The Good Manager

TRAINING

IMPLEMENTATION GUIDE

Erasmus+

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THE IDEA BEHIND THE PROJECT

Digital-related activities are responsible for more than 4% of the global greenhouse effect - more than civil aviation (2 to 3%) - and are constantly increasing[1]. In the context of the climate crisis, saving and rationalizing energy also concerns Internet and its websites, designed today to host more and more videos and high-definition and enriched content...

The global movement of the digitisation of society, which is leading towards ever more connectivity and enriched content, raises the question of its control and sustainability. Defining a digital strategy for its organization questions the environmental impact of the digital products developed. Should the audio format be preferred to the video format of content? Are there hosting solutions that are more eco/socially responsible than others? How to set up an eco-responsible digital strategy?

These are all questions that show both the collective awareness of our responsibility in the choices we make personally and professionally and our lack of knowledge about the digital tools we use every day, at home and work.

Beyond the words "Print this email only if necessary", it is urgent to train professionals in charge of digital projects on these issues to enable them to develop digital strategies that fully integrate the issues of social and environmental responsibility and, thus, enable them to implement new professional practices.

Digital innovation and the adoption of new digital practices must go hand in hand with a new, more reasoned, sustainable and accessible conception of digital tools. Beyond the legal obligation to develop digital content according to accessibility guidelines and standards, it appears that the "low-tech" design of websites considerably improves the accessibility of content. Less cumbersome sites are more accessible for users with low-quality internet connections. Limited visual effects make it easier for users with special needs to read and navigate.

[1] The Shift Project. (July 2019). Lean ICT – Pour une Sobriété Numérique (For a Digital Sobriety).

Today, innovation is also based less on technological showcase than on digital sobriety, with limited and sustainable technical choices, adapted to editorial and graphic needs.

The Good Manager project aims at developing digital learning materials and tools to support and enhance the effective use of digital technologies and open pedagogies in training. Our objective is also to encourage digital professionals to think about combining eco-design and content accessibility. **A more sustainable internet must also be a more accessible internet.** By offering an eco-designed e-learning platform promoting digital eco-design, digital accessibility and eco-responsible and inclusive project management, we wish to contribute to the training of professionals in the design and management of complex digital projects reconciling eco-design and accessibility. The digitisation of society and the issue of the environmental, social and economic impact of digital is a transnational issue. The implementation of European projects focusing on innovation and the exchange of good practice are themselves at the heart of these issues.

The Good Manager (2020-1-FR01-KA202-080485) is a collaboration between 6 partner organisations, funded by the Erasmus+ program over two years (November 2020 - October 2022). We, therefore, wish to pool our experience and skills to make The Good Manager both an experiment and an exchange of good practices on the issues of innovation and digital eco-design, digital accessibility and reasoned and inclusive project management. All resources are freely available in English, French, Bulgarian, Italian and Spanish.

The aim of this guide is to be the pedagogical reference for the three e-learning modules developed during the project. It will promote the transfer of Open Educational Resources to the VET community, and the low-tech and inclusive approach implemented in the training modules.

Guided by our desire to consistently present the main starting points, we introduce the learning method known as micro-learning.

MICRO-LEARNING

In a nutshell, micro-learning is defined as an educational activity for the purposes of which a small group of peers or an individual are invited to engage with learning material for a short period followed by a brief feedback session on what was learnt and the extent to which it was mastered[2]. The feedback session can also be a form of self-evaluation. Overall, the whole activity should not take longer than 5-15 mins[3]. The learning material and its consequent feedback session can also be referred to as a **grain.**

MICRO-LEARNING CHARACTERISTICS

Micro-learning can be characterized as follows:

- Micro-learning processes often derive from interaction with micro-content, which takes place either in designed (media) settings (e-learning) or in emergent micro-content structures like weblog postings.
- Micro-learning can be an assumption about the **time needed to solve a learning task**, for example answering a question, memorizing an information item, or finding a needed resource[4]. Learning processes that have been called "micro-learning" can cover a span from a few seconds (e.g., in mobile learning) up to 15 minutes or more. There is some relation to the term micro-teaching, which is an established practice in teacher education.
- Micro-learning can also be understood as **a process of subsequent, "short" learning activities**, i.e., learning through interaction with micro-content objects in

[2] Hug, T. (2006). "Microlearning: A New Pedagogical Challenge", in K. Habitzel, T. D. Märk, B. Stehno, S. Prock, *Microlearning: Emerging concepts, practices, and technologies after e-learning*. p. 7.

[3] Ibid.

[4] Mosel, S. (2005). Self Directed Learning with Personal Publishing and Microcontent. Constructivist Approach and Insights for Institutional Implementations. Innsbruck, Austria.

small timeframes. In this case, the design, selection, feedback and pacing of repeated or otherwise "chained" micro-learning tasks comes into view.

- In a wider sense, micro-learning is the way more and more people are actually doing informal learning and gaining knowledge in micro-content, micro-media or multitasking environments **(microcosm)**.

Micro-learning as a learning model is gaining increasing prominence, especially in **innovative education**. It is most typically associated with language learning in the context of commercial education as is the case with Duolingo – a smartphone application which encourages users to do language exercises daily, thereby contributing to their overall long-term understanding of the language. The model is gaining relevance in other fields as well. Such is the case with the culture bulletins La Culture by Roger(s) which provide basic presentations on historical, artistic or cultural issues, people or events in a light manner and with a touch of humour[5]. The presentations come on a frequent basis and emphasize brevity and facilitated learning.

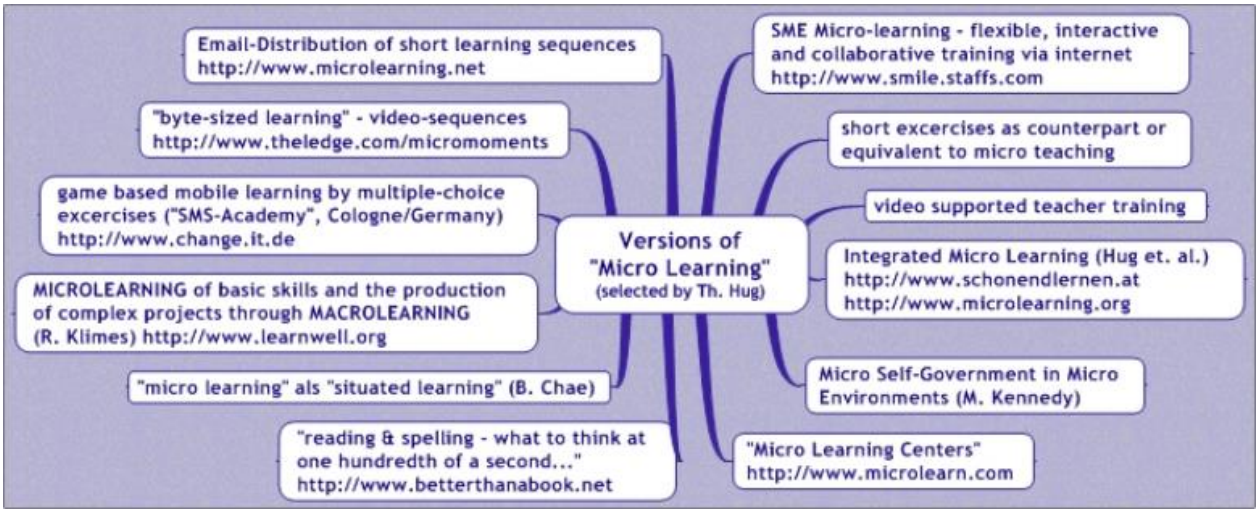
Theo Hug suggests that a great variety of micro-learning practices has already been introduced in our social and economic lives. He proposes a selection of the many uses of the practice[6]:

- E-mail distribution of short learning sequences: http://microlearning.net
- "Byte-sized learning" - video – sequences: http://theledge.com/micromoments
- Game-based mobile learning by multiple choice exercises ("SMS-Academy", Cologne/Germany): http://change.it.de
- Micro-learning of basic skills and the production of complex projects through macrolearning (R. Klimes): http://learnwell.org
- "Micro-learning" als "situated learning" (B. Chae)
- Reading&spelling- what to think at one hundredth of a second: http://betterthanabook.net

[5] https://www.laculturebyrogers.com/a-propos.

