Project No.: 618103-EPP-1-2020-1-PS-EPPKA2-CBHE-JP

Edu4ALL

Disability as diversity: The inclusion of students with disabilities in higher education

Deliverable D4.1.3	**Edu4ALL First Webinar – Feb 2022**

Work Package (WP)	WP4 - Dissemination and Exploitation Title: Edu4ALL Implementation and Dissemination
WP Leader	The University of Jordan
WP members	Palestine Technical University Kadoorie National & Kapodistrian University of Athens University of the Basque Country Irbid National University Partners for Sustainable Development The University of Jordan Al-Ummah University College Palestine Technical College Int@E UG
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Project partners

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Palestine
Coordinator

National and Kapodistrian University of Athens
Greece

The University of the Basque Country
Spain

Irbid National University
Jordan

Partners for Sustainable Development
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The University of Jordan
Jordan

Al-Ummah University College
Palestine

Palestine Technical College
Palestine

Int@E UG
Germany

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3 List of Acronyms

This table shows the acronyms used in this deliverable in alphabetical order.

Table 1. List of Acronyms

Acronym	Description
EC	European Commission
EU	European Union
HE	Higher Education
HEI	Higher Education Institution

4 Executive Summary

As a part of dissemination, on the 15th of February 2022, UJ as the leader of the dissemination work package organized the first webinar entitled "Edu4ALL: Empowering and Including Students with disabilities in Higher Education". The main aim of the webinar is to introduce the Edu4ALL project and to promote the inclusion of students with disabilities in higher education.
This document is a deliverable related to the Edu4ALL project and aims at reporting the main activities which have been carried out at the Webinar.

5 Introduction

The level of care of people with disabilities is a basic criterion for measuring the civilization of nations and their development. By 2050, 937.5 billion persons with disabilities are anticipated to be living worldwide. People with disabilities have the right to equal opportunities in all areas of life (including Education) as well as to live in dignity and freedom. According to the United Nation (UN) convention of the right of people with disabilities, all people have the right to equal education without discrimination and on the basis of equal opportunity. The UN convention mentioned that people with disabilities can access an inclusive education on an equal basis with others in the communities in which they live. Inclusive education means when all students, regardless of any challenges they may have, are placed in one class room to receive high-quality instruction, interventions, and supports that enable them to meet success in the core curriculum.

As a part of dissemination, on the 15th of February 2022, UJ as the leader of the dissemination work package organized the first webinar entitled "Edu4ALL: Empowering and Including Students with disabilities in Higher Education". The main aim of the webinar is to introduce the Edu4ALL project and to promote the inclusion of students with disabilities in higher education. It aims at raising the awareness and illustrating the role of inclusive education and its impact for building the capacity of students with disabilities. More than 150 participants attended the webinar.

6 Objectives of the Deliverable

This document is a deliverable related to the Edu4ALL project and aims at reporting the main activities which have been carried out at the webinar.

7 Methodology

The webinar has been organised by UJ via zoom from 17:00 – 19:00. Figure.1 shows the Invitation and the agenda of the webinar. Dr. Ismail, the host, opens the webinar and welcomes all attendees. He introduces the speakers of the webinar: Dr. Eman Daraghmi (the project coordinator) from PTUK, Dr. Georgios Kouroupetroglou from UoA, and Dr. Nestor Garay from UPV/EHU.

Dr. Eman gave a presentation to introduce the Edu4ALL and illustrate the project main goals and objectives which is establishing an "Inclusive Education Unit" or Accessibility Unit that follows the international standards with the objective of equality in Education, Activities, and Services for students with disabilities. Edu4All is an innovative project to empower students with disabilities academically, socially, and psychologically through 4 goals: 1) reach; 2) development; 3) equity& quality;4) sustainability. Edu4ALL aims to reach students with disabilities and to build their capacity by including them in universities programs and increasing the successful participation of them; to build the capacity of staff (lecturers, administrative, and technician) and to ensure they are well trained for teaching and serving students with disabilities; to ensure that the educational experiences that students receive are high quality; and to ensure sustainability. The institution and classroom will operate on the premise that students with disabilities are as fundamentally competent as students without disabilities. Therefore, all students can be full participants in their classrooms and in the local institution community. Dr. Georgios Kouroupetroglou from UoA gave a presentation about the assistive technologies and digital accessibility. Dr. Nestor from UPV/EHU presented the University Level Services for students with disabilities. Fruitful Discussion and questions took place during the webinar.

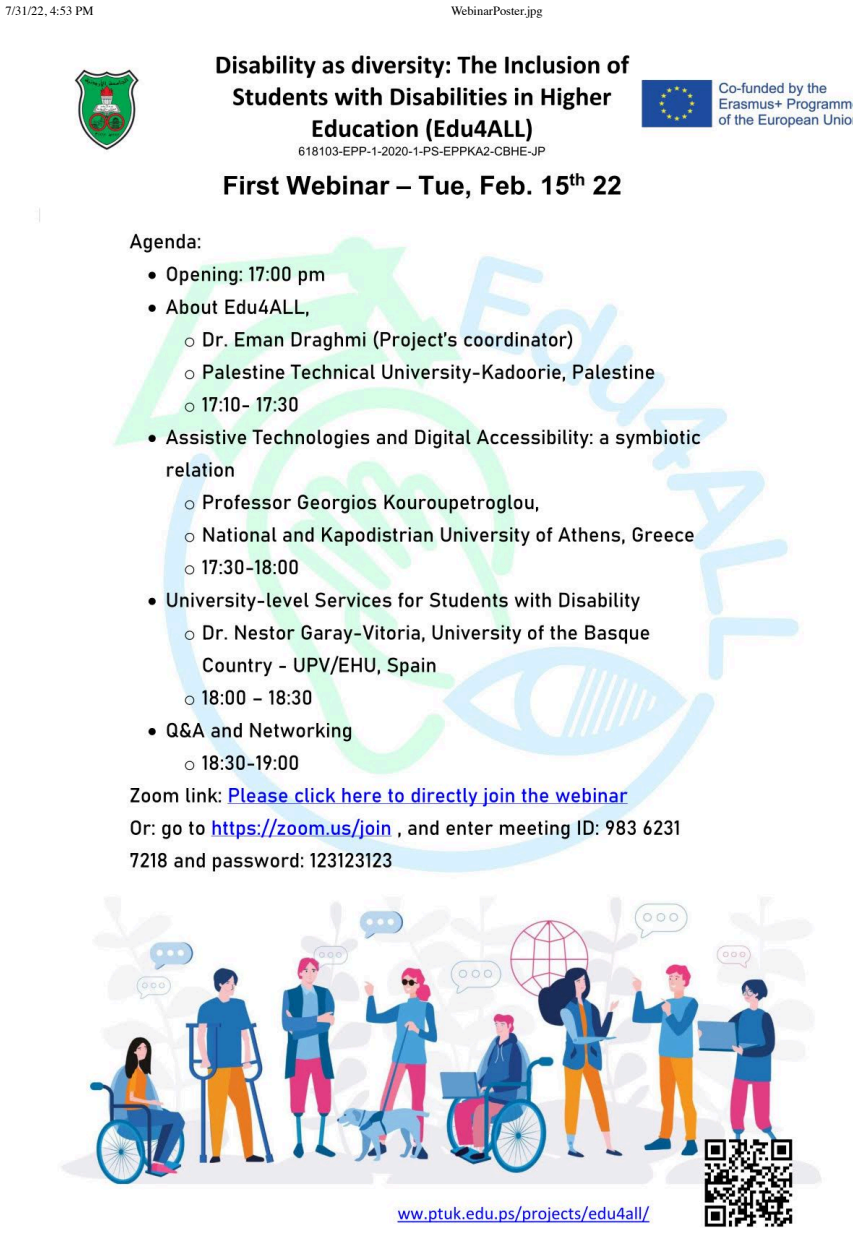

Figure 1. Webinar Invitation and Agenda

7.1 Presentations

7.1.1 Dr. Eman Presentation

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Edu4ALL
Project No.: 618103-EPP-1-2020-1-PS-EPPKA2-CBHE-JP
Disability as diversity: The inclusion of students with disabilities in higher education
Dr. Eman Daraghmi
Associate Professor
Applied Computing
PTUK
Project Coordinator
15 February 2022
Palestine Technical University Kadoorie

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Who we are?
Project Partners
Palestine Technical University Kadoorie
Palestine
Coordinator
National and Kapodistrian University of Athens
Greece
The University of the Basque Country
Spain
Irbid National University
Jordan
Partners for Sustainable Development
Palestine
The University of Jordan
Jordan
Al-Ummah University College
Palestine
Palestine Technical College
Palestine
INT@E
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Germany
15 February 2022
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Edu4ALL
Edu4ALL website https://www.ptuk.edu.ps/projects/edu4all/
Edu4ALL Facebook https://www.facebook.com/Edu4ALL.EU/
Edu4ALL Twitter https://twitter.com/edu4allsocial?s=11
Edu4ALL YouTube
https://www.youtube.com/channel/UCTR6E5ft8Ghn84GLeWJaW7A
Edu4ALL LinkedIn https://www.linkedin.com/company/edu4allsocial/
15 February 2022
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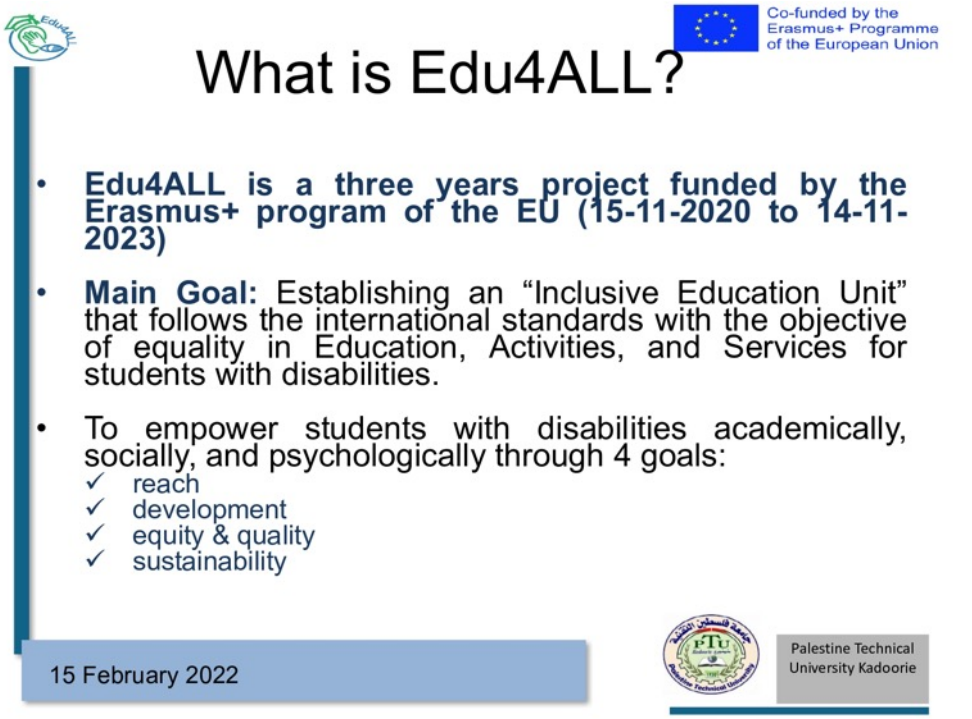
University Kadoorie


