Engleski gramatika + informatika

# Gramatika

Use hyphens after the prefixes self-, ex- and half-( self-evident)

Use hyphens to join initial letters to words (e-mail)

Use hyphens to form adjectives or nouns from verbs to plug in – plug-in

Use hyphens with spelled-out numbers from twenty-one to ninety-one, with ages, numerals, lengths of time, and other measured amounts when they appear before the nouns they modify (three-dimensional object)

* half-term
* high-quality
* higher-level
* 18-year-olds
* Web-based
* technology-rich
* on-line
* e-learning
* brick-and-mortar
* service-oriented

## Present simple generally refers to:

1. Facts that are always true
2. Habits
3. States and permanent situations
4. Headlines
5. Instructions and itineraries
6. In sport commentaries
7. Summaries of events, a plot of a book/film
8. “Historic present” in narrative or funny stories

## Present continuous (also called progressive) generally refers to actions which are in progress at the moment:

1. Temporary
2. Actually in progress
3. Generally in progress but not actually happening at the moment
4. Repeated actions
5. Complaints about annoying habits (always, constantly, continually, forever)
6. With verbs describing change and development (is getting better/worse, more and more…)

## Past perfect simple is used:

1. to describe an action before it was completed by a specific point of time in the past.
2. 2. to describe an action before it was completed before another action in the past.
3. 3. with adjectives in the superlative form and expressions like It was the only/first/second…

## Past perfect continuous is used:

1. to emphasize the duration of an action that was in progress before another action or a specific point in the past.

2. to refer to an action whose duration cause visible results at a later point of time in the past

We use the Past simple to describe completed actions in the past. It is often used with time expressions such as last year, before PC was introduced, in 2008.

We use the Present perfect to describe past actions with present relevance.

**Function of an item**

We can describe the function of an item in a number of ways.

**Using the Present Simple**

ROM holds instructions which are needed to start up the computer.

**Used to - infinitive, Used for + -ing**

ROM is used to hold instructions which are needed to start up the computer.

ROM is used for holding instructions which are needed to start up the computer.

## TIME CLAUSES AND THE ORDER OF PAST EVENTS

After and before are commonly used in the sentences with the past perfect.

After I had added memory, I changed the BIOS settings.

I added memory before I changed the BIOS settings.

Before I got to the last line of code, the deadline had expired.

After the application deadline had expired, we received the grant.

A time clause can come first in a sentence. When it comes first, use a comma after it. A time clause can also come second in a sentence and then no comma is needed.

For repeated actions in the past: Would + verb

We would go to the seaside every year when I was a child.

For repeated actions, mostly past habits, and past states: Used to + verb

I used to eat a lot of chocolate (but now I don’t).As has already been noted would is the past equivalent of will when will is used for the ordinary future: He knows he will be late. He knew he would be late.

But notice that whereas would used for future or intention is restricted to subordinate clauses as in the above examples, wouldn't used for negative intention can stand alone: He won't help me today. (He refuses to help.) He wouldn't help me yesterday. (He refused to help.) "would" cannot be used in this way.

The auxiliary verb construction used to is used to express an action that took place in the past, perhaps customarily, but now that action no longer customarily takes place.

We used to take long vacation trips with the whole family.

Used to can also be used to convey the sense of being accustomed to or familiar with something: The tire factory down the road really stinks, but we're used to it by now.

## RELATIVE CLAUSES

A clause is a part of a sentence. A relative clause tells us which person or thing (or what kind of person or thing) the speaker means. They are connected with WHO, WHICH or THAT.

The participle can be –ed (the past participle), that is, the so-called third column of irregular verbs (-ed clauses have a passive meaning). Another form of the participle is–ing (the present participle).

If the defined word ‘does something’, use –ing participle; if somebody else does something to it, use the –ed participle.

## TEMPORAL RELATIONS USING WHEN, ONCE AND UNTIL

We use WHEN to show that once action happens immediately after another action, or that they happen simultaneously. . When you click on a URL, your browser sends it to a DNS server

ONCE means the completion of the first action. Usually, in time clauses starting with ONCE, we use the present perfect tense. Once you have clicked on a URL, your browser sends it to a DNS server

We use UNTIL and TILL to link sentences where we express the limit of an action. The packets are passed from router to router until they reach the Web server

We use BEFORE to show that one action happens before the other. The packets may travel by different routes before they reach the Web server. The packets may travel by different routes before reaching the Web server.

We can use AFTER show that one action happens after the other. After the packets travel by different routes, they reach the Web server. After travelling by different routes, the packets reach the Web server

We can use AS to link two connected actions that happen at the same time. . As the individual packets reach the Web server, they are put back together again. If the time clause (no matter what the linker is) comes before the main clause in the sentence, always use a comma.

## ZERO CONDITIONAL

The zero conditional is used to make statements about the real world, and often refers to general truths, such as scientific facts. In both parts of the sentence the simple present is used.

