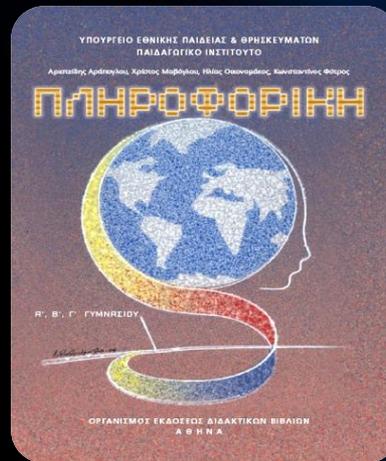


<http://www.zioulas.gr>



# WORLD WIDE WEB (WWW)

## CHAPTER 12



EVANGELOS C. ZIOULAS (IT TEACHER)

# KEY WORDS



WORLD WIDE WEB

WEB PAGE

WEB SITE

URL ADDRESS

IP ADDRESS

WEB BROWSER

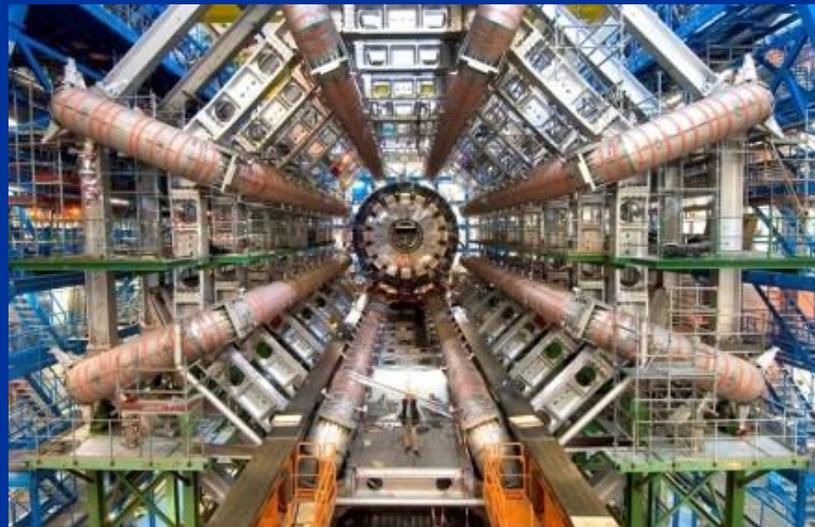
HYPertext

HYPERLINK

# WORLD WIDE WEB (WWW)



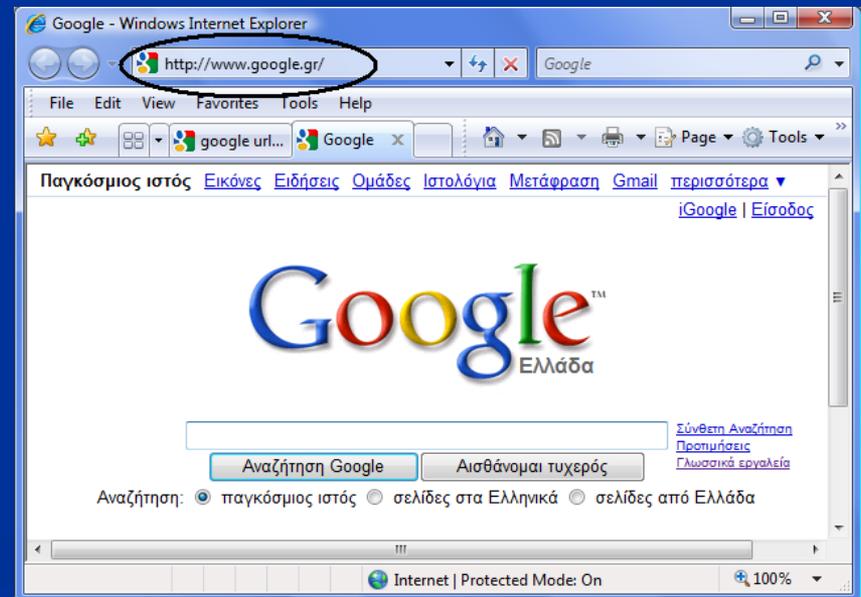
- It is devised in 1989 by **CERN** (European Organization for Nuclear Energy).
- The Web is a huge **collection of interlinked hypertext documents**, called **webpages**, which are stored in specific computers called servers.
- Internet is a global network of computers linked together to interchange their data.



