Canal Fundación ONCE @ UNED Abierta

Alejandro Rodriguez-Ascaso (UNED)

Miguel Ángel Córdova (UNED Abierta, UNED)

Vicente Goyanes (Teltek)

Emmanuelle Gutiérrez y Restrepo (aDeNu, UNED)

UNED

- Spanish National Distance University
- The second biggest university in Europe
- 210,000+ students
- 7,000+ disabled students
- 27 undergraduate programmes
- 73 Master programmes
- 1,400+ lecturers
- 600,000+ personalised exams per year

UNED

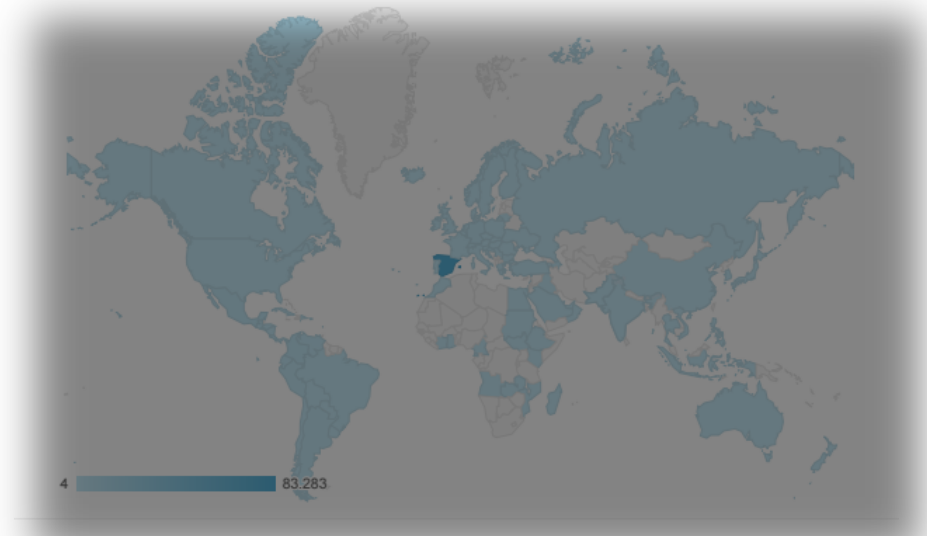# UNED Abierta

- UNED's OER and MOOC provider

UNED Abierta
preMOOC era

- OER, OpenCourseWare provider since 2007
- 1,000,000 users
- 19,000,000 video views
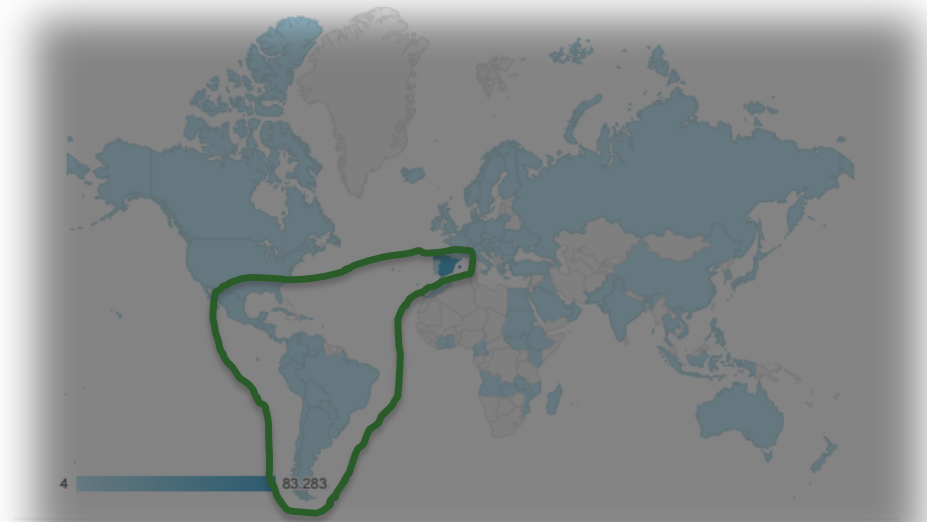
UNED Abierta
MOOC era

- OER, MOOC provider

- Kick-off: Dec-2015

- 100+ Courses

- 110,000+ users

- 150,000+ enrolments

- 100+ countries

- Thousands of issued certificates

UNED Abierta
MOOC era

- OER, MOOC provider

- Kick-off: Dec-2015

- 100+ Courses

- 110,000+ users

- 150,000+ enrolments

- 100+ countries

- Thousands of issued certificates

Fundación ONCE

- Fundación ONCE and ONCE
  - main organizations of persons with disabilities in Spain.
- One of the main objectives of Fundación ONCE
  - to promote the creation of environments, products and services that are accessible.
  - Education is the future of accessibility!