In zero conditional sentences, the tense in both parts of the sentence is the simple present.

If clause (condition) Main clause (result)

If + simple present simple present

If this thing happens that thing happens.

If you work on the computer too long, your eyes start hurting.

## must + infinitive, must + have + past participle.

The modal ‘must’ in the last example is used to express not obligation but a very great degree

of certainty.

Use must + infinitive if you are sure about something in the present.

• I checked all the hardware, so it must be some software problem.

Use must + have + past participle if you are sure about something in the past.

• I think I know what destroyed your files. It must have been a virus.

## Passive

Present simple passive

Information is transmitted by devices such as the telephone, radio, TV...

The user is charged only for the amount of data transmitted.

The digital data is then reduced by audio compression using codecs.

The compressed data is then broken into packets and sent across the Internet.

Present continuous passive

New technologies are being devised to allow you to watch TV on your mobile.

Past simple passive

The term cyborg was invented by M Clynes and N Kline in 1960.

Past continuous passive

My TV was being repaired, so I couldn’t watch the match.

Present perfect passive

It has been predicted that about one third of all work could eventually be performed outside

the workplace.

This has been made possible by technological advances in ‘bandwidths’.

Past perfect passive

The system had been infected by a virus.

Future simple passive

In the next few years, GPS chips will also be incorporated into most mobile phones.

Wap will quickly be replaced by new technology.

Modal verbs in the passive

It has been predicted that about one-third of all work could eventually be performed outside

the workplace.

Email addresses have to be keyed in via the numbers.

Frequent addresses can be stored in the memory and accessed easily

## Conditionals

a. If a virus attacks a computer, it prevents it from working properly. (zero conditional) - statement of general fact

b If a member wants a song, he will check the database to see who has it and will go directly there to get it. (first conditional) - condition that is possible/probable in the future.

c What would the world of business be like if every company had a digital nervous system which gathered data in real time from its internal processes and its external dealings with customers and suppliers? (second conditional) - condition which is improbable/impossible in the present

d If you had told me that you needed some advice, I would have helped you. (third conditional) - hypothetical statement about the past

Conditionals with modals refer to:

• possible situations in the present: If you come early, we can discuss the problem together.

• hypothetical situations: If I had the money, I could help you with your start-up.

• hypothetical past situations: If you hadn't reminded me, I might have forgotten.

Word Formation

En- as a prefix means "to cause to be something".

Verbs ending in -ise (US -ize) often have a causative meaning. New phones will revolutionise the way we communicate. = New phones will make a revolution in the way we communicate.

Cause and Effect

Allow, enable and permit are used with this structure:

Verbs+object + infinitive

Let is used with this structure:

Verbs + object + to-infinitive

Help can be used with both structures.

1. WHEN or IF : When/If you press the switch, the lights turn on.

2. BY + -ing : By pressing the switch, you turn on the lights.

3. And then : You press the switch and then the lights turn on.

4. Therefore : You press the switch, therefore the lights turn on.

5. Verb cause + Subj. + to + verb

6. Verb make + subj. + verb

Pressing the switch causes the lights to turn on./

You press the switch, which causes the lights to turn on./

You press the switch, which makes the lights turn on.

Pressing the switch makes the lights turn on.

7. Various causative verbs: activate, trigger, raise, lower, stop, start… + noun

You press the switch, which activates/starts the lights.

Stop / prevent + (subject) + (from) + -ing verb

Look at these two sentences:

The keyboard remains locked, and this stops/prevents you from using the PC. a1/ The keyboard remains locked, stopping/preventing your from using the PC

REPORTED STATEMENTS

When reporting what somebody said, the verb tenses from the direct speech move one tense

back in the past. Here is the list:

• Present simple, present continuous → past simple, past continuous

• Past simple, past continuous → past perfect, past perfect continuous

• Present perfect, present perfect continuous → past perfect, past perf. cont.

• Future ‘will’ → would

Note: the past perfect tense stays the same, doesn’t move back!

Time expressions also change in reported speech. Here is the list:

Yesterday → the day before

Tomorrow → the following day

The form of reported questions:

Reporting phrase + WH word + subject + (auxiliary) + verb.

She asked why I had applied for the job.

Reporting phrase + if/whether + subject + (auxiliary) + verb.

She asked me if I could type.

Note that there is NO INVERSION of subject and auxiliary in the reported question!

Some exceptions to the rule that verb tenses move back when the reporting verb is in the

past tense:

1. Tenses DO NOT move back when we report scientific facts or general truths:

◦ Teacher: “One byte has 8 bits.”

◦ The teacher said that one byte has 8 bits.

2. Tenses need not move back when we report the statement that is still

important or relevant in the moment of speaking.

◦ Bill: “I’m going to apply for this job!”

◦ Bill said that he’s going to apply for that job. (Bill still intends to apply for the

job.)

◦ ‘I’m going to resign from my job”.

