



e-WOMEN IN ICT



E-LEARNING

PEDAGOGICAL MODEL
FOR ONLINE LEARNING

MARIA POTES BARBAS

KA2 – Cooperation for innovation and the exchange of good practices

KA226 – Partnerships for Digital Education Readiness

Project number: 2020-1-PT01-KA226-VET-0944680

EBOOK



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



Made with Visme



HANDBOOK

PEDAGOGICAL MODEL FOR ONLINE LEARNING

This project has been funded with support from the European Commission. This publication reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

How to use this document - information for all:

Please use/adapt this document to your needs but do not change the content.

Entrepreneurial Women In ICT-Enhancing ICT Skills to Bridge Digital Divide from FA-Magdeburg, Germany and ISTECS Portugal developed under Erasmus+ project Ka2 strategic partnership for Digital Education Readiness e-WOMEN IN ICT is licensed under a Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License.

Author: MARIA POTES BARBAS

Designed by: Renata Pintor

INSTITUTO POLITÉCNICO DE SANTARÉM



Complexo Andaluz, Apartado 279

2001-904 Santarém

geral@ipsantarem.pt

+351 243 309 520



HANDBOOK

PEDAGOGICAL MODEL FOR ONLINE LEARNING

TABLE OF CONTENTS



A1

E-LEARNING CHARACTERISTICS

A4

PRINCIPLES TO ADDRESS AND METHODOLOGIES TO USE IN ONLINE LEARNING

A7

AI (ARTIFICIAL INTELLIGENCE)

A2

E-LEARNING, BLENDED LEARNING AND INNOVATIVE APPROACHES

A5

DESIGN AND ORGANISATION OF COURSES

A8

AI IN EDUCATION

A3

CYBERSECURITY AND DATA PROTECTION IN ONLINE LEARNING

A6

ORGANISATION OF TEACHING AND TUTORING WORK

A9

GOOD PRACTICES IN AI

EBOOK



e-WOMEN IN ICT

A1

E-LEARNING CHARACTERISTICS



EBOOK



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



Made with VISME ⁴

E-LEARNING CHARACTERISTICS



STUDENTS, HAVE YOUR SAY!
(PANDEMIC TIME)

01

Distance learning

(physical separation)

eLearning

Blended learning

Characteristics

- Self learning
- Flexibility
- Responsibility

Good practices

- University of the people
- Universidade Aberta

Change of work habits

02

eLearning for reclusive students "Virtual Campus"



Goal of training at least 50,000 adults by 2030, tripling the capacity of the Universidade Aberta offer in conjunction with the other public higher education institutions through a joint distance learning platform.

Distance learning and collaborative networks



03

Course units

Degrees

Master's degree

Setting; Welcoming;

apprenticeship contract;

apprenticeship contract;

Topics (weekly / fortnightly);

Topics (discussions);

Text/videos/links/ forum/projects;

Projects;

E-folio (1 per month) + p-folio + exam



04

01. HUMAN-IN-THE-LOOP

Learning content with 1 presentation, 1 videogram, 1 infographic, and a discussion forum.

02. KEY CONCEPTS

Students' acquired concepts, with a quiz (3 questions) and give them some additional resources (Digital Library Resource).

03. STAKEHOLDERS OVERVIEW

Having the testimony of a labor market stakeholder on each topic.

04. JUMP TO IMMERSIVE ECOSYSTEMS

Introduce students to an immersive ecosystem on the topic. AI, AR, Machine Learning... You choose!

05. NEXT GENERATION

Invite an expert to talk about future environments in 10 years.

06. ASSESSMENT CERTIFICATION

Assessment based on all previously presented content.

HUMAN-IN-THE-LOOP



INFOGRAPHIC



KEY CONCEPTS/DIGITAL LIBRARY RESOURCE

Key Concepts

What do you consider most important in the e-portfolio (adapted CV model)?

- The fact that it is an innovative and different model, which serves as a knowledge mediating tool.
- The fact that it is a simple and practical CV to fill out.
- The fact that it includes different components, dimensions and criteria for assessing skills to be presented in the labor market.