[6] Hug, Th. (2005, May 6-8). "Micro Learning and Narration Exploring possibilities of utilization of narrations and storytelling for the designing of "micro units" and didactical micro-learning arrangements". Media in Transition conference. MIT. Cambridge (MA), US, p. 3. Some resources may not be available anymore.

- SME Micro-learning - flexible, interactive and collaborative training via internet: http://smile.staffs.com
- Short exercises as counterparts or equivalent to micro-learning
- Video supported teacher training
- Integrated micro-learning (Hug et al.): http://schonendlernen.at/; http://microlearning.org
- Micro self-Government in Micro Environments (M. Kennedy)
- "Micro-learning Centers": http://microlearn.com.



One way to better explain micro-learning is by reference to the **structure of micro, meso- and macro-aspects of any knowledge gaining process**. In the words of Hug: "No matter if learning refers to the process of building up and organizing knowledge, to the change of behaviour, of attitudes, of values, of mental abilities, of cognitive structures, of emotional reactions, of action patterns or societal dimensions, in all cases, we have the possibility to consider micro-, meso- and macro- aspects of the various views on more or less persisting changes and sustainable alterations of performances".[7] In the case of micro-learning, the emphasis falls on the brevity of learning activities and, hence, the brevity of materials and

[7] Ibid. p. 4.

exercises. This rule can be followed across the various dimensions of educational activities[8].

- **Time**. The learning exercises should fall within a **margin of 1 to 6 minutes** considering the needs and demands of the target audience. The time should be measurable and explicitly stated in advance. This is the first and most defining characteristic of micro-learning as it sets the frame to which the other dimensions should conform.
- **Content**. The basic rule for the content is that it **should be consistent with the ultimate learning objective** and yet concise enough **to fit within the suggested time frame**. Additionally, each learning exercise for the suggested time should be holistic on its own, that is, it should achieve a learning outcome of its own.
- **Curriculum**. The curriculum should provide the **essential information for the course**. This includes the topics which it would cover along with an indication of the length of the course and the frequency of the learning engagement (e.g. daily, weekly, monthly).
- **Form**. **The form may differ from one learning exercise to the next**. In one instance, it could be a brief presentation, in another instance, it could be a short outline followed by a skills training which constitutes the core of the learning activity. Such is the case with Duolingo, for instance, where a brief language lesson is followed by a more extensive set of training exercises.
- **Process**. The whole course **should clarify the structure and organisation of the learning exercises in advance**. One way to do this would be to organise learning activities into lessons and those into levels. Another would be to suggest at what point the fulfilment of a series of micro-tasks leads to the comprehension of a meso-aspect and where the achievement of a series of this comprehension leads to the understanding of a macro-aspect.
- **Multimodality** Micro-learning is not confined to a single mode of learning. On the contrary, it may include interactive aspects including speaking, listening, watching, writing, face-to-face or mono-media activities. It all depends on what serves best the fulfilment of the learning outcome and the other prerequisites of the course.

[8] Ibid.

- **Learning type**. Throughout the creation of their course, designers have absolute freedom in this regard as well. Learning could be done through learning-by-doing, reading, exercising, nudging, monitoring or any other learning model.

This breakdown suggests a rough frame for what micro-learning should look like. On the one hand, it outlines some more stringent dimensions such as time, content, curriculum and process which require holistic learning activities that have to be completed in a short time and organised in consistent and coherent structures. The intended result is that a particular learning outcome is defined within a predetermined time frame. On the other hand, it also suggests more flexible aspects in the room for more creativity and implementation of more than one approach. Such is the case with form, mediality and learning type where various interactive opportunities can be explored, as long as they contribute to the overall achievement of the learning outcomes. Please refer to the instructions in Annex I for guidance on which forms and content of the grains are appropriate and where they should be used.

WHAT ARE THE BENEFITS OF MICRO-LEARNING?

Whether it's referred to as micro-learning, micro-training or even nano-learning, one thing is clear: there are massive benefits for both learners and organizations who use a bite-sized learning approach.

- **Learner attention rates go up** - The benefits of bite-sized learning are backed up by available micro-learning statistics. A study by the Dresden University of Technology found that short content drives over 20% more information retention than long-form content.
- **Easy accessibility increases completion rates** - Most micro-learning research has found that the combination of bite-sized learning and smartphones boosts completion rates. Mobile phones encourage anytime-anywhere learning while shorter courses ensure learners are more likely to complete their training.
- **Skill gaps close faster** - Short bursts of targeted content are ideal for just-in-time learning in the workplace. They ensure that trainers focus on one learning outcome at a time which lets learners quickly close any small knowledge or skill gaps they have.

- **Easy to create and update** - Another benefit of micro-learning is that, due to shorter content, courses are much easier to build. And micro-learning apps have intuitive content builders that do all the heavy lifting for developers.
- **Budget-friendly** - One of the financial benefits of bite-sized learning is that it has an impressive return on investment. The cost of creating a bite-sized course is much lower than the cost of creating long-form training.
- **Ideal for the modern learner** - According to Deloitte's influential 2014 "Meet the Modern Learner" study, employees have only about 20 minutes a week to focus on training and development. With micro-learning, organisations can make those 20 minutes count[9].

To enrich and expand the scope of the concept of innovative learning, the European credit system for vocational education and training gives important guidelines in this direction.

[9] https://www.talentcards.com/

ECVET

The European Union (EU) has several common instruments helping individuals in the transfer, recognition and accumulation of their assessed learning outcomes, to achieve a qualification or to take part in lifelong learning. The European credit system for vocational education and training (ECVET) is one of these instruments; it uses flexible and individualised learning pathways, including transnational mobility.

WHAT ECVET DOES

- ECVET allows learners to accumulate, transfer and use their learning in units as these units are achieved. This enables building a qualification at learners' own pace from learning outcomes acquired in formal, non-formal and informal contexts, in their own country and abroad. The system is based on units of learning outcomes as part of qualifications that can be assessed and validated.
- It offers a framework for making learners more mobile and qualifications more portable, laying down principles and technical specifications and making use of existing national legislation and regulations. It applies to VET (vocational education and training) qualifications at all levels of the European qualifications framework.
- ECVET complements and builds on concepts and principles shared with the European qualifications framework (EQF), Europass and the European quality assurance reference framework for VET (EQARF)[10].

[10] European Centre for the Development of Vocational Training, *Cedefop Strategic Themes*. https://www.cedefop.europa.eu/en/.

ECVET IN BRIEF

The European Credit system for Vocational Education and Training (ECVET) is the new European instrument to promote mutual trust and mobility in vocational education and training. Developed by Member States in cooperation with the European Commission, ECVET has been adopted by the European Parliament and the Council in 2009. The adoption and implementation of ECVET in the participating countries are voluntary. Currently, the participating countries and the Commission support a Europe-wide testing of this instrument to which all stakeholders have been invited to participate.

ECVET: an instrument for mobility and recognition

ECVET's purpose is to enable recognition of learners' achievements during periods of mobility by creating a structure, bringing a common language, and stimulating exchanges and mutual trust among VET providers and competent institutions across Europe. In the context of international mobility but also mobility within countries, ECVET aims to support the recognition of learning outcomes without extending learners' education and training pathways.

