

Document processing, cloud computing

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Document

Document

- Documents serve to archive and communicate information
- **electronic** form (Word doc, spreadsheet file, movie file, sound clip, etc.)
- traditional **hardcopy**
- one to thousands of pages



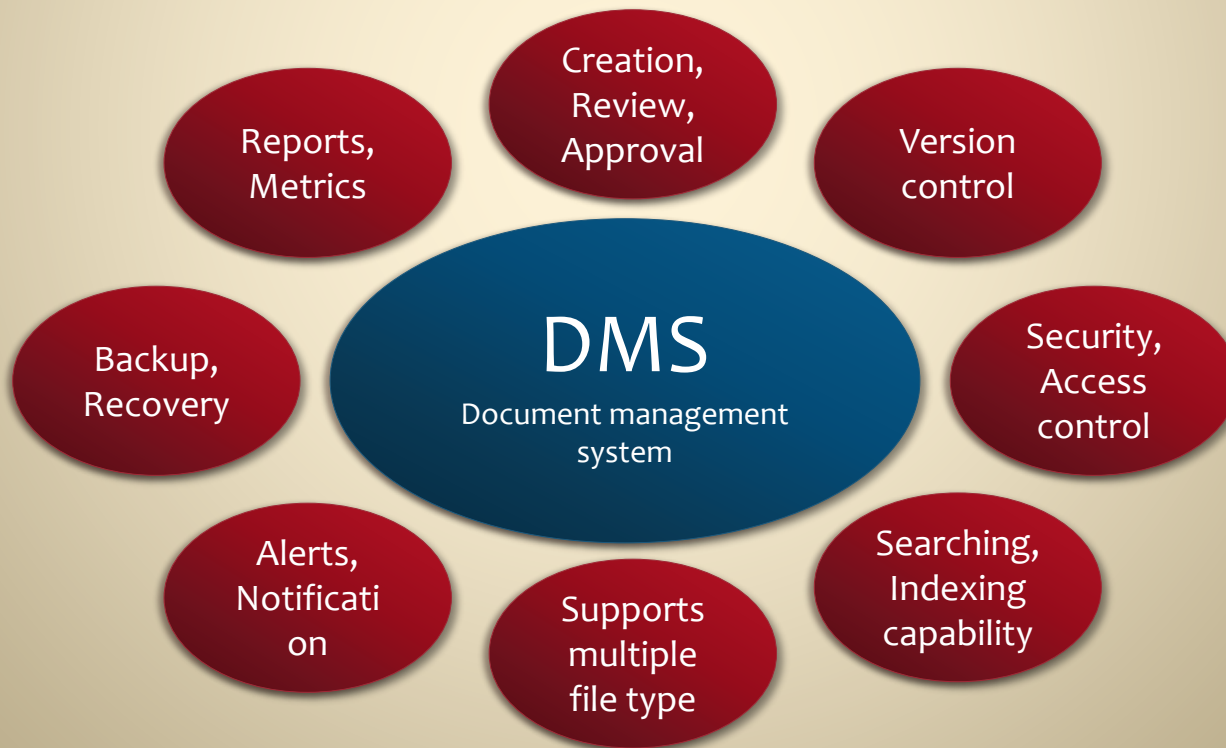
Document processing

- **Document processing** is **creation, handling, labeling, and modification** of text documents, such as in word processing and in the **indexing** of documents for retrieval based on their content
- **Document management coordination and control** of the flow (storage, retrieval, processing, printing, routing and distribution) of electronic and paper documents in a **secure and efficient manner**, to ensure that they are accessible to authorized personnel **as and when required**



Document management system (DMS)

- A computer system designed to **organize** and **manage documents**. These documents are usually organized with software, which provides the user with the ability to **access**, **modify**, and **centrally store** the documents.
- e.g. M-Files, docSTAR, Asite Document Manager, Alfresco One, ...