◦ He said he’s going to resign from his job. (He still intends to resign).

After a past tense reporting verb, real situations include verb form changes.

If we leave now, we'll catch the train.

I told him that if we left then we’d catch the train.

In reported hypothetical situations, verb form changes are not made if the event has

reference to a possible future.

If you came back tomorrow, I’d be able to help you.

She said that if I came back the next day, she'd be able to help me.

If the event is clearly hypothetical and impossible, time changes are made.

If I had a spanner, I could fix it.

He said that if he had had a spanner he could have fixed it.

# Informatika & vokabular

**Information and communication technologies (ICT)** are the technology tools and resources used for communicating, creating, distributing, keeping and managing information. They include not only computing devices such as desktops and laptops, tablet computers, smart mobile phones, digital cameras, etc., but also different programs, applications and networks. ICT-based learning is called e-learning.

**Industrial internet** - the integration and linking of big data, analytical tools and wireless networks with physical and industrial equipment, or otherwise applying meta-level networking functions, to distributed systems.

**STEM** - an approach to learning and development that integrates the areas of science, technology, engineering and mathematics.

**Internet of Things** (IoT) - a system of interrelated computing devices, mechanical and digital machines provided with unique identifiers (UIDs) and the ability to transfer data over a network without requiring human-to-human or human-to-computer interaction.

## NETWORKS - DEFINITION AND TYPES

A computer network is a group of computer systems and other computing hardware devices that are linked together through communication channels to facilitate communication and resource-sharing among a wide range of users. Networks are commonly categorized based on their characteristics.

Networking allows two or more computer systems to exchange information and share resources and peripherals.

Networks are used to:

* + Facilitate communication via email, video conferencing, instant messaging, etc.
  + Enable multiple users to share a single hardware device like a printer or scanner
  + Enable file sharing across the network
  + Allow for the sharing of software or operating programs on remote systems
  + Make information easier to access and maintain among network users.

There are many types of networks, including: • Local Area Networks (LAN) • Personal Area Networks (PAN) • Home Area Networks (HAN) • Wide Area Networks (WAN) • Campus Networks • Metropolitan Area Networks (MAN) • Enterprise Private Networks • Internetworks • Backbone Networks (BBN) • Global Area Networks (GAN) • The Internet.

**A local area network (LAN)** is a computer network that interconnects computers within a limited area such as a residence, school, laboratory, university campus or office building. The elements of a LAN are cables, routers, computers, switch, server and clients.

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Description automatically generated

1 How many types of network are there? Networks are classified according to different criteria: • Geographical area: PANs (Personal Area Networks) typically include a laptop, a mobile phone and a PDA; LANs cover a building; MANs (Metropolitan Area Networks) cover a campus or a city; WANs (Wide Area Networks) cover a country or a continent. • Architecture: In a client-server network, a computer acts as a server and stores and distributes information to the other nodes, or clients. In a peer-to-peer network, all the computers have the same capabilities - that is, share files and peripherals without requiring a separate server computer. • Topology, or layout: In a bus network, all the computers are connected to a main cable, or bus. In a star network, all data flows through a central hub, a common connection point for the devices in the network. In a ring network, all devices are connected to one another in a continuous loop, or ring. • Network protocol: This is the language, or set of rules, that computers use to communicate with each other. Networks use different protocols. For instance, the Internet uses TCP/IP.

2 How do I install a wired modem router? A modem router is a device that connects your computer or home LAN to the Internet. • Plug one end of the phone cord directly into a phone jack, and the other end into the ADSL port on the router. • Plug one end of the Ethernet cable into your computer's network port and the other end into an Ethernet port on the router. • Turn on your computer. To set up, or configure, the router, you'll need to input some parameters, for example your ISP's name and phone number. NOTE: A router has various Ethernet ports, so you can connect various PCs to the router via Ethernet cables. If you already have a hub or switch connecting a LAN, you only need one cable to connect the hub to the router.

3 How do I log on to the Internet Service Provider? You need to type in your username and password. Once you are online, you can get email, look for information on the Web, look up IT words in dictionaries, try out new software, and sign up for RSS feeds, newsletters, etc. It is important that you remember to log off after using the Internet. An open line increases the risk of viruses, and hackers might break into your computer to steal confidential data.

4 What is wireless networking? Wired networks are linked by Ethernet cables, phone lines and high-speed fiber optic cables. Wireless networks, however, use electromagnetic waves, such as radio waves, to transmit data. These are the main types of wireless networks: • Satellites - for long distances • WiMAX - for connecting hotspots • Wi-Fi for medium-range distances • Bluetooth - for short distances • GSM - for mobile phones

5 What do I need to set up a home wireless LAN? You'll need computers equipped with a wireless adapter or wireless card, a wireless access point (a wireless router) and a broadband internet connection.

