



## Virtual Portal for Interaction and ICT Training for People with Disabilities

# ViPi Curriculum

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## Version History table

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1	09-11-2011 - Reformatting of previous ViPi Curriculum Detail (Post Cyprus) document to new project standard and editing to include assignments of lead authoring roles as discussed in the Skype meeting on 02/11/2011 along with additional edits recently provided by partners, particularly on the What is there for me? Section.
2	30-01-2012 – Addition of key suggestions from stakeholder meeting with teachers at Oak Field School
3	08/05/2012 – Revision of curriculum to encompass sections for skills which are enhanced directly and indirectly by each section. Also removal of timings for course.
4	28/05/2012 - Revisions by Eurocy Hiteco and Steficon Incorporated by NTU

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## Glossary

**Android App:** A software application that facilitates access to specific resources, installable on Android devices

**Click:** the press of a mouse button (and the sound it makes)

**Cloud:** Web based storage allowing remote backup and roaming file access

**Desktop:** a computer designed to be set up as a work station

**Email:** electronic mail. Message sent through electronic devices, i.e. computers.

**Hyperlink:** A link from a hypertext file or document to another location or file, typically activated by clicking on a highlighted word or image on the screen

**E-learning:** this includes all forms of electronically supported learning – but more specifically, the computer and network enabled transfer of knowledge and skills.

**Gestures:** (Touch or Touchless) Kinect-like gestures being used on mobile devices to facilitate starting applications or browsing the internet

**ICT:** Information and Communication Technology – the use of computers and mobile devices to present and find information and to communicate with others

**Input:** feeding control data into a computer telling it what you want it to do.

**Kiosk presentation** – a slideshow that uses timings to move from one interaction to the next, requiring no manual input, and producing a rolling show.

**Laptop:** a portable computer usually with a built-in monitor

**LibreOffice Writer:** The textual document processors created by the Open Source Community

**Mixed Case:** capital and small letters

**Mobile Access:** Connect to a web resource through a mobile device

**Mobile browsing:** Interact with a web resource

**Mouse:** a device to control and interact with the on screen pointer via movement on the desk

**MS Word:** The textual document processor created by Microsoft corporation

**Navigating:** Moving between web pages

**OS:** or Operating System – this is the software that your computer uses to allow you to interact with it and its programs. Common OS include Windows versions, Linux, Ubuntu and Mac OSX

**Predictive text:** software that takes the first letters of a word entered and their context and uses this to predict the word being typed.

Scroll bar: A sliding bar appearing on the barriers of a window, which allows the user to move it up/down or left/right, causing the move of the window itself.

Touchpad: a device to control and interact with the on screen pointer via movement of a finger on a touch sensitive pad.

Track-ball: a device similar to a mouse with a roller ball mounted in a surface so that it can be rolled to control the mouse pointer.

URL: Abbreviation of Uniform Resource Locator, a web address often starting with <http://www>.

USB: Universal Serial Bus – a standard cable drive or memory stick connection socket.

Webcam – a video camera connected to or built into a laptop, PC or phone in order to allow images or video of the user to be captured and sent.

ViPi platform: The main resource portal of the project.

### **UK Key Skills Summary**

Skills which may be enhanced by each section are summarised here. These are the UK Key Skills Qualifications which are offered in six areas.

- Communication
  - speaking,
  - listening,
  - reading and
  - writing skills
- Application of Number
  - interpreting information involving numbers
  - carrying out calculations,
  - interpreting results and
  - presenting findings
- Information Communication Technology
  - finding, exploring, developing and presenting information including text, images and numbers
- Working with others



- includes process and interpersonal skills to support working cooperatively with others to achieve shared objectives, work cooperatively and have regard for others
- Improving own learning and performance
  - developing independent learners who are clearly focused on what they want to achieve and able to work towards targets that will improve the quality of their learning and performance. The standards include
    - process skills, e.g., target-setting, planning, learning, reviewing and
    - interpersonal skills, e.g., communicating own needs, accepting constructive feedback, negotiating learning opportunities and support
- Problem solving
  - encouraging learners to develop and demonstrate their ability to tackle problems systematically, for the purpose of working towards their solution and learning from this process. Three types or combinations of problems are dealt with:
    - diagnostic problems that depend primarily on analysis to arrive at conclusions,
    - design problems that depend mainly on synthesis to create a product or process, and
    - contingency problems that typically involve resource planning and gaining the cooperation of others, e.g. when organising an event

# 1 Unit 1 Computer Basics for Beginners

## 1.1 About Computers

### 1.1.1 Aims

This unit will help you recognise the parts of a desktop/laptop computer, and teach you how to turn it on and off safely.

### 1.1.2 Lead Partner

NTU

### 1.1.3 Learning Objectives

- Be aware of and be able to name parts of a computer (desktop and laptop)
- Be able to turn on and boot the computer (desktop and laptop)
- Be able to shut down the computer safely without risk to data/hardware (desktop and laptop)

### 1.1.4 Skills Enhanced

#### 1.1.4.1 *Directly*

- ICT

#### 1.1.4.2 *Indirectly*

- Communication
- Improving own learning and performance

### 1.1.5 Content of the Themes

#### 1.1.5.1 *Parts of a computer*

Recognising the parts of a desktop computer including:

- Monitor
- PC base unit (CPU)
- Mouse
- Keyboard
- Modem/Router (optional)
- Printer (optional)
- Scanner (optional)

- Assistive technologies (optional and user specific)

Recognising the parts of a laptop computer including:

- Monitor
- Keyboard
- Touchpad
- Power supply
- Mouse

### 1.1.5.2 *Turning the computer on and off and logging in and out safely*

Startup and shutdown:

- Booting a laptop and desktop computer
  - Turning on the monitor (desktop)
  - “ON” button
  - Entering username/password
- Shutting down a laptop and desktop computer
  - Exiting programs
  - Using safe software shutdown
- Turning off monitor
- Hibernate and sleep modes

(Different versions for XP, Vista, Win 7, Win 8 (when available), Ubuntu, Mac)

### 1.1.6 Teaching Strategies

- Point and show parts of a computer using diagrams and actual kit
- Demonstration of booting and shutting down of desktop and laptop computers
- Demonstration of logging on and off safely
- Practical boot and shutdown of desktop and laptop computers by students
- Practical exercise on logging on and off the computer and laptop

### 1.1.7 Previous Knowledge

None

### 1.1.8 Resources

- PC with projector
- Laptop with projector
- Pens
- Hand-outs – pictorial guide to parts of desktop and laptop machines and of the boot/shutdown process specific to the hardware and OS used.
- Any necessary assistive devices (disability-specific)



## 1.1.9 Assessment Criteria

- Multiple choice questions
- Label a diagram of a PC and/or Laptop
- Demonstrate ability to boot, shut down, log on and log off for desktop and laptop

## 1.1.10 Summary

Students should recognise the parts of both a laptop and desktop computer and be able to turn them on and off, as well as logging on and off the operating system, safely without compromising data.

## 1.1.11 Glossary

Desktop: a computer designed to be set up as a work station

Laptop: a portable computer usually with a built-in monitor

## 1.2 Input Devices

### 1.2.1 Aims

This unit will help you use a mouse/touchpad and keyboard (or equivalent assistive technologies) to interact with a computer.

### 1.2.2 Lead Partner

NTU

### 1.2.3 Learning Objectives

- Be aware of how to use a mouse/touchpad, its buttons and its scroll wheel.
- Recognise the most important keys on a keyboard.
- Be aware of what the most important keys are used for.

### 1.2.4 Skills Enhanced

#### 1.2.4.1 *Directly*

- ICT

#### 1.2.4.2 *Indirectly*

- Communication
- Improving own learning and performance
- Application of number

### 1.2.5 Content of the Themes

#### 1.2.5.1 *The mouse/touchpad*

The Mouse (and its accessible alternatives such as trackball, etc.):

- Left Click
- Right Click
- Scroll Wheel
- Double Click
- Drag

#### 1.2.5.2 *The Keyboard*

The Keyboard (and accessible alternatives such as onscreen keyboard, simplified keyboard, etc.):

- Letters, Numbers and Space
- The Shift/Caps Lock Keys

- The Enter Key
- The Backspace Key

### 1.2.5.3 *The TouchScreen*

- Interacting with a touchscreen

## 1.2.6 Teaching Strategies

- Point and show parts of a mouse/touchpad and keyboard using diagrams, photos and actual kit.
- Demonstration of the use of a mouse/touchpad for each type of interaction.
- Demonstration of the use of the most important keys on a keyboard.
- Hands-on use of the mouse/keyboard to perform a structured task within a pre-opened document file.

