OPEN INNOVATIVE RESOURCES FOR DISTANCE LEARNING



OIR

Open innovative resources for distance learning



TRAINING PROGRAMME

Topical area I: Increasing competencies connected with the use of information and communications technologies in distance learning

Module I.

Methods: description, presentation, practical exercises

Subject: Online Knowledge Bases

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1. 1. INFORMATION ABOUT THE TRAINING

1.1. The name of the training

Online Knowledge Bases - open learning resources

1.2. Training needs analysis

The issue of learning and teaching with the use of the Internet is a vital element of didactics at each level of education. In this matter, several important questions are raised: Does working with the Internet browser enhances or obstruct the learning and teaching process? Is the Internet useful in the education process? Does the Internet liberate education from old-fashioned forms and increased the possibility to exchange information, thoughts, and experience? Is the Internet a threat that destroys a long-lasting tradition and system of conveying knowledge? In the era of the information society, the following learning objectives can be distinguished:

- 1. intellectual, attitudinal, and moral forming of people who possess certain knowledge, think in a certain way, and have a certain system of values;
- 2. preparation for fulfilling designated roles and functions in the information society. Following technological progress, understanding the surrounding world, and coping with the changing reality requires constant, lifelong self-improvement and self-education, hence, permanent education. One of the main ideas of the development of society based on knowledge and information, which constitute the grandest and the most valuable goods of contemporary society, is not only school education, but also lifelong learning. To accomplish this goal, it is crucial to ensure common and constant access to education and knowledge bases, acquire the ability to work with information, obtaining, creating, transforming, and choosing it, as well as evince resourcefulness in learning and teaching, especially when it comes to implementing methods based on modern information and communications technologies. The concept of open education without barriers and the free exchange of ideas and information has gained popular recognition. Indeed, these goals can be fulfilled with the use of the Internet. However, it is inevitable to possess knowledge concerning sources of information and places on the Internet that guarantee its quality and credibility.



1.3. Learning objectives

Main objective

The main objective is to familiarise the participants with the Internet sources of cultural heritage and knowledge bases. Moreover, the participants shall gain the ability to employ them in the education process, both at school and university, as well as in self-improvement and self-education.

Detailed objectives

Training participants shall:

in terms of knowledge:

- know open-access websites with culture and science heritage;
- know the main assumptions of creating and developing the abovementioned websites;
- know the practicality of the knowledge bases, as well as the possibilities and rules of using these resources.

in terms of skills:

- be able to look for materials needed for the realisation of the learning process effectively;
- be able to create his/her own online bases of materials;
- be able to create his/her own didactic paths;
- be able to employ the discussed knowledge bases in his/her own didactic work;
- be able to use the materials in accordance with the existing law on copyright.

in terms of attitudes:

- be aware of the variety of Internet resources that can be employed in education;
- be aware of the value and usefulness of the Internet resources in the didactic process;
- be aware of the possibilities of intellectual development resulting from access to global and local Internet resources:
- be creative in terms of the possibilities of using Internet resources in the learning process.

information contained therein



1.4. The target group of the training

The training is intended for academic teachers, teachers in primary and secondary schools, as well as students who wish to increase their competencies in terms of using Internet resources in the process of learning on different educational levels. The target group of the training are people who want to gain knowledge and develop their skills in terms of enriching their teaching with valuable learning materials available on the Internet.

1.5. The form of training implementation

The training is intended for a group of no more than 16 participants (preferably from 12 to 15 people).

It has been assumed that the training shall be implemented with the use of methods and techniques of distance learning, i.e., with the use of an e-learning platform that allows organising video conferences and sharing the computer screen by the instructor. It is also possible to implement the training in the in-person mode. In such event, each participant should have access to a computer with Internet connection.

The provided didactic materials may be also used for self-education.

1.6. Duration of the training

The duration of the training is 4 hours and 30 minutes.

2. TRAINING PROGRAMME

2.1. Learning contents

During the training, the instructor shall present learning materials and ideas for exercises that demonstrate the possibilities of using the learning materials available on the Internet in teaching.

2.2. The training schedule

Topics	Duration time
Part 1. 1) Competencies in terms of using the Internet resources in teaching 2) Open Learning Resources – role and meaning 3) MOOC – e-learning platforms and open courses	1,5 h
Part 2. 1) Khan Academy – a platform for students and teachers 2) Europeana – cultural heritage of Europe in teaching 3) Polona – a digital catalogue of the Polish National Library	1,5 h
Part 3. 1) Google Arts & Culture – global cultural heritage online 2) Internet Archive – archival Internet resources 3) Project Gutenberg – digital resources of world literature	

2.3. Didactic materials

- computer with the Internet access
- descriptory and presentational didactic materials
- exercises for self-learning

2.4. Methods

- description and presentation
- practical exercises

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3. COURSE OF TRAINING

3.1. Part 1

Detailed objectives:

Participants:

- are aware of the special competencies a person needs for using online resources in teaching
- are aware of the crucial role of openness in education and the role of open learning resources
- are able to use the Internet resources following the law on copyright
- know how the MOOC courses work and know how to participate in them
- have a user's account on the edX platform
- are able to find a particular course on the MOOC platform and know the structure of the MOCC course
- are aware of the educational value of the MOOC courses

Didactic methods:

- presentation
- explanation
- practical exercises

Duration time: 1.5 h

Didactic means and materials:

- computer with the Internet access,
- didactic materials 1-2



Course of training:

- 1. The instructor greets participants and gives the subject of the training.
- 2. The instructor uses an online drive (e.g., Google) to create a text document and shares it with the group. Then, he/she asks participants to think of the advantages and disadvantages of using the Internet by teachers and students for educational.

Using the Internet by teachers and	Using the Internet by teachers and
students	students
Advantages	Disadvantages

- The instructor asks participants to comment on the points they have written. He/she
 encourages them to take part in the discussion concerning myths, stereotypes, and
 beliefs concerning the use of the Internet by students/university students that are popular
 in society and especially among teachers.
- 2. The instructor briefly introduces the subject of the training. He/she pays particular attention to competencies that are required to teach in the digital environment and with the use of Internet resources, as well as the importance of being aware of trustworthy and valuable Internet sources. The instructor also mentions the issue of openness in education, as well as the role and meaning of open educational resources (didactic materials 1).
- 3. The instructor presents the **MOOC** courses and the contents of the main page if the **edX** platform (didactic materials 2).
- 4. Participants perform task no. 1.

Task no. 1

Participants create an account in the edX platform.



- The instructor continues the presentation of the edX platform types of available courses, browsing through courses, the structure of a course, and the discussion forum of the course (didactic materials 2).
- 6. Participants perform task no. 2.

Task no. 2

Participants log into the edX platform. They browse through available courses according to the subject. Then, they choose one course and sign up for it. Participants use filters to search for different courses and they sign up for one more course (each participant should be signed up for at least two courses). Then, they log out and log in again, start taking the courses they have signed up for and read posts of other course participants on the forum.

- The instructor presents the Polish online learning platform *Navoica*. (Didactic materials 2).
- 8. Participants perform task no. 3.

Task no. 3

Participants open and browse through the Navoica platform.

9. Participants ask questions to the instructor, discuss their ideas, and share their thoughts and opinions concerning the MOOC courses and the edX platform in education.

3.2. Part 2.

Detailed objectives:

Participants:

- know the main features of the following platforms: Khan Academy, Europeana, Polona
- are aware of the educational value of these platforms
- are able to provide arguments for using these platforms in teaching
- have user's accounts on these platforms
- are able to find a particular type of course in Khan Academy and know the structure of a course
- know Khan Academy both from the perspective of a student and a teacher, are able to use options dedicated to teachers
- know the contents of Europeana, Polona services and are able to search for the materials they need in these services
- know the available options of working with the collections of these portals

Didactic methods:

- presentation
- explanation
- practical exercises

Duration time: 1.5 h

Didactic means and materials:

- computer with the Internet access,
- didactic materials 3-5

Course of training:

- The instructor presents the **Khan Academy** platform and the available types of accounts (didactic materials 3).
- 2. Participants perform task no. 4.

Task no. 4



Participants create an account on the Khan Academy platform and add different roles. Each participant should have access to the role of a student and a teacher (optionally a parent).

- 3. The instructor presents the contents of the Khan Academy platform in detail. He/she presents the possibilities of using the platform form the perspective of a learner: the choice of disciplines and subjects, browsing through the courses and signing up for them, the structure of a course, the variety of exercises, progress control, gamification elements (didactic materials 3).
- 4. Participants perform task no. 5.

Task no. 5

Participants log into a student's account in Khan Academy. They search through the learning materials, choose their disciplines, and sign up for two courses of their choice. Then, they start pursuing the courses and check their learning progress.

- The instructor presents the possibilities of using the platform by the teacher: creating a class, signing the students up, and following their progress in pursuing the courses (didactic materials 3).
- 6. Participants perform task no. 6.

Task no. 6

Participants enter the account from the perspective of the teacher and browse through hints for users. Participants create two classes. Each participant adds several people form the course as students in his/her first class. Then, everyone shares the access code and link to his/her second class. Each participant follows the progress of participants of his/her class.

- 7. The instructor encourages participants to ask questions, discuss the features of Khan Academy and share their opinion about this platform.
- 8. The instructor presents the **Europeana** digital library: he/she shows how to browse through the categories, presents the search options, and explains how to create an account in the service (didactic materials 4).
- 9. Participants perform task no. 7.

Task no. 7



Participants create a user's account in Europeana and log in.

- 10. The instructor presents the options connected with working on a particular piece of work in Europeana: sharing, downloading, opening, adding to favourites, and creating a gallery (didactic materials 4).
- 11. Participants perform task no. 8.

Task no. 8

Participants choose one European composer and use filters in Europeana to look for: his portraits (graphic files), issues of his pieces of work (text files), and recordings of his pieces (audio/video files).

Participants open several pieces (at least one of each kind) on the websites of digital libraries where they come from.

Participants analyse the opened files and add the oldest editions to favourites.

Participants create their own collection out of the pieces of their choice – a private gallery.

- 12. The instructor presents the e-learning platforms of Europeana and selected courses on European Schoolnet Academy (didactic materials 4).
- 13. Participants perform task no. 9.

Task no. 9

Participants register accounts on European Schoolnet Academy and sign up for the course of their choice.

14. Participants perform task no. 10.

Task no. 10

Participants open Future Classroom Lab and Teaching with Europeana and browse through available lesson plans.

15. The instructor encourages participants to share their thoughts and opinions connected with Europeana and its usability in teaching.

information contained therein

- 16. The instructor presents the **Polona** digital library: browsing options, searching, collections, registration, and Polona blog (didactic materials 5).
- 17. Participants perform task no. 11.

Task no. 11



Participants create an account in Polona and log in.

- 18. The instructor presents the features of Polona for registered users: adding to favourites, creating collections, working with documents, magnifying objects, etc. (didactic materials 5).
- 19. Participants perform task no. 12.

Task no. 12

Each participant searches for the pieces in Polona using the language of their choice and adds them to favourites.

Participants choose a document in which they look for one, particular word. Then, they add a bookmark on every page where this word appears and add a note to every paragraph where this word appears.

20. Participants perform task no. 13.

Task no. 13

Participants browse through cartographic collections from the 18th century in Polona. They choose several of them and create their own collection.



3.3. Part 3.

Detailed objectives:

Participants:

- are aware of the educational value of Google Arts & Culture in the field of art sciences
- are aware of the importance of the Internet Archive project in preserving the knowledge on the Internet
- are aware of the importance of Project Gutenberg in terms of the accessibility of books
 that are present on the reading lists for students
- are aware of the educational value of the aforementioned services
- are able to provide arguments for using these services
- have the user's accounts in Google Arts & Culture and Internet Archive
- know the contents of Google Arts & Culture, Internet Archive, Project Gutenberg and are able to find the needed materials in these services
- know how to use the pieces that they can find in these services

Didactic methods:

- presentation
- explanation
- practical exercises

Duration time: 1.5 h

Didactic means and materials:

- computer with the Internet access
- didactic materials 6-8



Course of training:

- 1. The instructor presents **Google Arts & Culture**: tabs in the menu, categories of collections, searching, working with a particular piece learning about a given piece, registration (Google account), and creating galleries (didactic materials 6).
- 2. Participants perform task no. 14.

Task no. 14

Each participant uses Google Arts & Culture to look for pieces connected with a painter of his/her choice: pieces, virtual exhibits, articles about the artist and his/her pieces, and articles about the school of painting in which his/her pieces are associated. Each participant uses the option of magnifying the elements of a piece to study the paintings carefully.

Everyone creates a private gallery out of pieces of their choice.

- **3.** The instructor presents the educational video games available in Google Arts & Culture (didactic materials 6).
- 4. Participants perform task no. 15.

Task no. 15

Each participant chooses one crossword puzzle in Learn through Play category in Google Arts & Culture and solves it.

Participants share their ideas on how to use educational video games in Google Arts & Culture during classes.

- 5. The instructor encourages participants to ask questions, discuss their ideas, and share their thoughts and opinions connected with the usability of Google Arts & Culture in teaching.
- 6.
- **7.** The instructor presents the **Internet Archive** project: the registration process, categories of resources (tabs in the top menu), browsing and searching for pieces, and adding to favourites (didactic materials 7).
- **8.** Participants perform task no. 16.

Task no. 16

Participants create accounts in the Internet Archive.



9. Participants perform task no. 17.

Task no. 17

Participants use the Internet Archive to look for materials about their favourite music band: audio files, monographs, photos, CD covers, concerts, TV programmes, and archives of their websites. They add several elements of their choice to favourites.

10. Participants perform task no. 18.

Task no. 18

Participants use Open Library on the Internet Archive to look for books by suspense writers. They borrow a book of their choice and place it on a previously created bookshelf. Then, they listen to a fragment of the book and find a particular word in it. They also add bookmarks at the beginning of each chapter.

11. Participants perform task no. 19.

Task no. 19

The instructor encourages participants to take part in the group discussion. Together, they design a lesson plan with the use of the resources available in the Internet Archive.

- **12.** The instructor encourages participants to ask questions and share their thoughts and ideas concerning the Internet Archive and its usability in teaching.
- **13.** The instructor presents **Project Gutenberg**: browsing through the resources, finding, and downloading e-books, and reading online (didactic materials 8).
- **14.** Participants perform task no. 20.

Task no. 20

Participants look for a classical piece of world literature in the original language. They download it in the EPUB file.

15. The instructor encourages participants to ask questions, and share their thoughts and ideas connected with the usability of Project Gutenberg in teaching.



16. The instructor asks participants which of the presented services and tools they consider to be most useful and valuable in their teaching practice. Participants answer the question.

The instructor thanks participants for taking part in the training and encourages them to use the presented services and tools on their own.

4. DIDACTIC MATERIALS

4.1. Didactic materials - 1

Competencies required to use the Internet in the teaching/learning process

For many pupils and students, the Internet is the first, and sometimes, unfortunately, the only source of information, especially when their work is not directly supervised by the teacher, for instance when they do their homework or prepare presentations. Using the resources available on the Internet is natural for them and results from the changes in the neuron structures. The constant access to computers, television, and smartphones affected their way of thinking and processing information. They are not able to acquire knowledge sequentially and prefer multitasking, quick access to many pieces of information and selecting those that seem to be the most important ones.¹

Learning on the Internet is associated mainly with e-learning courses. It is considered to be a form of learning for a quite limited group of young people. Their learning activity is usually informal and disorganised, without the teacher and school.²

To be proficient in e-learning the teacher needs to acquire and develop new competencies connected with information technology, using the computer and the Internet skilfully, and designing the learning/teaching process with the use of methods of distance learning. Competencies connected with the use of technology, as well as the combination of didactic creativity with social communication, play a major role in distance teaching and learning. The teacher who conducts online classes should have the ability to think divergently, i.e., to change his/her past teaching paradigm and step out of the schematic teaching routine. Divergent thinking consists of the following elements: fluency, flexibility, originality, and sensitivity to problems.³

³ Gębuś D., *Kreatywność jako istotna kompetencja nauczyciela w edukacji wspomaganej e-learningiem* [in:] Galanciak S., Siwicki M., Czarkowski J. (ed.), *Na krawędzi. Szkoła przed ekranem*, Warszawa 2017, p. 73.



¹ Bednarska N., *Wikipedia na uczelni i w szkole – przyszli nauczyciele o Wikipedii*, "Ruch Pedagogiczny", 2015, (1), pp. 141. 141-153: after Tapscott D., *Cyfrowa dorosłość. Jak pokolenie sieci zmienia nasz świat*, Warszawa 2010, sp. 211 and: Small G.W., Vorgan G., *iMózg. Jak przetrwać technologiczną przemianę współczesnej umysłowości*, Poznań 2011, p. 55. ² Ibid., p. 141.



Figure 1.1. Scheme of divergent thinking for teachers

The progressive teacher with a creative attitude who uses the Internet as a source of knowledge and space to teach should be open-minded – he/she should be able to take up challenges, as well as accept the changes that occur in contemporary society. Moreover, he/she should not be afraid of the development and contact with new technology. The attributes of a teacher who works in the digital environment are curiosity, passion for learning, continuous self-education,

information contained therein

raising competencies, and extending the knowledge of the Internet as a knowledge base and communication tool.

Furthermore, creative competencies are of great importance. They allow the teacher to navigate through the online databases and to use the virtual environment and rich, properly selected Internet resources in his/her job. Didactic creativity in terms of digital didactics can be defined as the combination of the teaching talents of the teacher and his/her knowledge about the media and their role in creating reality, as well as media communication skills³⁴.

Introducing new technologies is complex, but, against all appearances, it is not detached from the theory of traditional didactics and experience. The general didactics that is a basis for the principles of teaching is a starting point for digital and media didactics, cyberdidactics, and the didactics of the digital era. The teacher has to find and select online materials that he/she can use in the classroom. His/her role is to make students realise that the Internet is not only a source of entertainment and a means of communication⁵, but it is also a source of true and reliable information that does not always appear in the first places on the list of results in the browser. For a modern teacher, the challenge is to present valuable and credible websites and to convince and motivate students to learn the contents of these sources. He/she should also make sure that during the class students will not end up browsing through other websites.⁶ Students function in the information chaos. They are surrounded by many (frequently unverified) sources of information. They share the pieces of information that were protected in the generation of their parents. They are not able to differentiate between what is appropriate and inappropriate. They lose the sense of tact, ethics, and propriety of communication (their statements are characterised by the shortening of the message and the lack of attention to linguistic correctness). Therefore, teachers, to a similar degree as parents, face the task of restoring the system of values, norms, boundaries, and patterns of behaviour to their students and – above all – conveying the knowledge and the skills of acquiring knowledge in the future.⁷ However, it has to be done encouragingly, so that students do not refuse these ideas and

⁷ Bocheńska-Włostowska K., op. cit., p. 133.



⁴ Bocheńska-Włostowska K., *Nauczyciel i uczeń w cyberprzestrzeni. Wyzwania* [in:] *Na krawędzi. Szkoła przed ekranem* (op. cit.), p. 131.

⁵ Internet dla młodzieży to (w kolejności): serwisy społecznościowe, komunikatory, muzyka, filmy, narzędzie do uczenia się, do odrabiania lekcji, do przygotowywania się do sprawdzianów. Zob. Musiał E., *Przestrzeń uczenia się współczesnego ucznia* [in:] *Człowiek – media – edukacja* (op. cit.), p. 138.

⁶ Gębuś D., op. cit., p. 77.

consider them outdated. Children have access to digital media every day. However, at schools, the dominant form of conveying knowledge is transmissive teaching which is not compatible with the environment that students are familiar with. The teacher needs to believe that the process of teaching with the use of technology is useful. He/she needs to cope with transferring the knowledge and moving from a traditional to a digital class. He/she also needs to organise the learning conditions that promote activity, cooperation, and engagement, so that the students participating in the classes, who have diverse attitudes and aspirations, are prepared for using modern technologies and the Internet in the learning process. Thanks to that, students will be able to achieve better learning outcomes.8

Using the Internet in education is not only about sharing a PDF file and organising a control test. Modern education should be based on complementary teaching that intentionally combines two integral elements – the physical and digital environment. This approach should be visible in the choice of didactic means and methods, programme solutions, the organisation of the learning process, as well as the learning contents. The elements of online teaching should be connected via hyperlinks. The students should be able to discover knowledge, feel strong emotions, explore new passions, and solve mysteries. 10 The biggest challenge of modern didactics is to find a golden mean between being a guardian of the rules, proper social behaviour, satisfying basic educational needs, and flexibility and openness.

Creativity in education can be divided into two types. Firstly, the creativity of the teacher, who shows creative thinking, gives the lessons an original character, inspires students, and teaches growing up to knowledge. Secondly, the creative attitude of a student who works independently, actively, and with commitment, discovers the area of his/her own interests in the curriculum, Nowadays, information and communications technologies are an integral part of the teaching/learning process. The question to be asked is not if they should be used, but how teachers can use them effectively.

Open educational resources that are available on the internet for everyone, in every place and time, provide great possibilities as a tool that supports traditional teaching. However, they need

Cyberprzestrzeń. Człowiek. Edukacja, Vol. 5: Otwarte zasoby edukacyjne w perspektywie pedagogicznej, Kraków 2020, p. 15.





⁸ Morańska D., Współczesny e-learning – problemy socjopedagogiczne [in:] Człowiek – media – edukacja (op. cit.), p. 112. ⁹ Tanaś M., Otwarte zasoby edukacyjne – o potrzebie nowego paradygmatu dydaktycznego [W:] Tanaś M., Galanciak S. (ed.),

to be selected properly. In order for the teacher to be able to recommend them as a source of credible and reliable information, he/she should have knowledge of their content, the entity responsible for the content, and the frequency of data updates. Every student can be overloaded with data and information chaos, just like every other Internet user. Digital resources are huge, unstructured, scientifically unverified collections of digital information, the excessive amount of which (as it is easy to produce) leads to the inability to understand the meaning of a specific message, acquire and consolidate knowledge, interpret data, and make decisions.¹¹ The role of the teacher is to lead students out of the multitude of information and direct them to knowledge and wisdom, according to the levels of the so-called knowledge pyramid (information pyramid, DIKW hierarchy – abbreviation from data, information, knowledge, and wisdom)¹².

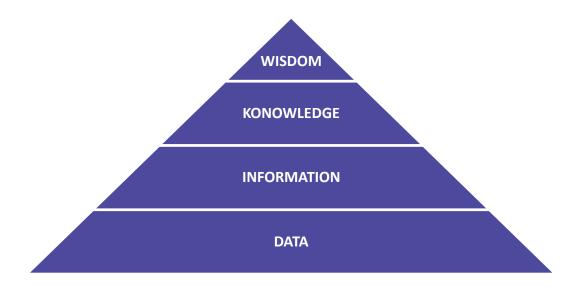


Figure 1.2. Knowledge pyramid

The second, equally important aspect is the role of the teacher in conveying the ability to extract real knowledge from the maze of pseudo-information portals, statements, and articles full of fake news, posts, and comments on social media. New technologies, including the popularity of the Internet, expand cognitive abilities, but can also lead to highly undesirable outcomes. Students should acquire the ability to learn (also in the long-term perspective), i.e., to find, assess, select, process, and use the pieces of information that they need. Although the internet gives huge

¹² Encyklopedia Zarządzania, https://mfiles.pl/pl/index.php/Dane [online, 30.01.2022]; Borawska-Kalbarczyk K., "Cyfrowa" mądrość w meandrach informacji [in:] Człowiek – media – edukacja (op. cit.), p. 43-47.



¹¹ Bednarek J., *Wyzwania badań i edukacji dla potrzeb bezpiecznego korzystania z cyberprzestrzeni* [in:] *Człowiek – media – edukacja* (op. cit.), p. 35.

possibilities, it also has numerous drawbacks. Incompetent use of Internet resources may result in the decline of the principles of decency, the development of certain cognitive abilities at the expense of others, and a reduction in the ability to analyse and deeply process the stimuli underlying the conscious acquisition of knowledge, critical thinking and reflection.¹³

To make students aware of the fact that the rich resources of the Internet can be also a threat to their intellectual abilities, the teacher may present an extract of Plato's Phaedrus (dialogue):

It would take a long time to repeat all that Thamus said to Theuth in praise or blame of the various arts. But when they came to letters, This, said Theuth, will make the Egyptians wiser and give them better memories; it is specific both for the memory and for the wit. Thamus replied: O most ingenious Theuth, the parent or inventor of an art is not always the best judge of the utility or inutility of his own inventions to the users of them. And in this instance, you who are the father of letters, from a paternal love of your own children have been led to attribute to them a quality which they cannot have; for this discovery of yours will create forgetfulness in the learners' souls, because they will not use their memories; they will trust to the external written characters and not remember of themselves. The specific which you have discovered is an aid not to memory, but reminiscence, and you give your disciples not the truth, but only the semblance of truth; they will be hearers of many things and will have learned nothing; they will appear to be omniscient and will generally know nothing; they will be tiresome company, having the show of wisdom without the reality".¹⁴

Indeed, Generation Z seems to avoid storing knowledge in memory, since this knowledge is available in an application called the most popular search engine, installed on a rectangular device that fits in a pocket.

Prepared and developed sets of information with informative value can be successfully used in the education process, e.g. for the implementation of lessons using the strategy of pre-learning, which can be defined as arousing the interest of young people in the discussed subject even before presenting it during lessons in the classroom. Implementing the activation methods (e.g. gamification) and moving the learning activity of students to the Internet (which they already use) is compatible with students' learning strategy and expands the area of influence of the modern

¹⁴ Platon, *Fajdros*, https://wolnelektury.pl/katalog/lektura/platon-fajdros.html [online, 30.01.2022].



¹³ Goban-Klas T., Gutenberg 2.0 [in:] Człowiek – media – edukacja (op. cit.), p.78-79.

teacher. Changes in the perception of education by teachers and their adaptation to the digital environment are more and more visible. They can be seen in going beyond the school walls to a Facebook group or blog where educational tasks are carried out and transferring formal education to the space connecting the virtual and real-world show. They also result in the perception of the school by students as a modern educational institution.¹⁵

Education and openness

Open Educational Resources (OER) are coursebooks, online courses, multimedia materials, lesson plans, texts, and other materials that are available free of charge and that can be used in the process of teaching and learning. They include materials dedicated to a particular study programme and any materials that can be used in the didactic process. The term OER was first introduced in 2002 r. in the final report of the UNESCO forum (*Impact of Open Courseware for Higher Education in Developing Countries*). The OER have been defined as: "the open provision of educational resources, enabled by information and communication technologies, for consultation, use and adaptation by a community of users for non-commercial purposes"¹⁶. Nowadays, Open Educational Resources are defined as didactic and scholarly materials in the digital format that are available free of charge for students, lecturers and people interested in self-education who can use them for learning, teaching, and scientific purposes"¹⁷.

The materials are open if they can be accessed freely with the use of any information and communications technology on the basis of Creative Commons or if they are available in the public domain. The movement promoting open resources for education was initiated by an informal group of creators of Open Educational Resources that was founded in 2007 by signing a so-called Cape Town Open Education Declaration (Poland was represented by Jarosład Lipszyc from Modern Poland Foundation). The beginnings of OER can be found in the Open Access Movement that promoted the idea of publishing materials on Creative Commons in scientific journals and repositories. ¹⁸ In Poland, Coalition for Open Education became an entity responsible for creating open educational, scientific, and cultural resources, and promoting good

¹⁸ Plebańska M., Otwarte zasoby edukacyjne tworzone społecznościowo – na przykładzie projektu Otwarte Lekcje [in:] *Człowiek* – *media* – *edukacja* (op. cit.), p.154-155. 153-165



is 29

¹⁵ Morańska D., op. cit., p. 113.

¹⁶ Koziej S., Otwarte zasoby edukacyjne szansą dla edukacji ustawicznej, "Edukacja", 2010, nr 4, p. 48.

¹⁷ Ibid.

practices and tools connected with them. Coalition for Open Education was founded in 2008 and it is an alliance of non-governmental organisations and institutions connected with education, science, and culture.¹⁹

We are on the cusp of a global revolution in teaching and learning. Educators worldwide are developing a vast pool of educational resources on the Internet, open and free for all to use. These educators are creating a world where each and every person on earth can access and contribute to the sum of all human knowledge. They are also planting the seeds of a new pedagogy where educators and learners create, shape, and evolve knowledge together, deepening their skills and understanding as they go.

(Preamble of the Cape Town Open Education Declaration)

Changes in the roots of education, i.e. competencies of the teachers, learning contents, technological infrastructure, and educational resources are the key factors in the process of the development of school education.²⁰ Thanks to open education, learning is more available, effective, and interesting, especially for the students who can pursue their own, out-of-school learning activities.²¹. The idea of open education changes the role and place of the teacher in school education. They also influence his/her range of abilities. The teacher should not only be able to select the materials from the Internet that students should use, but also implement effective teaching techniques, make his/her classes attractive for the students, and take into consideration students' needs and abilities. The teacher should be also able to use the potential of the Internet which became a natural environment for co-producing and sharing learning materials. Thus, he/she should also know how to use the knowledge bases that are not dedicated strictly to educational purposes but may contribute to the teaching/learning process. The collections of graphic materials, videos, music pieces, pictures, and scientific texts are created both by scientific institutions and enthusiasts (who frequently cooperate with scientific and cultural institutions) who use new technologies to spread the idea of open education and

²¹ Wrońska M., "Eksplozja" otwartych wirtualnych zasobów edukacyjnych a kultura medialna nauczycieli [in:] Cyberprzestrzeń. Człowiek. Edukacja, T. 5 (op. cit.), p. 69.



