



*Module 11:
Managing Digital Identity
(Communication & Collaboration)*



Co-funded by the
Erasmus+ Programme
of the European Union



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Introduction



The “Managing Digital Identity” module will firstly provide the theory around digital identity, what this entails, and how we can manage our digital identities in order to maintain a secure experience when navigating the web and be able to present the best version of ourselves in it.

Further, you will understand how digital identity elements such as partial identities and identifiers are linked together. This will allow you to realise how you can present yourself to the various websites and social networking platforms that you use. Leveraging this information for yourself will return control back to you, as the user, over how your identity is being stored and shared online.

A brief overview of the GDPR law and your rights regarding your data under this law will be made in order for you to know how to act based on those rights.



Learning outcomes



Define what a digital identity is, what it is composed of, and the different characteristics of a digital identity.



Be able to understand internet tracking through digital identities.



Image from Canva



Learning outcomes



Outline distinctions of digital identity (security and reputation) and assume responsibility of actions on the web.



Recognise your rights under GDPR law and be able to act on those rights (right of access, right of rectification, right to be forgotten).

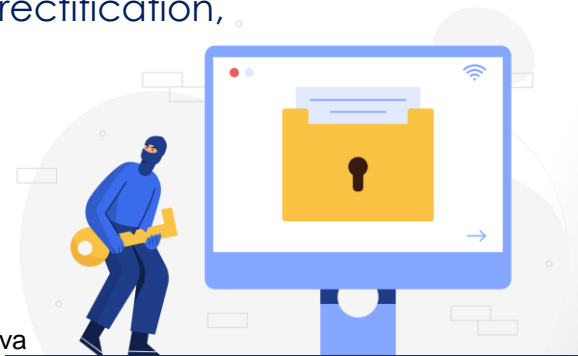


Image from Canva



Theory

Managing Digital Identity



Some definitions of a Digital Identity throughout the years:

- “Digital identity is the data that uniquely describes a person or a thing and contains information about the subject’s relationships.” Windley (2005)
- “Digital identity is the means that an entity can use to identify themselves in a digital world (i.e., data that can be transferred digitally, over a network, file, etc.).” Gritzalis & Lambrinouidakis (2008)
- “The persona, name or identity which some person or organization creates and uses in a digital environment.” Morgan & Morgan (2010)

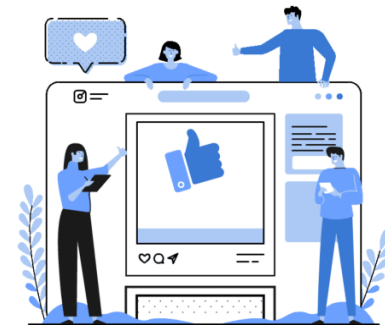


Image from Canva

Managing Digital Identity

So, what is a Digital Identity? (1/4)

Chaurdon and Eichinger (2018:21):

- A set of **attributes** (digital information) that are **linked** to an **entity** (individual, organization, thing).
- The attributes are **created by the entity** itself and are **enriched by other entities** socially interacting with it.
- Allows for the entity to be **recognized** as **trustworthy partner** of communication and exchange, through **identification** and **authentication**.



Managing Digital Identity

So, what is a Digital Identity? (2/4)

Chaurdon and Eichinger (2018:21):

- “A social construction in constant evolution”.
- “Linkable to virtually an unlimited set of attributes growing with the digital activities of the entity”.



Managing Digital Identity

So, what is a Digital Identity? (3/4)

- Put simply, it is the **sum** of your **interactions** and **characteristics** happening and/or existing on the **Web**.
- The different interactions a user makes on each website they visit will have a different view of who the user is and what they do.
- These various representations of a user are referred to as **partial identities** because none of them have a holistic view of who you are.



Image from Canva



Managing Digital Identity

So, what is a Digital Identity? (4/4)

For example:

- **Amazon** has an established partial identity about you according to the **products** you **buy**.
- **Instagram/Facebook/YouTube (Meta)** have established a partial identity for you based on the **content** you **consume**.