6 Which is better, a wired or wireless LAN? Wired LANs are more difficult to install, but they are cheaper, faster and more reliable. Wireless networks let you move, or roam, from one access point to another, but they are less secure and subject to interference.

Wide Area Network (WAN) is a collection of computers and network resources connected via a network over a geographic area. WANs have no geographical limit and may connect computers or LANs on opposite sides of the world. They are usually linked through telephone lines, fibre-optic cables or satellites. The main transmission paths within a WAN are high-speed lines called backbones. The largest WAN in existence is the Internet.

Topology refers to the shape of a network. There are three basic physical topologies:

• Star: there is a central device to which all the workstations are directly connected. This central position can be occupied by a server) or a hub, a connection point of the elements of a network that redistributes the data. • Bus: every workstation is connected to a main cable called a bus. • Ring: the workstations are connected to one another in a closed loop configuration. There are also mixed topologies like the tree, a group of stars connected to a central bus.

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**A bridge (most)** is a hardware and software combination used to connect the same type of networks. Bridges can also partition a large network into two smaller ones and connect two LANs that are nearby each other.

**A router (ruter)** is a special computer that directs communicating messages when several networks are connected together. High-speed routers can serve as part of the Internet backbone.

**A backbone (okosnica)** is the main transmission path, handling the major data traffic, connecting different LANs together.

**A LAN** is a network contained within a small area (e.g. a company department).

**A gateway** (ulaz/izlaz; mrežni prolaz) is an interface that enables dissimilar networks to communicate, such as two LANs based on different topologies or network operating systems.

**A modem** is a device for converting digital signals to analogue signals and vice verse to enable a computer to transmit and receive data using an ordinary telephone line.

A close up of a text

Description automatically generated

but a dumb terminal does not have a processor and all the processing must be done by the server computer.

WORLD WIDE WEB

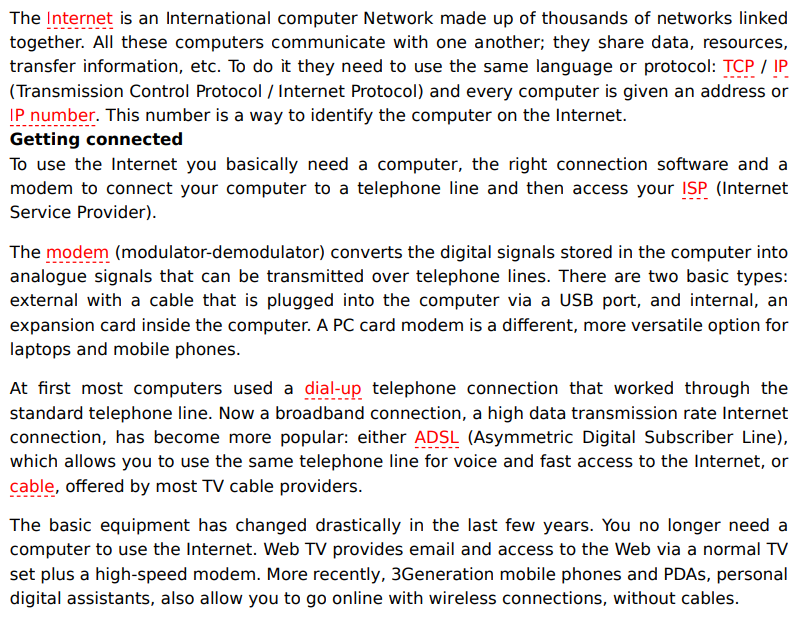
The World Wide Web (WWW) is an information space where documents and other web resources are identified by URLs, interlinked by hypertext links, and can be accessed via the Internet. Web pages are primarily text documents formatted and annotated with Hypertext Markup Language (HTML). Embedded hyperlinks permit users to navigate between web pages. Multiple web pages with a common theme, a common domain name, or both, may be called a website. Website content can largely be provided by the publisher, or interactive where users contribute content or the content depends upon the user or their actions.

URL means Uniform Resource Locator — the address of a file on the Internet. In this URL, http:// means Hypertext Transfer Protocol and tells the program to look for a web page. www means world wide web. bbc.co.uk is the domain name of the server that hosts the website. ; radio is the directory path where the web page is located. The parts of the URL are separated by . (dot), / (slash) and : (colon).

A close-up of a computer code

Description automatically generated

The URI is the address of the page. When you do that, the browser sends the URI to a DNS server. The DNS server is the Domain Name Server. It uses a look-up table to find the IP address of the Web server referred to in the URL. Once the DNS server has found the IP address, it sends it back to the browser. The browser then uses this IP address to send a request to the Web server. The request is sent as a series of separate data packets which include both the IP address of the Web server and the IP address of the browser computer. The packets are passed from router to router until they reach the Web server. They may travel by different routes before reaching the server. As the individual packets reach the Web server, they’re put back together again. As the packets arrive at the browser computer, they’re combined to form the you requested and are displayed in your browser.