ECVET for valorising mobility

ECVET contributes to making recognised mobility an integrated part of individuals' learning pathways. It makes it easier for employers to understand qualifications achieved abroad. It also improves the credibility of international education and training experience by identifying and documenting what the learner has achieved.

ECVET for lifelong learning

ECVET supports flexibility of programs and pathways to achieve qualifications, enhancing the opportunities for lifelong learning. It makes it easier to recognise the learning achievements that young people or adults have gained in other contexts - be it countries, institutions or systems (for example initial or continuous training) but also formal, non-formal, or informal ways of learning.

ECVET for the attractiveness of VET

By giving learners the possibility to undertake parts of their training abroad, VET providers can enrich the training provision, raise the attractiveness of training programs and enhance their pan-European reputation. The improved possibilities for lifelong learning created by

ECVET facilitate cooperation between VET providers and companies. This means that ECVET can strengthen the link between education and training and the labour market.

ECVET base

ECVET is based on concepts and processes, which are used in a systematic way to establish a common and user-friendly language for transparency, transfer and recognition of learning outcomes. Some of these concepts and processes are already embedded in many qualifications systems across Europe.

ECVET Lifelong Learning

The European Credit System for Vocational Education and Training (ECVET) was developed to enable people to build on what they have learnt in the past when wishing to achieve a qualification. Competent authorities may decide to use ECVET to give people the opportunities to get recognition for learning outcomes they achieved abroad, but also for learning outcomes achieved through learning in another institution or system within the same country or those acquired by experience.

In what manner can ECVET be used for lifelong learning?

The life trajectories of individuals are varied and people have different needs in terms of learning, recognition of learning outcomes and qualifications, depending on their situations and paths. The idea behind credit systems is that once people have achieved specified learning outcomes, these remain an acquis over a certain period. Asking people to undertake learning, leading to the same outcomes would be a waste of their time and resources with possible negative impacts on their motivation. This is why credit can be transferred and accumulated to achieve a qualification. The situations where credit transfer and accumulation can be useful are varied, for example:

- Adults may want to upgrade their qualifications or achieve an additional qualification without having the possibility to attend a full-time training program because of their work or other commitments. They may wish to achieve the qualification by obtaining one unit after another and accumulating the units using ECVET in view of gaining the full qualification;
- People who are already qualified may wish to or need to achieve another qualification which shares some learning outcomes with the qualification that they already hold. The credit from the qualification that they already hold could be

transferred using ECVET and the education and training program that they need to undergo could be shortened;

- Young people who have dropped out of education and training and who wish to return after one or two years could use ECVET to be able to build on the units of learning outcomes they have achieved in the past without having to go through the whole program from the beginning;
- People who have been exercising a profession without having the related qualification may want to achieve such a qualification to progress in their career or for other reasons. They may have achieved a number of relevant learning outcomes through informal learning which could be validated and recognised and the person would achieve some of the units of the qualification. The person could achieve the remaining units of the qualification through formal learning and accumulate credit, using ECVET, to get the full qualification.

(Non-) Formal learning while working using ECVET

Given the pace of the evolution of requirements for many professions, there is an increasing need for professionals to update and upgrade their knowledge, skills and competence over their lifetime. This may lead to the achievement of a new or additional qualification. However, many adult learners face very practical barriers when it comes to taking part in formal education and training. Those who have, for instance, employment or family commitments, may find it difficult to take part in a full-time training program. It is, therefore, necessary to put in place education and training provision that allows achieving qualifications progressively.

How could ECVET support participation in (non-) formal training while working?

ECVET uses the concept of units, which group learning outcomes into sets that are smaller than the full qualification. Competent authorities may decide to structure their qualifications in units and give learners the possibility to achieve units one by one and to achieve the full qualification following the accumulation of units. In some cases, the award of the qualification may follow automatically once all units have been achieved. In others, the competent authorities may wish to condition the award of the qualification with a requirement that students must successfully pass a final assessment that would indicate that they are capable of combining the knowledge, skills and competence from all units in view of a more complex product or project.

The training providers preparing adult learners may use the different units as a basis for structuring their education and training provision. Each unit would be assessed and recorded in a learner's transcript which documents what the person has achieved.

This organisation can lead to the development of less constraining education and training pathways. Adults who are at the same time working and/or caring for their family could spread the normal duration of the training program over a longer period by first attending the learning activities leading to one unit, achieving the unit and then moving towards those learning activities for another unit. This way, they could combine education and training with working life while at the same time being able to receive formal recognition in the form of qualifications for the learning outcomes achieved.

In addition to all the above, we must not forget that globalization has led to the widespread use of digital tools that are essential for the development of learning in all its aspects.

MOOC & E-LEARNING TOOLS IN VOCATIONAL TRAINING AND PRACTICES IN COMPANIES

Digital tools first appeared in the field of corporate training in the 1980s, under the name e-learning. They became an increasingly important part of training systems up until around the year 2000, due, in particular, to disappointing feedback that the digital tools could not deliver on the learning efficiency that was promised.

After this first wave, a form of cohabitation between the two modes of learning was established. Grouped under the term “blended learning”, courses integrating a mix between in-person courses and digital devices began to appear. These blended or hybrid training courses promote online interactivity and allow the learner to be involved in the training process.
They are intended for everyone and offer many advantages, such as exchange and collaborative work.

These developments in the world of training have been accompanied, on the user side, by a movement towards individualization of training, notably with the implementation in France of the CPF (personal training account). Moreover, digital technology is spreading to all aspects of personal life, which makes distance learning and its variants (Serious Game, Mobile Learning, etc.) more natural. Individuals are directing their requests to online courses (such as MOOCs) and solutions related to professional retraining. In 2018, 95% of European employees said they were ready to train themselves to adapt to technological changes[11].

Corporate training is, therefore, increasingly taking the form of blended learning with a strong coaching dimension. Blended learning has evolved considerably, far from its original linearity - classroom + e-learning. It has truly evolved into continuous learning, and, as such,

[11] CEGOS Barometer.

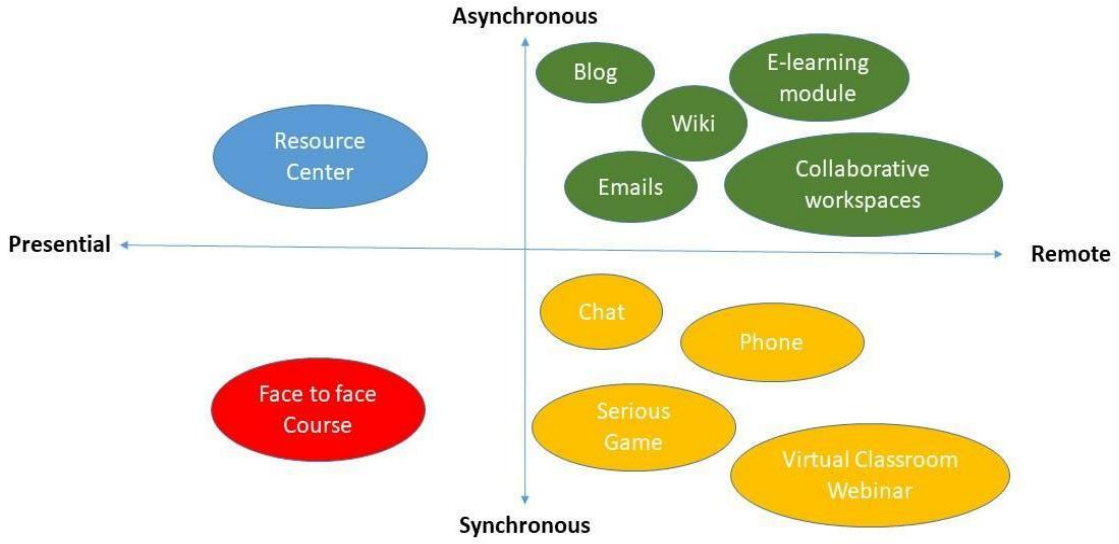
is capable of meeting major collective and individual challenges: support for daily operational performance, development of skills and human capital, preparation for digital transformation and the jobs of tomorrow.