Check



Key Concepts

What do you consider to be the most innovative aspect of the e-portfolio?

- The inclusion of multiple-choice elements as a way of simplifying information.
- The fact of including different dimensions, customizable scales and levels of knowledge and skills that demonstrate the main skills for the labor market.
- Easy filing and simplified layout.

Check



Key Concepts

Select the option that you consider most appropriate for the definition of the e-portfolio model.

- An innovative and simple model that facilitates filing by all users. It includes components like Europass CV without any adjustment.
- A model inspired by Europass CV but adapted to the needs of users with disabilities. It includes diversified dimensions, as well as scales of aptitudes and knowledge adjusted to the level of each user.
- An alternative CV model that includes some aspects of traditional CVs.

Check

Terminar



STAKEHOLDERS_OVERVIEW: HAVE YOUR SAY IN PRACTICE!

HAVE YOUR SAY IN PRACTICE! In practice:
What will be the pertinence of this topic in the
work environment

JUMP TO IMMERSIVE ECOSYSTEMS



Microsoft
HOLOLENS

ARCore


Google ARCore



H5P

NEXT GENERATION

Have your say
What will be the future of this topic on the next 10 years?

ASSESEMENT CERTIFICATION

Use internal and external resources to integrate in this evaluation

DATA ANALITICS

The results are...



e-WOMEN IN ICT

A2

E-LEARNING, BLENDED LEARNING AND INNOVATIVE APPROACHES

EBOOK



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



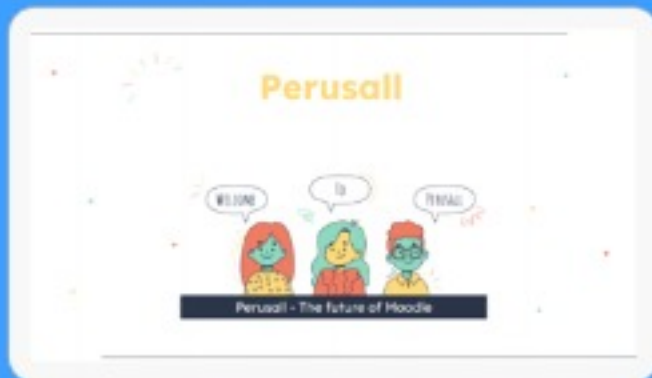
Made with VISME ¹¹

Perusall



Perusall is a social eTextbook or eReader platform which allows students to be more engaged through a collectively reading methodology. This plugin also **allows discussion** and other forms of **interaction**, like adding files, videos, website screenshots and quizzes. The strong points of Perusall are the **ability to comment anywhere along the document or video**, providing a better learning experience for the student. Lastly, it also provides **personalized metrics of each student**, in order to check their progress.

Perusall



LEARN MORE...

Handbook developed in classroom environment by an international group of students.

bit.ly/3tAllDg



Perusall

SOCIAL FEATURES

DEFINITION

Online, social learning platform design to promote high pre-class reading (compliance, engagement, conceptual understanding)

Seating (20 students)

Avatars

Upvoting annotation: To present a question; Helpful question;

Email notifications

ASSESSMENT

Gradebook (grading algorithm uses machine learning)

Timelines

Quality

Distribution

INTRODUCTION TOOL (modeling algorithm)

Using questions that students are asking 3 or 4 conceptual content

RESEARCH METHODS

SETTINGS

Meet 2 weekly for 3 hours (PBL; Team based learning)

PROCEDURE

Amount of time students reading

How long before each class students log on?

How often they returned to the same reading assesment?

STATISTIC AND SOFTWARE - STATA

RESULTS

Engagement: 81 % spend 2/6 hours week reading

Active reading: 85% anotate they read; 40% rare notes while reading

MOTIVATION FACTS

INTRINSIC

Social interaction

Tie-in to in-class activity (reading, communication)

EXTRINSIC

Assesment (fully automatic)

Rubric based assesment

Specialized machine learn algorithmic

Accesses intellectual content

Exceeds intercoder reality (gradebook)

Keep students engaged

Current conversation

+03 ? Are gravitational and electric fields mutually exclusive? Presumably objects that have electric fields are also massive and thus must have a gravitational field. Do the electric and magnetic fields interact at all?