Co-funded by the
Erasmus+ Programme
of the European Union
What is Edu4ALL?
Edu4ALL is a three years project funded by the Erasmus+ program of the EU (15-11-2020 to 14-11-2023)
Main Goal: Establishing an "Inclusive Education Unit" that follows the international standards with the objective of equality in Education, Activities, and Services for students with disabilities.
To empower students with disabilities academically, socially, and psychologically through 4 goals:
✓ reach
✓ development
✓ equity & quality
✓ sustainability
15 February 2022
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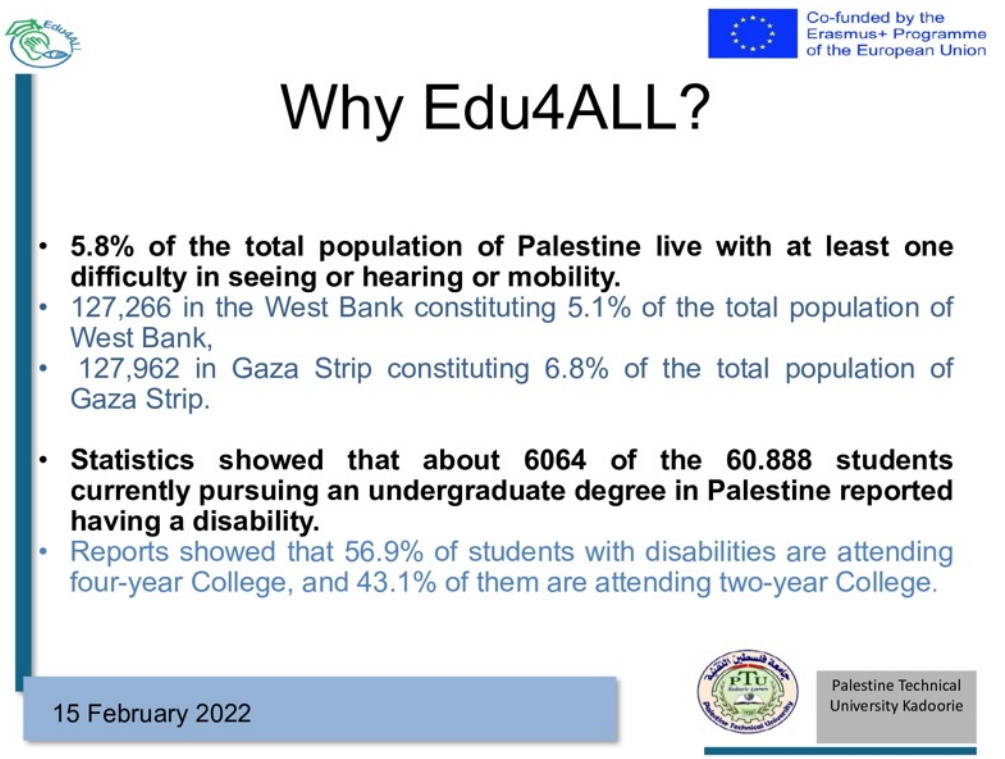
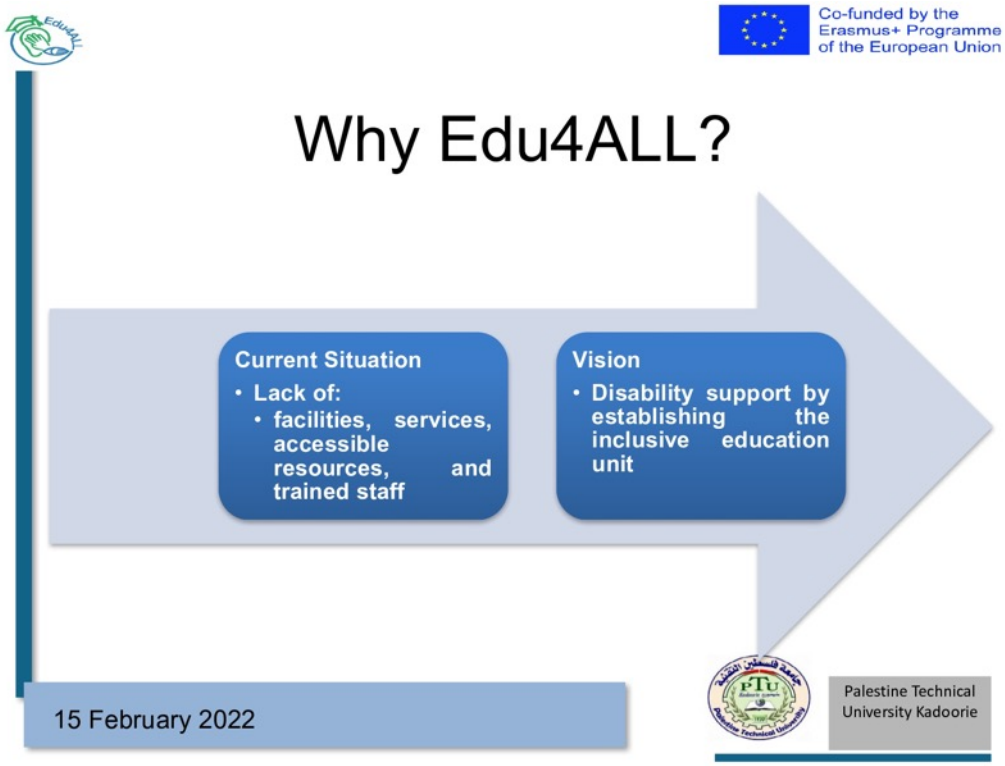

Co-funded by the Erasmus+ Programme of the European Union
Why Edu4ALL?
• 5.8% of the total population of Palestine live with at least one difficulty in seeing or hearing or mobility.
• 127,266 in the West Bank constituting 5.1% of the total population of West Bank,
• 127,962 in Gaza Strip constituting 6.8% of the total population of Gaza Strip.
• Statistics showed that about 6064 of the 60.888 students currently pursuing an undergraduate degree in Palestine reported having a disability.
• Reports showed that 56.9% of students with disabilities are attending four-year College, and 43.1% of them are attending two-year College.
15 February 2022
Palestine Technical University Kadoorie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Why Edu4ALL?
Current Situation
• Lack of:
• facilities, services, accessible resources, and trained staff
Vision
• Disability support by establishing the inclusive education unit
15 February 2022
Palestine Technical University Kadoorie

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How will we achieve our goals?
The project consists of 5 main work packages:
Preparation
Development
Quality Plan
Dissemination & Exploitation
Management
15 February 2022
Palestine Technical University Kadoorie

Co-funded by the Erasmus+ Programme of the European Union
How will we achieve our goals?
The project consists of 5 main work packages:
Preparation
1.1 Investigating the rules and regulations of inclusive education (IE) for students with disabilities in both partner countries HEIs
1.2 Analysing the current practices of inclusive education for students with disabilities in EU and worldwide
1.3 Forming the committee of practice in each institution at both partner countries
1.4 Organising Awareness Raising Workshop on "Inclusive Education in HEIs"
15 February 2022
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How will we achieve our goals?
The project consists of 5 main work packages:
Preparation
Development
Quality Pl
2.1. Defining and Setting the Inclusive Education Unit Vision, Mission, Tasks, Members, Location, Objectives, and Goals.
2.2. Modernizing a 'disability statement' for PC HEIs.
2.3 Professional Development and Capacity building of partner country staff through visits to EU.
2.4 Lab modernization with the needed assistive technologies at partner country HEIs
2.5 Developing training tutorials
2.6. Defining delivery approaches and assessment
15 February 2022
Palestine Technical University Kadoorie

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How will we achieve our goals?
The project consists of 5 main work packages:
Preparation
Development
Quality Plan
3.1 Defining the quality framework for the project
3.2 Implementing project quality assurance control process
3.3 Generation of project quality reports
Dissemination & Exploitation
Management
15 February 2022
Palestine Technical University Kadoorie

Co-funded by the Erasmus+ Programme of the European Union
How will we achieve our goals?
The project consists of 5 main work packages:
Preparation
Development
Quality Plan
Dissemination & Exploitation
Management
4.1 Planning dissemination strategy
4.2 Organising a conference for opening the Edu4ALL to students with disabilities and lunching the Inclusive Education Unit at both PC HEIs
4.3 Developing project website to disseminate the project results
15 February 2022
Palestine Technical University Kadoorie

Co-funded by the Erasmus+ Programme of the European Union
How will we achieve our goals?
The project consists of 5 main work packages:
Preparation
Development
Quality Plan
Dissemina
Management
5.1 Project Coordination Meetings
5.2 Formation of the project management committees
5.3 Project Financial administration and reports
5.4 Development of a collaboration platform
15 February 2022
Palestine Technical University Kadoorie

Co-funded by the Erasmus+ Programme of the European Union
Edu4ALL Gallery
Management meetings virtual, Aqaba, Leipzig

Co-funded by the Erasmus+ Programme of the European Union
Edu4ALL Gallery
Training visits: Greece &Spain
15 February 2022
Palestine Technical University Kadoorie

Co-funded by the Erasmus+ Programme of the European Union
Edu4ALL Gallery
Awareness Raising workshops in Tulkarem and Irbid
15 February 2022
Palestine Technical University Kadoorie

Co-funded by the Erasmus+ Programme of the European Union
Edu4ALL Gallery
Internal Training @PTUK, PTC, UUC & UJ
15 February 2022
Palestine Technical University Kadoorie

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Edu4ALL Gallery

Assistive technologies

15 February 2022

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Edu4ALL Outcomes

Current Situation
- **Lack of: facilities, services, accessible resources, and trained staff**

Vision
- **Disability support by establishing the inclusive education unit**

Expectations
- Raising awareness about the IE
- Establishing the accessibility unit with all assistive technologies
- Including students with disabilities in HE
- New skills and opening new career opportunity for them

15 February 2022

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The END

However difficult life may seem, there is always something you can do and succeed at.

15 February 2022

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7.1.2 Dr. Georgios Kouroupetroglou

Challenges of Computer Technology for Persons with Disability (PwD)

- Concerning their reduced **functioning**:
  - Augmentation/improvement of the remaining reduced functionality
  - Provision of alternative functionality
- Concerning their **participation** in the main activities of live:
  - Augmentation/improvement of the partial participation
  - Provision of alternative mean for participation

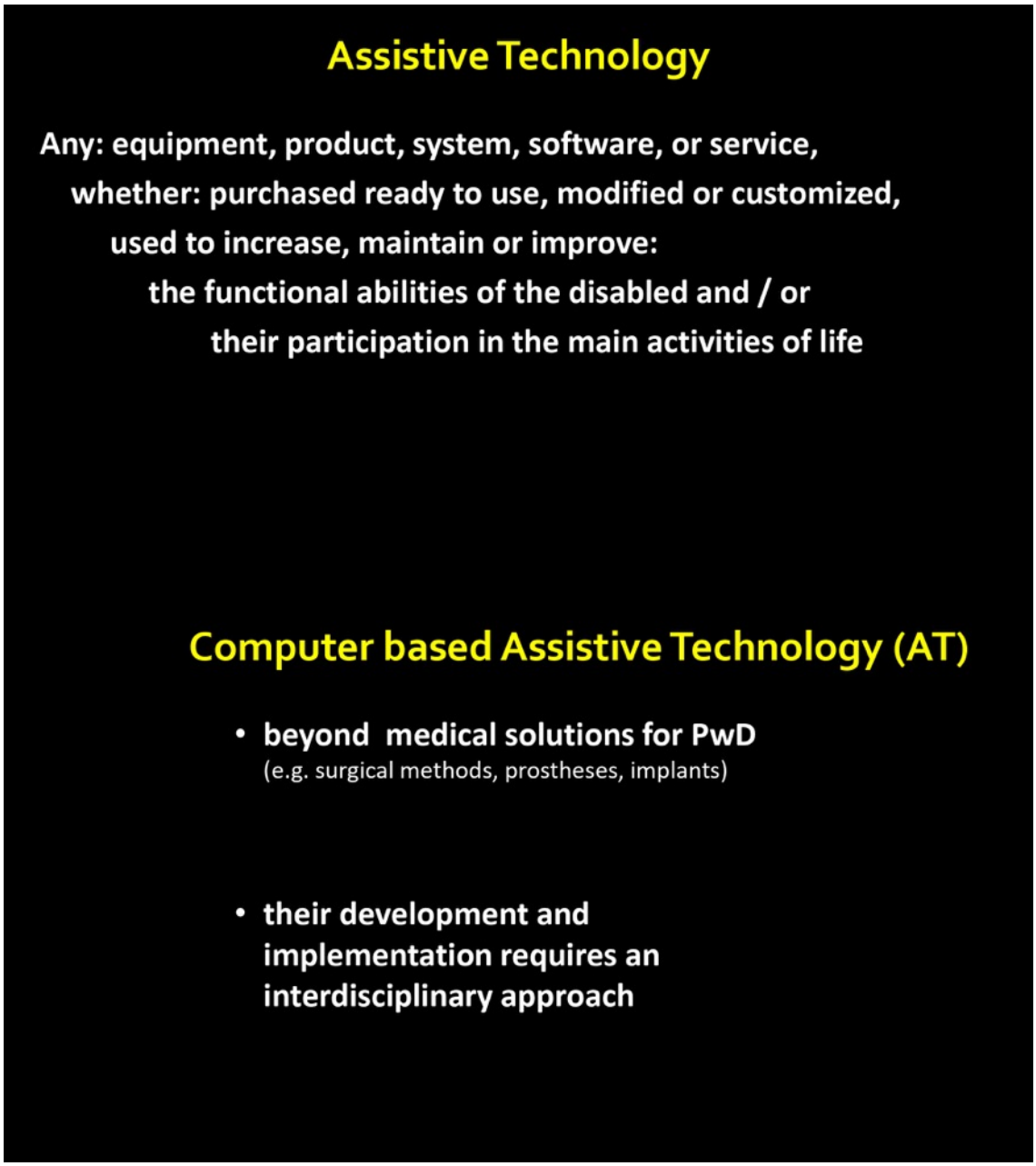
Solutions provided by Computer Technology for PwD

- Computer based **Assistive Technologies** (AT)
  - *by themselves they do not guarantee accessibility*

  *In some cases, Implemented under the principles of **Universal Design / Design for All***

- **Accessibility of Digital** Content
  - Guidelines/ standards
  - Methods & Tools for evaluating Digital Accessibility

  *Implemented under the principles of **Universal Design / Design for All***

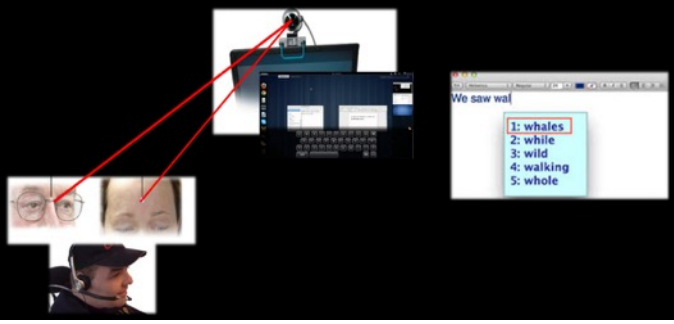

Assistive Technology
Any: equipment, product, system, software, or service,
whether: purchased ready to use, modified or customized,
used to increase, maintain or improve:
the functional abilities of the disabled and / or
their participation in the main activities of life
Computer based Assistive Technology (AT)
• beyond medical solutions for PwD
(e.g. surgical methods, prostheses, implants)
• their development and
implementation requires an
interdisciplinary approach

Example-1a

- **Writing** (*function*) > with a pen/pencil or computer keyboard
- **Users with reduced functioning of upper extremes**:
- *augmentation*: joystick with virtual / on screen keyboard

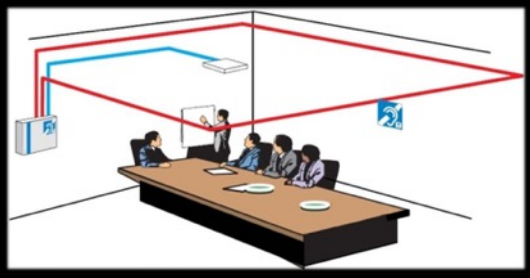
Example-1b

- **Writing** (*function*) > with a pen/pencil or computer keyboard
- **Users without any functionality in upper extremes:**
- *alternative*: cursor control with head movement detection combined with virtual on-screen keyboard, puff switch and word prediction software



Example-2a

- **Conversation** (*participation*) > face to face or distance
- **Users with reduced hearing ability** *(hearing loss)*:
- *augmentation*: inductive hearing loop system



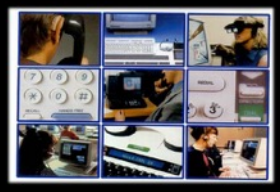
Example-2b

- **Conversation** (*participation*) > face to face or distance
- **Users without any hearing ability** *(deaf)*:
- *alternative*: relay service (Sign Language remote interpretation)

Computer based Assistive Technologies (1/2)

- Many times they are commercially available:

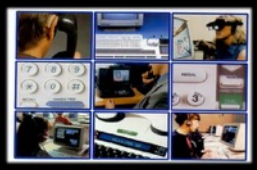
  Challenges:
  - not available on the local market,
  - do not support the local language
    or the local braille system
    or the local Sign Language
  - high cost > who should cover the cost?



