

Module 2:

The spectrum of technology-enhanced information & communication tools and implications for advisors, counsellors and therapists

Author: Pantelis Balaouras – Greek Academic Network – www.gunet.gr

The European Commission support for the production of this publication does not constitute an endorsement of the contents which reflects the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

THERAPY 2.0 Training Course: 9 Modules

1. Introduction



2. The spectrum of technology-enhanced information & communication tools

3. Characteristics of computer-mediated communication in counselling and therapy

4. Legal aspects

5. Ethical aspects of the e-tools / e-consulting

6. Economic and financial aspects

7. Technical competences for an online advisor, counsellor or therapist

8. Psychological aspects and competences in online interventions

9. ICT based counselling for asylum seekers, refugees and unaccompanied minors

Module overview

This module is addressed to professionals, e.g. advisors, counsellors and therapists, and discusses how these professionals may exploit **technology-enhanced information tools**, such as websites and Web 2.0 online elements (forms, calendars, blogs e.t.c.) as well as **communication tools**, such as video or voice chat applications and services, in order to communicate online with their clients in a safe way, in terms of data privacy and security, for the every day professional needs and activities.

Guidelines on how to find in Internet more information on these issues are also provided.

Module objectives

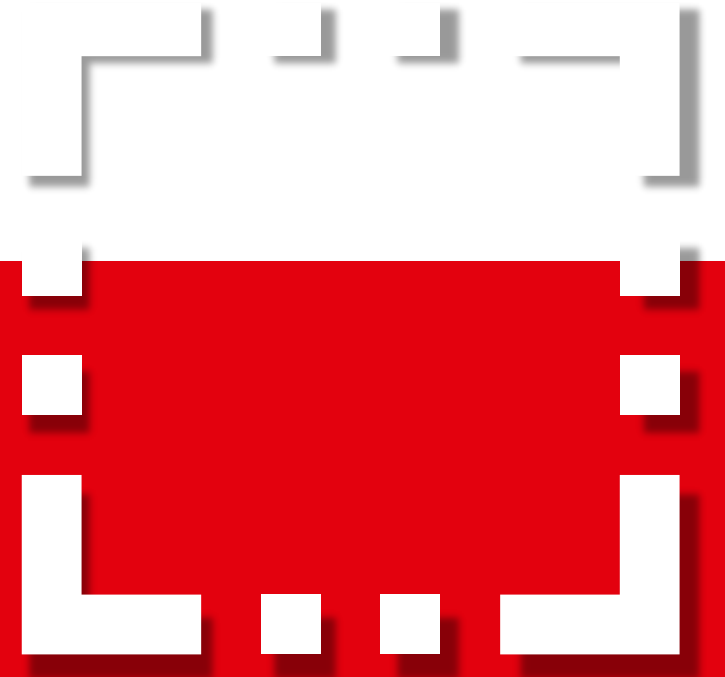
Upon completion of this course, the learner should be able to

- ✓ understand basic terminology regarding the technology-enhanced information & communication tools;
- ✓ know the potentials and restrictions of using popular voice and video applications in terms of functionality and online safety;
- ✓ be aware of the need for safe online communication in terms of data privacy and security and be able to conclude if the applications and services s/he uses are the proper ones;



Module outline

- Introduction
- Unit 2.1: Communication with clients and colleagues
- Unit 2.2: Technology – enhanced communication with clients
- Unit 2.3: Introduction to online safety



2 The spectrum of technology-enhanced information & communication tools

Some questions for you...

Do you know what are the capabilities of the desktop and mobile tools and applications?

Are you in position to choose the proper applications and tools for communicating with your clients?

Are you aware about the need for online safety and data privacy?

2 The spectrum of technology-enhanced information & communication tools

Unit 2.1 Communication with clients and colleagues

Section Outline

- Introduction
- Communication with a client
- Communication among Advisors/Counsellors/Therapists



2 The spectrum of technology-enhanced information & communication tools

Introduction

e-Counselling or **online counselling** is considered, in the context of the Therapy 2.0 project, as an extension to the traditional interaction of the counsellors and therapists with their clients, in order to better reach, the “digital natives” and especially the younger generation.