## 1.2.7 Previous Knowledge

None

## 1.2.8 Resources

- PC with projector
- Laptop with projector
- Pens
- Hand-outs – pictorial guide to parts of keyboard and mouse/touchpad.
- PCs for use by each student

## 1.2.9 Assessment Criteria

- Multiple choice questions
- Show on a diagram of a keyboard where the letter keys, number keys, space, enter and shift keys are.
- Label a diagram of a mouse
- Label a diagram of a touchpad
- Demonstrate ability to type some words and numbers using mixed case, spacing, and line breaks.

## 1.2.10 Summary

Students should recognise the parts of a keyboard and mouse/touchpad and be able to use them to operate the computer.

## 1.2.11 Glossary

Mixed Case: capital and small letters

Mouse: a device to control and interact with the on screen pointer via movement on the desk

Touchpad: a device to control and interact with the on screen pointer via movement of a finger on a touch sensitive pad.

## 1.3 Output Devices

### 1.3.1 Aims

This unit will make you aware of the settings and options that can be changed in the Windows display settings to improve accessibility of monitor output. It will explain how to adjust sound settings. It will also make you aware of other alternative output technologies including text-to-speech, screen readers and refreshable Braille displays.

### 1.3.2 Lead Partner

NTU

### 1.3.3 Learning Objectives

- Be able to improve accessibility by using display and application settings including:
  - Display resolution
  - Contrast
  - Brightness
  - Font size
  - Window zoom
- Make the user aware of how to mute and adjust sound volume.
- Be aware of other assistive technologies which can provide useful outputs including (but not limited to):
  - Magnifiers
  - Windows Narrator
  - Text-to-speech
  - Screen readers
  - Refreshable Braille displays

### 1.3.4 Skills Enhanced

#### 1.3.4.1 *Directly*

- ICT

#### 1.3.4.2 *Indirectly*

- Communication
- Improving own learning and performance

### 1.3.5 Content of the Themes

#### 1.3.5.1 *Application settings*

- Font Size
- Window Zoom

### 1.3.5.2 *Sound settings*

- Adjustment of volume/mute from software
- Adjustment of volume from hardware

### 1.3.5.3 *Introduction to assistive technologies (AT/LEC input)*

- Magnifiers
- Narrator
- Text-to-speech
- Screen readers
- Refreshable Braille displays.

### 1.3.6 Teaching Strategies

- Demonstration of adjustment of sound settings in both software and hardware.
- Demonstration of the adjustment of some application settings which may increase accessibility. Zooming a window in an office application, switching font size and zooming in a browser window.
- Hands-on use of a PC or laptop to adjust and optimise the settings.
- Description of assistive technologies using demonstration where possible.
- Handouts summarising the assistive technologies (ATs) available and highlighting the optional modules available on ATs.

### 1.3.7 Previous Knowledge

None

### 1.3.8 Resources

- PC/Laptop with projector and speakers, along with assistive technologies where available (magnifier, TTS, screen reader, narrator software and Braille display hardware)
- Pens
- Hand-outs – guide to assistive output technologies and a summary of display adjustments.
- PCs for use by each student
- Online resources on assistive technology that exists per disability group (EASTIN, OatSoft, OAEG, UoA online repository, etc.).

### 1.3.9 Assessment Criteria

- Multiple choice questions
- Exercise in adjusting windows display and sound settings.

### 1.3.10 Summary

Students should be able to optimise display settings in Windows to their needs and optimise applications to allow ease of viewing. Students should be able to adjust the sound volume. Students should be aware of other output technologies that may assist them.





## 1.3.11 Glossary

AT: assistive technology – any technology that improves accessibility to ICT usage (or more specifically PC usage), be it hardware or software.

## 1.4 Using the Computer

### 1.4.1 Aims

This unit will teach you about how to interact with the desktop, its icons, task bar, start menu, and windows.

### 1.4.2 Lead Partner

NTU

### 1.4.3 Learning Objectives

- Be aware of how to start a program with a desktop icon and start the 'start' menu.
- Be aware of how to view the task bar and bring open windows to the fore.
- Be aware of the start menu and how to select items from it.
- Be aware of Windows and how to maximise, minimise, hide, restore, move and resize them.
- Be aware of how to switch between multiple windows.

### 1.4.4 Skills Enhanced

#### 1.4.4.1 *Directly*

- ICT

#### 1.4.4.2 *Indirectly*

- Communication
- Improving own learning and performance

### 1.4.5 Content of the Themes

#### 1.4.5.1 *Desktop Icons*

- Clicking to select icons
- Double-clicking to open applications with icons

#### 1.4.5.2 *The Task Bar*

- How to see the task bar
- Contents of the task bar
- Bringing a window to the foreground with the task bar

#### 1.4.5.3 *Windows*

- Closing open windows
- Minimising windows
- Restoring windows down
- Moving windows
- Resizing restored down windows
- Scrolling using scroll bars within windows

### 1.4.5.4 *Using an application*

- Open paint
- Interact briefly with some simple tools to create a picture.
- Save work
- Print work

### 1.4.6 Teaching Strategies

- Demonstrate the use of the desktop features with a projected machine.
- Give handouts showing the features of a desktop
- Hands-on session - Allow students to perform structured tasks on a machine.
- Creation and printing of a simple document/picture to make to worth of the process clear

### 1.4.7 Previous Knowledge

None

### 1.4.8 Resources

- PC/laptop with projector
- Pens
- Hand-outs – pictorial guide to parts of the desktop
- PC access for each student (supportive devices to be used as required by disability type and level)

### 1.4.9 Assessment Criteria

- Multiple choice questions
- Show on a diagram of a desktop where they would find the start menu, task bar, desktop icons and windows.
- Demonstrate ability to open an application, hide and unhide windows, resize a window, move window and scroll with a scroll bar.

### 1.4.10 Summary

Students should recognise the parts of the desktop and be able to use them to open applications and switch between them.

### 1.4.11 Glossary

Scroll bar: A sliding bar appearing on the barriers of a window, which allows the user to move it up/down or left/right, causing the move of the window itself.

## 1.5 Browsing the Web

### 1.5.1 Aims

This unit will teach the basics of using a web browser to view web pages.

### 1.5.2 Lead Partner

NTU

### 1.5.3 Learning Objectives

- Be aware of what types of web browser software are available and how to use them. Core functionalities Mozilla, chrome, etc.
- Be able to type or copy a URL into the address bar
- Be able to use hyperlinks
- Be able to navigate backwards and forwards
- Be able to perform a web search
- Add site to favourites, and find them

### 1.5.4 Skills Enhanced

#### 1.5.4.1 *Directly*

- ICT

#### 1.5.4.2 *Indirectly*

- Communication
- Improving own learning and performance

### 1.5.5 Content of the Themes

#### 1.5.5.1 *Web browsing applications*

- Recognise the most widely used web browsing applications. Currently Internet Explorer, Google Chrome, Mozilla Firefox and Lynx text browser (useful for visually impaired people)

#### 1.5.5.2 *Using a web browser (browser specific)*

- URLs
  - Understanding their syntax/structure
- Hyperlinks
  - Recognising where hyperlinks are
  - Activating a link
- Navigating backwards and forwards
- Use the search bar or a search engine page

### 1.5.6 Teaching Strategies

- Show a selection of browser applications highlighting that they perform the same job.

- Demonstrate the use of the browser features with a projected machine.
- Give handouts labelling the features of a specific browser window
- Hands-on session: Allow students to perform structured tasks on a machine.

## 1.5.7 Previous Knowledge

Knowledge of what the internet is

## 1.5.8 Resources

- PC/laptop with projector and Internet access
- Pens
- Hand-outs – Diagram of a (specific) browser window showing locations of important features.
- PC/Laptop with web (Internet) access for each student

## 1.5.9 Assessment Criteria

- Multiple choice questions
- Recognise and start the browser application from the desktop and Start menu.
- Demonstrate ability to open a web page, navigate forward using hyperlinks and back and forward using the browser's buttons.
- Perform a search for a specific subject. Very simple level

## 1.5.10 Summary

Students should recognise the parts of an internet browser, be able to navigate around a web site and perform a search on a subject.

## 1.5.11 Glossary

**Hyperlink:** A link from a hypertext file or document to another location or file, typically activated by clicking on a highlighted word or image on the screen

**Navigating:** Moving between web pages

**URL:** Abbreviation of Uniform Resource Locator, a web address often starting with <http://www>.

## 2 Unit 2 Basic ICT Skills

### 2.1 More About Computers

#### 2.1.1 Aims

This unit will help you recognise the parts of a desktop/laptop computer, and teach you how to turn it on and off safely.

