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**Dig**Include

### Quick to Learn Digital Professions

#### Contents



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#### Why was this course created?

**DigInclude** is a joint project of **SignCoders** and the **Hekate Conscious Aging Foundation.** As part of our cooperation, we work on the development of digital skills in communities of disadvantaged people. We set the following goals with the project:

Within the framework of adult education, Hungarian and Dutch community building, long-term community learning and the creation of progressive online community spaces. Training disabled and disadvantaged young people in digital skills, digital literacy and digital well-being, supporting their successful employment in the digital world.

This course was born as a result of our last commitment. The project is financed by the European Union.

#### The authors

The curriculum within the **DigInclude project is provided by SignCoders** team, with the cooperation of deaf and hearing colleagues.



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## Course goals

Presentation of digital professions, with which disadvantaged professionals may get a chance for employment in IT careers.

We specifically chose jobs that have a relatively low entry threshold, so they can be learned quickly.

## How to study with the curriculum?

Define specific goals for learning!

It helps if you use keeping techniques such as:

- → Create summaries!
- → Ask questions about the course material!
- → It is useful to discuss the material with your friends, especially the practical tasks.

With your questions, contact the authors of the course material ( <u>hello@signcoders.hu</u>) or the specialists of the individual topics.

Feedback helps you gain a deeper understanding and supplement your knowledge. → Repeat what you have learned regularly!

→ Take short breaks while studying!







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### Are you ready?

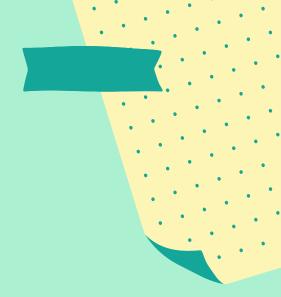


Let's start then, follow us!



Introduction to the world of digital job opportunities







In the digital world, there are **many career opportunities** that are accessible to people with disabilities or other disadvantages.

We present ten areas from web development to graphic design to programming, where there are legit job market opportunities. "Nothing is impossible. There are only possibilities that we haven't thought of yet."

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We associate each profession with basic skills and knowledge that are necessary to start out in that field.



We present these professions:

Graphic design

User experience (UX) design

Content production and management

Data analysis

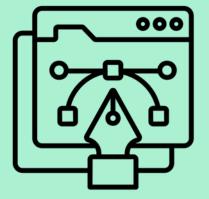
Software testing

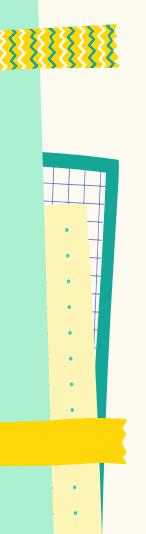
Digital accessibility consultancy

Annotation, AI teaching No-code / low-code programming Web development

**Project management** 

# Graphic design





Designing visual content such as logos, websites, mobile apps.

**Required skills:** creativity, attention to detail, visual sense, good communication skills

**Software knowledge:** Figma, Adobe Photoshop, Illustrator, InDesign, Midjourney

## What makes Graphic Design exciting?

#### The creative process

Designers realise their own creative ideas, while communicating in a visual language.















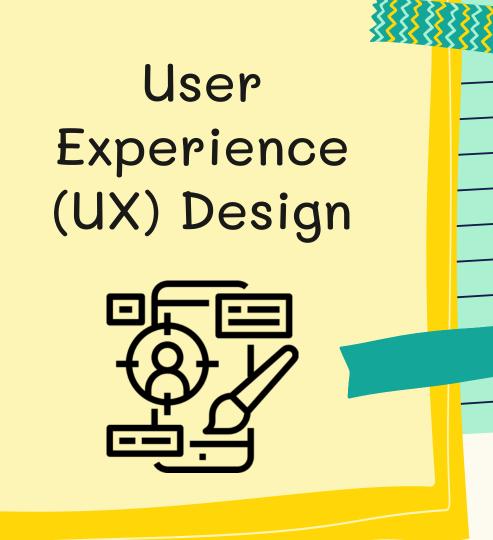


#### Bringing brands to life:

Designers play a key role in shaping the visual appearance of brands.