2 The spectrum of technology-enhanced information & communication tools

Communication with a client – Searching phase

Let us describe the **communication** between a **client** and an **advisor, counsellor or therapist** in a sequence of phases and the tools that are used in each phase.



1. Searching phase

Potential clients are searching to find answers to their problems/symptoms and/or locate an advisor/ counsellor/therapist for a treatment.

Nowadays, this searching phase may be also conducted online via the Internet, therefore, advisors, counsellors and therapists (professionals) are using **websites as a basic tool** for reaching their potential clients. In their websites, professionals are describing the services they provide, their location, the languages they use, contact information, their availability regarding schedule, the use of technology for communication, the cost of treatment, ways of payment (online payment is usually included) and other helpful information.

Professionals also use **blogs** for publishing introductory articles on the topics of their expertise.


 **Tools:** Website, Blogs

2 The spectrum of technology-enhanced information & communication tools

Communication with a client – Contacting and Intervention phases

2. Contacting phase

The potential client communicates with the advisor/counsellor/therapist to state the problem and/or arrange an appointment.

 **Tools:** Phone, email, online forms, online calendar, Social Media, Mobile Voice Apps

3. Counselling/Therapy phase

The client “meets” the advisor/counsellor/therapist and the counselling/therapeutic intervention is taking place by exploiting technology enhanced communication.

 **Tools:** Phone, Video conference tools, Mobile Video/Voice Apps, chatting



2 The spectrum of technology-enhanced information & communication tools

Communication among Advisors/Counsellors/Therapists

The Internet has affected the **communication among advisors/counsellors/therapists**. The latter has been enhanced by using moderated **electronic forums** – a previous generation (Web 1.0) Internet tool - to exchange opinions or experience and initiate collaborations. Forums that are moderated and provided by an official association should be preferred by the advisors, counsellors and therapists.

Web 2.0 tools and **mobile apps**, may be used to enhance the direct communication with other colleagues.

 **Tools:** Web 2.0 tools, electronic forum, mobile apps



2 The spectrum of technology-enhanced information & communication tools

Unit 2.2: Technology – enhanced communication with clients

Section Outline

- Classification of interaction with a client
- The traditional interaction in face to face meetings
- Synchronous and asynchronous remote communication
- Synchronous communication
- Asynchronous communication
- Chatting and messaging mobile applications
- Well known mobile apps
- Video calls
- Virtual Reality Worlds/Environments



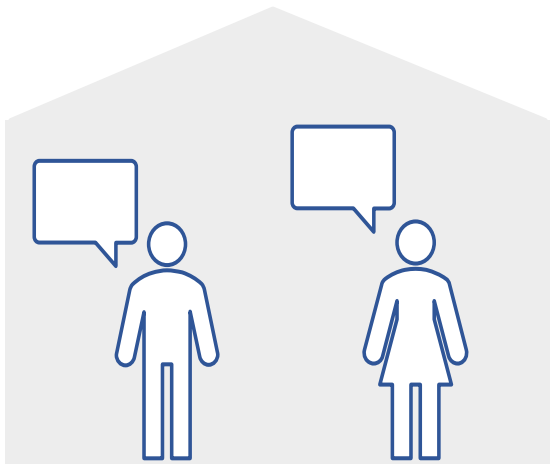
2 The spectrum of technology-enhanced information & communication tools