#### 2.1.2 Lead Partner

NTU

#### 2.1.3 Learning Objectives

- Be aware of and be able to name parts of a computer (desktop and laptop)
- Be able to turn on and boot the computer (desktop and laptop)
- Be able to shut down the computer safely without risk to data/hardware (desktop and laptop)

#### 2.1.4 Skills Enhanced

##### 2.1.4.1 *Directly*

- ICT

##### 2.1.4.2 *Indirectly*

- Communication
- Improving own learning and performance

#### 2.1.5 Content of the Themes

##### 2.1.5.1 *Parts of a computer*

Recognising the parts of a desktop computer including:

- Monitor
- PC base unit (CPU)
- Mouse
- Keyboard
- Speakers
- Modem/Router (optional)
- Printer (optional)
- Scanner (optional)

- Cables (power, VGA, DVI, Network ,USB, Printer) and connections (USB (printer, mini, micro) speakers/microphone, PS2)
- Assistive technologies (optional and user specific)

Recognising the parts of a laptop computer including:

- Monitor
- Keyboard
- Touchpad
- Power supply
- Mouse

### *2.1.5.2 Turning the computer on and off and logging in and out safely*

Startup and shutdown:

- Booting a laptop and desktop computer
  - Turning on the monitor (desktop)
  - “ON” button
  - Entering username/password
- Shutting down a laptop and desktop computer
  - Exiting programs
  - Using safe software shutdown
- Turning off monitor
- Hibernate and sleep modes

(Different versions for XP, Vista, Win 7, Win 8 (when available), Ubuntu, Mac)

### *2.1.5.3 Assembly of a computer*

Connecting a Desktop PC together to make it functional using: power cables, VGA/DVI cables, mouse, keyboard, network, speakers, microphone, and USB devices.

Assembly of a Laptop computer to make it functional including: attaching a power supply, USB mouse, headphones, network cable

## **2.1.6 Teaching Strategies**

- Point and show parts of a computer using diagrams and actual kit
- Demonstration of booting and shutting down of desktop and laptop computers
- Demonstration of logging on and off safely
- Practical boot and shutdown of desktop and laptop computers by students
- Practical exercise on logging on and off the computer and laptop
- Practical assembly of a computer exercise

## 2.1.7 Previous Knowledge

None

## 2.1.8 Resources

- PC with projector
- Laptop with projector
- Pens
- Hand-outs – pictorial guide to parts of desktop and laptop machines and of the boot/shutdown process specific to the hardware and OS used.
- Any necessary assistive devices (disability-specific)
- Computers for student exercises with peripherals requiring assembly (speakers monitor, microphone, mouse keyboard (and optionally printer, scanner etc. and other necessary assistive devices)

## 2.1.9 Assessment Criteria

- Label a diagram of a PC and/or Laptop
- Demonstrate ability to boot, shut down, log on and log off for desktop and laptop
- Demonstrate ability to assemble a computer from the parts and cables

## 2.1.10 Summary

Students should recognise the parts of both a laptop and desktop computer, be able to put them together to make a working PC, and be able to turn it on and off, as well as logging on and off the operating system, safely without compromising data.

## 2.1.11 Glossary

Desktop: a computer designed to be set up as a work station

Laptop: a portable computer usually with a built-in monitor



## 2.2 Higher Input Devices

### 2.2.1 Aims

This unit will help you to use a mouse/touchpad (or equivalent assistive technologies) to interact with a computer. It will give you a broad knowledge of keyboard functions including ways to make the keyboard work better for you. You will also learn about alternative methods of text entry.

### 2.2.2 Lead Partner

NTU

### 2.2.3 Learning Objectives

- Be aware of how to use a mouse/touchpad, its buttons and its scroll wheel.
- Recognise the most important keys on a keyboard.
- Be aware of what the most important keys are used for, and ways to make the keyboard work better for you.
- Be aware of alternative text entry methods.

### 2.2.4 Skills Enhanced

#### 2.2.4.1 *Directly*

- ICT

#### 2.2.4.2 *Indirectly*

- Communication
- Application of number
- Improving own learning and performance

### 2.2.5 Content of the Themes

#### 2.2.5.1 *The mouse/touchpad*

The Mouse (and its accessible alternatives such as trackball, etc.):

- Left Click
- Right Click
- Scroll Wheel
- Double Click
- Drag

#### 2.2.5.2 *The Keyboard*

The Keyboard (and its accessible alternatives such as onscreen keyboard, simplified keyboard, etc.)

- The Keys
  - Letters, numbers and space
  - The shift/caps lock keys
  - The enter key
  - The backspace key
  - Other important keys
- Keyboard shortcuts
- Assistive Keyboard approaches (optional)
  - Keyboard control tweaks:
    - Mouse keys
    - Toggle keys
    - Sticky keys
    - Filter keys
  - On-screen keyboard emulation
  - Scanning keyboards
  - Word prediction (predictive text)
  - Speech recognition
  - Speech to text

### 2.2.5.3 *The TouchScreen*

- Interacting with a touchscreen
- Changing sensitivity of a touchscreen
- Use with on-screen keyboards

### 2.2.6 Teaching Strategies

- Point and show parts of a mouse/touchpad and keyboard using diagrams, photos and actual kit.
- Demonstration of the use of a mouse/touchpad for each type of interaction.
- Demonstration of the use of the keys on a keyboard whilst highlighting which keys are being pressed, including keyboard shortcuts (such as cut, copy, paste, undo, redo, tab) and keyboard control tweaks (ease of use centre).
- Hands on use of the mouse/keyboard to perform a structured task within a pre-opened document file.

And optionally when appropriate...

- Demonstration of use of a trackball as an alternative to mouse/touchpad.
- Demonstration of on-screen keyboards and their potential assistive use (i.e . keyboard via mouse, and scanning keyboard with switch etc)
- Demonstration of word prediction software to aid literacy
- Demonstration of speech recognition control and speech to text
- Hands on use of these assistive keyboard approaches where suitable.

### 2.2.7 Previous Knowledge

Some degree of literacy for keyboard inputs.

### 2.2.8 Resources

- PC with projector
- Laptop with projector

- Pens
- Hand-outs – pictorial guide to parts of keyboard and mouse/touchpad and list of useful keyboard shortcuts.
- PCs for use by each student

And, when appropriate:

- Optional extra software/hardware including:
  - For speech-to-text, a microphone and speech-to-text software
  - Word-prediction (predictive text) software
  - On-screen keyboard/scanning keyboard software
  - Track ball

## 2.2.9 Assessment Criteria

- Show on a diagram of a keyboard where the letter keys, number keys, space, enter, backspace, control and shift keys are.
- Demonstrate ability to type some words and numbers using mixed case, spacing, and line breaks.
- Demonstrate knowledge of the shortcuts available and how to use them.

And where appropriate:

- Demonstrate ability to use assistive hardware/software combinations to get the most out of keyboard usage dependent on type and level of disability.

## 2.2.10 Summary

Students should recognise the parts of a keyboard and mouse/touchpad and be able to use them to operate the computer. They should be familiar with keyboard shortcuts to enhance and speed up interaction with the computer. Where appropriate they should be aware of what assistive input devices are available to help them interact with the PC and how to use them.

## 2.2.11 Glossary

Click: the press of a mouse button (and the sound it makes)

Input: feeding control data into a computer telling it what you want it to do.

Mixed Case: capital and small letters

Mouse: a device to control and interact with the on screen pointer via movement on the desk

Predictive text: software that takes the first letters of a word entered and their context and uses this to predict the word being typed.

Touchpad: a device to control and interact with the on screen pointer via movement of a finger on a touch sensitive pad.

Track-ball: a device similar to a mouse with a roller ball mounted in a surface so that it can be rolled to control the mouse pointer.

## 2.3 Output Devices

### 2.3.1 Aims

This unit will make you aware of the settings and options that can be changed on a monitor and in the OS display settings to improve accessibility of monitor output. It will also make you aware of other alternative output technologies including text-to-speech, screen readers and refreshable Braille displays.

### 2.3.2 Lead Partner

NTU

### 2.3.3 Learning Objectives

- Be able to improve accessibility by using display, monitor and application settings including:
  - Display resolution
  - Contrast
  - Brightness
  - Font size
  - Window zoom
- Be aware of other assistive technologies which can provide useful outputs including (but not limited to):
  - Magnifiers
  - Windows Narrator
  - Text-to-speech
  - Screen readers
  - Refreshable Braille displays

### 2.3.4 Skills Enhanced

#### 2.3.4.1 *Directly*

- ICT

#### 2.3.4.2 *Indirectly*

- Communication
- Improving own learning and performance

### 2.3.5 Content of the Themes

#### 2.3.5.1 *Display settings*

- Resolution (OS specific) – Be aware of what “screen resolution” is and how to adjust the resolution settings

- Display Optimisation Wizard/Brightness/Colour (dependent on graphics hardware)

### 2.3.5.2 *Monitor settings*

Adjusting monitor settings (specific to monitor)

- Brightness
- Contrast
- Colour

### 2.3.5.3 *Application settings*

- Font Size
- Window Zoom

### 2.3.5.4 *Sound settings*

- Adjustment of volume/mute from software
- Adjustment of volume from hardware

### 2.3.5.5 *Introduction to assistive technologies*

- Magnifiers
- Narrator
- Text-to-speech
- Screen readers
- Refreshable Braille displays.