Word processing

- A **word processor** (WP) is a computer **application** used for the production (including composition, editing, formatting and possibly printing) of any sort of printable material
e.g. Microsoft **Word**, OpenOffice.org **Writer**, LibreOffice **Writer**, Apple Pages, IBM Lotus Symphony, Google Docs, Zoho Writer, ...
- **Word processing** is the creation of documents using a word processor



WYSIWYG

- Pronounced **WIZ-zee-wig**, short for **What You See Is What You Get**
- **WYSIWYG application** enables you to see on the display screen exactly what will appear when the document is printed
- The **WYSIWYGness** of an application is relative
 - **Originally**, WYSIWYG referred to any word processor that could accurately show **line breaks** on the display screen
 - **Later** WYSIWYGs had to be able to show **different font sizes**, even if the screen display was limited to one typeface
 - **Now**, a word processor must be able to **display graphics** and many **different typefaces** to be considered WYSIWYG



Word processors short history

- The **term** was coined at IBM's in the **1960s**
- Word processing became the most popular use for personal computers, and **WordPerfect, XyWrite, Microsoft Word, pfs:Write** and dozens of other word processing software competed in the **1980s**
- PC Magazine reviewed **57** different programs in one January **1986** issue



XyWrite III Plus -1989



Professional Write 2.11 -1989

Microsoft Word



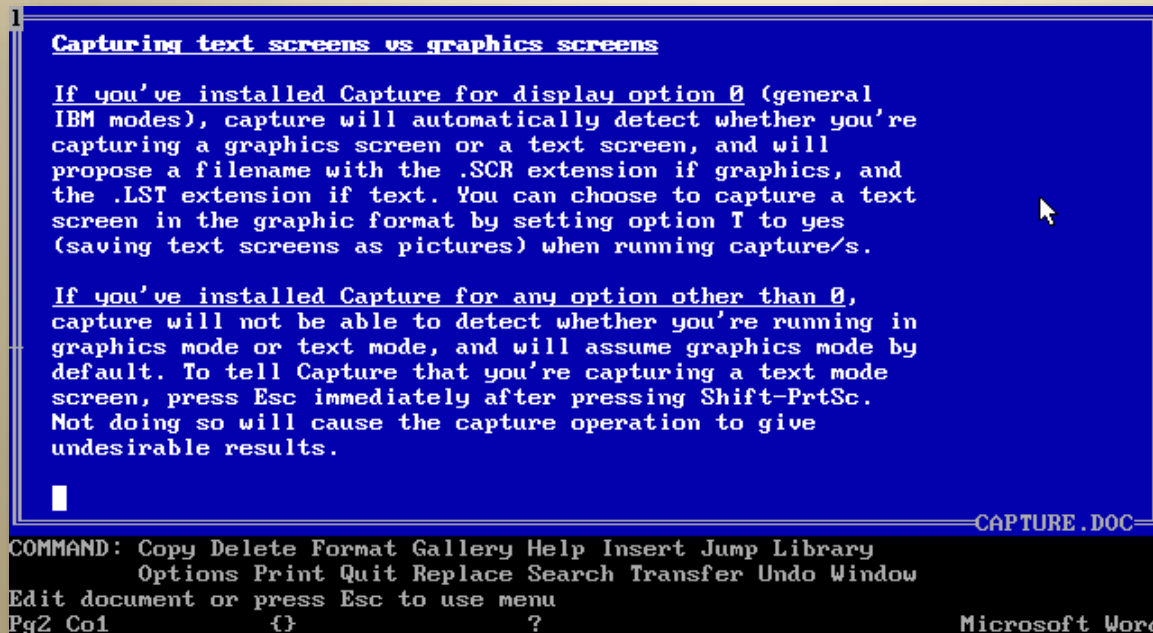
- **Microsoft Word** is a word processor designed by Microsoft
- It is a component of the Microsoft Office software system; it is also sold as a standalone product
- In 1981, Microsoft hired **Charles Simonyi**, the primary developer of **Bravo**, the first GUI word processor, which was developed at Xerox PARC
- Simonyi started work on a word processor called **Multi-Tool Word**
- It was first released in **1983** (IBM PCs running DOS)



