been the same since.

With technology constraints, type on the web is often pixelated and the use of typographic space in the layout of information is limited. The departure from the Modernists' aesthetic idea of absolute order and cleanness is as if designers had returned to Gutenberg's period. However, the complexity of the hypertext information structure forces the typographic form to assume a strong navigational function. Form follows function becomes the most prominent golden rule for typography on the web. This contradiction of modernism and post-modernism is the essence of the Post-post modernism and it defines the role of typography on the web today.

#### Typography in America after the Second World War

| Modernist  | Post-modernism                               |                           |   | Post-post Modernism  |
|--|--|---------------------------|---|--|
| International Style<br>New York School                   | New Wave                                     | San Francisco School      | Retro Vernacular                                |  |
| consistency, structured, clarity, precision, continuity. | question absolute order, reject right angle. | decorative, manipulation. | paraphrase design from 20s commonplace graphic. | question syntax, hierarchy. create complexity, layer, vernacular, pre-modern form. |
| <b>1920</b>  | <b>1960</b>                                  | <b>1970</b>               | <b>1980</b>                                     | <b>1990</b>  |
| metal type   | photographic type                            |                           | digital generated type                          | hypertext  |



## Research

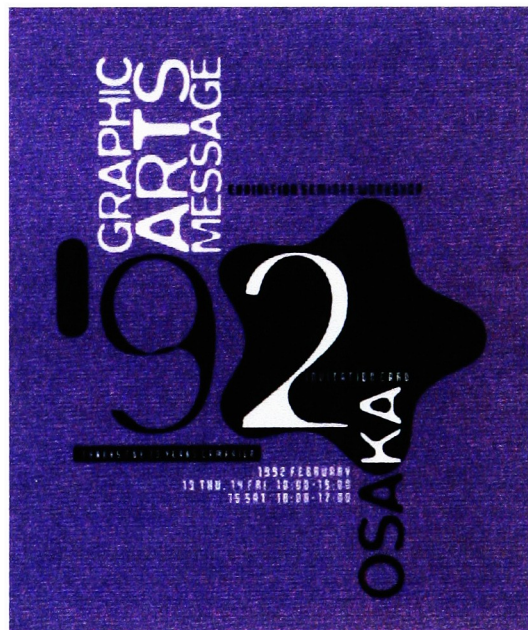
### Precedent 1: Neville Brody

Neville Brody is one of the few graphic designers who embraced the use of the computer in the early 1980s. Although his first success came long before the use of computers, Brody's "freeform" approach of typography is considered a product of the technology.

Generated in his London studio, Brody's work for the 1990s highlights the liquid language of digital technology through layered, out-of-focus, seemingly chaotic shapes which burst with change. He challenges the conventional idea that the computer is simply a tool that mimics and replaces physical activities. He points out that the freedom brought by technology is a way of thinking and a way of working.

Brody is a significant example of how graphic designers can adjust to the computer age. Contrary to the popular assumption that keeping up with the latest technology is the prerequisite for success, Brody's main focus is to explore new forms and ideas inspired by new technology, for example, time, space, and movement regardless of the media.

This example functions as a good precedent for this thesis study because it points out that the study should focus on exploring the new influences on typography rather than the boundaries set by the technology.



Poster for Graphic Arts Message (Wozencroft 16)

## Research

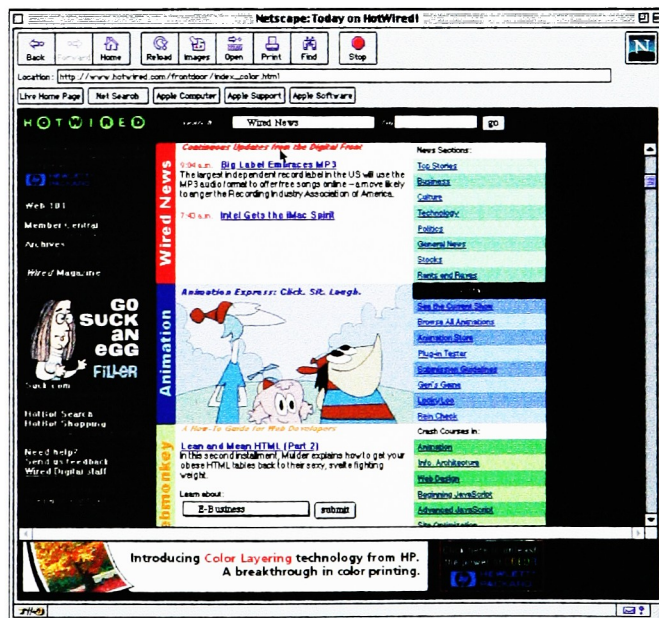
Precedent 2: John Plunkett and Barbara Kuhr

John Plunkett and Barbara Kuhr are creative directors for **Wired** magazine and the **HotWired** web site. Largely recognized by the use of fluorescent color and the deliberate avoidance of the design theory that “good design = subtle, elegant, restrained,” both **Wired** and **HotWired** are considered to represent new graphic standards for the computer age.

The graphical interface of **HotWired** plays a leading role in shaping the development of the world-wide web. By integrating technology as the foremost design consideration, **HotWired** continues to demonstrate the possibilities of distributing visually pleasing digital graphics on the web.

Plunkett and Kuhr credit their success to the computer technology. The use of networked computers allows concept developers, writers, designers, and programmers to work together at the same time on the same platform. As a result, it breaks down the distinctions among the disciplines. This communal aspect is the main drive that moved their design careers from a print-based paradigm towards the emerging new media form.

This example functions as a good precedent for this thesis study because it demonstrates how designers can turn the web constraints to serve their own interests.



Screen shot (www.hotwired.com/frontdoor/index\_color.html)

The study of typography on the web can be divided into four categories: digital typefaces, typographic attributes, visual hierarchy and intelligibility.

Though all four categories relate to typography on the web, digital type is only given a brief review here for it is relevant but not the main interest of this thesis study. The purpose of the synthesis is to determine the role of direct movement in typography on the web.

#### **Digital Typefaces**

There are at least three different categories of typefaces for the web: typefaces created originally for print, those created originally for screen, and typefaces designated for both media. While typefaces for print can easily achieve the goal of readability and legibility with the clean and precise type produced by sophisticated print technology, type for screen often sacrifices the aesthetic value for the sake of transmission speed on the web. Type is often presented as pixelated with hard-to-adjust spacing and a limited number of typeface choices.



# Synthesis

## Analysis of Typography: Typographic Attributes

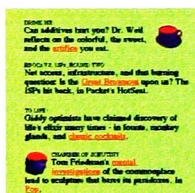
### Typographic Attributes

The handling of typographic attributes has become more dynamic since the introduction of desktop publishing. Many new effects such as embossing, drop shadow, and motion blurred type are replacing the signaling function of traditional attributes such as type size, type style, and type manipulation. Though attributes on the web appear to be similar to print, the usage and function are changing.

#### Print

A a B  
c c D d  
e e F f f  
g H h h h

9 pt Fwogn  
10 pt Fwogn  
11 pt Fwogn  
12 pt Fwogn  
13 pt Fwogn  
14 pt Fwogn  
15 pt Fwogn



#### Typeface

Type on the screen looks pixelated because it is not drawn with a continuous line. The shape is suggested with block-like pixels. The pixelated look is also a result of 72 dpi low-resolution display.

#### Type Size

Type size on the screen requires individual testing. Sizes acceptable in print such as, 6 – 9pt, can hardly be read on the screen. 12pt is the standard in print while 14pt is the convention for screen.

#### Type Color

Colored type carries two conventional navigational purposes. It points out that the designated character is a hypertext link and it helps users to keep track of where they have been.

#### Type Style and Manipulation

Differences in type style can not only stress the point, but many also signal a function. For example, underlined text indicates a link. Manipulation, such as drop shadow, can serve the same purpose.

#### Web

Epsi Sans  
E-World Tight  
Tecton  
Chicago  
Geneva

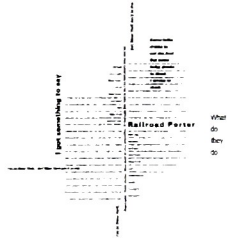


Grafiek en Tekeningen M. C. Escher.  
Introduction by P. Terpstra. Zwolle,  
1959  
The Graphic Work of M. C. Escher.  
London and New York, 1961  
Enlarged ed., New York, 1967  
'Hoe ik er toe kwam, als graficus  
ontwerpen voor wandversiering te  
maken.' De Delfer, vol. 14, no. 6  
(1941), p. 81

# Synthesis

## Analysis of Typography: Typographic Attributes (continued)

### Print



### Letter, Word and Line Space

The screen is harder to read, and until recently, designers have had little control on spacing. It is now possible to change spacing to adjust to different reading situations on the web.

### Web

This text is set in 14 pt Univers Regular with the character spacing set to +10.  
This text is set in 14 pt Univers Regular with standard character spacing.  
This text is set in 14 pt Univers Regular with the character spacing set to -10.  
This text is set in 14 pt Univers Regular with the character spacing set to +10.  
This text is set in 14 pt Univers Regular with the character spacing set to -25.



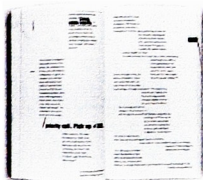
### Line Length, Text Quantity

On screen type is tiring to read. 35 characters per line is the maximum, while 35-55 is ideal for print. To avoid lengthy reading, text should be broken into 10-25 line segments, especially in scrolling bars.



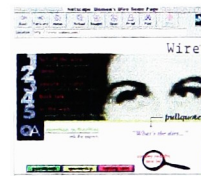
### Column and Margin

Side columns and general margins are popular on the web. However, the use of a frame and a scrolling bar in the same column can be extremely confusing.



### Page Size

The conventional screen size is 640 x 480 pixels. However, the concept of the page is weakening. In a non-linear structure, the scrolling bar, frame, and screen are used as a multipage container.



### Visual Hierarchy

Visual hierarchy is the essence of typography. Rob Carter, Ben Day and Philip Meggs defined visual hierarchy as “an arrangement of elements in a graduated series, from the most prominent to the least prominent, in an area of typographic space” (58). In another words, visual hierarchy determines how information is structured and visually presented. Nonetheless, information structuring on the web is concerned with not only how elements are arranged in space but also with the way elements are moved from space to space.

### Types of Movement

The uses of movement are not entirely new in typography. Visual rhythm (figure 1) often serves as a device to draw a reader's attention and directs the flow of information. Inferred movement (figure 2) produced through blurring, transparency, or drop shadow can function as cues to signal changes in meaning. However, movement on the web is different because it engages direct movement (figure 3), the change of position through physical space.

### Direct Movement

The employment of direct movement in typography is common in television, video, and film applications. It often helps to create entertaining animated effects and seldom provides function in text-dominated documentation. Nonetheless, the web characteristics of interactivity and hypertext use direct movement as a prerequisite for typography on the web. For example, the position of a paragraph of text can be moved by viewers if the window is scrollable or resizable; a paragraph can also disappear and reappear with a click of the mouse.