## 2.3.6 *Teaching Strategies*

- Demonstration of how to adjust to and accept new screen resolutions. Show examples of different resolutions to demonstrate how this affects the desktop. Show other display options from the graphics settings.
- Demonstration of the adjustment of monitor settings detailing where and how these can usually be accessed.
- Demonstration of adjustment of sound settings in both software and hardware.
- Demonstration of the adjustment of some application settings which may increase accessibility. Zooming a window in an office application, switching font size and zooming in a browser window.
- Hands-on use of a PC or laptop to adjust and optimise the settings.
- Description of assistive technologies using demonstration where possible.
- Handouts summarising the assistive technologies (ATs) available and highlighting the optional modules available on ATs.

## 2.3.7 *Previous Knowledge*

None

## 2.3.8 *Resources*

- PC/Laptop with projector and speakers, along with assistive technologies where available (magnifier, TTS, screen reader, narrator software and Braille display hardware)
- Pens



- Hand-outs – guide to assistive output technologies and a summary of display adjustments.
- PCs for use by each student
- Online resources on assistive technology that exists per disability group (EASTIN, OatSoft, OAEG, UoA online repository, etc.).

### 2.3.9 Assessment Criteria

- Multiple choice questions
- Exercise in adjusting windows display and sound settings.

### 2.3.10 Summary

Students should be able to optimise a display to their needs and optimise applications to allow ease of viewing. Students should be able to adjust sound volume. Students should be aware of other output technologies that may assist them.

### 2.3.11 Glossary

AT: assistive technology – any technology that improves accessibility to ICT usage (or more specifically PC usage), be it hardware or software.

## 2.4 Higher Using the Computer

### 2.4.1 Aims

This unit will teach you about how to interact with the desktop, its icons, task bar, start menu, and windows.

### 2.4.2 Lead Partner

NTU

### 2.4.3 Learning Objectives

(Versions to be available for Windows XP, Windows Vista, Windows 7 and 8 if available)

- Be aware of how to start a program with a desktop icon or through the Start menu.
- Be aware of how to view the task bar and bring open windows to the fore.
- Be aware of the Start menu and how to select items from it.
- Be aware of Windows and how to maximise, minimise, hide, restore and resize them
- Be aware of how to switch between multiple windows
- Be aware of the help functionality and able to use it to answer questions
- Know the difference between files and folders
- Be aware of file types and able to arrange them into logical folders
- Understand the importance of backing-up data

### 2.4.4 Skills Enhanced

#### 2.4.4.1 *Directly*

- ICT

#### 2.4.4.2 *Indirectly*

- Communication
- Improving own learning and performance

### 2.4.5 Content of the Themes

#### 2.4.5.1 *Desktop Icons*

- Clicking to select icons
- Double-clicking to open applications with icons

#### 2.4.5.2 *The Task Bar*

- How to see the task bar
- Contents of the task bar
- Bringing a window to the foreground with the task bar

### 2.4.5.3 Windows

- Closing open windows
- Minimising windows
- Restoring windows down
- Moving windows
- Resizing restored down windows
- Scrolling using scroll bars within windows

### 2.4.5.4 Help

- Opening the help search
- Learning with 'Help and Support', using example of 'windows basics'

### 2.4.5.5 Files and Folders

- Files and folders and their tree-like structure
- Grouping files in a folder
- Types of files (extensions)
- Moving and copying files with the mouse
- Moving and copying files using cut, copy and paste
- Deleting (permanently) files
- Cleaning cache
- Backing up data

## 2.4.6 Teaching Strategies

- Demonstrate the use of the desktop features with a projected machine.
- Give handouts covering the course material.
- Hands-on session - Allow students to perform structured tasks on a machine.

## 2.4.7 Previous Knowledge

None

## 2.4.8 Resources

- PC/laptop with projector
- Pens
- Hand-outs – pictorial guide to parts of the desktop
- PC access for each student (supportive devices to be used as required by disability type and level)

## 2.4.9 Assessment Criteria

- Show on a diagram of a desktop where they would find the start menu, task bar, desktop icons and windows.
- Demonstrate ability to open an application, hide and unhide windows, resize a window, move window and scroll with a scroll bar.
- Demonstrate ability to group files into folders.





## 2.4.10 Summary

Students should recognise the parts of the desktop and be able to use them to open applications and switch between them. Students should be able to group files into folders and back them up to a cloud or USB drive.

## 2.4.11 Glossary

Cloud: Web based storage allowing remote backup and roaming file access

USB: Universal Serial Bus – a standard cable drive or memory stick connection socket.

OS: or Operating System – this is the software that your computer uses to allow you to interact with it and its programs. Common OS include Windows versions, Linux, Ubuntu and Mac OSX.

## 2.5 Making and Saving a Document and spreadsheet

### 2.5.1 Aims

This unit will teach you about how to create, edit, save and print a text document.

### 2.5.2 Lead Partner

PhoenixKM

### 2.5.3 Learning Objectives

- Be able to create, edit, save and print a text document.
- Be able to create a simple spreadsheet and chart

### 2.5.4 Skills Enhanced

#### 2.5.4.1 *Directly*

- ICT

#### 2.5.4.2 *Indirectly*

- Communication
- Application of number
- Improving own learning and performance

### 2.5.5 Content of the Themes

#### 2.5.5.1 *Making and saving a simple document and a simple spreadsheet*

(software specific suggested to use MS Word or LibreOffice Writer as this will lead on to future word processing module)

- Starting the application
- Adding text
- Use 'Undo' and 'Redo' commands
- Moving the cursor within text
- Adding bullets and images
- Adding a table
- Adding a hyperlink
- Saving the document
- Closing the document
- Re-opening the saved document
- Printing the document

### 2.5.5.2 *Making and saving a simple spreadsheet*

(software specific suggested to use MS Excel or LibreOffice Calc as this will lead on to future spreadsheet module)

- Starting the application
- Adding a data table
- Displaying as a simple chart (Pie or bar)
- Saving the document
- Closing the document
- Re-opening the saved document
- Printing the document

### 2.5.6 Teaching Strategies

- Demonstrate the process with a projected machine.
- Give handouts describing the process.
- Hands-on session - Allow students to perform structured task on a machine.

### 2.5.7 Previous Knowledge

None

### 2.5.8 Resources

- PC/laptop with projector
- Hand-outs – pictorial guide to features of a word processor and summary of shortcuts and locations from which to access important features.
- PC access for each student with word editor software and printer access.

### 2.5.9 Assessment Criteria

- Demonstrate ability to create, edit, save and print a document.

### 2.5.10 Summary

Students should be aware of the software available for creating text documents, and be able to use the simple features to create, edit, save and print a document.

### 2.5.11 Glossary

MS Word: The textual document processor created by Microsoft corporation

LibreOffice Writer: The textual document processors created by the Open Source Community

## 2.6 Web Browsing and Security

### 2.6.1 Aims

This unit will teach the basics of using a web browser to view web pages.

### 2.6.2 Lead Partner

EuroCy

### 2.6.3 Learning Objectives

- Be aware of what types of web browser software is available and how to start it.
- Be able to type or copy a URL into the address bar
- Be able to use hyperlinks
- Be able to navigate backwards and forwards
- Be able to perform a web search
- Be able to print a web page
- Be able to fill in a web form
- Be aware of available social networking sites and their global concept
  - Overview of different existing platforms, explaining their core functionalities
- Be aware of how to download and save a file
- Be aware of the risks (technical and social) associated with all the above.

### 2.6.4 Skills Enhanced

#### 2.6.4.1 *Directly*

- ICT

#### 2.6.4.2 *Indirectly*

- Communication
- Improving own learning and performance

### 2.6.5 Content of the Themes

#### 2.6.5.1 *Web browsing applications*

- What is the World Wide Web?
- Recognise the most widely used web browsing applications. Currently Internet Explorer, Google Chrome, Mozilla Firefox and Lynx text browser (useful for visually impaired people)

#### 2.6.5.2 *Using a web browser (browser specific)*

- URLs
  - Understanding their syntax/structure
- Browser Basics
  - The Address Bar

- The Forward and Back Buttons
- Hyperlinks
- History/Caching
- Favourites
- Using a Search Engine (Types of available search engines) include Bing and Google
- Printing a Web Page
- Filling-in Web Forms
- Social Networking Reference the “browser guardian to make children aware of social networking dangers” project
- Downloading Files links to supporting material

### 2.6.5.3 *Web security*

- Security and Certification of Web Sites
- Safe Internet Searching
- Viruses, Malware and Spyware
- Sharing Personal Information/Images – Access control and access prevention
- False Identity of Others
- Cyber Bullying
- Copyright issues

### 2.6.5.4 *Using ViPi (completed upon completion platform)*

- Computer based
- Mobile based
- Online repository
- Online Learning
- Mobile Applications

### 2.6.6 Teaching Strategies

- Show a selection of browser applications highlighting that they perform the same job.
- Demonstrate the use of the browser features with a projected machine.
- Give handouts labelling the features of a specific browser window
- Hands-on session - Allow students to perform structured tasks on a machine.
- Brainstorm/discussion of security issues – reinforce with handouts.

