

Sustainable Typography

First of all a little bit about myself: what I do and my Research philosophy.

I have been a Senior Lecturer in Information Design for over 30 years. Parallel to this, I undertook major global projects from my studio in central London, mainly for Research departments of large investment banks. Where projects were particularly large, I took a year off as an unpaid sabbatical.

I witnessed research analysts facing unprecedented pressure from receiving thousands of research notes in hard copy form...all before 9am in the morning!

I always remember a senior director from Chicago saying 'our scarcest commodity is not money but time'

During this unpaid sabbatical, I researched and sought to evolve a practical approach to overcome this. I distilled many years of experience and evolved this model which I have refined in the intervening years. I call it Message-based Design and Message-based Writing.

It is this that I am going to present today. Its application is more relevant now than 15 years ago especially as global warming and sustainability are now critical issues.

Current state of document production

The presentation begins with the backdrop to the current state of document communication globally and observations on this. By 'document' I refer to text-rich outputs by offices of large organisations like the Health Service, Post Office, BMW, Universities etc. that are produced in-house applying DTP templates and then emailed.

Whilst the principles are applicable to newspapers, magazines, brochures etc I do not concentrate on these as, in the main, these have improved (eg Guardian newspaper in the UK). Moreover, it is the area of office documentation and in-house printed research notes that is the main culprit to data deluge.

By 'sustainable' I refer not only to excess hard copy outputs but also the stress and time wasting imposed on readers trying to cope with 'data smog'.

INFORMATION OVERLOAD

We are witnessing today an unprecedented deluge of data dumping. Many surveys have been carried out on the views of office workers and managers. These can be summarised as follows listing the worst factors to the least:

1 Excess volume

2 Too little time and the speed of delivery

3 Irrelevance

4 Diversity of media output channels (paper, ppt, web, Blackberry etc)

5 Interruptions & Multi-tasking (cognitive overload)

The consequences of the above have been empirically quantified in recent surveys:

Data Deluge

- More than 40% of digital documents (apart from emails) get printed.
Source: IDC White paper March 2008: 'Cutting information clutter: tackling information overload at the source'
- The output from electronic printers, scanners, fax machines and copiers alone will total more than 6 trillion pages by 2009.
Source: UN Statistic: FAOstat 2007
- Despite the digital tsunami, the amount of paper produced in the world will grow an inexorable 2% a year, passing 41 trillion pages in 2009.
Source: UN Statistic: FAOstat 2007
- IBM prediction that by 2010 the amount of digital information will double every 11 hours.
Source: (IBM Global Technical services white paper: July 2006

This is not sustainable

This cannot carry on as it is unsustainable. We need to radically re-think typography for text-rich business documents & publications. (note that I am not referring to books). Most designers & editors assume people initially read documents but they are wrong. Let us observe how people actually approach reading paper or screen documents.

OBSERVATIONS

- 1- We browse/forage (71%) then read (11%)** (Jacob Nielsen)
- 2- People have different time tolerances and requirements for detail.** ie the same information is required to different levels of detailing dependent on the time the reader can allocate to it. (Senior directors will have less time than juniors).
- 3- Media choice** People want choice as to whether they wish to view information on paper, i-phone, Blackberry, PowerPoint or via web/screen.
- 4- Cognitive principles** Most publications do not follow the cognitive principles of how we are 'wired' to interpret visual signals.

MESSAGE-BASED DESIGN (MBD) & MESSAGE-BASED WRITING (MBW)

Obtaining key message by just scanning

This is an approach I have evolved that, in practise, resolves these four points. *It ensures that by just gleaning a document page the reader obtains the essence by simply browsing headings, sub-headings, fast lane side comments, bullet points, graphs etc. That is, no actual reading of the text is initially required.*

Let us go through these four points one by one with examples:

1- Browsing then reading

We browse and only then read

Studies reveal that when given a document (whether on paper or to be read on screen), the eye darts around the page foraging for meaningful messages either in headings, or via a graph or bullet points/pull quotes, decks, tinted summary panels colour etc. Where relevant, we stop and read. Then we forage once again. It follows that the designer must harness the visual tools at his/her disposal to quickly impart value.