Three main types of e-learning

The closed online course, generally led by a teacher who ensures communication with the participants and can also lead "synchronous" training times. It includes content resources, learning activities, evaluation tests and an interaction space that allows participants to interact with each other and with the teacher.

The open online course, intended for all those who want to self-train on a subject that interests them, generally distributed on a platform, not leading to a degree. The learner must follow his or her own path. In addition to the "course" resources themselves, these courses include some self-correcting exercises such as quizzes, which allow the learner to evaluate his or her understanding. They do not offer interaction spaces or synchronous training times.

Learning resources organized in a library or directory, made available to individuals for self-training purposes. In this category, we find very diverse objects: video tutorials, written course materials, filmed courses...



Source Mathilde Bourdat 2009
https://www.formation-professionnelle.fr/2009/02/05/quel-mix-pour-les-formations-associant-presentiel-et-e-learning/

These different e-learning systems are increasingly combined with face-to-face courses in what is known **as hybrid courses**. In the early 2010s, the emergence of MOOCs (Massive Online Open Courses) from the university world further broadened the range of training solutions available to employees. They are very popular with current employees or those undergoing retraining. Their flexibility and their social dimension are appealing, and certifications and other open badges are an asset to an individual's CV.

The MOOC is a session open to all. It is a course and not a conference, but the number of participants can be very high. One of the main advantages is the direct link with the teacher without the need to learn on-site. However, the "Massive" and "Open" aspects, designed to be open to all, are not easily compatible with the corporate world where training must be in line with a specific strategy, often confidential, and adapted to internal organizational issues.

The advantages of MOOCs for companies

- The **flexibility** offered by internet access from anywhere (work, transport, home) and at any time suits employees' busy schedules.
- The very **attractive cost**, due to massification and standardization, proposes affordable solutions for companies of all sizes, including VSEs and SMEs.
- **The social dimension** enabled by peer-to-peer exchanges, both internally and beyond the company's borders.

The obstacles of MOOCs for companies

- The degree of **customization** required to adapt the generic content of a MOOC to the processes, tools and specific vocabulary of each company.
- **The impact** of the training on the learner's real world, and the demonstration of the added value of the MOOC for the individual and the organization.
- **The motivation and organization** required to follow a MOOC while continuing one's daily activities. The dropout rate is one of the problems of this format.
- **The localization** according to the specificities of the countries, their language, their culture and their regulations.

In companies, the MOOC is often replaced by SPOC "Small Private Online Courses" or by COOC "Corporate Online Open Courses". They present several advantages for employees because they are close to the environment of the professional training and, thus, to the employability (in particular, the opportunity to obtain a certificate). They also eliminate staff absences because there is no need for face-to-face training.

Companies are now aligning themselves with the **new habits of learners**. They use many distance learning tools (videos, e-learning modules, virtual classes, etc.).

According to the e-learning barometers in France conducted by Afinef in 2015 and 2020, videos are the preferred learning solutions (60% of companies have used them since 2015, especially in small companies with less than 500 employees, where this rate rises to nearly 80%). Larger companies, on the other hand, are making it easier to use virtual classrooms.

While employees continue to place great importance on face-to-face training and individualized support, they are also attracted to distance learning tools:

- Virtual classes and web conferencing (97%)
- Video (93%)
- MOOC (massive online open course), SPOC (small private online course), COOC (corporate online open course) (87%)[12]

According to the 2020 AFINEF barometer of e-learning in France:

93% of companies surveyed use digital tools for training, and 30% have been using them for more than 3 years. The reasons for using digital technology for training are mainly:

- To improve the quality or efficiency of training (59%),
- To renovate traditional training approaches (54%),
- To train “just in time” and according to the contents to the expressed needs of learners (43%),
- To reduce or optimize costs (41%),
- To deploy actions on a larger scale and more quickly (41%).

[12] Ibid.

Main obstacles to the implementation of digital training actions

- Budgetary (43%),
- Cultural (for organizations with low digital maturity) (37 %).
- Organizational (34%)
- Technical (31%).

Most used tools are

- Quizzes (86%)
- LMS or training platforms (70%),
- Information sharing sites, videos, podcasts (69 %)
- Customized courses (63%),
- Off-the-shelf courses (56%).

97% of employees use their work computer, 60% use smartphones and 20% use tablets. This trend is called "bring your own device" to signify employees using their own equipment to exchange and share on collaborative tools.

Priorities in training systems

- Make training more fun and attractive (91%)
- Make training accessible to as many people as possible (88%)
- Evaluate learners before, during and after training (88%),
- Deploy training more quickly (82%).

New priorities for the future

- Digitize existing training (85%)
- Encourage lifelong and informal learning (79%)
- Create and multiply digital resources through authoring software.

The ISTF survey

E-learning figures from 2021 attempted to evaluate the perception of companies on the effectiveness of different learning modalities that can be found on the market. They answered with their preferences as follows:

- Classroom (88%)
- Virtual classroom (85%)
- Fast learning (less than 15 minutes) (71%)
- Specialized e-learning (about 25 minutes) (69%)
- Video learning (58%)
- Mobile learning (52%)
- Micro-learning (less than 2 minutes) (48 %)
- Virtual reality (41%)
- Social learning (40%)
- Serious game (36%).

Synchronous methods (face-to-face and virtual classrooms) were considered the most effective, followed by e-learning methods, whether scripted or short (fast learning).

The emergence of mobile devices

According to the Xerfi 2020 study on Edtech, the digital device market has reached saturation point in France. The equipment rate has plateaued for several years, with a decline in tablets and PCs since 2017. However, the equipment rate of smartphones is constantly increasing. Consumers have become "mobile-first".

Edtech still relies mainly on a web-based model (LMS and CMS are the main types of technology). However, mobile learning is gaining ground: it can be used ‘on the move’, it’s characterized by concise information and simple visuals, and its learning units are shorter than traditional e-learning.

How has Covid-19 and e-learning changed our habits?

The pandemic we are going through has changed many of the habits that we took for granted. Among these habits, our way of working has taken an unexpected turn with the explosion of telecommuting and distance learning, in order to minimize the risks of contagion.

More and more people have taken advantage of the pandemic to develop their skills, their know-how, and even to take on new challenges by training themselves at a distance, mostly from their homes.

Three French companies, Open classrooms, Digischool and Livrescolaire.FR have seen their audience double or triple after a few days of confinement. Thus, there have been many new points of contact between individuals and edtech.

Most individuals were discovering this type of training for the first time, and the statistics show that a majority of them were satisfied with the experience.

To ensure that productivity was not affected by the pandemic, remote staff had to be trained in this new way of working. E-learning was the right solution to deal with the various obstacles and challenges in business continuity. Today, we still have 26% of the French workforce working remotely on a regular basis for a duration of 3.6 days per week, even though the pandemic's impact has lessened.

The pandemic has allowed e-learning to flourish and has provided unparalleled opportunities for e-learning platforms to innovate and iterate their offerings in the face of growing demand. Some platforms have offered free trials, allowing a new generation of users to discover the benefits of e-learning when they were locked away at home or unable to work.

While some are sceptical about the longevity of this dramatic increase in demand, it is highly likely that distance learning will continue to grow in market share in the years to come. According to the previously ISTF survey from 2021: when it comes to e-learning figures for 2021, 89% of the panel believes that the trend will move towards more distance or blended learning, even under the assumption that the pandemic ceases completely.