### 2.6.7 Previous Knowledge

Knowledge of what the internet is

### 2.6.8 Resources

- PC/laptop with web access and projector
- Pens
- Hand-outs – Diagram of a (specific) browser window showing locations of important features. Detailed information on safe internet use.
- PC with web access for each student

## 2.6.9 Assessment Criteria

- Recognise and start the browser application from the desktop and Start menu.
- Demonstrate ability to open a web page, navigate forward using hyperlinks and back and forward using the browser's buttons.
- Perform a search for a specific subject.

### 2.6.9.1 Assessment Questions

- Please, refer to the most widely used Web browsers.
- Please, mention and explain the different options that a user has at his disposal to launch a Web browsing software. Perform two of them in practice and describe.
- Please, start your Web browser and navigate to the page <http://www.vipi-project.eu> . First, explain the meaning of the different parts of the domain name in which you just navigated. Then use a hyperlink to move to another page on the Web site and explain how you did it. Finally, add the initial page in your favourite pages.
- Please, visit the [www.google.com](http://www.google.com) page and perform a search for "Browsing the Web". Then try to find images related to the same search phrase. Refer to any alternative search engines.
- Please, visit the [www.vipi-project.eu](http://www.vipi-project.eu) page and then go to the *Contact us* page. Fill-in the form and print it before submitting. Then submit the form and go to the *Download* page and get the project presentation. Open it on your device.
- Please, repeat all questions with one more browsing software
- Please, refer to the widely used social software and give short description of their objectives.

## 2.6.10 Summary

Students should recognise the parts of an internet browser, be able to navigate around a web site and perform a search on a subject. They should be familiar with web forms and be able to download a file to a specific location. They should be familiar with social networking sites. They should know the risks and dangers associated with web usage.

## 2.6.11 Glossary

**Hyperlink:** A link from a hypertext file or document to another location or file, typically activated by clicking on a highlighted word or image on the screen

**Navigating:** Moving between web pages

**URL:** Abbreviation of Uniform Resource Locator, a web address often starting with <http://www>.

## 2.7 E-mail and Security

### 2.7.1 Aims

This unit will teach the use of email including software, accounts, folders, attachments and all relevant security matters.

### 2.7.2 Lead Partner

EuroCy

### 2.7.3 Learning Objectives

(This concentrates on core functionalities, but individual tutors might want to make the content more specific to a certain web or client based service)

- Be aware of what email is and which software can be used to access it.
- Know how to send and receive emails
- Know how to send and access attachments within emails
- Be aware of the risks involved with using email communication

### 2.7.4 Skills Enhanced

#### 2.7.4.1 *Directly*

- ICT

#### 2.7.4.2 *Indirectly*

- Communication
- Improving own learning and performance

### 2.7.5 Content of the Themes

#### 2.7.5.1 *Using E-mail*

- Email Accounts and Addresses
- Clients and web based apps
- Logging In
- Inbox
- Composing an Email
- Sent Items Folder
- Other Folders
- Attaching Files
- TO/CC/BCC
- Forwarding an Email
- Reply
- Replying to all
- Organizing emails in inbox folders

## 2.7.5.2 Security Issues

- Logging into an e-mail account and saving passwords on Public Machines and Networks
- Phishing/Spoofing
- File Attachments and dangerous extension types
- Sharing Personal Information
- Copyright issues
- Spam / Unwanted emails being received/sent

## 2.7.6 Teaching Strategies

- Demonstrate use of an e-mail software package using PC with projector.
- Give handouts labelling the features of a specific email package window
- Hands-on session – Pair students and get them to send messages to each other and then send replies with an attached file.
- Discuss/brainstorm security issues and reinforce with a handout

## 2.7.7 Previous Knowledge

none

## 2.7.8 Resources

- PC/laptop with web access and projector
- Pens
- Hand-outs – Diagram of a (specific) email window showing locations of important features. Detailed information on safe email use.
- PC with web access and email client (or Webmail software available) for each student

## 2.7.9 Assessment Criteria

- Recognise and start a desktop email application
- Recognise and start a web-based email application
- Demonstrate ability to open receive mails, send mails, use a contact manager, access and send attachments.
- Knowledge of safe email usage – understanding about passwords, phishing, potentially unsafe file attachments, security of personal information and copyright.

### 2.7.9.1 Assessment Questions

- Please, write down your email address and explain the different parts of the address and their use
- Please, refer to the most widely known email providers.
- Please, refer to the most widely used email client software, both Web- and Desktop-based. Give short explanation of the main similarities and differences.
- In case you do not have an email account, please, choose one of the alternative email providers and create an account. Then, configure Thunderbird desktop client to access your



account but without deleting your messages from the provider's server. The account must be configured for maximum safety and security.

- Please, repeat the previous question with Windows Mail
- (After asking them and collecting the email addresses of all students in a list)
- Please, choose one of your classmates and send her/him an email, keeping my address in carbon copy. Before sending the email, please, add both addresses in your Contacts. Then, please, follow up with the email discussion that we will have, download and read any attachments and send back any documents you are requested to. Note that your replies should be sent to all recipients of previous messages, using dedicated reply options.
- Please, create a folder called "Email and Security" and store there all messages from our conversation.
- Please, refer to the security threats when using email and give short explanation of the reasons why they are dangerous and how one can fight against the dangers

## 2.7.10 Summary

Students should be familiar with using email to send and receive messages and attachments safely.

## 2.7.11 Glossary

Email: electronic mail. Message sent through electronic devices, i.e. computers.

## 2.8 Communication Tools

### 2.8.1 Aims

This unit will help you to understand and use both text based and audio/visual communication tools on a computer and/or mobile device / tablet.

### 2.8.2 Lead Partner

PhoenixKM (+Steficon and Hypertech)

### 2.8.3 Learning Objectives

- Be able to recognise and start a communication software package
- Be able to make and receive calls
- Be able to have a text based conversation

### 2.8.4 Skills Enhanced

#### 2.8.4.1 *Directly*

- ICT

#### 2.8.4.2 *Indirectly*

- Communication
- Improving own learning and performance

### 2.8.5 Content of the Themes

#### 2.8.5.1 *Communication software*

Recognising and describing the most common communication software used, including

- Skype
- Google Talk and Google+
- Facebook chat
- MSN Live Messenger

#### 2.8.5.2 *Using Communication Software*

- (Optionally) Setting up the webcam and microphone
- Making a call
- Answering an incoming call
- Ending a call
- Text based messaging
- Inviting others to participate to a call or text-based messaging

### 2.8.5.3 *Safety and communication software*

Risks of using online communication software

- Talking to strangers
- Logging into communication software account and saving passwords on public machines
- Phishing/Spoofing
- File downloads and dangerous extension types
- Sharing Personal Information
- Copyright issues

### 2.8.6 Teaching Strategies

- Point and show parts of the computer or mobile device / tablet used by communication tools
- Demonstration of running communication software, and making and receiving calls using it
- Hands on use of communication software to make video/voice calls to each other (collaborative learning)
- Hands on use of communications software to have text based conversations
- Examples of unsafe practices

### 2.8.7 Previous Knowledge

none

### 2.8.8 Resources

- PC / mobile device with projector and network connection and communication software
- Webcams and microphones
- Pens
- Hand-outs – pictorial guide to parts of desktop and laptop machines and of the boot/shutdown process specific to the hardware and OS used.
- Any necessary assistive devices (disability-specific)
- Networked PCs for each student for hands-on use

### 2.8.9 Assessment Criteria

- Demonstrate ability to make and receive video/voice calls
- Demonstrate ability to have text based conversations
- Answer questions on staying safe when using a communication tool

### 2.8.10 Summary

Students should recognise the different communications tools available and the parts of a computer required when using them including webcam and microphone. Students should be able to make and receive voice/video calls and also have text based conversations.

### 2.8.11 Glossary

Webcam – a video camera connected to or built into a laptop, PC or phone in order to allow images or video of the user to be captured and sent.

## 2.9 Mobiles, Smartphones and Tablets

### 2.9.1 Aims

This unit will inform the user about the different mobile devices available. It will teach the use of specific mobile devices, and demonstrate ways to improve accessibility on those devices.