2- Time tolerance

Four time tolerances catered for

What you see here is a Word hard copy document that caters for 4 different reader time tolerances (navigation within a document).

- 1) Front page: read by those with the least time tolerance.
- 2) Front page + Ex Summary: for those with more time.
- 3) Front page + Ex Summary + Chapter Summaries for those with still greater time.
- 4) Reading whole document: For those with the most time. Yet even here choice is built in. You can fast track side comment and glean headings then delve into text. This is the whole point of MBD: you are forewarned what text will be about so you don't have to start reading it and then find its not what you want (causing irritation and skipping large chunks of document or, worse, binning it).

The key point to note is that the same information is imparted in different time lengths related to what the reader can allocate

Senior executives and captains of industry have said to me that the scarcest commodity they have is not money but time. Those lower down the organisation have more time. Thus this tiered system is important.

3- Media choice

Documents to be able to morph from paper to screen

Readers wish to choose the media format for reading documents: Presentations are often done to varying audience sizes: small groups (2-6) can comfortably be accommodated with each person having a hard copy. Numbers above that are better served with a Powerpoint presentation. The latter requires the content from the hard copy to be appropriately reduced to bullet points.

Two requirements therefore arise:

- 1) An approach to content 'collapsing down' from text rich document to bullet points for Powerpoint.
- 2) The visual adaptation from a portrait hardcopy to a landscape format with a dark background (navigation between document types).

This is timely as readers are increasingly intolerant of viewing paper-based text dumped onto screens via PDFs. The two mediums are significantly different requiring different treatment. Please note: Whilst above 'Diversity of media output channels' is listed as a cause of information overload, it does not contradict the need for media choice. The former is where media choice is offered with an inappropriate visual style for that media output.

implies navigation within & between document types

Navigation between document types & mediums. This is important, particularly from a design viewpoint, as it means the same key messages can be viewed differently across paper & screen mediums. eg portrait paper to ppt, or web or Blackberry, i-pad. Thus the same information is adapted automatically (eg reduced down) for a web page with the visual

I find it incredible that design students are not introduced to cognitive principles related to design

attributes changed to that appropriate to a web page. The morphing of documents is now a reality.

4- Cognitive principles

Stephen Kosslyn (previously Head of Cognitive Science at Harvard University and now the Director of the Center for Advanced Study in the Behavioural Sciences at Stanford University) has done ground-breaking research in how we de-code visual signals.

In relation to how much time we spend de-coding messages he observes that 'The spirit is willing but the mind is weak': 'we can keep only a certain amount of information in mind at any one time'. He adds 'It is a psychological, not a moral, fact that people do not like to expend effort and often will not bother to do so, particularly if they are not sure in advance that the effort will be rewarded'.

(source: 'Elements of Graph Design' 1993. p10)

The survival instinct means we seek comprehensive patterns in what we see. Thus graphs impart the pattern/shape of an argument much faster than text and tables.

Conclusion

Whilst I have concentrated on paper outputs, it is a useful learning curve for organisations to learn the principles outlined above before moving on to apply these to screen outputs.

Information overload requires visual filters to extract key messages.

Message-based design & writing guarantees key messages understood by only browsing page.

Caters for different time tolerances of readers.

Message-based Design & Writing facilitates the 'morphing' of documents: a portrait hard copy to landscape Powerpoint presentation, web, PDA or mobile phone display with headings/layout suitably adapted for each media.

Acts as a quality control mechanism discouraging 'maintenance' writing.

Environmentally friendly as less paper used: 'sustainable typography'.

IMPLICATIONS

- The importance of MBD is that it solves the time scarcity issue practically and immediately saving both paper and time which, in turn, saves costs.
- Saves hours of reading so reduces cost as time saved in reading document.
- Reduces errors due to clarity of information.
- Increases information knowledge within an organisation. Information is power so enhancing knowledge management making company more effective.
- Design/content/IT inexorably intertwined.
- Designers must take a greater ownership and understanding of the content and structure of what they are designing.
- MBW requires greater writing discipline (thus acts as a quality-enhancing and control mechanism within an organisation).
- Increases awareness of presentation (both orally and visually) and being succinct and to the point when doing presentations or producing documents.
- Environmentally friendly.