Classification of interaction with a client

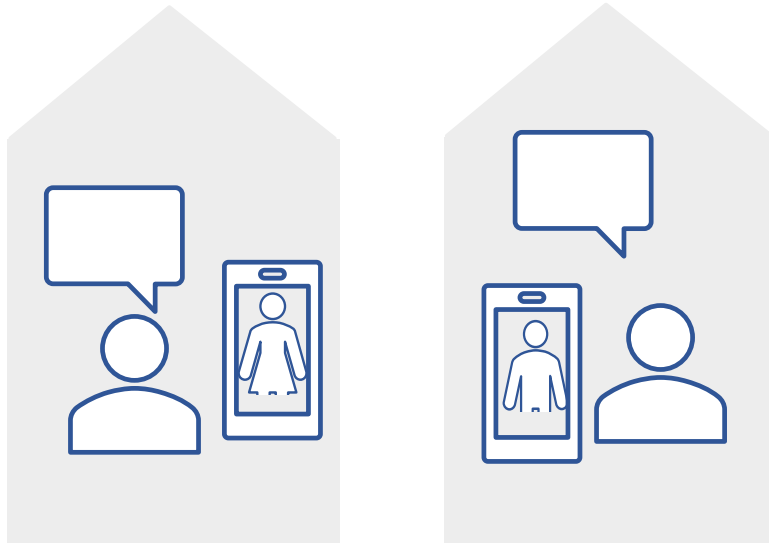
The technology - enhanced interaction with a client is distinguished into the communication in the **physical world** and communication in **virtual reality worlds**.

Communication in physical world

The traditional interaction in face to face meetings



Remote communication:
Synchronous and asynchronous



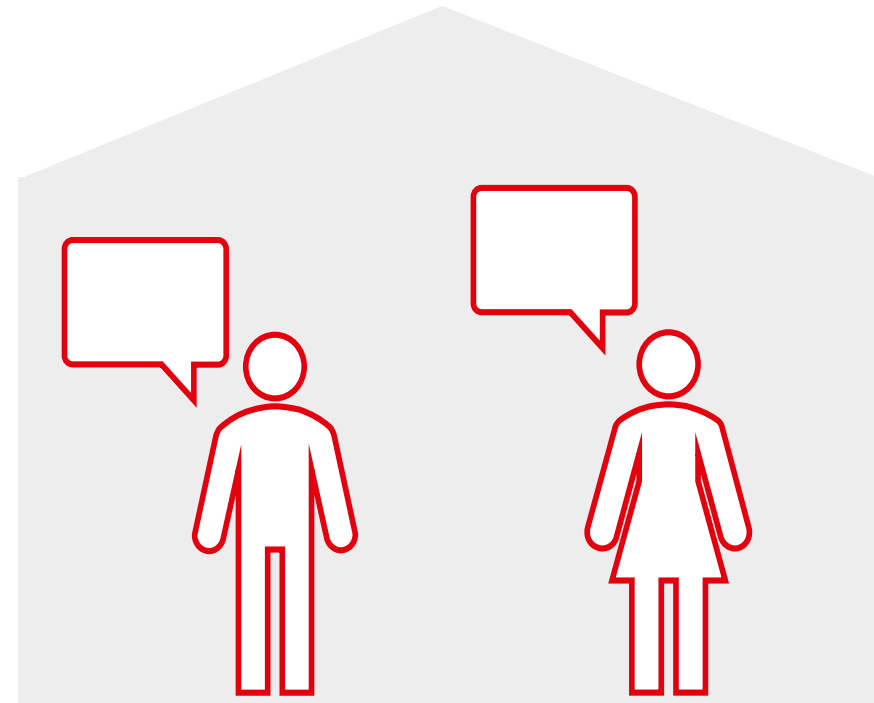
Virtual Reality Worlds/Environments



2 The spectrum of technology-enhanced information & communication tools

The traditional interaction in face to face meetings

The traditional interaction is based on **oral communication in a face to face meeting**, meaning that both parts (advisor /counsellor /therapist and client(s)) are physically located at the **same place**, at the **same time** and have visual and verbal communication.



2 The spectrum of technology-enhanced information & communication tools

Synchronous and asynchronous remote communication

The emerged **Information and Communication Technologies** (ICT), based mainly on the Internet (Web 2.0) and mobile technologies, have changed the landscape of communications, eliminating the need of advisor/counsellor /therapist and client(s) to be at the same place and enabling the **remote communication** in a more attractive (visual) way. This means that the client is more engaged, compared to the traditional telephony, since smartphones have features that allow mobility, internet access, calls and messaging (in case a person is not available), stickers and pictures exchange etc.

Remote communication can be performed either at the same time (**synchronous** communication) or with a lag in time (**asynchronous** communication). The latter is made realizable in two steps: the message (in text, audio, video etc. form) is stored and accessed by the remote peer at a later time.