### 2.9.2 Lead Partner

Steficon and Hiteco

### 2.9.3 Learning Objectives

- Be aware of what types of mobile devices are available including device shape (smart, touch, tablet) and OS (Java, Symbian, Android, Windows Mobile, BlackBerry and iOS)
- Know how to use a mobile device to make calls and send and receive text messages
- Know how to access the Internet using a mobile device
- Be aware of accessibility aids available to assist in the use of the mobile device (eg. Text to speech, speech to text, gestures)

### 2.9.4 Skills Enhanced

#### 2.9.4.1 *Directly*

- ICT

#### 2.9.4.2 *Indirectly*

- Communication
- Improving own learning and performance

### 2.9.5 Content of the Themes

#### 2.9.5.1 *Mobile devices*

Mobile Devices

- Phones
- Smartphones
- Tablets (Android and iOS based)

Types of mobile OS

- Symbian/Java
- Windows Mobile
- BlackBerry
- iOS
- Android

### 2.9.5.2 *Using mobile devices*

- Basic operation (calling and texting)
- Accessing internet services
- Applications
- Alternative text input and browsing methods
- Screen readers
- Installing ViPi mobile application
- Accessing and using ViPi Mobile Services

### 2.9.5.3 *Mobile security*

- Phishing
- Security and Certification of Web Sites
- Safe Internet Searching
- Viruses, Malware and Spyware
- Sharing Personal Information/Images
- False Identity of Others
- Cyber Bullying
- Copyright issues

### 2.9.6 Teaching Strategies

- Show and describe a selection of devices. Demonstrate their use if available.
- Give handouts labelling the features of a specific browser window
- Hands-on session - Allow students to perform structured tasks on a machine.

### 2.9.7 Previous Knowledge

none

### 2.9.8 Resources

- PC/laptop/mobile/tablet with projector
- Pens
- Hand-outs – Diagram of a (specific) email window showing locations of important features. Detailed information on safe email use.
- Hand-outs – Diagram of ViPi mobile app showing the available functionality. Detailed information on the social features (communication, posting, commenting on articles)
- A selection of mobile devices for demonstration purposes.
- A set of similar mobile devices for hands on experience.

### 2.9.9 Assessment Criteria

- Ability to send/receive text messages and make a call to a contact.
- Ability to use standard applications through the mobile devices
- Ability to use the accessibility features of mobile devices
- Ability to activate and use Gestures for facilitating basic operations (next-previous, show properties- make a selection)
- Access the ViPi application using the device (using assistive technology if required)



- Display a knowledge of safe usage – understanding about passwords, phishing, potentially unsafe websites and networks, and security of personal information.

## 2.9.10 Summary

Students should be aware of the mobile devices available and their potential uses. Students should have a hands-on knowledge of a particular mobile device and be able to use it to communicate and use the web.

## 2.9.11 Glossary

ViPi platform: The main resource portal of the project.

Mobile Access: Connect to a web resource through a mobile device

Mobile browsing: Interact with a web resource

Android App: A software application that facilitates access to specific resources, installable on

Android devices

Gestures: (Touch or Touchless) Kinect-like gestures being used on mobile devices to facilitate starting applications or browsing the internet

## 2.10 Assistive Technologies

### 2.10.1 Aims

This unit will provide detailed guidance on the use of relevant assistive technologies. **(Input to this section will come from the ATLEC project which runs in parallel and compliments ViPi work. ATLEC results will be available at the end of 2012)**

### 2.10.2 Lead Partner

PhoenixKM

### 2.10.3 Learning Objectives

- Be aware of what assistive technologies are available to improve your ICT experience
- Know how to set-up and use specific assistive hardware to improve your ICT experience.
- Know how to set-up and use specific assistive software to improve your ICT experience.

### 2.10.4 Skills Enhanced

#### *2.10.4.1 Directly*

- ICT

#### *2.10.4.2 Indirectly*

- Communication
- Improving own learning and performance

### 2.10.5 Content of the Themes

#### *2.10.5.1 Using assistive technologies*

- Screen Readers (PC)
- Screen readers (Mobile)
- Text-To-Speech
- Speech-To-Text
- Scanning on-screen keyboards
- Refreshable Braille displays
- More...

### 2.10.6 Teaching Strategies

- Detailed demonstration using PC and projector of setting up and using assistive hardware and software.
- Give handouts detailing the assistive technologies taught.
- Hands on use of the assistive technologies to work through suitable structured tasks.

## 2.10.7 Previous Knowledge

none

## 2.10.8 Resources

- PC/laptop with projector
- Pens
- Hand-outs – Diagram of a (specific) email window showing locations of important features. Detailed information on safe email use.
- A selection of mobile devices for demonstration purposes.
- A set of similar mobile devices for hands on experience.

## 2.10.9 Assessment Criteria

- Ability to perform standard tasks on a device using the relevant assistive technology.

## 2.10.10 Summary

Students should be aware of and able to use the assistive technologies which help them perform tasks on a PC or mobile device.

## 2.10.11 Glossary

Hyperlink: a selectable object that includes the path information to another object



## 2.11 What is there for me??

### 2.11.1 Aims

This unit will make students aware of relevant resources available to them both locally and in Europe.

### 2.11.2 Lead Partner

PhoenixKM (and all other partners)

### 2.11.3 Learning Objectives

- Be aware of available relevant online resources.

### 2.11.4 Skills Enhanced

#### 2.11.4.1 *Directly*

- ICT

#### 2.11.4.2 *Indirectly*

- Communication
- Improving own learning and performance

### 2.11.5 Content of the Themes

#### 2.11.5.1 *Europe*

#### 2.11.5.2 *Belgium*

#### 2.11.5.3 *Cyprus*

#### 2.11.5.4 *Greece*

#### 2.11.5.5 *Lithuania*

#### 2.11.5.6 *UK*

### 2.11.6 Teaching Strategies

- Presentation on currently available resources targeted to location and disability

### 2.11.7 Previous Knowledge

none



## 2.11.8 Resources

- PC/laptop with internet access and projector
- Hand-outs – Detailing resources and where to find them

## 2.11.9 Assessment Criteria

- Knowledge of available resources in Europe, your own country and locally.

## 2.11.10 Summary

Students should be aware of online software and some examples of what is available to them. Students should be familiar with using both online document editors and e-learning platforms.

## 2.11.11 Glossary

## 2.12 Safety and Security

### 2.12.1 Aims

This unit will teach the user to be secure in their use of their machine, the internet and email.

### 2.12.2 Lead Partner

EuroCy

### 2.12.3 Learning Objectives

- Be aware of necessity for system updates
- Be aware of virus checkers and how to use them
- Be able to use the internet safely in terms of protecting:
  - Yourself
  - Your data
  - Your computer

### 2.12.4 Skills Enhanced

#### 2.12.4.1 *Directly*

- ICT

#### 2.12.4.2 *Indirectly*

- Communication
- Improving own learning and performance

### 2.12.5 Content of the Themes

#### 2.12.5.1 *OS updates and virus checkers*

Security Skills

- Installing Operating System and Software Updates
- Using a Virus Checker
  - Potential virus sources
- Firewalls

#### 2.12.5.2 *Internet*

- Practical Safe Internet Interaction
  - Browser Privacy
  - Security and Certification of Web Sites
  - Safe Internet Searching
  - Viruses, Malware and Spyware
  - Sharing Personal Information/Images

- False Identity of Others
- Cyber Bullying
- Copyright issues
- Preventing Pop-Ups
- Safe web-searching
- Secure Internet Use Rule List - A list of simple rules to follow to keep you safe on-line. This can be printable and displayed near to the computer as a reminder to the user.
- Legal Issues
- Social Media – (Facebook, NetLog, LinkedIn, Twitter, Google+)
  - Privacy Settings - General common settings and links to site training material.
  - safe online behaviour (check for BE UK GR Cy pdf document)
    - <http://www2.lse.ac.uk/media@lse/research/EUKidsOnline/EU%20Kids%20I/Conference%20Papers%20and%20abstracts/Informal%20Processes%20of%20Risk%20Management/Atkinson.pdf>
    - BE: <http://www.clicksafe.be/ouders/nl/downloads/>;  
<http://www.clicksafe.be/ouders/nl/downloads/mini-cursus-facebook/>;  
[http://www.clicksafe.be/ouders/nl/downloads/affiche-veilg-chatten](http://www.clicksafe.be/ouders/nl/downloads/affiche-veilg-chatten;);  
<http://www.clicksafe.be/ouders/nl/downloads/brochure-ehbi/>;  
[http://www.saferinternet.be/safer\\_internet\\_accueil\\_nl.html](http://www.saferinternet.be/safer_internet_accueil_nl.html),
    - UK: <http://www.saferinternet.org.uk/>; <http://www.getsafeonline.org/>;  
<http://www.kidsmart.org.uk/>; <http://www.safesurfingkids.com/brochure.htm>,
    - GR: <http://www.saferinternet.gr>
    - CY: <http://www.cyberethics.info/cyethics1/>
    - LT: <http://www.draugiskasinternetas.lt/lt>  
<http://www.interneto.lt>  
<http://www.glogster.com/vilmosius/saugus-ir-teisetas-interneto-naudojimas/g-6ljs0hku6vcspm0r7n4hoa0>
- Account Security

### 2.12.5.3 E-mail

- Saving Passwords on Public Machines
- Spam
- Phishing
- Spoofing
- File Attachments
- Sharing Personal Information
- Copyright issues

### 2.12.6 Teaching Strategies

- List some common virus checkers and demonstrate their functionality using a projected machine
- Demonstrate the use of the browser security features with a projected machine.
- Describe an example internet use rule list
- Discuss legal issues
  - Copyright
  - Data security
  - Illegal content
- Demonstrate security and privacy settings in a social media site (eg Facebook).