Jun 28 10:29 pm

Gravitational and electric fields are not mutually exclusive. It is possible to have things that are both massive (and therefore exert a large gravitational field) and are have a lot of charge (and therefore exert a large electric field). Electric and magnetic fields definitely interact! It is the interaction between these two types of fields that is behind a lot of technologies (radio, telegraph, electromagnetic motors, just to name a few).

Jun 28 10:32 pm

Use content from anywhere

+ Add

- Book from the Perusall catalog
- Web page
- Documents from Dropbox
- Documents from my computer
- Materials from another course
- Video **New**
- Podcast **New**
- iClicker **New**
- Folder



1041 comments, 252 questions, 91 unanswered questions

19 minutes average reading time



e-WOMEN IN ICT

A3

CYBERSECURITY AND DATA PROTECTION IN ONLINE LEARNING



EBOOK



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



Made with VISME

ETHICS AND CIBERSECURITY



Contextos profissionais do profissional em Produção Multimédia em Educação.
Papel e ética profissional.

Proteção de Dados | Seminário PME

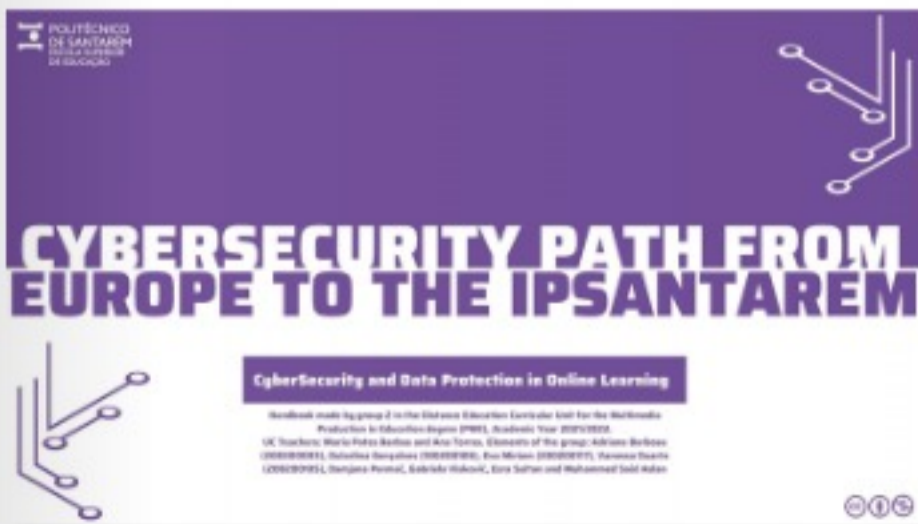
Objetivos das organizações:

- Regulamento (UE) 2016/679 Do Parlamento Europeu e do Conselho de 27 de abril de 2016.
- Lei 58/2019, de 8 de agosto, Assegura a execução, na ordem jurídica nacional, do Regulamento (UE) 2016/679 à proteção das pessoas singulares no que diz respeito ao tratamento de dados pessoais e à livre circulação desses dados.
- Regulamento (UE) 2019/881 do Parlamento Europeu e do Conselho de 17 de abril de 2019.
- Lei n.º 46/2018, de 13 de agosto - Regime Jurídico de Segurança do Ciberespaço.
- Resolução de Conselho de Ministros 41/2018.
- Diretiva (UE) 2016/1148 do Parlamento Europeu e do Conselho de 6 de julho de 2016, relativa à segurança das redes e da informação em toda a União (Network and Information Security Directive - NIS).
- Estratégia Nacional de Segurança do Ciberespaço 2019-2023.
- Quadro Nacional de Referência para a Cibersegurança (QNRCS).

Nobody Notion
What I do Until



CIBERSECURITY



LEARN MORE...