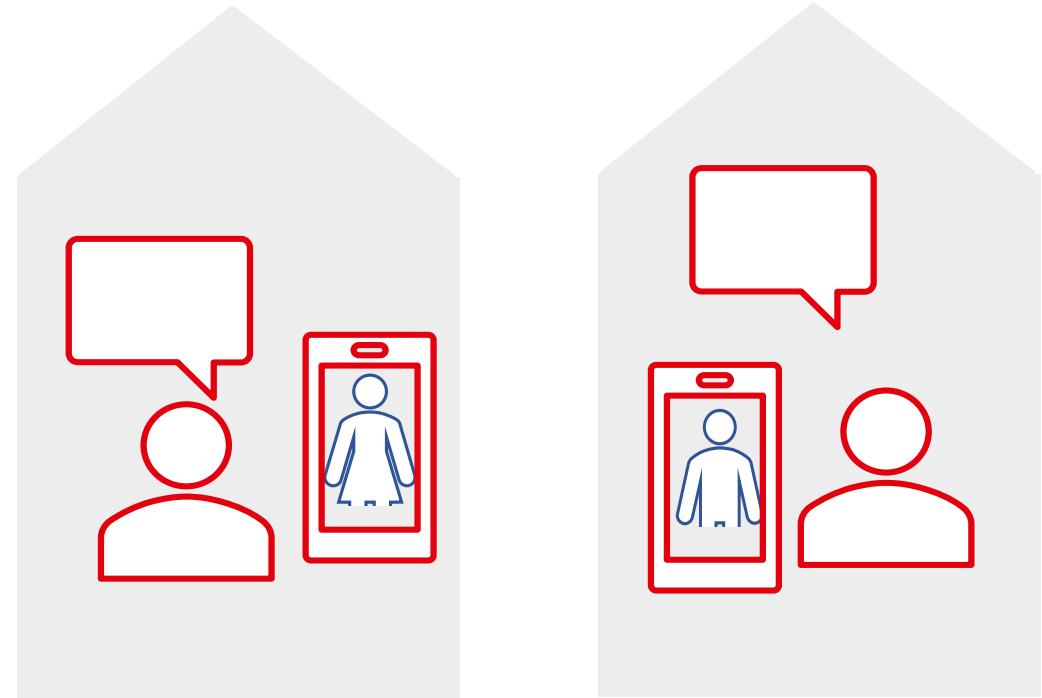
Nice to know: “Synchronous” is a compound word based on the Greek words “syn”, meaning together, and “chronos”, meaning time. So “synchronous” means occurring at the same time, whereas “asynchronous” has the opposite meaning, not occurring at the same time.

2 The spectrum of technology-enhanced information & communication tools

Synchronous communication

Synchronous communication allows for conversations **in real-time** (with strict time constraints), by exchanging media in the form of text, **audio** (voice), **video** (visual), images, other types of files, in any combination of them. Typical examples of synchronous (real-time) communication are:

- text chatting
- voice and video call (chatting)
- teleconference



2 The spectrum of technology-enhanced information & communication tools

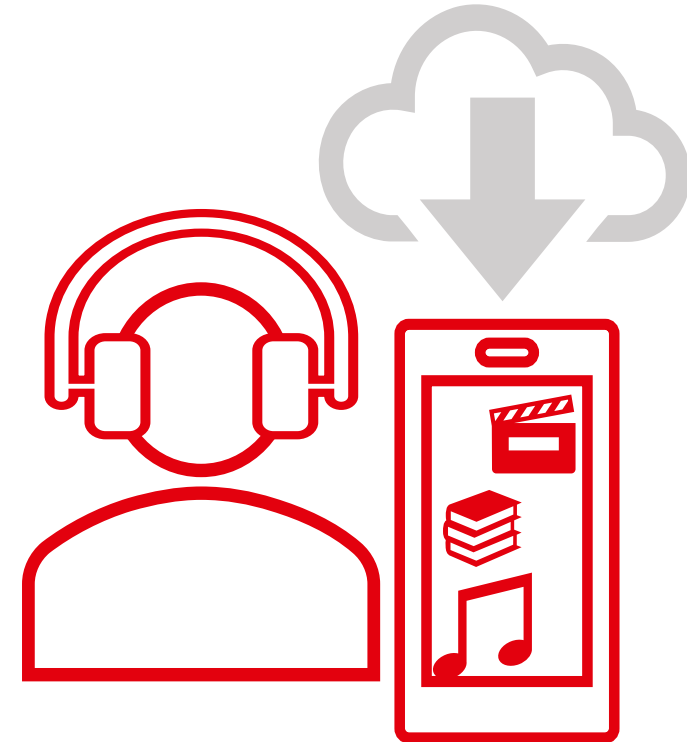
Asynchronous communication

Asynchronous communication allows for conversations with **relaxed time constraints**, meaning the exchange of media (text, audio, video, etc.) **without the need of any immediate response**.

Typical examples are:

- emails
- on line forums
- messaging services
- on demand services such as browsing web sites or video on demand.

The user of asynchronous communication can follow his/her own pace and may access the media in a time convenient for him/her.



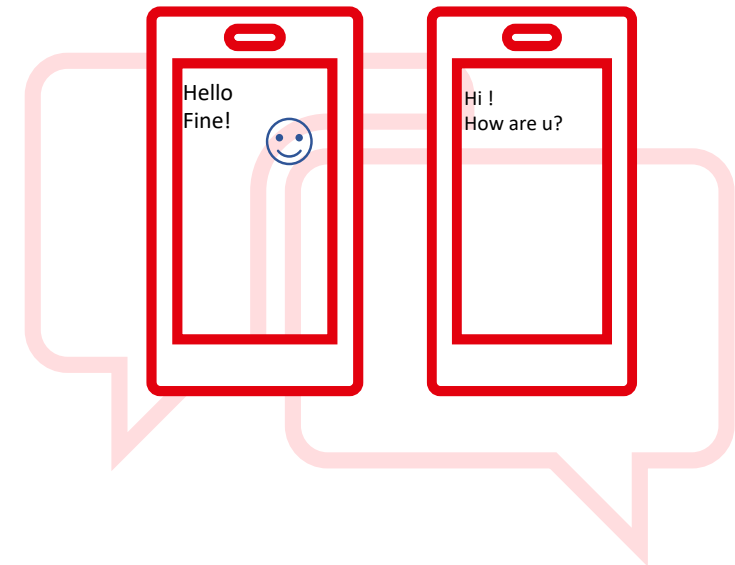
2 The spectrum of technology-enhanced information & communication tools

Chatting and messaging mobile applications

Chatting and messaging mobile applications (apps) are the main applications used by the younger generation for communication.

Mobile messaging apps are very popular and compete each other to add social networking features, improve security and provide free mobile calling and texting services.

The users exploit mobile apps features to communicate synchronously in real time by exchanging text (text chatting feature), voice, video (video chatting) or asynchronously, if remote peer is not online or available, to leave messages in the forms of text, voice, video or photos (messaging features).



2 The spectrum of technology-enhanced information & communication tools

Well known mobile apps

Well known **mobile apps** like Facebook Messenger, Apple Messages and internet calling service Skype still dominate, but promising competitors, such as WhatsApp, Viber, Google Hangouts, SnapChat, and others, have appeared in the mobile applications' arena.

Most of these applications are also available for installing on **desktop computers**, either Windows based or MAC.