An example of a real task: a graphic designer at SignCoders worked for a year on the visual renewal of the XXX Lutz brand. It's a great experience when you pass the result of your successful work on the highway!





User-friendly design of websites and applications, creation of prototypes.

**Required skills:** User-centered thinking, empathy

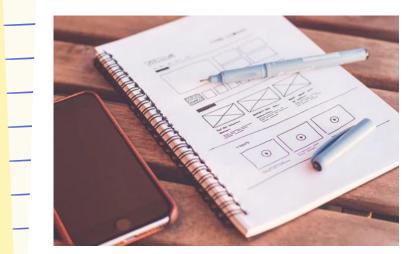
**Software knowledge:** Figma, Sketch, Adobe XD, InVision

#### What makes User Experience (UX) Design exciting?

**User focus:** the essence of UX design is to focus on the needs and experiences of users, which provides continuous challenge and satisfaction to designers.

**User feedback**: designers receive direct feedback from users, allowing them to see the impact of their work.

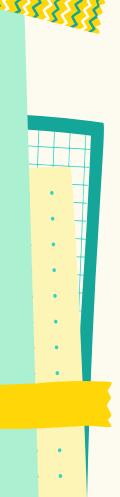
**Creative and strategic thinking**: UX design connects creative design with business thinking, so designers need to know both areas.











Content creation and management, e.g. blogs, videos, social media posts.

**Required skills:** Writing skills, creativity, SEO knowledge.

Software knowledge: WordPress, Google Analytics, Hootsuite, Adobe software.

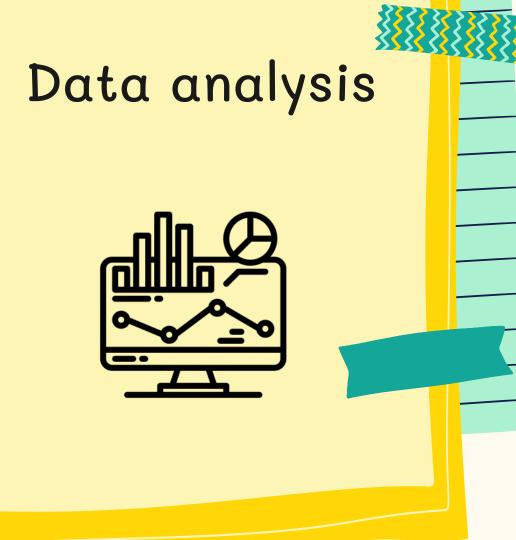
#### What makes content creation interesting?

The creative expression: content production provides an opportunity to realize creative ideas and create a unique voice through different mediums.

The relationship with the target audience: in this area, a direct relationship develops between the brand and the target audience, making it possible to understand and satisfy the needs of the target group.

**Diverse content formats**: Content creators can work in a variety of formats, including blogs, videos, podcasts, infographics, and social media posts.





Analysis and interpretation of data, support of business decisions.

**Required skills:** Statistical knowledge, data visualization, analytical thinking.

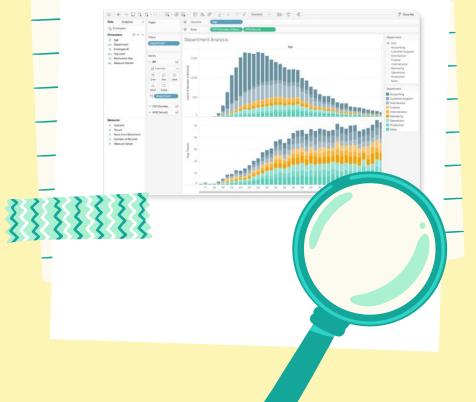
**Software knowledge:** Excel, R, Python, SQL.