- Sometimes they are only available as a result of research or development efforts
- Sometimes they require the development of standards
- Sometimes they require the development of special services

Computer based Assistive Technologies (2/2)

- Sometimes they are available as free software or open-source software
  e.g. http://access.uoa.gr/ATHENA/
- They are integrated in all operating systems following the Universal Design approach



Computer based Assistive Technologies Classification-1

A) For usual desktop or laptop PCs

B) For mobile devices – smart telephones or tablets

C) Peripheral devices of A) or B) with wired or wireless connection

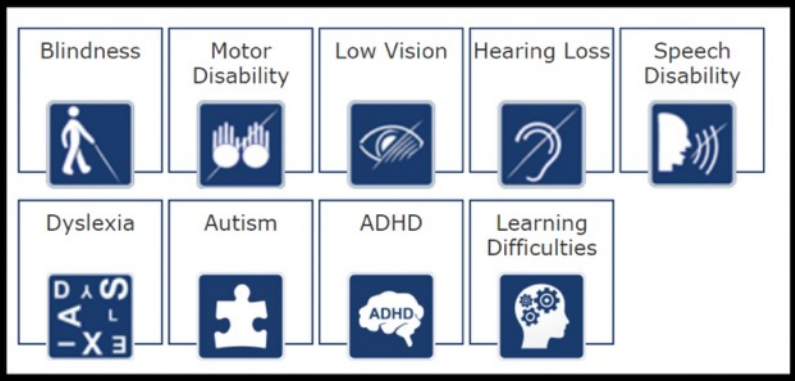
D) Embedded or wearable or autonomous systems

Computer based Assistive Technologies Classification-2

- **Personal AT**
  - act as an extension of the individual
  - Set / calibrated to that person
  - the user knows them and has practiced using them
- **Environmental adaptation AT**
  - Set / calibrated the disability category
  - the user does now know them and does not has practiced using them

Computer based Assistive Technologies Classification-3

Per disability category

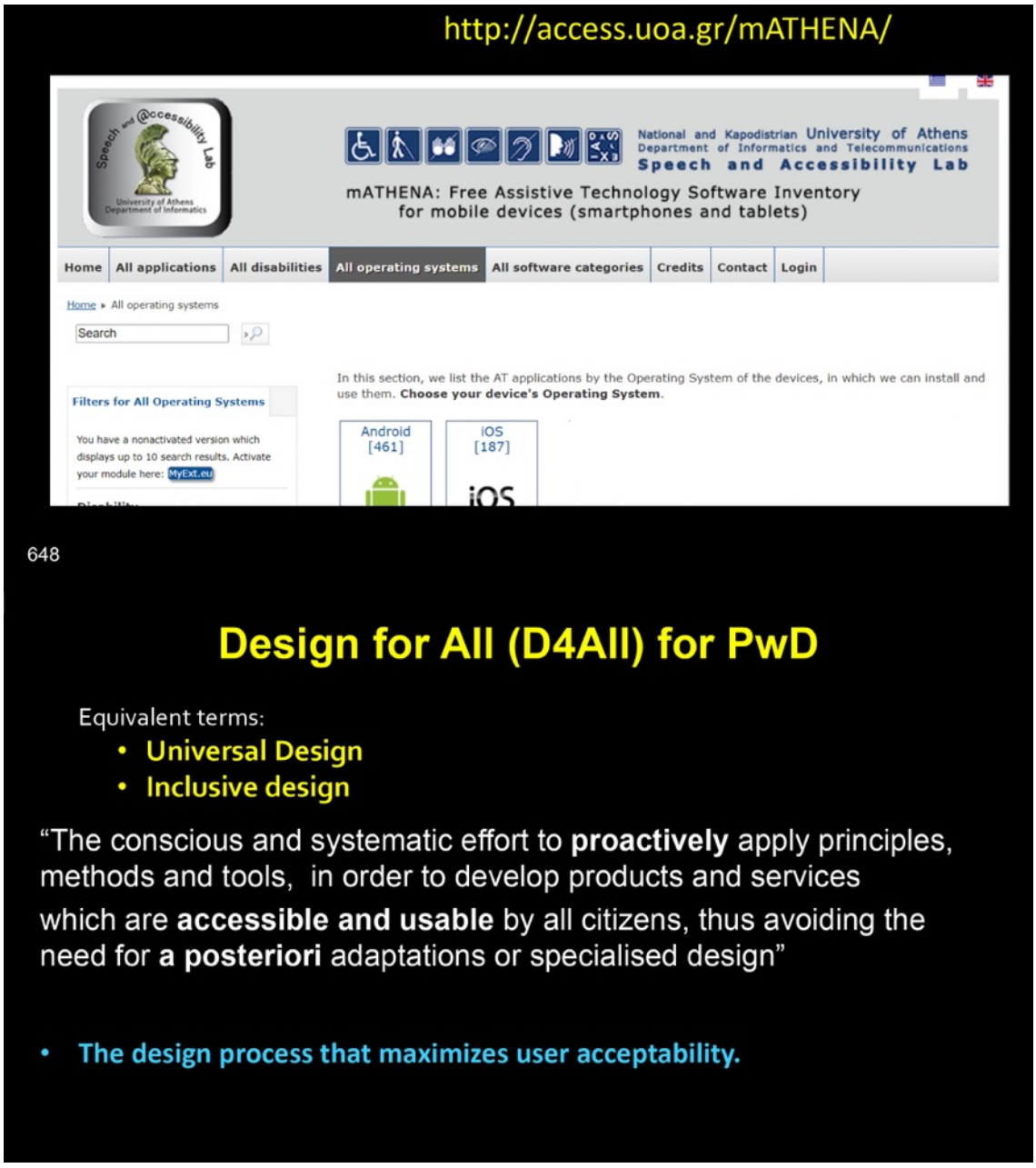


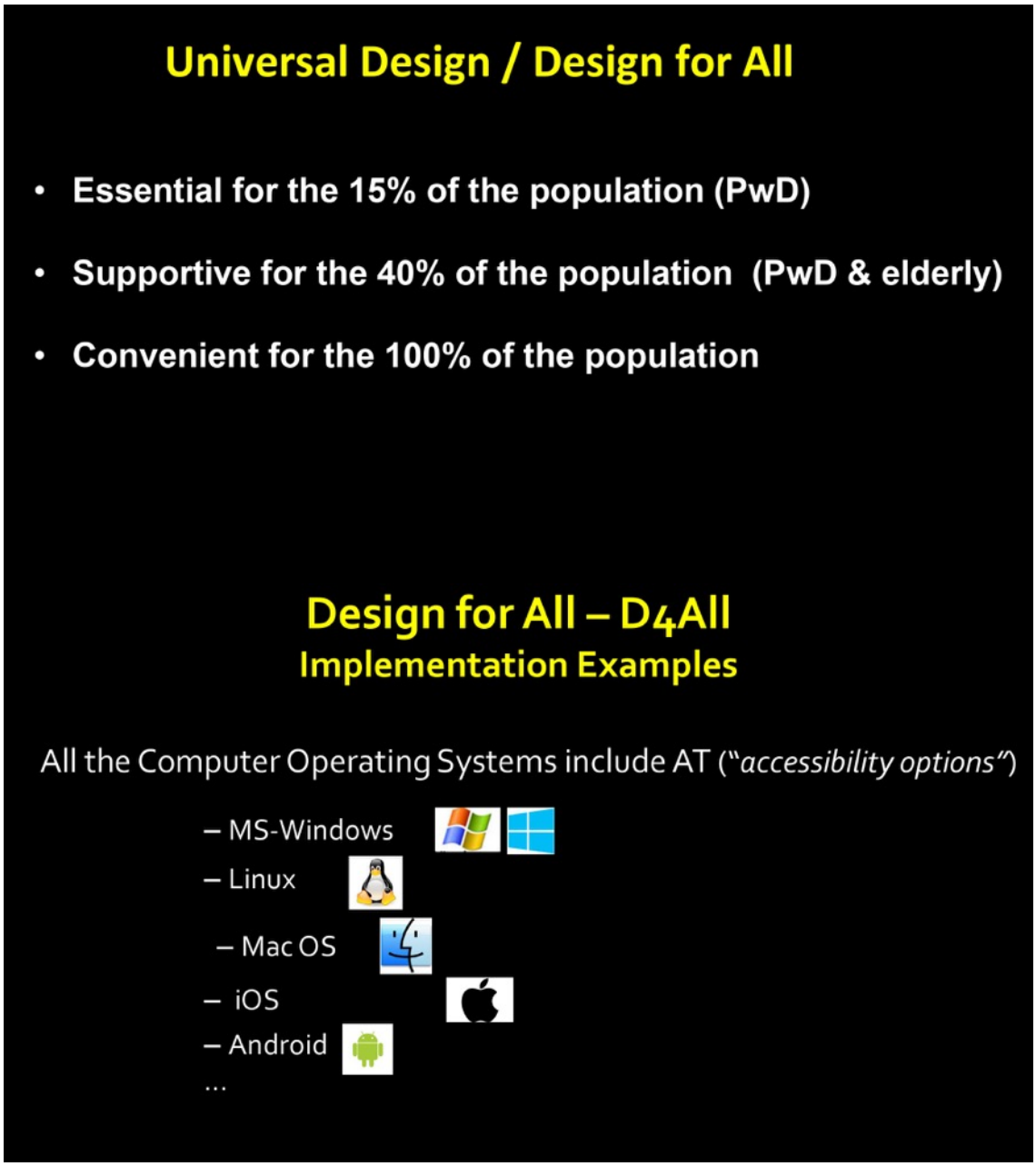
Computer based Assistive Technologies Classification-4