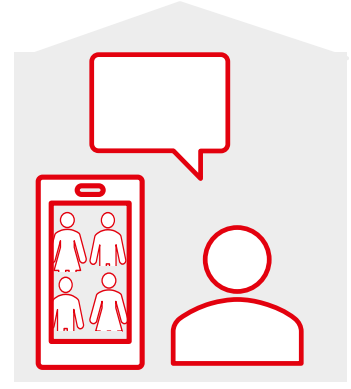
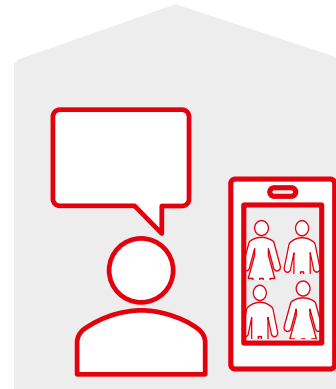
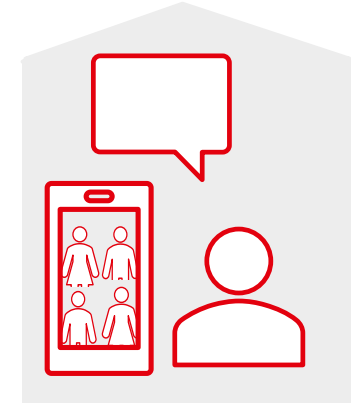
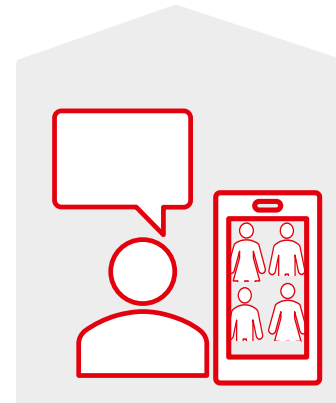
2 The spectrum of technology-enhanced information & communication tools

Video calls

Video calls (chat) have also become popular, and many messaging apps now offer the ability to chat via video without any cost over cellular or WIFI networks.

Built-in camera and microphone on mobile devices or laptops, or external ones connected to a desktop computer, are used for video/voice chatting.


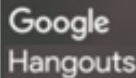










Most apps (Snapchat excluded) extent the **one to one** person video communication to **many to many** communication by allowing for video group call, that is more than two persons– up to 5 or 6 – may participate in a video call as a group, talking to each other. For larger groups of participants in a single video call, software, such as ooVoo, Skype Business, or commercial web based video conference services may be used.



2 The spectrum of technology-enhanced information & communication tools

Overview of mobile applications

The table presents the main features of popular mobile apps.

| |  |  |  |  |  |  |
|--|---|---|---|---|---|---|
| Apps | Facebook Messenger | Google Hangout | WhatsApp | Viber | Skype | Snapchat |
| Support |  |  |  |  |  |  |
| Synchronous communication | | | | | | |
| Text chatting, Voice and video calls (chatting) | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Max video group call | 6 | 10 | Not clear | 5 | 10 | 2 |
| Asynchronous Communication | | | | | | |
| Text, Voice, Video, photo messaging | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Desktop | | | | | | |
| Windows | ✓ | ✓ | ✓ | ✓ | ✓ | |
| MAC | ✓ | ✓ | ✓ | ✓ | ✓ | |
| Mobile devices | | | | | | |
| Android | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| iOS | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Windows | ✓ | | ✓ | ✓ | ✓ | |

2 The spectrum of technology-enhanced information & communication tools

Hint: stay compliant with privacy standards

Hint: Staying compliant with **privacy standards** (GDPR, HIPAA) is very important when using third-party platforms to communicate with clients. To comply with standards, it is important to only use platforms that abide by their rules.

See Chapter 7 for more information.



How can I find more information?

For more information, search in Internet with the following key – words:

“Mobile Messaging Applications”

“Video chat”

“Voice chat”

“Video conferencing software”



2 The spectrum of technology-enhanced information & communication tools

Virtual Reality Worlds/Environments: Second Life example

Second Life is an online virtual world, similar to massively multiplayer online role-playing games. Second Life users, called residents, create virtual representations of themselves, called avatars, and are able to interact with places, objects, and other avatars. They can explore the world, meet other residents, socialize, participate in individual and group activities, build, create, shop, and trade virtual property and services with one another.

Avatars may take any form users choose (human, animal, vegetable, mineral, or a combination thereof) or residents may choose to resemble themselves as they are in real life. Avatars can travel via walking, running, vehicular access, flying, or teleportation.