¹⁹ Koalicja Otwartej Edukacji, http://koed.org.pl/, [online, 30.01.2022].

²⁰ Borawska-Kalbarczyk K., *Otwarte zasoby – zamknięte umysły? O wybranych trudnościach zdobywania i przetwarzania informacji* [in:] *Cyberprzestrzeń. Człowiek. Edukacja,* T. 5 (op. cit.), p.165. 163-180

ease access to and transfer of information.²² The modern teacher should also know and convey the rules of using these resources to the students, also from a legal point of view.

The modern teacher should be familiar with the notion of media culture, understood as the functioning of an individual in the area of communication and education which ensures a more complete intellectual development, a sense of security in the surroundings of the expansive mass media, and active participation in the information society in which the media are a source of information leading to the organisation and construction of one's own knowledge about the world.²³

²³ Wrońska M., "Eksplozja" otwartych wirtualnych zasobów edukacyjnych a kultura medialna nauczycieli, (op. cit.), p. 69.



²² Galanciak S., *Ku otwartej przestrzeni edukacyjnej - społeczny wymiar otwartych zasobów edukacyjnych* [W:] *Cyberprzestrzeń. Człowiek. Edukacja,* T. 5: *Otwarte zasoby edukacyjne w perspektywie pedagogicznej,* (op. cit.), p. 77.

4.2. Didactic materials - 2

MOOC platforms

e-learning courses:

- offer access to resources in the digital version,
- provide conditions for active learning, reflective thinking, problem-solving, cooperation, and sharing thoughts,
- enable the teacher to control the progress of the learner.

Types of e-learning courses:

- Fully e-learning courses that aim at equipping the learner with a certain amount of knowledge necessary for the further acquisition of practical skills; their structure covers the learning contents, diverse interactions, and the control of the level of knowledge acquisition; usually they are moderated; this category includes the popular MOOCs
- 2. Courses carried out as improvement training that are aimed at updating and/or expanding knowledge, fully e-learning, usually not moderated.
- 3. Blended learning that combines traditional teaching with distance learning; hybrid, complementary courses; they are pursued via the Internet, but the learners have direct contact with the teacher; they are always moderated.²⁴

In the case of school-level education, e-learning takes the latter form. However, the teacher may also suggest courses described in the first two points to the students. The courses should be selected appropriately for the curriculum and may constitute a source of additional knowledge for those interested. The teacher may encourage students to read the content and complete the course in order to arouse their interest in a specific topic. The courses can also constitute obligatory material supplementing the knowledge provided in the lessons.

MOOC (*Massive Open Online Courses*) – these are the courses available for an unlimited number of users via the website. They are frequently free of charge. "Massive" means that they are available for everyone, at every time and place. These courses are based on active and interactive learning. The didactic process is carried out not only between the teacher and the





learner but also between learners. They are attractive for learners as they are enriched by text and multimedia materials, tests, case studies, or certification systems.

The MOOC courses are not only available on the platforms co-created by universities for educational purposes. They are also designed for training purposes in corporations, as a tool that supports entrepreneurship education.²⁵

MOOC courses gather people who want to gain knowledge and create a community with similar interests and passions from all over the world. The openness and wide range of educational options offered by MOOCs enable the acquisition of knowledge beyond textbooks and teaching frameworks. Education is not identified with schools and universities. Thanks to new technologies and new media, learning based on participation and interaction is seen as more effective than passive learning. These courses are substantially intended to improve the quality of education. An additional advantage of MOOC courses is the possibility to sign up for upcoming and ongoing courses (until they are completed) and access to materials after the end of the course until it is archived.

The most popular MOOC platforms are edX, FutreLearn, Coursera, and Udacity.

edX Platform (https://edx.org) – the most popular platform offering MOOC courses

The platform was created by Harvard University and the Massachusetts Institute of Technology (MIT) in May 2012. Currently, about 130 universities participate in the project, including Berkley, Boston, Georgetown, University of Paris (Sorbonne), and Imperial College London. Business partners are, among others, Microsoft, IBM, and ACCA.

A modern form of communication allows for the effective acquisition of new skills and knowledge in many areas. The dominant areas are technical and medical courses. The universities that are partners of the project offer all types of courses in different languages, both short-term (usually free of charge, without the certificate of completion) and paid programs, upon completion of which you can obtain a certificate or degree (Bachelor's or Master's degree).

²⁵ Wach K., *MOOCs jako otwarte zasoby edukacyjne wspierające edukację dla przedsiębiorczości*, "Horyzonty Wychowania" 2018, Vol. 17, n0 44, p. 211-212.



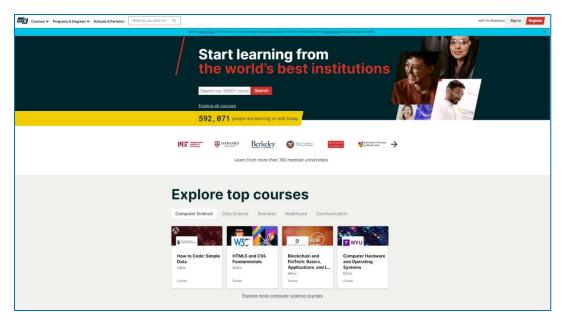


Figure 2.1. edX – home page

The "Courses" tab opens a menu from which you can go to the webpage with courses or with subjects:

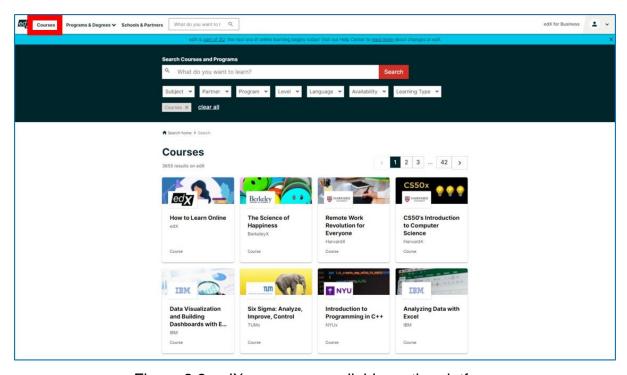


Figure 2.2. edX – courses available on the platform

You can find courses by using the search bar or filters: subject, partner (the institution that creates courses), program, level, language, availability, and learning type. The screenshot below presents the results of the search in the Russian language.

information contained therein



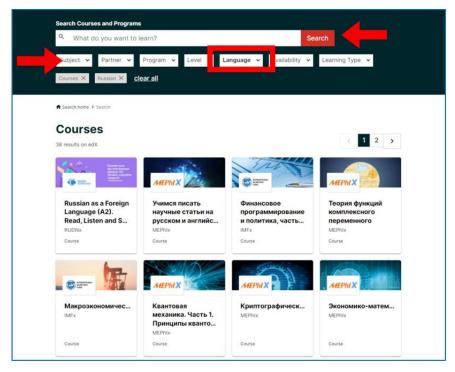


Figure 2.3. edX – using filters

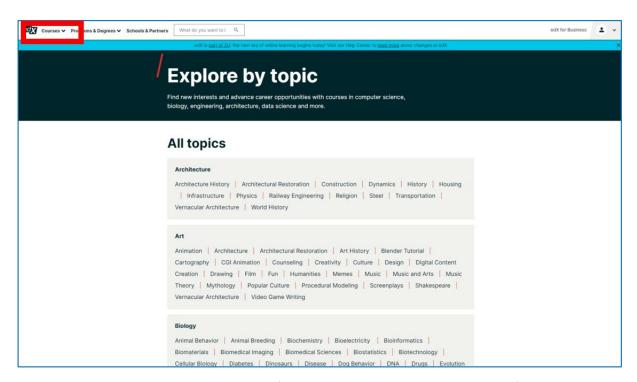


Figure 2.4. edX – topics of the courses available on the platform

information contained therein

In the "Programs & Degree" tab you can find study programmes. Upon completion of these programmes, you receive Bachelor's or Master's degree.



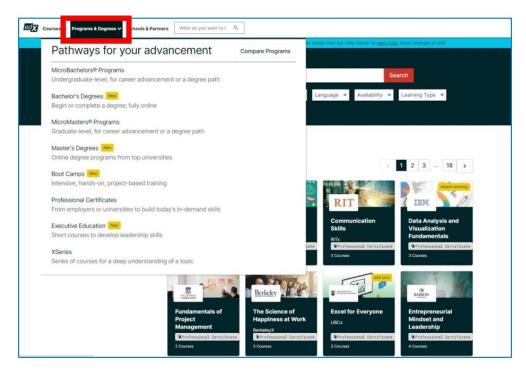


Figure 2.5. edX – programmes

On the website, you can also find the list of partners and universities that cooperate with the platform. The lecturers from these institutions create the courses.

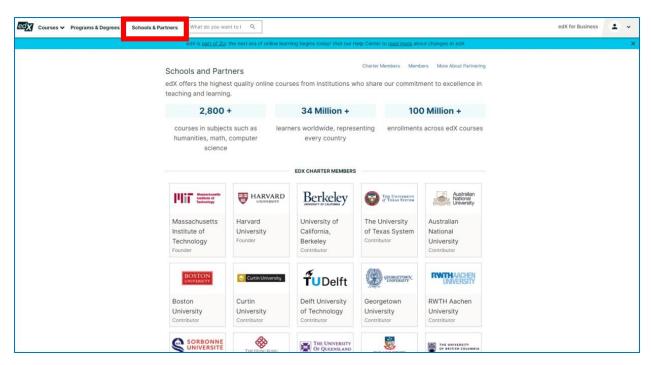


Figure 2.6. edX - partners



When you choose a university, you can see the list of courses that were designed by its lecturers:



Figure 2.7. edX – the partner/University and the list of their courses

Registration and signing in

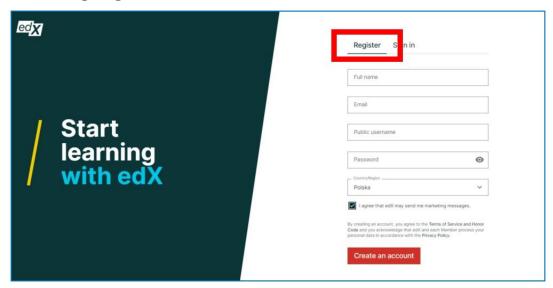


Figure 2.8. edX – Registration

When you register an account, you need to give your name and surname, email address, public username, password and country. You can also register via your Apple, Google, Microsoft, or Facebook account. All details can be edited at any time. You can also provide additional



information, such as sex, education, profiles on social media (LinkedIn, Facebook, Twitter), and the preferred language of the website. The account can be deleted.

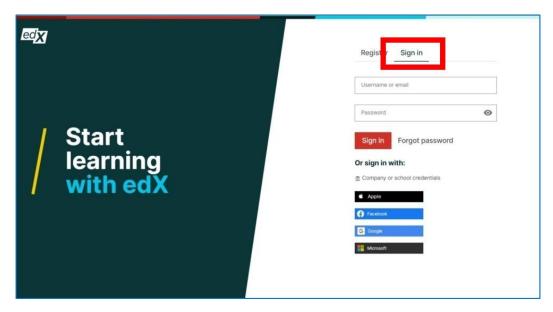


Figure 2.9. edX - signing in

After signing in, you are redirected to the 'dashboard' – the panel on which you can browse through your courses:

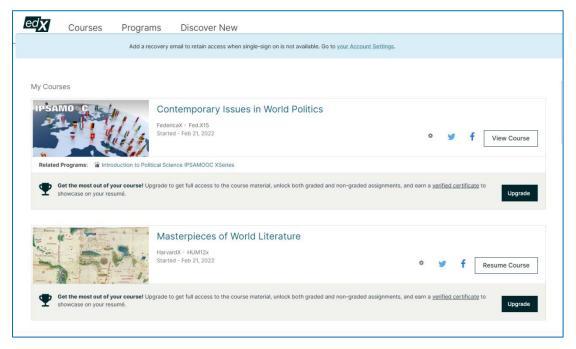


Figure 2.10. edX - dashboard

Participating in the courses

When you choose the course, you are redirected to its site to sign up. Under the "Enroll" button you can find the information about the course, what you will learn, the instructors, and ways to enrol – paid for or free of charge. In the next stage, you can choose whether you would like to obtain a certificate (the course is paid, then) or continue to the course free of charge.

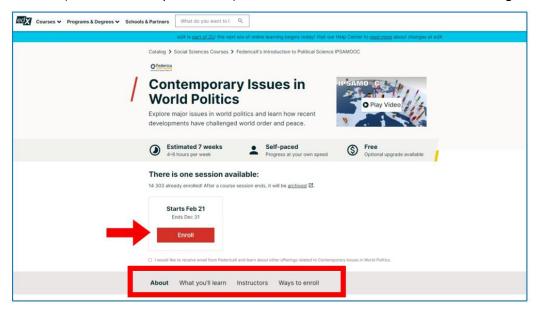


Figure 2.11. edX – signing up for the course

When you enter the course for the first time, you can see the course guide:

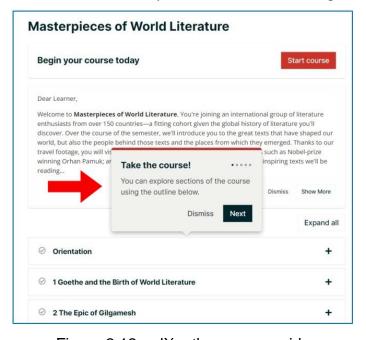


Figure 2.12. edX – the course guide



The structure of the course

- 1. The course tabs: Course, Progress, (see Figure 2.17), Dates (when the course starts, ends, and is being archived), Discussion, Syllabus and FAQ (frequently asked questions).
- 2. A weekly learning goal you can choose one of three options (e.g., if you choose 3 times a week option, you will receive an email notification).
- 3. Lessons classes arranged according to the subject in a weekly schedule (see Figure 2.14); next to each class the time that you need to take to complete it.
- 4. Important dates (when the course starts, ends, and when your access expires).

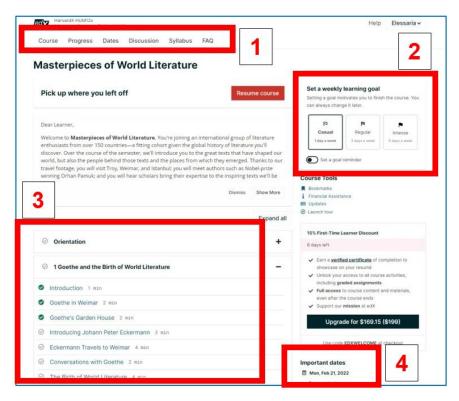


Figure 2.13. edX – the stucture of the course (arranged accorging to the subject)

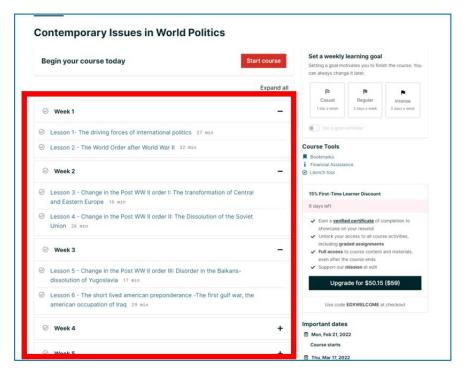


Figure 2.14. edX – the structure of the curse (weekly schedule)

Taking the course

At the top of each lesson, there is a navigation bar that allows you to go back to the previous one or go to the next lesson. The middle of the bar turns green when the lesson is finished.

The content of individual lessons can take the form of text, pictures, videos, or a combination of all these components. Below such element, there is always its title, author, and source given.



Figure 2.15. edX – the contents of a lesson – the text and the picture

The materials are adjusted for people with visual or hearing disabilities. In the case of a video, the learner gains additional facilities: while watching, he/she can simultaneously track the transcription of the spoken text, the currently spoken phrase is highlighted in black. You can download both the video and transcripts.

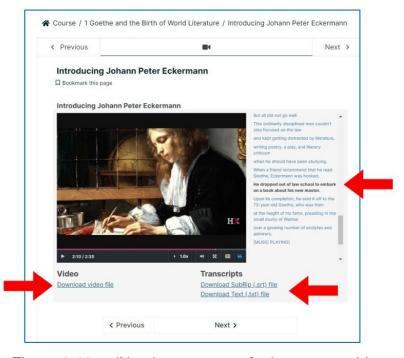


Figure 2.16. edX – the contents of a lesson – a video



You can check your progress on the course website. Components which you are already familiar with are automatically marked in green.

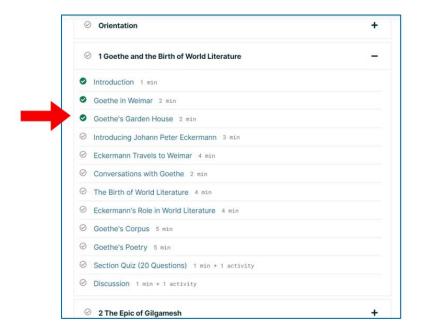


Figure 2.17. edX – the progress in the course

Visual representation of your progress in the "Progress" tab in the course.

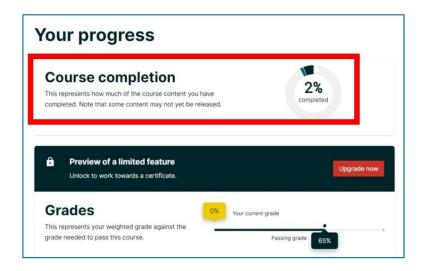


Figure 2.18. edX – progress in the "Progress" tab in the course

Course participants can discuss the course, ask questions, exchange additional information, and analyze the course materials. The discussion forum is located in the "Discussion" tab at the top of the course.



The learner can:

- 1. add new posts start a discussion
- 2. search in posts
- 3. browse through posts
- 4. answer to the posts of other users

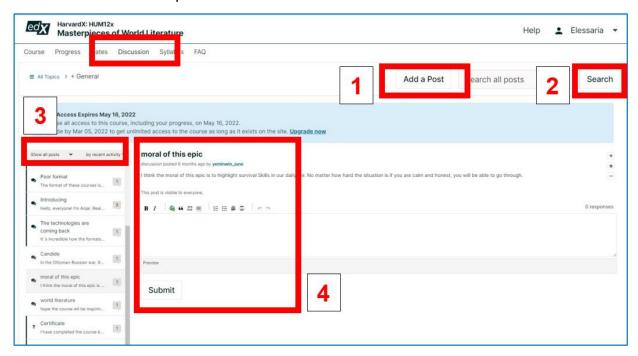


Figure 2.19. edX – the discussion forum in the course

Important dates connected with the course (when the course starts, ends, and is being archived, as well as when your access expires):

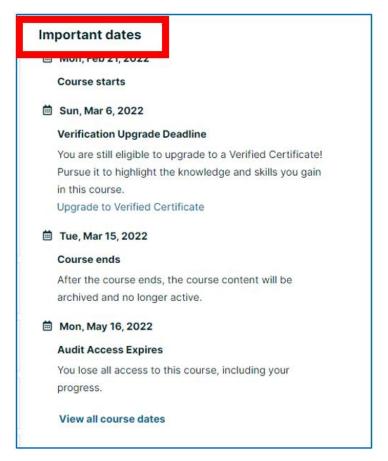


Figure 2.20. edX – important dates

Other MOOC platforms

FutureLearn platform (https://futurelearn.com)

The platform was created in September 2013 by Open University in Great Britain. Currently, around 160 universities from many countries are associated with the platform. Most of them are universities from English-speaking countries (Great Britain, Ireland, the United States of America, Australia, New Zealand, Republic of South Africa).

The platform offers courses in humanities, social sciences, and natural sciences, both short-term courses and long-term degree programmes, from the beginner to advanced level. Also, specialized courses can be found there, e.g., programming. All the courses are held in English and participants are required to use this language.

Coursera platform (https://coursera.org)

The platform was created in April 2012 by Stanford University, the University of Michigan, and the University of Pennsylvania. It is a commercial platform, and its main aim is to generate profit. It is used in business as an element of the recruitment process – the candidates for the job take a short course and perform exercises. Then, they are assessed based on their performance. The academic partners are Rotgers, Yale, Princeton, Rochester, Sapienza, Bocconi, Copenhagen Business School, and Imperial College London. Business partners are, among others, Google, PriceWatersCoopers, Boston Consulting Group, National Geographic, Amazon, and World Bank. The platform offers courses in humanities, as well as social, natural, and technical sciences, both short-term courses and long-term degree programmes.

Udacity platform (https://udacity.com)

The platform was created in January 2012 by Sebastian Thrun, David Stavens, and Mike Sokolsky. Although it is a commercial platform, it also offers some courses free of charge. Its business partners are, among others, Google (it offers numerous courses on programming and database management within Udacity-Google Partnership), Meta Platforms (current name Facebook Inc.), and Amazon.

The Academic partners are San Jose State University and academic teachers from other universities and non-academic experts (e.g., Google and Microsoft employees). The platform



offers courses in the area of science and economics, i.e., computer science, physics, chemistry, mathematics, and business management.

NAVOICA - MOOC courses in Poland (https://navoica.pl/)

Polish educational platform that is managed by the Ministry for Education and Science. It is supervised by the National Information Processing Institute which ensures constant development of the project and supervises the methodological quality of the published courses.²⁶

Until 15 July 2020, the platform was supervised by Young Science Foundation. Navoica is supported by the Conference of Rectors of Academic Schools in Poland. The name of the platform comes from Nawojka who, according to the legend, was the first Polish female academic student.²⁷

NAVOICA offers free online courses that are prepared by universities and other educational institutions. Most courses are conducted in Polish, but some of them are also available in English. The platform offers courses on different levels of difficulty. The subject areas are, among others programming, using computer programmes, foreign language learning, personal development, management, business, methodology of writing diploma theses, and computer games design. The authors of the courses are experts, lecturers, and scientists from Polish universities. The platform cooperates with, among others, the University of Silesia in Katowice, Cracow University of Technology, Bialystok University of Technology, and West Pomeranian Business School.

²⁷ Kokot-Kanikuła K., Wałek A., *Otwarte zasoby edukacyjne. Przegląd inicjatyw w Polsce i na świecie,*"E-mentor", 2021, no 4, https://www.e-mentor.edu.pl/artykul/index/numer/91/id/1531 [online, access 30.01.2022].



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²⁶ NAVOICA, https://navoica.pl/faq, [online, access 30.01.2022].

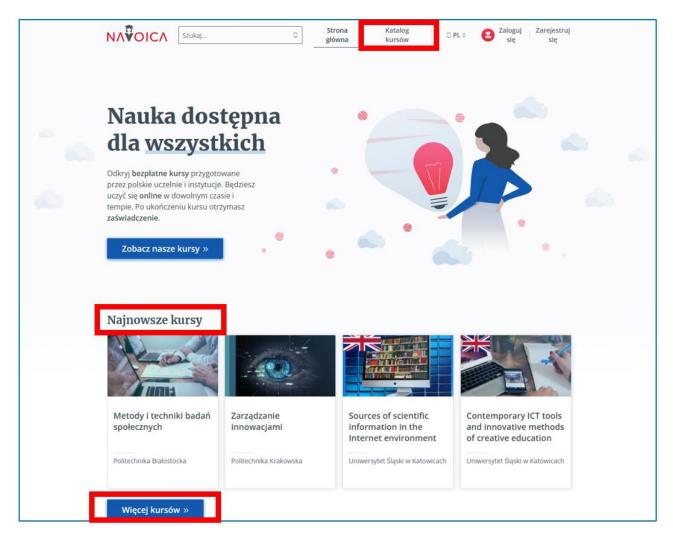


Figure 2.21. NAVOICA – home page of the website with marked course offers (new courses and all courses)



NAVOICA jest polską platformą edukacyjną z kursami typu MOOC, należącą do Ministerstwa Edukacji i Nauki, którą rozwija Ośrodek Przetwarzania Informacji – Państwowy Instytut Badawczy (OPI PIB). Nazwa platformy pochodzi od Nawojki, która zgodnie z legendą była pierwszą polską studentką.

Więcej o platformie »

Zalety platformy NAVOICA

Dlaczego warto się z nami uczyć?



Bogata oferta wirtualnych kursów

Szeroki zakres tematyczny kursów o zróżnicowanym poziomie trudności. Każdy znajdzie coś interesującego dla siebie.





Ogólnodostępna bezpłatna platforma

Możesz uczyć się w dowolnym czasie i miejscu, we własnym tempie. Korzystanie z platformy jest całkowicie bezpłatne.

Figure 2.22. NAVOICA - information about the platform

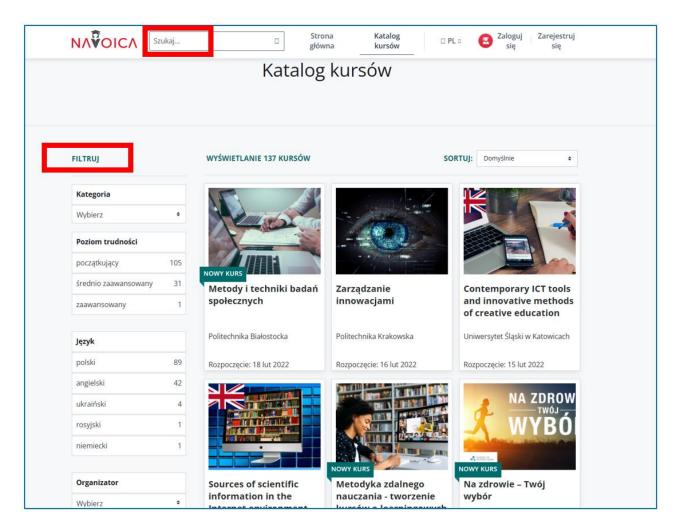


Figure 2.23. NAVOICA - course catalogue

4.4. Didactic materials - 3

Khan Academy (https://khanacademy.org/)

Khan Academy was created in 2006 by Salman Khan. His idea was to make high-quality education available for everyone. Rhan is a mathematician and computer scientist; he graduated Master of Business Administration from Harvard Business School. Until 2009 he worked as a hedge fund manager. When his educational YouTube videos about mathematics became popular, he quit his job and devoted himself to creating learning videos and publishing them in "Khan Academy" for free. Initially, the materials concerning mathematics were dominant in the Academy. With time, courses from other areas, including, economy, humanities, and fine arts, started to appear. The materials are intended mainly for students, but adults may also be their recipients" (S. Khan)

Although he is presented as a great reformer of education,³⁰ Khan himself admits that he did not have scientific knowledge about the school, constructive learning and implementation of activating methods in teaching. He did not study the history of education and did not know the psychological and pedagogical models of education from all around the world. His teaching system which was based on practical exercises, simulations, educational games and experiments was an answer to the passive education model in traditional Hindi school that was attended by his cousin whom he tutored mathematics.³¹ He was looking for a way to motivate the child just like Maria Montessori, Helen Parkhurst, or Janusz Korczak.³² He intuitively created an alternative for a real-life school with incompetent and inactive teachers who were not able to support a talented child that could not cope with passive knowledge acquisition.

His personal experience with telephone and internet tutoring in 2004 started the process of creating a virtual academy needed by open, postmodern societies whose members would like to raise their level of education and return to school at different times of their lives or would need ad hoc help in solving a task or dilemma or understanding the phenomenon. Khan has greatly

³² Ibid., p. 20.



²⁸ Khan S., Akademia Khana. Szkoła bez granic, Poznań 2013, p. 25-31.

²⁹ Khan S., op. cit., p. 27.

³⁰ Śliwerski B., *Czy Akademia Khana zrewolucjonizuje także polską edukację?,* "Edukacyjna Analiza Transakcyjna", 2013, Nr 2, p. 15

³¹ Ibid., p. 17.

credited to reviving the global need to seek and disseminate teaching solutions that can better motivate people of all ages to learn, explore the secrets of knowledge and be excited to better serve their personal development.³³ From this point of view, Khan Academy is "a haven and a refuge, a place where they can do for themselves what their classroom and workplace experiences have failed to do."³⁴

Creating an account

When you create the account in Khan Academy, you can choose the role on the website: learner, teacher, or parent (after signing up you can choose more than one role and mark the main one). You can change the role. To do so, click the user's name in the top right corner and choose settings.

You can edit your profile, for example by adding a short bio that will be visible to other users, linking your account with other services such as Apple, Google, or Facebook, or changing your profile picture. Your account can be deleted.