- Show examples of phishing emails and ways to spot them.

## 2.12.7 Previous Knowledge

none

## 2.12.8 Resources

- PC/laptop with web access and projector
- Pens
- Hand-outs – of an example internet use rule list
- PC with web access for each student

## 2.12.9 Assessment Criteria

- Demonstrate ability to recognise when a virus threat is present
- Demonstrate ability to access security settings in a browser.
- Demonstrate ability to edit security settings on a social media site.
- Demonstrate ability to spot a potentially malicious email (phishing or attachment)

## 2.12.10 Summary

Students should be able to use their computer in a way that protects them, their data and their computer.

## 2.12.11 Glossary

OS: or Operating System – this is the software that your computer uses to allow you to interact with it and its programs. Common OS include Windows versions, Linux, Ubuntu and Mac OSX.

## 3 Unit 3 Higher Basic ICT Skills

### 3.1 Office Applications – Word Processing

#### 3.1.1 Aims

This unit will demonstrate features used commonly in producing word processed document. For word processing proper function there is a list of functionalities as well as basic and advanced search features. The subsections below will describe Word most common functionalities as well as Word processing Basic and Advanced Search Features. More specifically, the subsection 3.1.3.1 “Understanding Word” is dedicated to Microsoft Word window and it can be considered as an introductory training course while the 3.1.3.2, “Word Search Functionalities” aims to familiarize students with basic knowledge of the Word most common functionalities related to basic and more advanced features.

#### 3.1.2 Lead Partner

Hypertech

#### 3.1.3 Learning Objectives

##### 3.1.3.1 *Understanding Word*

- The Microsoft Office Button
- The Quick Access Toolbar
- The Title Bar
- The Ribbon
- The Ruler
- The Text Area
- The Vertical and Horizontal Scroll Bars
- The Status Bar
- Understanding Documents Views
- Understanding Nonprinting Characters
- Create Sample Data and Select Text
- Place the Cursor
- Execute Commands with keyboard Shortcuts
- Start a new paragraph
- Exit Word

##### 3.1.3.2 *Word Basic Functionality*

- Be able to create a document
  - Type, Backspace, and Delete
  - Insert and Overtyping
  - Bold, Italicize, and Underline
  - Save a File and Close Word
- Be able to create documents in a more efficient way



- Open a file
- Cut and Paste
- Use the Clipboard
- Create Autotext
- Use Spell Check
- Find and Replace
- Save your File
- Be able to present a more attractive document
  - Change the Font Size
  - Change the Font
  - Add bulleted lists
  - Add images
  - Add headers/footers and page numbers -
  - Create tables
  - Check and fix accessibility issues
  - Print the document
- Be able to format paragraphs
  - Open a Blank Document
  - Add Sample Text
  - Add Space Before and After Paragraphs
  - Change Line Spacing
  - Create a First Line Indent
  - Indent Paragraphs
  - Create a Hanging Indent
  - Apply a Style
  - Change Style Sets
- Be able to Set Page Layouts and Print Documents
  - Add bullets and Numbers
  - Undo and Redo
  - Set the Orientation
  - Set the Page Size
  - Set the Margins
  - Add Page Numbers
  - Insert Page Breaks
  - Preview and Print Documents

### 3.1.4 Skills Enhanced

#### 3.1.4.1 *Directly*

- ICT

#### 3.1.4.2 *Indirectly*

- Communication
- Improving own learning and performance

### 3.1.5 Content of the Themes

- Acquire the ability to interact with Word

- Learn how to create documents in an efficient way and present them in an attractive way
- Learn how to apply styles and various formats
- Learn how to Layout and Print your documents

### 3.1.5.1 *Using a word processing package*

- Create, Open, Close, Save, Exit documents
- Paste a block of example text
- Edit the text
- Justify the text
- Format the styles, font, colour, effects and sizes
- Format the paragraphs
- Add a border/shading to a paragraph
- Change the line spacing
- Insert a image
- Format the image
- Resize the image
- Insert a page/formatting break
- Insert symbols not on the keyboard
- Add hyperlinks
- Create a bulleted/numbered list
- Increase/decrease indents
- Use find and replace
- Add a header and footer
- Number pages
- Check and correct spelling
- Insert and populate a table
- Add or delete table rows/columns
- Format table borders
- Use columns
- Check and correct accessibility (ref OACD modules already available. Also reference accessibility checkers.)
- Show and hide paragraph marks
- Preview the document for printing
- Change the page setup
- Print all or part of the document
- Password protect a document

### 3.1.6 Teaching Strategies

- Demonstration of guided tasks with simultaneous task-based learning.
- Defining pre-task phases ( to offer the proper orientations) and post-task phases (repeat performance of the task)
- Offer additional support to tasks completion by providing similar models
- Set rules for specific tasks (for instance “Within a paragraph just keep typing”)
- Demonstrate knowledge through more demanding tasks
- Give handouts detailing key points.
- Encourage use of system help.



## 3.1.7 Previous Knowledge

Unit 2.4 (Using the Computer)

## 3.1.8 Resources

- PC/laptop with word package and projector
- Hand-outs – Diagram of a (specific) word processor window showing useful shortcuts.
- PCs/laptops for student use with office package installed.

## 3.1.9 Assessment Criteria

- Ability to produce a well formatted document including images as defined in a structured task outline.
- Demonstrate the ability to change documents that are not well formatted
- Demonstrate the ability to distinguish various Word documents with difference in formatting quality

## 3.1.10 Summary

Students should be aware of the many formatting options available and how to achieve them. They should be capable of creating tables and inserting images and objects within their document and producing a well-formed outcome.

## 3.1.11 Glossary

## 3.2 Office Applications – Spreadsheets

### 3.2.1 Aims

This unit will demonstrate features used commonly in producing a spreadsheet. More specifically, some courses of how to create and use formulas, functions, charts and graphs in Spreadsheets are available below. An introductory subsection, 3.2.3.1 “Basics of a Spreadsheet” aims to familiarize the learner with general knowledge and main concepts about spreadsheets (cells, rows, variables etc.). The subsection 3.2.3.2 “Formatting spreadsheet data” is dedicated to basic tutorial of Excel while the 3.2.3.3 “Going one Step Further” adds some more advanced functionality.

### 3.2.2 Lead Partner

Hypertech

### 3.2.3 Learning Objectives

#### 3.2.3.1 “Basics of a Spreadsheet”

- Learn how a spreadsheet works. More specifically, learn about:
  - Columns
  - Rows
  - Their intersections that are called cells
- Learn about cells and data
  - Text (labels)
  - Number data (constants)
  - Formulas (mathematical equations)

#### 3.2.3.2 *Formatting Spreadsheet Data*

- Be able to create a well formatted spreadsheet of data:
  - Add data
  - Add borders
  - Use formulae
  - Autofill data and formulae
  - Create and edit charts
  - Print the sheet
  - Create new sheets and use formulas for cross-sheet operations

#### 3.2.3.3 “Going One Step Further”

- Be able to manage basic equations
  - Set up a Checkbook
  - Acquire the ability to make an authorization schedule
  - Come up with difficult formulas and calculations

## 3.2.4 Skills Enhanced

### 3.2.4.1 *Directly*

- ICT

### 3.2.4.2 *Indirectly*

- Communication
- Improving own learning and performance

## 3.2.5 Content of the Themes

- To obtain basic understanding of how spreadsheet works
- To Learn how to perform basic calculations in Excel Spreadsheets
- Acquire knowledge of how to work with data, Formulas and Functions
- Learn how to format data in a worksheet

### 3.2.5.1 *Using a spreadsheet package*

- Open a spreadsheet
- Save spreadsheet in a desired location
- Add titles to columns and rows
- Resize column widths
- Add data to cells
- Add borders for clarity
- Use the autofill drag tool to copy and increment data
- Add a simple formula using = +,-,/, \* and ^ and cell referencing
- Use the autofill drag tool to copy a function
- Investigate available functions
- Use drag to select, copy and paste and range of data
- Paste data in a new sheet tab
- Double click to deselect data range
- Use drag and CTRL to select separated data ranges
- Create a bar chart from selected data
- Resize the chart
- Edit chart properties
- Edit the chart's data source/switch rows columns
- Create a scatter chart
- Add a trendline
- Investigate other available chart types
- Print the sheet
- Filter data / Sort a table with/without heading
- Record a macro

## 3.2.6 Teaching Strategies

- Demonstration of guided tasks with simultaneous task-based learning.
- Supporting the different phases of a spreadsheet creation through the provision of additional information

- Give handouts detailing key points.
- Providing links between spreadsheet notation and standard notations
- Providing different solution strategies
- Encourage use of system help.