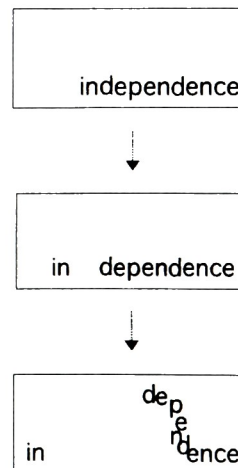
Figure 1 Visual Rhythm



Figure 2 Inferred Movement



Figure 3 Direct Movement



## Synthesis

### Analysis of Typography: Visual Hierarchy (continued)

#### Function of Direct Movement in Visual Hierarchy

The use of direct movement would not have been valuable if it had just been something forced upon by the new technology. Nevertheless, designers today are beginning to recognize the power of structuring information in combination of space and movement. While space performs the function of separating and categorizing information well, direct movement is more straight forward in delivering the information in a graduated series. The combination of space and movement will help users to better understand the information.

For example, in a horizontal listing of subjects, users see **what**, **where** and **how** (figure 4). The equal spaces between them signifies the equal importance of each subject. A strong indication that **what** is the subject users should pay attention to first is demonstrated in the arrangement of the subjects: **what**, at left; **where**, in the middle; and **how**, at right. However, in some cases, the author may want to talk about **where** first, but believes the order of **what**, **where** and **how** is important for the user's understanding of the topic. The common practice of typography is to assign a graphic cue to **where** (figure 5). The solution could work effectively, or it may confuse the users. The use of direct movement can help clarify the author's intention by simply delivering **where** first but positioning it in the middle with **what** at left, and **how** at right (figure 6).

Figure 4



Figure 5

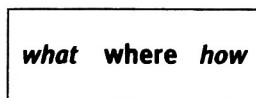
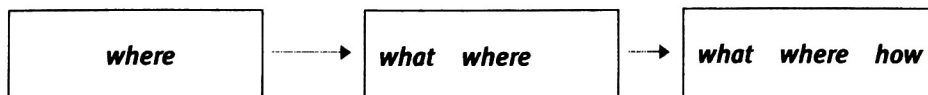


Figure 6

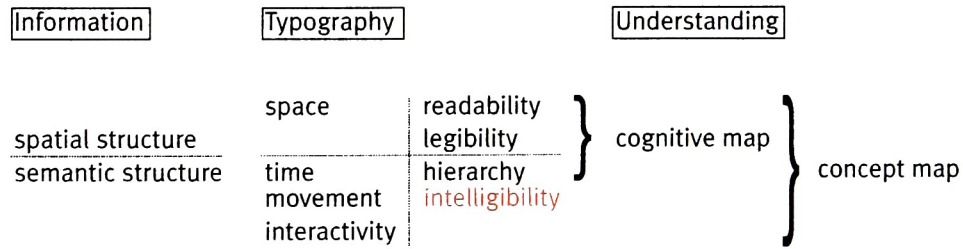




### Intelligibility

Peter Storkerson and Janine Wong define intelligibility as “the linkage between visual form and concept” (145). Intelligibility allows designers to visually present the information which leads to the user’s comprehension of the author’s concept. Storkerson argues that often designers successfully represent the organization of information by providing spatial structure on a page but fail to communicate the author’s concept.

For example, the basic treatment of a document may use a one inch border around the letter size page, 18 point, bold type for titles, and 12pt type as body text. This typographic treatment fulfills the need of orientation by providing readability, legibility, and hierarchy. However, it fails to help a user find his/her way around the argument, or semantic structure, that an author creates. Storkerson describes the lack of intelligibility as similar to “driving confidently when we think we know where we are going, even if we are surprised to find out where we go” (156).



**Figure 7 Comprehension Model**

The model is a compilation of three different sources: Peter Storkerson and Janine Wong; Andrew Dillion, Cliff Mcknight and John Richardson; Walter J. Ong.

## Synthesis

### Analysis of Typography: Intelligibility (continued)

Andrew Dillion, Cliff Mcknight and John Richardson in their study of navigation through hypertext documents raise the same concern as Storkerson (Mcknight 186-187). In addition, they point out that because users are well trained by the print medium, the cognitive map (figure 8) created by print media often dominates the users' understanding on the web. They focused on what comprised a piece of information and neglected the how and why aspect. Nonetheless, the key to understanding actually relies on a comprehensive concept map (figure 9) that will begin to explain the author's concept with both spatial and semantic structures.

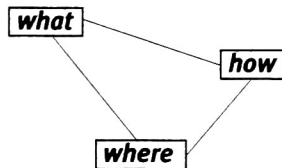


Figure 8 Cognitive Map

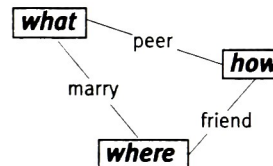


Figure 9 Concept Map

Walter J. Ong stated the incompleteness of understanding is a consequence of print technology (136). Understanding in the oral tradition often includes aspects of spoken language such as instant feedback, sound, and movement rather than just the information itself. Fortunately, aspects of spoken language deleted by print are now being restored by secondary orality such as the telephone, audio books, and the web.

However, whether the use of direct movement in combination with space will successfully present the semantic structure, achieve the goal of intelligibility, and help users understand the information and implement the concept map is the challenge of all designers working with typography on the web.

Since direct movement does not exist in the traditional formats of graphic design, one has to draw inspiration from other areas of study when trying to determine the framework for direct movement in typography. The following list is compiled from three different sources, John S. Fowler's *Movement Education*, Walter Terry's *How to Look at Dance*, and Jack Fredrick Myers' *The Language of Visual Art*.

The following table divides direct movement into three categories, *what* (awareness of type), *where* (typographic space), and *how* (meaning, form and time).

Figure 10 Direct Movement Elements

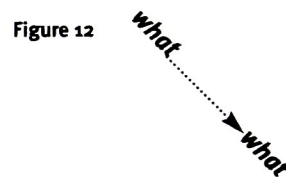
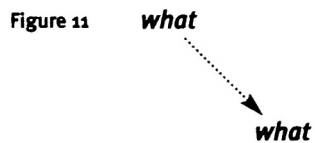
| what<br>(awareness of type) | where<br>(typographic space) | how<br>(meaning, form and time) |
|-----------------------------|------------------------------|---------------------------------|
| part                        | the position in space        | literal                         |
| whole                       |                              | symbolic                        |
|                             | direction                    | abstract                        |
| size                        | horizontal                   |                                 |
|                             | vertical                     | rest                            |
| shape                       | diagonal                     | ready                           |
|                             | converging centripetal       | realize                         |
| transparency                | spreading                    |                                 |
| gradation                   | radiating                    | sequence                        |
| tone                        | inward spiral                |                                 |
| blur                        | revolving                    | rhythm                          |
|                             | pendulum                     | duration                        |
| focus                       | cascading                    | accent                          |
|                             | interrupted progression      | tempo                           |
|                             | pathway                      |                                 |

## Synthesis

### Variable of Direct Movement (continued)

On the one hand, the table highlights possibilities on the web. For example, type in print is most readable from its upright position than at other angles. However, when type is moving in a 45 degree across the screen, upright type seems unnatural and stiff (figure 11). If the type is rotated according to its focus – 45 degrees and the size is changed sequentially (figure 12), the animation will more closely resemble movements in nature.

On the other hand, the list also shows how direct movement in typography actually reinforces the importance of typographic space and suggests that direct movement is an additional element for information structuring.





## Ideation

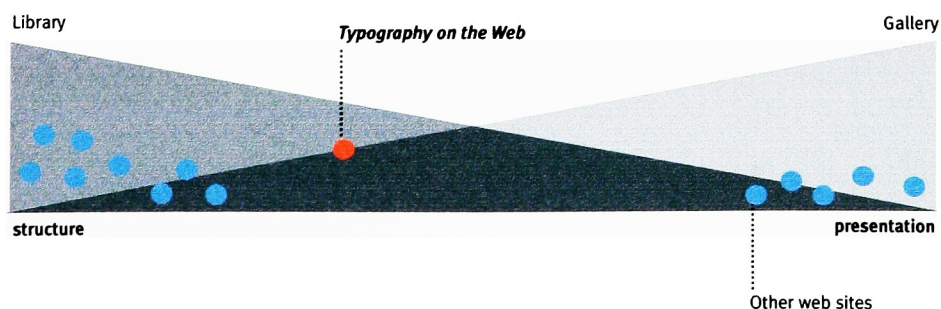
Define the Direction

The first step in designing this particular web site is to determine how the web site should function. The WWW is a relatively young medium. Designers find it difficult to determine what kind of web sites they should be creating. Are they advertisements, corporate brochures, catalogues, flyers, posters? Often, they are a combination, or hybrid, of several approaches.

Jeffery Veen suggests a simple method, *What's Out There* (appendix 1), in *Hot Wired Style* (5). According to Veen, a web page is a mixture of two categories: the library and the gallery. The web sites that function more like a library often employ a well defined information structure and an easy-to-use interface. Search engines and on-line shopping malls are types of these web sites. The web sites that function like a gallery often provide creative viewing experiences. These web sites include movie previews and software demonstrations.

Veen's method has been adopted and modified to illustrate the particular goals of ***Typography on the Web: Direct Movement as an Element of Information Structuring*** (figure 13). On the one hand, the goal of the web site is to help designers new to the web understand the function of direct movement in information structuring. Therefore, it is important to provide descriptive and structured information. On the other hand, since the value of direct movement is best illustrated through life examples, hands-on experience is also helpful. As a result of both considerations, ***Typography on the Web*** is defined to be more like a library but with some degree of gallery characteristics. In another words, a clear information structure and an easy-to-use interface is the most dominant focus for developing the project but the functions of direct movement as an element of information structuring should be simultaneously utilized.

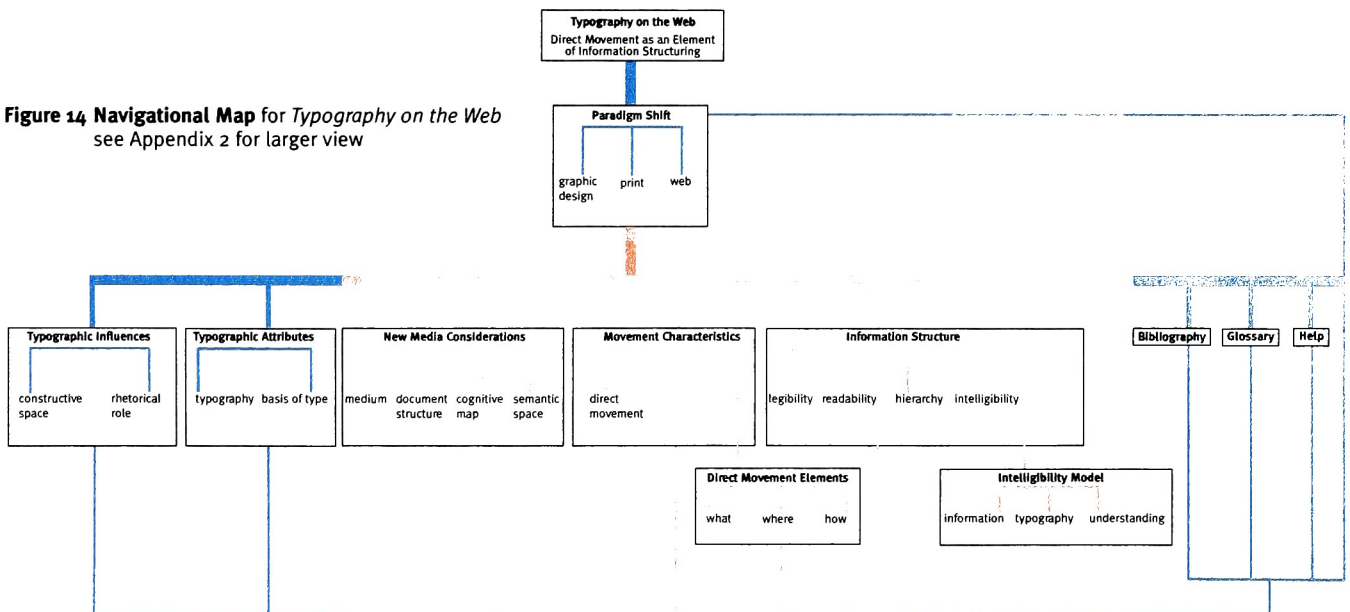
Figure 13 Modification of *What's Out There*



The second step in developing the web site is to create a navigational map (figure 14) that indicates the components and how they are linked. Since the web site contains mostly informative text, the map is constructed in a hierarchical order.