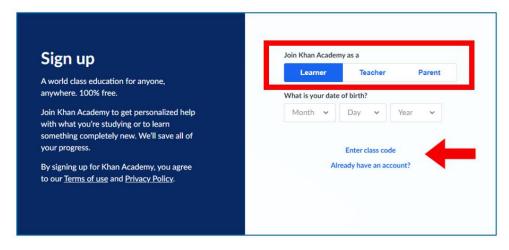


Figure 3.1. Khan Academy – signing up

³⁴ Khan S., op. cit., p. 19.



³³ Ibid., p. 18-19.

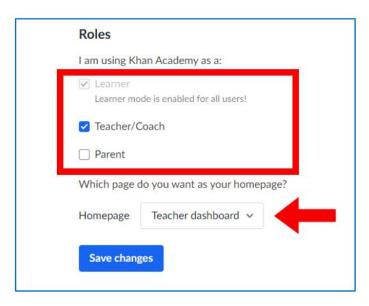


Figure 3.2. Khan Academy – adding roles (editing your profile)

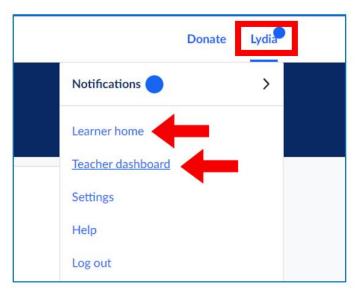


Figure 3.3. Khan Academy – changing your role on the website – learner home and teacher dashboard

information contained therein

be held responsible for any use which may be made of the

Khan Academy – the teacher

In Khan Academy the teacher can confirm that he/she uses the service on behalf of a school.

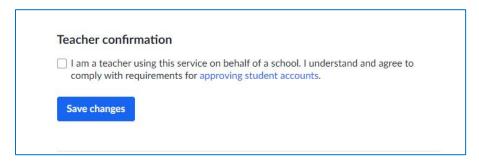


Figure 3.4. Khan Academy – the option of approving student accounts

The teacher can choose the classes that he/she teaches. His/her students will be able to attend courses in this area.

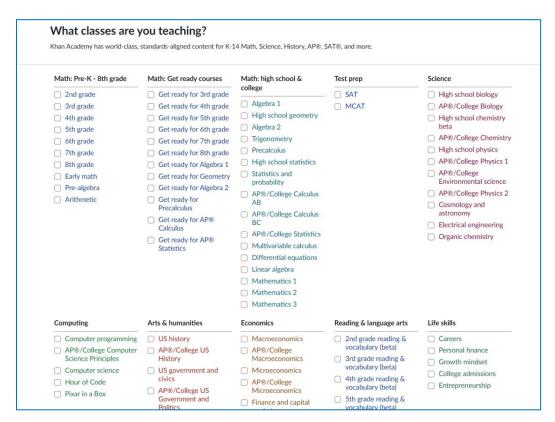


Figure 3.5. Khan Academy – the choice of classes of the teacher

In Khan Academy groups of students can participate in the courses. The teacher chooses a given subject and creates a class. He/she can change the name of the class and invite his/her students to join it. The teacher can import the list of students from Google Classroom. He/she can also share an access code or link for students to join the classes. He/she can also create accounts for his/her students.

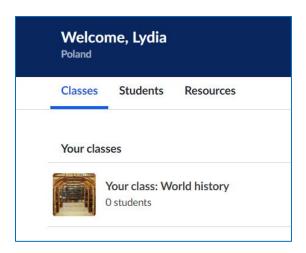


Figure 3.6. Khan Academy – creating a class, step 1

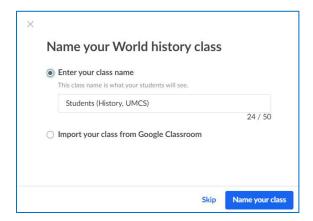


Figure 3.7. Khan Academy – creating a class, step 2

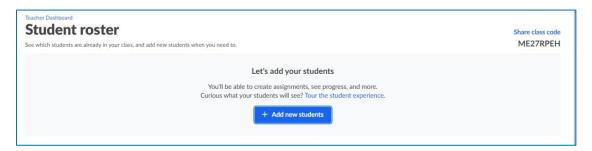


Figure 3.8. Khan Academy – creating a class, step 3



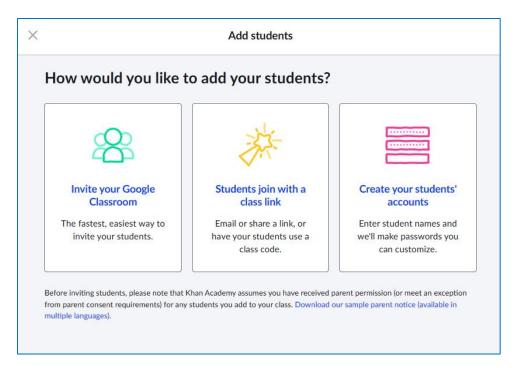


Figure 3.9. Khan Academy – creating a class, step 4

The student can join the course assigned by the teacher choose the "Teachers" tab from the menu on the left side and enter a class code.



Figure 3.10. Khan Academy – student joining the class, step 1

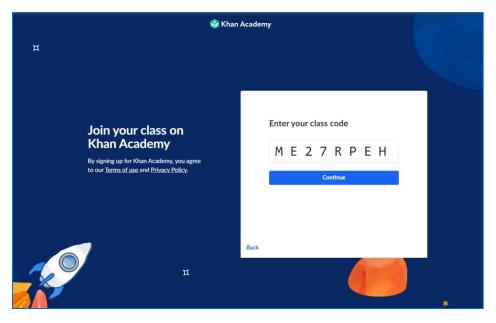


Figure 3.11. Khan Academy – student joining the class, step 2

Below you can see the list of students that signed up for the class or were added to the class by the teacher:

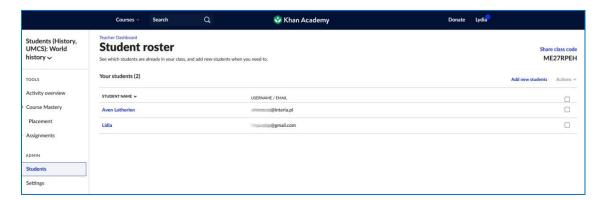


Figure 3.12. Khan Academy – the list of students

The teacher (and the user with the "Parent" account) receives detailed reports that show the progress of his/her students who signed up for the class. The teacher can see which subjects were already covered by each individual student, how much time the student devoted to each section, and which exercises he/she performed in the assigned course.

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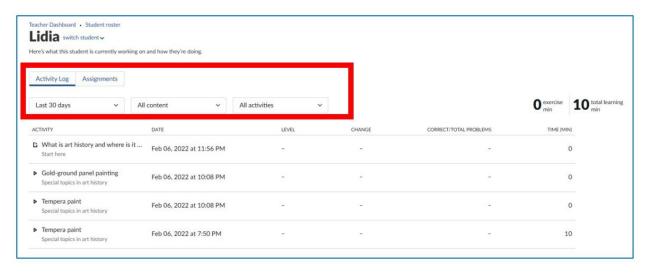


Figure 3.13. Khan Academy – students' progress

The teacher can rise his/her own competencies concerning the use of Khan Academy in education and the features of the platform by checking quick tutorials for teachers.



Figure 3.14. Khan Academy – tips for teachers (1)

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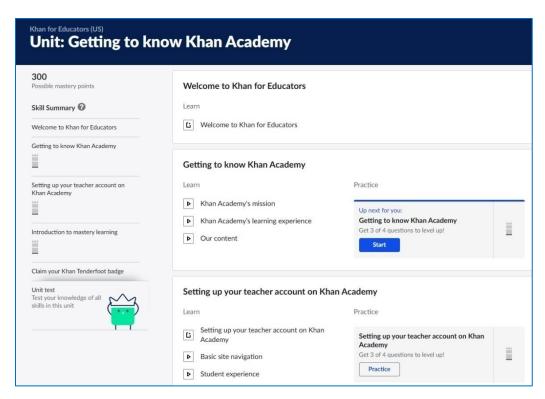


Figure 3.15. Khan Academy – tips for teachers (2)

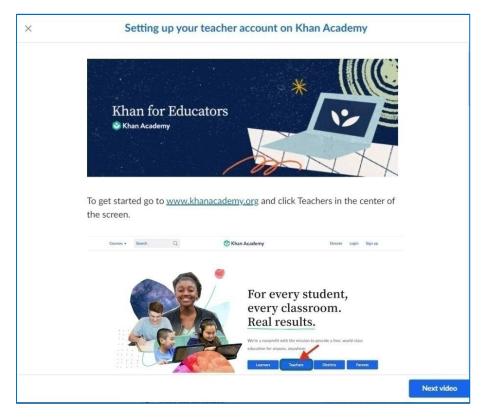


Figure 3.16. Khan Academy – tips for teachers (3)



Khan Academy – learner

The registered learner can choose the courses he/she would like to learn to get access to the topics he/she is interested in.

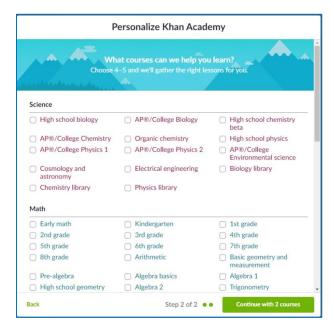


Figure 3.17. Khan Academy – choosing courses and topics

The learner can use the search bar to find the courses he/she is interested in or use the tab "Courses".

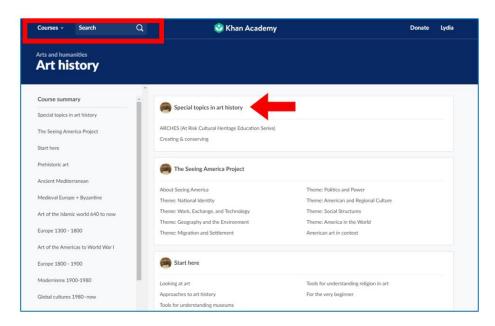


Figure 3.18. Khan Academy – searching for courses



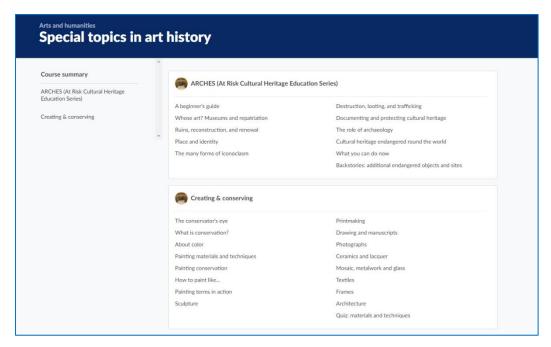


Figure 3.19. Khan Academy – topics (courses) in the area of learner's choice

To open the course, you need to click on its name. Then, you can begin learning any time you want, choosing any element.

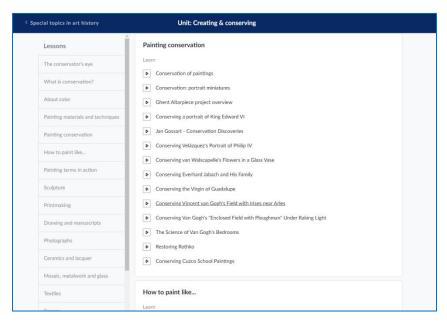


Figure 3.20. Khan Academy – the course

Theoretical knowledge is presented in units of the course. They include text and audio-visual materials. Short videos, usually lasting several minutes, and short articles include pictures and a reference list. They present a small piece of knowledge and concern a narrow issue. After you



get familiar with one element of the course, the next one opens automatically. You can pause the video, replay it, or move to the next section before the video ends.

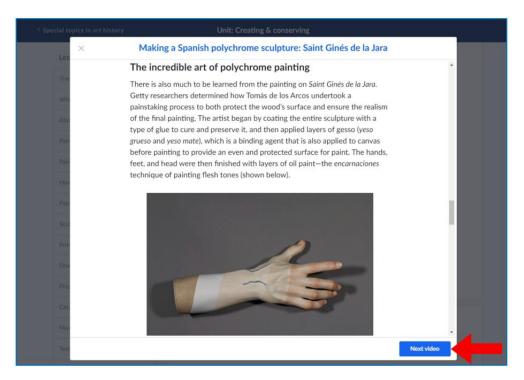


Figure 3.21. Khan Academy – text and graphic materials in the course (1)



Figure 3.22. Khan Academy – video material in the course (2)

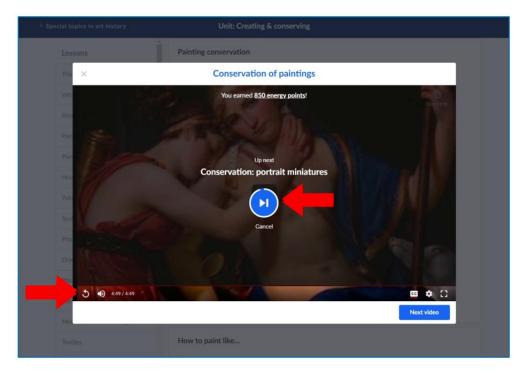


Figure 3.23. Khan Academy – course materials, loading of the next element (3)

The learner can access the courses he/she signed up for in the "Courses" tab.

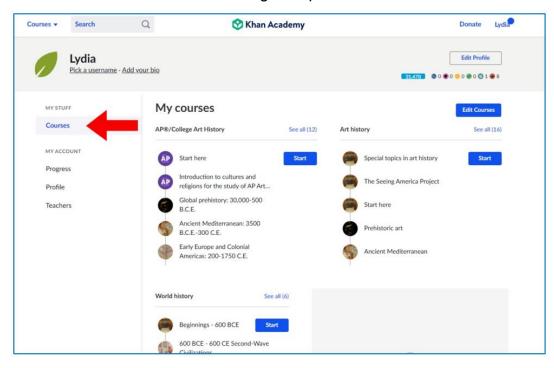


Figure 3.24. Khan Academy – access to the learner's courses

information contained therein

Learners gain practical skills and learn how to deal with various problems or difficult tasks by performing practical exercises, taking tests, and doing projects.



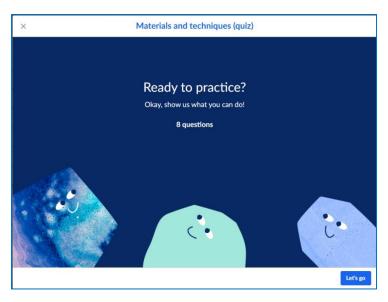


Figure 3.25. Khan Academy – taking a test

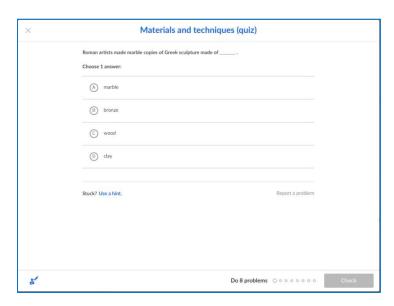


Figure 3.26. Khan Academy – a test – exemplary question

information contained therein

The learner can follow his/her progress in the "Progress" tab on the left. The elements that he/she has already completed are marked blue.

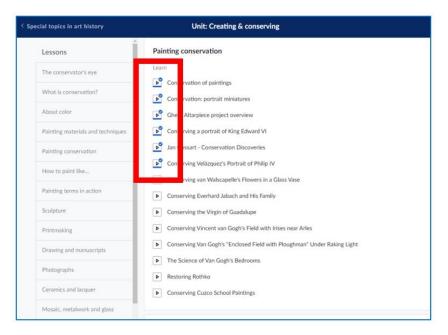


Figure 3.27. Khan Academy – course progress

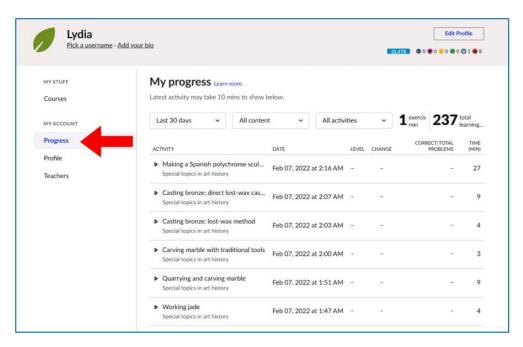


Figure 3.28. Khan Academy – course progress in the "Progress" tab

Learners' progress is rewarded with energy points and badges - the elements of gamification are aimed at engaging students in active participation in the learning process in the virtual Academy.

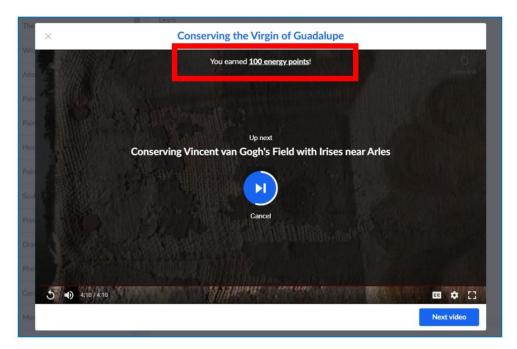


Figure 3.29. Khan Academy – the number of Energy points gained after completing an element of the course

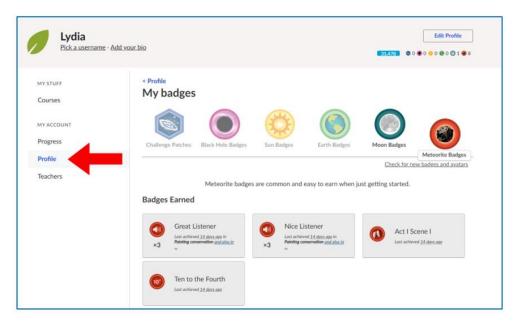


Figure 3.30. Khan Academy – badges in the "Profile" tab

information contained therein

Khan Academy is available in many languages. The language of the platform is suggested based on the country (localisation). You can also choose your language from the expandable list.

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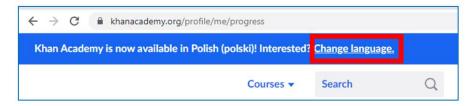


Figure 3.31. Khan Academy – suggestion to change the language



Rys. 4.32. Khan Academy – zmiana języka w ustawieniach profilu

Kursy dostępne w Khan Academy mogą być wykorzystywane przez nauczycieli wielu przedmiotów znajdujących się w programie nauczania. Pedagog może polecić realizację konkretnego kursu, skompletować klasę online i egzekwować jego realizację, kontrolując postępy swoich podopiecznych. Może też polecić konkretne kursy i zachęcić do zapoznania się z ich treścią w formie pracy dodatkowej dla osób chętnych, a potem zorganizować na lekcji konkurs na podstawie zawartości kursu, w którym będą mogli wykazać się uczniowie, którzy zechcieli poszerzyć swoją wiedzę. Udział w konkursie i udzielanie prawidłowych odpowiedzi powinny być nagradzane wysokimi ocenami, co miałoby motywować na przyszłość pozostałych uczniów.

4.5. Didactic materials - 4

Europeana (https://www.europeana.eu/)

Europeana – digital museum, archive and library of Europe, the treasury of European heritage and one of the most important initiatives of the information society, the priority of which is to enable and popularize access to European multilingual and multicultural information resources, especially to the rich cultural heritage of the old continent.³⁵ It is an integration point for members of the multicultural and multilingual community of Europe. Currently, it has over 54 million objects, including text resources (books, magazines, documents), iconographic resources (maps, photos) and audio-visual resources (audio documents, films) in digital form.

The portal, or, to be specific, the prototype of the European Digital Library was created on 20 November 2008 and replaced the temporary version of the website as an information point for the co-authors of the European Digital Library network — EDLnet. Vivien Reding, EU Commissioner for Information Society and Media, official inaugurated Europeana at the headquarters of the Royal National Library in Belgium, in the presence of the President of the European Commission José Manuel Barroso and the Ministers of Culture of the European Union countries. The name of the portal (European in Latin) refers to the traditional nomenclature of great ancient and modern libraries (Alexandrina) and at the same time indicates the variety of collected and available materials. The project is the result of the European Union policy concerning the development of the knowledge society and the implementation of plans to create a digital collection of European cultural heritage. Its implementation was possible thanks to the dynamic development of means of processing and sharing information, in particular the technology of digitizing analogue resources.³⁶

Europeana is a gateway, a common access point to scattered works and catalogues scattered among more than 3,000 cultural institutions that have declared their willingness to join the project. Materials are available through metadata imported into a common database. Individual

³⁶ Ibid., p. 69-70.



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³⁵ Bożek A., Kamińska-Mazur L., *Europeana – cyfrowa kolekcja europejskiego dziedzictwa kultury*, "Folia Bibliologica", 2009, Vol. Ll, p. 72.

documents, images, sound files representing a given resource, and hyperlinks leading to their source are collected from libraries, museums and archives that make up Europeana.

Europeana is a transnational virtual library, which not only provides online access to the resources of European cultural heritage but also offers a wide range of opportunities to use them. It contributes to the development of the European information society (which was its main assumption) and modern education.

Europeana is located in European Library – the library is hosted by the servers of the National Library of the Netherlands.

The user-friendly and modern Europeana website ensures comfortable access to digital resources that are worth several million zlotys and enables users from all EU countries to effectively browse through the resources.

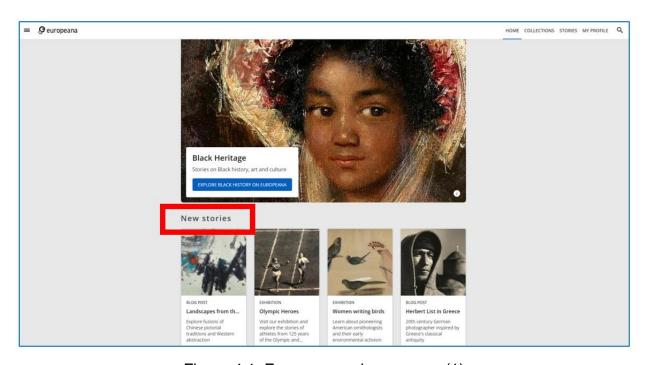


Figure 4.1. Europeana – home page (1)

On the home page, there are four sections:

1. "New stories" – new posts on the Europeana blog – popular science articles about the resources available in Europeana (see Figure 4.1) and online exhibitions that are also created based on the Europeana collections (see Figures 5.2 and 5.3)



- 2. "Get involved" projects that require some engagement from the user, like games and riddles e.g., #ColorOurCollections.
- "Recent user galleries" galleries created by Europeana users that are available for other users
- 4. "Recent items" new pieces in Europeana

You can freely browse through every section.

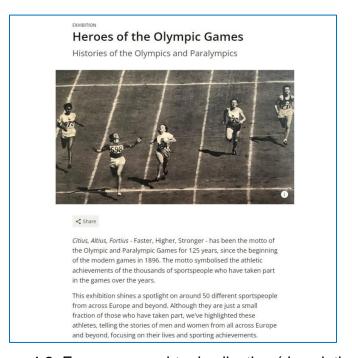


Figure 4.2. Europeana – virtual collection (description)

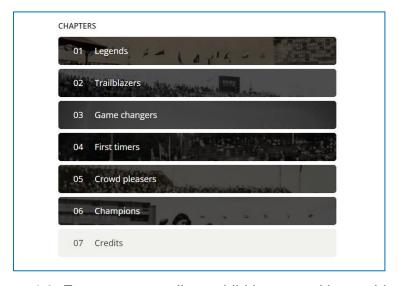


Figure 4.3. Europeana – online exhibition sorted into subjects



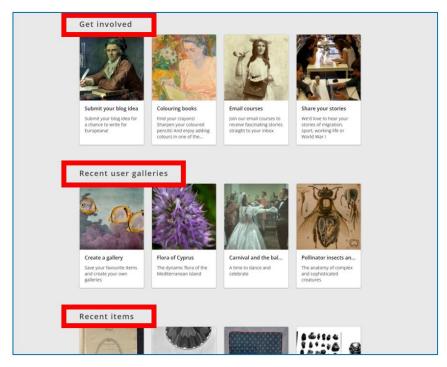


Figure 4.4. Europeana – home page (2)

You can browse through collections by choosing the tab in the top right corner (see Figure 4.5). These are resources that are arranged according to the theme or topic that present various social phenomena in different historical periods in the development of Europe (you can see all topics and themes by clicking the respective buttons – "Show more topics" and "Show more themes"). Another tab in the top right corner will take you to the "Stories" section (see Figure 4.6).

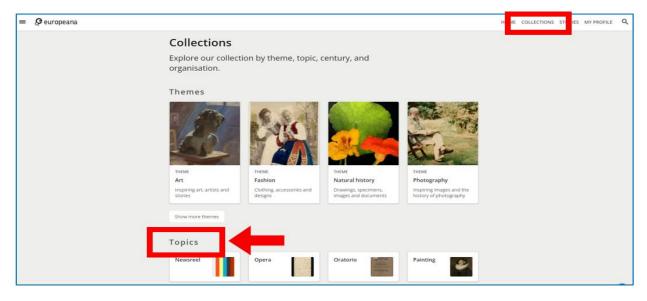


Figure 4.5. Europeana – collections





Figure 4.6. Europeana – stories

Creating an account

To search for materials and browse through Europeana resources you do not need to create an account on the website. However, registration is required for full use, with the ability to download files, create your own collections and add items to your favourites.

When you create an account, you are required to provide your e-mail address, a unique username (the system informs you if it is already being used by someone else) and a password. There is no option to access the platform via social media. You can edit your personal details in the profile settings. You can also delete the account.

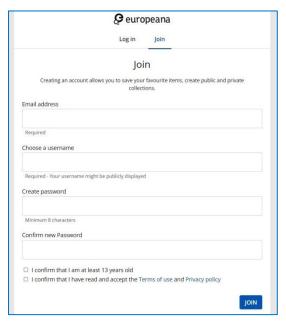


Figure 4.7. Europeana – creating an account



Website language

You can adapt the website to the language you use both when logged in and not logged in. The changes can be made in the footer of the website. In addition, the footer includes Help, in which you can find the necessary information about the use of the website (e.g. terms of use, accessibility, privacy policy).



Figure 4.8. Europeana – the footer

Searching for materials

You can look for particular Europeana resources by typing your search word or words into the search bar. You can open it by clicking on the magnifying glass in the upper right corner. You can specify your search request by giving more details, e.g. if you type 'Shakespeare portrait', you will find portraits and paintings that present this author and not his works. In order to be as precise as possible for a given search, you can use an extensive search model, using the specific commands and Booleans. You can find a comprehensive guide to search options in "Help" in the footer of the site.



Figure 4.9. Europeana – simple search

The three icons above the results gallery allow you to change their arrangement (grid, list). You can narrow down the number of obtained results by using the filters on the right, e.g., collection, type of media, language, and rights statement (copyright).

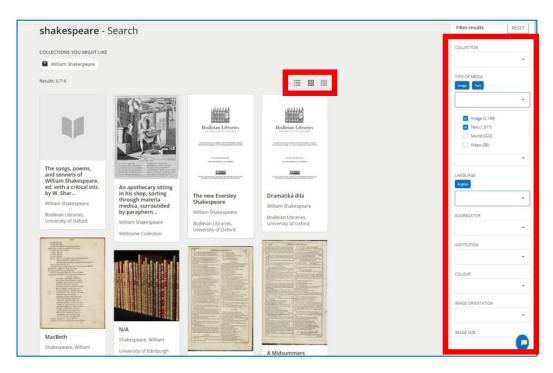


Figure 4.10. Europeana – advanced search

Search results appear in the form of rectangular tiles with the name of the document and a thumbnail. You can go to the specific item by clicking on it.

When you choose an item, you can see it in full (you can see the title page if it has many pages). Under the work, in the bottom left corner, you can see the copyright information. In the bottom



right there is a set of buttons with different options: adding a piece to your collection (a plus), adding to favourites (a heart), sharing on social media ("Share") and downloading a piece to your computer ("Download") - see Figure 4.11. Below you can find information about the providing institution that shares the item in the digital version. You can also learn about all metadata concerning the item by going to the "All metadata" tab. Below the description, there are the consecutive scans presented in thumbnails – see Figure 4.12.