In summary

After a few years of acculturation, blended learning has become the most appreciated training modality because it is the most complete. It is constantly increasing each year and is currently used by 1 out of 3 organizations, while classroom training remains the most widely used method. However, 1 out of 5 facilities declare that they have a mostly distance learning offer: a strong figure that can be seen in the health crisis and its consequences[13]

We can also note the diversity and multiplicity of digital tools which are chosen and used according to training needs. And finally, there's been a notable shift from a logic of choosing digital tools to reduce costs (2015) to a logic of seeking efficiency with these tools (2020). The challenge for the coming years is to move from a multimodal offer (blended learning) to an omnimodal offer. The different learning methods must be part of an integrated ecosystem, focused on the skills to be developed in a work situation.

"On the job" and "collaborative" activities, which involve continuous "learning to learn" scenarios between synchronous group events, are often neglected. Yet they encourage experimentation with new work methods, initiative-taking, networking, collaborative work and monitoring.

Omnimodal is the idea of a "learning landscape" in which tools (devices and networks) are "embedded", "integrated" and "omnipresent" in the employee's activity and development path. The learner can be trained via one modality or another, on one medium or another, synchronously or asynchronously, with one learning modality serving the other according to a logic of efficiency (such as the phenomenon of a flipped classroom).

[13] ISTF survey: e-learning figures for 2021.

The current situation regarding the rate of adoption of online training in specific Member States[14]

According to the European Commission's 2019 final report "Skills for Industry Strategy - Online Training: Promoting Opportunities for the Workforce in Europe", we can highlight the following main findings:

- **Belgium**

The adoption rate of online training largely depends on the size of enterprises. Larger enterprises usually have structured learning programs for their employees, but smaller enterprises do not have the time/manpower to organise learning programs, let alone give employees time off to complete these trainings autonomously.

Small and medium enterprises also tend to have highly specific training needs.

There may be a language barrier in select areas of Wallonia, but generally, trainings in English (sourced internationally) should not be an issue.

The cost of trainings does not seem to be a major barrier either. However, employees (who undertake training themselves out-of-pocket or beyond working hours) will probably expect some recognition or compensation.

- **France**

Many enterprises are still not using online training, especially small businesses. Regarding recognition of experience, France has had programs since 2002 that recognise formal/informal education and skills. However, not everyone uses them. High-tech businesses are actively involved in (online) training. Other types of businesses often do not do it at all.

Small businesses consider lifelong learning as a “tax” and not as an opportunity to improve their business. When they look for something specific, they have difficulty finding the training they need.

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[14] Commission européenne, Agence exécutive pour les petites et moyennes entreprises, Koonstra, A., Dervojeda, K., Ravet, S. (2019). *Promoting online training opportunities for the workforce in Europe: final report*. Publications Office. https://data.europa.eu/doi/10.2826/113327. No data found for Bulgaria.

In high-tech small and medium enterprises, international training in English is quite common. In other sectors, a foreign language is likely to be a challenge.

- **Italy**

For large enterprises in Italy, it has become quite common to use online training. The use of online training by small and medium enterprises, however, is still rather limited. A rough estimate would be that about 15% of all enterprises (counting both large and small and medium-sized enterprises by the unit) in Italy use online training, and when looking at SMEs only, this number would be about 5%.

Historically, training is considered by enterprises in Italy as a cost item rather than an investment.

Technology infrastructure in Italy is still slightly behind many other EU countries.

There is often a conflict between HR people and IT people in large enterprises when it comes to agreeing on the overall digital training systems and architectures.

Training service providers in Italy are still quite traditional. For example, VET is coordinated by the regions, and the latter does not yet proactively mandate the use of online training. Trends like micro-learning, social learning, VR, serious games etc. have not been largely applied yet.

In general, the provided online training is hardly exciting and engaging, and the learner has to be truly motivated to complete it. It is still the first-generation online training, with low attention being paid to the different aspects of the learning experience, learner onboarding and engagement.

The budgets spent on the development of online training content in Italy are rather low (compared to the United Kingdom or Nordic countries). At this stage, most of the market is not yet asking for more attractive online training products and they are not ready to allocate higher budgets to it.

- **Spain**

Online training already has high popularity among high-tech start-ups. They try to find an "easy" way to access knowledge, and they acknowledge the benefits that online training can provide in this respect. Being active in a high-tech world makes these enterprises per definition better predisposed for online training, as they are well familiar with the ICT world. For more mature enterprises, as well as for enterprises from the sectors not related to high-tech, online training is a considerably less popular option.

It is often difficult to assess the actual outcome of the training. That may prevent enterprises from actively using it. Many enterprises do not see employee training as a key priority, and instead prefer to focus on operational activities (i.e., selling. buying, developing products etc.).

Many enterprises also still prefer to pursue more traditional forms of training, implying physical presence. The offer of online training is often rather general, not tailored to the needs of a specific user profile.

The situation regarding key players in specific Member States[15]

- **Belgium**

The government and/or union-driven are stakeholders in the development of this sector. An example, is the establishment of the CEVORA354 platform which offers free and good quality courses. There are a few enterprises targeting upskilling and reskilling SMEs, but most active players target individuals who are interested in upgrading their skills. For example, VDAB355 provides retraining that specifically targets retrenched workers. Employment agencies like Voka356 and Unizo357 also organise training around certain topics.

- **France**

France Université Numérique (FUN) is the national strategy in the context in which the FUN-MOOC platform was created. It is a platform for universities, grandes écoles and other partners. It includes FUN-corporate for professional education where the courses are given by university experts. Some start-ups have created platforms for other players. Big enterprises typically have their own platforms. Some start-ups work for big enterprises and

[15] Ibid.

sometimes participate in the trainings from big enterprises. When it comes to the big training enterprises such as Coursera/EdX/FutureLearn and similar platforms, there are typically not that many French universities on these platforms.

- **Italy**

The current market offers many opportunities for large enterprises and public organisations. However, the way e-learning is developed is still highly traditional (e.g., pricing based on page count). There are multiple small boutique enterprises developing custom made e-learning on a price-competing basis.

There are multiple enterprises providing LMS and LCMS-related solutions on a product basis (e.g., the LMS by Docebo359, Together LMS by SkyLab360 and eXact LCMS by eXact Learning Solutions361 are world-leading enterprises in this field). While some large enterprises choose to also work with international LMS/LCMS providers, when it comes to content, the preference typically goes to local enterprises. Therefore, in terms of content, it is a predominantly national market. That is related to the fact that there is a strong chance of a cultural clash when non-Italian enterprises are involved in the process.

SMEs typically buy off-the-shelf products and hardly ever procure custom-made solutions as these are too expensive for them. About 90% of SMEs who use online training would go to big international catalogue providers offering the Italian versions of their contents (e.g., Cegos362) whilst large organisations procure custom-made content by local producers varying in size from small to very small enterprises (e.g., Open Knowledge363, SkyLab364, Amicucci Formazione365, Creattività366).

- **Spain**

Spanish is a popular language, and that stimulates local providers to develop a wide variety of online training solutions in the local language. The online training supply can be used far beyond Spain (such as in Latin America), ensuring a massive target audience and good market opportunities. That makes national players in the market quite strong, and there is often no need to use the supply of prominent foreign providers (e.g., content in English). Spanish enterprises typically refer to the latter in case they need some highly specific training not yet available in Spanish. International platforms like Coursera or EdX are also quite popular.

MOOCS AND RESOURCES ACCESSIBILITY GUIDELINES

VISUAL AND COGNITIVE ACCESSIBILITY OF MOOCS

It's possible to find hundreds of websites offering MOOCs in English on the web, the majority of which provide a free registration.

The problem is that not all these platforms are accessible for all, from both a visual and a cognitive standpoint Usually, simple precautions can cater to more than one need.