Charles Simonyi (Hungarian: **Simonyi Károly**) is a Hungarian-American computer software executive who, as head of Microsoft's application software group, oversaw the creation of Microsoft's flagship Office suite of applications. In April 2007, aboard Soyuz TMA-10, he became the fifth space tourist and the second Hungarian in space. In March 2009, aboard Soyuz TMA-14, he made a second trip to the International Space Station.

Microsoft Word

- Its name was soon simplified to **Microsoft Word**
- Unlike most MS-DOS programs at the time, MS Word was designed to be used with a **mouse**, and it was able to display some formatting (bold, italic, and underlined text) although it could not render fonts
- The first version of **Word for Windows** was released in **1989**. With the release of **Windows 3.0**
- ...
- → **Last version: Word 2019** (Included in **Office 2019**)



```
1 Capturing text screens vs graphics screens
If you've installed Capture for display option 0 (general
IBM modes), capture will automatically detect whether you're
capturing a graphics screen or a text screen, and will
propose a filename with the .SCR extension if graphics, and
the .LST extension if text. You can choose to capture a text
screen in the graphic format by setting option T to yes
(saving text screens as pictures) when running capture/s.

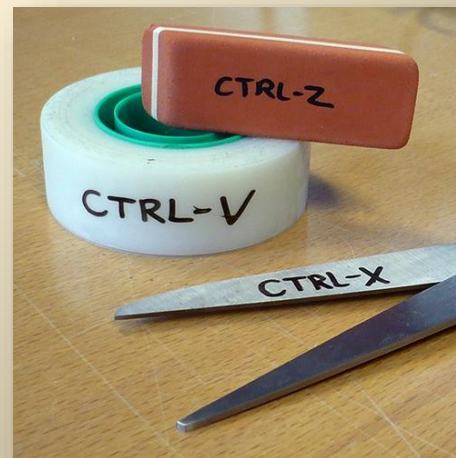
If you've installed Capture for any option other than 0,
capture will not be able to detect whether you're running in
graphics mode or text mode, and will assume graphics mode by
default. To tell Capture that you're capturing a text mode
screen, press Esc immediately after pressing Shift-PrtSc.
Not doing so will cause the capture operation to give
undesirable results.

COMMAND: Copy Delete Format Gallery Help Insert Jump Library
Options Print Quit Replace Search Transfer Undo Window
Edit document or press Esc to use menu
Pg2 Co1      {}      ?      Microsoft Word
```

Microsoft Word
5.0 for DOS.
Versions 1.0 to 4.0
had a similar user
interface.

Basic features of a word processor

- **insert text:** insert text anywhere in the document
- **delete text:** erase characters, words, lines, or pages as easily as you can
- **word wrap:** automatically moves to the next line when you have filled one, readjust text if you change the margins
- **cut and paste:** remove (cut) a section of text from one place in a document and insert (paste) it somewhere else
- **copy:** duplicate a section of text
- **page size and margins:** define various page sizes and margins, automatically readjust the text so that it fits
- **search and replace:** direct the word processor to search for a particular word or phrase and to replace one group of characters with another



Basic features of a word processor

- **print:** send a document to a printer
- **font specifications:** change fonts within a document (you can specify **bold**, *italics*, and underlining). Most word processors also let you change the font size, color and even the *typeface*
- **headers , footers , and page numbering:** specify customized headers and footers that the word processor will put at the top and bottom of every page, automatically keeps track of page numbers so that the correct number appears on each page
- **Spell and grammar checker:** a utility that allows you to check the spelling of words. It will highlight any words that it does not recognize
- **footnotes and cross-references, thesaurus, graphics, ...**