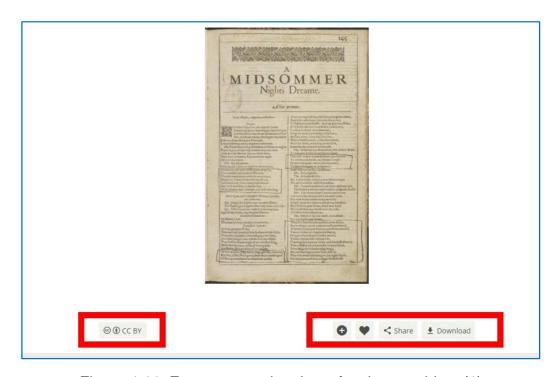


Figure 4.11. Europeana – the view of a chosen object (1)

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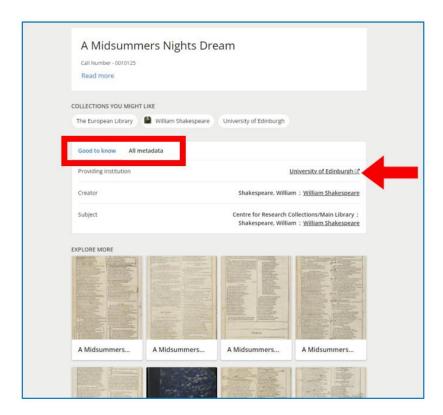


Figure 4.12. Europeana – the view of a chosen object (2)

In the example above, the original item is in the Library of University of Edinburgh (as indicated by the red arrow in Figure 4.12). The name of the institution is a hyperlink to its digital resources. After clicking, you are redirected to the digital library of this institution, here: to the digital library of the Library of the University of Edinburgh:

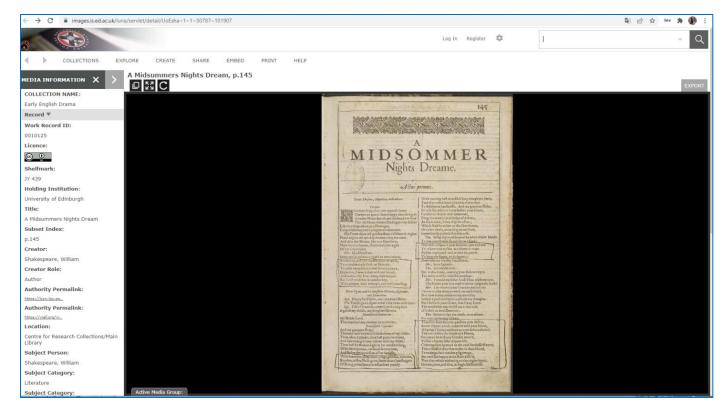


Figure 4.13. Europeana – the item in the digital collection of the providing institution

You can read the catalogue description of the piece, view the entire document, and use all the functionalities allowed by the software in which the digital library was created.

Adding items to favourites

When you are logged in, you can add selected objects to the favourites. Your collection of favourites is available in the user profile. This gives you the possibility to quickly access a specific document (without going through the search path), return to reading or analysing a literary or graphic arts work, etc.

You have access to your own collections created within the Europeana collections after expanding the menu (three horizontal lines button) in the top left corner of the portal, next to the Europeana logo, in the "My profile" tab.

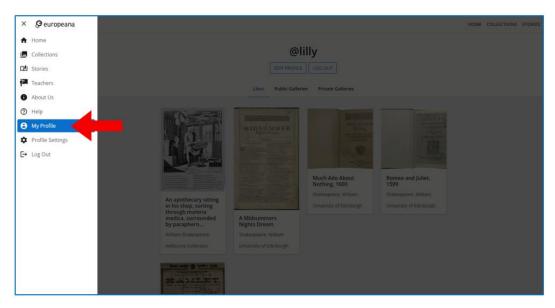


Figure 4.14. Europeana – "My profile" tab"

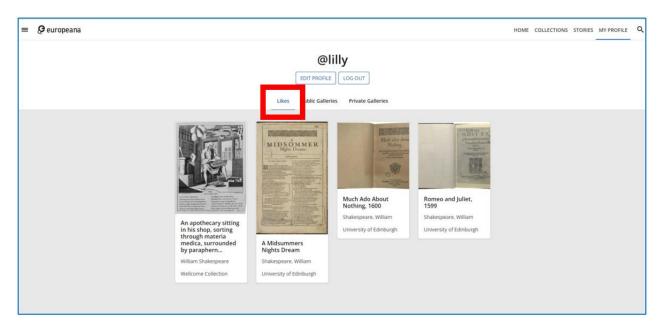


Figure 4.15. Europeana – the contents of the "Likes" tab

To add an item to your favourites, you need click on the heart icon that is visible under the view of the item after you open it, or in the upper right corner of the item in the search results.

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Figure 4.16. Europeana – adding an item to favourites when you are in the view mode



Figure 4.17. Europeana – adding an item from the search results to favourites

Creating your own collections

When you are logged in, you can create your own collection (galleries) and add the items of your choice to them. Galleries are available in the user profile. They give you quick access to a group of documents without the need to search for them. It is particularly useful when you work with a group of items for a longer time (e.g. to learn the features of paintings in a given period) or the pieces of one author (e.g. to learn the literary works of this author and interpret them), when you



do the research (e.g. to analyse the features of old print outs from a given printing house), or when you need to collect documents on which you want to base your work as a pupil, student, teacher (an essay, a presentation, or an article).

To create a new collection (gallery) or add an item to an existing one, you need to click the plus icon. It is visible under the view of the item after you open it, or in the upper right corner of the item in the search results.

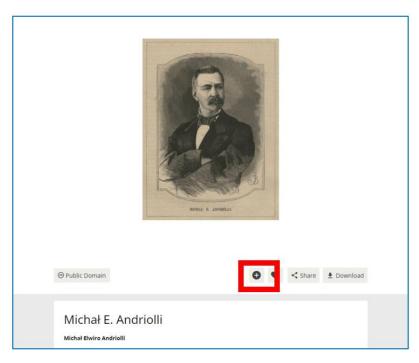


Figure 4.18. Europeana – adding an item to the collection (gallery) when you are in the view mode

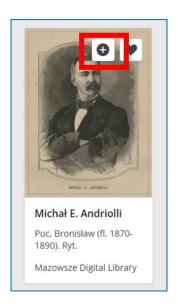


Figure 4.19. Europeana – adding an item from the search results to the collection (gallery)

When you click the plus icon, there appears a window in which you can select the option to create a new gallery or to add to the already created gallery with the name that previously gave it.

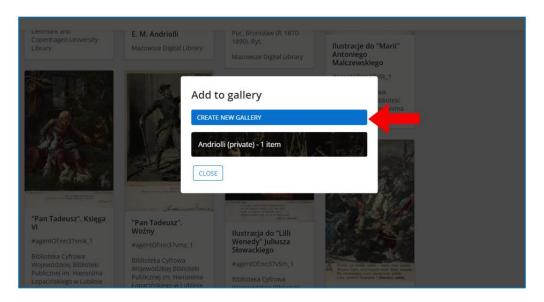


Figure 4.20. Europeana – the window of creating a collection and adding an item to an existing collection

When you create a new collection (gallery), you provide the following information: the name of the collection, optionally you can add a description of the content and select the gallery status option - whether it will be private, available only for you in your profile and invisible to other Europeana users, or public, visible and available for every Europeana user.



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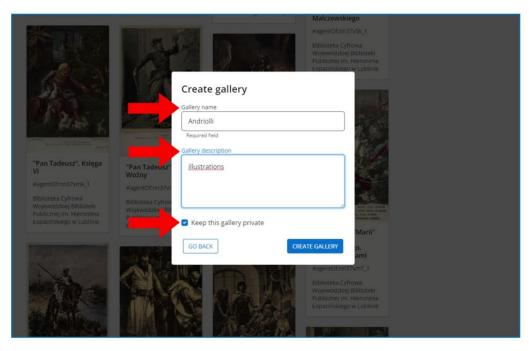


Figure 4.21. Europeana – "Create gallery" window

To add an item to an existing gallery, you need to choose this gallery from the list.

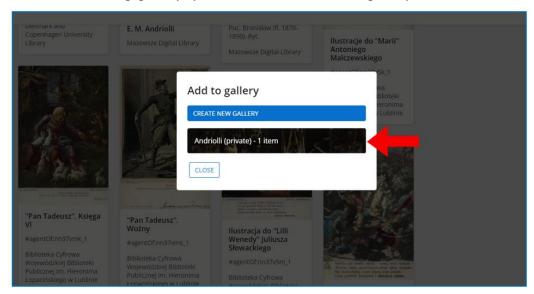


Figure 4.22. Europeana – "Add to gallery" window

information contained therein

When you choose the gallery, you receive information that the item was added.

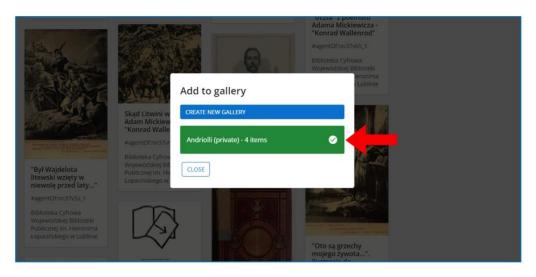


Figure 4.23. Europeana – "Add to gallery" window – confirmation

You have access to your own collections after expanding the menu (three horizontal lines button) in the top left corner of the portal, next to the Europeana logo, in the "My profile" tab.

To enter a given gallery, you need to click on the tile with its name and a thumbnail of one of the added items. In this section, you can also create a new gallery by clicking the plus button in the empty tile.

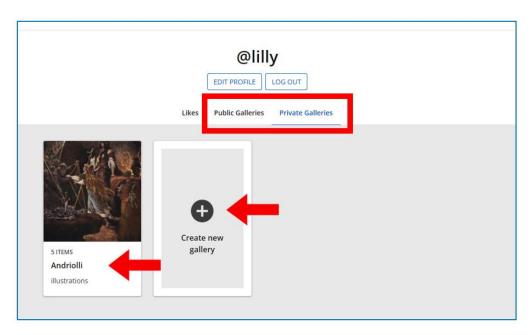


Figure 4.24. Europeana – the user's galleries; public galleries tab on the right, private galleries tab on the left



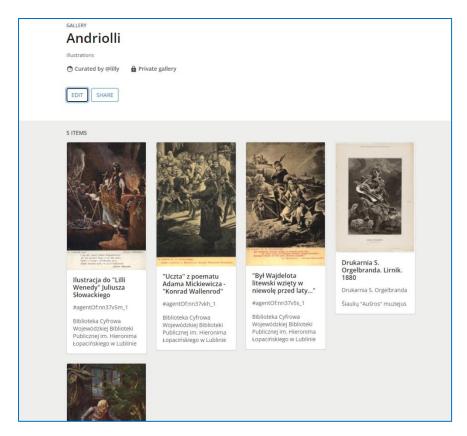


Figure 4.25. Europeana – gallery view

To view one of the objects in the gallery, you need to click on it. The document opens in a view similar to the document opened from the search results.

Europeana Courses

Europeana offers a wide range of learning materials and online courses in the Europeana Classroom. It is available in the "Teachers" tab (https://www.europeana.eu/en/europeanaclassroom).

84

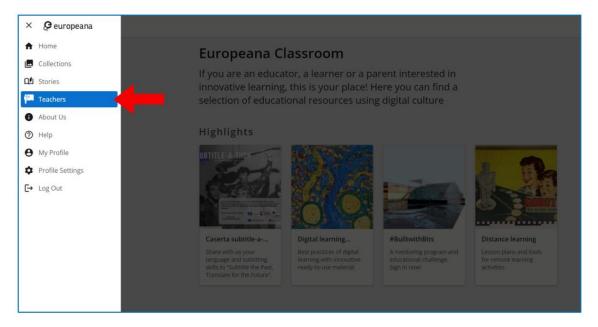


Figure 4.26. Europeana – access to the "Teachers" tab

In the "Teachers" tab you have access to the catalogue that includes a variety of teaching/learning materials. In the highlights section, there are the most important materials – the Europeana platform guides (Figure 4.27).

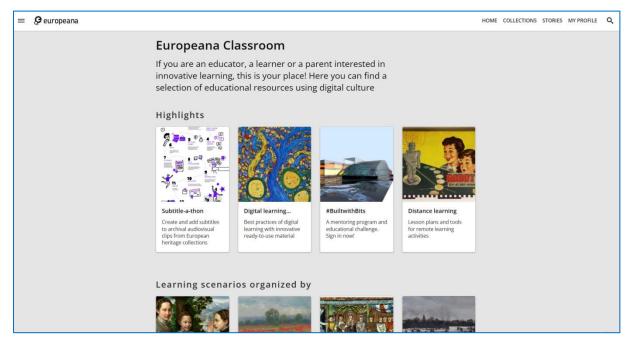


Figure 4.27. Europeana – teaching/learning materials

One of the available types of learning materials are MOOC courses.

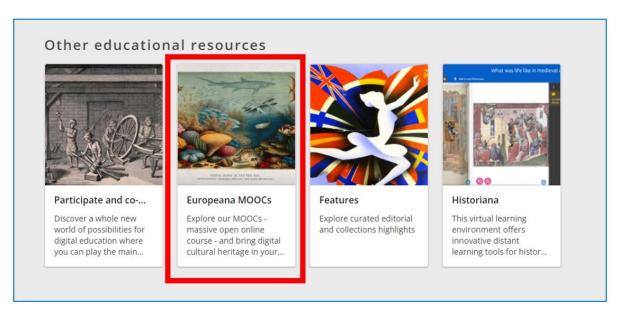


Figure 4.28. Europeana – MOOCs

When you choose the Europeana MOOCs tab, you are redirected to European Schoolnet **Academy**. At the top of the page, you have an access to the Course Catalogue.

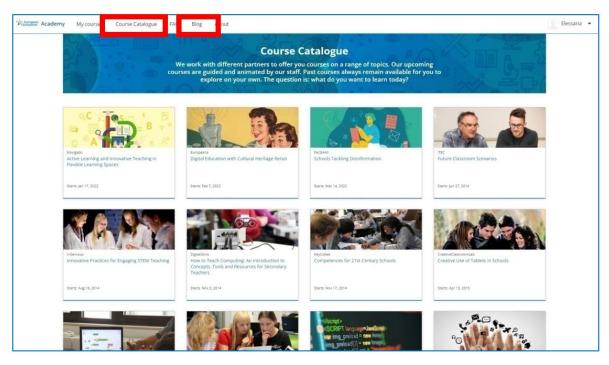


Figure 4.29. European Schoolnet Academy - Course Catalogue

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Another vital resource of Europeana is the Blog. You can browse through the articles according to categories. You can also comment on particular articles after reading them.

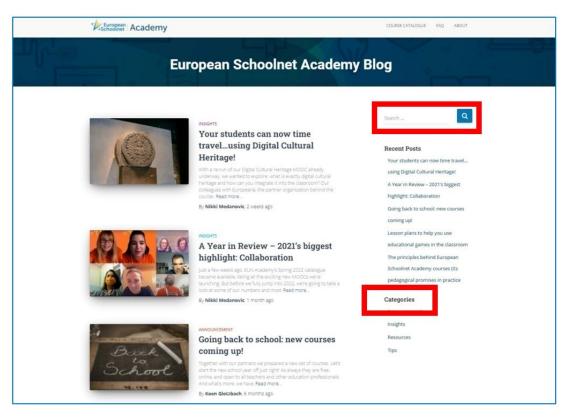


Figure 4.30. European Schoolnet Academy - Blog

To join the courses, you need to create an account (independent from the Europeana account). When you are logged in, you can join many courses at once. They are available in the "My Courses" tab.

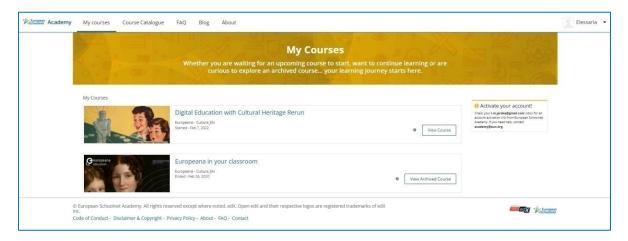


Figure 4.31. European Schoolnet Academy - My Courses tab



The contents of the course are divided into modules. You can add tabs with participial elements of the course to the menu on the right. There, you can also find information about the important dates and course handouts.

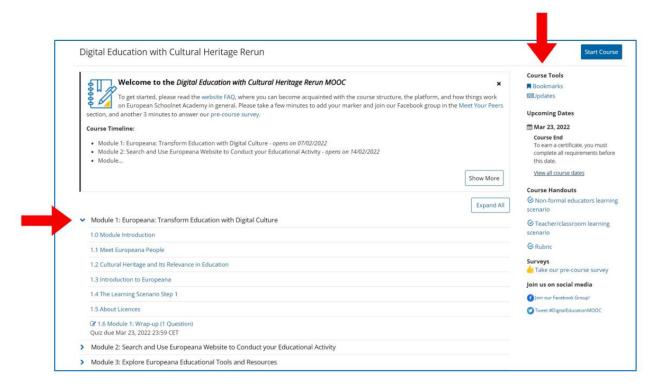


Figure 4.32. European Schoolnet Academy – the course page, course structure

The tabs on the top of the website allow you to access different elements of the course. There, you can check your progress in the course (the "Progress" tab) or important dates (the "Dates" tab). You can also join the discussion with other users (the "Discussion" tab) and learn the conditions of obtaining the course certificate (the "Certification" tab).

You can also see the contents of each module and follow your progress thanks to the bar at the top of the course. The learning materials include a lot of multimedia materials – texts, pictures, and videos with subtitles.

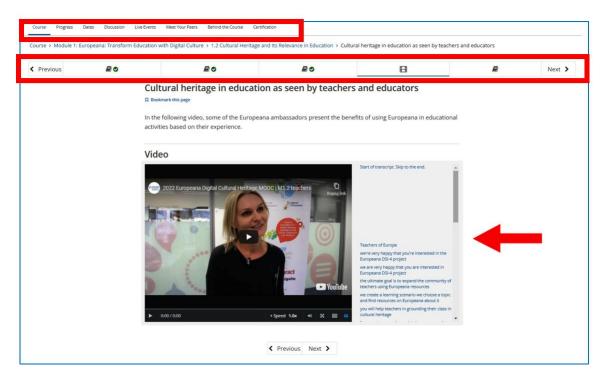


Figure 4.33. European Schoolnet Academy – the contents of a module

The resources of Europeana offer vast opportunities for teachers. The teacher may ask students to find specific items related to the subject (e.g., the first editions of the discussed literary work) during the class or to search for them as a part of their homework. He/she may also ask students to work with a digital library on their own to find items, stories, and collections related to the topic of the class. The contents of Europeana can also be used as source material for a presentation or essay to be prepared by the student.

In **Future Classroom Lab** which is located in the "Resources" tab (https://fcl.eun.org/directory), you can find lesson plans that are based on the contents of the digital library. They have been created in cooperation with teachers from various European schools. The learning objectives in these resources are developing the ability to find information, to cooperate with others, and to use information and communications technologies. To have a full access to the website, you need to create the account.

³⁷ Pryłowska-Nowak E., *Cyfrowe zasoby kultury*, "Informatyka w edukacji", 2019, XVI, p. 309.



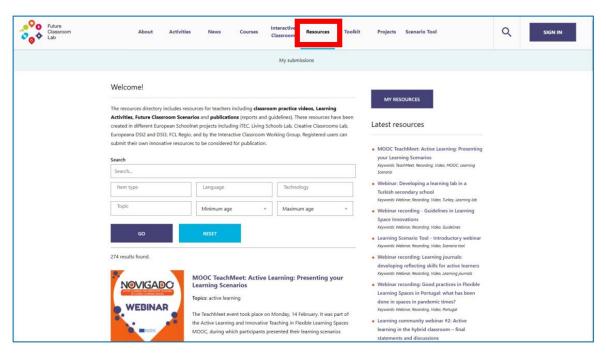


Figure 4.34. Future Classroom Lab – lesson plans

Teaching with Europeana Blog (https://teachwitheuropeana.eun.org/) is a project thanks to which teachers can look for inspiration for their own classes. They can browse through lesson plans that are available on the website and share their own knowledge and experience by uploading their own lesson plans.

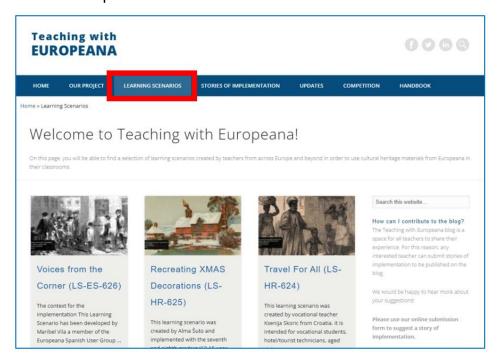


Figure 4.35. Teaching with Europeana



4.6. Didactic materials - 5

POLONA (www.polona.pl)

The National Digital Library Polona was launched in October 2006. Its main goal is to make digital versions of traditional resources such as books, magazines, manuscripts, graphic documents, maps etc. available on the Internet. The aim of the project is also to prepare and store high-quality copies of important materials.³⁸ The first decade of the 20th century was the period when the digitization process was launched in Europe and all over the world. Based on the i2010 - A European Information Society in 2010 initiative, on 30 September 2005, the European Commission published the document called i2010: Digital libraries which emphasized the role of information technologies in rediscovering the cultural and scientific heritage of Europe.

In Polona you can find specially protected objects that constitute the nationwide cultural, literary, historical, and artistic heritage. The most valuable manuscripts, old prints, first editions of the greatest works of Polish literature, documents from World War II, and prints from the beginning of the 20th century are available there. Most of the collections are in the public domain, so you can download them for free and use them freely.

Thanks to the continuous development of Polona its users can access works that present the complex image of Polish culture. The materials are stored in the collections of the National Library and institutions that cooperate with Polona and make their digital collections available for its users, such as the Jagiellonian Library, the Library of the University in Toruń, Maria Curie-Skłodowska University Library, Książnica Zamojska (The Library of Zamość), The Princes Czartoryski Library, The Polish Book Institute, The Museum of Warsaw, and Fryderyk Chopin Institute.

Polona is one of the most modern digital libraries in the world and the largest library of this type in Poland. The administrator of the platform is the Polish National Library.

³⁸ Ślaska K., Potęga J., *Cyfrowa Biblioteka Narodowa Polona*, "EBIB", 2006, No 11 (81), http://www.ebib.pl/2006/81/a.php?slaska_potega_[online, accessed 30.01.2022].



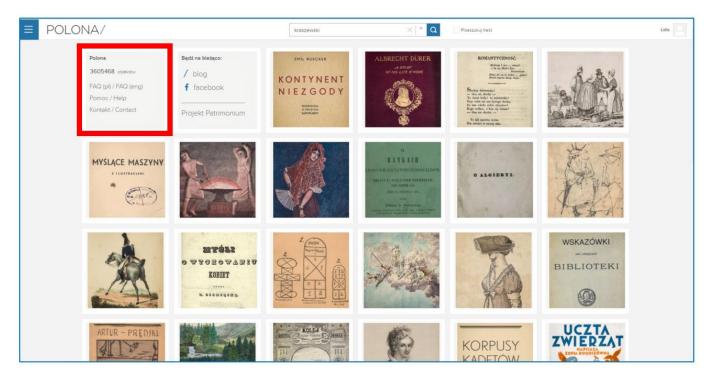


Figure 5.1. Polona – home page

On the home page of Polona, there are items that are especially promoted by the editors of Polona. Usually, these are new items in the collection or materials of special value. On the website, you can also find information about the current state of digital resources, as well as links to FAQs, help (containing detailed instructions for searching and working with an item) and a contact form.

To browse through the Polona resources you need to open the main menu by clicking the button with three horizontal lines. There you can find the collections and themed catalogues.

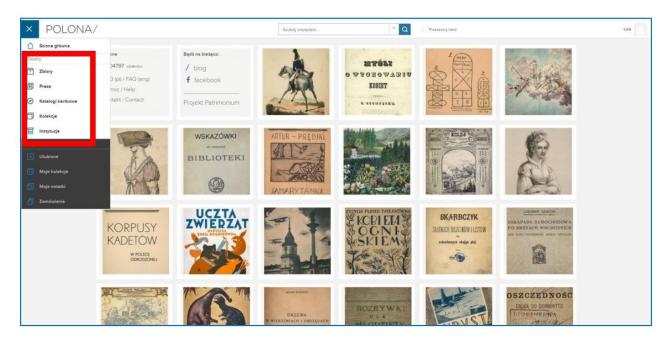


Figure 5.2. Polona – main menu

When you choose collections ("*Zbiory*") you can browse through materials freely or use filters to choose the category (e.g., maps – "*Mapy i atlasy*"), the place of publishing (e.g., Lemberg), the language (e.g., French), or the cultural category (e.g., Belgian music) of a given item.

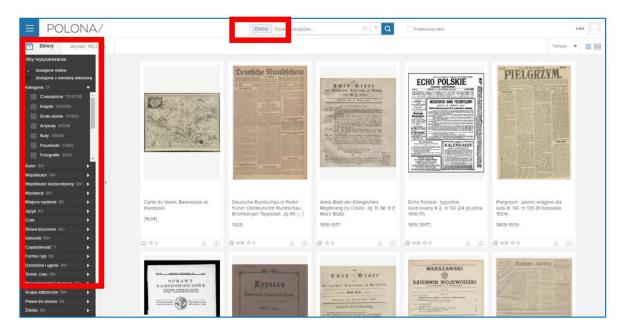


Figure 5.3. Polona – collections – *Zbiory*

In Polona, you can also find themed catalogues ("Kolekcje") created by the editors of the website. Themed catalogues include the items available in Polona. Each catalogue has a description.



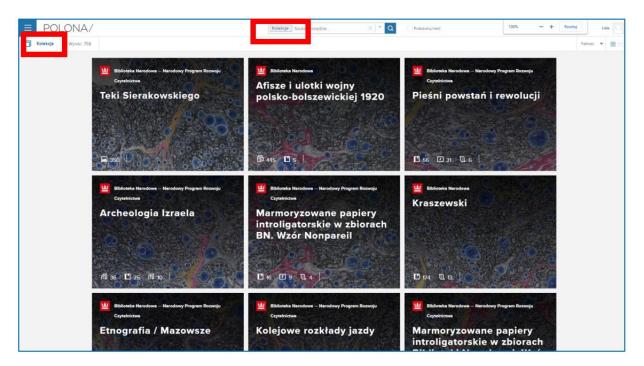


Figure 5.4. Polona – themed catalogues – Kolekcje

Creating an account and signing in

When you create an account in Polona, you can fully use the website and all its functionalities. To do so, you need to create a username, as well as enter your e-mail address and password. It is mandatory to consent to the processing of personal data. Optionally, you can consent to receive the newsletter. You can edit the data in the profile, or you can delete your account. You can also log into Polona by using your accounts on social media – Facebook and Google+.

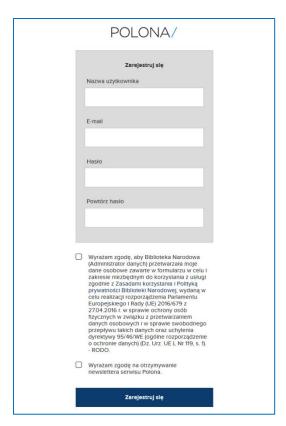


Figure 5.5. Polona – creating an account

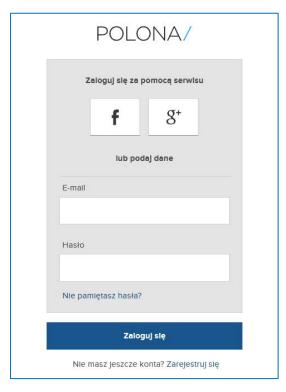


Figure 5.6. Polona – signing in



The browser

On the main page, you can find a search bar for a simple search with the option of suggesting the searched items. You can also use advanced searching with special commands.

As Polona is equipped with OCR (optical character recognition) that allows for the recognition of letters and words in scanned documents. Thanks to that option, you can also browse through whole texts with the use of a search bar. To do so, you need to choose the option "Search through the text" ("*Przeszukaj treść*").

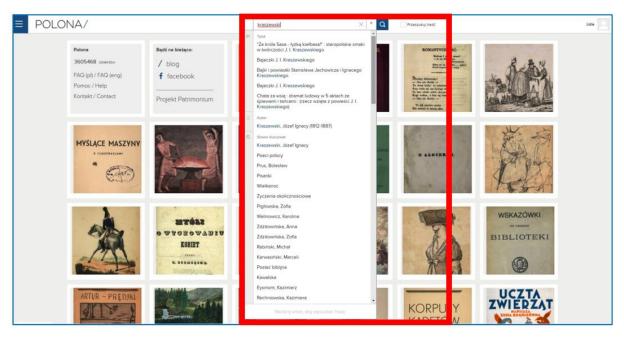


Figure 5.7. Polona – simple search

The arrow button next to the search bar opens the advanced search options. You can browse by providing the details: author, title, and contents. You can expand the menu to see more options, like the publisher, place of publishing, keywords, or signature mark. You can also choose the category (e.g., books, e-books, photos, postcards, notes), the language of the document and the time when it was created.

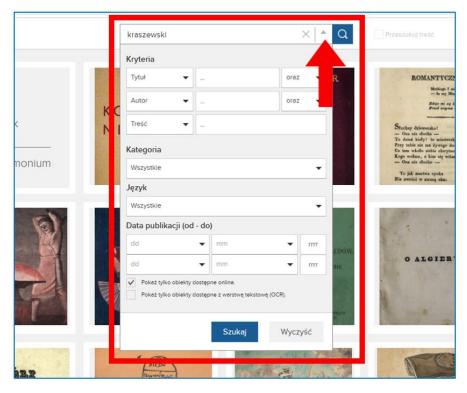


Figure 5.8. Polona – advanced search options

The search results appear in a grid layout. You can change the layout by clicking the buttons in the upper right corner. You can also sort the results by a selected category: relevance, title, author or release date (oldest-newest).