**An Internet service provider (ISP)** is an organization that provides services accessing and using the Internet.

A website is a place connected to the Internet, where a company or an organization, or an individual person, puts information.

To build a website you could learn how to write HTML tags, the coded instructions that form web pages, or else use an HTML editor, a WYSIWYG (What You See Is What You Get) application that converts a visual layout into HTML code. A simpler option is to use a web template provided by a web-based site builder, where you just fill in the information you want on the page.

Responsive Web Design is about using HTML and CSS to automatically resize, hide, shrink, or enlarge, a website, to make it look good on all devices.

Web server (a server computer that stores and provides access to webpages) is known as a website. A Webmaster is a person who sets up and maintains a website.

## COMPUTING SUPPORT

Computing support involves setting up and maintaining computing systems and solving hardware (the physical components of a computer system) and software (programs and data) problems. It is usually the failure of the hard disk inside a computer that is referred to as a crash. New computers often carry a one-year warranty that enables users to seek help by contacting computing support personnel at a designated help center. Each computer has a unique serial number for identification, along with a service tag number specifying its warranty details for support staff. Support teams typically assign a job number to distinguish specific fault reports, often recorded on specialized forms detailing the issue. Resolving problems usually requires information about the computer's type, processor, RAM capacity (the memory storing user programs and data during use), and the operating system.

## COMMUNICATION SYSTEMS

Communication systems are the various processes, both formal and informal, by which information is passed between the managers and employees within a business.

Computer-mediated communication (CMC) can be either synchronous, where the users can communicate with each other at the same time in real-time i.e. immediately, enabling interactive communication; or it can be asynchronous, where messages are sent to a user who receives them and replies at a different time

## VOICE OVER INTERNET PROTOCOL (VOIP)

Voice over Internet Protocol (VoIP) is a technology for communicating using "Internet protocol" instead of traditional analog systems. VoIP converts the voice signal from your telephone into a digital signal that can travel over the Internet. If you are calling a regular telephone number, the signal is then converted back at the other end.

The digital data is then reduced by audio compression using codecs\*. These operate in a similar way to MP3, which compresses music files. The compressed data is then broken into packets and sent across the Internet.

Jitter is the term is the term used for differences in the time packets to arrive. VoIP uses a buffer at the receiving end to store and sequence packets. In this way, the differences are smoothed out but this can cause delays. Latency is the delay between the packets reaching the receiver and you hearing the sound.

VoIP spam or SPIT (Spam over Internet Telephony) are bulk unsolicited, automatically dialled, pre-recorded phone calls using the Voice over Internet Protocol (VoIP).

## Software Engineering

Software Engineering is the study of how software is designed, developed and maintained.

Software engineering is the discipline of designing high quality software solutions. Software consists of programs (sets of instructions for controlling a computer) and data (the material that has to be processed). Programs are written in computer languages by people called programmers. A systems analyst is a person who designs or modifies information systems to meet users’ requirements. This includes investigating feasibility and cost, producing documentation, and testing prototypes of the system. Producing a program, therefore, involves a number of stages including: a clarifying the problem by considering the requirements of the potential users b designing the solution to the problem by first deciding on the overall structure of the solution c coding the program by first choosing an appropriate programming language and inputting the program code d testing and debugging the program (identifying and fixing any problems or faults in the program code) e documenting and maintaining the program including writing instructions for using the program.

The waterfall model is a relatively linear sequential design approach for certain areas of engineering design. Conception /kənˈsepʃn/ • Initiation /ɪˌnɪʃiˈeɪʃn/ • Analysis • Design • Construction • Testing • Deployment /dɪˈplɔɪmənt/ and • Maintenance /ˈmeɪntənəns/

Object-oriented programming (OOP) is a programming paradigm based on the concept of "objects".

Encapsulation is an OOP concept that binds together the data and functions that manipulate the data. Perhaps the key feature at OOP is encapsulation - bundling data and program instructions into modules called "objects".

Inheritance allows classes to be arranged in a hierarchy that represents "is-a-type-of" relationships

A polymorphic type is one whose operations can also be applied to values of some other type, or types. This means that different objects can receive the same instructions but deal with them in different ways.

Converting to new computer systems can be done in different ways. Each strategy has its advantages and disadvantages. These include: a direct implementation where the old system is simply removed and the new system installed. In this strategy only one system is used at any one time but there is no fall back (alternative system that can be used if problems occur in the main system) if the new system does not operate properly. b parallel implementation where the old and the new systems are both used at the same time until the users are satisfied that the new system is working properly c phased implementation where the old system is gradually replaced by the new system, one part at a time d pilot implementation where the new system is tried out in one section of the company to make sure that it works as required.

## Data Security

Computer crime is an act performed by a knowledgeable computer user, sometimes referred to as a hacker that illegally browses or steals a company's or individual's private information.

A computer virus is a very small program routine that infects a computer system and uses its resources to reproduce itself.