Canal Fundación ONCE @ UNED Abierta

- Canal Fundación Once' is
  - providing open, online training on **Universal Design**
  - targeting **all professionals**, either if they are
    - **already active** or
    - if they are training to become professionals in the **future**
- Funded by
  - Fundación ONCE
  - Ministry of Health, Social Services and Equality of Spain (Real Patronato sobre Discapacidad)

Canal Fundación ONCE @ UNED Abierta: Oferta de MOOCs

- Human-Computer Interaction: Universal Design and Support Products
  - 500+ enrolments
  - 15 certificates
- ICT Accessibility and Public Procurement
  - 500+ enrolments
  - 8.5% certificates
- Accessible Digital Materials (Fall 2017)

Ensuring accessibility of MOOC platform and courses

- Leading by example
- Practical reasons:
  - **The accessibility needs** of the workforce are **increasing**, as our population is aging
  - UNED has **7.000+ disabled students,** almost 50% of the HE disabled students in Spain

UNED Abierta – edX Dogwood

Ensuring accessibility of MOOC platform and courses

- Accessibility is a key feature for Open edX and its community

- Huge effort has been done so far by the Open edX community

  – More accessibility features announced for Ficus and forthcoming versions

- However…

Ensuring accessibility of MOOC platform and courses

- Canal Fundación ONCE has run a project to (1/2):
  - Define a **workflow** for producing **accessible learning materials &** activities in an efficient manner:
    - Online courses (MOOCs)
      - Videos
      - Text
      - Activities
    - Digital materials (ePUB 3.0)

Ensuring accessibility of MOOC platform and courses

- Canal Fundación ONCE has run a project to (2/2):
  - ensure the **sustainable accessibility** of the UNED Abierta **platform**

- Joel Barciauskas @ edxconf 17, "How you can help"
  - Conduct experiments and research
  - Share your feedback…

Platform accessibility: Vision

- Framework:
  - OER and MOOC accessibility. Holistic approach:
    - OLA! Project, together with IET, Open University UK
    - Accessibility to be taken into account through the whole process!
- Web accessibility standard:
  - WCAG 2.0 AA
  - Videos with Spanish Sign Language (AAA)

Platform accessibility: Methodology (1/2)

1. Accessibility inspection, Emmanuelle Gutiérrez:
   – W3C WCAG "participant in good standing"
   – Invited expert in several W3C-WAI WGs

2. Evaluation with users on a pilot course:
   – Blind person, Person with low vision, Older person, Person with no mobility in upper limbs
     - JAWS 17 with Braille display,
     - VoiceOver under iOS 10.1.1,
     - Windows magnifier,
     - speech recognition + onscreen keyboard + cheek switch

Platform accessibility: Methodology (2/2)

3. Monitorisation of accessibility during real course
   - **1,200 users**:
     - Screen reader
     - Mouse emulators
     - CC users
   - Errors reported through **forums**, **Help** section within the course, **email** support
   - **Learning analytics**… working on that

Agile process, with **development** happening 1, 2, 3… and in between

"Uned Abierta" MOOC – SaaS by TELTEK

About TELTEK

- EdTech Company born at University of Vigo

- Open video solutions for teaching & learning:

    – Lecture capture and streaming.
    – MOOC-video production and MOOC platforms

TELTEK

VIDEO RESEARCH

Worldwide Customers

TELTEK in the "Fundación-ONCE" Project

- Goal: AA level for "UNED Abierta" (Dogwood)

- Tight Schedule < 2 months to 1st acc. course

- TELTEK tasks:
  - Fix the Issues
  - Provide Cloud infrastructure:
    - OpenEdX Infrastructure: Audit + Staging
    - Ticketing system: Redmine
    - Code management: GitHub fork + Gitlab theming