On the left, there is a menu with filters that allow you to narrow down your search results.

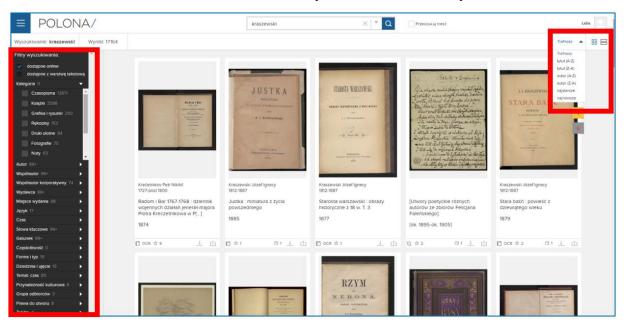


Figure 5.9. Polona – search results



You can open the items from the search results by clicking its title or the tile with a thumbnail. To use all the features of the platform, you need to create an account. When you are logged in, you have access to the following options (Figure 5.10):

- 1. The display mode the thumbnail form, magnifying glass tool, full screen mode
- 2. The layout of scans on display only one scan, the grid, one scan with a side menu and description
- 3. Buttons for editing the document: optical character recognition (OCR), adding comments and bookmarks (Figure 5.11)
- 4. Description of the document and information about the copyright (in the example below, the document is in public domain)
- 5. Thumbnails of the consecutive pages. You can go to the page of your choice by clicking the thumbnail.

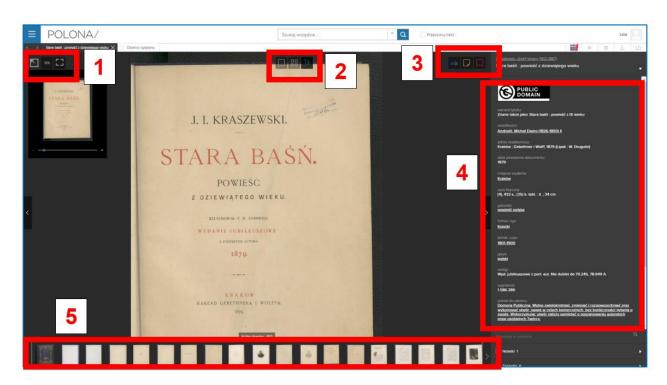


Figure 5.10. Polona – the display mode



Figure 5.11. Polona – buttons for editing the document



Optical character recognition (the "abc" button) allows you to find a particular word that appears in a given document. When you click the page numbers in the search results, you are redirected to the place in the text where this word appears.

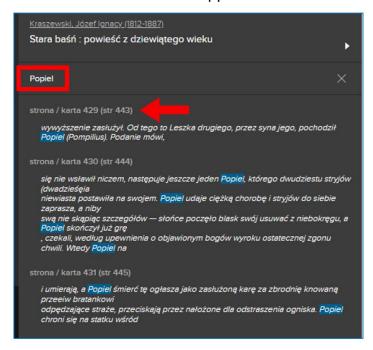


Figure 5.12. Polona – optical character recognition

Adding notes – thanks to this option you can mark an element of the text and add your comments, thoughts, or description. You can see your notes in the side panel on the yellow background.

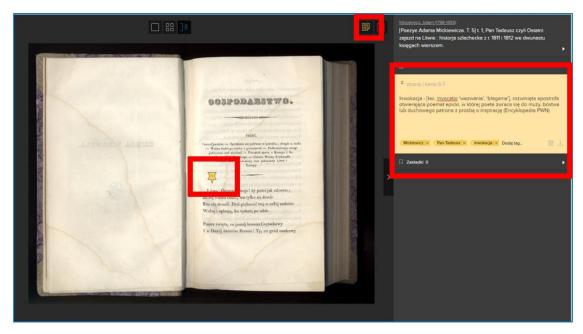


Figure 5.13. Polona – adding notes



Adding bookmarks – allows you to mark pages in the document and then return to them at any time. This option is useful when you work with a document for a long time, and you want to mark specific places or quotations (e.g., if you are a student of the history of literature). The list of bookmarks is visible on the side panel, clicking on a given page opens the document in the indicated place.

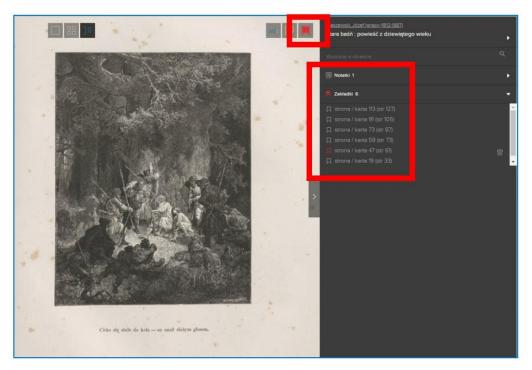


Figure 5.14. Polona – adding bookmarks

Items in Polona have high resolution, scans are of very good quality. This allows you to enlarge the image many times without losing details. Thanks to that, the Polona resources an excellent material for research or for classes in art history, printing, typography, and photography.

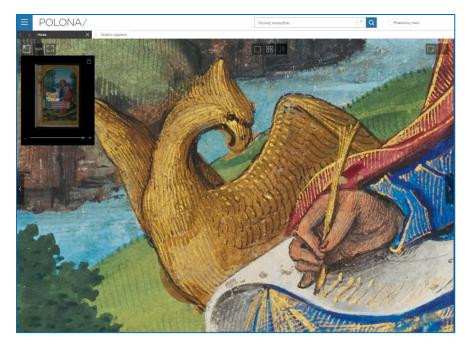


Figure 5.15. Polona – details of an item

Adding items to favourites and collections

When you are logged in, you can add items to favourites and create your own collections (similarly to the way it works in Europeana).

You can do it

1) in the search results; use the star button to add an item to favourites and the button with two pages, one on top of the other, to add an item to the collection;



Figure 5.16. Polona – adding search results to favourites and collections



2) or when you open a given document; use the buttons located in the top right corner, above the panel with the document description. Additionally, when you open the document, you can download it or share it on social media – Facebook, Twitter, or Google+.

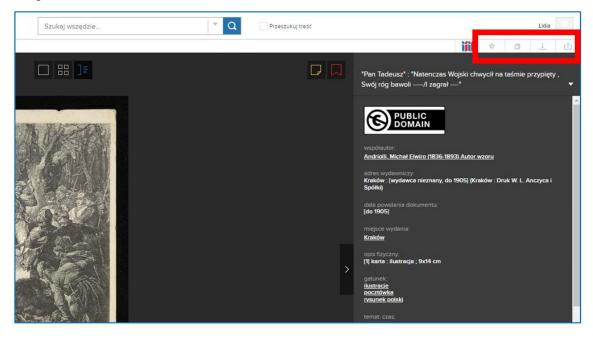


Figure 5.17. Polona – adding an item in the view mode to favourites and collections

When you add the document to the collection, you can choose whether you want to add it to an existing collection or create a new one. When you create a new collection, you need to name it. All collections are private, and you can access them only when you are logged in.

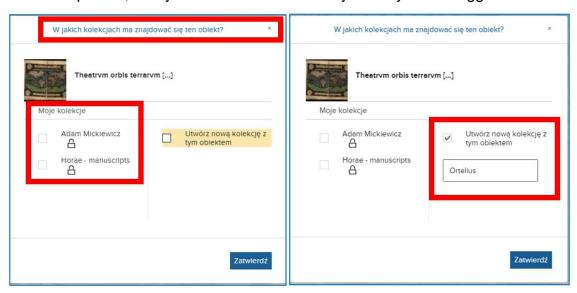


Figure 5.18. Polona – adding to the collection and creating a new collection



When you add an item to favourites or to the collection, the buttons change the colour from grey to blue.

You can access your favourites, collections, and notes in "Moja Polona" ("My Polona") tab in the main menu (the button with three horizontal lines).

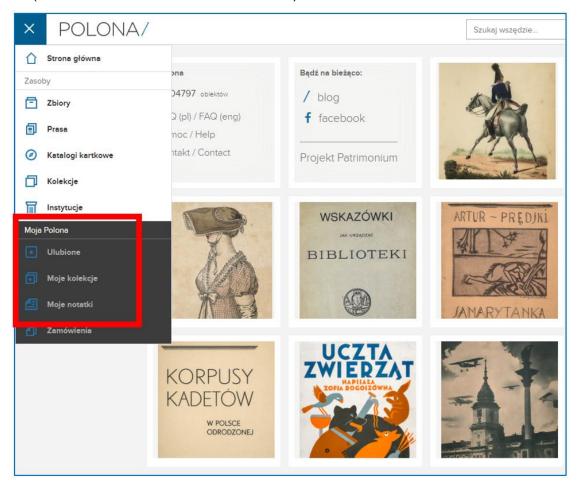


Figure 5.19. Polona – "Moja Polona" ("My Polona") tab

When you enter the "*Ulubione*" ("Favourites") tab, you can access the documents that you have added to this section before. They are marked with a star on the blue background. On the left, there are categories that can be used to filter the elements of this collection.

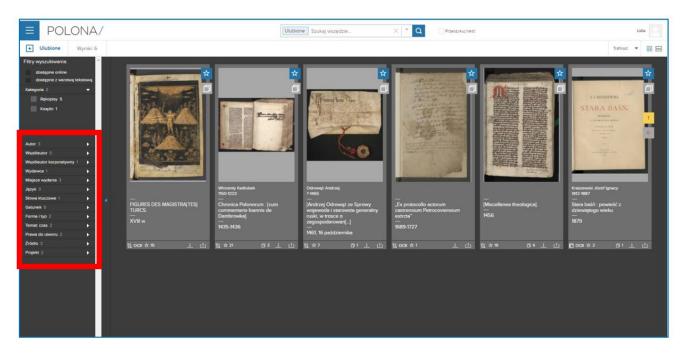


Figure 5.20. Polona – Favourites (*Ulubione*)

In the "Moje kolekcje" ("My collections") tab, you have access to the collections that you have created. On the tiles, you have information about the number and types (how many books, manuscripts, photos) of documents that are included in a given collection. You can access the documents in your collections and work with them without the need to search for them again. To open the collection, you need to click on the tile. You can delete the collection when you finish working with it.

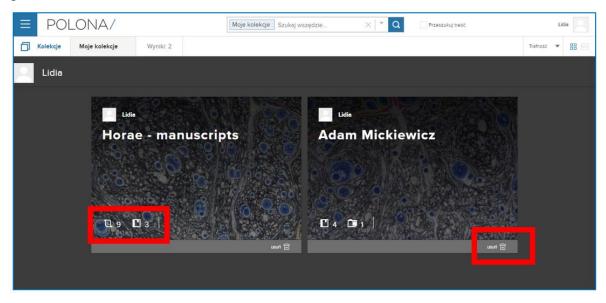


Figure 5.21. Polona – My collections tab



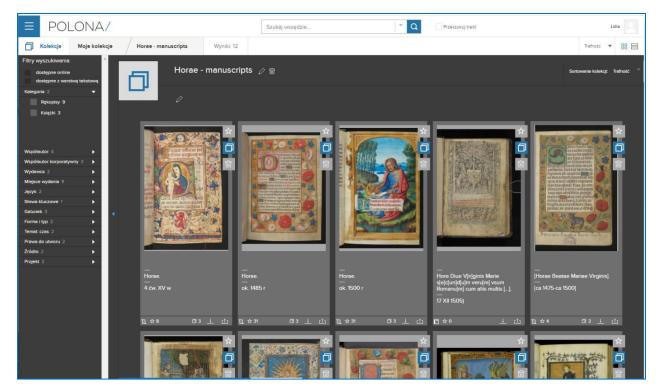


Figure 5.22. Polona – a collenction

When the items that are already included in your favourites and/or collections appear in the search results, they are marked with the favourites/collections button with a blue background.

The Polona blog

You can access the Polona blog (http://blog.polona.pl/) from the home page. It is a subjective review of the resources of the library. The authors of these texts are specialists in the world of culture, science, art, and literature. All published articles are of a scientific, educational, or journalistic nature and contain hyperlinks to Polona collections. They are available under the Creative Commons license, the set of conditions which allows for the distribution, processing, copying, and quoting the content provided that the source and author are given and the same license is used.

Therefore, articles on the Polona blog are great material to enrich the list of compulsory readings on the subject in school curricula.

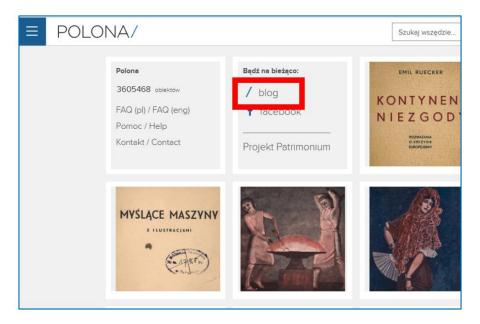


Figure 5.23. Polona – access to the blog from the home page

In the blog section, there is no search bar.

You can access the articles on the blog by:

- 1) browsing through the articles on the home page,
- choosing the texts of a given author; the list of authors cooperating with Polona is available in the "Autorzy" ("Authors") tab on the home page,
- 3) choosing tags in the tab on the top of the page,
- 4) choosing the category/topic from the list located on the top of the page, below the tabs.

information contained therein

be held responsible for any use which may be made of the

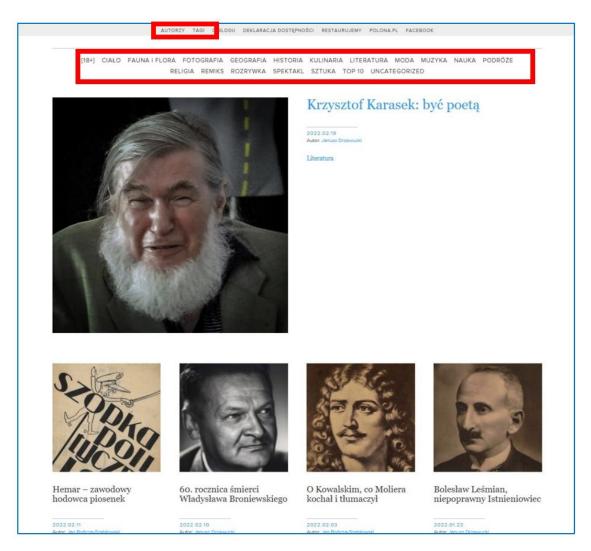


Figure 5.24. Polona – blog

4.7. Didactic materials - 6

Google Arts & Culture (https://artsandculture.google.com/)

Google Arts & Culture – a virtual museum that was launched by Google on 1 February 2011 under the name of Google Art Project. The main aim of the project was to present various pieces of art that are available in the collections of partner museums, including Tate Britain, The Metropolitan Museum of Art in New York, The State Hermitage Museum in Saint Petersburg, Uffizi Gallery in Florence, or Museum of King Jan III's Palace at Wilanów in an attractive form. The creators of this project are Amid Sood, the designer from Google, and Nicolas Serota from Tate Britain.

Creating an account and logging in

Google Arts & Culture is one of the applications available in your Google account.

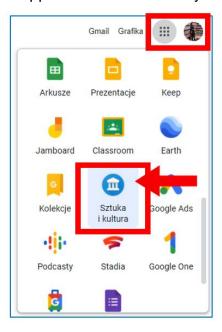


Figure 6.1. Google Arts & Culture

When you enter the home page, you can find a number of suggestions concerning various ways to explore world culture. Going down the page, you can choose, for example, topics, virtual exhibitions, museums to visit, or games selected for a given day by the editorial staff of the website.

The application interface is displayed in the language of the location (country) in which you are using Google services.

Search bar

The search bar is available on the home page – magnifying glass button in the top right corner.



Figure 6.2. Google Arts & Culture – search button

After clicking on the magnifying glass, you can enter the searched phrase. The system prompts you with the phrase in the context; you can choose one of the suggested options or search your phrase by clicking enter:

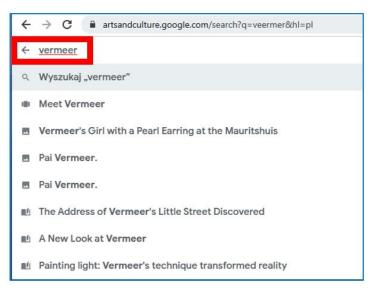


Figure 6.3. Google Arts & Culture – search engine

Categories connected with the term appear in the search results. In the example search, these are topics, collections, articles, and a virtual exhibition. Only the first of many elements is displayed, the user can see more by clicking on the arrow at the right end of the horizontal block of a given category or the "View all" link.



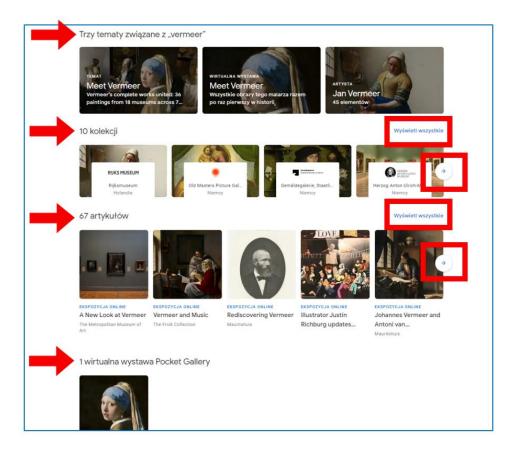


Figure 6.4. Google Arts & Culture – search results (1)

Among the search results, there are many items related to the search term: places, virtual tours, suggestions from other artists – from the same historical period or country, as well as video materials.

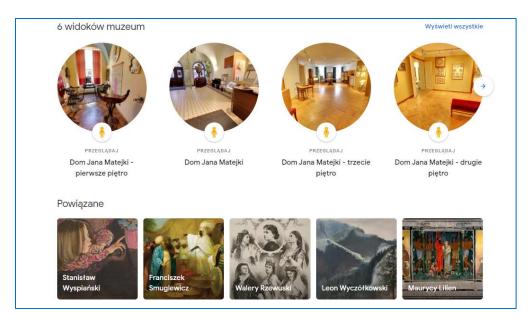


Figure 6.5. Google Arts & Culture – search results (2)

Exploring the art

You can view paintings or take virtual tours of museums where they are located. Panoramic photos in galleries were taken with a special trolley developed by the Google team. The user can explore the museum halls by smoothly moving from place to place or going to the selected location³⁹ (to navigate you can use the computer mouse, similarly to Google Street View).

³⁹ Maj M., *Google Art Project - więcej niż wycieczki po muzeach*, "Dziennik Internautów", 02.02.2011, https://di.com.pl/google-art-project-wiecej-niz-wycieczki-po-muzeach-35662 [online, accessed 20.02.2022]





Figure 6.6. Google Arts & Culture – virtual tour

On the first screen with the presentation of the piece of art, there is a set of buttons that allow you to add it to your favourites (heart button), copy a link (node button), and share it on social media (Facebook, Twitter; after expanding the "share" button, further sharing options appear: Pinterest, Tumblr, Vkontakte, email, Classroom app, download link). You can also use the translation of the descriptions into the user's language, as all substantive texts are published in English.

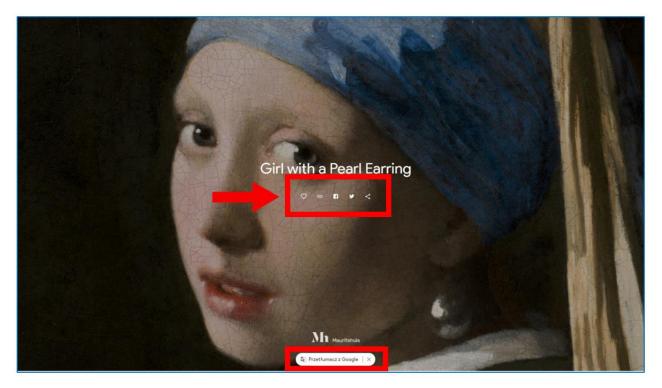


Figure 6.7. Google Arts & Culture – first screen of the art piece presentation

When you scroll down, you can see the consecutive screens and read the descriptions containing the analysis of the art piece. Sharing option is also available (collapsed on the right; hovering the mouse over the right line expands the sharing bar) – Figure 6.8.

Each of the works of art presented on Google Arts & Culture contains approximately 7 billion pixels. The images can be enlarged to sizes that allow you to see details impossible to notice during your real stay in the museum. The user sees the traces of the artist's tool and can learn about his/her workshop.

A small round button in the top left corner (Figure 6.8) opens an information note containing the following details: title, creator, location (active link redirecting to the museum's website in Google Arts & Culture) date of creation, technique, dimensions, link to the work in the museum's collection. It is also possible to share the image and view it in augmented reality (after installing the application) – Figure 6.9.



Figure 6.8. Google Arts & Culture – exploring the art piece online



Figure 6.9. Google Arts & Culture - information note



Home page

In the top right corner, there is a menu from which you can browse through the content of Google Arts & Culture, play games, visit museums located close to his location and go to his own collections gathered in the "Favorites" tab.



Figure 6.10. Google Arts & Culture – home page, main menu

Explore – the tab takes you to the compilation of the entire content of the page grouped into themed blocks; for example, you can find here all categories from the drop-down menu on the left (which will be discussed later), explore art arranged chronologically or by colour, view the most popular (most frequently visited) materials from the last week.

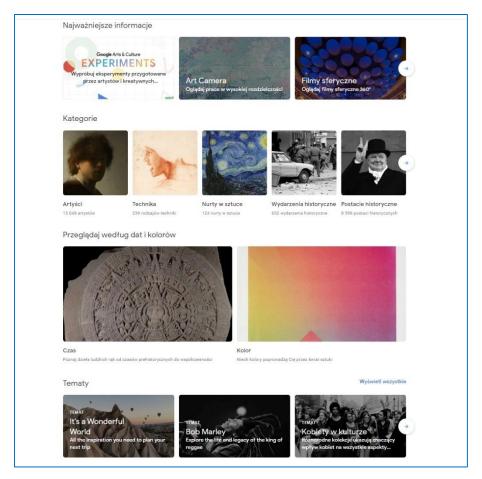


Figure 6.11. Google Arts & Culture – "Explore" tab

Play – this tab offers a set of educational games related to cultural resources around the world. It is perfect for "learning through play" activities – it is a great educational material for learners of all ages – from children to elderly people. Solving crosswords with works of art, composing a melody in the style of a famous composer, or doing puzzles can encourage learners, especially younger ones, to explore art. Adults can take up these activities to check how well they know the work of a given artist or a given style in art. You can share the results of your work with your friends by sharing them on social media (Facebook, Twitter, Pinterest, Tumblr, Vkontakte), by sending e-mails, or by downloading a link. An important feature for the use in distance learning is the sharing option in the Classroom application.

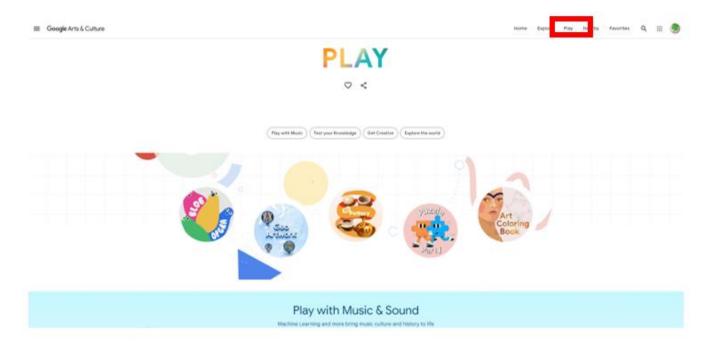


Figure 6.12. Google Arts & Culture – "Play" tab

"Play with Music & Sound" – activities connected with sound:

- Play a Kandinsky you can listen to the sound of colours based on a painting by Vasily Kandinsky and create your own composition from the sound colours.
- 2. Assisted Melody allows you to create your own composition in the style of one of the three composers: Bach, Mozart or Beethoven, on an instrument of your choice (Figure 6.13).

- 3. Blob opera you can compose a vocal piece for four opera voices.
- 4. Paint with music you can compose a melody with colours and brush strokes.

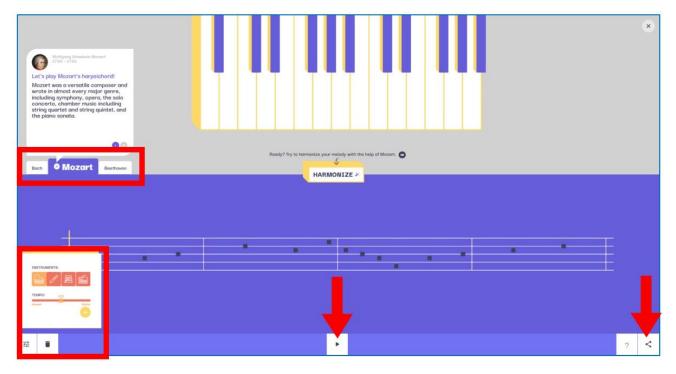


Figure 6.13. Google Arts & Culture – Assisted Melody

"Sites come to life" – activities related to art present in open spaces:

- 1. Fourth of July Fireworks you can celebrate the 4th of July by creating fireworks display by the Statue of Liberty on the US coast.
- 2. Street Galleries you can select a city (e.g., London) and a specific place in the city, and then place the works of art on buildings to create street galleries (Figures 7.14, 7.15, 7.16).



Figure 6.14. Google Arts & Culture – Sites come to life

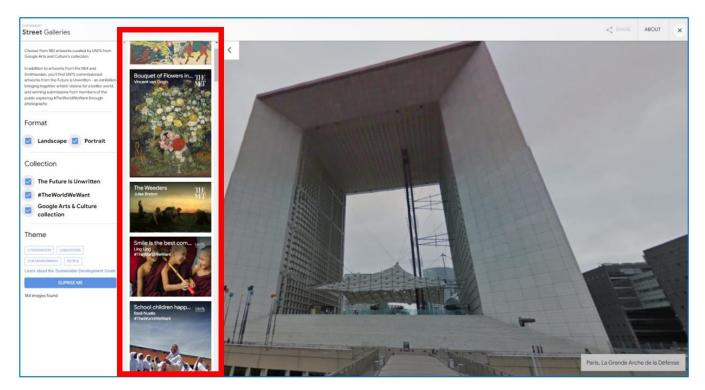


Figure 6.15. Google Arts & Culture – Street Galleries (1)

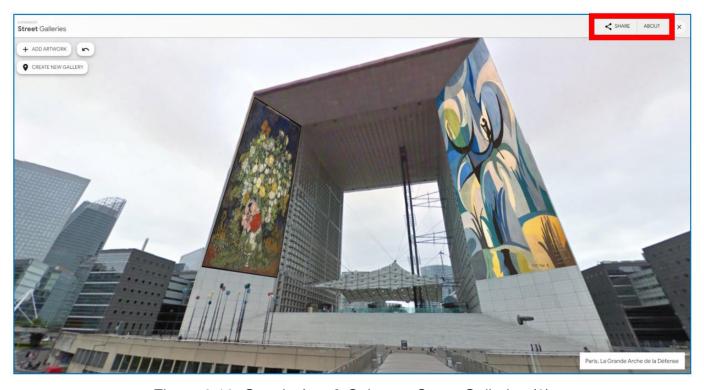


Figure 6.16. Google Arts & Culture – Street Galleries (2)

"Learn through Play"

- Visual Crosswords with David Kwong graphic crosswords designed by David Kwong (a world-famous puzzle maker) and Dave Shukan – to solve the crossword you select works of art, music album covers and other images according to the key.
- 2. <u>Cultural Crosswords</u> traditional crosswords in the field of art and world culture.
- 3. What Came First a game of choosing an event that took place before the release of a music album, film premiere, creation of a painting, etc.
- 4. <u>Puzzle Party</u> you can (alone or with another user Figure 6.19) arrange the selected work of art from the elements scattered on the screen; you can enable moving a group of connected puzzles, enlarge or reduce the size of the board, change the colour of the background to a darker one, hide the pattern image, share the effect of your work using the bar at the bottom of the screen (Figure 6.20).
- 5. <u>Art Coloring Book</u> fill in with colour the areas of an image placed as a drawing with only outlines of shapes.
- 6. <u>Visual Crosswords</u> visual crosswords; to solve them you need to arrange works of art according to the colour, creator, or subject of the picture.

After the end of each game, you receive feedback on the correctness of the completed task. If you commit a mistake, the correct answer is displayed (What Came First) or incorrectly placed elements return to the starting position, and you can insert them in the right places (crosswords). Then, you are directed to the next game level (Figure 6.22).

Thanks to the fact that you work with pieces of art, the games have educational nature; when you click on artworks while playing, you get acquainted with the title, artist's name, and the museum in which the painting is located.