## 3.2.7 Previous Knowledge

Unit 2.4 (Using the Computer)

## 3.2.8 Resources

- PC/laptop with office package and projector
- Hand-outs – Diagram of a (specific) spreadsheet package window showing useful shortcuts.
- PCs/laptops for student use with office package installed.

## 3.2.9 Assessment Criteria

- Prove the ability to produce a well formatted spreadsheet including an image as defined in a structured task outline.
- Demonstrate skills to fill down a formula through a range of cells and generate a 'variable column'.
- Prove the ability to create spreadsheets in order to accomplish simple or more complex tasks (for instance calculating a price, determining the price, estimating a price)

## 3.2.10 Summary

Students should be aware of the best methods for speeding up spreadsheet production, formatting them and creating charts from the data. In order to achieve this they have to be taught how to use in the most efficient way spreadsheet functionalities.

## 3.2.11 Glossary

Macro: a series of key strokes or mouse actions that are recorded and saved as a program.

## 3.3 Office Applications – Slideshow presentation software

### 3.3.1 Aims

This unit will demonstrate features used commonly in producing a slideshow presentation. Specifically, the subsection 3.3.3.1 “How to use Slideshow” is a beginner’s guide, while the 3.3.2.2 “Advanced Techniques” teach more advanced features of PowerPoint.

### 3.3.2 Lead Partner

Hypertech

### 3.3.3 Learning Objectives

#### 3.3.3.1 “How to use Slideshow”

- Be able to open Power Point
- Be able to start a new presentation
- Learn how to select a slide layout

#### 3.3.3.2 “Advanced Techniques”

- Be able to create a well formatted slideshow presentation.
- Be able to:
  - Create a slideshow outline
  - Add images
  - Add video
  - Change between themes
  - Add transitions and animations
  - Add automatic timings for a kiosk show
  - Create the outline of the slideshow and print it in rtf format (to assist accessibility)
- Be able to Convert PowerPoint Presentations to Word
- Custom Design Templates and Master Slides
- Hiding PowerPoint Background Images for Printing

### 3.3.4 Skills Enhanced

#### 3.3.4.1 *Directly*

- ICT

#### 3.3.4.2 *Indirectly*

- Communication
- Improving own learning and performance



### 3.3.5 Content of the Themes

- Understanding how to use slideshow through the most common slideshow terms
- Learn how to design attractive and effective slideshow presentations
- Understanding the strong relation between text and slide
- Learn how to connect and exploit the power of other formats such as the Word to better Slideshow (PowerPoint) presentation (for instance transfer the presentation into a word-processing offers the advantage of modifying easily the handout's layout)

#### 3.3.5.1 *Using a slideshow package*

- Open the presentation software
- Add a title
- Add a subtitle
- Add a new slide for section header and add text
- Add a content slide with text
- Add a content slide and add an image
- Investigate image format options
- Add video media to a slide
- Investigate video format options
- Add a chart/ smartart graphics
- Add and switch slide designs (using themes)
- Try changing colours within the designs
- Switch to outline view and back to slide view
- Select and delete a slide
- Select and delete a range of slides
- Use the undo feature
- Switch between slide views
- Add transitions
- Accessibility checkers
- Preview the slideshow (using keyboard shortcut)
- Tweak the transitions (type/duration/sound)
- Add animation effects
- Edit effect options
- Use the slide preview (if available)
- Change to kiosk show
- Make and adjust timings of events

### 3.3.6 Teaching Strategies

- Demonstration of guided tasks with simultaneous task-based learning.
- Give handouts detailing key points.
- Indicate the utility of different formats in better slideshow knowledge acquisition
- Encourage use of system help.

### 3.3.7 Previous Knowledge

Unit 2.4 (Using the Computer)

### 3.3.8 Resources

- PC/laptop with office package and projector
- Hand-outs – Diagram of a (specific) spreadsheet package window showing useful shortcuts.
- PCs/laptops for student use with office package installed.

### 3.3.9 Assessment Criteria

- Demonstrate the ability to manage effectively the toolbar
- Ability to produce a well formatted slideshow including text, images and video components, defined by a structured task outline.
- Demonstrate the ability to count in parameters as time importance and the reference of main points for an effective presentation

### 3.3.10 Summary

Students should be aware of the how to create and play slideshows for both manual and kiosk presentations.

### 3.3.11 Glossary

Kiosk presentation: a slideshow that uses timings to move from one interaction to the next, requiring no manual input, and producing a rolling show.

## 3.4 Online applications

### 3.4.1 Aims

This unit will make students aware of and briefly demonstrate examples of online document applications and e-learning systems.

### 3.4.2 Lead Partner

Hypertech

### 3.4.3 Learning Objectives

- Be aware of available online resources for creating and collaborating on documents.
- Be aware of e-learning systems and what they have to offer.
- Be informed for the extent to which e-learning applications can be used to achieve specific goals with effectiveness, efficiency and satisfaction in a specified context of use

### 3.4.4 Skills Enhanced

#### 3.4.4.1 *Directly*

- ICT

#### 3.4.4.2 *Indirectly*

- Communication
- Improving own learning and performance

### 3.4.5 Content of the Themes

- To understand that e-learning systems acquire a set of features for simple and efficient navigation, advanced personalization of contents, and clear exit
- To realise that e-learning systems and applications offers them the potentiality to look for and select the most appropriate basic skills for their needs

#### 3.4.5.1 *Online and collaborative document editors*

- Google Gmail documents
- Collaborative editors
  - Wiki
  - WordPress
  - CMS

#### 3.4.5.2 *E-Learning*

(NB Functionalities details and links – not training courses)

- ATutor
- Blackboard
- Moodle



### 3.4.6 Teaching Strategies

- Presentation on currently available online software resources.
- Demonstration of collaborative document editing.
- Demonstration of navigation around an e-learning environment (using ViPi ATutor environment)
- Hands on collaboration practical (using for example Gmail documents.)

### 3.4.7 Previous Knowledge

Unit 2.4 (Using the Computer)

Unit 3.1 (Office Applications – Word Processing)

### 3.4.8 Resources

- PC/laptop with internet access and projector
- Hand-outs – Detailing locations and descriptions of available packages.
- PCs/laptops for student use with web access.

### 3.4.9 Assessment Criteria

- Ability to create and share a collaborative document, therefore to develop skills for interaction with different forms of e-learning.
- Ability to sign into and navigate around an e-learning environment.

### 3.4.10 Summary

Students should be aware of online software and some examples of what is available to them. Moreover, they should be familiar with using both online document editors and e-learning platforms.

### 3.4.11 Glossary

E-learning: this includes all forms of electronically supported learning – but more specifically, the computer and network enabled transfer of knowledge and skills.

## 3.5 Practical Exercises

### 3.5.1 Aims

This unit will allow the user to practice some common operations under the watch of and with available guidance from their tutor.

### 3.5.2 Lead Partner

Partner relevant to content

### 3.5.3 Learning Objectives

- To reinforce the student's ability to use their ICT skills
- To teach students new practical skills
- To ensure the student is confident in using ViPi

### 3.5.4 Skills Enhanced

#### 3.5.4.1 *Directly*

- ICT

#### 3.5.4.2 *Indirectly*

- Communication
- Improving own learning and performance

### 3.5.5 Content of the Themes

#### 3.5.5.1 *Purchasing online*

- Finding an Item at the Best Price
- Adding to the Shopping Basket
- Checking for Security
- Checking Out

#### 3.5.5.2 *Data finding*

Exercises in obtaining information on:

- The Weather
- Relevant Interest Groups
- Health
- Travel
- Government
- Consumer Goods

### 3.5.5.3 Using ViPi

- Computer based
- Mobile based
- Online repository
- Online Learning
- Mobile Applications

### 3.5.6 Teaching Strategies

- Demonstration of a typical web purchase using a projected PC.
- Guided hands-on purchasing.
- Direct instructional research tasks without initial specific guidance, but with support from teaching staff present (e.g. find out what the weather will be like tomorrow)
- Demonstration of the features of ViPi using a projected PC
- Hands on exploration of ViPi
- Demonstration of mobile ViPi resources
- Hands on exploration of mobile ViPi resources

### 3.5.7 Previous Knowledge

Relevant modules to the exercises.

### 3.5.8 Resources

- PC/laptop with web access and projector
- Pens
- Hand-outs – with step by step guidance or hints on the tasks.
- PC with web access for each student
- Mobile device with web access for ViPi mobile work.

### 3.5.9 Assessment Criteria

- Demonstrate ability to perform the practical tasks.

### 3.5.10 Summary

Students should be able to use their computer to confidently make purchases and find information. Students should be able to access features of the ViPi portal using their PC or a mobile device.

### 3.5.11 Glossary