

Chapter 1 : A Study of Graphical and Tabular Displays and Their Interaction with Environmental Complexity

A key issue in designing a computer-based decision support system is how best to depict the data. Since most systems use either graphical or tabular displays, this experiment compares the latter two when used as decision aids for the production scheduling problem modeled by Holt, Modigliani, Muth, and Simon.

Engineering drawing An engineering drawing is a type of drawing and is technical in nature, used to fully and clearly define requirements for engineered items. It is usually created in accordance with standardized conventions for layout, nomenclature, interpretation, appearance such as typefaces and line styles, size, etc.

Computer graphics There are two types of computer graphics: Using vectors results in infinitely sharp graphics and often smaller files, but, when complex, like vectors take time to render and may have larger file sizes than a raster equivalent. In 1963, Ivan Sutherland invented Sketchpad, an innovative program that influenced alternative forms of interaction with computers. Ross of MIT developed an advanced compiler language for graphics programming. Coons, also at MIT, and J. Ferguson at Boeing, began work in sculptured surfaces. In the 1980s, artists and graphic designers began to see the personal computer, particularly the Commodore Amiga and Macintosh, as a serious design tool, one that could save time and draw more accurately than other methods. The Macintosh remains one of the most popular tools for computer graphics in graphic design studios and businesses. Modern computer systems, dating from the 1990s and onwards, often use a graphical user interface GUI to present data and information with symbols, icons and pictures, rather than text. Graphics are one of the five key elements of multimedia technology. In 1992, Quake, one of the first fully 3D games, was released. In 1995, Toy Story, the first full-length computer-generated animation film, was released in cinemas. Since then, computer graphics have become more accurate and detailed, due to more advanced computers and better 3D modeling software applications, such as Maya, 3D Studio Max, and Cinema 4D. They have since evolved into true pieces of art, their practical purpose obsolete; modern screens are not susceptible to such burn-in artifacts.

Web graphics [edit] In the 1990s, Internet speeds increased, and Internet browsers capable of viewing images were released, the first being Mosaic. Websites began to use the GIF format to display small graphics, such as banners, advertisements and navigation buttons, on web pages. SVG, and to some extent VML, support in some modern web browsers have made it possible to display vector graphics that are clear at any size. Plugins expand the web browser functions to display animated, interactive and 3-D graphics contained within file formats such as SWF and X3D. This is because MS Paint is a drawing package and not a graphics package. Numerous platforms and websites have been created to cater to web graphics artists and to host their communities.

Uses [edit] Graphics are visual elements often used to point readers and viewers to particular information. They are also used to supplement text in an effort to aid readers in their understanding of a particular concept or make the concept more clear or interesting. Popular magazines, such as TIME, Wired and Newsweek, usually contain graphic material in abundance to attract readers, unlike the majority of scholarly journals. In computing, they are used to create a graphical interface for the user; and graphics are one of the five key elements of multimedia technology. Graphics are among the primary ways of advertising the sale of goods or services.

Business [edit] Graphics are commonly used in business and economics to create financial charts and tables. The term Business Graphics came into use in the late 1980s, when personal computers became capable of drawing graphs and charts instead of using a tabular format. Business Graphics can be used to highlight changes over a period of time.

Advertising [edit] Advertising is one of the most profitable uses of graphics; artists often do advertising work or take advertising potential into account when creating art, to increase the chances of selling the artwork. Most importantly, graphics gives a good look to artwork whenever it is applied. Graphics contribute to the general outlook of a designed artwork, this in turn lure interested members of the public to look at the work of art or purchasing it. Any graphical work especially advertisement or any work of art that is poorly design will not persuade the audience.

Political [edit] The use of graphics for overtly political purposes—cartoons, graffiti, poster art, flag design, etc. The Northern Irish murals are one such example. Presidential election Barack Obama "Hope" poster. It was first published on the web, but soon found its way onto streets throughout the United States. Diagrams are also used to label

photographs and pictures. Educational animation is an important emerging field of graphics. Animated graphics have obvious advantages over static graphics when explaining subject matter that changes over time. The Oxford Illustrated Dictionary uses graphics and technical illustrations to make reading material more interesting and easier to understand. In an encyclopedia, graphics are used to illustrate concepts and show examples of the particular topic being discussed. In order for a graphic to function effectively as an educational aid, the learner must be able to interpret it successfully. This interpretative capacity is one aspect of graphicacy. Film and animation[edit] Graphics education[edit] The majority of schools, colleges and universities around the world educate students on the subject of graphics and art. Some graphics courses prioritize traditional craft skills—drawing, printmaking and typography—over modern craft skills. Other courses may place an emphasis on teaching digital craft skills. Still other courses may downplay the crafts entirely, concentrating on training students to generate novel intellectual responses that engage with the brief. Despite these apparent differences in training and curriculum, the staff and students on any of these courses will generally consider themselves to be graphic designers. The typical pedagogy of a graphic design or graphic communication, visual communication, graphic arts or any number of synonymous course titles will be broadly based on the teaching models developed in the Bauhaus school in Germany or Vkhutemas in Russia. The teaching model will tend to expose students to a variety of craft skills currently everything from drawing to motion capture, combined with an effort to engage the student with the world of visual culture. Noted graphic designers[edit] Aldus Manutius designed the first italic type style which is often used in desktop publishing and graphic design. April Greiman is known for her influential poster design.

