The Principles of Layout and How Those Apply to Digital Electronic Book Publication

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Abstract. When designing a layout, the designer must be aware of fundamental principles so as to make the design structured and consistent. When planning layout, a designer cannot be random and must consider essential factors, such as the media type, the readers, the design elements and so on. Electronic media, like web pages and electronic books, is a newer media than the print media, and is different in several aspects. Yet, the basic principles of the design are still identical. A solid layout is a great tool in communicating messages visually.

Keywords: Layout, electronic book.

INTRODUCTION

Book is a powerful media. Haslam (2006, p.12) says that the printed book has been one of the most forceful means of disseminating ideas, that have changed the course of intellectual, cultural, and economic development.

In the 21st century, digitalization has overtaken the print media, almost every book has an electronic version. However, the book retains its basic format even though the ebook has had a great impact through dissemination via the World Wide Web. In fact, the appearance of electronic book has not displaced the circulation of printed books. Printed books still exists alongside the development of the e-book. It can be said that

both formats have their own advantages and it seems their own target market.

Gates (2001, p.17) says that e-book will revolutionize the way the world reads, because of the interactivity features, making a significant difference between e-book design and printed book design. For example, the installation of interactive interface and multimedia like videos and motion graphics. Despite these interactive and multimedia design elements, the basic of e-book design comes from traditional book design. The layout design of electronic book uses the same principle as a traditional book.

ANALYSIS

E-book

Basically, according to Clyde (2005, p. 45), there are 4 different types of electronic book. They are:

- E-books that require a computer and CD-ROM drive for access, or a computer with network access if the CD-ROM is on the network.
- 2. Downloadable E-books available for free or with a fee in the Internet, that can be opened with standard software.
- 3. Downloadable E-books available for free or with a fee in the Internet, that need special software to open it.
- 4. E-books that require a dedicated e-book reader.

Clyde (2005, p.45) explains the advantages of e-books: easy referencing links to another articles and the variations in the content (sound and still/moving images). Lately, e-book also make a great progression in its accessibility. A lot of gadget applications dedicated for publications are emerged. The readers can easily purchase or subscribe to one/some publications by electronic transactions, and get the publications sent to their hardware via Internet connections.

But, despite the e-books advantages, it also has its disadvantages, for example, not all

e-books are represented in the same way. The earlier e-books use CD_ROM, and nowadays they are downloadable from the Internet, or need a special hardware device to be read (Clyde 2005, p.45). Although, the last disadvantage is not becoming a matter now, since most communication hardwares (smartphones and tablets) are widely used and supporting electronic publications.

The Layout Principles

As people know, there are numerous book types and different book types need different design approaches, because of the difference in target market. There are countless different approaches to book layout design and this presents a challenge to designers. Williams and Tollett (2001, p.53-63) divides design approaches into seven different types:

1. The generic look

This type of look is the most commonly used, conservative, unimaginative and boring, having no personality.

2. The corporate look

This approach is exceptionally neat, organized, and predictable, giving an impression of trust and dependability.

3. The visual-vow look

This approach is useful if the designer's main goal is to get the reader's attention with visual elements like images, photographs, or illustrations.

4. The info-heavy look

This kind of approach is very useful for presenting detailed information to create a formal and professional impression.

5. The omnibus look

The "omnibus" term refers to dealing with numerous items or elements at once. Commonly consists of image variety combined with short blurbs of design, being fun to create and read.

6. The typographic look

This design approach depends on the power of type. A right type choice can be eyecatching and delivers a message with just a glance.

7. The trendy look

The term "trendy" means getting down to the mainstream. Trendy look gets the audience's attention by showing the current trends.

The important thing when designing a publication is to make sure that all of the

elements are arranged in a design that makes all of them speak in one visual voice (Samara 2007, p.12). The design of a publication must be consistent. It is called as hierarchy.

Haslam (2006, p.140) divides the layout design approaches into two types: based on the text and based on the page as the picture.