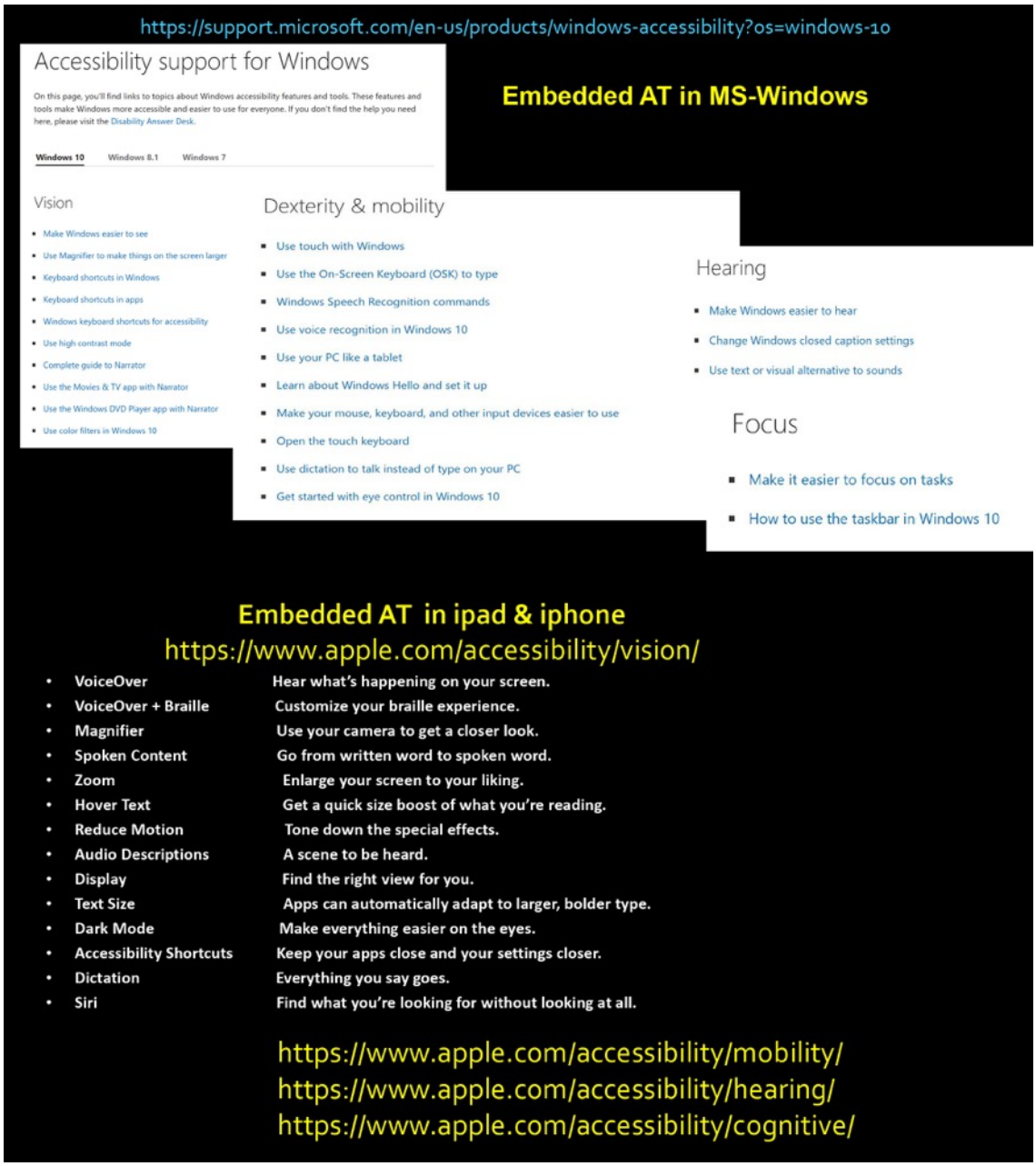
Per solution category

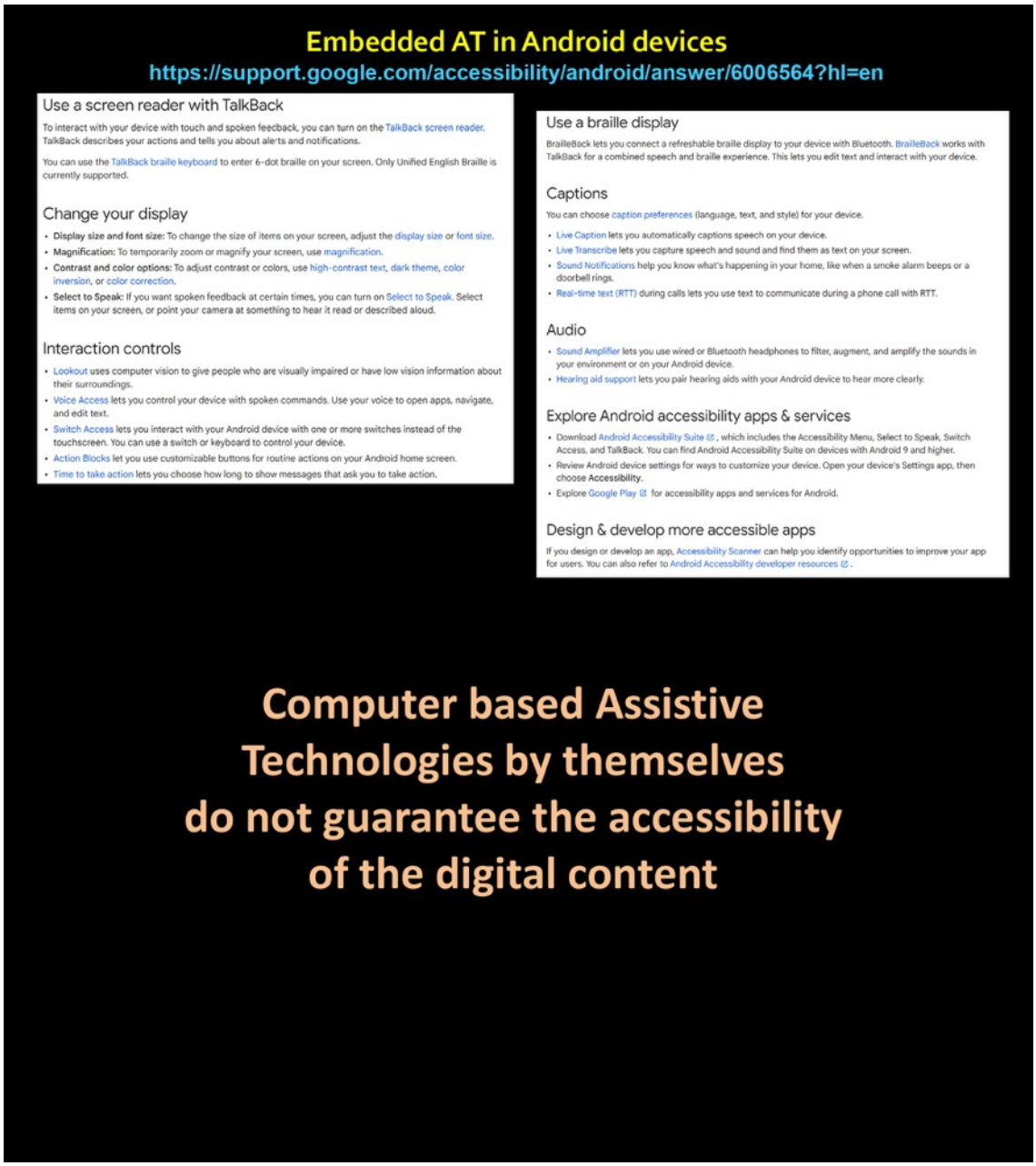
Indicative computer based Assistive Technologies (1/3)
Cursor control by brain waves or muscle signals
Switches
Wearable display
Indicative computer based Assistive Technologies (2/3)
Augmentative and Alternative Communication system
Text to Speech synthesis
DEMOSTHeNES
Speech Composer
Braille display
CCTV magnification system
On screen magnifier

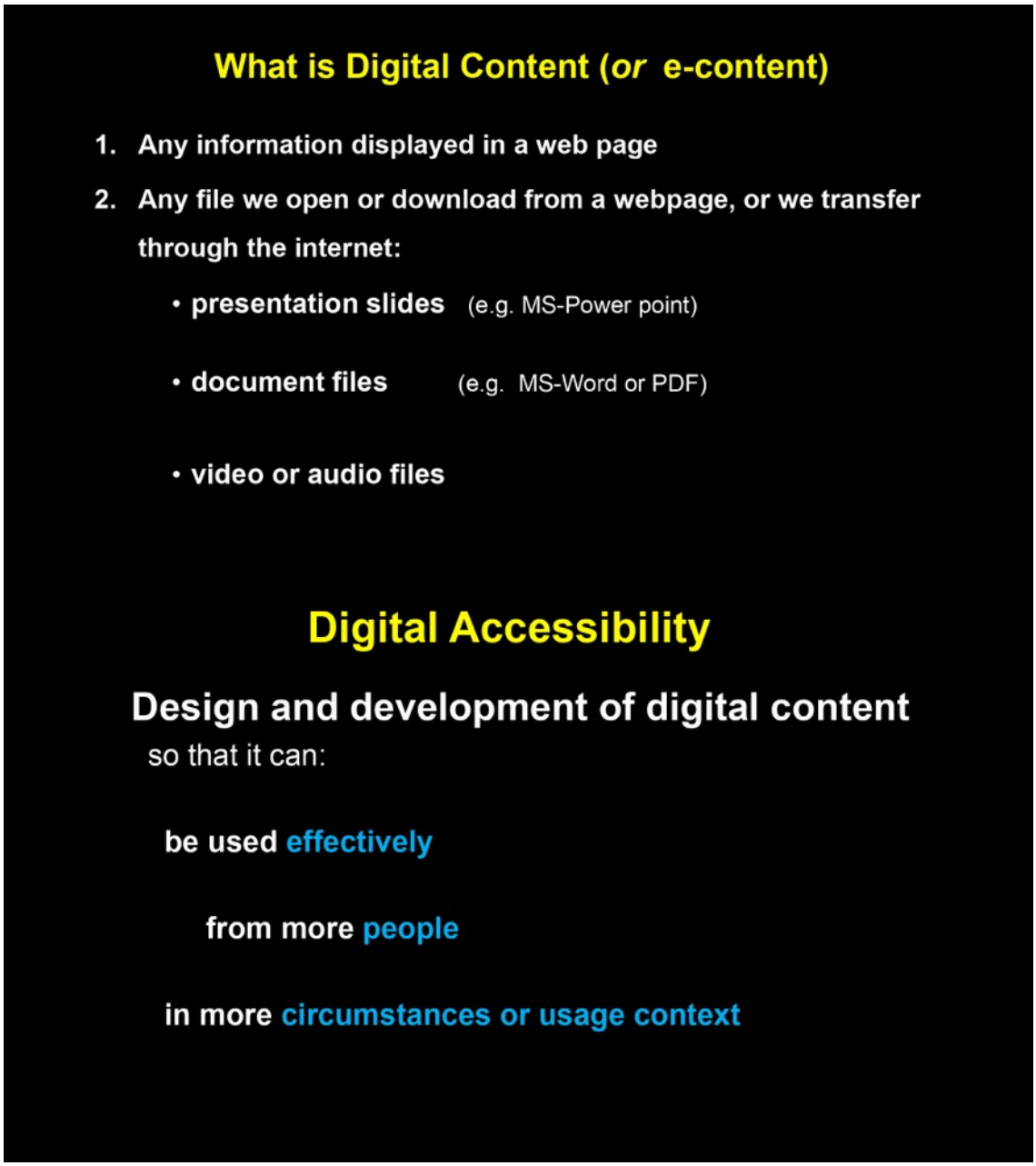
Indicative computer based Assistive Technologies (3/3)
Special browser for AAC users
My Favourites
Screen reader
braille translator
Cursor selection
National and Kapodistrian University of Athens
Department of Informatics and Telecommunications
Speech and Accessibility Lab
ATHENA: Free Assistive Technology Software Inventory
Homepage
All applications
Credits
Contact
Search:
Go
Show All Applications
Show
Browse by Category
Alternative Communication (9)
Book Readers (3)
Braille Translators (3)
Calculators (3)
Camera Mouse (1)
Chatting (2)
Click Helper (14)
Clocks (1)
Concept Maps (2)
Contrast/Color Adjustment (10)
DAISY (4)
Document Accessibility (26)
Entertainment (3)
Games (11)
ATHENA Free AT Software Inventory aims to inform and provide persons with disabilities, their facilitators as well the professionals of the domain, with the available costless Assistive Technology (AT) solutions (Open Source or Freeware). Free Assistive Technology applications for smartphones and tablets are given in the website mATHENA Free AT Software Inventory for mobile devices.
The AT software applications provided in ATHENA are presented in an organized and systematic way after they have been installed and tested in the Speech and Accessibility Laboratory, University of Athens. For each free AT software, the following information is given: application name, developer, version, AT category(ies), related disability(ies), description, operating system(s), installation procedure, settings and hints, download links, and a screenshot.
Blindness
Motor Disability
Low Vision
Hearing Loss
Speech Disability
Dyslexia
Autism
ADHD
Learning Difficulties
316


http://access.uoa.gr/mATHENA/
National and Kapodistrian University of Athens
Department of Informatics and Telecommunications
Speech and Accessibility Lab
mATHENA: Free Assistive Technology Software Inventory
for mobile devices (smartphones and tablets)
Home
All applications
All disabilities
All operating systems
All software categories
Credits
Contact
Login
Home ▸ All operating systems
Search
Filters for All Operating Systems
You have a nonactivated version which displays up to 10 search results. Activate your module here: MyExt.eu
In this section, we list the AT applications by the Operating System of the devices, in which we can install and use them. Choose your device's Operating System.
Android [461]
iOS [187]
648
Design for All (D4All) for PwD
Equivalent terms:
• Universal Design
• Inclusive design
"The conscious and systematic effort to proactively apply principles, methods and tools, in order to develop products and services which are accessible and usable by all citizens, thus avoiding the need for a posteriori adaptations or specialised design"
• The design process that maximizes user acceptability.


Universal Design / Design for All
• Essential for the 15% of the population (PwD)
• Supportive for the 40% of the population (PwD & elderly)
• Convenient for the 100% of the population
Design for All – D4All
Implementation Examples
All the Computer Operating Systems include AT ("accessibility options")
– MS-Windows
– Linux
– Mac OS
– iOS
– Android
…


https://support.microsoft.com/en-us/products/windows-accessibility?os=windows-10
Accessibility support for Windows
On this page, you'll find links to topics about Windows accessibility features and tools. These features and tools make Windows more accessible and easier to use for everyone. If you don't find the help you need here, please visit the Disability Answer Desk.
Windows 10
Windows 8.1
Windows 7
Embedded AT in MS-Windows
Vision
Make Windows easier to see
Use Magnifier to make things on the screen larger
Keyboard shortcuts in Windows
Keyboard shortcuts in apps
Windows keyboard shortcuts for accessibility
Use high contrast mode
Complete guide to Narrator
Use the Movies & TV app with Narrator
Use the Windows DVD Player app with Narrator
Use color filters in Windows 10
Dexterity & mobility
Use touch with Windows
Use the On-Screen Keyboard (OSK) to type
Windows Speech Recognition commands
Use voice recognition in Windows 10
Use your PC like a tablet
Learn about Windows Hello and set it up
Make your mouse, keyboard, and other input devices easier to use
Open the touch keyboard
Use dictation to talk instead of type on your PC
Get started with eye control in Windows 10
Hearing
Make Windows easier to hear
Change Windows closed caption settings
Use text or visual alternative to sounds
Focus
Make it easier to focus on tasks
How to use the taskbar in Windows 10
Embedded AT in ipad & iphone
https://www.apple.com/accessibility/vision/
VoiceOver Hear what's happening on your screen.
VoiceOver + Braille Customize your braille experience.
Magnifier Use your camera to get a closer look.
Spoken Content Go from written word to spoken word.
Zoom Enlarge your screen to your liking.
Hover Text Get a quick size boost of what you're reading.
Reduce Motion Tone down the special effects.
Audio Descriptions A scene to be heard.
Display Find the right view for you.
Text Size Apps can automatically adapt to larger, bolder type.
Dark Mode Make everything easier on the eyes.
Accessibility Shortcuts Keep your apps close and your settings closer.
Dictation Everything you say goes.
Siri Find what you're looking for without looking at all.
https://www.apple.com/accessibility/mobility/
https://www.apple.com/accessibility/hearing/
https://www.apple.com/accessibility/cognitive/