Table of contents

Table of contents (TOC, Contents)

- a **list** of the parts of a document organized in the order in which the parts appear
- usually includes the **titles** of the first-level headers and often includes second-level or section titles
- indicate **page numbers** where each part starts, while digital ones offer **links** to go to each part

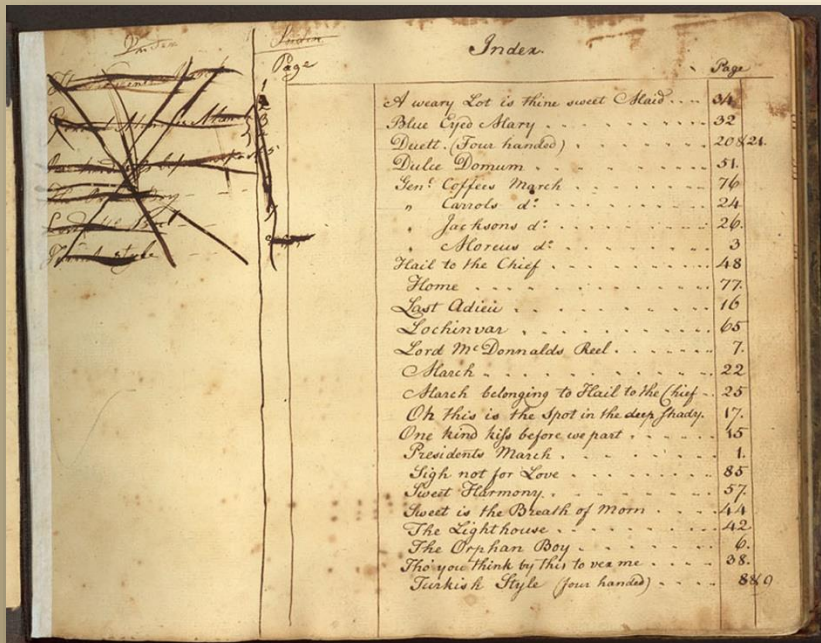


Table of contents

1. Introduction	1
1.1. Crackles	1
1.2. Lung recruitment and the P-V relationship	2
1.3. Airway and parenchymal determinants of recruitment	4
2. Aims and hypotheses of the present thesis	6
3. Methods	7
3.1. General methodology	7
3.1.1. Impedance measurements	7
3.1.2. Recording of tracheal sounds	7
3.1.3. Identification of crackles	8
3.2. Study-specific methods	10
3.2.1. Acoustic evidence of airway opening during recruitment (Study 1)	10
3.2.2. Crackle recording to monitor recruitment in bronchoconstriction (Study 2)	13
3.2.3. Crackles and airway function in emphysematous mice (Study 3)	16
3.2.4. Crackles and airway structure/function in emphysematous rats (Study 4)	18

List of figures

- a **list of the captions** for pictures, charts, graphs, slides, or other illustrations in a document, along with the numbers of the pages the captions appear on
- **Microsoft Word searches for the captions (style), sorts them by number,** and displays the table of figures in the document
- If you add, delete, move, or edit captions or other text in a document, you should **update** the table of figures

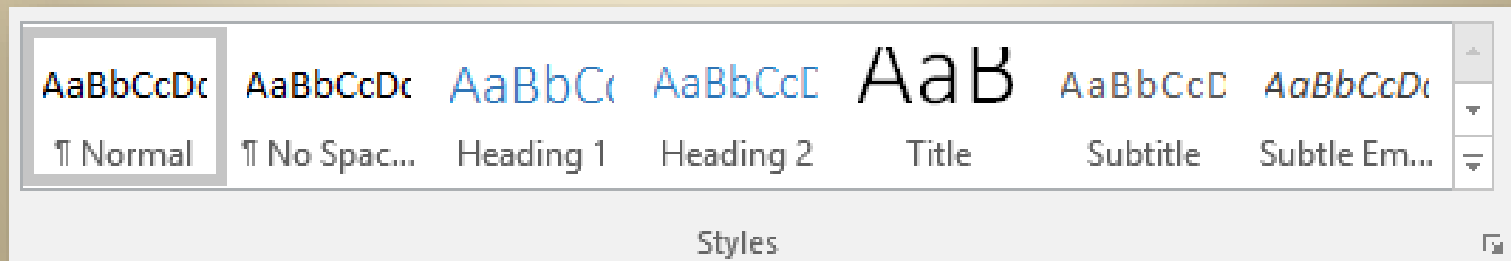
LAST NAME (2011)