### What makes data analysis interesting?

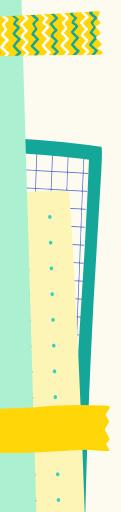
**Discovering hidden relationships:** data analysis offers the opportunity to discover hidden patterns and trends.

**Decision-making impact**: decisions made based on analyzed data can have a significant impact on a company's strategy and success.

**Solving challenging problems:** data analysis requires logical and critical thinking.







Finding and reporting software errors.

**Required skills:** Attention to detail, logical thinking, communication skills.

**Software knowledge:** JIRA, Selenium, TestRail.

#### What makes software testing interesting?

**Discovery of critical defects**: testers play an important role in identifying defects that can affect the quality of the software.

**Constant puzzles**: during the testing process, testers face many different and complex problems that require logical thinking and creativity to solve.

**A sense of quality assurance:** the work of software testers directly contributes to product reliability and user satisfaction.





Ensuring the accessibility of websites and mobile applications.

**Required skills:** knowledge of accessibility standards (WCAG), analytical thinking.

**Software knowledge:** AChecker, WAVE, JAWS.

### What makes digital accessibility consulting interesting?

**Social impact**: the work of digital accessibility consultants directly contributes to the creation of a more inclusive digital world.

**In-depth knowledge of standards and guidelines:** experts must be aware of international accessibility standards and guidelines. This is valuable, marketable knowledge.

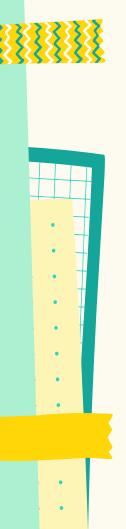
**Combining technological and human aspects**: digital accessibility uniquely combines technological knowledge with human needs and rights.





## Annotation, AI teaching





Interpretation of visual content aimed at teaching artificial intelligence models.

**Required skills:** Attention to detail, visualization, data processing skills.

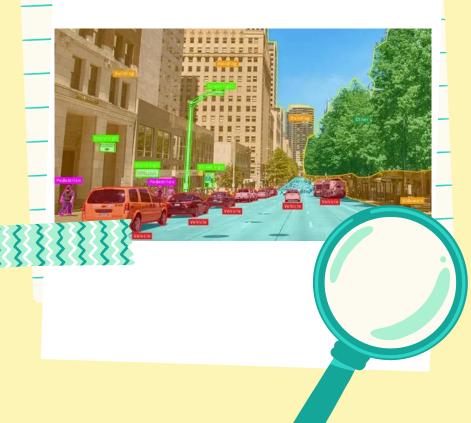
**Software knowledge:** TensorFlow, PyTorch, Amazon Mechanical Turk.

### What makes annotation, i.e. AI training, interesting?

At the heart of AI development: annotation and AI training directly contribute to the development of Artificial Intelligence.

**Fast learning:** AI teaching can be learned very quickly.

**Pushing the boundaries of technology:** during AI teaching, professionals use the latest technologies, constantly pushing the boundaries of artificial intelligence.





Develop applications with minimal programming skills.

**Necessary skills:** logical thinking, problem solving, basic knowledge of digital technology.

**Software knowledge:** Bubble, Zapier, Microsoft PowerApps.

#### What makes low code/ no code technologies interesting?

**Development without programming skills**: enables application development even for those who do not have deep programming knowledge.

**Rapid prototyping:** with low code/no code tools, ideas can be quickly created and tested, enabling rapid development.

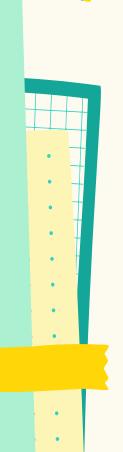
**Collaboration between business and technology team members:** Facilitates collaboration between business and technology teams as the development process is easier to understand for non-technical staff.





## Web development





Creation and maintenance of websites and web applications.