Managing Digital Identity

Characteristics of a Digital Identity (1/2)

Just like humans have their unique characteristics in real life, digital identities have their unique set of attributes/characteristics in order to set them apart in the digital space. These attributes include:

- Usernames and passwords
- Date of Birth
- Age
- Gender
- Identification number / Social Security Number
- Online search activities (i.e. electronic transactions, pages viewed)
- Purchase behaviour and history
- Medical History
- Social media presence and interaction (posts, likes, comments, photos, shares)

[Infographic](#)



Managing Digital Identity

Characteristics of a Digital Identity (2/2)

Digital Identities are linked to one or more **identifiers** including:

- Email address
- URL
- Domain name

Sometimes the identifier is visible to you.

For example:

- If you have an Amazon account, your identifier may be something like johnsmith@me.com

The majority of websites prefer for users to sign up/register in order to maintain information about your identity – including your profile.



Image from Canva



Managing Digital Identity

Internet Tracking (1/4)

Some identifiers are not visible to you.

For example:

- When using the Google search engine for something, Google automatically **assigns** to you an **identifier** which is stored on your **web browser** as a **cookie**.
- Now every time you use Google the cookie acts as an identifier, **linking together** all of your **characteristics** in **Google's perception** of your **identity**.
- Internet tracking includes the ways that **search engines** and **websites track** and **study** our **behaviours** when we visit them.
- The main aim of this is to provide us, the users, with a **personalized browsing** experience (think of YouTube or Netflix suggestions).



Managing Digital Identity

Internet Tracking (2/4)

- The cookies or other unique identifiers used by websites, are a way of **tracking** and **maintaining your information** on the internet.
- Cookies are just one of the tracking methods used by websites and search engines to track you.
- Other tracking methods and data they collect include but are not limited to:
 - **IP address** – all internet connected devices have an IP address; it is required to visit a website and websites could remember yours and track your online activity.
 - **Account tracking** – follows online activity when logged in to a specific online account/platform, users must often grant permission for this.
 - **Click-through rate** – measures the times a user clicks/visits specific suggested content.



Managing Digital Identity

Internet Tracking (3/4)

- However, tracking is not entirely about offering the best user experience.
- Other reasons websites track our activities:
 1. Monitoring of a **website's usability**: how website visitors interact with a website can help locate and fix the areas that need to be improved.
 2. Creation of **revenue streams**: websites might be selling user data to advertising companies who are interested in targeting you with relevant products.
 3. Measure **business performance**: use of website analytics to measure consumer engagement with products and inform product releases or content strategists.



Managing Digital Identity

Internet Tracking (4/4)

- Whilst online data tracking is not illegal, there are a few causes of concern.
- Specifically, the **security**, **privacy** and **transparency** of:

Where the
data is
stored

&

Who has
access to it



As a result, the more complacent that we are in accepting website tracking, the less control we have over where and who has access to our data.



Managing Digital Identity

Distinctions of Digital Identity (1/2)

1. Security
(sharing of sensitive information, managing your passwords)

Two aspects
of digital
identity

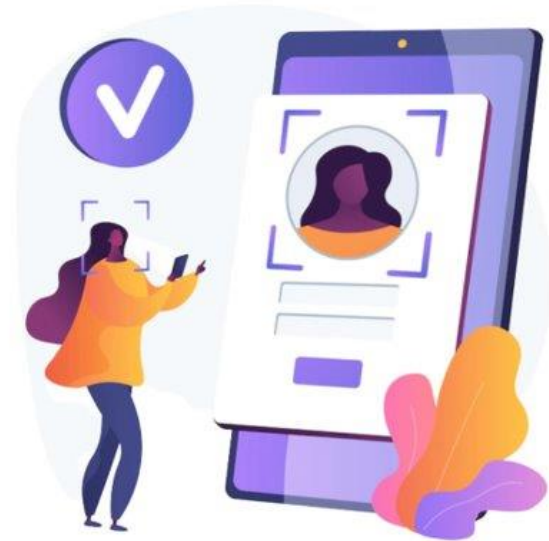
2. Reputation
(fundamental aspect of identity – social online interactions)



Managing Digital Identity

Distinctions of Digital Identity (2/2)

Whilst the two aspects are distinct, they are not mutually exclusive.