List of Figures

Figure 1	This is your first figure. As it is in the introduction it could be a nice flow chart describing the main idea or process of your research. Also its green..	3
Figure 2	Life is like a box. You open it and expecting chocolate. If you are Forrest Gump you will find plenty. But your not, sorry. No candy for you..	4
Figure 3	Some people will consider this as art. Please print this picture out and ask the next best museum to give you a million \$. You're welcome..	5
Figure 4	Reminder, these picture descriptions are just examples.	6
Figure 5	Why are you reading these picture captions any way? Not that I would stop you, but this is only filling text used for this tutorial. So no point in reading it.	6

Styles and themes

- **Style** - a collection of Word formatting commands
- **Principle** - separate content and presentation (style)
- By combining various font and paragraph formats into a style, Word **saves you a lot of time and effort**
- Without styles, every part of your document needs to be formatted, you have to apply the same font, paragraph and other attributes again and again, every time it appears
- **All text in Word has a style**
- By default, Word uses the **Normal** style to format text
- **Theme** - a collection of styles



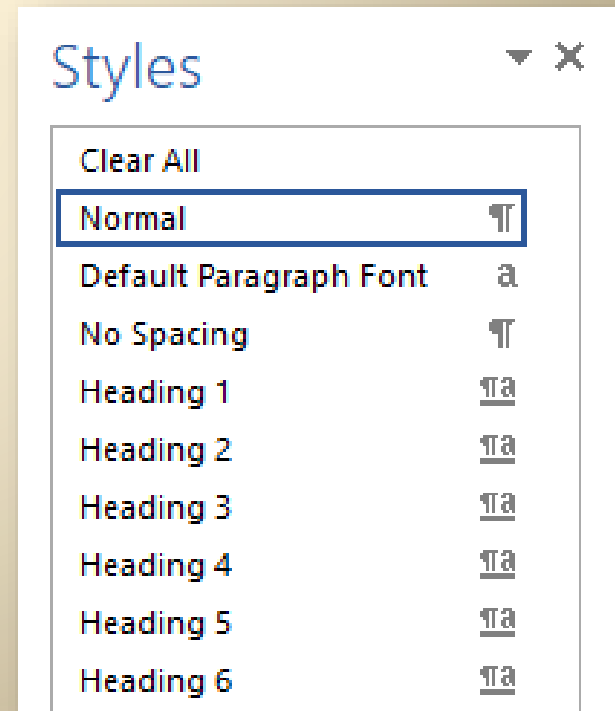
Styles group on Home ribbon with quick style shortcuts

Paragraph, character and linked styles

- **Character style** contain formatting options that **can be applied to selected text** (even single characters), such as font style, size, color, underline style, effects (superscript, subscript, small caps, etc)
 - marked with a character symbol: **a**
- A **paragraph style** includes everything that a character style contains, but it also controls all aspects of a paragraph's appearance, such as alignments, tab stops, line spacing, and borders.