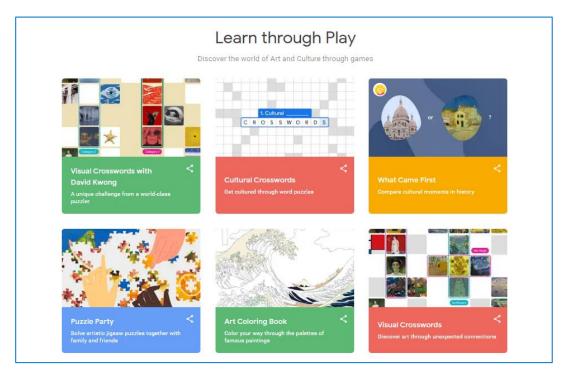


Figure 6.17. Google Arts & Culture – Learn through Play

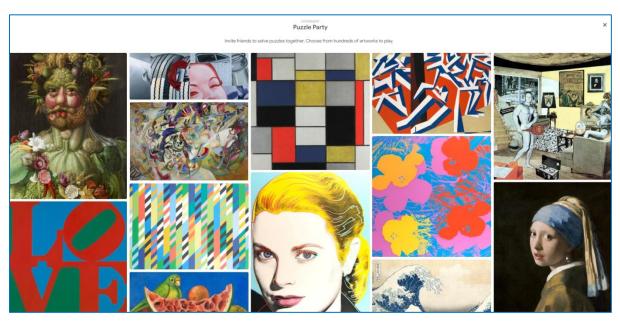


Figure 6.18. Google Arts & Culture - Puzzle Party

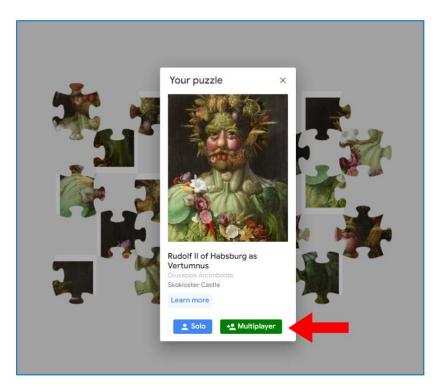


Figure 6.19. Google Arts & Culture – Puzzle Party. Multiplayer mode



Figure 6.20. Google Arts & Culture - Puzzle Party. Assembling the puzzle

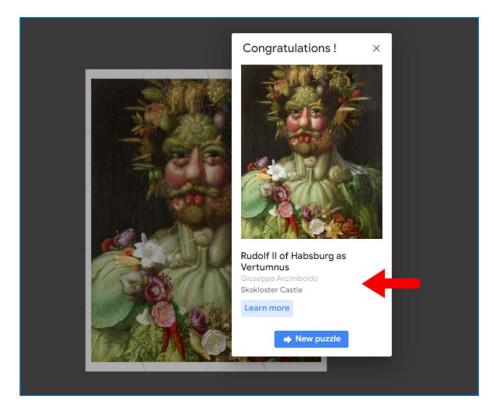


Figure 6.21. Google Arts & Culture – Puzzle Party. The end of the game and information about the art piece

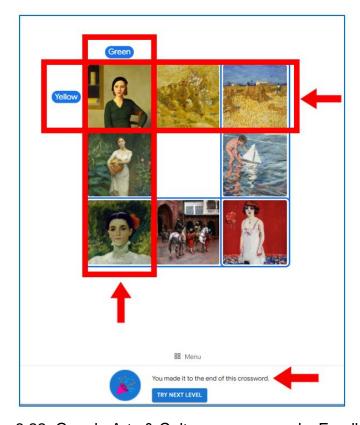


Figure 6.22. Google Arts & Culture – crosswords. Feedback



Nearby – this tab detects your location on Google maps and displays a list of nearby museums and art galleries.

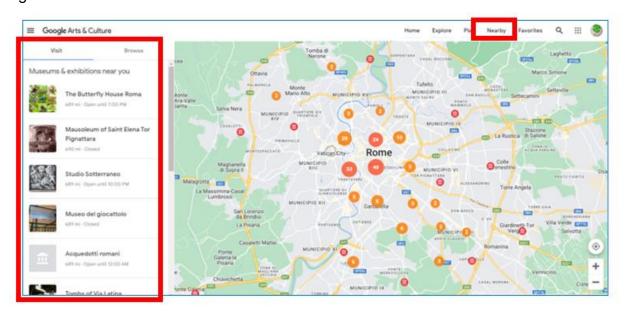


Figure 6.23. Google Arts & Culture - the "Nearby" tab

When you click on the selected museum, you can see its location on the map, and on the right side you can plan a route to it and a link to the home page.

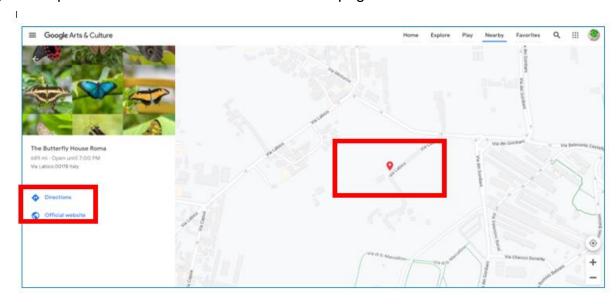


Figure 6.24. Google Arts & Culture – directions to the museum in the "Nearby" tab

Favourites – in this tab you can find works of art, museums, themes, and other elements that you have added to your favourites – those that you want to return to and to which you want to have faster access. You can enter the favourites from this tab or from the "Profile" tab from the drop-down menu on the left.



Figure 6.25. Google Arts & Culture – the "Favourites" tab

Creating your own galleries

You can create your own gallery by switching to the "Galleries" tab when you are in the "Favourites" tab and then perform the following steps:

- 1) choose the option "Create gallery" (Figure 6.26),
- 2) chooses the objects to be added to the gallery, they will be marked with blue signs (Figure 6.27), and click "Continue" (Figure 6.27)
- 3) nadaje galerii nazwę, dodaje opis, zaznacza, czy galeria ma mieć charakter prywatny wówczas jest dostępna tylko w profilu użytkownika, czy charakter publiczny wtedy jest dostępna dla osób, które otrzymają do niej link. Na końcu użytkownik zatwierdza utworzenie galerii przyciskiem "Gotowe" w prawym górnym rogu (Figure 6.28).





Figure 6.26. Google Arts & Culture – creating a gallery, step 1

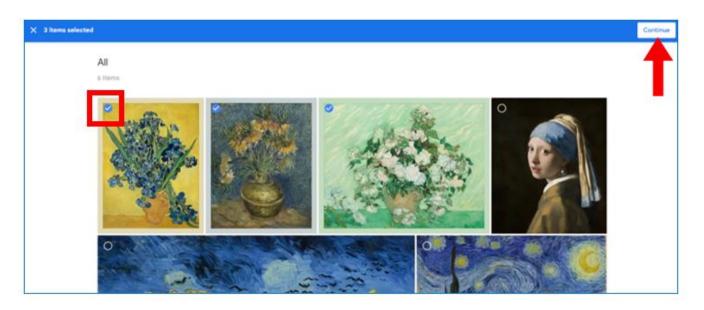


Figure 6.27. Google Arts & Culture – creating a gallery, step 2



Figure 6.28. Google Arts & Culture – creating a gallery, step 3



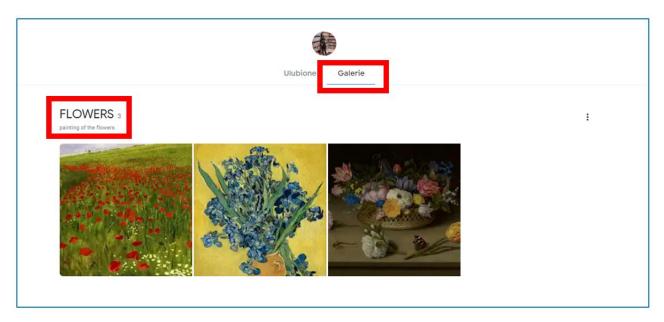


Figure 6.29. Google Arts & Culture – created gallery

You can edit the contents and settings of the gallery, as well as delete the entire gallery by clicking on the three dots on the right.

You can edit the contents and settings of the gallery, as well as delete the entire gallery by clicking on the three dots on the right.

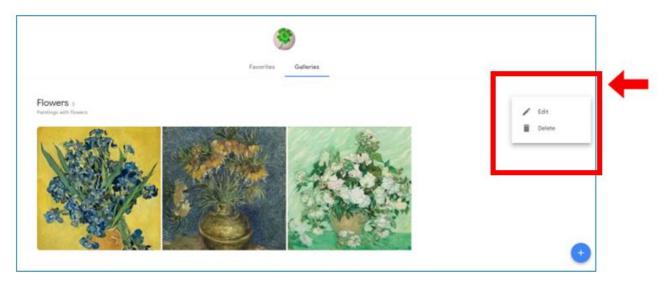


Figure 6.30. Google Arts & Culture – editing the gallery

Categories of resources

All Google Arts & Culture resources are organized into categories, which the user enters through tabs in the drop-down menu from the button with three horizontal lines in the top left corner of the home page.

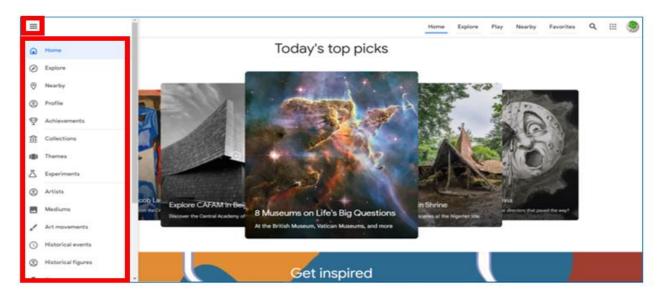


Figure 6.31. Google Arts & Culture – menu with categories

information contained therein

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The "Collections" category in the main menu – you can choose the museum which you want to visit. You can order the list alphabetically or according to the location on the map. (Figure 6.32)

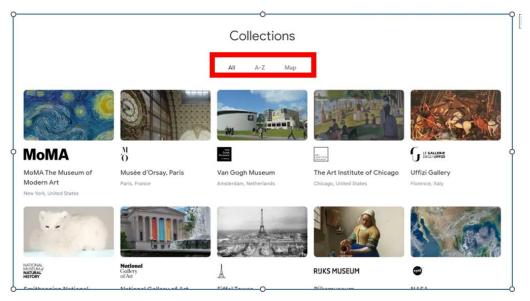


Figure 6.32. Google Arts & Culture – the "Collections" tab

After choosing the museum, you have the opportunity to read articles about the resources, and thematic collections and view individual paintings (elements). All presentations are focused on the visual aspect of exploring works of art (high quality, enlarging the object).

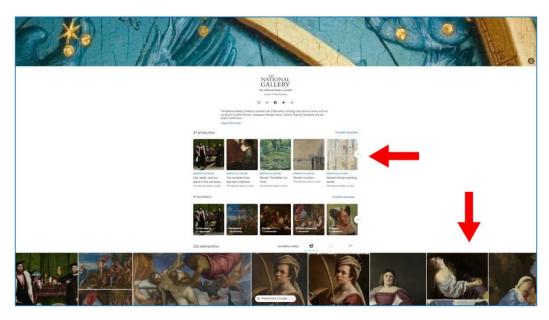


Figure 6.33. Google Arts & Culture – the view of the museum selected in the "Collections" category



Visiting the thematic virtual exhibition

When you scroll through the page, you can see the images with the description. After clicking on the picture, you can read the information note about the work. You can use the magnifying glass button with a plus to zoom in on the detail of the picture. The zoomed-in part of the painting is marked on the thumbnail image, which disappears after a while (it reappears when you move the mouse).

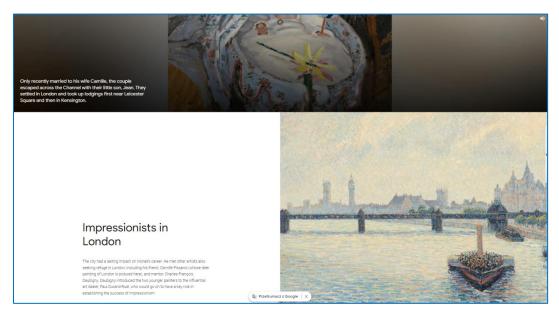


Figure 6.34. Google Arts & Culture – thematic virtual exhibition



Figure 6.35. Google Arts & Culture – information about the painting and the zoom-in option



Figure 6.36. Google Arts & Culture – the zoomed-in fragment of the painting (marked on a thumbnail image)



You can also choose a museum to visit on the world map:



Figure 6.37. Google Arts & Culture – the map with indicated museums

The "Themes" category in the main menu – in this tab you can read stories (articles) on a given subject, or view virtual exhibitions connected with this subject – about a place, a person, an institution, an event, a painting material, etc.

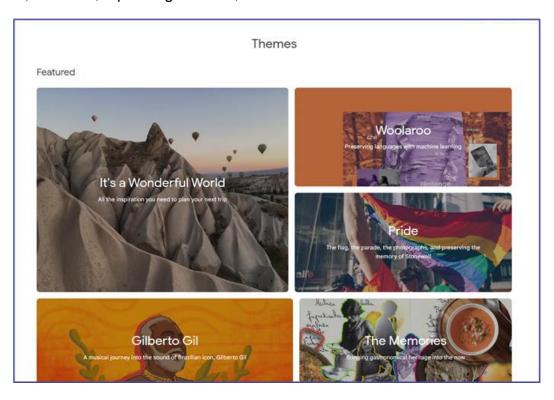


Figure 6.38. Google Arts & Culture - the "Themes" tab



The "Artists" category in the main menu – this tab takes you to the catalogue of creators. By clicking on the thumbnail of the image with the artist's name, you can go to the website of the artist and browse through the content of the website related to him/her: articles, exhibitions, and individual pieces (elements).

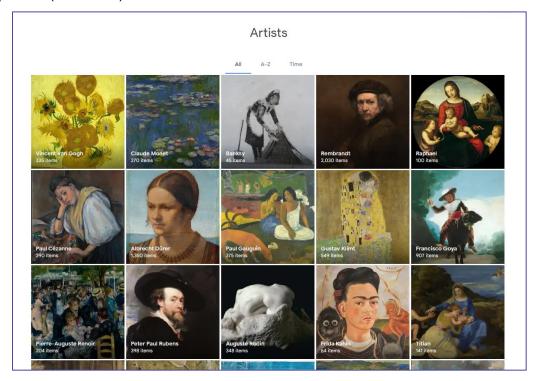


Figure 6.39. Google Arts & Culture - the "Artists" tab

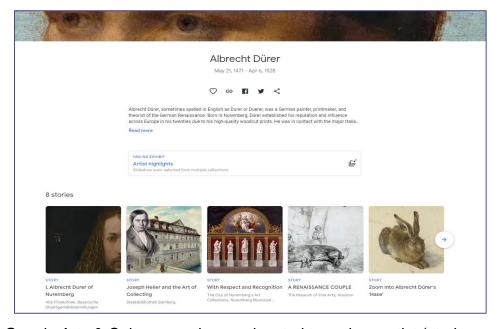


Figure 6.40. Google Arts & Culture – webpage devoted to a given artist (stories connected with his artistic heritage)



You can arrange the works on the artist's page in Google Arts & Culture according to popularity (frequency of viewing by users), date of creation, and colour. The next thumbnails can be seen by clicking on the arrow on the border of the lane in which they are arranged.

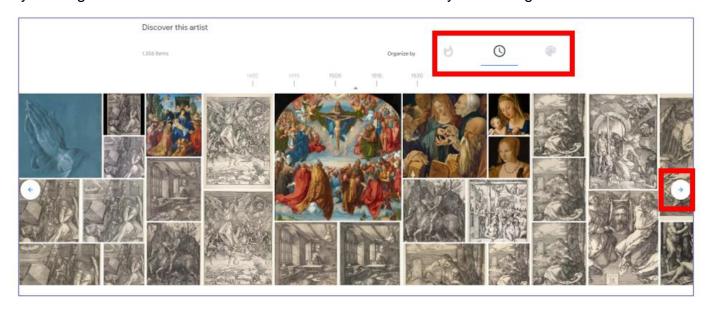


Figure 6.41. Google Arts & Culture – webpage devoted to a given artist (artworks)

After clicking on the thumbnail, you can see an information note and a set of icons to share or enlarge the picture. In the case presented below, it is also possible to download the image (it is allowed because the work belongs to the public domain).



Figure 6.42. Google Arts & Culture – an art piece (information note)



Figure 6.43. Google Arts & Culture – an art piece (zoom-in)



The "Art Movements" category in the main menu – you can choose the art movement that interests you to learn about the artists who created their works according to the guidelines of this movement and explore the art pieces created in this movement.

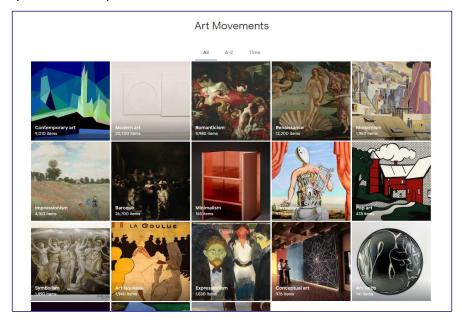


Figure 6.44. Google Arts & Culture – the "Art Movements" tab

When you choose the movement, you can take virtual tours and read stories (articles) connected with it.

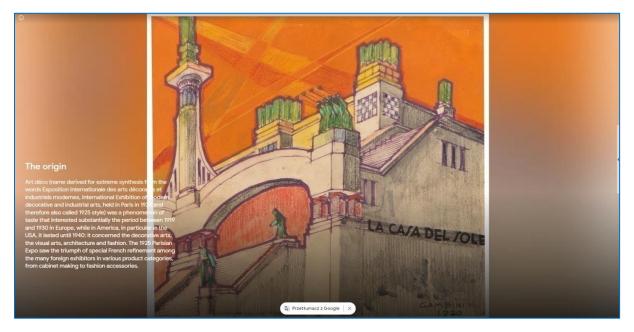


Figure 6.45. Google Arts & Culture – a story about an art movement



The "Historical events" and "Historical figures" categories in the main menu – these categories include collections connected with the history (wars, leaders, politicians).

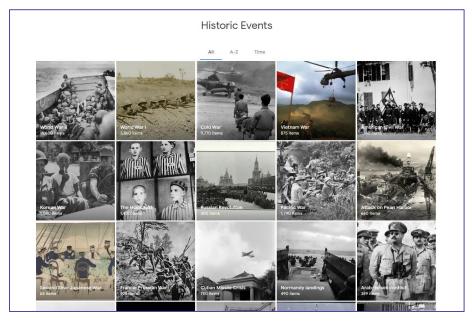


Figure 6.46. Google Arts & Culture – The "Historic Events" tab

The "Places" category in the main menu – in this tab you can explore cities, regions, countries, or lands in the world through thematic collections, virtual exhibitions, artworks, architectural works, or folk art.



Figure 6.47. Arts & Culture - the "Places" tab

information contained therein



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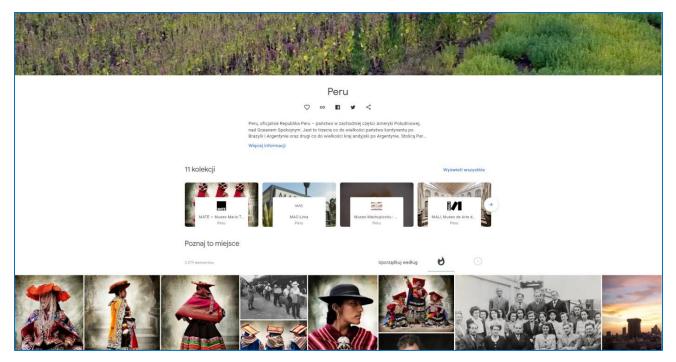


Figure 6.48. Google Arts & Culture – a webpage of a place

The **Google Arts & Culture** application popularises the cultural heritage of mankind and offers great opportunities for use at all levels of education. It can develop a passion for learning about art history, as well as in history, geography, painting, photography and architecture in pupils, students, and adults. It can be successfully used in art, music, history, and English lessons. Thanks to the wide range of educational games, Google Arts & Culture can be used in the early stages of education and introduce children to the world of art through online games. Virtual tours to distant places can enrich classes conducted not only in schools and universities but also in community centres.

Other Google projects

The well-known and long-existing Google apps are Google Books and Google Play. However, they cannot be considered open educational resources. In these apps, you can find pieces that are protected by intellectual property rights. There are fragments of books (chapters) available free of charge, but to access full texts you need to pay the fee.



Google Books

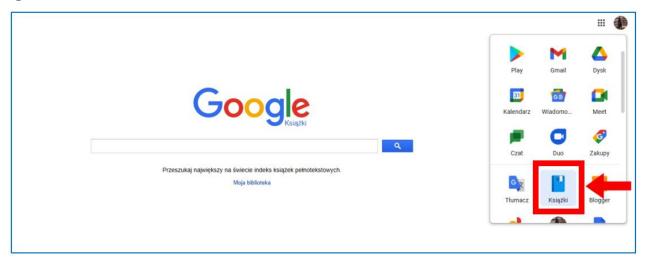


Figure 6.49. Google apps – the "Books" app

When you open the "Books" app, you can enter the searched title, author, or quotation from the content of the book. The results show books in which the searched term appears (both as the author, as the title and in the content of the book).

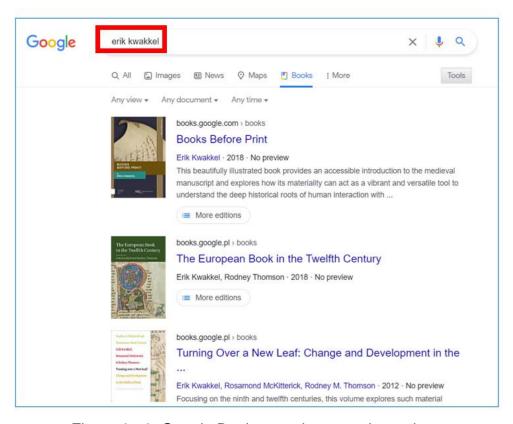


Figure 6.50. Google Books – author search results



When you choose a book, you can see its description and other editions. On the left, you can also see the availability of the book in the e-book and a paper version.

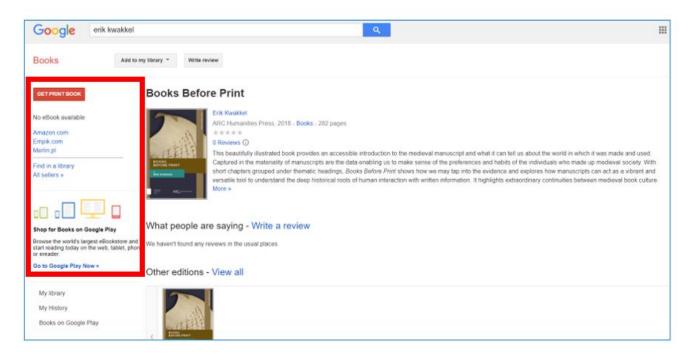


Figure 6.51. Google Books – availability of the book

In the open access, there is a fragment of the book available.

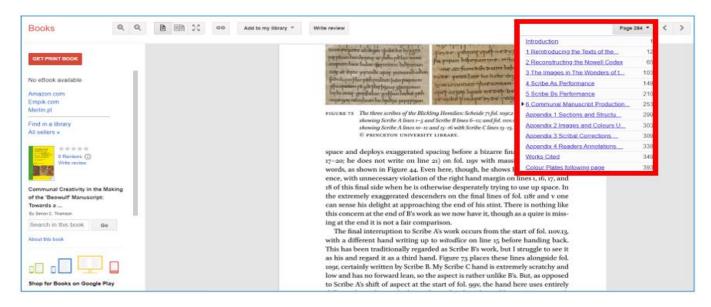


Figure 6.52. Google Books – an available fragment of the book



If the e-book is available, on the left there is an option to buy it.

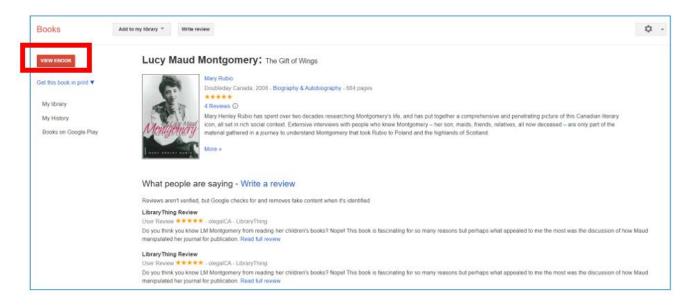


Figure 6.53. Google Books - the "View ebook" option

When you choose the "View e-book" option, you can read the fragment of the book or purchase the e-book.

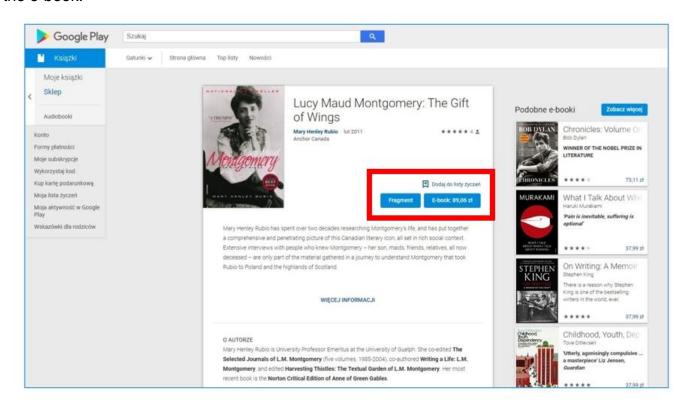


Figure 6.54. Google Books – ebook purchase



Google Play

The Google Play app is a library of audio and video resources – music pieces and movies.

However, the access to them is paid for (the prices are listed under the thumbnails).

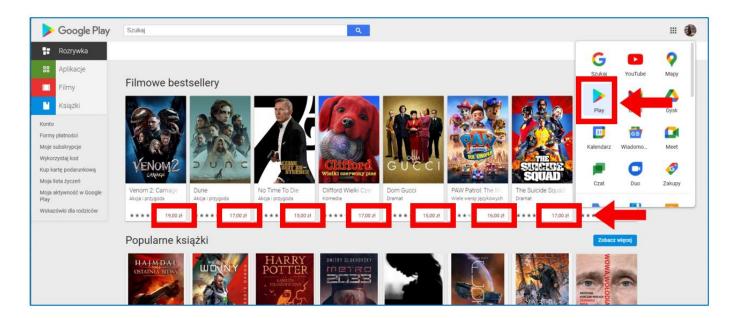


Figure 6.55. Google Play – paid access to the resources

4.8. Didactic materials - 7

Internet Archive (https://archive.org/) – a non-profit organisation based in San Francisco, founded on the initiative of Brewster Kahle in 1996. Its main goal is maintaining a digital library of websites, as well as collecting, preservation and sharing texts of culture in digital version. Internet Archive provides free access to them to the general public, i.e. all people who want to acquire and deepen their knowledge, especially researchers, historians and scientists. The website is compared to the Library of Alexandria, and its mission is to ensure general access to all knowledge of mankind. Its resources consist of archival versions of generally accessible websites, old software versions, books, films, sound recordings, and recordings of television programs, collected at about two-month intervals. Currently includes:

- 625 billion websites,
- 38 million books and other texts,
- 14 million audio recordings (including 240 000 live concerts),
- 7 million videos (including 2 million television programs),
- 4 million images
- 790 000 computer software programs.

The collection of Internet Archive library takes over 99 petabytes of server space. Most of the collected items are either in the public domain or are covered by Creative Commons licenses.⁴⁰



Figure 7.1. Internet Archive – digital archive and library

⁴⁰ About the Internet Archive, https://archive.org/about/ [online, dostęp 20.02.2022].



Creating an account and logging in

Creating an account is free of charge. It is required to provide an e-mail address, choose a unique username, and enter the password. You can log in with a Google account. The account can be deleted.

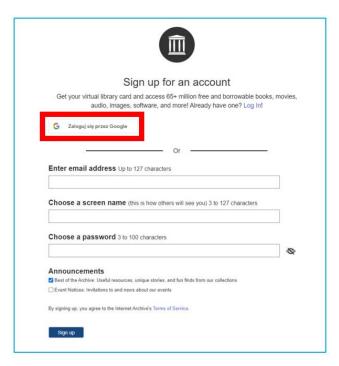


Figure 7.2. Internet Archive – signing up

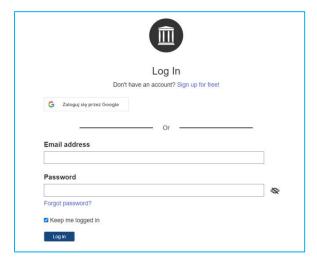


Figure 7.3. Internet Archive – logging in

Internet Archive collaborates with institutional partners all over the world to create resources. Also, each registered user can upload multimedia to the archive. By uploading files, you can create your own library that will be available from your profile.