Embedded AT in Android devices
https://support.google.com/accessibility/android/answer/6006564?hl=en
Use a screen reader with TalkBack
To interact with your device with touch and spoken feedback, you can turn on the TalkBack screen reader. TalkBack describes your actions and tells you about alerts and notifications.
You can use the TalkBack braille keyboard to enter 6-dot braille on your screen. Only Unified English Braille is currently supported.
Change your display
Display size and font size: To change the size of items on your screen, adjust the display size or font size.
Magnification: To temporarily zoom or magnify your screen, use magnification.
Contrast and color options: To adjust contrast or colors, use high-contrast text, dark theme, color inversion, or color correction.
Select to Speak: If you want spoken feedback at certain times, you can turn on Select to Speak. Select items on your screen, or point your camera at something to hear it read or described aloud.
Interaction controls
Lookout uses computer vision to give people who are visually impaired or have low vision information about their surroundings.
Voice Access lets you control your device with spoken commands. Use your voice to open apps, navigate, and edit text.
Switch Access lets you interact with your Android device with one or more switches instead of the touchscreen. You can use a switch or keyboard to control your device.
Action Blocks let you use customizable buttons for routine actions on your Android home screen.
Time to take action lets you choose how long to show messages that ask you to take action.
Use a braille display
BrailleBack lets you connect a refreshable braille display to your device with Bluetooth. BrailleBack works with TalkBack for a combined speech and braille experience. This lets you edit text and interact with your device.
Captions
You can choose caption preferences (language, text, and style) for your device.
Live Caption lets you automatically captions speech on your device.
Live Transcribe lets you capture speech and sound and find them as text on your screen.
Sound Notifications help you know what's happening in your home, like when a smoke alarm beeps or a doorbell rings.
Real-time text (RTT) during calls lets you use text to communicate during a phone call with RTT.
Audio
Sound Amplifier lets you use wired or Bluetooth headphones to filter, augment, and amplify the sounds in your environment or on your Android device.
Hearing aid support lets you pair hearing aids with your Android device to hear more clearly.
Explore Android accessibility apps & services
Download Android Accessibility Suite, which includes the Accessibility Menu, Select to Speak, Switch Access, and TalkBack. You can find Android Accessibility Suite on devices with Android 9 and higher.
Review Android device settings for ways to customize your device. Open your device's Settings app, then choose Accessibility.
Explore Google Play for accessibility apps and services for Android.
Design & develop more accessible apps
If you design or develop an app, Accessibility Scanner can help you identify opportunities to improve your app for users. You can also refer to Android Accessibility developer resources.
Computer based Assistive Technologies by themselves do not guarantee the accessibility of the digital content


What is Digital Content (or e-content)
1. Any information displayed in a web page
2. Any file we open or download from a webpage, or we transfer through the internet:
• presentation slides (e.g. MS-Power point)
• document files (e.g. MS-Word or PDF)
• video or audio files
Digital Accessibility
Design and development of digital content
so that it can:
be used effectively
from more people
in more circumstances or usage context

more people (1/5)
Persons with Disability (PwD):
• Sensory
– Blindness or low vision or achromatopsia
– Deafness or hard of hearing
• Motor
– Dexterity
– Stretching and reaching
– Movement
more people (2/5)
Persons with Disability (PwD):
• Cognitive
– Dyslexia
– Language / communication
– Attention deficit
– Memory
– Understanding
• Multi-disabilities

more people (3/5)

PwD: > 10-15 % population

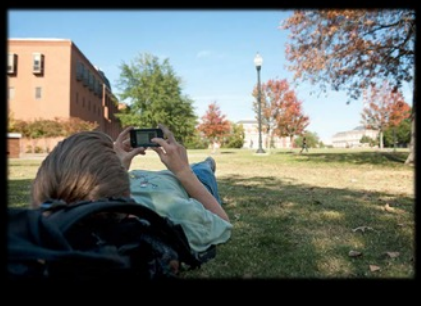
more people (4/5)

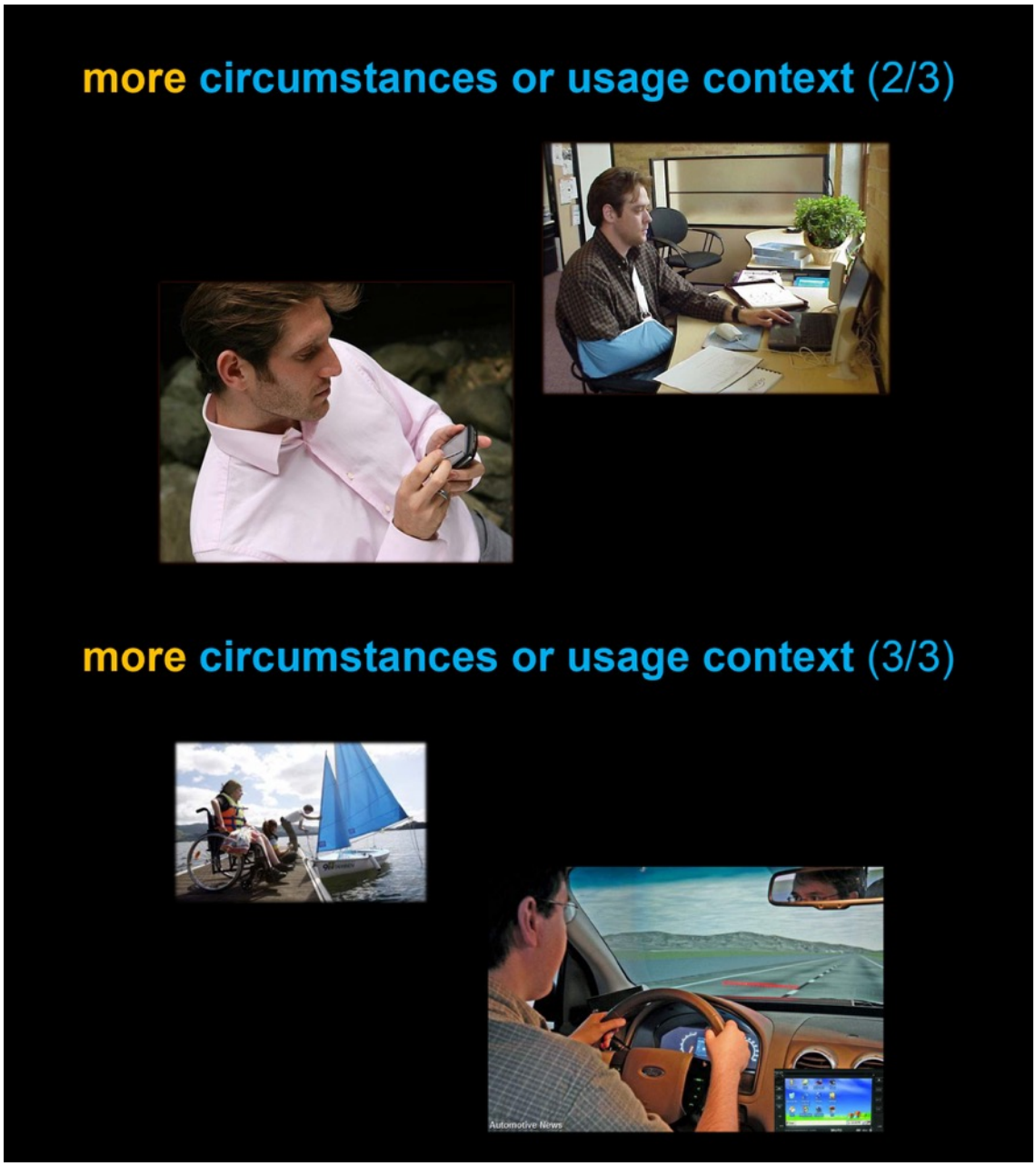
- Accidental or occasional disability
- People without language proficiency
- Older technology users
- Users of new computer devices

more people (5/5)

- New or not frequent users of computer / telecom technology
- Users of smart phones or tablets
- .....
- Elderly (65+ years)

more circumstances or usage context (1/3)

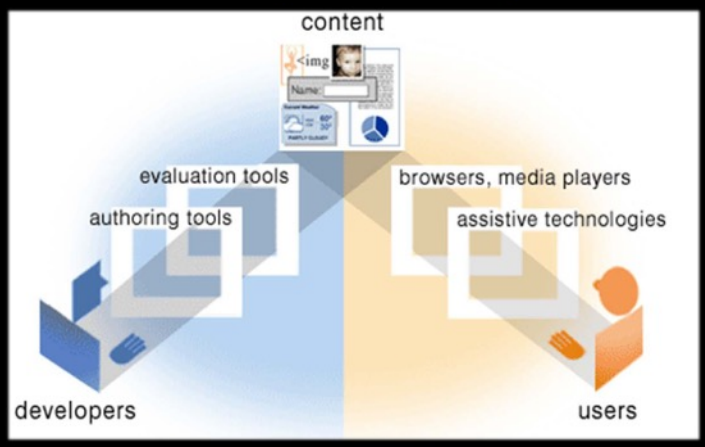



more circumstances or usage context (2/3)
more circumstances or usage context (3/3)
Automotive News

«57% of PC users aged 18 to 64
directly or indirectly benefit
from accessibility technologies
due to the difficulties and inability to use computers."

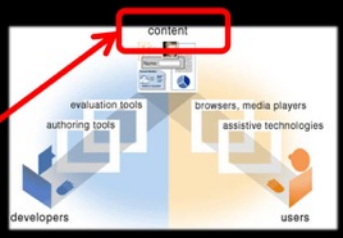
Investigation Results by Forrester Research, Inc. for the Microsoft

Essential Web components for Digital Accessibility



Symbiosis (*mutual dependance*) of AT and Accessibility of the Digital Content

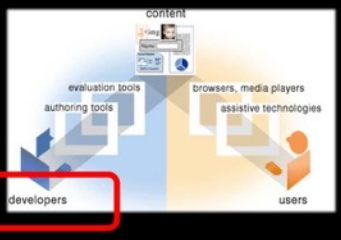
Essential Web components for Digital Accessibility



content - the information in a web page or web application, including:

- natural information such as text, images, and sounds
- code or markup that defines structure, presentation, etc.

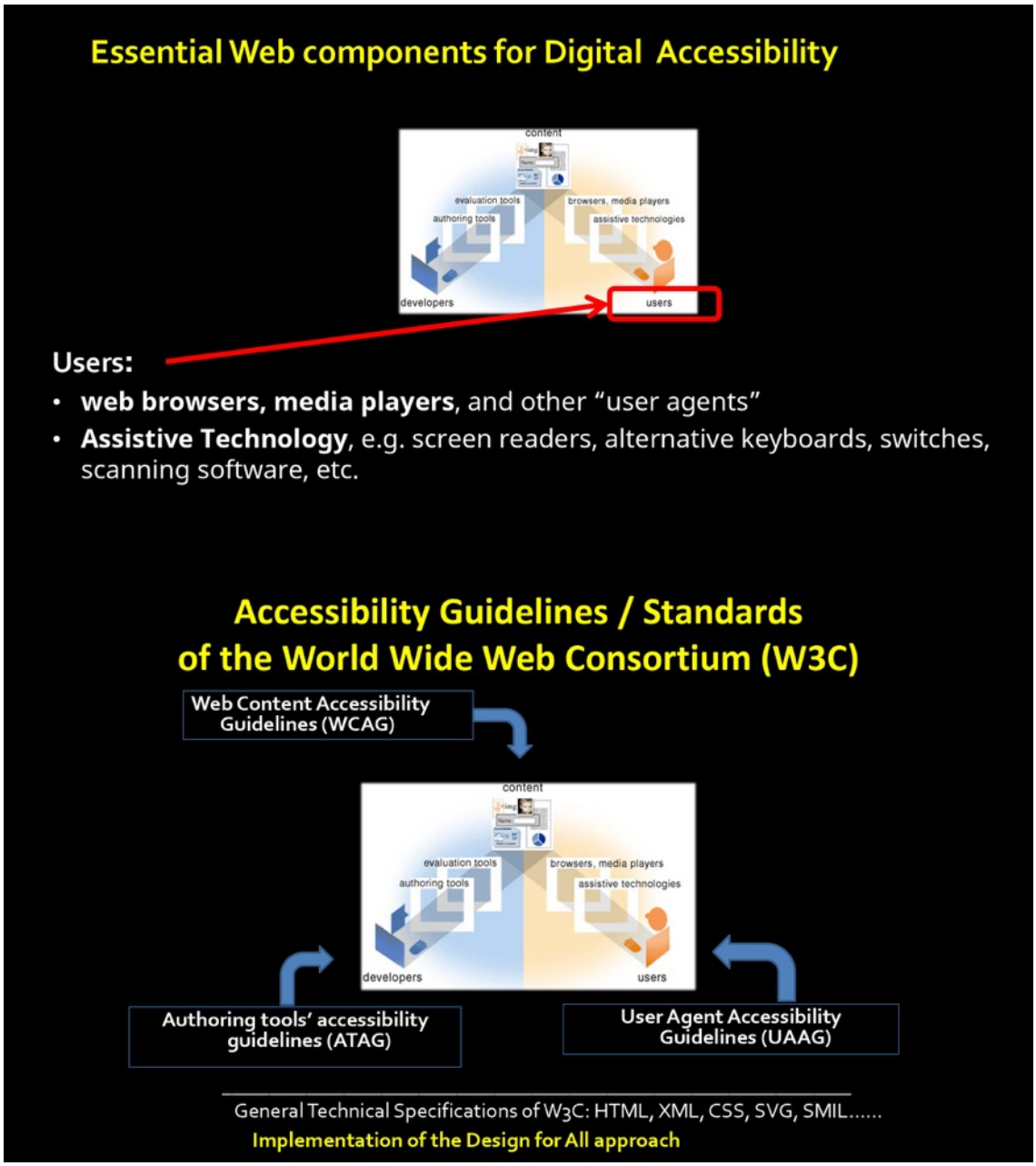
Essential Web components for Digital Accessibility