Managing Digital Identity

1. Security (1/2)

- We are responsible for providing this information to the web.
- Considering the cybersecurity aspect there are many opportunities for **exploitation**.
- As with any physical form of identification, you should be taking care in protecting your digital identities in order to prevent fraud or identity theft.



Managing Digital Identity

1. Security (2/2)

- Authentication and validation measures of digital identity are vital in ensuring the security of Web and network infrastructure in all – public and private – sectors.
- To stay on track with the ever-growing security landscape on the web, that is to keep your personal data secured, below you will find some examples of what you should and should not be doing (c.f. slide [27](#) & [28](#)).



Managing Digital Identity

2. Reputation (1/2)

- This aspect of a digital identity is a **social** one and concerns the personal data that we share online and through the different social networking services (i.e. Facebook, Instagram, TikTok, YouTube, WhatsApp, etc.)
- This social dimension of a digital identity serves you to define & present yourself as a unique and identifiable entity in the digital world.



Managing Digital Identity

2. Reputation (2/2)

There are **two key things to remember** when taking part in the online space that can influence the evolution of your digital identity:

- 1) Anything that is shared on the internet will be remembered
 - Every photo shared, status update, website visited will be tracked and recorded – creating your digital footprint.

- 2) The lines between professional and social lives are blurred on the internet
 - The previously private information about our social and personal lives is now in the public sphere and can have an influence not only on our personal but also on our professional lives.

If we are not careful with what is recorded online about us and it becomes accessible to anyone, it can have a negative impact on our private and public (professional image).



Managing Digital Identity

Individual Rights under GDPR law (1/2)

- As a result of the digital age's increasing reliance on access to services and information online, the General Data Protection Regulation (GDPR) was established under EU law.
- Main aim: to empower and give individuals control over their personal data on the internet.



Managing Digital Identity

Individual Rights under GDPR law (2/2)

- In the context of digital identities GDPR law individuals have the right to ask an administrator of a search engine or a website to:

1. Access
personal data
about you -
**Right of
Access**

2. Update /
correct data
about you –
**Right of
Rectification**

3. Remove
data held
about you –
**Right to be
Forgotten**





Examples/Good Practices

To do:

- Use password managers (various apps on phone, tablet, laptop, MacOS has Keychain).
- Save passwords on you own device's browser (i.e. Chrome, Microsoft Edge, Safari).
- Turn on two factor authentication.

Do Not:

- Share passwords
- Re-use passwords
- Use pet or family names as passwords.
- Share bank details online.
- Share personal details online.



Examples/Good Practices



To do:

- Change your passwords every 6-12 months.
- Follow specifics for setting up strong passwords (i.e. upper case and lower case letters, numbers, special characters, etc.).
- Verify others' identity through independent searches.
- Report emails as spam when suspicious.

Do Not:

- Open suspicious emails (always check sender address, subject of mail, ads, files).
- Upload photos of bank cards online.
- Upload photos of identification documents in unsecured places (ID, birth certificate, passport).



Examples/Good Practices

In terms of **reputation**, below are some good examples of how you can manage the reputation aspect of your online identity.

- 1) Know what is on the web about you;
 - Search for yourself using more than one search engine.
 - Use full name, full name + city, full name + school, full name + work.

- 2) Update your privacy settings;
 - Check where posts about you came from – which platform and change the settings to “friends only”.

- 3) Own your online identity;
 - Maintain at least one public profile which you keep updated (use for professional reasons).

