



OPENCOURSEWARE

Multimedia System BITM1113

Chapter 4 Text

Siti Nurul Mahfuzah Mohamad¹ , Norasiken Binti Bakar²

1mahfuzah@utem.edu.my 2norasiken@utem.edu.my

Introduction

- Text have two nature
 - it presentation the visual language, and a graphic element in its own right.
- The text in digital form represent a language as well;
 - that is, we need to relate bit pattern stored in a computer's memory or transmitted over a network to the symbol of a written language.
- When displaying the text
 - the visual aspect become relevant with such issues as the precise shape of the character, the spacing, layout of line, paragraphing and larger division of text on the monitor
- Traditionally, the display issues are the art of typography concern

Character Sets

- To keep the nature of text dual, it is convenient to distinguish between the lexical content of a piece of text and its appearance.
- Lexical content
 - the character that make up the words and other units such as punctuation or mathematical symbol.
- The text appearance
 - comprises the visual attribute like the precise shape of the character, the sizes and the content arrangement on the page or monitor.
- Example: the following content of these two sentences is identical but their appearance is not.

Character Set (cont.)

The Right Hon was a tubby little chap who looked as if he had been poured into his clothes and had forgotten to say 'When!'

THE RIGHT HON was a tubby little chap who looked as if he had been *poured* into his clothes and had forgotten to say 'When!'

- The initial symbol in every version is capital T although the other one is larger with additional stroke and its more dark.
- Here, there are two graphics representation of the same abstract characters.

- Content
 - the part of text that carry the meaning or semantics, while the appearance is an attribute of surfaces that may affect how easy the text is to read or how pleasant it is to look at but does not substantially alter its meaning.
- Abstract character are group into alphabet.
 - Every single particular alphabet form the basis of the written form of a certain language or group of languages.
- Any set of distinct symbol can be an alphabet including the set of symbols used in an ideographic writing system such as those used for Chinese and Japanese, where each character represents a whole word or concept.
- Punctuation marks, numerals and mathematical symbols are included as symbols.

Fonts

- While visually displaying text document, all character (abstract information element) should be map to *abstract glyphs*.
- A *glyph*
 - the actual artistic that represent the abstract glyph, in some style of typographic, in the form of outline or bitmap that may be draw at monitor.
- A *font*
 - a set of glyph, observe same basic of all motive according to the designs, sizes, appearances, and other attributes related with the whole set, and a mapping from characters to abstract glyphs.

Classification of Fonts

- There are various font available which come with their own unique identity. Some broad characteristic is use to classify it
- A major distinction
 - monospace (or fixed width)
 - proportional font.
- In monospace font, each character occupied the similar amount of horizontal spacing, regardless of the shapes.
- Text in monospaced font look like it is produce using typewriter machine. It is really helpful in conveying a 'low tech' appearances or informal expression.
- Text in a proportional font has the appearance of a traditional book and is usually preferred for setting length text.

Monospaced vs. proportional

Monospaced Font:

Courier

Each letter occupies the same amount of horizontal space, so that the text looks as if it was typed on a typewriter.

Proportional Font:

Georgia

Each letter occupies an amount of horizontal space proportional to the width of the glyph so that the text looks like as if it was printed in a book.

Serif vs. Sans Serif

- A broad distinction in fonts are between
 - serif
 - sans serif
- The serif is a bit small stroke add at the end of character shape.
 - Examples of serif fonts: **Times, New Century Schoolbook, Bookman and Palatino.**
 - Example of sans serif font: **Helvetica, Arial, Optima and Avant Garde.**
- See the difference between serif and sans serif in the following illustration:



Font Weight

- Classification of font depend on their weight
- A relative measurement of the thickness of the strokes.
- **Ticker** stroke make text look more dark and solid
- Boldness degree: ultra-bold, semi-bold, light and ultra-light
- As the weight increase, the proportion of width to height of the letter remains the same.
- Bold fonts is being use widely for windows title and menu item since it shows up really well