Layout Based On The Text

This is the most basic approach in most of the books. These books are read normally from the top left to the bottom right (Haslam 2006, p.148).

1. TEXT-DRIVEN BOOKS

Text-driven books use texts as their main focus. Some of them also use images as the supporting elements.

2. IMAGE-DRIVEN BOOKS

Image-driven books use images as their main focus. Haslam (2006, p.146) says that the complexity of the spread and the order in which it is read is determined far more by the designer's layout than with many text-based spreads.

Layout Based On The Page As The Picture

When text-based layout is created to be 'read normally', image-based pages designed to be 'viewed' (Haslam 2006, p.148). In this layout, text can also be the pictorial element

(Haslam 2006, p.148), creating a balance with the picture.

Grid

Ambrose and Harris (2008, p.6) describe grid as the foundation upon which a design is constructed, allowing the designer to organize all the design elements effectively. Grid is like a frame that support and guide the layout design of a publication. Haslam (2006, p.42) also explains that grids provide the mechanism in the relationship between the elements of a design, be they text or images. When making the grid template, the designer take into consideration the way most people read a book.

How People Normally Read a Book and View A Screen Taking into account cultural differences, normally when faced with a new page of information, readers habitually looks for an entrance at the top left and scans down and across to the bottom right corner (Ambrose & Harris 2008, p.14). When facing a page in electronic format (web page for example), people read it almost the same way they read a printed page, to search for keywords and points of interest (Ambrose & Harris 2008, p. 19). However, the situation changes slightly when the viewers face the screen, although the basics is still the same.

Ambrose and Harris (2008, p.19) note that research has shown that people read a web page in a pattern called "F-pattern". People start scanning the page from the top left of the page, going to the right in two stripes (shaped like "F" letter), and then scan down the page. It means that the point of interests and key points must be put in that F-pattern, the spot where the readers put most of their attention.

For the case of electronic book itself, it is quite unique. Although the format of e-book is on the screen, it is still called as 'book'. It means people use the same way or pattern in reading books, whether it is a printed book or an electronic book. The basic of the layout design for both of them is still the same, since the printed book is the base of electronic book design. The only main issues that differentiate electronic book from printed book are that the e-book has a different legibility on the screen and more alternatives in its content.

Form Follows Function

When designing a page layout, the grid choice must be suited with the function of the design and the target audience. Ambrose and Harris (2008, p.22) also note that it is essential to view a grid as something adaptable and flexible, rather than something prescriptive and inviolable. However, the designers must

aware of the target audience of the design, so they can choose the grids wisely and accurately.

Grid In The Electronic Publication

Since electronic book basics are improved from printed book, the basics in the grid design are identical. Designing a screen-based media still needs the grid to arrange the elements.

Image

Image is one of the essential in the print media design. Picture books, documentary books, photographic books, illustrated/graphic novels, magazines, and comics are some of the media that rely on images as their main contents. The book that uses images or pictures as its main focus is called the visual-vow look.

Images, as the contents of a book, must be able to communicate the message to the readers. Bhaskaran (2006, p. 74) notes that the usage of images within a publication depends on a number of factors. The two basic factors are the aim of the publication and the function of the images themselves in the publication.

The principles and functions of images in electronic media are still the same with the print media. The designers are still using the same way in placing the images in the electronic publication. Images placements, together with the typography, form the hierarchy of the book.

Type

Typography refers to the way in which written ideas are given a visual form, and can radically affect how a design is perceived (Bhaskaran 2006, p. 68). It is a very powerful element in a publication. A designer must create a hierarchy that is strong and consistent, containing all of the contents in a well-organized design.

A typeface design must be used for a particular reason. It must suitable with the layout design and the purpose of the publication itself. It must be legible for the reader.