The map is color coded into two sections. Background information is color coded as blue, while orange represents the main focus of the study – direct movement as an element of information structuring.

**Figure 14 Navigational Map** for *Typography on the Web* see Appendix 2 for larger view



# Ideation

## Direct Movement Exercise

To decide how direct movement can be applied, an exercise is conducted. This exercise is inspired by dance choreographer, Walter Terry. He urges dancers to first think about the meaning of the dance: literal, symbolic, or abstract. He then has the dancers practice the 3Rs in dance: rest, ready, and realize (177).

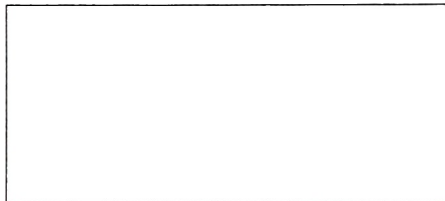
When this concept is applied to a design problem, an exercise is created by dividing it into four stages. In the first stage, designers have to decide what they intend to achieve with direct movement and what kind of movement will best fulfill their need. Take the title of the web site as an example:

### Title of the Web Site

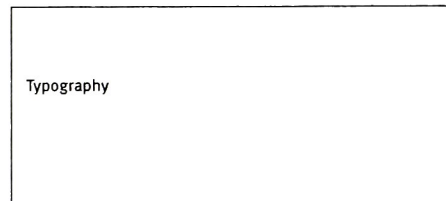
*Typography on the Web : Direct Movement as an Element of Information Structuring*

|      |   | meaning |   |  |
|------|---|---------|---|--|
|      |   | literal | symbolic                                  | abstract   |
| goal | To illustrate the relationship between the main and subordinate titles. |         |   | Right angles movements along a shared horizontal threshold |
|      | To imply the importance of process in developing the thesis.            |         | Wave-like movements represent the process |  |

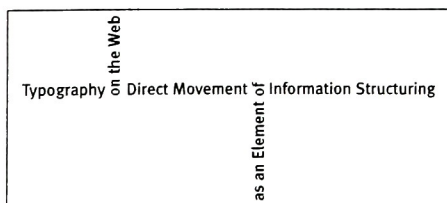
In the second stage, designers have to decide the initial position (rest), the entry point (ready), and the end position (realize) of the movement.



**Initial Position** - blank page



**The Entry Point** - "Typography" entering from left

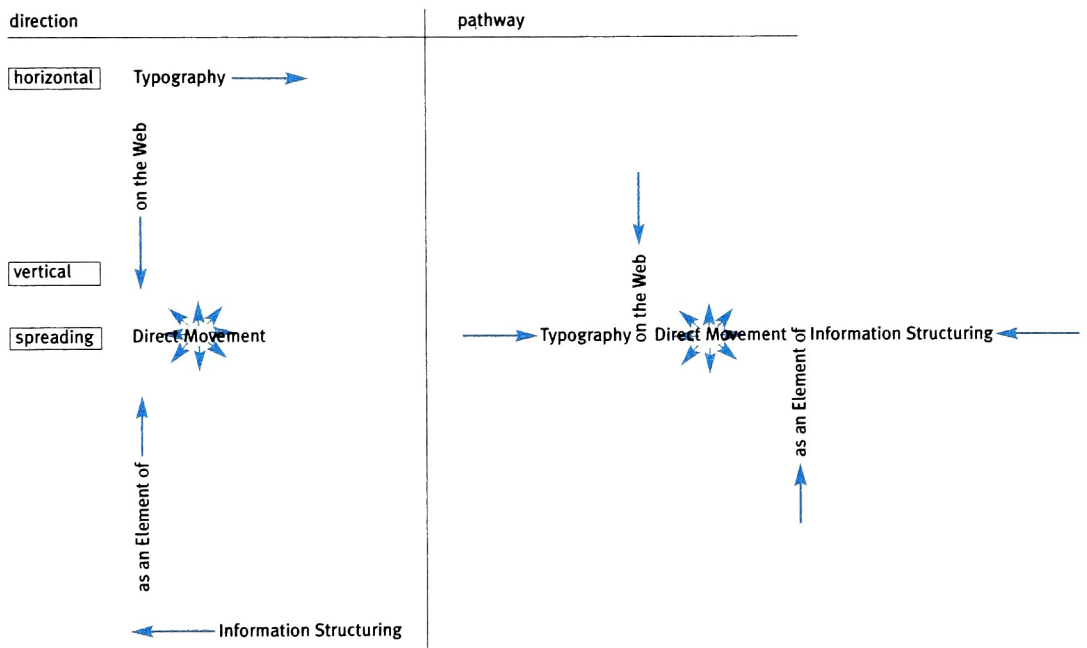


**End Position** - full display of the title

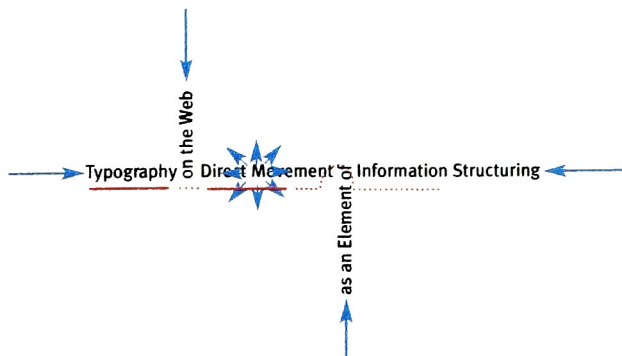
# Ideation

## Direct Movement Exercise (continued)

In the third stage, designers have to decide the direction and the pathway of the movement as mentioned in figure 10. For example:



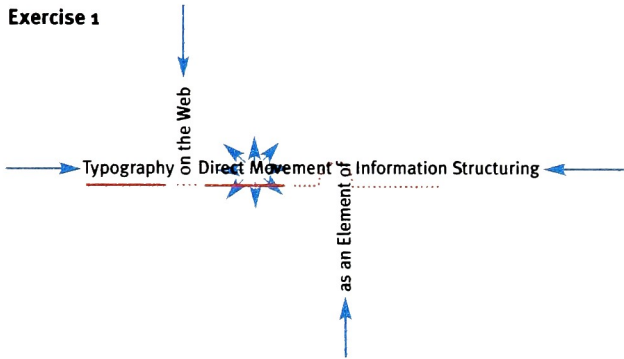
In the final stage, designers combine both direction and pathway. This stage is animated with duration, accent (strong, soft), and tempo (speed).



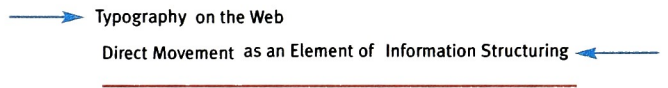
# Ideation

Range of Explorations for initial title sequences

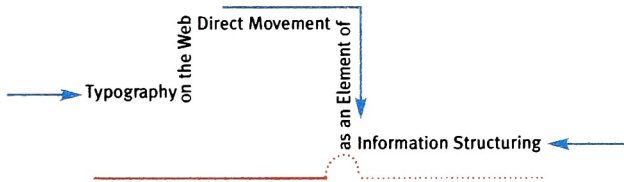
Exercise 1



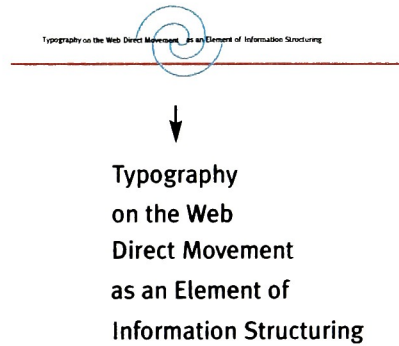
Exercise 2



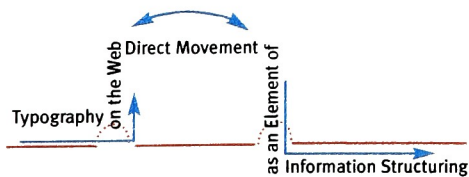
Exercise 3



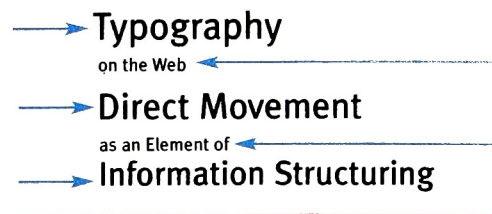
Exercise 4



Exercise 5



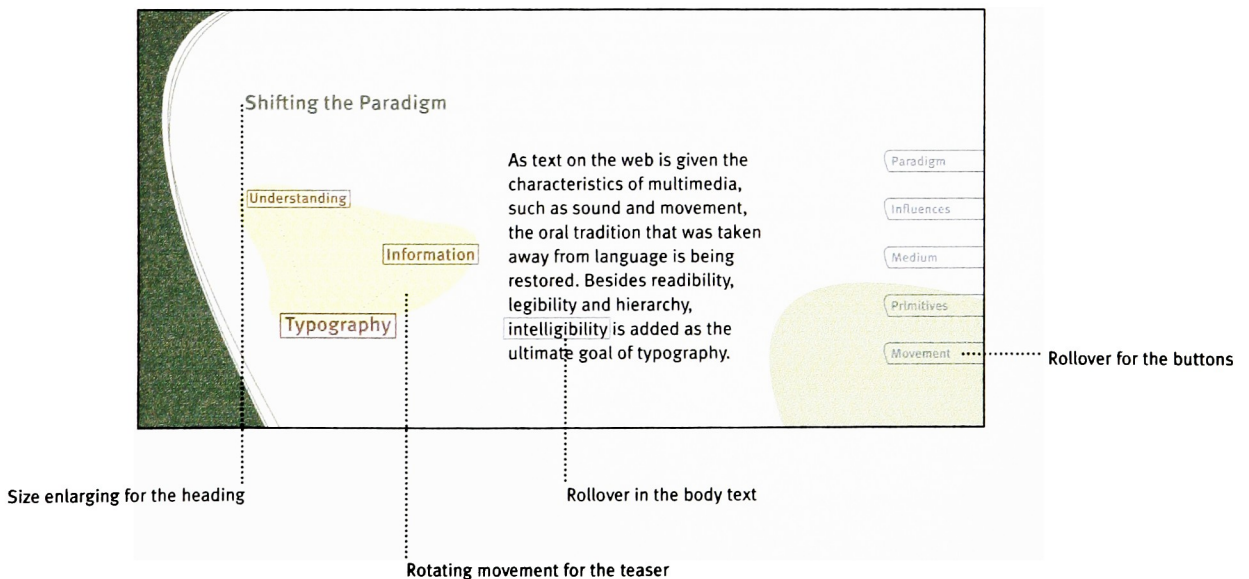
Exercise 6



The goal of this evaluation is to determine whether the created movements for the application web site **Typography on the Web: Direct Movement as an Element of Information Structuring** achieved their desired purposes. Four decisions are tested with *Think Aloud Protocol* (Preece, 623): Size enlarging for the heading, rollover for the buttons, rollover in the body text, and rotating movement for the teaser (figure 14).