2 The spectrum of technology-enhanced information & communication tools

Virtual Reality Worlds/Environments

Second Life incorporates both synchronous and asynchronous modes of communication. Avatars can communicate via local chat, group chat, global instant messaging (known as IM), and voice (public, private and group). Chatting is used for localized public conversations between two or more avatars, and is visible to any avatar within a given distance. IMs are used for private conversations, either between two avatars, or among the members of a group, or even between objects and avatars. Unlike chatting, IM communication does not depend on the participants being within a certain distance of each other.

There is no charge for creating a Second Life account or for making use of the world for any period of time.



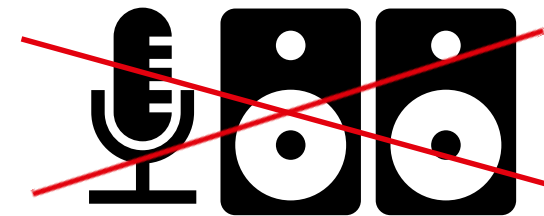
2 The spectrum of technology-enhanced information & communication tools

Software and hardware requirements

For audio and video communication the proper **software** must be downloaded and installed either in a computer or mobile device.

Mobile devices, such as tablets, smartphones, and laptops are equipped with **video camera**, **microphone** and **loudspeaker**.

However, in case of a desktop computer, a web camera and a **headset** with a microphone are required (*do not use speakers and other types of microphone*) in order to avoid audio problems such as echo and feedback.



2 The spectrum of technology-enhanced information & communication tools

Unit 2.3: Introduction to online safety

Section Outline

- What is encryption and why it is important
- End to end encryption
- Technical standards for encryption in the web
- Conclusion
- Hint: Search for more information



2 The spectrum of technology-enhanced information & communication tools

What is encryption and why it is important

Being online exposes Internet users to threats regarding **online safety**.

Once a user sends data over the Internet (packets of video or voice call, chat, email or credit card number, websites) s/he has no control over who may access the data. The data pass through many servers, routers, and devices where any hacker, service provider or state agent may access and read them.

Therefore, it is of paramount importance for advisors, counsellors and therapists to take measures towards the directions of

- i. protecting their sensitive data
- ii. using online tools and services that ensure the privacy and security of their clients' data during the online communication with them

2 The spectrum of technology-enhanced information & communication tools

End to end encryption

End to end encryption (e2ee) is used to prevent anyone, except the communication parties, to read the transferred data, thus securing them and providing online safety. The data are encrypted, that is, converted into a secret code by using a key provided by the receiver of the data, called public key. This public key is sent to the sender. Only the receiver can decrypt, and read, the data by using another key called private key. The private key shall never be shared to anyone.



2 The spectrum of technology-enhanced information & communication tools

Technical standards for encryption in the web

- *Secure Socket Layer (SSL)* and *Transport Layer Security (TLS)* are the **technical standards** for encryption for the web. **Websites with links that starts with https://** instead of http:// - the additional s stands for secure - **should be trusted.**
- Video/Voice calls and other media apps are also protected using end-to-end encryption with many apps and services. The user may benefit from the privacy of encryption just by using these apps for communication. So, **each user should choose apps and services that provide e2ee.**
- For finding which applications provide e2ee, the users should **read carefully their website** and search for articles in Internet to **find the security features of the specific apps/services.** This should be done **regularly** because apps and services may change their security/privacy features and options.

http**S**://www.

Conclusion

- With regard to safety issues online advisors, counsellors and therapists **should be very sensitive in the usage of tools** such as Facebook and What'sApp etc. Those media could be useful to inform about the services, but not at all for discussing private / intimate topics.
- Even if Digital Natives carelessly use unsafe software solutions / apps asking for help and telling about their problems, advisors, **counsellors and therapists are obliged to guide them to safe communication settings** – even if clients definitely agree with using the unsafe form of communication.
- There are technical solutions for advisors, counsellors and therapists that include all types of communication AND are safe. Often associations make up their own system (which is expensive), but there are also safe commercial software/platform solutions.

2 The spectrum of technology-enhanced information & communication tools

Hint: Search for more information



How can I find more information?