As studied and presented by the Swedish company Funka[16][17], common difficulties that affect all usually concern:

- immediately finding the most important information,
- understanding the information given,
- filling out online forms;
- managing passwords.

Moreover, what's more stressful is the timing out of sessions, the advertisements and the pop-ups that continuously appear, and the cluttered layouts. From a visual point of view, general rules that pertain to accessible website layouts are also fine for MOOCs. They are:

1. avoid overlapping images or overlapping texts and images,
2. avoid inaccessible fonts or italic writing,
3. look for high colour contrast.

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[16] Funka. *Cognitive accessibility*. https://www.dropbox.com/scl/fi/l0xoclaps07ek2crdafve/Cognition-study-22-June_for-sharing.pptx?dl=0&rlkey=45eg1xlbcf6v0qe1z5uhw6gw2.

[17] Funka. *Home page.* https://www.funka.com/en/.

Regarding this last suggestion, you can find websites online which allow you to check if two colours fit together, according to web accessibility standards. Each colour has a code thanks to which it can be identified and from which it is possible to trace the proportion of the primary colours - red, green and blue - that compose it. The most used code in the HTML language, therefore at the computer level and in the construction of the web, is the "hexadecimal code" characterized by six alphanumeric characters preceded by the # symbol.

Without going into the specifics of other technical notes, the important thing is to know that this code allows us to understand if two colours have a good colour contrast (which should match or exceed a ratio of 4.5:1, as proposed by the Web Content Accessibility Guidelines - WCAG).

There are sites where colour contrast can be evaluated by entering hexadecimal codes, for example: https://snook.ca/technical/colour_contrast/colour.html#fg=33FF33,bg=333333.

LINGUISTIC AND CONTENT ACCESSIBILITY OF MOOCS

Sometimes what makes a MOOC inaccessible is the language used. The majority of learning platforms are available only in English, which a lot of people don't know. When it comes to videos, subtitles are not always available or aren't available in all languages. This issue might not be a problem for big linguistic communities. However, if we, for example, think of Deaf communities, which consider Sign Languages their mother tongue, they risk missing out on equal access to knowledge. Therefore, linguistic and content accessibility is as important as visual accessibility. Simple explanations that use high-frequency vocabulary are more effective than complex and strictly technical language.

It is difficult to get an overview of the number of people affected by a lack of accessibility since there are so many different types of conditions that can create obstacles. We also have to take into consideration that a lack of accessibility can affect anyone during a certain period of their lives. Imagine having to undergo an eye operation: you won't be visually impaired for the rest of your life, but you might need to wear sunglasses for a month and, thus, you'll need to also change the way you use your digital devices.

That's why the accessibility of places, websites, and communication is so important! It's not only useful for a small percentage of the population but for all.

Of course, ensuring accessibility of content might be a challenge. The first challenge you may come across is changing people's beliefs.

THE DIFFERENT LEVELS OF ACCESSIBILITY

We have to be aware that it's not always possible to apply an individual approach to accessibility. By "individual" approach we mean the full flexibility of a product, and the capacity of the product to adapt to the needs of each person. Of course, this kind of solution promotes independence, but it's really difficult to create material that could adhere to such a high standard.

Usually, individual accessibility is possible in the "one-to-one" educational relationship. Taking into consideration the economic resources of the majority of European countries, personal educational services are provided in case of severe disabilities. In case of mild disabilities or needs, the production of common materials and contents is promoted. Here, we're talking about a "societal" approach. This level of accessibility tries to follow standardized policies and tries to ensure the benefit. This approach risks failing when the proclaimed 'one size' can no longer be considered a "democratic" measurement such as when someone from its target group finds no use for it.

CONTENTS AND MULTIMEDIA PRODUCTION OF "POINTS"

The success of micro-learning is not guaranteed simply because your learning units are short (6 minutes and under) and concise. Rather, how well learners respond to your educational material depends on your **choice of content type and its format**. Unlike traditional courses that try to pack as much information as possible into rows of text, **micro-learning benefits from the content variety available in the digital age**. Hence, while creating our three micro-learning modules, we didn't limit ourselves to only one type or format of content. Instead, we've used a wide variety of content to meet learning objectives.

Why do different types of content enrich the learning experience?

- **The content variety caters to diverse learning styles and circumstances**

Educational material that relies only on text to transfer information cannot meet different learning styles and circumstances, even if written in a micro-learning format.

Text's inability to reach a wide variety of learners has shown to be an issue in particular for users with disabilities (hearing, visual, cognitive and others). Studies report that students with Specific Learning Disorders (such as dyslexia) may get lost if only provided text and require multimedia to support learning[18].

Different content also appeals to users who have situational difficulties. Learners commuting to work or completing chores around the house may prefer podcasts as a content type that runs 'in the background'. Time-crunched users may look for a visual aid to simplify content, such as an infographic. However, this is not to say that text has become an outdated content type. Some users may find themselves somewhere where audiovisual content can't be played or simply prefer learning from the written word.

[18] One such piece of research is Khan, M., & Bayoumi, S. (2015). *Multimedia as a Help for Children with Special Learning Needs.* International Conference on Cloud Computing (*ICCC*), p. 1–5.

Our learning modules use a **multimodal approach** to meet these varying needs. They do this by alternating between various types of content to engage different user senses. The result is better processing of information.

- **Content variety makes it easier to remember and retain information**

Using different types of content as learning material can also serve as a memory aid. For example, infographics contain essential points that are easier for the learner to consume instead of re-learning the entire lesson. Likewise, videos can be paired with bullet points as "Key takeaways" that sum up the entirety of the content. In addition, micro-assessments, such as quizzes and exercises, are effective after learning segments. They convert lengthy assessments into short evaluations and immediate feedback for the user.

To better cement their knowledge, users are met with these and other content types in the following points:

1. Overview points, as outlines of what's to come
2. Summary points, as refreshers about what they've already learned
3. Reference points, which point to similar material for users to draw logical connections between learning units

- **Content variety does a better job of keeping learners engaged**

Not only can text-heavy content make it difficult to process information, but it can also make staying focused a challenge. Learners today have an average attention span of 10-20 minutes. Therefore, it's necessary to use different types of content to achieve a balance between educational material that inspires both learning and engagement.

As mentioned, learning styles differ, so different media can break up the monotony of text-only content. Certain content types might appeal more to visual learners (videos, infographics), some to aural learners (podcasts), others to physical learners ('how-to' exercises), and so on.

However, the content is not more engaging simply because it is different from the text. For users to stay focused, all content, no matter the type, needs to follow the micro-learning principles of being concise, relevant and easy to understand.

- **Content variety provides clarity where text may fail**

Multimedia can repurpose lengthy textual explanations to make them more understandable to learners. Let's use theoretical points, such as definitions, abstract ideas, and processes, as an example. Supporting videos and illustrations can condense this information into a more understandable format for learners.

In addition, multimedia can better capture step-by-step procedures and expert ideas by including footage or audio of an expert explaining concepts in their own terms.

Which content types have we chosen for our micro-learning modules and how have these content types been used to create points?

To cover the wide variety of topics in our micro-learning modules in an engaging and informative way, we've included several content types in our course. These content types all have their strengths depending on the learning objective of each point. They also alternate between points in the modules, which creates a more comprehensive micro-learning experience.

The point examples provided for each content type are not exhaustive, nor do they mean that only one content type fits that point. As you will see, the benefit of using content variety is being able to adapt content, no matter the type, to all kinds of learning material!

TEXT

Text as a content type has been used in several ways for point creation:

- **To introduce a topic**

Users may find it a bit confusing if their first encounter with a new subject is a form of multimedia. Therefore, we've used text in numerous points to explain the main ideas right at the beginning. In this way, you can think of text as the appetiser that opens up learners' appetites for the rest of the menu.