**Required skills:** Knowledge of programming languages, problem solving, creativity.

**Software knowledge:** HTML, CSS, WordPress, JavaScript, React.

### What makes web development interesting?

**Creative and technical challenges**: web development combines creative design elements with technical programming challenges.

**User experience-centered approach:** the task of the web developer is to ensure that websites are easy to use and accessible.

**Diverse project opportunities**: web developers can work on many different types of projects, including corporate websites, web stores, and web applications.





Planning, management and coordination of projects.

Required skills: Organizational skills, excellent communication, teamwork, time management.

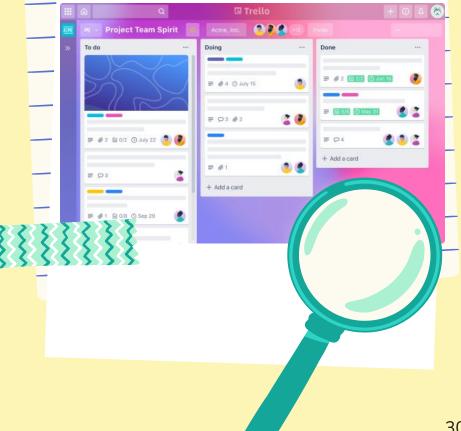
**Software knowledge:** Trello, Asana, JIRA, Microsoft Project.

### What makes project management interesting?

**Coordination of complex tasks:** project managers manage all aspects of a project, including planning, execution and meeting deadlines, which requires extensive organizational and communication skills.

**Teamwork and leadership:** project management provides an opportunity to lead and inspire teams, and to strengthen cooperation and team spirit.

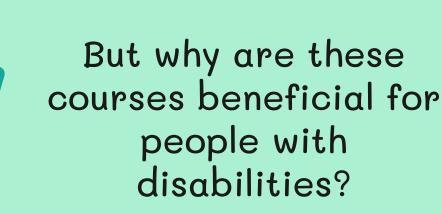
**Diverse projects and industries**: project managers can work on different types of projects in different industries, which offers variety and new challenges.





Wow, that was a lot of information at once, since we presented ten career options.

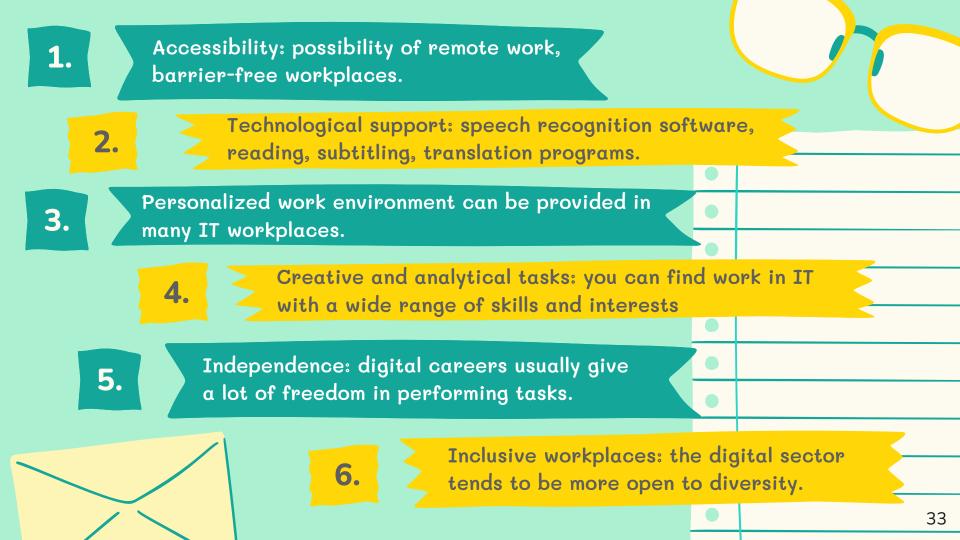
# Does any of these sound interesting to you?