A virus, whether biological or computer-based, operates similarly by infecting a host and using it to replicate. In computers, a virus is a small program that infiltrates systems, often by embedding itself into files like COM or EXE files. Once executed, it loads into memory, residing there to infect other programs until the system is shut down. Some viruses remain dormant until triggered, unleashing their payload, which can range from harmless actions like displaying messages to destructive ones like file deletion.

Typically, a virus alters the execution sequence of a host program, using a JUMP command to prioritize its own instructions. While a program only needs a reproduction routine to be classified as a virus, it can have additional components: a hiding mechanism, a reproduction routine, a trigger for activating the payload, and the payload itself, which could be benign or highly destructive. A program with a payload but lacking a reproduction routine is termed a Trojan.

Viruses usually have four main parts: misdirection routine, reproduction routine, trigger and payload. It infects other programs i.e. it attaches itself to other programs, known as host programs , and therefore reproduces itself. It operates by replacing the first instruction in the host program with a JUMP command. This is a command that changes the normal instruction sequence in a program, causing the virus instructions to be executed processed by the processor) before the host program instructions.

## GDPR and Learning Management Systems

GDPR is designed to protect individuals’ personal data and give people in the European Union more control over how their personal information is used.

GDPR defines personal data broadly, encompassing any information identifying a person directly or indirectly. This includes various details collected in online platforms like names, email addresses, and even pseudonymous data that could reveal someone's identity. Its scope covers both automated and non-automated processing, ensuring structured data falls under regulatory measures.

The regulation's impact extends globally, affecting any entity offering services to EU citizens, necessitating clear user information, explicit consent, and the right for users to control and delete their data. Compliance involves creating understandable site policies to meet GDPR requirements within learning management systems and other online platforms.

## ACRONYMS

NHS National Health Service

LSE London School of Economics

ICT information and communications technology

CAL computer assisted learning

LMS learning management system

CLI command line interface

GUI graphical user interface

HCI human-computer interaction

HTML hypertext markup language

HTTP hypertext transfer protocol

ISP lnternet service provider

RAM random-access memory

ROM read-only memory

URL uniform resource locator

USB universal serial bus

VLE virtual learning environment

WIMP windows, icons, menus, pointers

LAN [el ei en] = Local area network

CMC [si: em si:] = Computer Mediated Communication

IRC [ai a: si:] = Internet relay chat

MOO [mu:] = multi-user object-oriented

ISP [ aj es pi:] = Internet service provider

WWW [dΛbl ju: dΛbl ju: dΛbl ju:] = World Wide Web

TCP [ti: si: pi:] = Transmission Control Protocol

IP [ai pi:] = Internet Protocol

UDP [ju: di: pi:] = User Diagram Protocol

FTP [ef ti: pi:] = File Transfer Protocol

SMTP [es em ti: pi:] = Simple Mail Transfer Protocol

BIOS [baios] = Basic Input Output System

GPRS [dzi; pi: ar es] = general packet radio service

Wap [waep] = wireless application protocol

WML [dΛbl ju: el] = wireless markup language

SMS [ es em es] = short message service

ISDN [ai es di: en] = Integrated Services Digital Network

DSL [di: es el] = Digital Subscribar Line

ADSL [ei di: es el] = Asymmetric Digital Subscriber Line

GPS [dz: pi: es] = Global Positioning System

computer-assisted learning ( CAL)

learning management system ( LMS)

1. arrest - (formal) to stop a process or a development

2. delivery - the act of making a service or information available to people

3. postpone - to arrange for an event, etc. to take place at a later time or date than originally planned; put of

4. responsive to - reacting quickly and in a positive way

5. notice - information or a warning given in advance of something that is going to happen; warning

6. stance on (something) - the opinions that somebody has about something and expresses publicly

7. turmoil - a state of great worry in which everything is confused and nothing is certain; confusion

acquisition - sticanje/akvizicija

assessment - procena/ocenjivanje

collaboration - saradnja/saradnji

instruction - instrukcija/nastava

announcement - obaveštenje/saopštenje

indication - pokazatelj/indikacija

congregation - okupljanje/kongregacija

examination\* - ispit/pregled

residence - boravište/stanovanje

1. contemplative - thinking quietly and seriously about something

2. elusive - difficult to find, define or achieve

3. nascent - . beginning to exist; not yet fully developed

4. converge - to move towards each other and meet at a point

5. distinguished - very successful and admired by other people

6. constrain - to limit somebody/something

7. significantly - . in a way that is large or important enough to have an effect on something or to be noticed

contemplate - razmatrati/promišljati

elude - izbeći/izmaći

comprehend - razumeti/shvatiti

suffice - biti dovoljan/zaovoljavati

secure - obezbediti/osigurati

distinguish - razlikovati/istaknuti

Fellowship - an award of money to a graduate student to allow them to continue their studies or to do research

in tatters – idiom -torn in many places

His clothes were in tatters.