The evaluation took place in the author's home studio on a Mac 8100 using Navigator 4.0 program. Eleven design students participated separately. Users were given no instructions when evaluating the application. Users were encouraged to browse the site freely and verbalize their thought processes which were recorded by a tape recorder placed next to the computer. No interactions, such as asking questions, were allowed in order to simulate the real life experience of surfing the web. At the end, the recordings were analyzed according to responses toward each of the four decisions described above.

**Figure 14** Screen Shot of the Reviewed Application





## Preliminary Evaluation

### Usability of the Interface (continued)

The result of the evaluation (figure 15) showed that direct movement was extremely powerful in directing users' attention. Users were overwhelmed by the effect and became confused with how to proceed to the next step. They found it hard to comprehend more than two sets of direct movement at the same time and were troubled by the speed of the movements. Nevertheless, they welcomed the *experience* of direct movement.

To solve the problem, movements should be placed in sequence, and the contrast of different movements should be emphasized. For instance, the buttons can be introduced before the teaser. Also, the speed of the teaser can be relatively slow to contrast with the quickness of the rollover button.

**Figure 15 Analysis of the Evaluation**

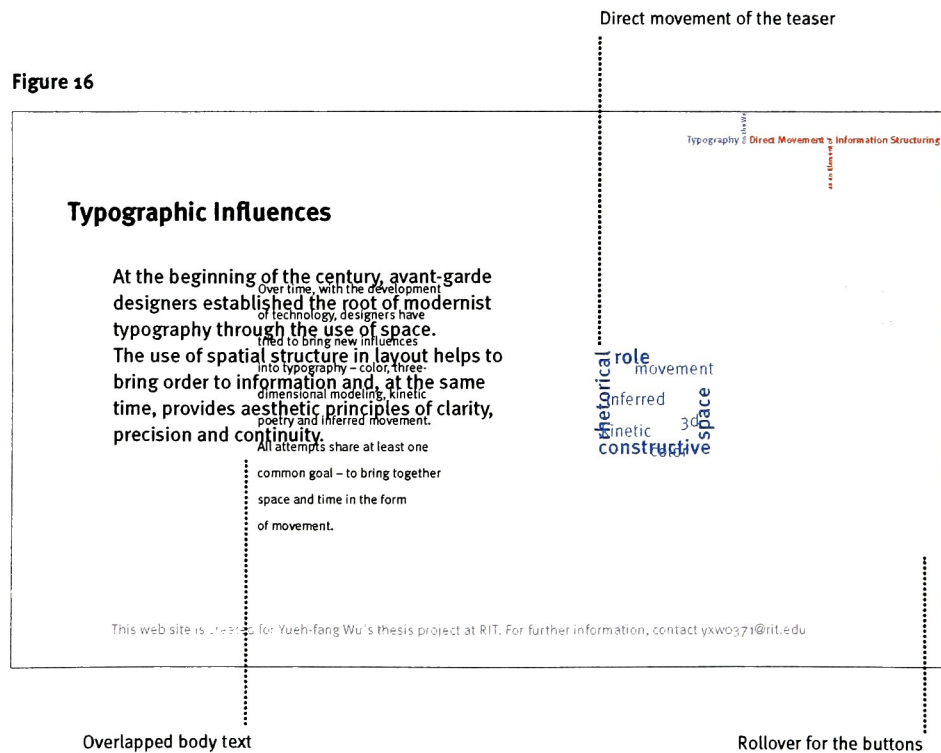
| Decisions                        | Number of people and their response (from a total of 11 students)  |
|----------------------------------|--|
| Size enlarging for the heading   | 3 The movement of the heading is confusing<br>1 The movement of the heading divides each chapter<br>2 Silent                   |
| Rollover for the buttons         | 2 The buttons are too long, too overwhelming<br>2 Didn't roll over, only clicked<br>2 Didn't recognize them as buttons         |
| Rollover in the body text        | 4 Didn't think it was a rollover<br>1 Text size too small to read<br>1 Silent  |
| Rotating movement for the teaser | 3 The movement is signaling the function of the button,<br>but to where does it take me?<br>3 The movement is too fast to read |

The implementation of the web site is based on two aspects: user interface and title animation.

**User Interface**

The final decisions for the user interface were made according to the preliminary evaluation results. In every layout, there are three sets of interactive components.

First, a listing of contents moves on to the screen from the right hand edge. Rollover effects are built to serve as graphical cues to signify the button functions. Second, the direct movement of the teaser is confined only to a limited area. The words are displayed in time sequence and change positions every two seconds. The movements illustrate the relationship among the subjects. Finally, body text is overlapped. Rollover effects are built to demonstrate the shifting of space forward and backward. The movement also serves as a space cue for labelling the first paragraph and the second paragraph.

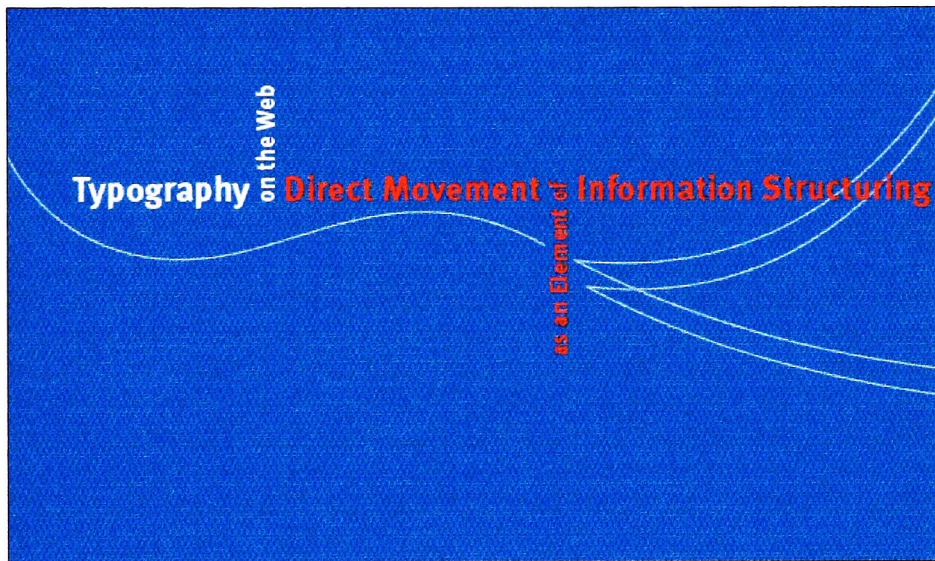




**Title Animation**

The challenge in introducing the title to the audience in this project is that the title consists of two parts and is quite long. The uses of reverse type and orange color in the final result successfully differentiate the main title from the subordinate title. Moreover, because the title is animated, the audience actually has more time to absorb the long phrase. Finally, the contrast between the use of right angle movements and the wave-like lines symbolized the transformation of typography in the computer age.

Figure 17



For further information of sequencing screens, see Appendix 4.

This web site ***Typography on the Web: Direct Movement as an Element of Information Structuring*** provides sufficient materials to call attention to the function of direct movement as an element of information structuring in typography on the web. While the designated target audience – graphic designers new to the web – find this web site non-threatening, experienced viewers may find it elementary and wish for an in-depth explanation.

In the future, the full description of this thesis documentation will be included in the web site so that both experienced and inexperienced web page designers can use it as a resource. In addition, a self-published thesis documentation booklet will be sent out to various graphic design magazine publishers in both Asia and the United States. Hopefully, if the topic interests the editors, the thesis study can be shared with additional audiences through magazine publications.

The purpose of the questionnaire at the next page (figure 18) was to evaluate if the web site achieved the goal in helping graphic designers adjust to the web and to determine how the site could be improved if it does not meet this goal.

The questionnaire was divided into two sections. In the first section, a defined task is conducted with a focus on the function of a particular direct movement. In the second section, the issue is whether the web site is successful in general.

The questionnaires were distributed in the Bevier Gallery where the thesis exhibition took place. The evaluation was conducted on a Mac 8100 using Navigator 4.0 program. After the exhibition, more questionnaires were distributed in the Graduate Graphic Design Studio. This time, the evaluation was conducted on a Mac 8500 using Navigator 4.0 program. Fifteen viewers participated in the evaluation.

The result of the evaluation showed that the web site has improved. Most participants found the interface easy to use and the web site able to provide straight – forward information. They also found the examples of direct movement helpful in outlining the information. However, some of the viewers thought this web site was not useful as a resource if they were going to design a new web site. They were concerned about the technology constraints and wanted to see more interactions between the information sender and the receiver.

In conclusion, although the thesis study initially hypothesized that web technology would provide as sophisticated a publication as print in the near future; the technology constraints remain an unavoidable issue. In the future revision of the web site, more discussion of the integration of technology will be addressed and a discussion forum can be created by e-mail posting or on-line chatting.

## Retrospective Evaluation (continued)

**Figure 18** Retrospective Evaluation Form  
See Appendix 3 for evaluation results and exhibits

**Typography on the Web: Direct Movement as an Element of Information Structuring** is a web site designed to help graphic designers new to the web adjust to advances in the computer age. Users need only basic computer knowledge to understand or navigate through the site.

Are you a graphic designer?  
Yes  No  If no, what is your profession? \_\_\_\_\_

---

Please perform the specified task then answer the following question.

1 Task Use the buttons, **Influences**, **New Media** and **Direct Movement** to access each chapter and come back to the **Paradigm** chapter when you are done.

Question Do you think the use of rollover as a device to separate the first and second paragraph of the bodytext is efficient and meaningful?

Answer Agree —|—|—|—|—|— Disagree

2 Task Use the **Information Structuring** button and the **Information–Typography–Understanding** teaser to access the Intelligibility Model page. Come back to the Paradigm chapter when you are done.

Question Does this chapter provide clear examples of how direct movements can be used?