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### What is common in IT jobs



#### Lilfelong learning

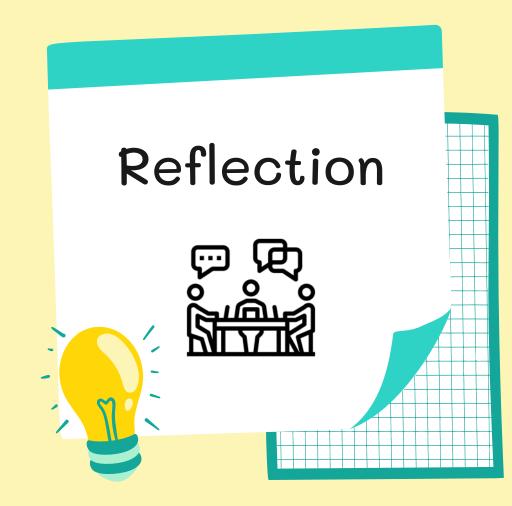
Continuous learning is a must due to technology advances and changes in user preferences

#### Wide applicability

IT knowledge can be used in many industries, so professionals can work in a variety of environments 

### Independent problem solving

In these positions, the ability to solve problems independently is always expected



#### **Discuss in a group:**

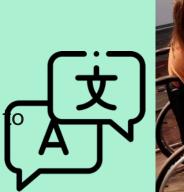
Discuss who likes which career and why.

Isn't it fascinating, just how diverse people's interests are?

#### Honestly about English language skills

English is required in almost all IT jobs.

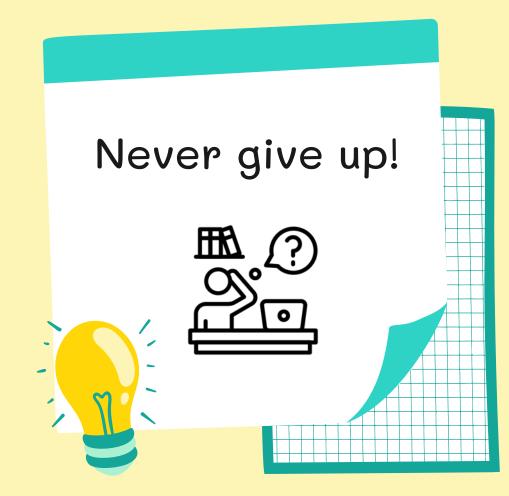
What should I do if I feel like I need to improve my language skills?





In Hungary, there are English language education courses for people with disabilities.

For example, provided by Jamba Hungary.



But what should I do if I'm looking for a job in the near future and don't have time to learn English?

It is true that many jobs require English and are not flexible about it.

But in many IT jobs, most of the communication is written. And technology is already a big help in this. If you skillfully use translation programs such as **DeepL** or **Google Translate**, you have a chance to get a job even without a deep knowledge of English. There are employers who can accept this solution.



Feel free to ask him if the workplace can provide an opportunity to improve your English skills.



# Basic digital skills







Every workplace expects basic digital knowledge and skills.

#### But what is considered basic?

This varies from employer to employer, but we have collected a list for which may be necessary in most workplaces.



#### **1.** The basics of computing. Manage files.



Use of devices and operating systems. Basic troubleshooting. Save, manage and share files on your computer and in the cloud.



Email and communication tools.

Create and manage email accounts. Use of online communication platforms, social media and chat applications.





#### Internet navigation. Digital security basics.



Effective search techniques, use of browser programs, interpretation of online information. Password management, phishing detection. Safe internet habits.



#### Basic software tools

Use of office software, text editors, spreadsheets. For example, Microsoft Office and Google products.



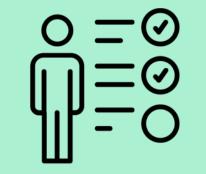


Write a list of the tools and software you use.

Isn't the list significantly longer than you first thought?



# Soft skills





### The importance of soft skills

The majority of employers now consider the existence of soft skills at least as important as hard skills.