# URL ADDRESS

- Every Webpage and every resource in a webpage is characterized and identified by a **unique address** called **URL address** (Uniform Resource Locator).
- If the user knows the URL address of a webpage, he can access it with the help of appropriate software called a **web browser**.

http://www.ypepth.gr/help.pdf  
http://www.google.com  
http://www.mit.edu  
http://www.in.gr/auto  
http://www.yahoo.com/music



# URL ADDRESS

## HTTP Protocol

It is a set of rules that the web browser must obey to open a page.

## Domain Name

It is usually the name of the owner of the web site (company or person)

The file of the server opened e.g. image, video, music, text, pdf

**http :// www . name . gr / filename**

## World Wide Web

It indicates that this address is referred to a webpage.

## Extension

It declares the type or the area in which the webpage belongs.

# IP ADDRESS

- Every **machine** connected to the Internet is identified by a **unique address** called IP address (Internet Protocol Address).
- An IP address consists of **4 numbers** separated by dots (.)
- Each number can take values inside the range of **[0...255]** and its size is 1 byte (equals 8 bits).

## Examples

### Right IP

216.27.31.117

192.168.1.100

### Wrong IP

234.0.260.125

147.3.134.256

An IPv4 address (dotted-decimal notation)

**172 . 16 . 254 . 1**



10101100.00010000.11111110.00000001



One byte = Eight bits



Thirty-two bits (  $4 * 8$  ), or 4 bytes

# WEB BROWSER

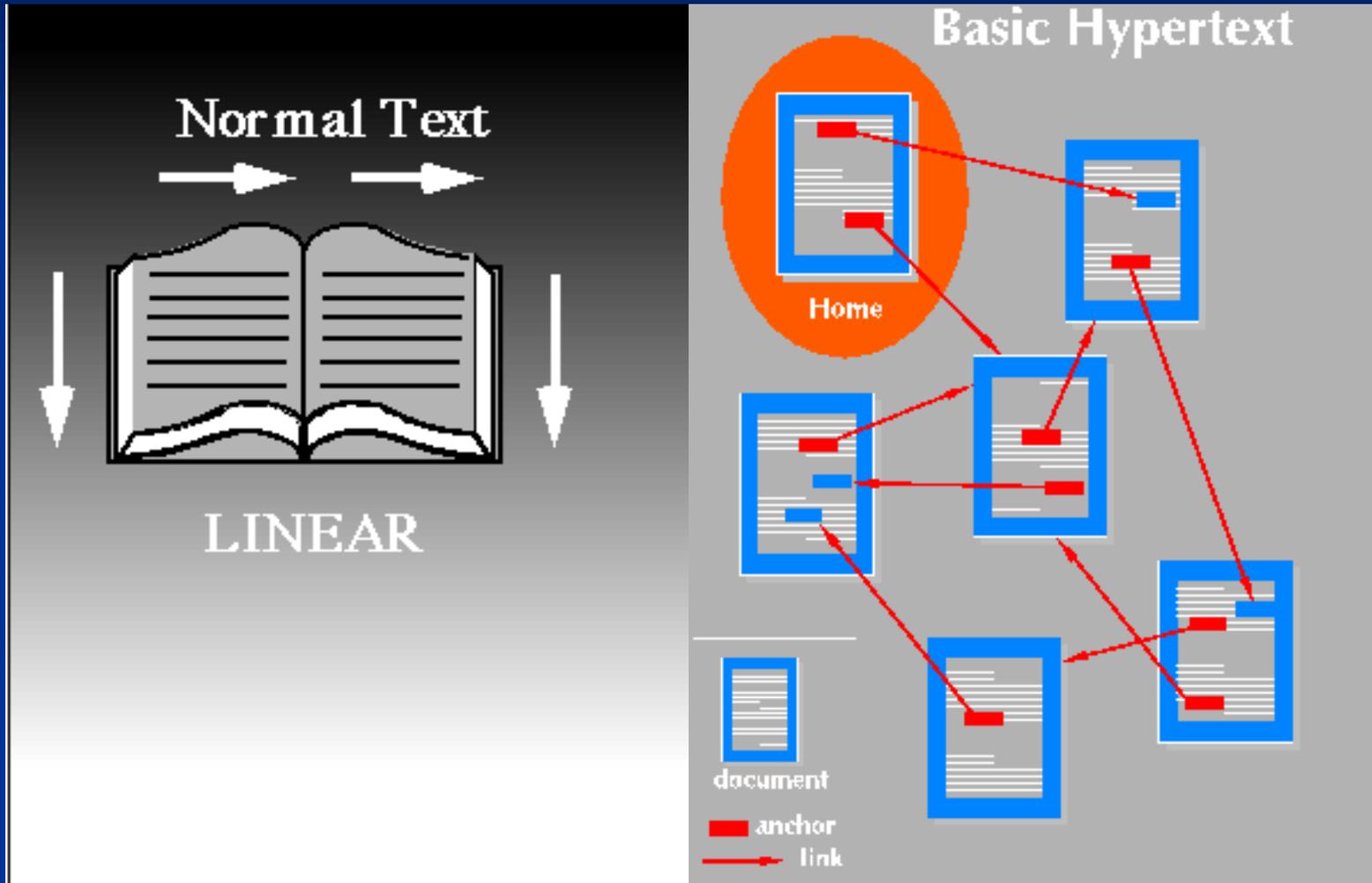
- It is a **software application** designed to enable users to navigate in the Web as well as retrieve and present information resources by using the appropriate URL.
- Such resources may be a web page, an image file, a video file, or any other piece of content.
- A web browser enables user to open a page containing hypertexts and hyperlinks made by language called **HTML**.
- The most common browsers are: **Internet Explorer, Mozilla Firefox, Safari, Opera, Netscape Navigator** etc.