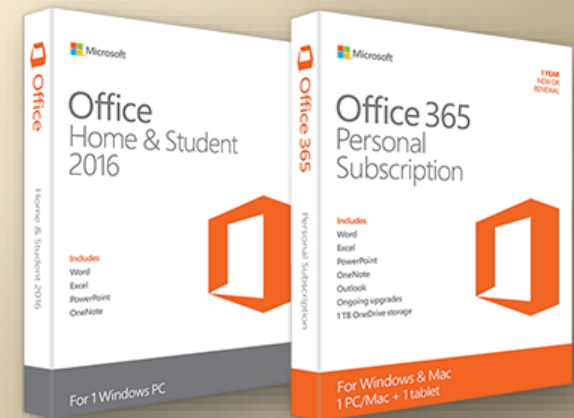
When you **apply** a paragraph style the formatting affects the entire paragraph

 - marked with a paragraph symbol: ¶
- A **linked style** behaves as either a character style or a paragraph style, depending on what you select
 - marked with: ¶a



Microsoft Word new features

- **Impressive formatting effects**
 - you can apply many of the **same effects** (as gradient fills, reflections, etc) **to text and shapes**
- **new and improved picture editing tools**
 - versatile artistic effects, advanced correction, color, and cropping tools
- **more customizable Office themes** to coordinate colors, fonts, and graphic formatting effects throughout your documents
- **new co-authoring capabilities**
 - you can now **edit** the same document, at the same time, as other team members in other locations
 - you can even **communicate** instantly as you work, directly from Word
- **„Tell me what you want to do ...”**
- **Smart Lookup** → **„Insights”** pane opens with definitions, Wiki articles, and top related searches from the web
- **Ink equations**



Cloud computing



Cloud (on-demand) computing

- What is the cloud? Where is the cloud? Are we in the cloud now?
- **Cloud computing** is the use of computing resources (hardware and software) that are delivered as a service over a network (typically the Internet)
- Cloud computing is at an early stage, with many providers, large and small services
- Cloud providers typically **store your data in different locations** for reliability (we don't know where exactly or how many copies they keep)
Identifying the exact location of all your data in the cloud is near impossible



Advantages

- Cloud providers generally use a **"pay as you go"** (PAYG) model, **charges based on usage**. No wasted resources, since users only pay for services procured
- **Fresh software:** always run the latest version of the applications
- **Always-on availability:** most cloud providers are **extremely reliable** in providing their services, with many maintaining 99.99% uptime
- **Improved mobility:** data and applications are available to users no matter where they are in the world
- **Flexible capacity:** cloud is the flexible facility that **can be turned up, down or off** depending up circumstances
- **Improved collaboration:** allow users to meet virtually and easily share information in real time and via shared storage



Cloud computing forms

Infrastructure as a Service (IaaS)

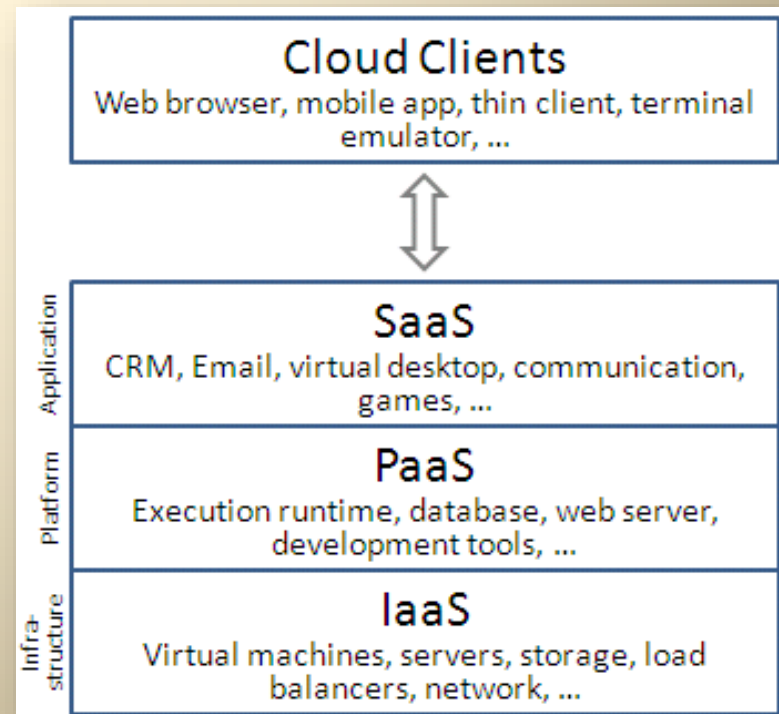
- One of the **three fundamental cloud computing form**, provides **computing infrastructure** (computing capacity, virtual servers, network connections, bandwidth, IP addresses), e.g. Amazon EC2, Google Compute Engine