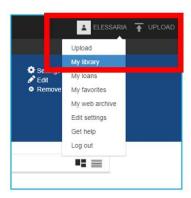




Figure 7.4. Wayback Machine – uploading files to your own library

Internet Archive – home page (Figure 7.5)

- 1. Top menu with categories: web, books, video, audio, software, images
- 2. The user's profile (available when you are logged in)
- Menu with tabs: about, blog, projects, help, donate (the website is founded by donators), contact, jobs, volunteer, people
- 4. Wayback Machine
- 5. Selected collections

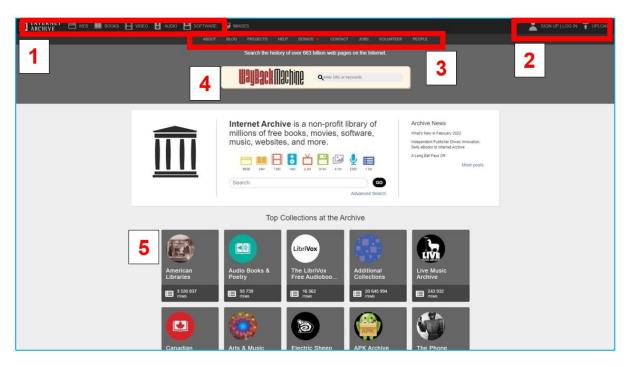


Figure 7.5. Internet Archive – home page



The "Web" category



Figure 7.6. Internet Archive -the "Web" tab

When you click on the top menu, the screen with collections expands.

Wayback Machine

In the first years of operation of the Internet Archive, the contents of the Internet – a new, developing medium – were archived. Similarly, to newspaper content, online resources were ephemeral. However, unlike in the case of newspapers, no care was taken to preserve it for future generations. The Wayback Machine was formally created in October 2001 by Brewster Kahle and Bruce Gilliat. Nowadays, the digital archive contains 625 billion archived websites. It was created to prevent the irretrievable loss of content stored on websites when they are edited or closed. The Wayback Machine identifies and stores important web pages using Archive-It software which has been adapted to index and retrieve all publicly accessible websites by "crawlers" – web robots.

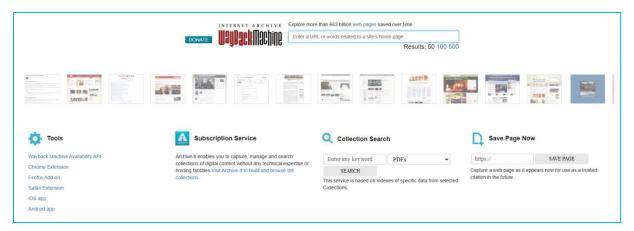


Figure 7.7. Internet Archive – Wayback Machine

information contained therein



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To explore the past appearance and contents of the website you need to (Figure 7.8):

- 1. enter the link to the website into the search bar,
- 2. choose the year in the timeline,
- 3. choose the day on which the website was archived in the calendar (encircled date),
- 4. click on the hyperlink with the hour when the website was archived.

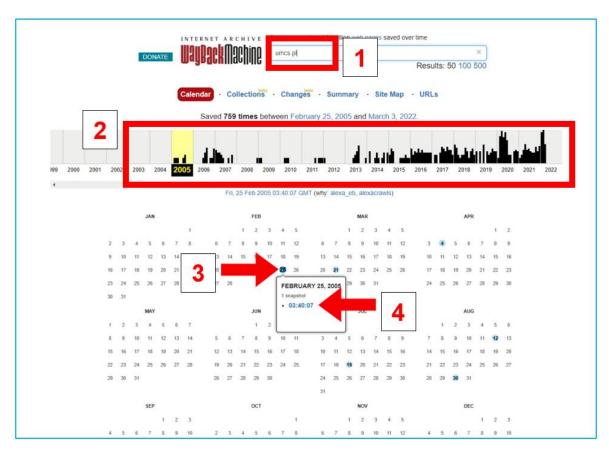


Figure 7.8. Wayback Machine – looking for a website

As a result of the search, the website will appear. Subpages are available depending on the degree of archiving of a given site.



Figure 7.9. Wayback Machine – the archived website

Nowadays websites are archived more frequently. Multiple savings of a page during the day can be recognized by a larger circle of blue or green colour (green means a shorter time interval between saving the page in the archive – up to about 20 minutes).

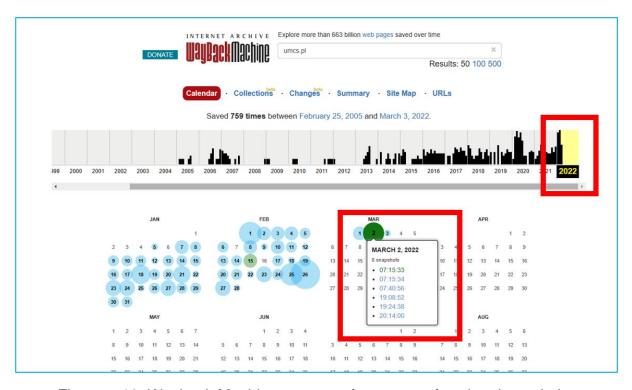


Figure 7.10. Wayback Machine – current frequency of saving the website

information contained therein



be held responsible for any use which may be made of the

The "Books" category



Figure 7.11. Internet Archive – "Books" category

Internet Archive claims itself to be a library. The website declares paying special attention to books. Universal access to valuable content contained in digital versions of books is intended to eliminate the inability to use public or academic libraries. Launched in 2005, the digitization program today scans 4,000 books a day at 18 locations around the world.

Books to Borrow

Each collection in the Internet Archive has the following structure (Figure 7.12):

- 1. tabs: "About" and "Collection",
- 2. the number of items,
- 3. search bar,
- 4. filters to limit the number of search results.
- 5. sort by views, title, date published, creator,
- 6. the layout grid or list.

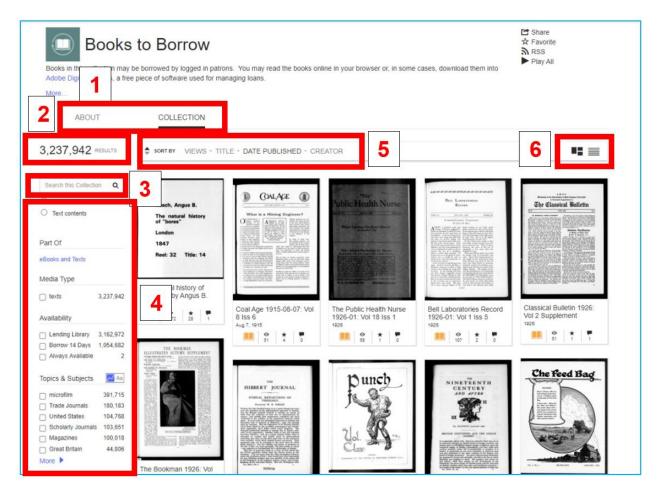


Figure 7.12. Internet Archive – Books to Borrow

When you are registered, you can borrow the electronic version of books (there are over 2 million titles) for a specified period of time. Some items have limited access until borrowed. When you open such an item, a blue button appears with a message encouraging you to borrow. The process is based on a controlled digital lending model, where the available electronic copy corresponds to the available paper version of the book. After you have borrowed the book, you will see information at the top of the page about the date of returning the book.

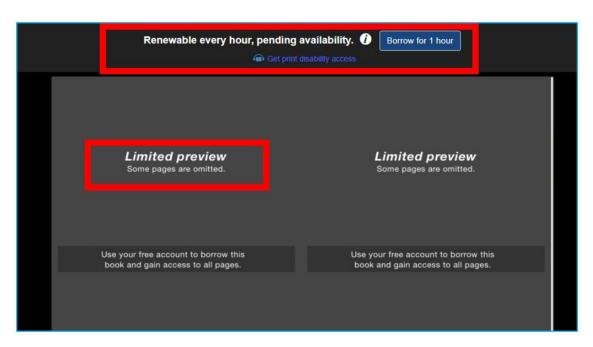


Figure 7.13. Internet Archive – Books to Borrow, borrowing books



Figure 7.14. Internet Archive – Books to Borrow, the borrowed book

Open Library (Figure 7.15)

- 1. In the Open Library, you can find books sorted into collections.
- 2. The arrows allow you to browse through collections.
- Depending on the copyright status, you can read (also download) or borrow books. If the
 property rights of a book have expired or a book has been in the public domain since its
 publishing you can read and download them.
- 4. Contemporary books can be only borrowed due to the property rights.

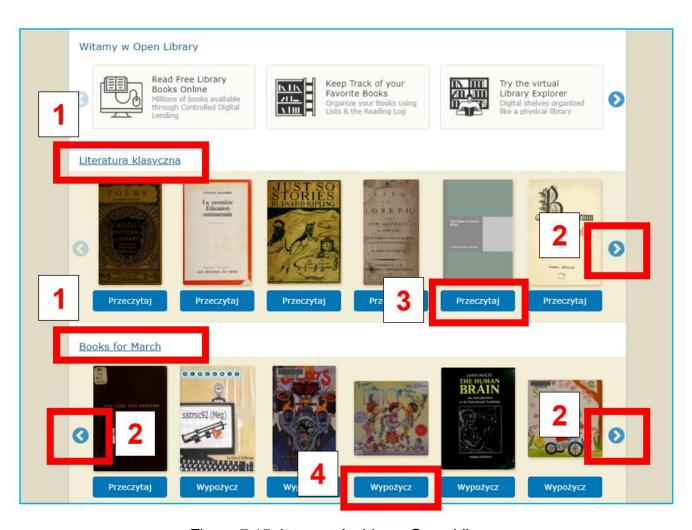


Figure 7.15. Internet Archive – Open Library

You can read the book on the black, contrasting screen (Figure 7.16).

- 1. If the book is borrowed, you can see the date of return at the top.
- 2. In the bottom right corner of the screen, there is a menu typical for digital libraries. It enables you to go to the next page or return to the previous page, select the page display layout, zoom in, zoom out, and set the full-screen mode. An innovative solution is a possibility of listening to a book, which makes it an audiobook. At the same time, it is convenient for visually impaired persons. The text you are reading is highlighted in purple, and a menu for sound management appears below the pages go back, pause, move forward (Figure 7.17).
- 3. At the bottom of the booking screen, there is a reading progress bar (Figure 7.16).



Figure 7.16. Open Library – the view of the book

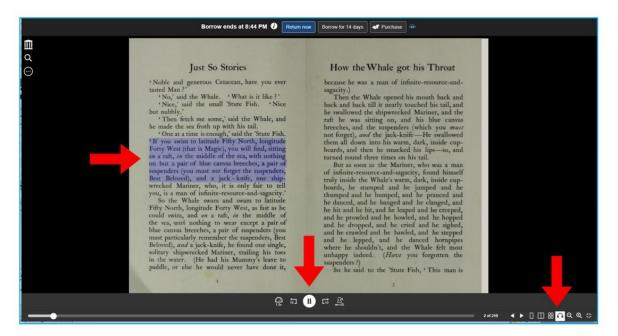


Figure 7.17. Open Library – listening to a book (audiobook)

In the top left corner of the screen with the opened book, under the Internet Archive logo, there is a menu for working with the document, which expands after clicking on the three dots.

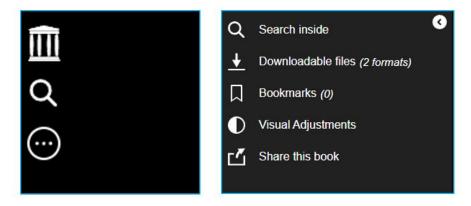


Figure 7.18. Open Library – working with the document options

The magnifying glass button enables text searches of the book. The search term or phrase is highlighted in purple in the search results (on the left) and in the document. Clicking on it in the search results takes you to the page where the searched term occurs.

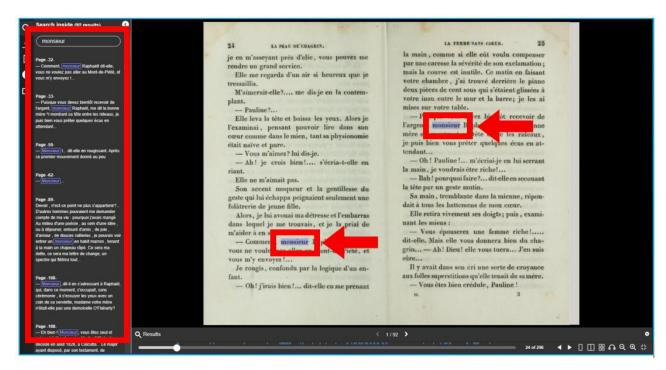


Figure 7.19. Open Library – text search

The down arrow button allows you to download the book if copyright permits. You can choose PDF or ePub format.

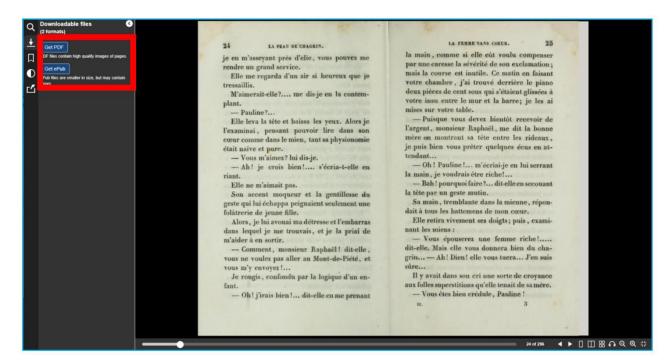


Figure 7.20. Open Library – downloading a book



The bookmark button allows you to add bookmarks, i.e. mark pages of a book or pages that are important to you, and which you want to return to. You can choose between bookmarks in three colours: red, blue, and green. The added bookmark is visible in the upper right corner of the page. You can go to a bookmarked place in your document by clicking on the bookmark in the panel on the left.

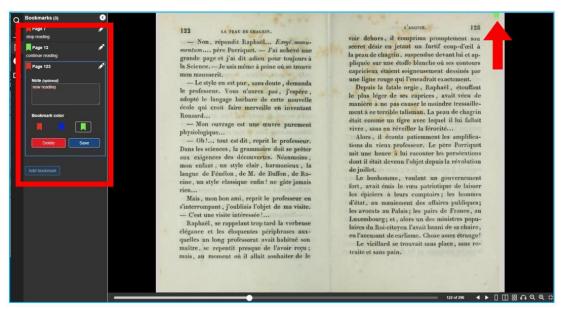


Figure 7.21. Open Library – bookmarks

With the help of the half-painted button, you can change the contrast and brightness settings of the displayed document.

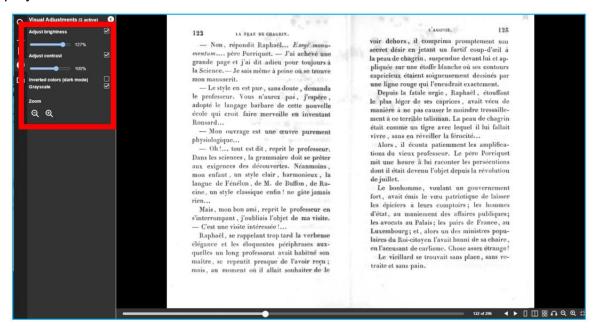


Figure 7.22. Open Library – changing the contrast and brightness



The square button with an arrow pointing to its top right corner makes it possible to share the book on social media. You can share the link on Tumblr, Facebook, and Pinterest, as well as email or copy it.

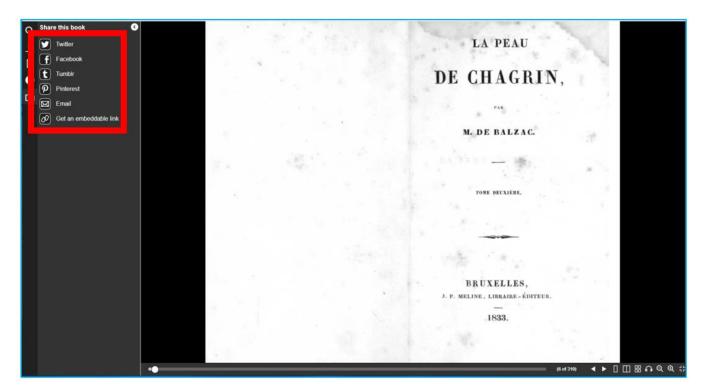


Figure 7.23. Open Library – sharing in the social media

In the Open Library, you can search for books using the search bar in the top right corner. As you enter the title or author, the drop-down list with specific items appears. Clicking on the selected one opens the window with the description of the book.

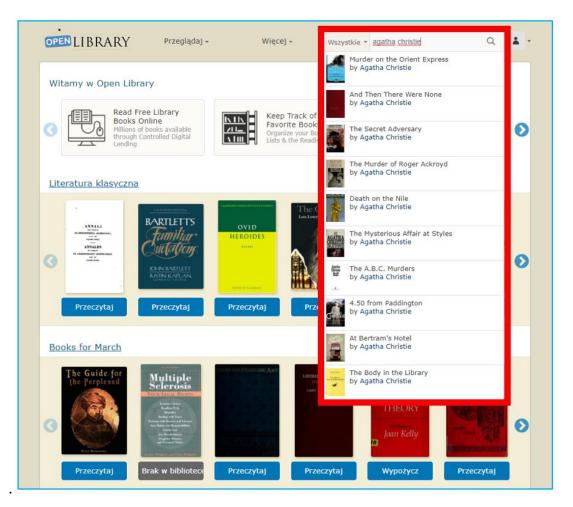


Figure 7.24. Open Library – searching for books

On the screen that appears when you click on the selected book, there are the following elements (Figure 7.25):

- 1. star ratings and reviews from other readers, information about the popularity of the book (how many people read the book, how many want to read it),
- 2. a tag cloud defining the subject of the book,
- buttons to start reading (blue "Read") or add a book to reading wishes (green "Want to Read"),

- 4. stars and a button to rate the book and write a review,
- 5. download options,
- 6. other available editions of the book.



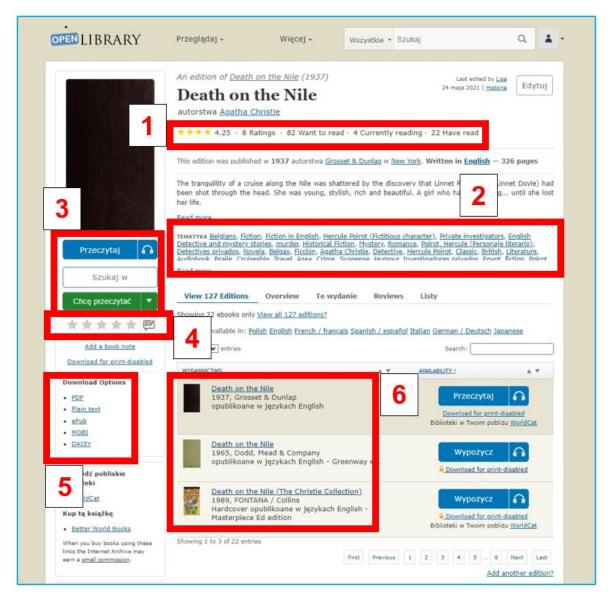


Figure 7.25. Open Library – the searched book information

Private library

When you click on the small avatar in the top right corner, you can open your profile menu and enter your virtual library, to which you added the books you read, borrow, and want to read.

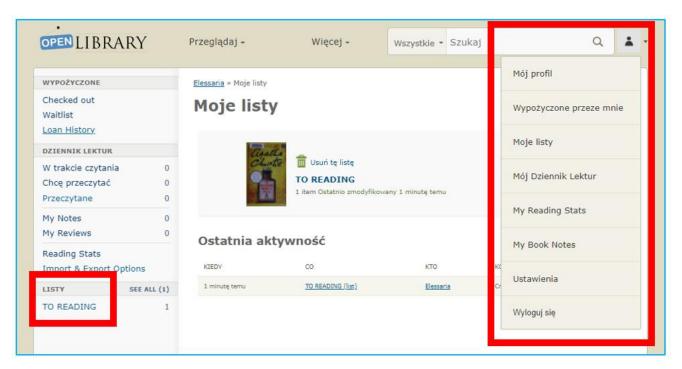


Figure 7.26. Open Library – private library in the reader's profile

The "Video" category

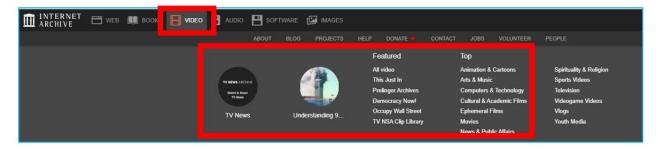


Figure 7.27. Internet Archive – "Video" category

The collection mostly includes productions based on free licenses and film materials to which the copyrights have expired, and which are gradually digitized and added to the collection, e.g., animated films, propaganda films, and collections of election programs.

As television broadcasts are also considered non-persistent, since 2009, the Internet Archive has retained and made available selected US television programs. This service enables researchers and the public to use television as a source of the citation. The first project was to archive TV news from the events of September 11, 2001.



When you choose the "Video" tab, you can read its description ("About"), browse through the collections ("Collections"), join a discussion, or create a new thread about available materials ("Forum") – Figure 7.28.

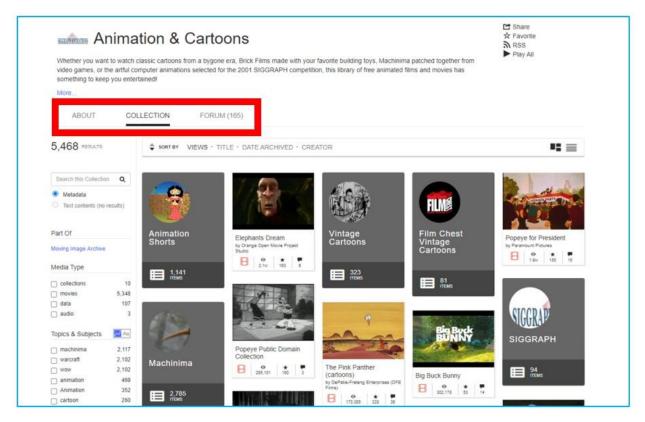


Figure 7.28. Internet Archive – animated movies

When you click on the program that you want to watch, the player screen with the navigation bar appears (stop, go back, fast forward, quality settings, full screen). Under the player screen, you can read the description of the material, add it to your favourites (star button), share it on social media, download a link or embed it on a website ("Share" button), flag it – that is, mark it as a source of violence or disinformation ("Flag" button).



Figure 7.29. Internet Archive – video material

Under the player, you can find the following elements (Figure 7.30):

- 1. the description,
- 2. adding the video to your favourites (star button), sharing it on social media, downloading a link or embedding it on a website ("Share" button), flagging that is, marking the material as spreading violence or disinformation ("Flag" button),
- statistics showing popularity on the website: number of views, number of additions to favourites, number of reviews,
- 4. the review,
- 5. download options,
- 6. names of collections, to which it is added,
- 7. information about the user, who uploaded the given video.

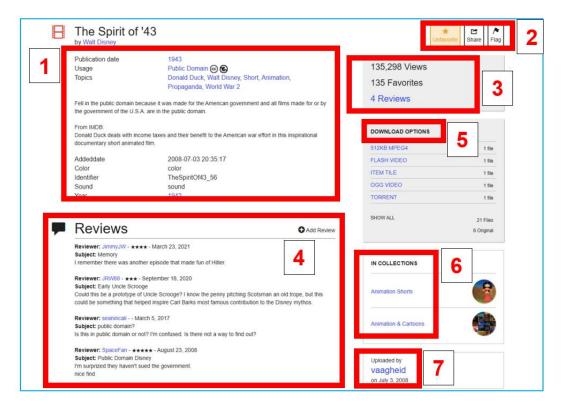


Figure 7.30. Internet Archive – information about the video file

The "Audio" category"



Figure 7.31. Internet Archive – "Audio" category

Audio files are the work of independent artists and artists who publish their pieces under licenses that allow free copying under certain conditions.

When you choose the "Audio" category, you can open the selected category and read its description ("About"), view it ("Collection"), join a discussion, or create a new thread about available materials ("Forum").



The resources can be used during the classes on music, music history, composition studies, mass media history – radio, and recording companies. They can also enrich lectures and talks about music in community centres and other institutions that promote culture. In the Internet Archive, there is a database of live concert recordings ("Live Archive Music"), studio recordings ("All audio"), radio programs ("Old Time Radio") and many more. It is also worth exploring the audiobook collection – "The LibriVox" – Figure 7.32.



Figure 7.32. Internet Archive – audiobook collection

You can listen to audiobook online. You can use the menu to move to the next chapters of the listened book (Figure 7.33). You can also download the audiobook and listen to it offline (Figure 7.34).

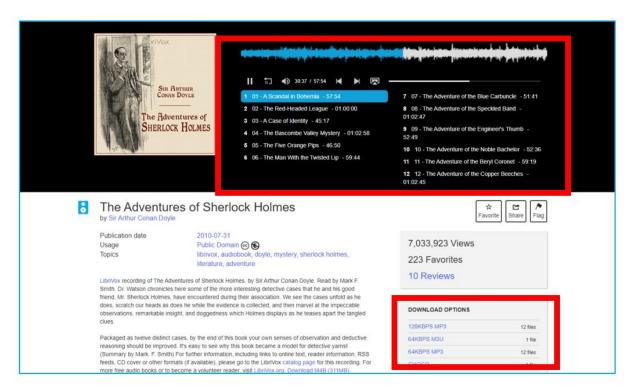


Figure 7.33. Internet Archive – listening to an audiobook



Figure 7.34. Internet Archive – downloading an audiobook

When you choose the audio collection, you can (Figure 7.35):

- 1. search it by entering the name of the band or artist, and the album or song title
- filter the search results or
- choose the particular search result by clicking the thumbnail with the cover or the sound wave.

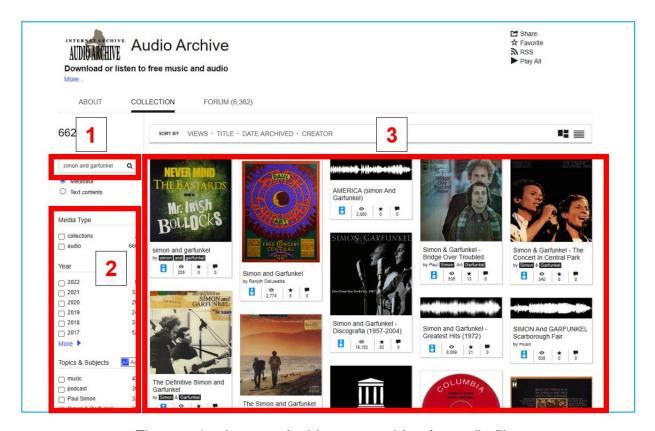


Figure 7.35. Internet Archive – searching for audio files

When you find the song (or album) you can (Figure 7.36):

- 1. listen to it using the file navigation menu
- read the detailed information about the album (or a single track) under the player: title, release year, format, genre, tracklist
- share the audio file with other users
- download the audio file in the format of your choice. You can also download the album cover and the lyrics.



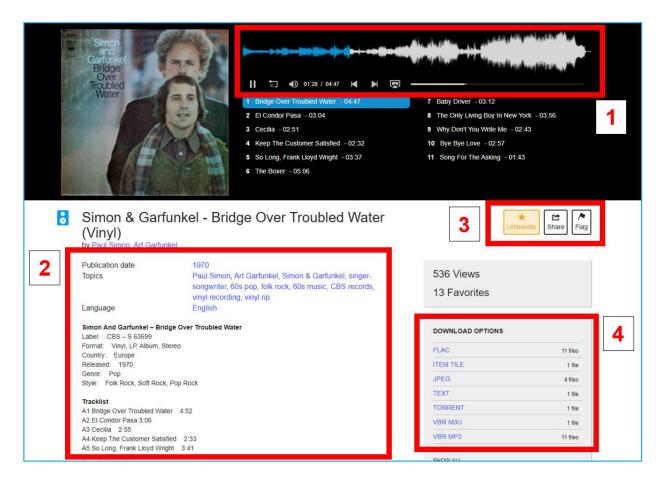


Figure 7.36. Internet Archive – listening to an audio file

If you can listen to only several seconds of song samples in the Internet Archive (Figure 7.37), you will be redirected to Spotify where you can listen to the whole piece (Figure 7.38).

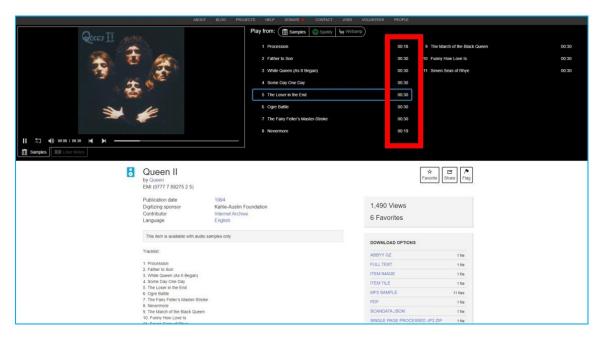


Figure 7.37. Internet Archive – listening to song samples

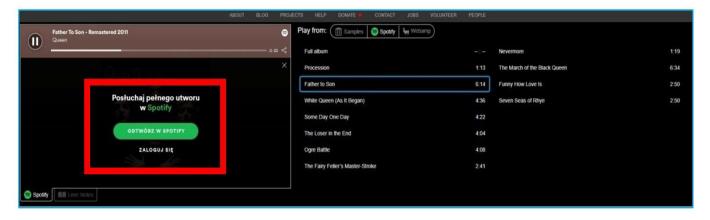


Figure 7.38. Internet Archive – listening to a song on Spotify

The "Software" category

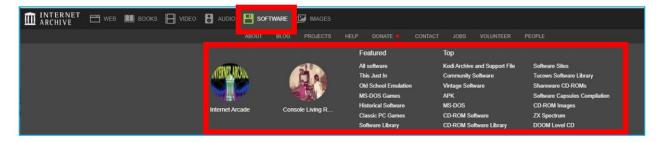


Figure 7.39. Internet Archive – "Software" category

In the Internet Archive, you can find installation files for old computer programs that are no longer in use. The collection is an excellent material for tracing the history of a given program's development, its functions and interface changes. It can be used in computer science lessons and classes connected with the history of the IT industry.