Answer Agree —|—|—|—|—|— Disagree

---

3 Question Do you think the web site helps you better understand the use of typography on the web? Why or why not?

Answer Agree —|—|—|—|—|— Disagree

Please explain \_\_\_\_\_  
\_\_\_\_\_

4 Question Do you think you are now more aware of the use of direct movement on the web? Why or why not?

Answer Agree —|—|—|—|—|— Disagree

Please explain \_\_\_\_\_  
\_\_\_\_\_

5 Question Do you think this web site is a useful resource to refer to if you were going to design a web site? why or why not?

Answer Agree —|—|—|—|—|— Disagree

Please explain \_\_\_\_\_  
\_\_\_\_\_

---

This questionnaire is created by **Yueh-fang Wu** for the purpose of evaluating the graphic design thesis project, **Typography on the Web: Direct Movement as an Element of Information Structuring**. Viewers' feedback is much appreciated.



The thesis study originally explored the latest innovations in web technology and how graphic designers can utilize them to create typography which meet the standards of print, such as readability. However, while the research was still in progress, many of the technology constraints changed literally overnight. For example, both web design programs, Dreamweaver and Flash, were updated, and the limitation in controlling spacing in type has been alleviated.

It has become evident that web technology is so powerful, the WWW will be able to perform all the functions print provides in the near future. Instead of comparing what the web cannot do with respect to print, the issue is how the web can help to enhance information transferring. This realization led to this study's focus of direct movement since direct movement is not available in print.

This part of the thesis was drawn mostly from the study of dance and movement education. The result was a compilation of *Direct Movement Elements* (figure 10) in an attempt to provide graphic designers the basic language of direct movement in typography. As the study unfolded, direct movement was shown to provide the function of information structuring in typography. This function is illustrated in the *Comprehension Model* (figure 7) which shows how utilizing direct movement in typography can assist in better communicating information.

In summary, typography on the web is different from that in print because of these new influences, namely space, movement, and interactivity. These new influences are important because they enable graphic designers to utilize typography in a range of different ways and help viewers comprehend information more easily. Nevertheless, this thesis focuses only on one component of direct movement in typography. In order to master the complete use of direct movement, many other aspects would also need to be explored.

**Digital**

is the term for the electronic technology that has taken over print and image manipulation systems since the 1980s. All computer systems sort information digitally as a mass of binary data.

**Graphical User Interface (GUI)**

refers to the graphical look of the components that make up an interface, such as on-screen sliders, buttons, and check boxes.

**Human-Computer Interaction (HCI)**

refers to the processes, dialogues, and actions that a user employs to interact with a computer in a given environment.

**HyperMedia**

is the term used to describe the use of non-linear storage of all forms of electronic media.

**Legibility**

refers to the quality of distinction between characters – the clarity of the individual letters.

**Modernism**

stresses the idea *form follows function* while at the same time provides aesthetic principles of clarity, precision, and continuity.

**Multimedia**

is the term to describe the use of several different kinds of input and output media in combination, e.g. sound, text, and video.

**Readability**

is the quality of reading provided by a piece of text in which kerning, leading, and other factors will have a bearing on the actual function of the typography.

**Typography**

once defined as the composition of printed matter from movable type, the term now describes the art of visually representing words.

**World Wide Web**

is built on top of the Internet and offers an easy to use, predominantly graphical interface to information while hiding the underlying complexities of transmission protocols, addresses, and remote access.



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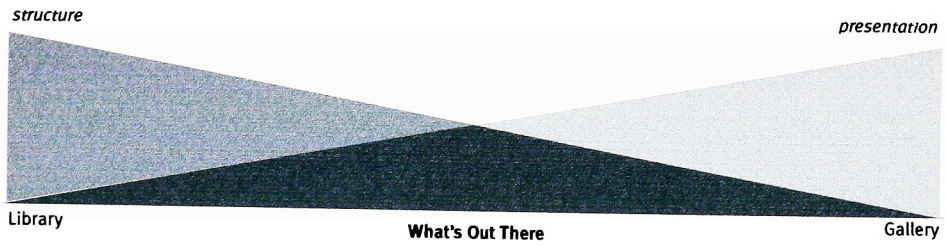
***Dance as a Way of Knowing***. Maine: Gale Institute, 1997.

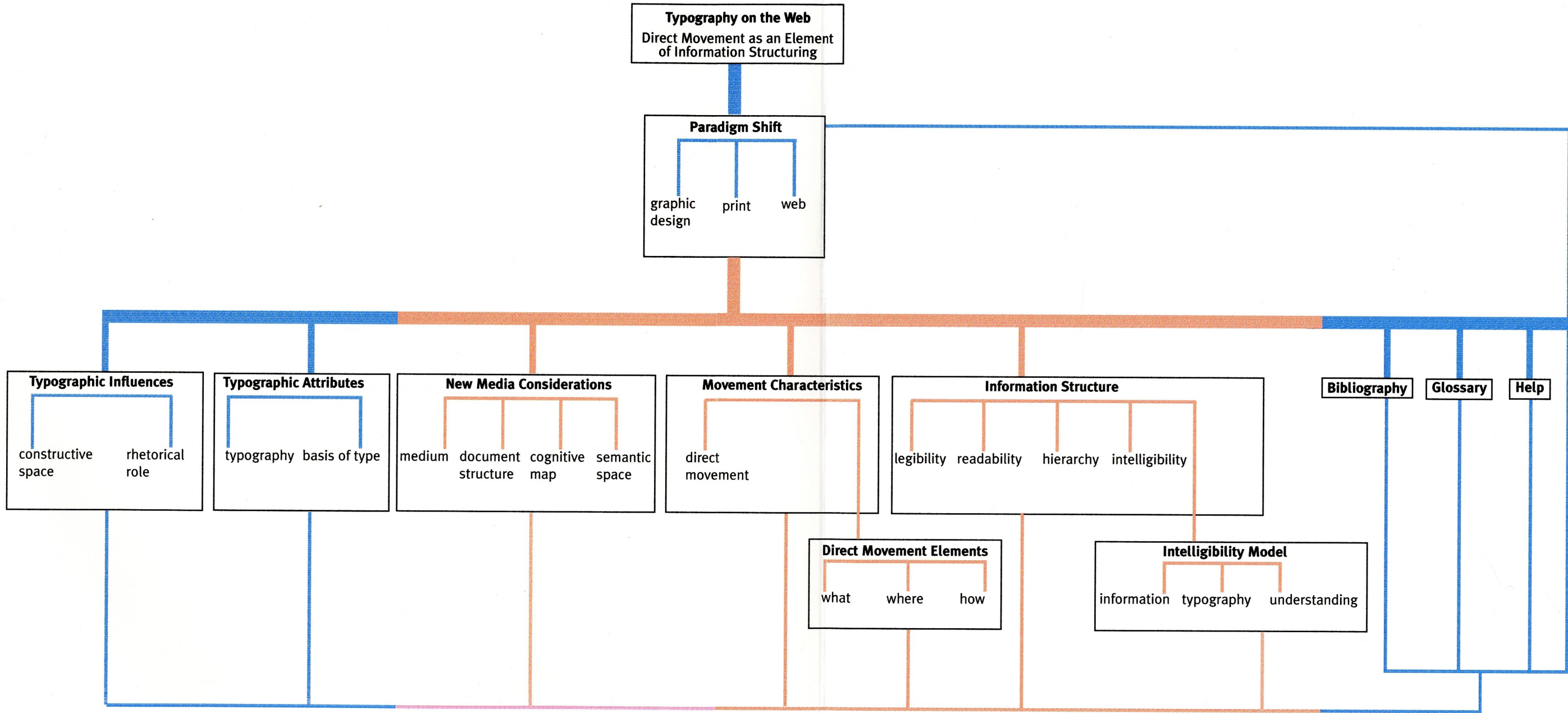
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**Appendix 1**

Jeffery Veen's *What's Out There*





## Appendix 3

### Retrospective Evaluation Result

| Questions  | Number of people and their response (from a total of 15 students)   |
|--|---|
| 1 Do you think the use of rollover as a device to separate the first and second paragraph of the bodytext is efficient and meaningful? | <p>7 1 4 1 1 1</p>  |
| 2 Does the <i>information structure</i> chapter provide clear examples of how direct movements can be used?                            | <p>5 4 1 3 2</p>  |
| 3 Do you think the web site helps you better understand the use of typography on the web?  | <p>8 2 1 2 2</p>  |
| Why or why not?  | <ul style="list-style-type: none"> <li>1 Demonstrate different types of movement</li> <li>1 Present Clear information</li> <li>1 Neglect Technical constraint</li> </ul>  |
| 4 Do you think you are now more aware of the use of direct movement on the web?  | <p>8 1 2 1 1 1 1</p>  |
| Why or why not?  | <ul style="list-style-type: none"> <li>1 Aware of the difference between direct and inferred movement</li> <li>1 Acknowledge the function of direct movement</li> <li>1 Want to see more in-depth discussion</li> </ul> |
| 5 Do you think this web site is a useful resource to refer to if you were going to design a web site?                                  | <p>3 1 1 2 2 6</p>  |
| why or why not?  | <ul style="list-style-type: none"> <li>3 Need more information about the tools</li> </ul>   |

**Typography on the Web: Direct Movement as an Element of Information Structuring** is a web site designed to help graphic designers new to the web adjust to advances in the computer age. Users need only basic computer knowledge to understand or navigate through the site.

Are you a graphic designer?

Yes  No  If no, what is your profession? .....

Please perform the specified task then answer the following question.

1 Task Use the buttons, *Influences*, *New Media* and *Direct Movement* to access each chapter and come back to the *Paradigm* chapter when you are done.

Question Do you think the use of rollover as a device to separate the first and second paragraph of the bodytext is efficient and meaningful?

Answer Agree  | | | | Disagree

The rollover text is hard to understand.  
It took me a long time to figure out that I had to click on the text to make it readable.

2 Task Use the *Information Structuring* button and the *Information-Typography-Understanding* teaser to access the Intelligibility Model page. Come back to the *Paradigm* chapter when you are done.

Question Does this chapter provide clear examples of how direct movements can be used?

Answer Agree  | | | | Disagree

I can see it even working even on sentences.

IS IT POSSIBLE TO CHANGE THE CURSOR? IF YOU HAVE TO CLICK? (Something other than the Hand)

3 Question Do you think the web site helps you better understand the use of typography on the web? Why or why not?

Answer Agree  | | | | Disagree

Please explain Text on the web is hard to follow. Breaking up bodies of text helps the eye see the text.

4 Question Do you think you are now more aware of the use of direct movement on the web? Why or why not?

Answer Agree  | | | | Disagree

Please explain On the web there is true movement. Where in Print format there is only inferred movement through manipulation of images.

5 Question Do you think this web site is a useful resource to refer to if you were going to design a web site? why or why not?

Answer Agree  | | | | Disagree

Please explain Lets me understand Typography on the web. Gives me a base to start my own thinking.



**Typography on the Web: Direct Movement as an Element of Information Structuring** is a web site designed to help graphic designers new to the web adjust to advances in the computer age. Users need only basic computer knowledge to understand or navigate through the site.

Are you a graphic designer?

Yes  No  If no, what is your profession? .....

Please perform the specified task then answer the following question.

1 Task Use the buttons, *Influences*, *New Media* and *Direct Movement* to access each chapter and come back to the *Paradigm* chapter when you are done.

Question Do you think the use of rollover as a device to separate the first and second paragraph of the bodytext is efficient and meaningful?

