

[Digital Fluency and New Roles for Libraries]

José Moura | Ana Alves Pereira | Ana Roxo | Filipe Silvestre

keywords: libraries, new roles, digital fluency, cultural interfaces

jose.moura@fct.unl.pt

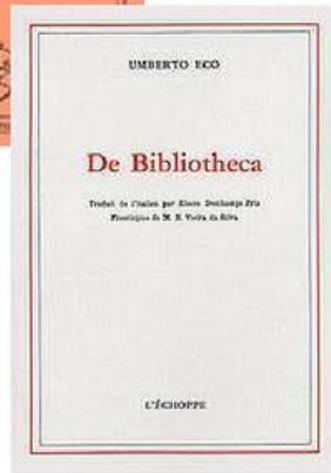
BIBLIOTECA / Faculdade de Ciências e Tecnologia / Universidade Nova de Lisboa

UNICA SCHOLARLY COMMUNICATION WEBINAR

Promoted by Université Libre de Bruxelles

"Upskilling librarians to meet new library roles"





People are tired of simple things.
They want to be challenged.

Travaillant en bibliothèque il m'arrive de
tomber sur un ouvrage par pur hasard.

"conférence prononcée le 10 mars 1981 pour célébrer le 25^e
anniversaire de l'installation de la Bibliothèque communale
de Milan dans le palais Sormani".

*De Bibliotheca / Umberto Eco ; frontispice de M. H.
Vieira da Silva. Caen l'Échoppe, 1986. – 31 p.
ISBN 2-905657-09-X*

TO
BETTER
KNOW
US



AVAILABLE SERVICES

Home reading
Reference service
Interlibrary loan
Documents reservation
Users training
Wireless
Reading areas
Informal reading areas
Copying service / printing / scanning
Pests control equipment (anoxia)
Access for readers with disabilities
Resources for research
Institutional repository
Coffee Shop

FACULTY in NUMBERS

400 Professors
250 Staff
8000 Students

LIBRARY in NUMBERS

6500 m²
5 floors
6 reading rooms in free access
522 places
40 computers available
1751 metres of free access shelves
2749 metres of deposit shelves
40 individual working rooms
8 group working rooms (6 persons each)
1 Exhibition room
1 Auditorium (sitting 72)
3 documents deposits
67100 books
1400 periodics (350 on-line) + b-on

Janus - two faces

a library for the future

a library beyond the books



LIBRARIES ...

- ... how versatile we are already... “beyond” the BOOKS ?
- ... how much we have been involved in versatile activities ?

integration of **ARTS** and ACADEMY

exploitation of crossroads of **STEAM**

hosting **CONFERENCES** and EVENTS

development of **PARTNERSHIPS**

expanded participation of **CITIZENS**

involvement of the **COMMUNITY** (citizens taking part of the process)

definition of **STRATEGIES**, practices and new performances

interact and produce **POLITICAL** and **SOCIAL** CHANGES

... what will be in the future ?

How to do more ?

step by step / new steps

... design, implementation and availability of spaces for experimentation and breeding

... introduction of new equipment and resources

... creation of environments conducive to the learning of new challenging topics

... make users to experience a variety of strategies, assenting the digital conceptualization

... empower the users for critical thinking, and to nurture and to innovate.

“do it yourself”

Fablabs / Makerspaces



The FCT FABLAB **mission** is to facilitate and promote access to a wide range of knowledge resources, providing users with a modern and collaborative environment, stimulating study/ research/ applications and human contact.

The facility is viewed as a major resource for students of all degrees, as well as **teachers and researchers** (academics) and **general public** (Community).

The **Digital Literacy Program and Projects** aims to provide the users with the information and skills oriented for problem solving.

FCT FABLAB is a service provided by the FCT NOVA Library.



WHY a FABLAB in a LIBRARY ?

Libraries have long been the forefront providers to access to new technologies.

Libraries are spaces with a tradition of collaboration, an essential factor in learning new technologies.