Platform as a service (PaaS)

- **provides a platform allowing customers to develop, run, and manage applications**, e.g. Google App Engine, OpenShift, Microsoft Azure

Software as a Service (SaaS)

- This type of cloud computing **delivers a single application through the browser** to thousands of customers e.g. Google Docs, Microsoft Office Online, Zoho Office, **Prezi**



Microsoft Office Online

The screenshot shows the Microsoft Office Online homepage. At the top, there is a navigation bar with the Office Online logo on the left and links for Products, Templates, Store, Support, My account, and Sign in on the right. The main content area features a large heading "Collaborate with Office Online" and a sub-heading "Save documents, spreadsheets, and presentations online, in OneDrive. Share them with others and work together at the same time. Get started now, it's free!". Below this is a button labeled "See all Office options" and a link "Looking for your work or school sign in?". On the right side, there is a grid of application tiles: Word Online, Outlook.com, People, OneNote Online, PowerPoint Online, Calendar, Excel Online, and OneDrive. At the bottom, there is a footer with a "Change language" link, accessibility and privacy links, and a copyright notice for 2015 Microsoft.

Office Online

Products Templates Store Support My account Sign in

Collaborate with Office Online

Save documents, spreadsheets, and presentations online, in OneDrive. Share them with others and work together at the same time. Get started now, it's free!

[See all Office options](#)

[Looking for your work or school sign in?](#)

- Word Online
- Outlook.com
- People
- OneNote Online
- PowerPoint Online
- Calendar
- Excel Online
- OneDrive

[Change language](#) [Accessibility](#) [Privacy and Cookies](#) [Legal](#) [Trademarks](#) © 2015 Microsoft

OneDrive, Word, Excel, PowerPoint, ...

Prezi



Prezi is a **Hungarian software company**, producing a cloud-based (SaaS) presentation software for presenting ideas on a **virtual canvas**. The product employs a **Zooming User Interface (ZUI)**, which allows users to zoom in and out of their presentation media.

Cloud computing forms

Storage as a Service (SaaS)

- a cloud-based **storage solution**
- providers provide digital storage on their own infrastructure
- sync files with the desktop clients
- e.g. **Google Drive, Dropbox, Apple iCloud, Microsoft OneDrive (SkyDrive), Amazon Cloud Drive**

Cloud computing comes in three forms: private, public, hybrid cloud

Cloud computing might be more accurately described as **sky computing** with many isolated clouds of services, customers must plug into individually



Google Drive



iCloud



OneDrive

amazon cloud drive

Fog computing

- First everything was **in the cloud** but today's new buzzword is **fog computing**
- The problem with cloud computing is **bandwidth** → Fog computing solves the problem by keeping data closer
- **Fog computing** (fog networking, fogging) is a decentralized computing infrastructure in which data is store in the most logical, as close as possible (smart networking)
- still do not know where is the data



Related questions

- What is the document processing?
- What is the word processor and the word processing?
- List at least five different word processors!
- What does WYSIWYG mean and what does WYSIWYG stand for?
- Who was the head of Microsoft Office software developer group at the beginning?
- What is the word wrap?
- What's the difference between style and theme in MS Word?
- What are the different types of styles in MS Word and what is the difference between them?
- What does cloud computing mean?
- List some SaaS application!
- What's the difference between cloud and fog computing?