Examples/Good Practices



Search engine & internet tracking

1. Use a search engine that respects your **privacy**.
2. Use the **incognito mode** when browsing.
3. When possible, use a Virtual Private Network (**VPN**), a software which can establish a secure connection between yourself and a server. This can encrypt the information transferred between this connection and make it unable to be read by your internet service provider.





Examples/Good Practices

Social Media & internet tracking

1. Enable the “do not track” option.
2. Withdraw from targeted advertising.
3. Withdraw from data broker sites.





Examples/Good Practices

Online shopping sites & internet tracking

1. Check-out as a guest if possible – do not create account profiles.
2. Do not allow cookie tracking on websites.
3. Consider using a tracker blocker.

IT'S QUIZ TIME!



Let's see what you have learned



Quizzes



1. Choose the two correct sentences and the false one.

- a) A digital identity is created by ourselves through the sum of our interactions and characteristics that happen on the web.
- b) A digital identity of a person is created by the different websites that they visit.
- c) A person can have multiple digital identities, each one corresponding to the activities done in each of the websites visited.

Quizzes



2. What is one characteristic of a Digital Identity?

- A) Usernames and passwords
- B) Date of Marriage
- C) Medical History
- D) Social Media Posts

Quizzes



3. What is an example of an identifier used with a Digital Identity?

- A) Domain Name
- B) IP Address
- C) Email Address
- D) Phone Number

Quizzes



4. The more information we share online, the more we can be tracked and targeted for specific marketing purposes.

True
False

5. Your digital footprint is everything that you share on the internet.

True
False

Exercise

In groups of 4,

Discuss what were the key takeaways from the “Managing Digital Identities” Module.

Consider which are some of the good practices, either in terms of reputation or in terms of security that you were already implementing in your everyday life and try to think of areas that can be improved through this module.

References

- Avast Security News Team. (2022). *What is Digital Identity?*
<https://blog.avast.com/what-is-digital-identity-avast>
- European Commission, Joint Research Centre, Chaudron, S., Eichinger, H. (2018) *Eagle-eye on identities in the digital world : evolution and challenges.* Publications Office. <https://data.europa.eu/doi/10.2760/48837>
- European Data Protection Supervisor. (2022). *Rights of the Individual.*
https://edps.europa.eu/data-protection/our-work/subjects/rights-individual_en
- Gritzalis, S., & Lambrinouidakis, C. (2008). Privacy in the Digital World. In M. Freire, & M. Pereira, *Encyclopedia of Internet Technologies and Applications.* Herevey PA: ISI Global. doi:10.4018/978-1-59140-993-9.ch058
- Internet Society. (2011). *Understanding your Online Identity: An Overview of Identity.* InternetSociety.Org. <https://www.internetsociety.org/wp-content/uploads/2017/11/Understanding-your-Online-Identity-An-Overview-of-Identity.pdf>

References

- Kahol, A., (2021). *Best practices and key factors for identity management*. Security Brief Australia. <https://securitybrief.com.au/story/best-practices-and-key-factors-for-identity-management>
- Morgan, K., & Morgan, M. (2010). Ethical Issues in Digital Information Technology. In T. Hansson, Handbook of Research on Digital Information Technologies: Innovations, Methods, and Ethical Issues. Harvey PA: IGI-Global.
- NortonLifeLock. (2022). *Internet tracking: How and why we're followed online*. Norton. <https://uk.norton.com/internetsecurity-privacy-internet-tracking.html>
- Olston, K. (n.d). *Managing Digital Identity*. The University of Sydney. Coursera. <https://www.coursera.org/lecture/digital-literacy/5-3a-managing-digital-identity-pnhjI> [Accessed on: 20/07/2022].
- Techopedia. (n.d). *Digital Identity*. <https://www.techopedia.com/definition/23915/digital-identity> [Accessed on: 18/07/2022].
- Windley, P. J. (2005). Digital Identity: Unmasking Identity Management Architecture (IMA). O'Reilly Media inc.