- **To create mini-scenarios**

Mini-scenarios help link theory to real-life situations that may occur. The mini-scenario helps the user understand a situation's "cause and effect". It may have a problem-solving element or may just be used to reference key learning points. The example above presents users with a situation that concerns an inaccessible webpage for users with Specific Learning Disorders (SLD).

- **To reference additional learning sources**

For users that would like to expand their knowledge or go more in-depth with their learning, text can refer users to supplementary learning material. When it comes to our learning modules, we've used textual links to reference content such as articles, PDFs, external tools/resources, etc.

INFOGRAPHICS

Infographics serve as visual representations of information and data. The use of infographics for our course includes:

- **To help learners visualise theoretical points**

A topic's theoretical points are an unavoidable part of learning. Yet, for many learners, this type of content may seem 'dry' and difficult for them to contextualise with just text alone. Infographics are visual aids to help with understanding statistics, dates, comparisons, hierarchies, mathematical data, geographical data, etc.

EXAMPLE

Main components of electricity consumption for the IT sector

[Source: Greenpeace, 2017]

1.

2.

How has electricity consumption changed in IT in a 5-years period?

The IT sector creates four areas of energy demand: data centres, communication networks, end-user devices, and energy required to manufacture the equipment for all three. According to a report by Greenpeace (2017), the energy needed to power our devices has historically been the dominant portion of the IT sector's electricity consumption, constituting 47% of total consumption in 2012. However, 2017 figures show that this is rapidly shifting as our personal computers and personal electronic devices have become smaller and more energy-efficient. On the other hand, communication networks are a growing area of electricity consumption, increasing from 20% to 29% in the aforementioned period. Manufacturing has decreased by a mere 2% from the 2012 figure of 18% as data centres are becoming more energy-intensive, growing from 15% to 21%.

Compare how the two examples above relay the same information on IT consumption[19]. Which example makes it easier for learners to grasp the Greenpeace report – the first (infographic) or the second (text)? Most learners would agree that the first example condenses and presents the explanation from the second example in a more engaging and memorable way.

- **To provide a summary or overview of a topic**

Infographics are used at the end of a learning segment to summarise the main points of what's been learned and keep all useful information in one place. They are a helpful and time-efficient tool for memory retention.

VIDEOS

Videos are an especially effective content type because they can meet different learning styles and user circumstances. By adding subtitles, videos can reach deaf and hard of hearing users, those who prefer reading, and many others. We've included videos in our micro-learning course with the aim:

- **To analyse real examples**

Some processes and phenomena must be seen to understand their importance or function. Take, for example, the occurrence of environmental degradation. You can provide learners with descriptions and data concerning its manifestations, such as rising sea levels, melting polar ice caps, deforestation practices, and others. Yet these written explanations – and the extent of the degradation – come to life when shown on video.

[19] Cook, G. (2017). *Clicking clean: Who is winning the race to build a green internet?* (p. 92). Greenpeace.

EXAMPLE

How does CO2 cause environmental degradation? What can we do to help?

Causes and Effects of Climate Change | National Geographic (3:04)

Key takeaways:

- The Greenhouse Effect, which results in greenhouse gases such as CO2 trapping heat in the Earth's atmosphere, has led to increasing temperatures.
- Climate change has consequences for our:
  - Oceans (rising sea levels due to melting glaciers)
  - Weather (more intense storms and longer/more frequent droughts)
  - Food (challenges for agriculture and wildlife habitats)
  - Health (a warmer atmosphere increases the amount of smog, which can cause asthma, heart disease and lung cancer)
- Stopping environmental degradation means replacing fossil fuels with renewable energy sources (solar and wind).

The example[20] above shows how a point with this content type may look. The visuals in the video stick to learners' minds and the textual Key Takeaways sum up the main points.

- **To highlight best practices**

Videos are also used in our course to demonstrate processes or best practices. These videos function as 'how-to' content that provides step-by-step instructions or helpful references. If the process you want to explain to users is an online activity (such as analysing the accessibility of webpages), these 'how to' videos are easy to create instead of looking for external sources. Free screen-recording software can capture these steps, making user content more personalised.

[20] Video shared on the National Geographic YouTube page: National Geographic. (2017, August 28). *Causes and Effects of Climate*. https://www.youtube.com/watch?v=G4H1N_yXBiA.

AUDIOS

Audios are valuable additions to micro-learning courses as they indulge users who prefer 'passive learning'. This type of learning refers to content that the learner can consume while completing another task (such as travelling to work). Unlike videos, audio requires learners to use their imagination to "fill in the blanks visually", so audio wouldn't be suitable for content that benefits from visual demonstrations. However, audio does a great job of keeping users interested in content that would otherwise make their minds wander off the page if it were text. The most frequent types of audio files used in education today are podcasts. Some concrete applications of audio are:

- **To introduce new content via storytelling**

Stories help people learn, so listening to a narrative structure makes it easier to grasp some concepts. For content that requires an introduction (by setting the place, time, and characters of a subject), audio with narrative elements can better immerse learners.

- **To provide expert opinions and interviews**

This purpose is where the podcast as a type of educational content really shines. Podcasts feature experts relaying research and studies to hosts. They can be longer or shorter in duration. Still, the best practice when creating micro-learning content is to use only a relevant excerpt from a podcast.

EXAMPLE

How are user-friendly web design and web sustainability related?

To find out, listen to this excerpt from the podcast Constant Variables (episode #74) featuring sustainable web design expert Tom Greenwood[21].

Understanding the link between user-friendly and sustainable web design (3:51)

EXERCISES

To create a course that is as all-encompassing as possible, we've not shied away from micro-assessments. The first type of micro-assessment we've included is exercises. Exercises function as self-assessments; therefore, their purpose is:

- **To check if users can autonomously complete a task**

This purpose of exercises serves to assess practical applications of knowledge. Each exercise content type includes resources for helping guide users (such as relevant theory or tools) and correction text. The correction text contains suggestions on possible answers so that learners can determine whether their work corresponds with the aims of the point.

[21] Bornholdt, T. (2021, April 20). *Creating Sustainable Digital Products with Tom Greenwood of Wholegrain Digital* (Vol. 74). [Mp3]. https://constantvariables.co/episodes/74.

EXAMPLE

Can you determine how sustainable your favourite websites are?

Resources text: Use ecograder.com to calculate and compare the sustainability of 2 websites.

Correction text: Using ecograder's parameters (Page Speed, Findability, Design, User Experience, Green Hosting) and read about your chosen websites'(un)sustainable practices and how they can be further improved.

QUIZZES

As the second type of micro-assessment, quizzes are tests located at the end of each notion. The purpose of each quiz in our micro-learning course is:

- **To provide feedback on how well learners have mastered the main concepts**

Learners are evaluated with a multiple-choice quiz and provided immediate feedback on whether they've chosen the correct option. This way, they can conclude if they've adequately mastered the notion or need to review the content.

Training and online courses are very popular these days, and consumers are looking for more added value in everything, and here again is the place to point out what are MOOCs and their role in learning activities.

THE LEGAL USE OF THE PROJECT RESOURCES

Every project has outputs that have to be completed and presented as tangible parts of the developed project. They are known as the project's results. When creating these materials, the writers have to be conscious that the resources they use for the creation of the project results might be protected with copyright, creative commons licences, or may have privacy policies. Before including these resources, project writers need to check the type of licence attributed to them, in order to avoid any legal consequences. After the results are disseminated to the stakeholders and people interested in the topic, they are posted online for everyone to find them and use them as needed. However, what happens after the project ends, seeing as how the estimated duration of project sustainability is five years? The products remain, but for everyone to use them and still keep the content creators in mind, there are certain resources that legally protect everything that has been created.