Answer Agree —|✓|—|—|—|—| Disagree

*I didn't notice it!  
if other text greyed-back or  
made smaller, so other text can  
be read easily*

2 Task Use the *Information Structuring* button and the *Information-Typography-Understanding* teaser to access the Intelligibility Model page. Come back to the *Paradigm* chapter when you are done.

Question Does this chapter provide clear examples of how direct movements can be used?

Answer Agree —|✓|—|—|—|—| Disagree

*"argument"  
↑  
no'e'*

*loops -  
didn't  
realize  
you could  
click out*

3 Question Do you think the web site helps you better understand the use of typography on the web? Why or why not?

Answer Agree —|—|—|✓|—|—| Disagree

Please explain .....

4 Question Do you think you are now more aware of the use of direct movement on the web? Why or why not?

Answer Agree —|—|✓|—|—|—| Disagree

Please explain *to unveil levels of information rather than  
all at once*

5 Question Do you think this web site is a useful resource to refer to if you were going to design a web site? why or why not?

Answer Agree —|—|—|✓|—|—| Disagree

Please explain *not sure*

**Typography on the Web: Direct Movement as an Element of Information Structuring** is a web site designed to help graphic designers new to the web adjust to advances in the computer age. Users need only basic computer knowledge to understand or navigate through the site.

Are you a graphic designer?

Yes  No  If no, what is your profession? .....

---

Please perform the specified task then answer the following question.

1 Task Use the buttons, *Influences*, *New Media* and *Direct Movement* to access each chapter and come back to the *Paradigm* chapter when you are done.

Question Do you think the use of rollover as a device to separate the first and second paragraph of the bodytext is efficient and meaningful?

Answer Agree —  — | — | — | — | — Disagree

*Fabulous!*

2 Task Use the *Information Structuring* button and the *Information–Typography–Understanding* teaser to access the Intelligibility Model page. Come back to the *Paradigm* chapter when you are done.

Question Does this chapter provide clear examples of how direct movements can be used?

Answer Agree —  — | — | — | — | — Disagree

---

3 Question Do you think the web site helps you better understand the use of typography on the web? Why or why not?

Answer Agree — | — | —  — | — | — Disagree

Please explain *a little bit, but a lot of the problem w/ type I think is a result of the programs available & lack of proper tools. The type overall is just very difficult to keep organized & clear.*

4 Question Do you think you are now more aware of the use of direct movement on the web? Why or why not?

Answer Agree — | — | — | — | — Disagree

Please explain *Sort of*

5 Question Do you think this web site is a useful resource to refer to if you were going to design a web site? why or why not?

Answer Agree —  — | — | — | — | — Disagree

Please explain *yes, because I am trying to design a website w/ dreamweaver & it is incredibly tough to go to often designing for print.*

**Typography on the Web: Direct Movement as an Element of Information Structuring** is a web site designed to help graphic designers new to the web adjust to advances in the computer age. Users need only basic computer knowledge to understand or navigate through the site.

Are you a graphic designer?

Yes  / No  If no, what is your profession? I don't know who I am .. yet,...

---

Please perform the specified task then answer the following question.

1 Task Use the buttons, *Influences*, *New Media* and *Direct Movement* to access each chapter and come back to the *Paradigm* chapter when you are done.

Question Do you think the use of rollover as a device to separate the first and second paragraph of the bodytext is efficient and meaningful?

Answer Agree — | —  — | — | — Disagree

2 Task Use the *Information Structuring* button and the *Information–Typography–Understanding* teaser to access the Intelligibility Model page. Come back to the *Paradigm* chapter when you are done.

Question Does this chapter provide clear examples of how direct movements can be used?

Answer Agree — | —  — | — | — Disagree

---

3 Question Do you think the web site helps you better understand the use of typography on the web? Why or why not?

Answer Agree — | —  — | — | — Disagree

Please explain Get info. (but merely to see what is going on the web!!)  
Web is not serious than written materials to me. (my opinion)  
But it will be more useful later on... (100%.)

4 Question Do you think you are now more aware of the use of direct movement on the web? Why or why not?

Answer Agree  — | — | — Disagree

Please explain Attract Attention. Better Presentation Solution.

5 Question Do you think this web site is a useful resource to refer to if you were going to design a web site? why or why not?

Answer Agree — | —  — | — | — Disagree

Please explain .....









**Typography on the Web: Direct Movement as an Element of Information Structuring** is a web site designed to help graphic designers new to the web adjust to advances in the computer age. Users need only basic computer knowledge to understand or navigate through the site.

Are you a graphic designer?

Yes  No  If no, what is your profession? .....

---

Please perform the specified task then answer the following question.

1 Task Use the buttons, *Influences*, *New Media* and *Direct Movement* to access each chapter and come back to the *Paradigm* chapter when you are done.

Question Do you think the use of rollover as a device to separate the first and second paragraph of the bodytext is efficient and meaningful?

Answer  Agree | | | | | Disagree

2 Task Use the *Information Structuring* button and the *Information–Typography–Understanding* teaser to access the Intelligibility Model page. Come back to the Paradigm chapter when you are done.

Question Does this chapter provide clear examples of how direct movements can be used?

Answer  Agree | | | | | Disagree

---

3 Question Do you think the web site helps you better understand the use of typography on the web? Why or why not?

Answer  Agree | | | | | Disagree

Please explain *it illustrates the possibilities of new usage* .....

4 Question Do you think you are now more aware of the use of direct movement on the web? Why or why not?

Answer  Agree | | | | | Disagree

Please explain .....

5 Question Do you think this web site is a useful resource to refer to if you were going to design a web site? why or why not?

Answer Agree | | | | |  Disagree

Please explain *How about the technical constraint of web* .....

**Typography on the Web: Direct Movement as an Element of Information Structuring** is a web site designed to help graphic designers new to the web adjust to advances in the computer age. Users need only basic computer knowledge to understand or navigate through the site.

Are you a graphic designer?

Yes  No  If no, what is your profession? printing

Please perform the specified task then answer the following question.

1 Task Use the buttons, *Influences*, *New Media* and *Direct Movement* to access each chapter and come back to the *Paradigm* chapter when you are done.

Question Do you think the use of rollover as a device to separate the first and second paragraph of the bodytext is efficient and meaningful?

Answer Agree | | | | | Disagree

2 Task Use the *Information Structuring* button and the *Information–Typography–Understanding* teaser to access the *Intelligibility Model* page. Come back to the *Paradigm* chapter when you are done.

Question Does this chapter provide clear examples of how direct movements can be used?

Answer Agree | | | | | Disagree

3 Question Do you think the web site helps you better understand the use of typography on the web? Why or why not?

Answer Agree | | | | | Disagree

Please explain .....

4 Question Do you think you are now more aware of the use of direct movement on the web? Why or why not?

Answer Agree | | | | | Disagree

Please explain want to see more in-depth discussion

5 Question Do you think this web site is a useful resource to refer to if you were going to design a web site? why or why not?

Answer Agree | | | | | Disagree

Please explain want to see interactivity

**Typography on the Web: Direct Movement as an Element of Information Structuring** is a web site designed to help graphic designers new to the web adjust to advances in the computer age. Users need only basic computer knowledge to understand or navigate through the site.

Are you a graphic designer?

Yes  No  If no, what is your profession? COMPUTER SCIENCE

---

Please perform the specified task then answer the following question.

- 1 Task Use the buttons, *Influences*, *New Media* and *Direct Movement* to access each chapter and come back to the *Paradigm* chapter when you are done.

Question Do you think the use of rollover as a device to separate the first and second paragraph of the bodytext is efficient and meaningful?

Answer Agree  | | | | | Disagree

INTERFACE IS EASY TO UNDERSTAND

- 2 Task Use the *Information Structuring* button and the *Information–Typography–Understanding* teaser to access the Intelligibility Model page. Come back to the *Paradigm* chapter when you are done.

Question Does this chapter provide clear examples of how direct movements can be used?

Answer Agree  | |  | | | Disagree

WANT TO SEE MORE EXAMPLES

- 
- 3 Question Do you think the web site helps you better understand the use of typography on the web? Why or why not?

Answer Agree  | | | | | Disagree

Please explain .....

- 4 Question Do you think you are now more aware of the use of direct movement on the web? Why or why not?

Answer Agree  | | | | | Disagree

Please explain .....

- 5 Question Do you think this web site is a useful resource to refer to if you were going to design a web site? why or why not?

Answer Agree  | | | | |  Disagree

Please explain .....

YOU DID NOT MENTION ABOUT THE CONSTRAINTS OF TECHNOLOGY

**Typography on the Web: Direct Movement as an Element of Information Structuring** is a web site designed to help graphic designers new to the web adjust to advances in the computer age. Users need only basic computer knowledge to understand or navigate through the site.

Are you a graphic designer?

Yes  No  If no, what is your profession? .....

---

Please perform the specified task then answer the following question.

1 Task Use the buttons, *Influences*, *New Media* and *Direct Movement* to access each chapter and come back to the *Paradigm* chapter when you are done.

Question Do you think the use of rollover as a device to separate the first and second paragraph of the bodytext is efficient and meaningful?

Answer Agree ————|———|———|———|———|——— Disagree

2 Task Use the *Information Structuring* button and the *Information–Typography–Understanding* teaser to access the Intelligibility Model page. Come back to the *Paradigm* chapter when you are done.

Question Does this chapter provide clear examples of how direct movements can be used?

Answer Agree ————|———|———|———|———|——— Disagree

---

3 Question Do you think the web site helps you better understand the use of typography on the web? Why or why not?

Answer Agree ————|———|———|———|———|——— Disagree

Please explain .....

4 Question Do you think you are now more aware of the use of direct movement on the web? Why or why not?

Answer Agree ————|———|———|———|———|——— Disagree

Please explain .....

5 Question Do you think this web site is a useful resource to refer to if you were going to design a web site? why or why not?

Answer Agree ————|———|———|———|———|——— Disagree

Please explain .....



**Typography on the Web: Direct Movement as an Element of Information Structuring** is a web site designed to help graphic designers new to the web adjust to advances in the computer age. Users need only basic computer knowledge to understand or navigate through the site.

Are you a graphic designer?

Yes  No  If no, what is your profession? .....

---

Please perform the specified task then answer the following question.

1 Task Use the buttons, *Influences*, *New Media* and *Direct Movement* to access each chapter and come back to the *Paradigm* chapter when you are done.

Question Do you think the use of rollover as a device to separate the first and second paragraph of the bodytext is efficient and meaningful?

Answer Agree  | | | | | Disagree

2 Task Use the *Information Structuring* button and the *Information–Typography–Understanding* teaser to access the Intelligibility Model page. Come back to the *Paradigm* chapter when you are done.

Question Does this chapter provide clear examples of how direct movements can be used?

Answer Agree | |  | | | | Disagree

---

3 Question Do you think the web site helps you better understand the use of typography on the web? Why or why not?

Answer Agree  | | | | | Disagree

Please explain .....

4 Question Do you think you are now more aware of the use of direct movement on the web? Why or why not?

Answer Agree  | | | | | Disagree

Please explain .....

5 Question Do you think this web site is a useful resource to refer to if you were going to design a web site? why or why not?