They are spaces accessible to everyone.

Digital fabrication is now recognized as a powerful tool in teaching STEAM.

What the FCT FabLab can offer?

Infrastructure to support teaching and research

Medicine	Architecture
Engineering	Education
Arts & Design	Environment
Archaeology	Museums

Open and collaborative spaces used by

Academics (teachers and researchers)	
Schools	Artists
Designers	Creatives
Entrepreneurs	General public (Community)

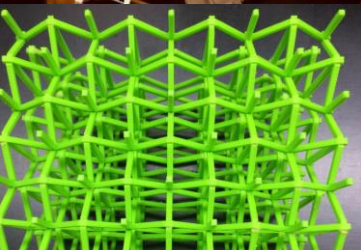
Digital Literacy and Digital Fabrication Program

<https://www.fctfablab.fct.unl.pt/>



Main Pillars

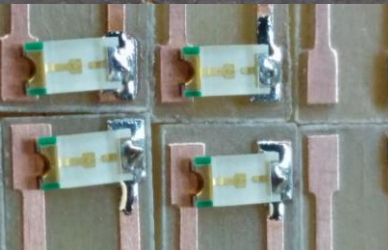
3D Printing



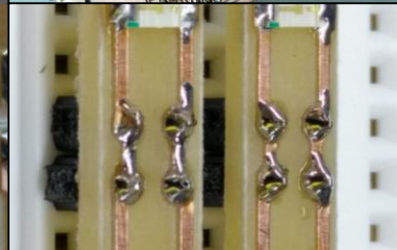
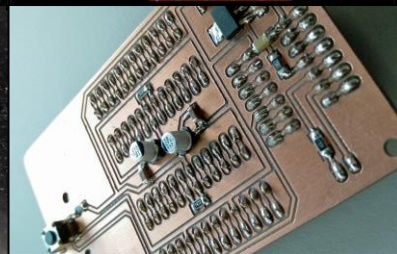
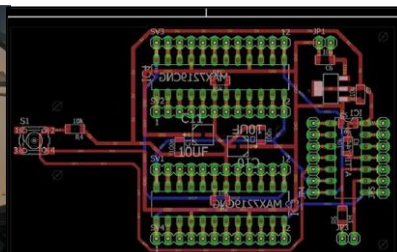
Laser Cutting



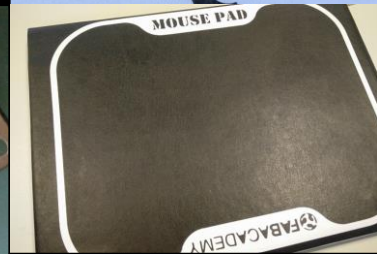
CNC



Electronics



Vinyl Cutting



Digital Fluency ... How to get there ?

4 examples



WORKSHOPS WORKSHOPS WORKSHOPS

**WORKSHOPS
ONLINE**

FCL FABLAB
Powered by US Embassy

02/7 - Modelação 3D (avançado) | parte 1
03/7 - Modelação 3D (avançado) | parte 2
07/7 - Como funciona uma impressora 3D?
09/7 - Modelação 3D (básico)
14/7 - Arduino | parte 1
16/7 - Arduino | parte 2
23/7 - Desenho 2D
27/7 - Modelação 3D (básico)

FCL FACULDADE DE CIÊNCIAS E TECNOLOGIA
BIBLIOTECA FCTUAL CAMPUS DE CAPARICA
AMERICAN CORNERS PORTUGAL



3D printing * Design 2D and 3D - basic and advanced * Laser and Vinyl cut
Electronic design * Electronic fabrication * Arduino * Soldering

Learn a New
Set of Skills

already open
2021

Fab Academy (since 2017)

> 70 FabLabs (worldwide)

> 250 students per year

Runs 16 weeks (Jan to Jun)

A distributed educational model

Training in the 5 pillars of Digital Fabrication
(and more)