For more information, search in Internet with the following key – words:

- *“End to end encryption” along with “Messaging Applications”*
- *“Video chat”, or “Voice chat”, and the name of apps or service planned to be used, e.g., “SKYPE encryption”.*



2 The spectrum of technology-enhanced information & communication tools

Check your knowledge

1. Which is the professionals' basic tool for reaching their potential clients and which are the basic elements of it?
2. What is synchronous communication?
3. What is asynchronous communication?
4. Why online safety and encryption are important?
5. In case of an online payment, a website that starts with http:// is safe?

Results

1. Website is the basic tool of the professionals for reaching their potential clients. The website shall provide elements such as, online calendar for viewing professional's availability, online forms for submitting questions and asking meeting dates, information about location (e.g., online maps), online payment, online voice or video communication.
2. Synchronous communication means real-time conversation (same time). A device and tool is used to exchange media in the form of text, voice, video, images, other types of files, in any combination of them.
3. Asynchronous communication allows for conversations with relaxed time constraints, meaning the exchange of media (text, audio, video, etc.) without the need of any immediate response.
4. Once a user sends data over the Internet (packets of video or voice call, chat, email or credit card number, websites) s/he has no control over who may access the data. The data pass through many servers, routers, and devices where any hacker, service provider or state agent may access and read them. So, the data has to be encrypted. The professionals must take measures towards the directions of protecting their sensitive data, using online tools and services that ensure the privacy and security of their clients' data during the online communication with them, that is tools and services that are compliant with privacy standards (GDPR, HIPAA).
5. No, only websites that start with **https://** are safe.

Imprint

Project: Therapy 2.0

Coordinator: media k GmbH, Goethestr. 10, D-97980 Bad Mergentheim,
phone +497931 99 27 30, fax +49 7931 99 27 31

URL: <https://www.ecounselling4youth.eu>

Project number: 2016-1-DE02-KA202-003245

Funding program: Erasmus+

Author of Module 2 – The spectrum of technology-enhanced information & communication tools and implications for advisors, counsellors and therapists

Pantelis Balaouras – contact: : p.balaouras@noc.uoa.gr

© Pictures:

- Pantelis Balaouras, 2017, based on icons available by the Microsoft PowerPoint Office 365
- velin Radkov – Fotolia.com
- Wikipedia
- Microsoft Clipart Gallery
- Pixabay CC0 Creative Commons



Erasmus+



This work is licensed under a
Creative Commons Attribution-
NonCommercial-ShareAlike 4.0
International License

The European Commission support for the production of this publication does not constitute an endorsement of the contents which reflects the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

Therapy 2.0 Partnership

| | | |
|----------|---|--|
| Germany |  | media k GmbH (Koordinator) Dr. Karin Drda-Kühn / Hans-Jürgen Köttner • Therapy2.0@media-k.eu • + 49 7931 99 27 30 |
| Germany |  | Innovation in Learning Institute – University of Erlangen-Nuremberg Evelyn Schlenk • Evelyn.Schlenk@ili.fau.de • + 49 9131 856 1111 |
| Slovenia |  | Integra Institut, Institut za razvoj clovekovih potentialov Sonja Bercko Eisenreich • sonja.bercko@eu-integra.eu • + 38 659 013 2641 |
| Croatia |  | Sveuciliste u Rijeci, Medicinski Fakultet Dr. Tanja Franciskovic / Dr. Marina Crepulja • tanja.franciskovic@medri.uniri.hr • + 38 591 2000 000 |
| Iceland |  | Iceland Academy of the Arts Björg Jóna Birgisdóttir • bjorg@lhi.is • + 354 552 4000 |
| Austria |  | Wissenschaftsinitiative Niederösterreich Dr. Wolfgang Eisenreich • office@wissenschaftsinitiative.at • + 43 676 944 5447 |
| Portugal |  | Instituto Politecnico do Porto Dr. Regina Silva • ras@eu.ipp.pt • + 351 222 061 |
| Greece |  | GUnet Akadimaiko Diadiktyo Pantelis Balaouras / Constantinos Tsibanis • costas@noc.uoa.gr • + 30 210 7275603 |

End of module



Congratulations!

You have completed this module!