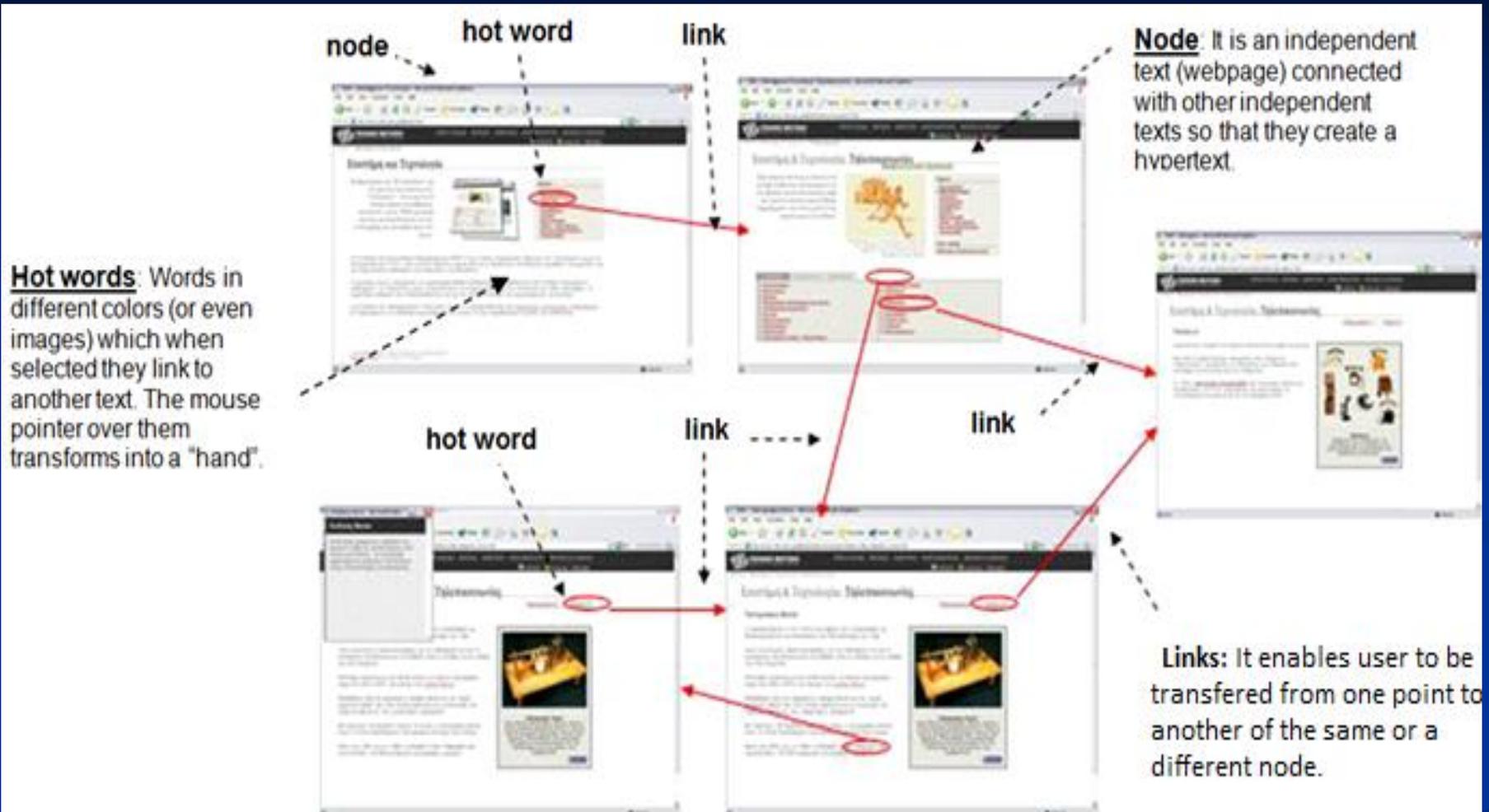


# HYPertext

- It is a form of active text found basically on the web sites of the Internet.
- Hypertext consists of many individual texts independently linked, so that the user has the choice of different routes of reading and searching information.
- The way of navigating among hypertexts is non linear (that means “random” and is differentiated from the linear reading of a book).
- A hypertext includes **hot words, links and nodes**.

# LINEAR vs NON LINEAR WAY OF NAVIGATING





The hypertext allows user to follow his own path of reading



**Hot Word:** Some words in a web page have different color. When we click on them they drive us to another text that is a new source of information.



Sometimes an image can also function as a hot area that link as to a new piece of information.

