



(a) (i) LCD stands for Liquid crystal display.

A light is reflected in between 2 polarising thin sheets of material ~~behind~~ behind the screen which ~~have~~ creates the pixels to form on the screen.

It is very light and thin. It produces no heat, no glare and also no radiation. It is commonly used in portable computers and now in the emerging technology of flat screen TV. However it's picture and display quality is not as good as CRT.

CRT ~~technology~~ ~~tube~~ (cathode ray tube), traditional TV screen made with glass as the display, very heavy. It uses a technology known as raster scan, which fires beams of electron onto the back of the screen cause the screen to produce the images. The colour is at full spectrum and the quality is very good. However they

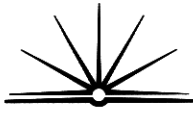


takes up a lot of physical space and very heavy. But still commonly used. LCD is becoming to overtake CRT screen because of their advantages.

(ii). ~~Path-based~~

Cell-base animation involves creating and displaying individual cells or frames of an animation. Each frame is unique, the first frame is displayed by bits in memory while the second frame is being created in another screen. This form of animation requires a fast processor as well as a lot of RAM and ROM to store each different cells. Therefore it is not efficient and effective to be use for a multimedia presentation.

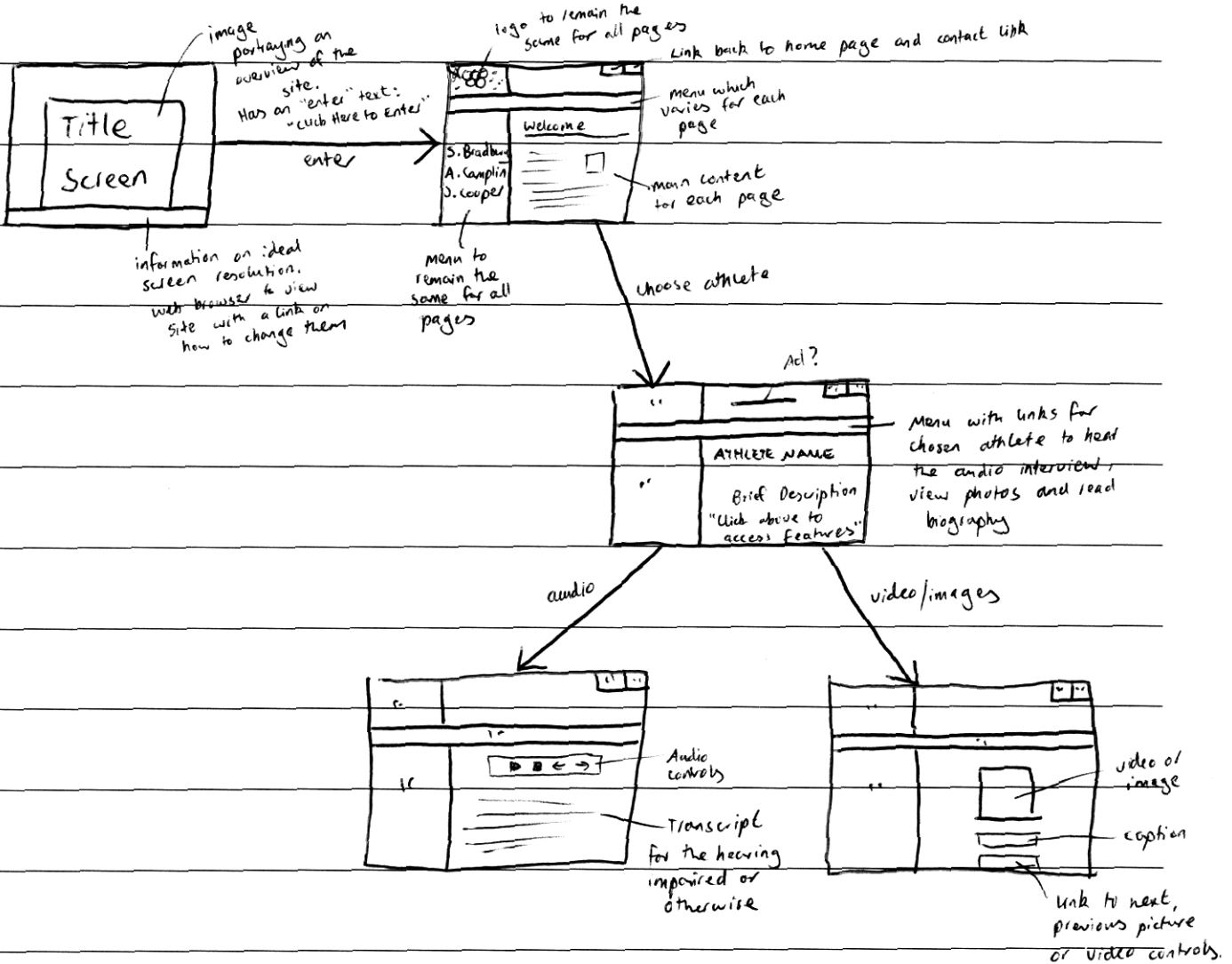
Path-based animation uses tweening to allow the object to move using some complicated mathematical algorithms and patterns. Only the first and last frames has to be