In electronic publication, the legibility is different with the print publication. Nielsen (1998) says that normally people read about 25% slower from the screen than from print media. That statement showed up at the time when the screen technologies have not been very advanced like today. However, Nielsen (1998) also notes that, even the screen technology keeps advancing and e-books gain the same reading speed as the print, an electronic book with the same format as printed book will be a bad idea. The designer

can modify the use of type by using larger types, bold text, highlighted text, bulleted lists, and image captions to increase the legibility on screen (Wilson, Landoni, & Gibb 2002, p. 326).

Format

The definition of format is how the publication is presented and relates to the width and the height of the publication (Haslam 2006, p.30). Haslam (2006, p.30) notes that there are three basic characters of book format:

- Portrait: the height is greater than the width
- Landscape: the width is greater than the height
- Square: the height and the width have the same size

Essentially, there is no difference in the format principles for both print and electronic publication. The only issues are, the designer must be aware with the screen size and the legibility.

Negative Space/White Space

White space or negative space is important in book layout design (Samara 2007, p.17). Negative space calls attentions to the content and separates it from unrelated

information around that content. White space gives a resting place to the eyes.

The using of negative spaces in electronic publication is also appropriate and has the same basics like the print publication.

Navigation

Navigation represents the main difference between print publication and electronic publication. While people flip a printed book manually, electronic books need navigation interface. The designer must think about the interface design. The design must be totally effective and functional to help the reader to read and search for content in the e-book. The navigation interface in an electronic book covers functions, such as content searching, page flipping, shortcut buttons, hyperlinks to a web page, and so on.

VISUAL RESEARCH

Visual research was conducted during the process. National Geographic iPad magazine and WOWmagz are the epublications used in the visual research.



Figure 1 The basic display of National Geographic iPad magazine

Source: National Geographic 2011

National Geographic applies the portrait format, similar to its print version, on the iPad version. The format shows the contents each two pages on iPad in landscape mode.



Figure 2 The National Geographic content shows up in 2-pages portrait format

Source: National Geographic 2011

From the *National Geographic on the iPad* (National Geographic 2010) video preview, we can see that on the bottom of the screen, there are highlights of the previous and next pages. This kind of navigation is helpful and effective. The reader can just slide

the page using their finger. National Geographic also applies various contents in the publication, from the conventional ones (text and image) to the electronic ones (video, animation / motion graphics). It also includes the links to the other contents like NatGeo website, atlas map, and games.



Figure 3 The cover of WOWMAGZ. It use more function buttons than NatGeo

WOWMAGZ, an art and design epublication makes their publication in a more
flexible way. The publication can be viewed
by just using standard personal computer,
and possibly can be opened to with iPad.
Since personal computer operational is
different with iPad, WOWMAGZ is designed
with more action buttons to be clicked. It
provides two ways to flip the page. The reader
can flip by dragging the page edge, or clicking
the 'previous' and 'next' buttons. Besides
buttons, there are also shortcut buttons to get
into the key contents like cover, backcover,
contents table, and contact. WOWMAGZ
also provides buttons for autoflip and link

buttons to social media such as, Facebook, Twitter, and Deviantart.



Figure 4 The contents table comes simple, showing clickable thumbnails



Figure 5 The contents sample page, with orange circles as the clickable links

WOWMAGZ comes with portrait format, with an artistic background as its unique feature, a strong point of the content is the links. WOWMAGZ inputs the links in their articles. For examples, if it is a designer article, it includes the designer's portfolio website. If it is a collector's item review, there will be a link to the website. This is a good method for both reviewing and promoting a designer and product.

CONCLUSIONS

Electronic publication has some clear differences against print publication. However, the basic principles of the design are still identical. Since the basic of the electronic publication is developed from print publication, they share some of the rules in design. Some of the layout principles of electronic publication, like the grid system, image, and format, are identical with print design principles.

If there are some differences, it is because of the difference in the media. For example, reading on the screen is different from reading a print media. That makes electronic book must use different typeface approach. Electronic book also need navigation interface that makes it needs more advanced approach than print publication.

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