Workflow

1. External accessibility Audit on "UNED-OpenEdX-Staging"

2. Issues to Redmine and JIRA-Edx

3. Developers Fixes issues -> Code to Github Fork or GitLab

4. Code to "UNED-OpenEdX-Staging" (Ansible)

5. QA (internal + External)

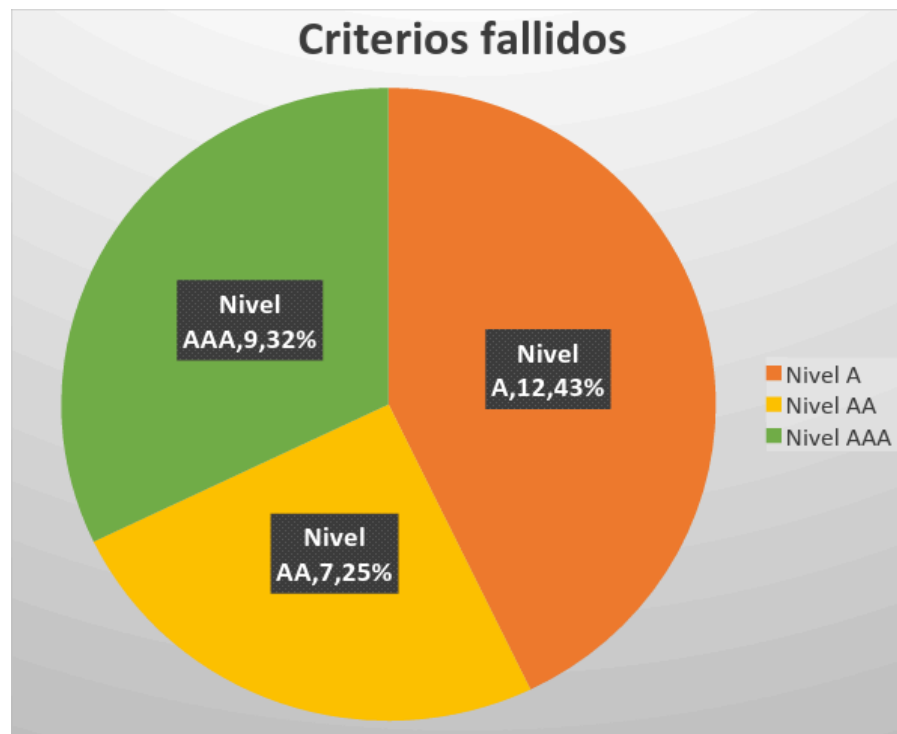6. Code to "UNED-OpenEdX-Production"

Current Situation

- Project finished & Client happy
  - 27 issues fixed (A: 17 / AA: 5 / AAA: 5)
- Many issues filed on Edx-JIRA (accessibility project)
  - But low response
- **Code only in TELTEK's Fork**
- Planning to contribute ASAP
- **We meet F2F, finally**

Accessibility audit: Results

- Errors: 35 identified, 25 fixed
- 28 Failed criteria

C 2.1.2 No keyboard trap (A)

- Spotted during Inspection

- Affects the About page

- Keyboard users can't leave the modal window by using ESC

- First users need to go through the whole set of player buttons, leave the player, and then they can use ESC

- We could not fix it.

- It seems that no modal windows are used in later versions of edX
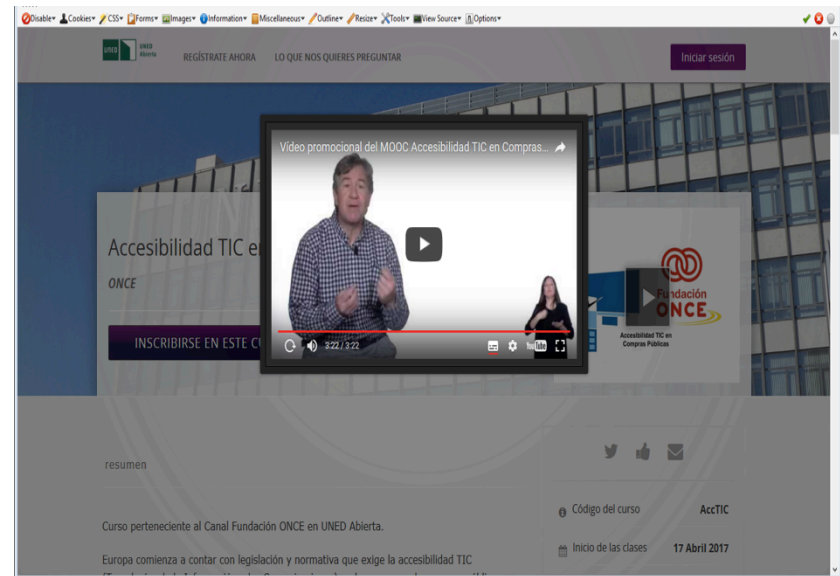
C 1.3.1 Info and relationships (A)

- Spotted during Inspection
- Affecting several pages across the platform
- Messages that have been coded as headings when they are not
- Affects users such us screen reader users, people with cognitive impairments, google bots
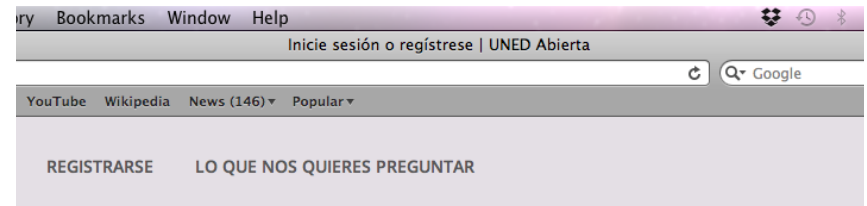- Fixed: Messages marked as paragraphs, and headers have been styled through CSS

La contraseña restablecida fue enviada al correo electrónico.

Hemos enviado las instrucciones para restablecer tu contraseña al correo electrónico proporcionado.

Iniciar sesión

Correo electrónico

Users who enrol but never access MOOC contents

Users who enrol but never access MOOC contents

- Spotted during **real course**
- OS:
  - macOS Sierra
  - IOS 10.0.2
- User agents:
  - VoiceOver
  - Both Safari and Chrome browsers

Conclusions

- We are very happy to work with Open edX
- Improving accessibility is part of our mission
- We are willing to contribute

- Thank you!