Multimedia **Multimedia**

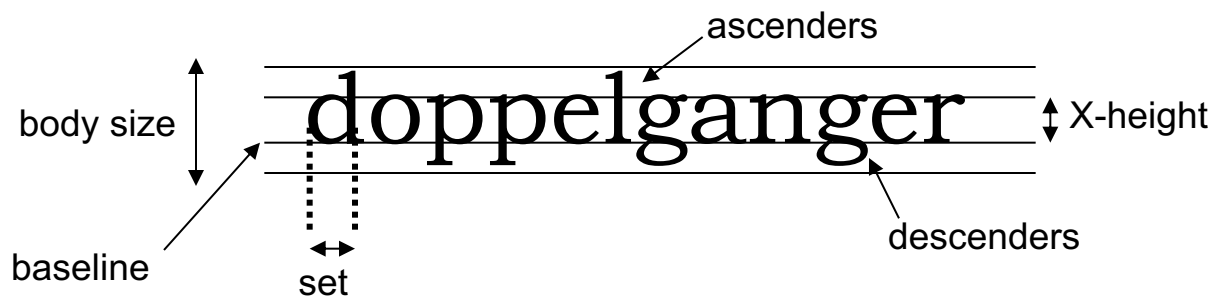


Font Shape

- Distinguish between fonts with an upright shape and an italic shape
- Italic font imitate a handwritten style and have letter that are slanted to the right
- Almost all italic font are variation on or design as companion to upright font
- There are a few of font with an italic shape which are design on its own usually intended to have the character of handwriting; where something more human than a conventional typeface is desired
- Fonts are also designed with either solid or outline forms

Font Terminology

- Font is measured in **point size** where 1 point is approximately 1/72 of an inch
- The **x-height** is the measurement of the height of the character x or without any ascender or descender
- The width of the letters is called the set and is fixed relative to the point size.
- The spaces between the letters in one word (tracking) can be adjusted in a process called kerning.



Reading and Layout

- Text layout and the printed page can affect the content readability.
 - **Justification**: Text which has a uniform left edge (left justified) is normally the most easy to read.
 - **Choice of font**: A serif font is the most readable for body text and sans serif font for heading where it is not much text to read.
 - **Distraction**: The reading area is free from distractions. E.g. Patterned background, different coloured letter, variation in size etc.

- **Breaks**: The breakpoints is important so that the reader can use as reference outside the sentence. E.g. Paragraph, Pictures, Non textual items.
- **Spacing**: More spaced out text is more easy to read. The text that is really close and packed make it hard to read because human eyes need precise fixation point.

Using Text in Multimedia

- Bold or emphasizing the text to highlight idea and concept, but didn't make text look like a link or a button.
- Use meaningful word or phrase for link and menu item.
- Use anti aliased text for a gentle and blended look for title and headline.
- To make the text stand out, explore the effect of different color and place the text on numerous background.
- For attention-grabbing result, try graphically alter and distort the text. E.g. wrap your word onto a sphere or splash it with rainbow color.

- In webpage, put vital text element and menu in the top 320 pixels. Studies of surfer habit have discovered that only 10 to 15 percent of surfer ever scroll any page.
- Use some different kind of fonts as possible in the same work, but vary the weight and size of the typeface using *italic* and **bold** style.
- Vary the size of the font in proportion to the importance of the messages to be deliver.
- For body text in printed material serif font are used traditionally since the serif is said to help guide the eyes of reader through the text line.
- Sans serif font are use for headlines and bold/thick statement.

Web Safe Font

- It is the font that everyone can see and understand it because it was the most common in computer. Lets see some of the example:

Arial Black

Its best use is for headline in big size.

Arial

Arial is one of most common used font. It is a sans serif font. Arial is simple and make the reader easier to read even in small size. Similar font: Helvetica

Comic Sans

sans serif font with some artistic look.

Courier New

The font of monospaced in the websafe font. Monospaced mean that each one character have the same width. An 'i' takes up just as much space as an 'm'.

Impact

A sans serifs font and it is quite thick. Best look in a bit bigger size since it may look messy in small size. Frequently use on professional site as headline and such.

Times New Roman

It's a serif font. Unfortunately the serif make the font really hard to be read in small size of fonts.

Verdana

Another sans serif font. Quite similar to Arial because it is easier to read in small size of font. This font can be found widely use in a lot of professional site. Similar fonts: Tahoma, Trebuchet

Working with text

Guidelines need to be considered:

a) be concise

- avoid too many text
- A picture is worth a thousand words

b) use appropriate type of font

- to focus an attention of the audience
- increase readability,
- setting a tone (mood or expression)

c) easy to read

- avoid decorative font – hard to read
- screen with too many text will hard to read

- d) **take into consideration the style and color**
 - - italic the style if necessary
 - - use appropriate color base on the theme given
- e) **be consistent**
 - - never use more than 3 type of fonts
 - - the size must be consistent