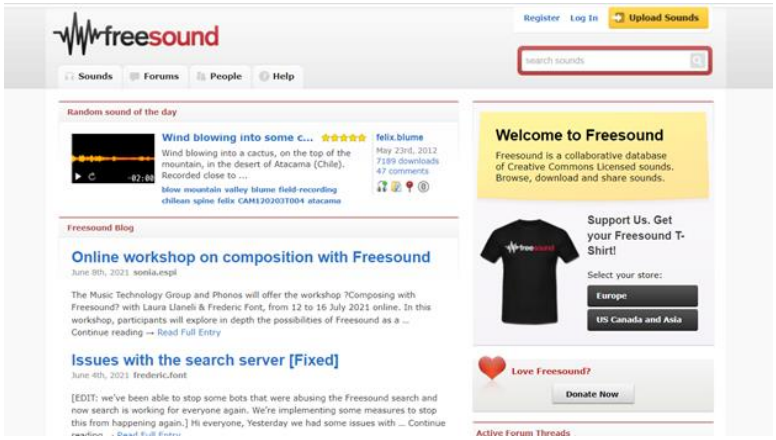
- **Free licence materials databases**

A way to assure that everyone will be using the products legally is to make them free for everyone. This applies both to the materials that the project managers are using to develop the results and to the results themselves, when they are given to the world to explore. To be able to use these materials, they should not have copyright, which will be explained in the next section. As no rights will be reserved, the materials can be used by anyone at any time and not give any credit to the creator.

If the materials used in a project are subjected to copyright, all credit must go to the content creator, or, at least, whatever is included has to be correctly referenced to not be accused of copyright infringement. On the other hand, work created with a free licence is not owned by anybody, which allows it to be used by everybody. Materials like this such as photographs, music, or texts can be found in various databases: Pexels in the case of photographs, freesound.org in the case of music, or Paperity in the case of texts, to mention a few.

Paperity logo

Pexels logo



Freesound webpage

These databases can be easily found online, and they can be great sources of information. They can be used while developing materials for the projects or as a help to reach other sites that can be helpful. After developing these materials (bearing in mind the correct referencing of the materials that have copyright), the finished products can also be free licence and posted on the internet for everyone to use freely. However, the products can have all rights reserved and contain copyright - that will depend on the agreement of the partners in the project.

- **Copyright**

This is a concept that permits the creator to have all the rights to the work, piece of art or material developed. The distribution and use are exclusively held by the creator, at least during a determined period, for him or her to exploit and collect profits from. Although it is not right to use their work without giving them any credit, there are some practices that allow quoting (in case it is a written piece) that person without plagiarizing his or her entire work. For example, reusing the ideas from their text and citing them with a style of academic writing (such as APA). In cases such as this, while the creator's ideas are still there, the way of expressing them differs from the original work.

Another way of using the text is using it for parodies, which means mocking the text and changing some words to make it different. If the text is copied but only a small part, and it is used for educational purposes in private places, the copyright does not apply, as is not shown publicly. This is because the copyright protects the ideas themselves, not the subordinate ideas and how are they used. When creating any materials for projects, be aware of the copyright of the materials used, as all these materials will be published publicly and some legal actions could be taken.

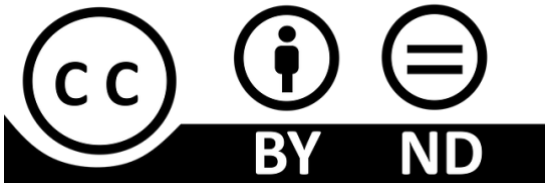
- **Creative commons**

This is an American non-profit organization that created labels to know when the copyright was applicable in its entirety and in which instances it would be correct to use these materials (photographs, songs, texts, books…).

The four licence elements are:

- Attribution: The credit goes to the creator of the work, and it is required that all the attribution goes to the author.
- Non-commercial: If the intention of the person who is going to use this material is commercial, the material cannot be used.
- No Derivatives: the text or material used must be the same. It has to be shared as it was found.
- Share Alike: If the content is adapted or changed, that content must be shared on the same terms.

Sometimes, the licences can be combined and used together, such as when the work has to have both Attribution and No Derivative. These elements are joined in this type of image:



One of the most commonly used licences is CC0, which means No Rights Reserved, and it implies that the materials can be used freely. When using any of the Non-commercial, No Derivatives and Share Alike signs, the attribution sign will be added.

- **Privacy policies**

When it comes to privacy policies, all elements that are tracked or can be tracked are registered. Privacy policies are associated with the law of the country where the material is issued. Along with this, they protect the materials produced; for example, if there is a wrongful use of the materials the author cannot be associated with such an action. When downloading a program online or taking a new course online, a licence agreement will be given to the client, for them to see all the features and characteristics in the program or course. It has to be accepted, otherwise the client might not be able to access the service or product.

The terms and conditions have been explained in this document, for confusion to be avoided and for the consumers to understand the conditions under which they can take part in the program. In case of any complaints concerning that product, the consumer can relay them to the enterprise. However, if the possibility of that specific matter or complaint arising has been included in the agreement and the consumer has accepted by agreeing to the terms and conditions, the creators of the service or product cannot be held responsible. For example, if in the terms and conditions there is a specification that a product has to be paid every month (such as a subscription fee), the client will have to pay the agreed-upon amount to be able to enjoy this product. In this example, the client agrees to that payment and, if at any moment they do not fulfil their obligation to pay, the product will no longer be available to them.

- **GDPR**

GDPR stands for the General Data Protection Regulation, and it is a European regulation that intends to protect the privacy of the data of its consumers. The consumers have to accept the terms and cookies, but if they do not accept them, the websites and the enterprises cannot retain any of the data that is created while the consumers are on their site. Aside from this new requirement for confirmation to track searches, this regulation applies to all websites and enterprises that operate in Europe, even those that are not based in Europe as long as they conduct business with European consumers.

- **Images**

When talking about images that are taken on the street, a question might arise on whether they can be used or not. In some countries in Europe and the USA, it is possible to take pictures on the street, for example of an event, and this action will not be punished by the law. However, there are some occurrences that are forbidden from being photographed, such as taking pictures of a crime scene by individuals that are not police officers or on government facilities, such as bases or war zones.

In order to acquire images without copyright, some platforms can be used. Pixabay, for example, offers a wide variety of images without copyright which can be found through its website and downloaded in different sizes. Another website that can be used is Unsplash, which works similarly to Pixabay. Pexels, which was mentioned before, is also a website of pictures and photographs free from copyright. All of these sources give users the possibility to pay for some pictures in iStock, which is an editor where exclusive videos and photographs can be found.

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THE GOOD MANAGER

The Good Manager is a project supported by The European Commission through the Erasmus+ program. Productions of this project are available at https://thegoodmanager.eu, an eco-design platform available in English, French, Italian, Spanish and Bulgarian.

In the context of the climate crisis, saving and rationalizing energy also concerns Internet and related digital activities. The Good Manager's goal is to participate in training professionals in charge of digital projects on these issues, to enable them to develop digital strategies that fully integrate the issues of social and environmental responsibility.

Low-tech design of websites can also have an impact on accessibility, as such websites tend to be less cumbersome, with limited visual effects. Partners of this project believe that a more sustainable Internet must also be a more accessible Internet.

The project will include, on a **low-tech platform**, **micro-learning modules** on Accessibility, Eco-design and Sustainable project management, and a **collection of good practices**.

PARTNERSHIP ENGAGEMENT

1 • Design a low-tech documented accessible and multilingual platform with micro-learning.

2 • Disseminate our resources in the accessible and low-consumption digital book standard to enable offline consultation

3 • Implement project management tools that are less energy-consuming and more respectful of privacy.

4 • Reduce the number of physical transnational meetings and optimize them in terms of travel time and transport.

5 • Include people with special needs at all stages of the project.