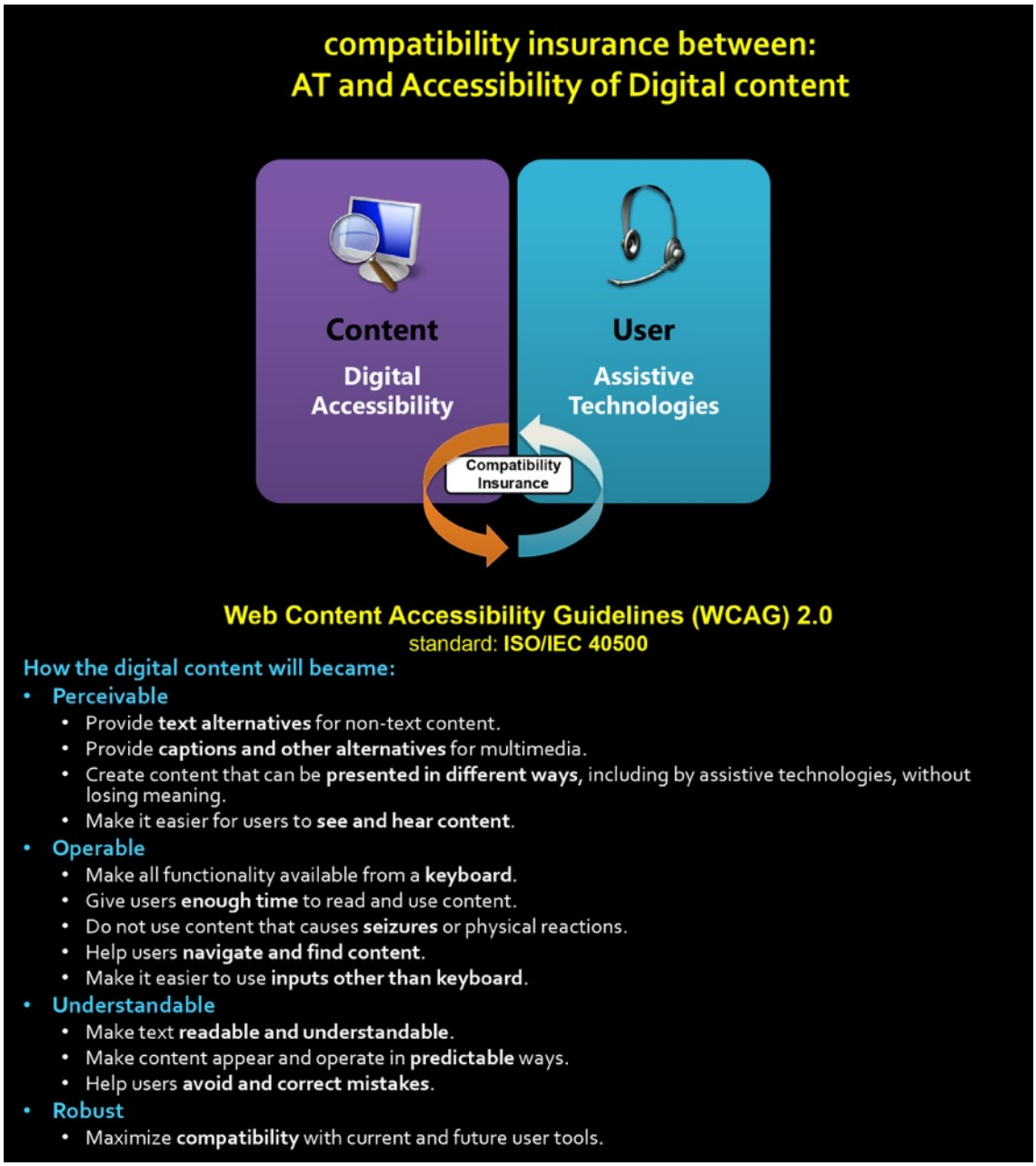


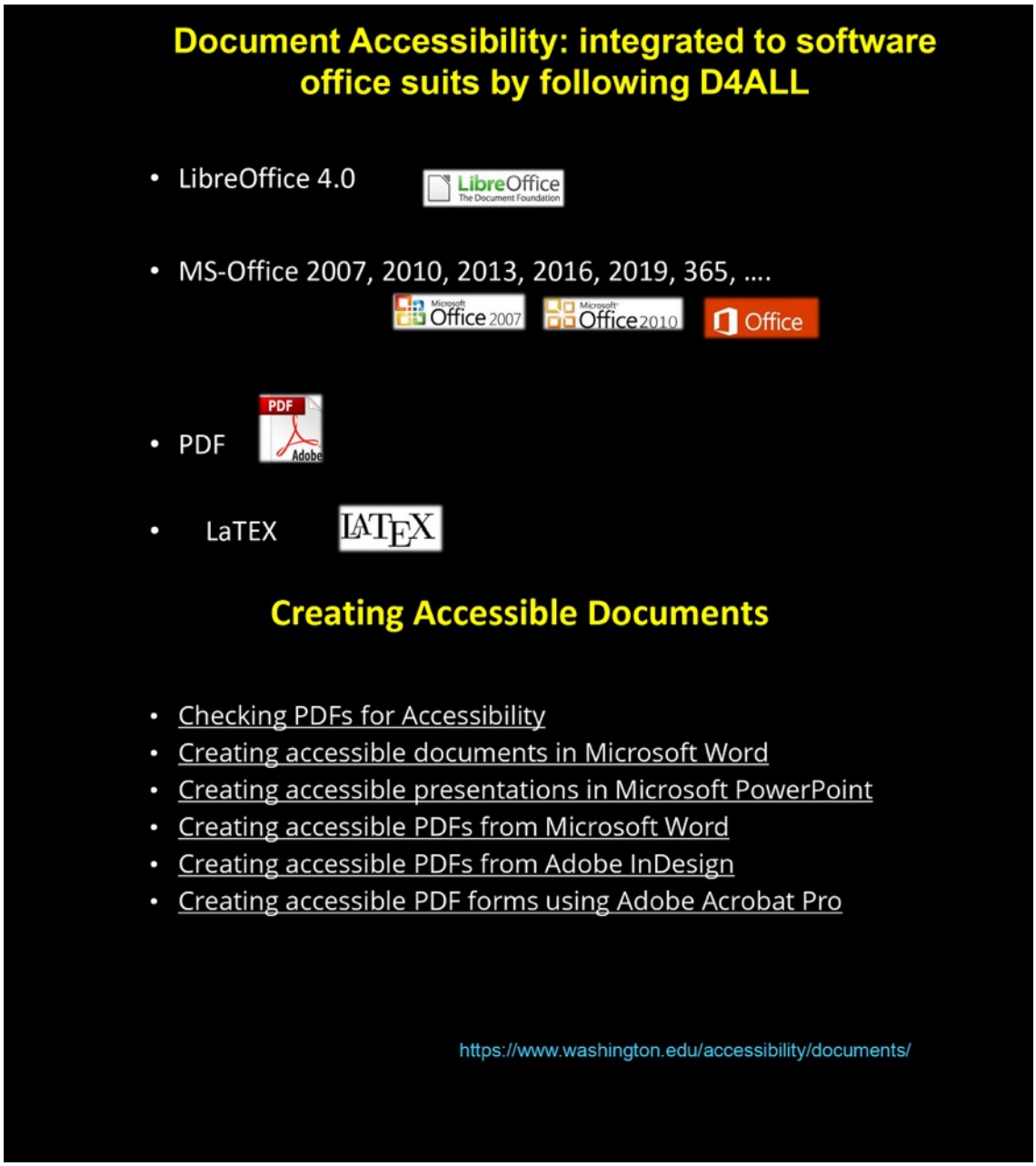
developers - designers, coders, authors, etc., including developers with disabilities and users who contribute content

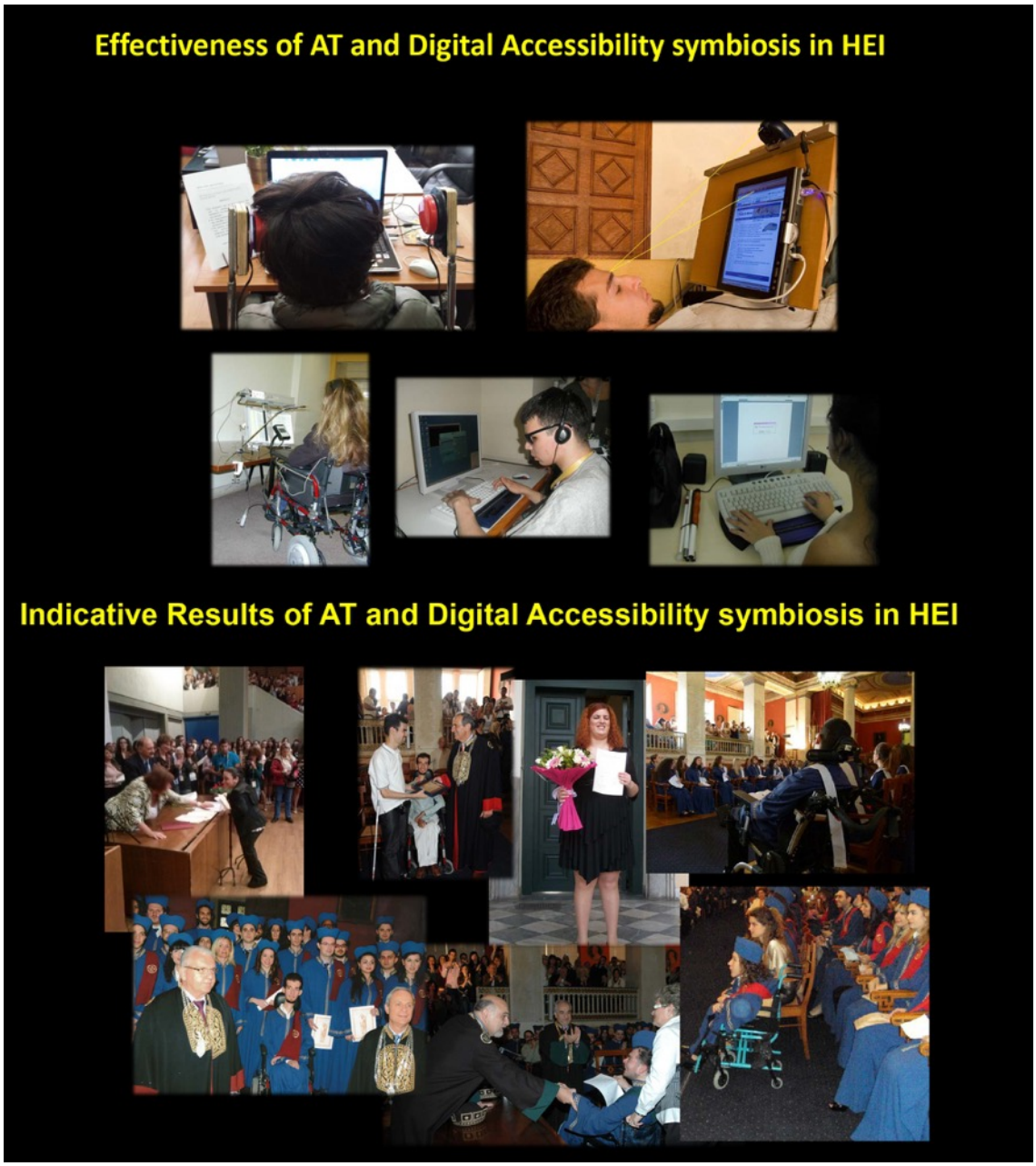
They use:

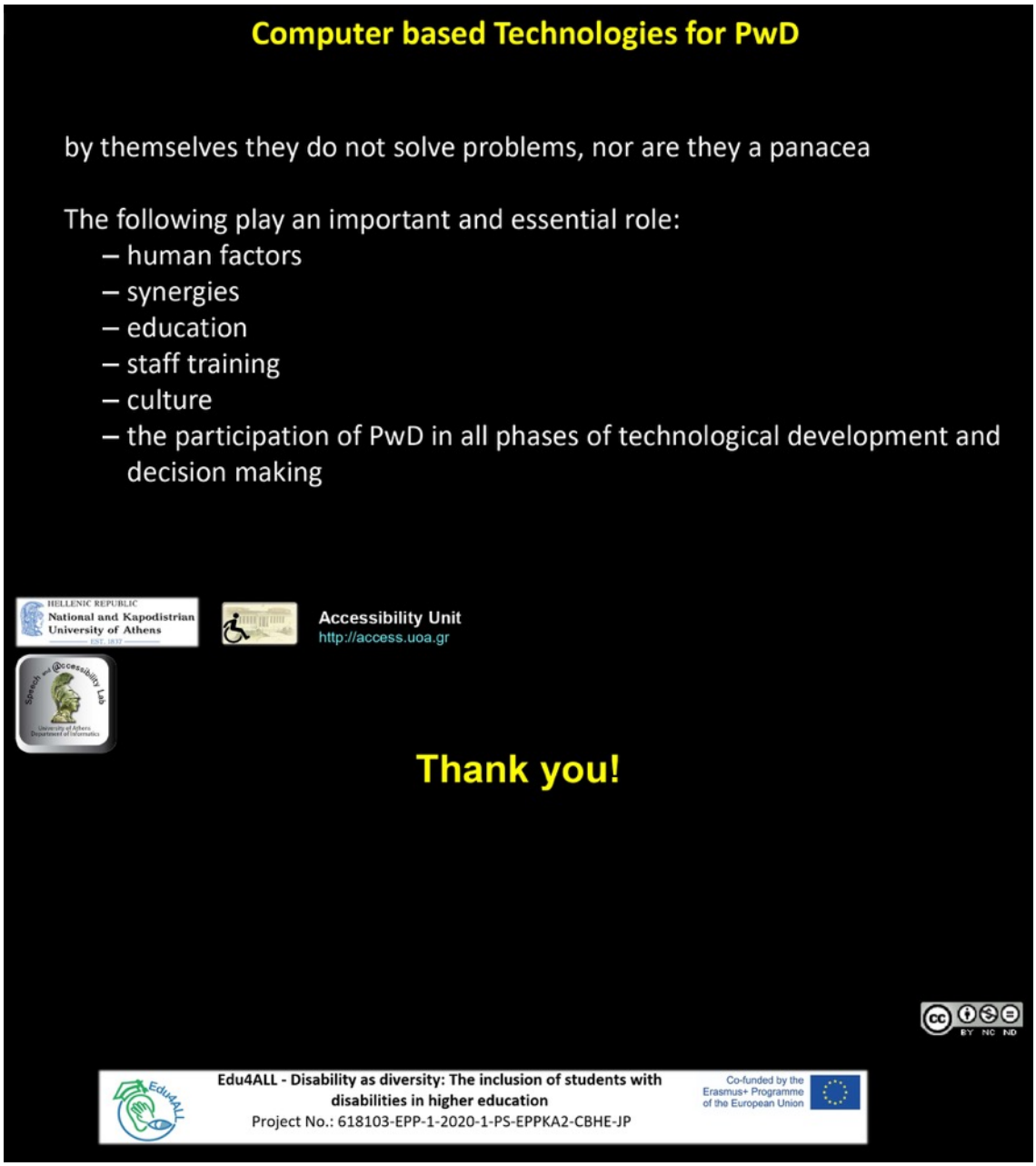
- **authoring tools** - software that creates websites
- **evaluation tools** - web accessibility evaluation tools, HTML validators, CSS validators, etc.