When the mouse is above a hot word or hot area, the pointer changes into a **hand**.

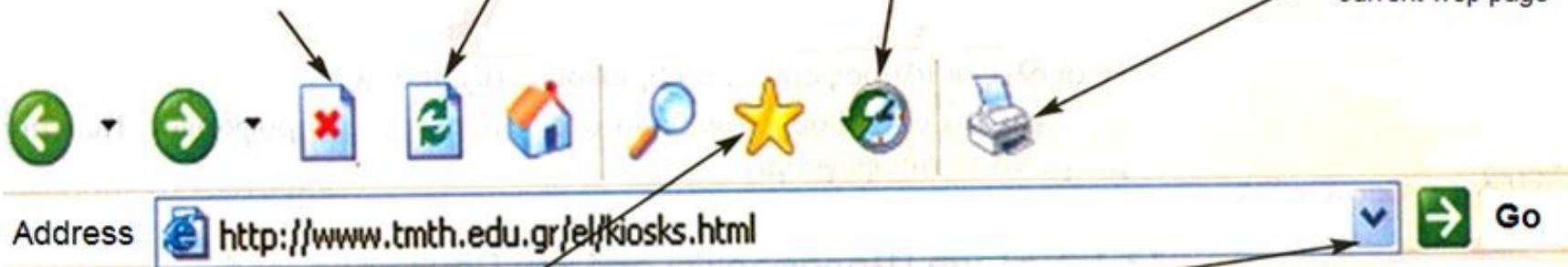
# BASIC ICONS OF A WEB BROWSER

**Stop:** The user can stop the data transmission from a web page to his computer. This button is useful when the web page delays to open or it has irrelevant content.

**Refresh:** This button reloads the current webpage.

**History:** It displays a history of the webpages visited by the user during the last days.

**Print:** It prints the current web page



**Favourites:** The user can bookmark the address of an interesting web page so to open it faster the next time.

a drop down menu with a history of the last visited web pages. (usually 20 pages)

## Back

Return to the previous page visited



## Forward

Undo the last operation of Back button



## Home

Return to the home page