It is advisable to develop them regularly with skill-building trainings.



### The five most important social skills

**Willingness to learn:** openness to new knowledge and skills, striving for continuous development.

2.

Communication: effective and clear communication skills.

3.

**Teamwork:** cooperation skills, conflict management and strengthening team spirit.

4.

**Problem solving:** creative and analytical thinking. Dealing with problems effectively.



**Time management:** effective time allocation, management of priorities. Meeting deadlines.

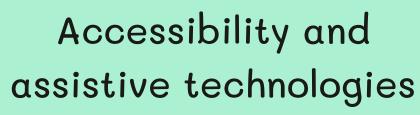


Which social skills are your strengths?

Do you have a superpower?:)



Is there an area you would like to develop?



Tools and technologies for workplace support for people with disabilities





#### Accessibility for the deaf and hard of hearing



**Visual notifications:** Flashing lights or on-screen notifications that replace audible alerts. Connected devices such as smart watches.



**Communication tools:** e-mail, chat software. Video communication software, e.g. Google Meet, Zoom, Teams, Skype.



**Artificial intelligence software.** Automatic subtitling, dictation software. Translation applications.



# You have the right to an accessible work environment!

#### Accessibility for the blind and partially sighted



**Screen-reading software:** such as JAWS or NVDA, which read the contents of the screen aloud. It is already standard in many operating systems today.



**Magnifier software:** screen magnifiers that help visually impaired people read text on the screen.



**Voice control and speech recognition technologies:** for example, Dragon NaturallySpeaking, which allows you to control your computer by voice.



# You have the right to an accessible work environment!

Courses, supporting organizations, communities, useful links

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**Software testing workshop.** Organized by Digital Access, Jamba Hungary and SignCoders.

#### Digital accessibility testing course.

Organized by Digital Access, Jamba Hungary and SignCoders.

Introduction to using Figma. Organized by SignCoders.

#### CV writing.

Jamba Hungary, SignCoders collaboration. With the support of CIB Bank.

English language teaching.

Organized by Jamba Hungary

More information can be requested at <u>hello@signcoders.hu.</u>

## Accessible courses in Hungary

Coursera: https://www.coursera.org/

edX: <u>https://www.edx.org/</u>

Udemy: <u>https://www.udemy.com/</u>

Many free and paid online courses are available on these platforms, many with accessible content.

# Online courses



DigInclude Facebook Group:

https://www.facebook.com/groups/diginclude

Hekate Foundation:

https://hekate.foundation/

Sign Coders: https://www.signcoders.hu/

**DigInclude:** 

https://hekate.foundation/2022/06/09/diginclude -developing-digital-skills-in-disadvantaged-grou ps/

# **Useful links**

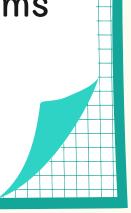


More information can be requested at

hello@signcoders.hu.

# Glossary of technical terms





Al (Artificial Intelligence): refers to computer systems that are capable of performing tasks that require human intelligence. Examples include speech and image recognition, decision making and translation.

**Annotation:** refers to the addition of comments or tags to text, images, or other data. In the field of artificial intelligence, annotation helps a machine learn how to recognize and interpret information.

**Digital career:** refers to job opportunities that are specifically based on the use of computer technologies.

**Inclusion, Inclusive:** the practice of inclusion and ensuring equal access, especially for disadvantaged groups. Best practices can ensure that everyone participates in the world of work.

# Glossary of technical terms





**IT (Information Technology):** the set of activities related to the use of computing and communication technologies, including hardware, software, network management and maintenance.

**No-Code / Low-Code Programming:** refers to development platforms that allow users to create applications and websites with minimal programming knowledge.

**SEO (search engine optimization):** the process of optimizing websites so that they achieve a better position in the search engine results list, thus increasing the number of visitors to the site.

**UX Design (user experience design):** the design process of products and services in order to improve the user experience. The goal is for the product or service to be easy to use and provide an enjoyable experience.