Essential Web components for Digital Accessibility
content
evaluation tools
authoring tools
browsers, media players
assistive technologies
developers
users
Users:
• web browsers, media players, and other "user agents"
• Assistive Technology, e.g. screen readers, alternative keyboards, switches, scanning software, etc.
Accessibility Guidelines / Standards of the World Wide Web Consortium (W3C)
Web Content Accessibility Guidelines (WCAG)
content
evaluation tools
authoring tools
browsers, media players
assistive technologies
developers
users
Authoring tools' accessibility guidelines (ATAG)
User Agent Accessibility Guidelines (UAAG)
General Technical Specifications of W3C: HTML, XML, CSS, SVG, SMIL.....
Implementation of the Design for All approach


compatibility insurance between:
AT and Accessibility of Digital content
Content
Digital Accessibility
User
Assistive Technologies
Compatibility Insurance
Web Content Accessibility Guidelines (WCAG) 2.0
standard: ISO/IEC 40500
How the digital content will became:
Perceivable
Provide text alternatives for non-text content.
Provide captions and other alternatives for multimedia.
Create content that can be presented in different ways, including by assistive technologies, without losing meaning.
Make it easier for users to see and hear content.
Operable
Make all functionality available from a keyboard.
Give users enough time to read and use content.
Do not use content that causes seizures or physical reactions.
Help users navigate and find content.
Make it easier to use inputs other than keyboard.
Understandable
Make text readable and understandable.
Make content appear and operate in predictable ways.
Help users avoid and correct mistakes.
Robust
Maximize compatibility with current and future user tools.

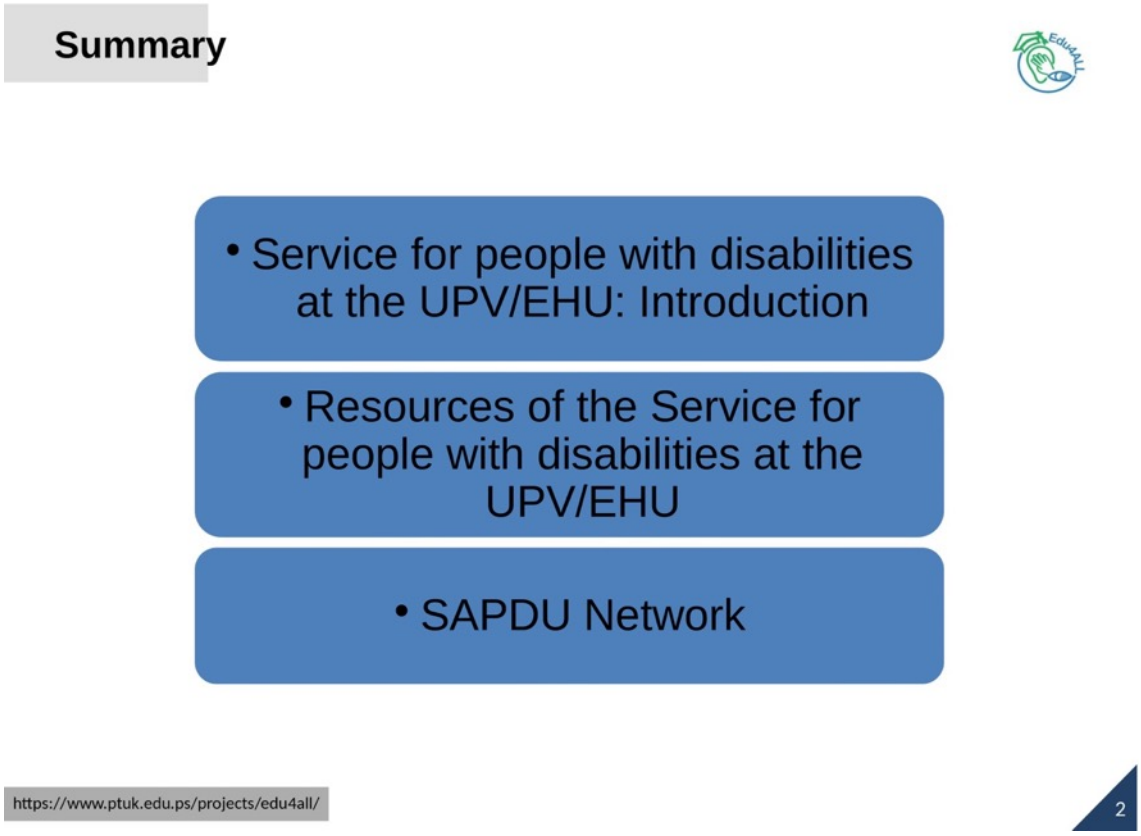

Document Accessibility: integrated to software office suits by following D4ALL
LibreOffice 4.0
LibreOffice
The Document Foundation
MS-Office 2007, 2010, 2013, 2016, 2019, 365, ….
Office 2007
Office 2010
Office
PDF
PDF
Adobe
LaTEX
LATEX
Creating Accessible Documents
Checking PDFs for Accessibility
Creating accessible documents in Microsoft Word
Creating accessible presentations in Microsoft PowerPoint
Creating accessible PDFs from Microsoft Word
Creating accessible PDFs from Adobe InDesign
Creating accessible PDF forms using Adobe Acrobat Pro
https://www.washington.edu/accessibility/documents/


Effectiveness of AT and Digital Accessibility symbiosis in HEI
Indicative Results of AT and Digital Accessibility symbiosis in HEI


Computer based Technologies for PwD
by themselves they do not solve problems, nor are they a panacea
The following play an important and essential role:
– human factors
– synergies
– education
– staff training
– culture
– the participation of PwD in all phases of technological development and decision making
HELLENIC REPUBLIC
National and Kapodistrian University of Athens
Accessibility Unit
http://access.uoa.gr
Thank you!
Edu4ALL - Disability as diversity: The inclusion of students with disabilities in higher education
Project No.: 618103-EPP-1-2020-1-PS-EPPKA2-CBHE-JP
Co-funded by the Erasmus+ Programme of the European Union

7.1.3 Dr. Nestor Presentation

Co-funded by the
Erasmus+ Programme
of the European Union
Edu4ALL
University-level Services for
Students with Disability
Dr. Nestor Garay-Vitoria, Associate Professor
Universidad del País
Vasco / Euskal Herriko
Unibertsitatea
University of the Basque Country
February 15, 2022


Summary
• Service for people with disabilities at the UPV/EHU: Introduction
• Resources of the Service for people with disabilities at the UPV/EHU
• SAPDU Network
https://www.ptuk.edu.ps/projects/edu4all/
2

UPV/EHU: Policy for students with disabilities

- The UPV/EHU will guarantee equal opportunities for students and other members of the University Community with disabilities, proscribing any form of discrimination and establishing positive action measures aimed at ensuring their full and effective participation in the university environment.

https://www.ptuk.edu.ps/projects/edu4all/

3

Service for People with Disabilities of the UPV/EHU

- Set up in 2003 to ensure the principle of equal opportunities by facilitating students' access to studies and services and their full participation in the university.
- Depends on the Vice-Rector of Student Affairs and Employability.
- Has service units on the campuses of Araba, Bizkaia and Gipuzkoa.
- Leaded by the Students Director:
  - Two technical staff in Araba.
  - Five technical staff in Bizkaia.
  - Four technical and one administrative staff in Gipuzkoa.

https://www.ptuk.edu.ps/projects/edu4all/

4

Mission

- The mission of the Service for People with Disabilities is to guarantee the principle of equal opportunities for students with disabilities and in general with special educational needs, facilitating access to studies, the enjoyment of services and their full participation in the University.
- The response to the needs of students with disabilities is carried out through 4 strategic axes:
  - Information, Advice and Guidance.
  - Equalization of Opportunities.
  - Training and Awareness.
  - Universal Accessibility.

https://www.ptuk.edu.ps/projects/edu4all/

5

Social Commitment

- Through their List of Services they show their commitment and responsibility with aspects that should be the hallmarks of a public administration.
- That is why they work to promote and guarantee the accessibility of groups with disabilities.
- Likewise, they adopt measures aimed at gender equality and environmental and occupational risk prevention measures to offer a sustainable, healthy and safe service.
- UPV/EHU understands that in its commitment to offering a quality service, the use of both official languages in this country (Basque and Spanish) must be especially taken into account.

https://www.ptuk.edu.ps/projects/edu4all/

6

Service Action Protocol with University Centers: Students' characteristics

- One of the characteristics that most differentiates the group of people with disabilities is its heterogeneity.
- Disabilities can be overt or covert, congenital or supervening, mild or severe, temporary or permanent.
- Not all students with disabilities have special educational needs.
- There are students who, although they do not have a recognized disability, have special educational needs that must be addressed, such as those derived from specific learning difficulties and some disorders or illnesses.
- The special needs presented by students with disabilities are specific in each case.
- It is necessary to consider both the limitation of the student and the environment.

https://www.ptuk.edu.ps/projects/edu4all/

7

Classification of the Special Educational Needs of Students

- Teaching.
- Exams.
- Accessibility.
- Orientation.
- Human resources.
- Technical resources.
- Others.

https://www.ptuk.edu.ps/projects/edu4all/

8

Coordination between the Service and the Centers: Service interventions

- The Service staff will coordinate with the person responsible for the students with special educational needs of the center for the response and management of special educational needs.
- It will evaluate the requests made by students with special educational needs and will propose the type of intervention to the center.
- In coordination with the center and the teaching staff, it activates an accompaniment plan for the student (accessibility measures, materials and supports; organization; specific tutorials; adaptation of exams; adaptation of practices;…).
- It organizes awareness-raising and training activities on equal opportunities and inclusive education aimed at students, teachers, and administration and services staff.

https://www.ptuk.edu.ps/projects/edu4all/

9

Coordination between the Service and the Centers: Center interventions

- Each center nominates a member of the management team as responsible for students with special educational needs.
- The person responsible for the students with special educational needs of the center will be made known to all the students, teachers and Administrative staff of the center.
- The responsible person will coordinate with the Service to respond to the needs of students with disabilities, and in general, with special educational needs.
- The person in charge of the center will identify the training needs of the center and will collaborate in the awareness-raising and training actions that are organized.

https://www.ptuk.edu.ps/projects/edu4all/

10

Coordination between the Service and the Teachers (I)

- From the beginning, the Service for People with Disabilities collects the needs of students to make them reach the teachers so that they take them into account and facilitate the development of an inclusive design of the subjects they teach.
- It also represents a fundamental support for teaching, both in its advisory role for the possible implementation of curricular adaptations, and in its mediation role between teachers and students with special educational needs.
- The Service, after evaluating the needs of university students, manages the measures and resources that students with disabilities and/or special educational needs require during university studies, guaranteeing the response to these needs and providing the human resources and technicians who facilitate their participation in university activities and learning.

https://www.ptuk.edu.ps/projects/edu4all/

11

Coordination between the Service and the Teachers (II)

- It informs and advises teachers through reports that can be accessed in the "class lists" section. The reports contain teaching guidelines for both classes and practices, as well as for exams.
- It offers a work of mediation between teachers and students continuously throughout the course. This work of accompaniment of the Service fulfills the function of advising in the interpretation and adjustment of the needs of students with special educational needs, fostering, at all times, an attitude of co-responsibility.
- Advises teachers and administration and services staff in the care of students with special educational needs.

https://www.ptuk.edu.ps/projects/edu4all/

12

Web of the Service

- On their website you have at your disposal useful information about the Service and content of interest: www.ehu.eus/discapacidad
  - III Inclusion Plan of the UPV/EHU (2019-2022).
  - Regulation of equal opportunities in the attention to students with special educational needs of the UPV/EHU.
  - Guide for teachers: Inclusion at the UPV/EHU.
  - UPV/EHU disability data.
  - Legislation and regulations.
  - Documentation of interest related to university and disability.
  - Links about universities, disability, associations and services of other universities.
- In addition, you can find news in relation to disability, calls for courses and scholarships aimed at university students with disabilities.

https://www.ptuk.edu.ps/projects/edu4all/

13

Resources

https://www.ptuk.edu.ps/projects/edu4all/

14

Support staff

- The support of this staff is conditioned by the responsible declaration that the student must sign assuming a good use of it.
  - Educational Support Specialists: students with reduced mobility may have access to this resource after the evaluation of the service.
  - Sign Language Interpreters: deaf students will have access to this resource after the evaluation of the service.

https://www.ptuk.edu.ps/projects/edu4all/

15

Assistive technology

- The endowment of these resources is conditioned by the responsible declaration that the student must sign assuming a good use of it.
  - Assistive Products Bank is a program of the Universia Foundation that, in agreement with the Universities in Spain, makes various assistive products available to students with disabilities free of charge.
  - Other assistive products that the UPV/EHU makes available to its students.
  - Adapted places in Libraries.
  - Magnetic Loops.

https://www.ptuk.edu.ps/projects/edu4all/

16

Assistive Products bank

- Assistive product is "Any product (including devices, equipment, instruments, technologies and software) specially manufactured, or available in the market, to prevent, compensate, control, mitigate or neutralize deficiencies, limitations in activity and restrictions in the participation".
- The beneficiaries of the Assistive Products bank are students enrolled in the current academic year and recent graduates who are doing extracurricular internships with companies in agreement with the UPV/EHU and who prove a disability equal to or greater than 33%, or permanent disability.
- The loan of assistive products can be requested for flexible periods, from one day or up to a maximum of one academic year.
- It can also be requested in successive courses until completion of studies.

https://www.ptuk.edu.ps/projects/edu4all/

17

Procedure to get an assistive product (I)

- The application process will be carried out through the UPV/EHU Service for People with Disabilities and the process is presented here.
  - a) The student must formalize the request for accommodations in GAUR program and indicate the necessary resource.
  - b) The Service will evaluate the request and once accepted it will carry out the management with the Universia Foundation to request the product.
  - c) The student will be sent by email a form to authorize the transfer of data to the Universia Foundation that they must sign and send it to the service.

https://www.ptuk.edu.ps/projects/edu4all/

18

Procedure to get an assistive product (II)

- d) Once the product has been received, the student will be notified so that they can go through the Service to pick it up.
- e) The student must pick up the product at the Service and first sign a receipt of the same and a declaration of responsible use.
- f) The product must be returned to the Service at the end of the academic year.

https://www.ptuk.edu.ps/projects/edu4all/

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Assistive Technologies in the UPV/EHU (I)

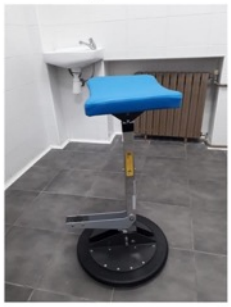
- Here a list of the assistive technologies that are at the UPV/EHU is shown.
- Speech recognition programs:
  - Applications that allow control of the computer through voice commands.
  - Writing tasks, opening menus, creating macros, browsing the Web, etc. can be carried out.
  - The main objective is to provide an appropriate person-position interaction through spoken commands.
  - They require unaltered speech.
- Character enlargement software.
- Bookstands and/or bookends.

https://www.ptuk.edu.ps/projects/edu4all/

20

Assistive Technologies in the UPV/EHU (II)

- Ergonomic furniture (adapted chair, chair transfer systems).