foremost- adj - the most important or famous; in a position at the front

I'd like to introduce you to the world's foremost authority on the subject.

think tank - n - a group of experts who provide advice and ideas on political, social or economic issues

o a study published by a leading economic think tank

set the pace - to do something at a particular speed or to a particular standard so that other people are then forced to copy it if they want to be successful

o The company is no longer setting the pace in the home computer market.

thriving - adj - continuing to be successful, strong, healthy, etc.

o a thriving industry

barge in - phrasal verb - barge in (on somebody/something) - to enter a place or join a group of people, rudely interrupting what somebody else is doing or saying

o I hope you don't mind me barging in like this.

o He barged in on us while we were having a meeting.

mull over - phrasal verb - mull something over: to spend time thinking carefully about a plan or proposal synonym consider

o I need some time to mull it over before making a decision.

call centre /’kɔl sentɔ(r)/, Am. spelling ‘center’

help centre, helpdesk, helpline

warranty /ˈwɒrənti/ = gurarantee

cleared = solved

commence /kəˈmens/ = start

diagnosis ˌdaɪəɡˈnəʊsɪs/ plural ‘diagnoses’ /ˌdaɪəɡˈnoʊsiːz/

to diagnose /ˈdaɪəɡnəʊz/ - vRAID [reid] = redundant array of inexpensive disks: this is not related to the verb ‘to raid’ !

to raid = to attack a place without warning(remember ‘Tomb raider’?)

array [ə’rai] = arrangement, order

to seek [si:k]= to search

fault tolerance- enables a system to continue operating properly in the event of the failure of

some of its components

throughput = rate of processing

. Computer hang is when

computer stops processing while executing a program, while computer crash is when the

computer stops working

Drive fragmentation is when the computer performs less efficiently because data is stored on the hard disk in different places.Cyberslacking means using a company’s Internet access for activities which are not workrelated, e.g. emailing friends, playing games, etc.; it is also called ‘cyberloafing’ or

'goldbricking'.

Cyberpunk is a subgenre of science fiction in a dystopian futuristic setting that tends to focus on a "combination of low-life and high tech" featuring advanced technological and scientific achievements, such as artificial intelligence and cybernetics,

Cyberloafing is a term used to describe the actions of employees who use their Internet access at work for personal use while pretending to do legitimate work

DNS [di: en es] = domain name system

Retail [riteil] = prodaja na malo

1. ROUTER (ruter) - Device that links different networks, determines the path for the signa

2. BACKBONE (okosnica, glavni deo mreže) - Transmission path, handling major data traffic, connecting different LANs

3. HUB (hab, zajednička vezna tačka) - Every host is connected to a central… It is the device at the centre of a star network.

4. THIN CLIENT (laki klijent) - Basic computer with no CD-ROM or floppy drive or expansion slots in a network

5. GATEWAY (ulaz/izlaz; mrežni prolaz) - Interface for dissimilar networks

6. BRIDGE (most) - Connects same type of networks, partition large network into smaller one

7. CLIENT (klijent) - Network computer for accessing a service on a server

scam (a clever and dishonest plan for making money).

abuse /əˈbjuːz/ -v- use for illegal, criminal, or evil purposes • misuse /mɪsˈjuːz/ -v- use for a purpose other than intended

ransomware (an insidious type of malware that encrypts, or locks, valuable digital files and demands a ransom to release them),

A flowchart is a type of diagram that represents an algorithm, workflow or process, showing the steps as boxes of various kinds, and their order by connecting them with arrows.

\*disc or disk?

A disc refers to optical media, such as an audio CD, CD-ROM, DVD-ROM, DVD-RAM, or DVDVideo disc.

A disk refers to magnetic media, such as a floppy disk, the disk in your computer's hard

drive, an external hard drive.

Hacking: gaining unauthorised access to a network system

Salami shaving: manipulating programs or data so that small amounts of money are

deducted from a large number of transactions or accounts and accumulated elsewhere.The

victims are often unaware of the crime because the amount taken from any individual is so

small.

Trojan horse: a technique that involves adding concealed instructions to a computer

program so that it will still work but will also perform prohibited duties. In other words, it

appears to do something useful but actually does something destructive in the background.