@ FCT FabLab offers a double certificate

. Fab Academy

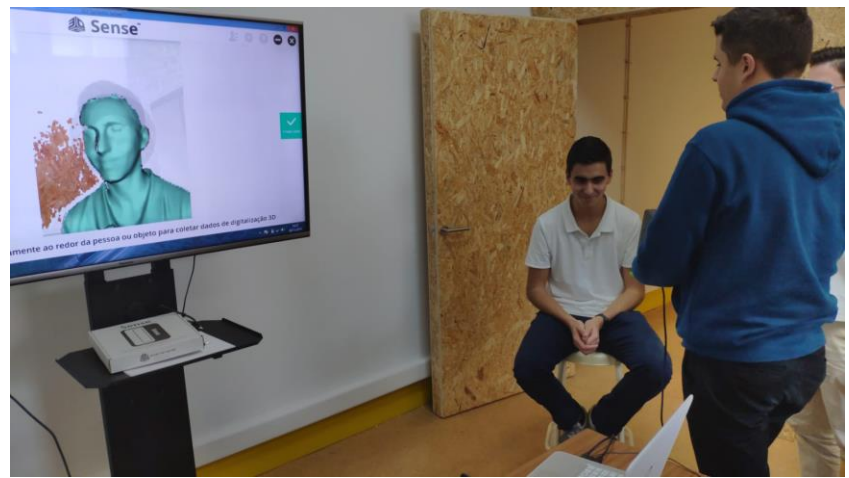
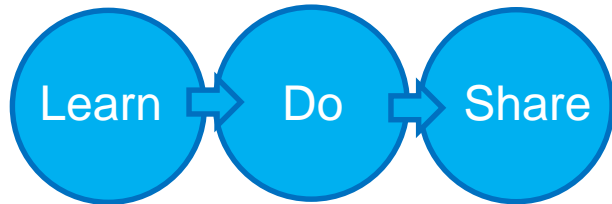
. Digital Fabrication Specialization Course | 16 ECTS

FABULOUS #1 PROJECT

@fctfablab

Target Audience

Vocational and Secondary Schools



Goals

- To integrate digital manufacturing technologies into education
- To stimulate "do it yourself"
- To challenge students with the idea that "you can do (almost) everything"
- To promote group work skills
- To develop interdisciplinary learning strategies

<https://www.fctfablab.fct.unl.pt/projetos/fabulous-project>

This project is supported by the American Corner and Mentored by Lab Aberto

FABULOUS #1 PROJECT

@fctfablab



4 schools | 42 students

ESCO - Escola de Serviços e Comércio do Oeste
AEMT - Agrupamento de Escolas Madeira Torres
ATEC - Academia de Formação
Colégio Guadalupe

Schedule of activities

Set	Out	Nov	Dec	Jan	Jan to Jun	Jul
Planning	Projects identification	Workshops	Workshops	Workshops ***** Projects production	Projects production	Projects presentation

Workshops

- . Design 2D and Laser Cutting, CNC in 2D
- . Design and printed 3D
- . PCB design and fabrication
- . How to use Wikifactory.
- Information search techniques
- Information ethics
- Filming and video editing
- Tips for taking good pictures with mobile phone

Interaction with departments and laboratories of the FCT NOVA



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

INNO3D+

3D Printing Support Service for Innovative Citizens

Transnational Project

Romania, Ireland, Greece, Spain, Portugal and Slovakia

Project Aim

To develop a comprehensive 3D printing program for librarians and a pedagogical approach to train users in the use of the technology

Main activities

- ▶ Mapping EU 3D training for librarians
- ▶ Developing, testing and implementing a blended 3D Printing curriculum for librarians
- ▶ Elaborating a trainer's toolkit
- ▶ Validating quality assurance and improvement of curriculum and training materials
- ▶ Transferring project results and best practices

thank you – fctfablab.helpdesk@fct.unl.pt



Follow us @