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drawn. Then the object is moving along
the pre-design path to move. An eg. of
this can be seen in 'Macropedia Flash'.
These saves time in creating tech time
as well as the storage area and the
demand and processing speed of the
computer. Better!

b)
i) Website, therefore non-linear or combination storyboard.



Considerations:

- CONSISTENCY →
- Navigation: easy and constant with clear links.
 - Design: constant to facilitate ease-of-use
 - Text: should be larger than a word document. easy to understand
 - Images: Don't use too many as can draw away from the information.

ii) To calculate :

$$\text{File Size} = \frac{\text{Horizontal Pixels} \times \text{Vertical Pixels} \times \text{Bit Depth}}{8 \times 1024 \text{ bytes}}$$
$$= x \text{ Kb.}$$

for this photo :

Horizontal Pixels : 600

Vertical Pixels : 400

Bit Depth : $2^4 = 16$ colours

\therefore Bit Depth = 4

$$\therefore \text{File Size} = \frac{600 \times 400 \times 4}{8 \times 1024}$$

= x Kb

(c). collecting : data is collected by fax ,
email and post . Pictures received
via post and fax has to be
scanned and digitised in order to be
processed by the computer. There a
scanner is required to collect images.
The text information ~~on~~ received on
paper form can be either scan to



The computer using OCR for easy and quick input of text onto a word processor or they can be manually typed by the data entry operator using a keyboard.

The advertisement received through email can be directly used without the necessary conversion as they have already been digitised.

For organising, these collected images and texts have to be arranged into consistent format and file size to be published on to the website. Photographs and scanned images should all change to JPEG format as they are the most common form used on the net and they take up less room so they are fast to load when some want to access them. Text is edited and saved in universal ASCII format which is converted into HTML for display. The operator then checks for the spelling and make sure they are right.



In the process of displaying, a high level of interactivity is necessary for the users to browse whatever they are interested since these advertisements are arranged into categories. To enable them to find what they want easily, a directory should be available which already sorted all the ads into different groups so that the customer can just choose a group that interests them and the information will be right that. It is a more narrow form of search engine within a site which provide quick access and retrieval of information. They are displayed on screen where the users is able to choose their form of display. When a customer find what they want, they can print that particular ad as a hardcopy using a printer. Hardcopy printouts are also another form of display.



Since the majority of users of the website uses dialup internet connection. The loading time of the advertisements shouldn't take too long. To achieve this, the designer of the page can reduce the size of the images so that the loading time can also reduce. Also the layout of every webpage should be consistent, simple and the navigation is also important.