Handbook developed in classroom environment by an international group of students. bit.ly/3aUjT9S





e-WOMEN IN ICT

A4

PRINCIPLES TO ADDRESS AND METHODOLOGIES TO USE IN ONLINE LEARNING



EBOOK



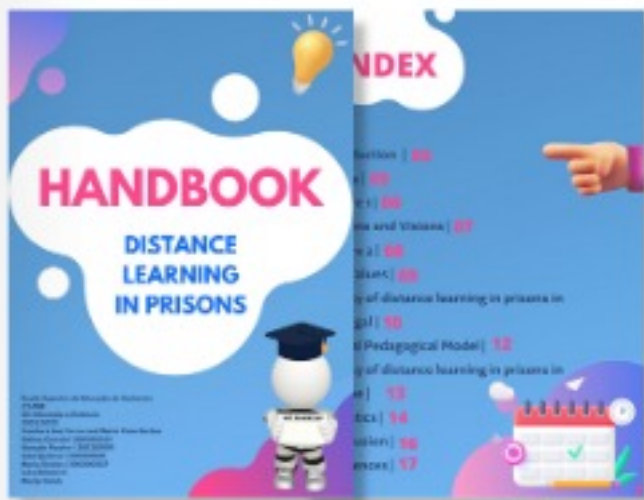
Co-funded by the
Erasmus+ Programme
of the European Union



Made with VISME ¹⁸



HOW TO CREATE A CONTENT FOR SYLLABUS



LEARN MORE...

Handbook developed in classroom environment by an international group of students. bit.ly/3Hlpjqu



LEARN MORE...

Entrepreneurial Women In ICT - Enhancing ICT Skills to Bridge Digital Divide
<https://bitly.com/6OqUz>





e-WOMEN IN ICT

A5

DESIGN AND ORGANISATION OF COURSES



EBOOK



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



Made with VISME ²⁰

KEY CONCEPTS

HUMAN-IN-THE-LOOP

Learning content with 1 presentation, 1 videogram,

1 infographic, and a discussion forum.

KEY CONCEPTS

Students acquired concepts, with a quiz (3 questions) and give them some additional resources (Digital Library Resource).

STAKEHOLDERS OVERVIEW

Having the testimony of a labor market stakeholder on each topic.

JUMP TO IMMERSIVE ECOSYSTEMS

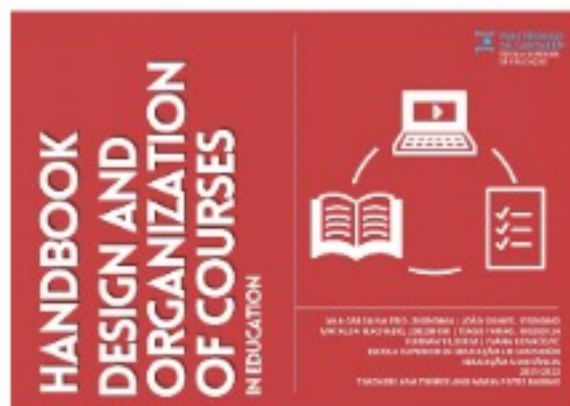
Introduce students to an immersive ecosystem on the topic. AI, AR, Machine Learning... You choose!

NEXT GENERATION

Invite an expert to talk about future environments in 10 years.

ASSESSMENT CERTIFICATION

Assessment based on all previously presented content.



LEARN MORE...

Handbook developed in classroom environment by an international group of students. bit.ly/3xLPzav