Chapter 2 : UNICEF - Publications - Girls, HIV/AIDS and Education

Since most interactive systems use either graphical or tabular displays, this experiment contrasts the effectiveness of the two displays in making the production scheduling decision in low and intermediate levels of environmental complexity.

Visual Aids - an overview These days it is unimaginable that a technical report or article can be written without some form of graphic display to support the text. With the advent of the digital age incorporating images in a written report is as easy as clicking the mouse a few times. Indeed, one look at a technical journal will reveal the vast array of graphics that engineers adopt when discussing their work. Click on the link to see an example of a technical paper. In this one paper you will see a wide selection of graphics: The graphics actually take up half of the article, but they are indispensable. Keep in mind that graphics are used to illustrate what words would say; and as we all know, "A picture is worth a thousand words". Remember, though, that this is true only if the picture is relevant and well developed. Graphics can be used to represent the following elements in your technical writing: Any explanation will benefit from an illustration of how that particular task is done. Photographs, drawings, diagrams, and schematics are the types of graphics that show objects. Numbers - Tables, bar charts, pie charts, and line graphs are some of the principal ways to show numerical data. You could show the same data in the form of bar charts, pie charts, or line graphs. We will discuss these in more detail later. Instructions - When giving complex instructions or explaining a process consider using a flowchart. It simplifies the process and the understanding of the instructions. Descriptions - When giving descriptions, you would also want to use pictures or drawings. Simple drawings often called line drawings because they use just lines, without other details such as shading are the most common. They simplify the situation and the objects so that the reader can focus on the key details. This is done by using tools such as shading and depth perspectives. See Example B and Example C. Choices - When submitting a proposal, recommendation, or evaluation report, photographs are a good visual aid to use. For example, if you are recommending a one building site over another, or one machine over another, include photos of the two or more alternatives. When to use graphics - You be the judge! Normally you would need a graphic if: Titles -- Except in very special cases, any visual aid you use should have a title. The titles of all the illustrations should be numbered. For example, Figure 1, Figure 2, Table 1, Table 2 and so on. If you only have one or two illustrations, then you might want to keep the title but discard the word "Figure" and the number following it. Example 1 Labels -- All illustrations that describe something should contain labels. That is, words and phrases with pointers that name the parts of the things being described. Percentage of Elder Houses on the High Counsel in Quarterly by Region Alternate Title Keys -- Some illustrations, like bar or pie charts, have certain shadings, colors, or line styles, that have a special meaning, these should be indicated in a key. That is, an area in an unused corner of the illustration that lists and describes their meaning. Positioning -- You should place all illustrations just after the point where they have been discussed cross-referenced. If this placement is not possible because of the way the text falls on the pages and the size of the illustrations, then you can put the graphic at the top of the very next page. The fact that graphics and their explanations sometimes do not fall on the same page is the reason why we need to number every illustration. Size -- Illustrations should normally be between a-half to one-quarter of the vertical size of the page. Ideally, illustrations should be scattered among the text and not come all at once at the end. Also, try not to take up a whole page with one figure. This is because the reader would have to flip to and from the figure and the page where you discuss it. This course is a report writing course, not a computer graphic or arts course. And a simpler graphic works better than a really complicated one. Compare Example 1 above and Example 2 below. Which one do you think is clearer? Tables Tables are those rows and columns of numbers and, sometimes, words. They allow rapid access to information and comparison of information. Of course, tables are not necessarily the most vivid or dramatic means of showing trends or relationships between data see the section on charts and graphs. The biggest use of tables is for numerical data. Imagine that you are comparing different models of coffee makers. All specifications, whether they are price or physical characteristics such as height, depth, length, weight, and so on are perfect

for a table. This is perfect for a table, and it would be made up mainly of words rather than numbers. A table can be as simple as one row and one column of data. It can also be very complex. At the top of each column is a column heading. This defines or identifies the contents of that column and usually it indicates the unit of measurement, for example, percentage or kilograms. On the left edge of the table there are usually row headings. These define or identify the contents of those rows. When rows or columns have to be grouped or subdivided, you have to create row or column subheadings. See Examples 3 and 4. Example 3 Format for tables with grouped or subdivided rows and columns.

Chapter 3 : Visual Aids in Reports and Presentations

Tabular, Graphic and Pictorial. aids in Report writing â€¢ Tables. Taken together there are all sometimes referred to as graphic illustration or simply. graphic aids. photographs. charts graphs. drawing and maps are used in reports to present quantities and /or qualities visually so that trends of and relationship among variables can be readily grasped.

Chapter 4 : Graphics - Wikipedia

The study concludes that tabular aids outperform the graphical aids in environments with low complexity, replicating an earlier study. In intermediate complexity environments, the graphical aids.