When you enter the "Software" tab, you can choose the category and read about it ("About"), browse through its contents ("Collection"), as well as join a discussion or create a new thread about available materials ("Forum"). You can explore the materials, sort them, and use filters (Figure 7.40).

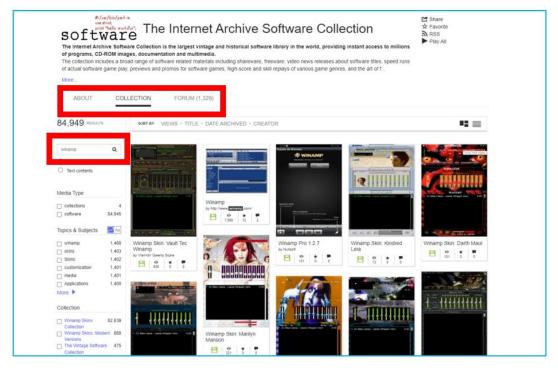


Figure 7.40. Internet Archive – collection with computer programmes



In the "Software" category you can find (Figure 7.41):

- 1. detailed description of files
- 2. sharing options
- 3. statistics, download options, and details of the user who uploaded the item.

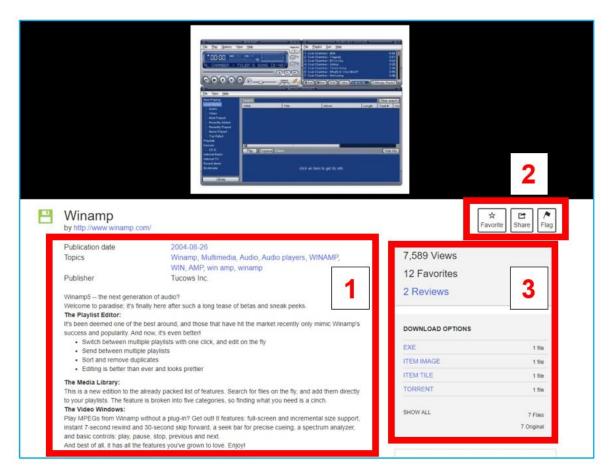


Figure 7.41. Internet Archive – computer programme

The "Images" category"

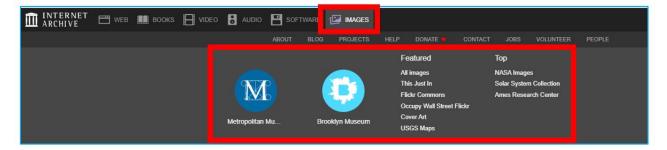


Figure 7.42. Internet Archive – "Images" category

When you enter the "Images" tab, you can read its description ("About"), browse through its contents ("Collection"), and search for collections (Figure 7.43).

The collections of the Metropolitan Museum of Art (the biggest US Museum located in New York) and Brooklyn Museum have been highlighted.

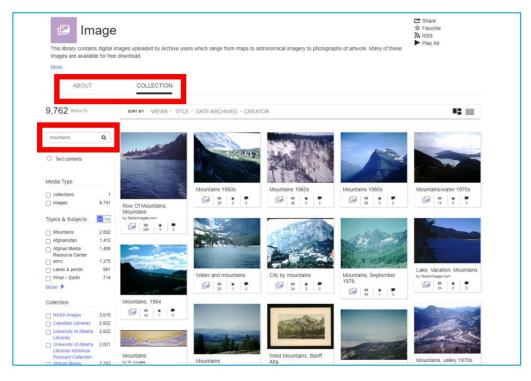


Figure 7.43. Internet Archive – searching for images in collections

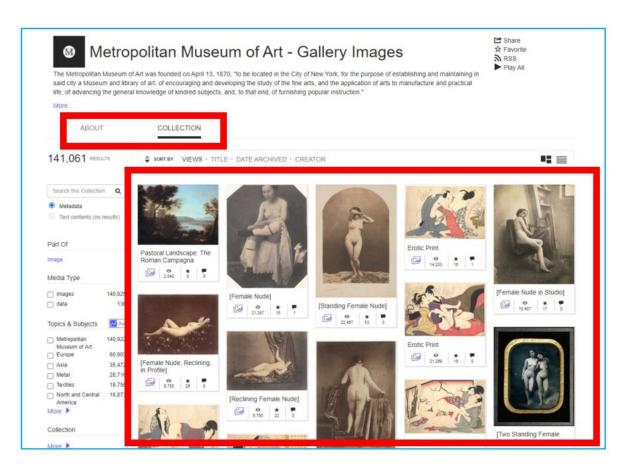


Figure 7.44. Internet Archive – browsing through the collection

When you click on the selected image, you can read its description (creator, title, year of creation, dimensions, provenance), statistical data on popularity among website users, and information on download options (Figure 7.45). You can zoom in on the image to see its details, painting technique, etc. (Figure 7.46).

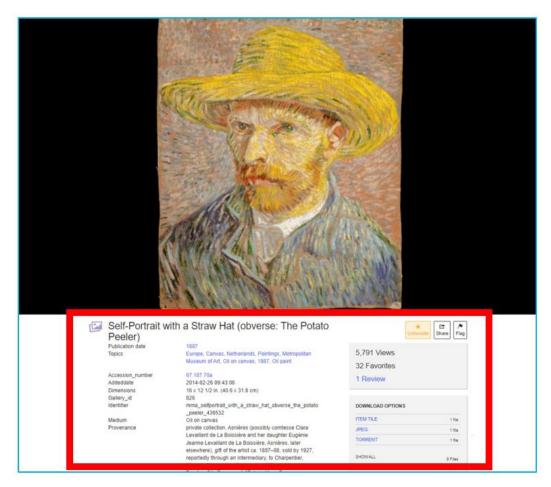


Figure 7.45. Internet Archive – the view of the opened painting

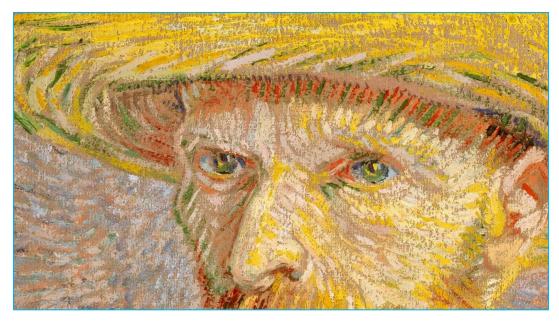


Figure 7.46. Internet Archive – zoom-in



It is worth mentioning the Flickr Commons collection, which contains the collections of public art galleries, museums, libraries, and archives exhibited by these institutions on Flickr. When you select Flickr Commons and then choose a given institution, you can explore its resources that are archived in the Internet Archive.

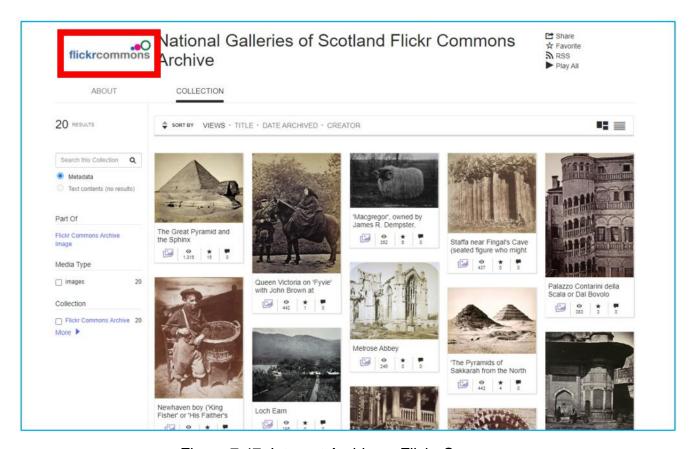


Figure 7.47. Internet Archive – Flickr Commons

"My favorites" - your private collection

When you are logged in, you can add items to "My favorites". In this tab, you can collect the items of your choice to have quick access to them.



Figure 7.48. Internet Archive – entering "My favorities" tab

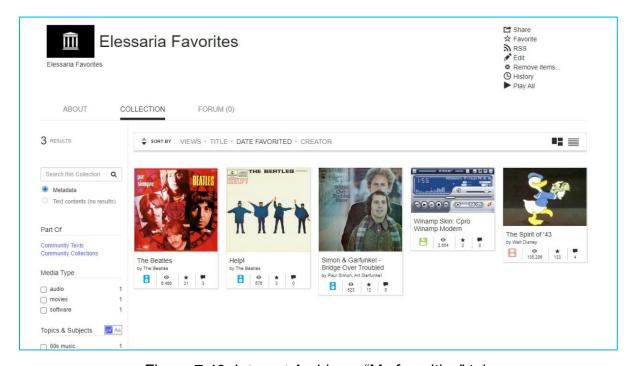


Figure 7.49. Internet Archive – "My favorities" tab

Blog



Figure 7.50. Internet Archive – Blogs

On the blog, there is information on ongoing projects and important announcements published. You can view recently added, recently commented, and categorized entries. You can share the blog on Facebook and Twitter (Figure 7.50).

On the blog, there is also a search bar that allows you to find articles/entries on a particular subject (Figure 7.51).

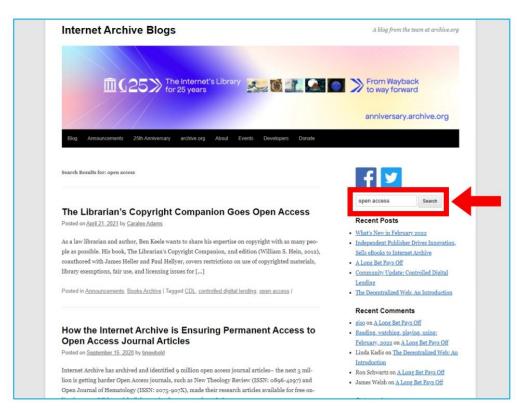


Figure 7.51. Internet Archive – search bar on the blog

4.9. Didactic materials - 8

Project Gutenberg (https://www.gutenberg.org/) – the most famous and largest private digitization project run by Michael Hart (Project Gutenberg Literary Archive Foundation since 2000), the oldest digital library of materials in the public domain. Copyrighted texts are uploaded with the permission of the copyright holders (Project Gutenberg's servers are located in the United States, therefore US copyright law applies).

The origins of the project date back to 1971, when Michael Hart, a student at the University of Illinois, entered the US Declaration of Independence into the school computer system on July 4th for the purpose of free distribution of this document. Then he uploaded the Bible and the works of William Shakespeare.⁴¹

The mission of Project Gutenberg is to encourage people to create and distribute e-books. The library resources are the result of the work of volunteers who convert paper versions to electronic ones. It is also a response to an appeal addressed to authors who can share their works in any format. These are later converted into e-book formats adopted in the Project.⁴² Currently, over 60,000 books of all existing genres, in dozens of languages are available⁴³.

⁴³ E-booki. Projekt Gutenberg, "Otwarte zasoby", https://otwartezasoby.pl/e-booki-projekt-gutenberg/ [online, accessed 20.02.2022].



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⁴¹ Hosch W. L., *Project Gutenberg*, "Britannica", https://www.britannica.com/topic/Project-Gutenberg [online, accesed 20.02.2022].

⁴² Hart M., *The Project Gutenberg Mission Statement*, 20.06.2004,25.12.2007, https://www.gutenberg.org/about/background/mission_statement.html [online, accessed 20.02.2022].

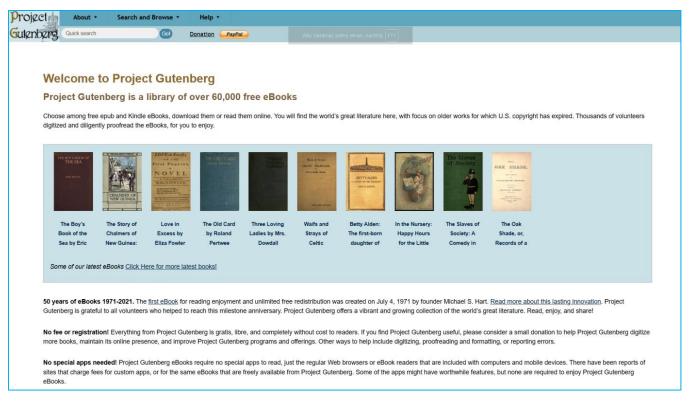


Figure 8.1. Project Gutenberg – home page

The home page of the project with rich content visually appears archaic. The top menu contains information about the project ("About"), search and browsing options ("Search and Browse") and help in using the website ("Help").

You do not have to register to access the contents of the website (there is no option to create an account).

Project Gutenberg offers several options for reaching a specific title or reading without clearly defined reader preferences.

Two search options are available, i.e., "Quick Search" (simple search) and "Advanced Search". In the "Advanced Search" you can provide the author, title, and topic or select the language, category (text, image, audiobook, movie), field, and file format from the drop-down list (Figure 8.2, Figure 8.3).

You can also use different options for viewing the content in the "Browsing Options" section – alphabetically by author, by title, the language of the book, and special categories, e.g., audiobooks generated by speech synthesizers, or recorded by teachers. You can also browse books recently uploaded on the website (Figure 8.3).



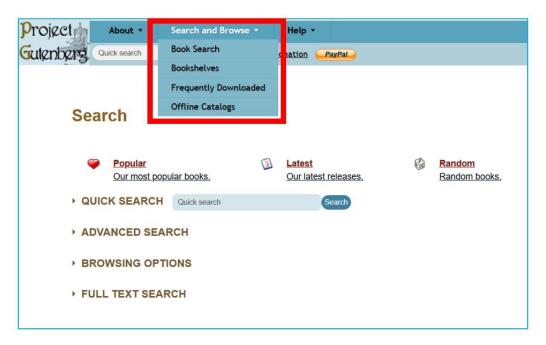


Figure 8.2. Project Gutenberg – Search and Browse tab

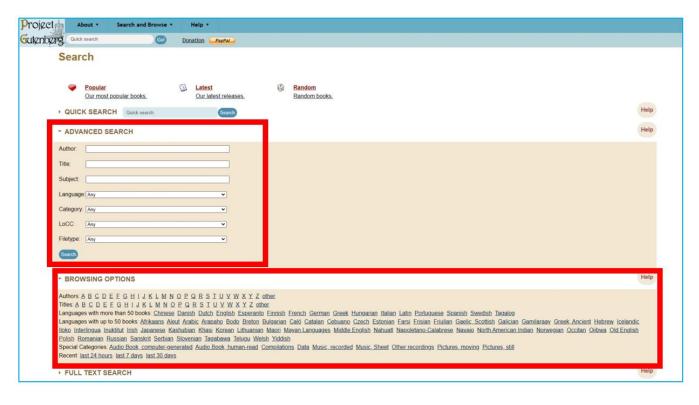


Figure 8.3. Project Gutenberg – advanced search and browsing

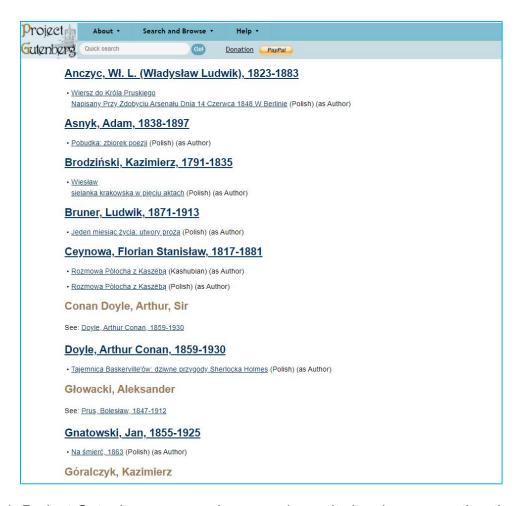


Figure 8.4. Project Gutenberg – exemplary search results in a language other than English (in this case – Polish)

The "Bookshelves" tab from the "Search and Browse" category allows you to view general ("bookshelves" – Figure 8.5) and more detailed categories (Figure 8.6) arranged thematically.

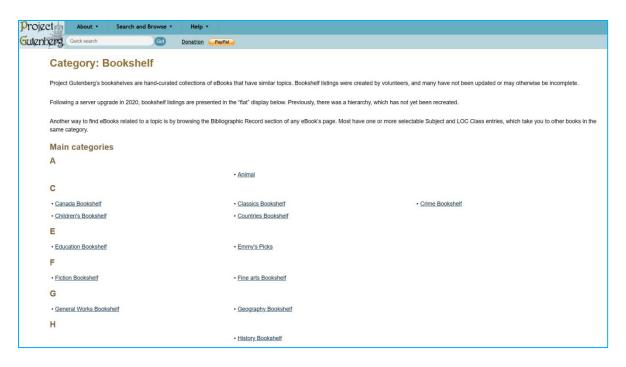


Figure 8.5. Project Gutenberg – "Bookshelves" tab (general categories)

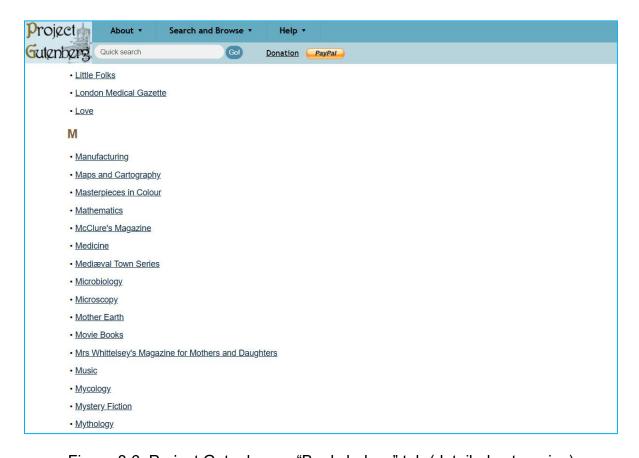


Figure 8.6. Project Gutenberg – "Bookshelves" tab (detailed categories)



The "Frequently Viewed or Downloaded" tab allows you to browse through the most popular books.

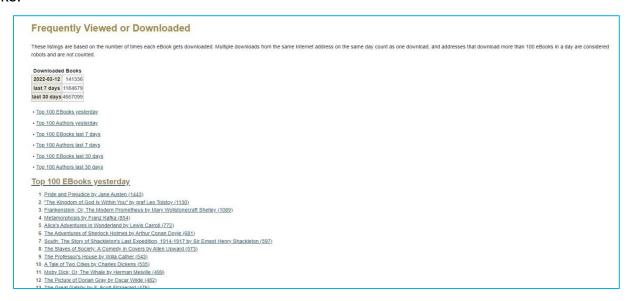


Figure 8.7. Project Gutenberg – "Frequently Viewed or Downloaded" tab

The search results contain a list of editions of the book or works of the searched author, with information about the language of the publication. You can also search by the subject of the work, alphabetical order, or date of entry into the public domain (Figure 8.8, Figure 8.9).

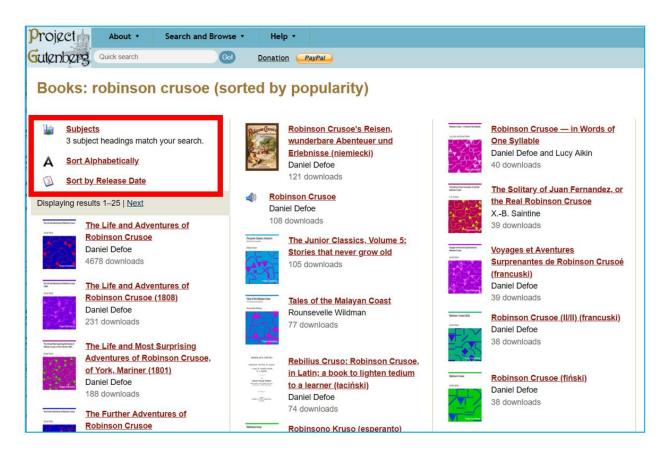


Figure 8.8. Project Gutenberg – search results – search by the elements of the title

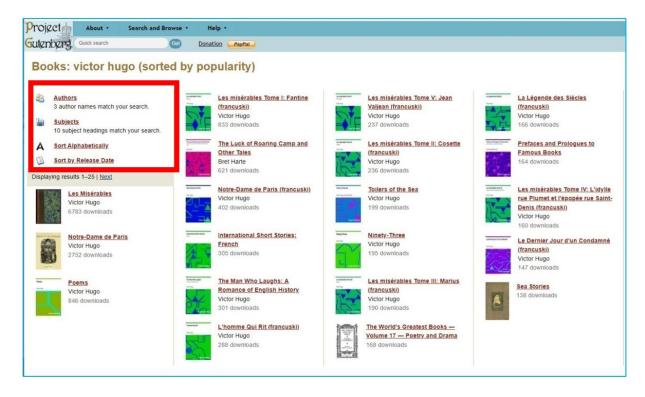


Figure 8.9. Project Gutenberg – search results – search by the author's name



When you choose a book to read you can see (Figure 8.10):

- available formats, including HTML, EPUB, MOBI, Kindle, and Plain Text UTF-8; you can download the file in a given format by clicking its name
- 2. the size of the file in each format
- 3. the possibility to save the file in Dropbox, Google, or OneDrive
- 4. Bibliographic Record the description of the book
- 5. sharing on Twitter and Facebook, as well as a printing option
- 6. QR code that leads to the website.

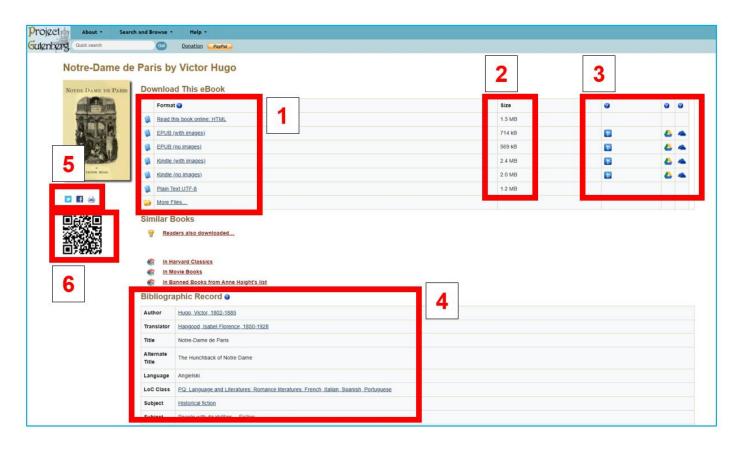


Figure 8.10. Project Gutenberg – information about a book

If you read the book online, in the HTML format, it includes an interactive table of contents (Figure 8.11), the contents of the book (Figure 8.12), and interactive footnotes (Figure 8.13 and Figure 8.14).



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CHAPTER I. AN IMPARTIAL GLANCE AT THE ANCIENT MAGISTRACY.
 CHAPTER II. THE RAT-HOLE
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Figure 8.11. Project Gutenberg – interactive table of contents

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CHAPTER V.
                                                                                                                                              QUASIMODO.
In the twinkling of an eye, all was ready to execute Coppenole's idea. Bourgeois, scholars and law clerks all set to work. The little chapel situated opposite the marble table was selected for the scene of the grinning match. A pane broken in the pretty rose window above the door, left free a circle of stone through which it was agreed that the competitors should thrust their heads. In order to reach it, it was only necessary to mount upon a couple of hogsheads, which had been produced from I know not where, and perched one upon the other, after a fashion. It was settled that each candidate, man or woman (for it was possible to choose a female pope), should, for the sake of leaving the impression of his grimace fresh and complete, cover his face and remain concealed in the chapel until the moment of his appearance. In less than an instant, the chapel was crowded with competitors, upon whom
Coppenole, from his post, ordered all, directed all, arranged all. During the uproar, the cardinal, no less abashed than Gringoire, had retired with all his suite, under the pretext of business and vespers, without the crowd which his arrival had so deeply stirred being in the least moved by his departure. Guillaume Rym was the only one who noticed his eminence's discomfiture. The attention of the populace, like the sun, pursued its revolution; having set out from one end of the hall, and halted for a space in the middle, it had now reached the other end. The marble table, the brocaded gallery had each
had their day; it was now the turn of the chapel of Louis XI. Henceforth, the field was open to all folly. There was no one there now, but the Flemings and the rabble.
      The grimaces began. The first face which appeared at the aperture, with eyelids turned up to the reds, a mouth open like a maw, and a brow wrinkled
like our hussar bosts of the Empire, evoked such an inextinguishable peal of laughter that Homer would have taken all these louts for gods. Nevertheless, the grand hall was anything but Olympus, and Gringoire's poor Jupiter knew it better than any one else. A second and third grimace followed, then another and another; and the laughter and transports of delight went on increasing. There was in this spectacle, a peculiar power of
intoxication and fascination, of which it would be difficult to convey to the reader of our day and our salons any idea.

Let the reader picture to himself a series of visages presenting successively all geometrical forms, from the triangle to the trapezium, from the cone
to the polyhedron; all human expressions, from wrath to levidness; all ages, from the wrinkles of the new-born babe to the wrinkles of the aged and dying; all religious phantasmagories, from Faun to Beelzebub; all animal profiles, from the maw to the beak, from the jowl to the muzzle. Let the reader imagine all these grotesque figures of the Pont Neuf, those nightmares petrified beneath the hand of Germain Pilon, assuming life and breath,
and coming in turn to stare you in the face with burning eyes; all the masks of the Camival of Venice passing in succession before your glass,—in a word, a human kaleidoscope.
  The orgy grew more and more Flemish. Teniers could have given but a very imperfect idea of it. Let the reader picture to himself in bacchanal form, Salvator Rosa's battle. There were no longer either scholars or ambassadors or bourgeois or men or women; there was no longer any Clopin
Trouillefou, nor Gilles Lecomu, nor Marie Quatrelivres, nor Robin Poussepain. All was universal license. The grand hall was no longer anything but a vast furnace of effrontry and joviality, where every mouth was a cry, every individual a posture; everything shouted and howled. The strange visages which came, in turn, to gnash their teeth in the rose window, were like so many brands cast into the brazier; and from the whole of this effervescing
crowd, there escaped, as from a furnace, a sharp, piercing, stinging noise, hissing like the wings of a gnat.
      "Ho hé! curse it!"
        "Just look at that face
       "It's not good for anything.
       "Guillemette Maugerepuis, just look at that bull's muzzle; it only lacks the horns. It can't be your husband."
       "Another!"
       "Belly of the pope! what sort of a grimace is that?"
       "Holà hé! that's cheating. One must show only one's face."
```

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It was no easy matter on that day, to force one's way into that grand hall, although it was then reputed to be the largest covered enclosure in the world (it is true that Sauval had not yet measured the grand hall of the Château of Montargis). The palace place, encumbered with people, offered to the curious gazers at the windows the aspect of a sea; into which five or six streets, like so many mouths of rivers, discharged every moment fresh floods of heads. The waves of this crowd, augmented incessantly, dashed against the a the houses which projected here and there, like so many promontories, into the irregular basin of the place. In the centre of the lofty Got ic[1] fa ade of the palace, the grand staircase, incessantly ascended and descended by a double current, which, after parting on the intermediate land flowed in broad waves along its lateral slopes,-the grand staircase, I say, trickled incessantly into the place, like a cascade into a lake. The cries, the laughter, the trampling of those thousands of feet, produced a great noise and a great clamor. From time to time, this noise and clamor redoubled; the current which drove the crowd towards the grand staircase flowed backwards, became troubled, formed whirlpools. This was produced by the buffet of an archer, or the horse of one of the provost's sergeants, which kicked to restore order; an admirable tradition which the provostship has bequeathed to the constablery, the constablery to the maréchaussée, the maréchaussée to our gendarmeri of Paris.

Figure 8.13. Project Gutenberg – interactive footnotes

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The word Gothic, in the sense in which it is generally employed, is wholly unsuitable, but wholly consecrated. Hence we accept it and we adopt it, like
all the rest of the world, to characterize the architecture of the second half of the Middle Ages, where the ogive is the principle which succeeds the
architecture of the first period, of which the semi-circle is the father.
  2 (return)
Faire le diable à quatre.
  3 (return)
Thibaut au des,-Thibaut of the dice
An old French coin, equal to the two hundred and fortieth part of a pound.
  5 (return)
Got the first idea of a thing.
  6 (return)
The ancient French hurrah.
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Figure 8.14. Project Gutenberg – interactive footnotes

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