Answer Agree | | | | |  Disagree

Please explain .....

---

This questionnaire is created by **Yueh-fang Wu** for the purpose of evaluating the graphic design thesis project, *Typography on the Web: Direct Movement as an Element of Information Structuring*. Viewers' feedback is much appreciated.



**Typography on the Web: Direct Movement as an Element of Information Structuring** is a web site designed to help graphic designers new to the web adjust to advances in the computer age. Users need only basic computer knowledge to understand or navigate through the site.

Are you a graphic designer?

Yes  No  If no, what is your profession? Computer Graphic

---

Please perform the specified task then answer the following question.

1 Task Use the buttons, *Influences*, *New Media* and *Direct Movement* to access each chapter and come back to the *Paradigm* chapter when you are done.

Question Do you think the use of rollover as a device to separate the first and second paragraph of the bodytext is efficient and meaningful?

Answer Agree  | | | | | Disagree

2 Task Use the *Information Structuring* button and the *Information–Typography–Understanding* teaser to access the Intelligibility Model page. Come back to the *Paradigm* chapter when you are done.

Question Does this chapter provide clear examples of how direct movements can be used?

Answer Agree | | |  | | | Disagree Need to see more examples

---

3 Question Do you think the web site helps you better understand the use of typography on the web? Why or why not?

Answer Agree  | | | | | Disagree

Please explain List of elements help

4 Question Do you think you are now more aware of the use of direct movement on the web? Why or why not?

Answer Agree | | | | |  Disagree

Please explain .....

5 Question Do you think this web site is a useful resource to refer to if you were going to design a web site? why or why not?

Answer Agree | | | | |  Disagree

Please explain .....

**Typography on the Web: Direct Movement as an Element of Information Structuring** is a web site designed to help graphic designers new to the web adjust to advances in the computer age. Users need only basic computer knowledge to understand or navigate through the site.

Are you a graphic designer?

Yes  No  If no, what is your profession? *Computer Science*

Please perform the specified task then answer the following question.

1 Task Use the buttons, *Influences*, *New Media* and *Direct Movement* to access each chapter and come back to the *Paradigm* chapter when you are done.

Question Do you think the use of rollover as a device to separate the first and second paragraph of the bodytext is efficient and meaningful?

Answer  Agree      Disagree

*Great improvement*

2 Task Use the *Information Structuring* button and the *Information–Typography–Understanding* teaser to access the Intelligibility Model page. Come back to the *Paradigm* chapter when you are done.

Question Does this chapter provide clear examples of how direct movements can be used?

Answer  Agree      Disagree

*Great example*

3 Question Do you think the web site helps you better understand the use of typography on the web? Why or why not?

Answer  Agree      Disagree

Please explain *Straight-forward info*

4 Question Do you think you are now more aware of the use of direct movement on the web? Why or why not?

Answer  Agree      Disagree

Please explain

5 Question Do you think this web site is a useful resource to refer to if you were going to design a web site? why or why not?

Answer  Agree      Disagree

Please explain

**Typography on the Web: Direct Movement as an Element of Information Structuring** is a web site designed to help graphic designers new to the web adjust to advances in the computer age. Users need only basic computer knowledge to understand or navigate through the site.

Are you a graphic designer?

Yes  No  If no, what is your profession? Ceramics

---

Please perform the specified task then answer the following question.

1 Task Use the buttons, *Influences*, *New Media* and *Direct Movement* to access each chapter and come back to the *Paradigm* chapter when you are done.

Question Do you think the use of rollover as a device to separate the first and second paragraph of the bodytext is efficient and meaningful?

Answer Agree | | | | | Disagree

2 Task Use the *Information Structuring* button and the *Information–Typography–Understanding* teaser to access the Intelligibility Model page. Come back to the *Paradigm* chapter when you are done.

Question Does this chapter provide clear examples of how direct movements can be used?

Answer Agree | | | | | Disagree

---

3 Question Do you think the web site helps you better understand the use of typography on the web? Why or why not?

Answer Agree | | | | | Disagree

Please explain .....

4 Question Do you think you are now more aware of the use of direct movement on the web? Why or why not?

Answer Agree | | | | | Disagree

Please explain .....

5 Question Do you think this web site is a useful resource to refer to if you were going to design a web site? why or why not?

Answer Agree | | | | | Disagree

Please explain .....

**Typography on the Web: Direct Movement as an Element of Information Structuring** is a web site designed to help graphic designers new to the web adjust to advances in the computer age. Users need only basic computer knowledge to understand or navigate through the site.

Are you a graphic designer?

Yes  No  If no, what is your profession? Paralegal

---

Please perform the specified task then answer the following question.

1 Task Use the buttons, *Influences*, *New Media* and *Direct Movement* to access each chapter and come back to the *Paradigm* chapter when you are done.

Question Do you think the use of rollover as a device to separate the first and second paragraph of the bodytext is efficient and meaningful?

Answer Agree  | | | | Disagree

2 Task Use the *Information Structuring* button and the *Information–Typography–Understanding* teaser to access the Intelligibility Model page. Come back to the *Paradigm* chapter when you are done.

Question Does this chapter provide clear examples of how direct movements can be used?

Answer Agree  | | | | Disagree

---

3 Question Do you think the web site helps you better understand the use of typography on the web? Why or why not?

Answer Agree  | | | | Disagree

Please explain .....

4 Question Do you think you are now more aware of the use of direct movement on the web? Why or why not?

Answer Agree  | | | | Disagree

Please explain .....

5 Question Do you think this web site is a useful resource to refer to if you were going to design a web site? why or why not?

Answer Agree | | |  | Disagree

Please explain .....

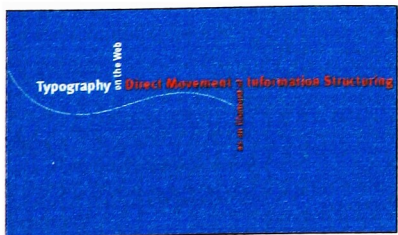
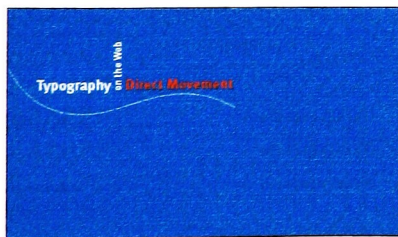
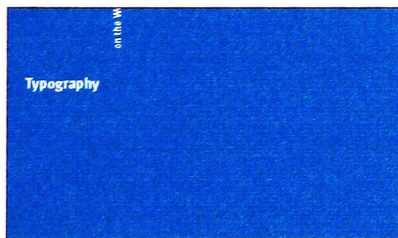
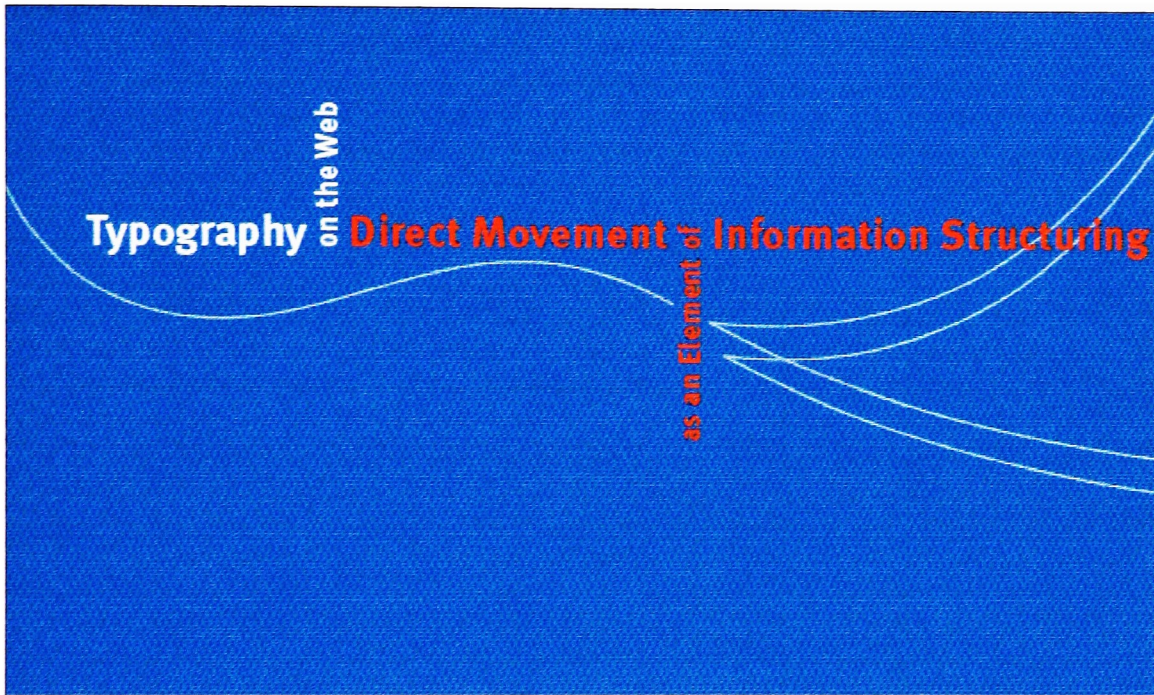
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This questionnaire is created by **Yueh-fang Wu** for the purpose of evaluating the graphic design thesis project, *Typography on the Web: Direct Movement as an Element of Information Structuring*. Viewers' feedback is much appreciated.



## Appendix 4A

Implementation: Title Animation





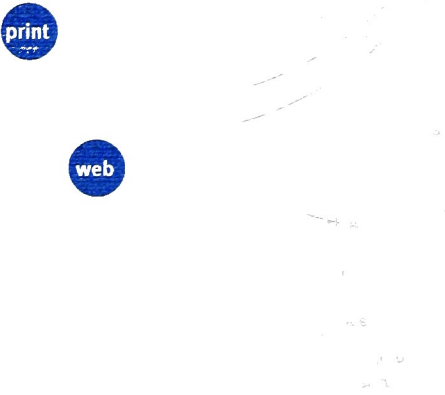
## Appendix 4B

### Implementation 1: *Paradigm* Screen

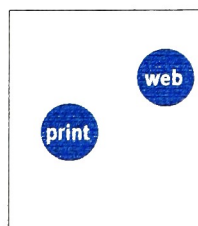
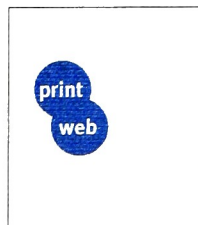
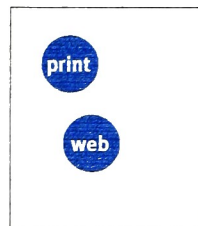
Typography Direct Movement Information Structuring

## Paradigm Shift

The profession of graphic design is undergoing a dramatic change. The shifting paradigm from print to the web brings a greater freedom in utilizing time, space and movement.



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## Appendix 4 B

### Implementation 2: Influences Screen

Typography Direct Movement Information Structuring  
Implementation

## Typographic Influences

At the beginning of the century, avant-garde designers established the root of modernist typography through the use of space. Over time, with the development of technology, designers have tried to bring new influences into typography – color, three-dimensional modeling, kinetic poetry and inferred movement. The use of spatial structure in layout helps to bring order to information and, at the same time, provides aesthetic principles of clarity, precision and continuity.