- Akuakalda video: https://www.youtube.com/watch?v=3-7R33HiSS0
- Crane video: https://www.youtube.com/watch?v=feDekQPq7ro

https://www.ptuk.edu.ps/projects/edu4all/

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Assistive Technologies in the UPV/EHU (III)

- Ergonomic furniture (tables with inclination).

https://www.ptuk.edu.ps/projects/edu4all/

22

Assistive Technologies in the UPV/EHU (IV)

- Carbonless notebooks.
  - Notebooks to help you take notes.
- Talking notetakers such as spoken Braille: Spoken Braille, or Braille'n Speak.
  - Talking notepad that is commonly used by blind people who need to have a portable device, with a long battery life that allows taking notes, notes or carry text information for immediate access, that is, as soon as it is turned on it is available to work with it.
  - For writing texts and pressing commands, it has a 6-point Braille keyboard.
- Braille printer.
- Braille display.

https://www.ptuk.edu.ps/projects/edu4all/

23

Assistive Technologies in the UPV/EHU (V)

- Documents in enlarged print.
- Screen magnifiers.
- Screen reviewers.
- Recorders.
- Frequency Modulated (FM) Systems:
  - Transmit the sound signal through waves.
  - They consist of a transmitter with a microphone worn by the transmitter and a receiver worn by the worker coupled to his hearing aids.
  - They can be very useful in training activities.

https://www.ptuk.edu.ps/projects/edu4all/

24

Adapted places in Libraries

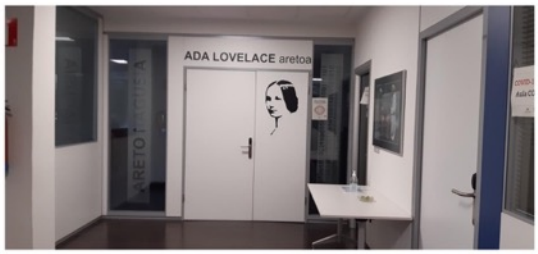
- There are adapted stations for students with disabilities.
- They can be found in the main buildings of the libraries at the UPV/EHU:
  - Araba Campus Library (Vitoria-Gasteiz).
  - Library of the Bizkaia Campus (Leioa). On the third floor, in the student room (reading and loan).
  - Library of the Faculty of Economics and Business (Bilbao-Sarriko).
  - Gipuzkoa Campus Library (Donostia-San Sebastián).

https://www.ptuk.edu.ps/projects/edu4all/

25

Magnetic loops

- Systems that facilitate hearing accessibility for people who use hearing aids and/or implants [https://www.youtube.com/watch?v=sttGh0lrBZk]
- There are several rooms in several buildings at UPV/EHU that have magnetic loops:
  - Four buildings in Araba campus.
  - Eight buildings in Bizkaia campus.
  - Five buildings in Gipuzkoa campus.



https://www.ptuk.edu.ps/projects/edu4all/

26

ehuZeinu

- It is a service offered by videoconferencing with a Sign Language Interpreter and deaf people can request it.
- This service allows the connection of audio and video in real time, in order to establish accessible communication between the UPV/EHU interlocutor and the deaf person through a Sign Language interpreter.
- This service is provided to guarantee accessibility in communication related to academic activity.
- Deaf students may require online tutoring, a consultation or procedure in the online secretaries, an online meeting at the Service for People with Disabilities and other situations.

https://www.ptuk.edu.ps/projects/edu4all/

27

More services listed

- Scholarships for students with disabilities and/or special educational needs.
- Accompaniment program for students with disabilities and/or special educational needs.
- Employment for students with disabilities and/or special educational needs.

https://www.ptuk.edu.ps/projects/edu4all/

28

SAPDU Network

https://www.ptuk.edu.ps/projects/edu4all/

29

What is the SAPDU network?

- Constituted by all the Services of attention to people with disabilities of 59 Spanish Universities.
- Aim: joining forces and seeking to establish common criteria.

https://www.ptuk.edu.ps/projects/edu4all/

30

Objectives

- Collaboration of university services of attention to students with disabilities and specific needs of educational support (SNES).
- Transversal actions that can be assumed by the different universities.
- Adoption of measures for the effective fulfillment of the regulated in matters of disability, especially in the context of universities.
- Guidelines for the incorporation of people with disabilities and SNES in the university life.
- Good practices related to the activity of the services adhered to the network.
- Presence of disability/diversity care services within universities.
- Presence of diversity/disability as a value within universities.
- Collaboration between the social aspects of the disability and universities.

https://www.ptuk.edu.ps/projects/edu4all/

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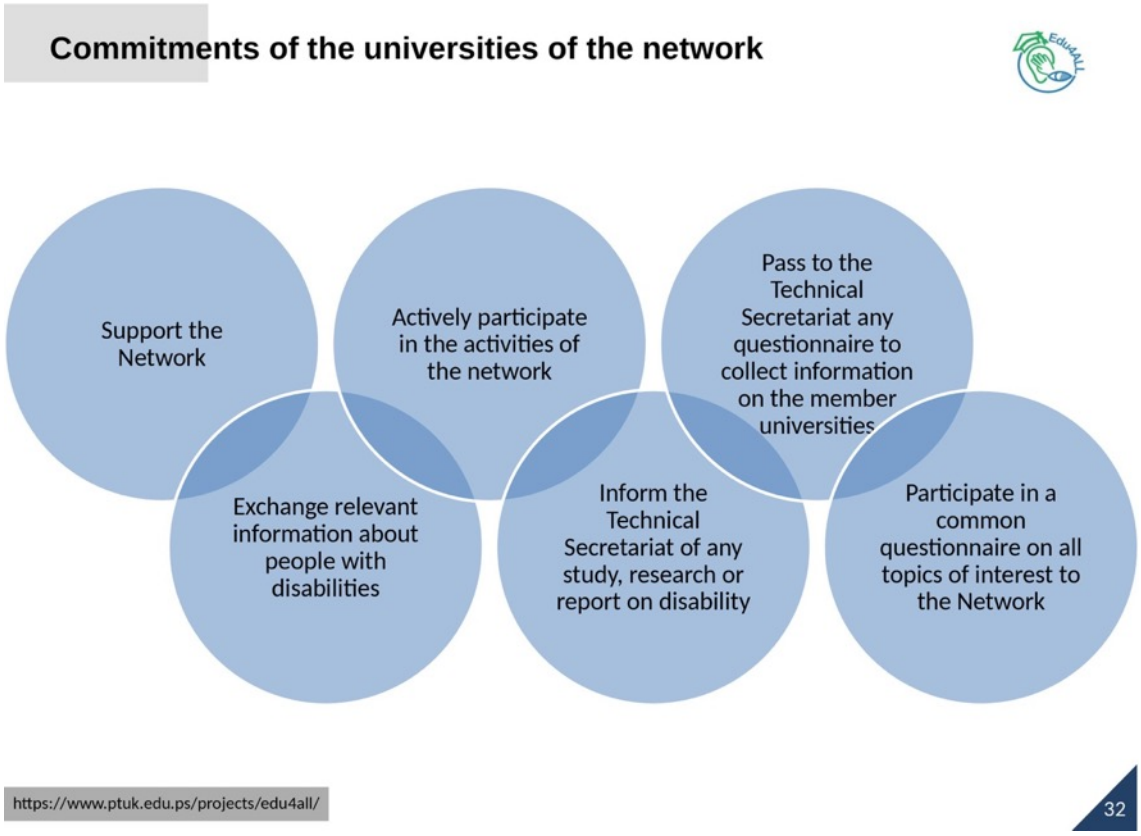
Commitments of the universities of the network
Support the Network
Actively participate in the activities of the network
Pass to the Technical Secretariat any questionnaire to collect information on the member universities
Exchange relevant information about people with disabilities
Inform the Technical Secretariat of any study, research or report on disability
Participate in a common questionnaire on all topics of interest to the Network
https://www.ptuk.edu.ps/projects/edu4all/
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References

- Service for People with Disabilities of the UPV/EHU Web site. https://www.ehu.eus/en/web/discapacidad/jardunbideak1
- List of services of the Service for People with Disabilities of the UPV/EHU. https://www.ehu.eus/es/web/discapacidad/zerbitzuen-karta
- SAPDU Network. https://redsapdu.org/

https://www.ptuk.edu.ps/projects/edu4all/

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Thank you for your attention

https://www.ptuk.edu.ps/projects/edu4all/

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8 Pictures

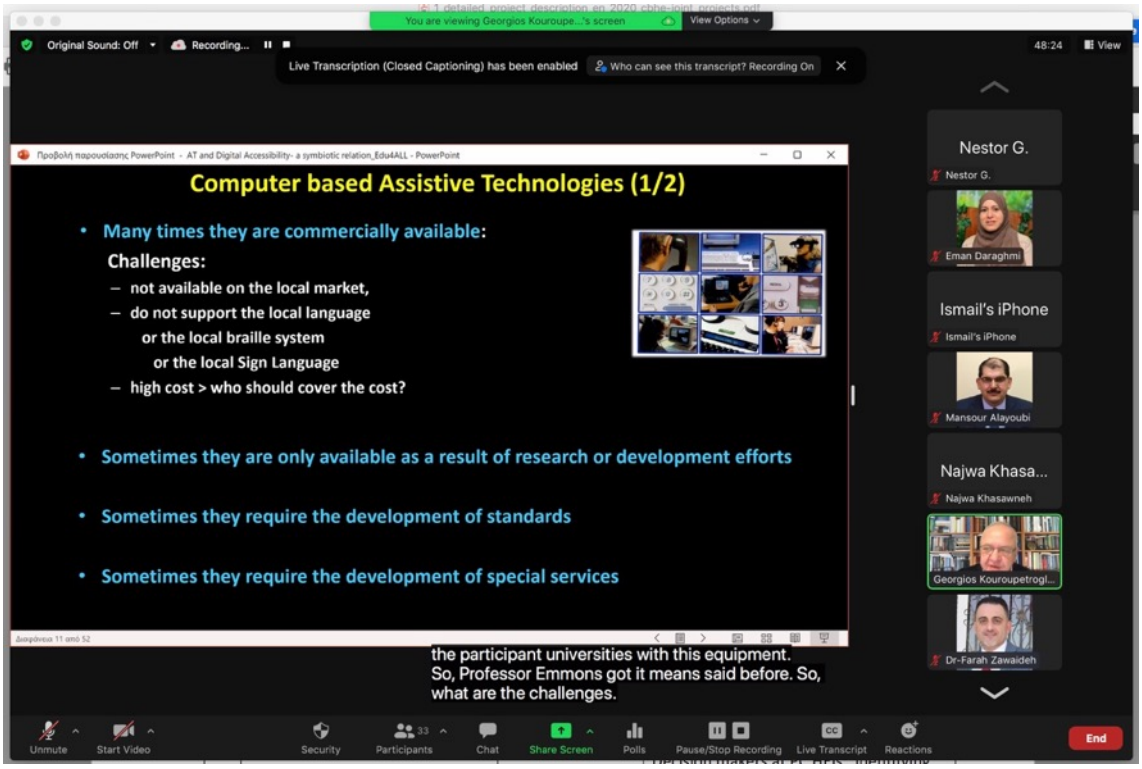

Figure 2. Screenshot from the webinar

9 Results

The participants in the webinar agreed on the need to pay attention to the category of persons with disabilities by strengthening the partnership between them and the various educational, civil and official institutions and the private sector to enhance their capabilities by searching for ideas and creative solutions, enabling them to overcome the difficulties of daily life, in addition to integrating them further in the discussion of various issues of interest to them at various levels.

10 Conclusions

The first webinar on "Inclusive Education in HEIs" took place on 15 February 2022. The webinar entitled "Edu4ALL: Empowering and Including Students with disabilities in Higher Education". The webinar aims at raising the awareness and illustrating the role of inclusive education and its impact for building the capacity of students with disabilities. More than 150 participants attended the webinar. The participants concluded that there is a need to create an academic environment conducive to disabilities by supporting their

academic social and psychological needs with suitable equipment, tools, and relevant policies. Also, the participants in the webinar agreed that there is a need to pay attention to the category of persons with disabilities by strengthening the partnership between them and the various educational, civil and official institutions and the private sector to enhance their capabilities by searching for ideas and creative solutions, enabling them to overcome the difficulties of daily life, in addition to integrating them further in the discussion of various issues of interest to them at various levels.