Denial of service attack: swamping a server with large numbers of requests

Trapdoors: a technique that involves leaving, within a completed program, an illicit program

that allows unauthorised - and unknown – entry

Mail bombing: inundating an email address with thousands of messages, slowing or even

crashing the server

Software piracy: unauthorised copying of a program for sale or distributing to other users

Piggybacking: using another person's identification code or using that person's files before

he or she has logged off (disconnected from a network account)

Spoofing: tricking a user into revealing confidential information such as an access code or a

credit- card number

Defacing: changing the information shown on another person's website

Hijacking: redirecting anyone trying to visit a certain site elsewhere

Data Diddling: the changing of data before or during entry into the computer system or

altering the raw data just before it is processed by a computer and then changing it back after

the processing is completed. Using this technique the criminal can manipulate the output and

it is not so easy to identify. But using cyber forensic tools we can trace out when the data was

changed and changed it back to the original form.Memoization or memoisation is an optimization technique used primarily to speed up computer programs by storing the results of expensive function calls and returning the cached result when the same inputs occur again.

bandwidth - propusni opseg

broadband - širokopojasni

buffer - bufer; mehanička zaštita (spoljni omot)

jitter - džiter

latency - latencija

mitigation - mitigacija, sprečavanje, zaštita, ublažavanje

supplant - zameniti

susceptiveness - susceptibilnost (tendencija kola da hvataju šum i niskofrekventnu

indukciju)

unsolicited event - događaj u komutaciji koji se dešava bez kontrole programa koji treba da

kontroliše telefon

copyright - zaštita autorskog prava, pravo objavljivanja

infringement - povreda zakona

pursuant to - na osnovu (člana zakona...)

section - odeljak u zakonu

equate to = to be equal to something else

amounts to = to be equal to or the same as something

to be liable for - to be legally responsible for paying the cost of something

lawsuit - tužba

brief - a legal case that is given to a lawyer to argue in court; a piece of work for a barrister

(srp. podnesak); OR the instructions that a person is given explaining what their job is and

what their duties are

to stick to your brief (= to only do what you are asked to do)

(in) damages - naknada štete, odšteta, dosuđeni iznos naknade štete

co-opt somebody (onto/into something) - to include somebody in something, often when they

do not want to be part of it

specialized appeals court - specijalni žalbeni/apelacioni sudamount to copyright infringement - to be equal to the infringement claim

concede /kənˈsiːd/ to admit that something is true, logical, etc.

verbatim /vɜːˈbeɪtɪm/ exactly as spoken or written synonym; word for word, doslovno, od reči

do reči

auction something off to sell something at an auction, especially something that is no longer

needed or wanted

stash noun /steʃ/ (informal) an amount of something that is kept secretly (zaliha, skrovište…)

a stash of money

asset noun /ˈaeset/ a thing of value, especially property, that a person or company owns,

which can be used or sold to pay debts the net asset value of the company (aktiva, imovina,

kapital)

Her assets include shares in the company and a house in France.

ill-gotten adjective /ˌɪl ˈɡɒtn/ (old-fashioned or humorous) obtained dishonestly or unfairly

(nepošteno stečen)

1.Webmaster - The person responsible for setting up and maintaining an organisation’s Internet website

2.Help-desk troubleshooter - A person who, by phone or computer, advises users on software and hardware problems

3.Applications programmer - A programmer who codes applications software

4.Security specialist - The person responsible for ensuring that an organisation’s hardware, software and data are protected from computer criminals, accidental damage and loss

5. Systems programmer - A person who codes systems software, fine- tune

Necessity = something that is necessary, potreba

Obligation = something that you must do, obaveza

Requirement = something that somebody else what you to do or have, zahtev

Prohibition = something that is prohibited, not allowed, zabranas operating system performance, and handles other systems software-related tasks

frivolously = frivolno, bezbrižno, veselo

eventually [iventςəli] = napokon, na kraju

voluntarily = dobrovoljno

dobri zadaci

1. Blaise Pascal \_\_\_\_\_ (invent) Pascaline in 1645 to calculate taxes.

2. By the end of the 19th century, many of these principles \_\_\_\_\_ (still, use) in tabulating

machine.

3. During the early history of software development, the repository was indeed a person—the

programmer who had to remember the location of all information relevant to a software

project, who had to recall information that was never written down and reconstruct

information that \_\_\_\_\_ (be) lost.

4. Attempting to collect measures where none \_\_\_\_\_ (collect) in the past often precipitates

resistance.

5. On December 7, 1995, we \_\_\_\_\_ (hold) our first Internet Day, where for the first time we

publicly \_\_\_\_\_ (display) the range of technologies we \_\_\_\_\_ (develop) to build Internet support

into our products.

6. In 1993 we \_\_\_\_\_ (concentrate) on the Internet. It was a fifth or sixth priority.

Key

1. invented (Past simple - to describe a completed action in the past when the time

is mentioned: here "in 1645").

2. were still being used (Past continuous - to describe an action in progress at a

certain time in the past: here "by the end...").

3. had been (Past perfect - to describe an action that happened before the action

we talk about. It happened previously: here this information had been previously lost,

not at that moment)

4. had been collected Past perfect - to describe an action that happened before

the action we talk about. It happened previously: here these measures had not been

previously collected in the past, not at that moment)

5. held, displayed (Past simple - to describe a completed action in the past when the

time is mentioned: here "in 1995"), were developing (Past continuous - to describe

an action in progress at a certain time in the past.

6. were not concentrating (Past continuous - to set the scene to a story with the

action that was in progress at hat time)