All attempts share at least one common goal – to bring together space and time in the form of movement.

constructive

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## Typographic Influences

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All attempts share at least one common goal – to bring together space and time in the form of movement.

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constructive space

rhetorical role  
constructive space

rhetorical movement  
inferred kinetic  
constructive space

## Appendix 4B

### Implementation 3: *Attributes* Screen

Typography **Direct Movement** Information Structuring

## Typographic Attributes

Although the basics of typography appear to be similar, the uses and functions of typography are changing. As a result of hypertext, many new influences such as movement impact web design. Movement through space is the most prevalent of the new influences on web design.

column number  
page size

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line length  
text quantity

column number  
page size

word space  
line space

line length  
text quantity  
column number  
page size

type style  
type manipulation

letter space  
word space  
line space

line length  
text quantity  
column number  
page size

## Appendix 4B

### Implementation 4: Consideration Screen

Typography | Direct Movement | Information Structuring

## New Media Considerations

The World Wide Web emerged from the print medium. As a result, designers are likely to apply print experience to on-line publications. Standard document layout elements such as title, headings and body text, help users form a cognitive map to navigate the web.

However, for readers to understand the author's ideas, the information needs to be based on the semantic structure or meaning. Consequently, it is important that designers not only adapt the spatial principles from print but also explore the use of movement.

semantic structure

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Typography | Direct Movement | Information Structuring

## New Media Considerations

The World Wide Web emerged from the print medium. As a result, designers are likely to apply print experience to on-line publications. Standard document layout elements such as title, headings and body text, help users form a cognitive map to navigate the web.

However, for readers to understand the author's ideas, the information needs to be based on the semantic structure or meaning. Consequently, it is important that designers not only adapt the spatial principles from print but also explore the use of movement.

semantic structure

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## Appendix 4B

### Implementation 5: Characteristics Screen

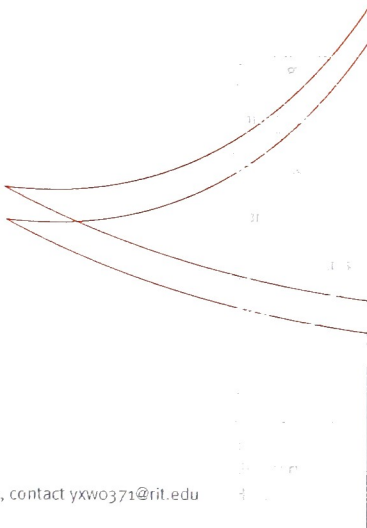
Typography | Direct Movement | Information Structuring

## Movement Characteristics

Movement on the web is different because it employs direct movement. Direct Movement in typography is the movement through physical space from point A to point B.

The use of movement in print publication often serves as a device to draw a reader's attention and direct the flow of information through two-dimensional space. Inferred movement produced through blurring, transparency or drop shadow, is often treated as a designer's artistic expression. However, inferred movement may also function as a way to signal changes in meaning.

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Typography | Direct Movement | Information Structuring

## Movement Characteristics

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# Appendix 4B

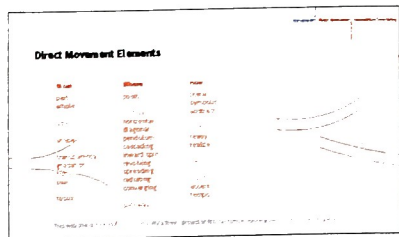
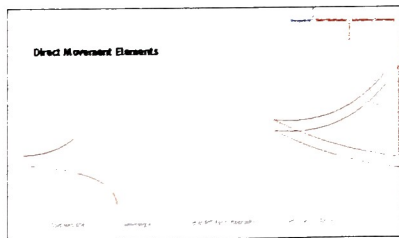
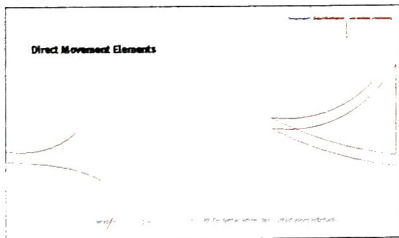
## Implementation 6: Elements Screen

Typography Direct Movement's Information Structuring  
4 elements

### Direct Movement Elements

| What         | Where         | How      |
|--------------|---------------|----------|
| part         | position      | literal  |
| whole        | vertical      | symbolic |
| size         | horizontal    | abstract |
| shape        | diagonal      | rest     |
| transparency | pendulum      | ready    |
| gradation    | cascading     | realize  |
| tone         | inward spiral | sequence |
| blur         | revolving     | duration |
| focus        | spreading     | accent   |
|              | radiating     | tempo    |
|              | converging    |          |
|              | pathway       |          |

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## Appendix 4B

### Implementation 7: Structure Screen

#### Information Structure

As text on the web is given multimedia characteristics such as sound and movement, the oral tradition, taken away from language as a result of the print, is being restored. Intelligibility is added to legibility, readability and hierarchy which form the ultimate goals of typography.

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Typography in the New Direct Movement Information Structuring

as an Element

readability  
legibility  
hierarchy

readability  
legibility  
hierarchy

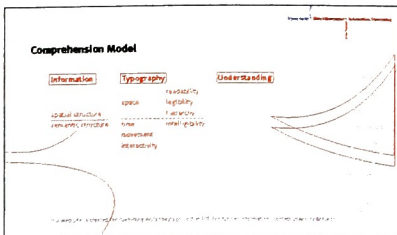
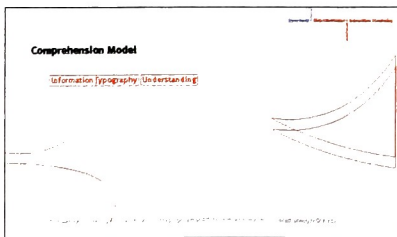
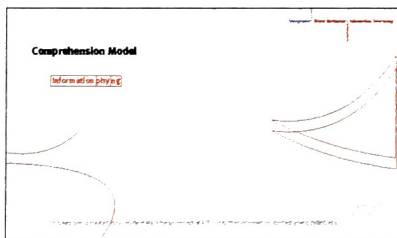
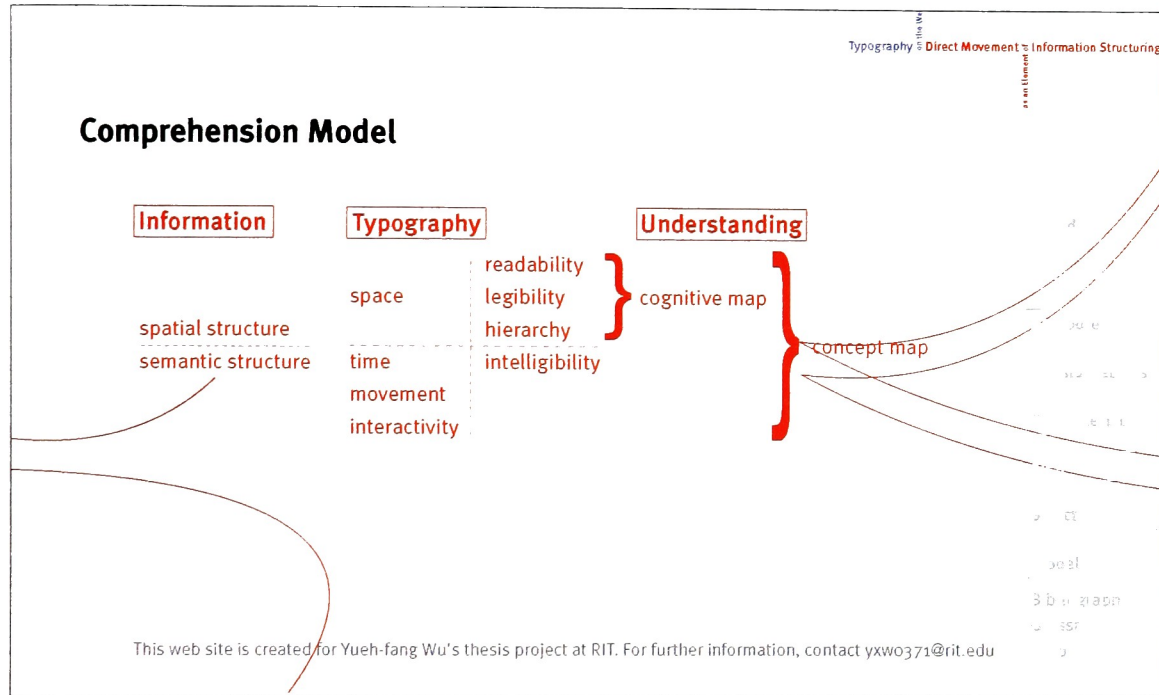
intelligibility

readability  
legibility  
hierarchy  
intelligibility

typography

# Appendix 4B

## Implementation 8: Model Screen



## Appendix 4C

### Implementation 1: *Bibliography Screen*

Typography Direct Movement to Information Structuring  
an experiment

## Bibliography

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## Appendix 4C

### Implementation 2: Glossary Screen

Typography in the Web  
Direct Movement's Information Structuring  
as an Element

## Glossary

### **Cognitive Map and Concept Map**

A cognitive map refers to the mental map in one's mind that focuses on what comprises a piece of information, while a concept map further explore the how and why aspects.

### **Constructive Space**

Constructive space refers to the employment of the right angle in the layout. The result of such a practice is the definitive use of space.

### **Direct Movement**

Direct movement on the web is the movement through physical space from point A to point B.

### **Inferred Movement**

Inferred Movement refers to movements that illustrate the implied movement on a still surface. For example, the movement of running is represented through a motion blur effect produced by photography or computer.

### **Spatial Structure and Semantic Structure**

Spatial structure refers to how information is put together on a page that illustrates the components of the information. (For instance, title, first paragraph, second paragraph, conclusion and bibliography). The semantic structure refers to the relationship among the components. For instance, the first and second paragraphs are both descriptions for the same title but represent opposite points of view; therefore, the two paragraphs should be treated differently typographically.

### **Visual Rhythm**

Visual rhythm refers to the general realm of how designers can draw a reader's attention and direct the flow of information by laying out the types on a page.

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## Appendix 4C

### Implementation 3: *Help* Screen

Typography | Direct Movement | Information Structuring

# Help Menu

|   |  |   |
|---|--|---|
| <b>Paradigm Shift</b><br>Graphic Design<br>Print<br>Web                 | <b>New Media Considerations</b><br>Medium<br>Document Structure<br>Cognitive Map<br>Semantic Structure | <b>Information Structure</b><br>Oral Tradition<br>Intelligibility<br>Readability<br>Legibility<br>Hierarchy |
| <b>Typographic Influences</b><br>Constructive Space<br>Rhetorical Roles | <b>Movement Characteristics</b><br>Visual Rhythm<br>Inferred Movement<br>Direct Movement               | <b>Comprehension Model</b><br>Information<br>Typography<br>Understanding                                    |
| <b>Typographic Attributes</b><br>Basis of Type                          | <b>Direct Movement Elements</b><br>What<br>Where<br>How  |   |

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