e-WOMEN IN ICT

A6

ORGANISATION OF TEACHING AND TUTORING WORK



EBOOK



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



Made with Visme ²²

DISTANCE EDUCATION COURSE



TRAINING SYMPOSIUM

The screenshot shows a Moodle course page for 'Educação a Distância'. The breadcrumb trail is 'Página principal / Minhas disciplinas / 2021_LPME23'. The course title is 'DID.VALUE_AT1; at1 - Internship and Jobs and Society - Inclusive Traineeship Experience on Social, Pedagogical, and Digital Literacy Skills for Labour Market & Inclusive Training Experience – Professional Profile Development'. Below the title is a banner with the text 'AT1, At1 Inclusive Traineeship Experience on Social, Pedagogical, and Digital Literacy Skills for Labour Market & Inclusive Training Experience - Professional Profile Development' by Maria Potes Barbas and Ana Torres. The banner features five circular icons representing different aspects of the course. Below the banner, the Zoom link is provided: 'Zoom Link: https://videoconf-colibri.zoom.us/j/81895474349?pwd=SUlWTlZ5mFoZm9ydfBlaC9kZThhYQ109' with ID: 818 9647 4349 and Passcode: 552794. At the bottom, there is a video player showing a woman speaking.



A7

AI

ARTIFICIAL INTELLIGENCE



EBOOK



ARTIFICIAL INTELLIGENCE

LIC_Produção Multimédia em Educação

A Inteligência Artificial Hoje

O que importa saber!



AI INTRODUCTION



LEARN MORE...

Handbook developed in classroom environment by an international group of students. bit.ly/3aUvp53





A8

AI

IN EDUCATION



EBOOK

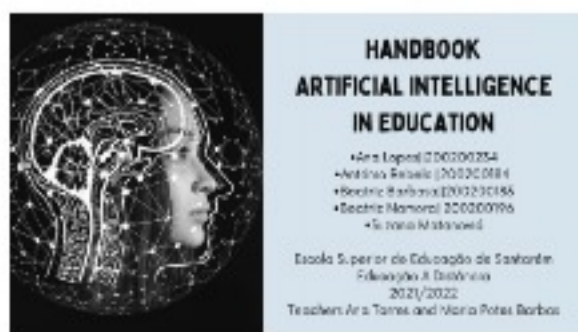
AI IN EDUCATION



The image shows two book covers arranged vertically. The top cover is titled "DIGITAL 23 INNOVATION AI FOR DID VALUE PROJECT Artificial Intelligence in Education - a reflection in the XXI Century". To its right is a QR code, with a blue arrow pointing from the book to the code. The bottom cover lists authors "JOÃO DOMINGOS FERREZ FERREIRA, Luana Priscila Banech, Luciano Freitas de Ilodorus [orgs]" and features an illustration of a globe and a laptop. To its right is another QR code, also with a blue arrow pointing from the book to the code.



A screenshot of a webinar interface. The title is "20.º webinar | Inteligência Artificial na Educação: o quê e quando". It features a video player with a red play button and a profile picture of the speaker. The interface includes social media sharing icons for YouTube and Facebook, and a "Veja em direto" (Watch live) button. The logo "e escola virtual" is visible in the top right corner.



The image shows the cover of a handbook. On the left is a stylized illustration of a human head profile with a brain and neural connections. The text on the right reads: "HANDBOOK ARTIFICIAL INTELLIGENCE IN EDUCATION". Below the title, it lists authors: "Ana Lopes (200200254), Anaísa Reis (201200184), Beatriz Barbosa (201220185), Beatriz Moreira (200200795), and Tiago M. Branco". At the bottom, it says "Escola Superior de Educação de Santarém, Filiação à D. João III, 2021/2022" and "Teachers Ana Torres and Maria Rêtas Barros".

LEARN MORE...

Handbook developed in classroom environment by an international group of students. bit.ly/3NTnaET





A9

GOOD PRACTICES IN AI



EBOOK



GOOD PRACTICES IN ARTIFICIAL INTELLIGENCE



Handbook developed in classroom environment by an international group of students.

bit.ly/3xyCnVg



CONCLUSION

i had the pleasure to present nine main topics (progress bar, human-in-the-loop, key concepts, stakeholders_overview, jump to immersive ecosystems, next generation assessment certification and data analytics) in this e-book that results from my personal expertise in the communication multimedia domain...

i present and reflect about the future of digital tools and innovative environments for you. as a summary we must highlight the use of digital e-readers platforms (perusal) and the pedagogical and design structure to present contents to the students integrating some issues. finally, i present some important tools for education built with my students in an innovative environment – cybersecurity and artificial intelligence – will be the future now!

are you in???