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openeducationweek.org

# Spanish and Latin American OpenCourseWare repositories in Higher Education

A study of the development of OCW websites in Spanish and proposals for improvement

UNED

**UPM Open Education Office**

CAMPUS DE EXCELENCIA INTERNACIONAL
POLITÉCNICA "Ingeniamos el futuro"

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Aplicación de tecnologías web
emergentes para el estudio del
impacto de repositorios
*OpenCourseWare* españoles
y latinoamericanos en la
Educación Superior

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Education Office**

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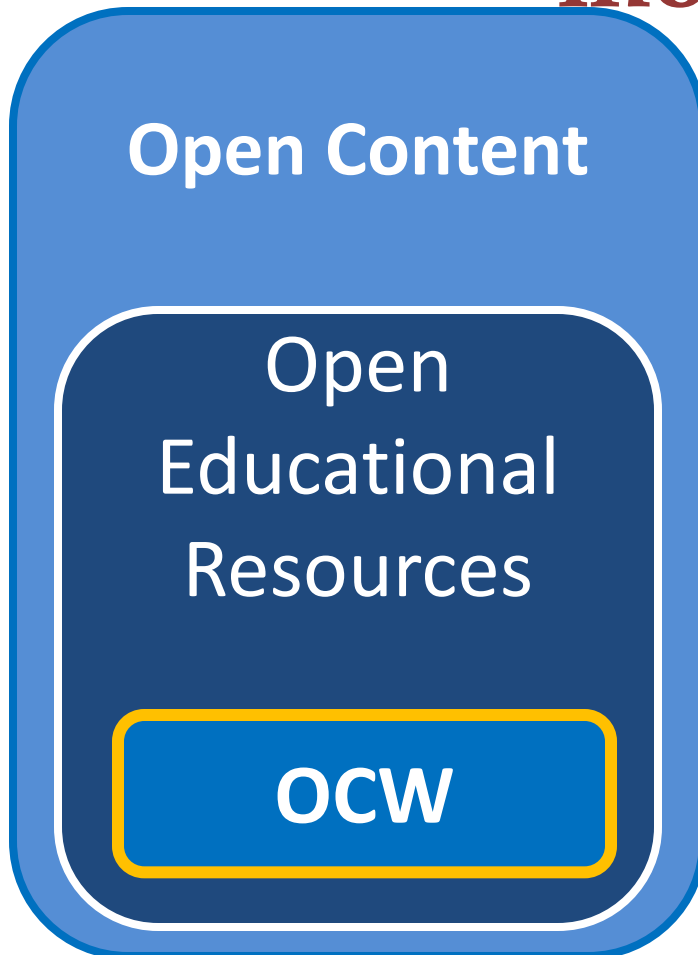   2. Evolution of the OCW
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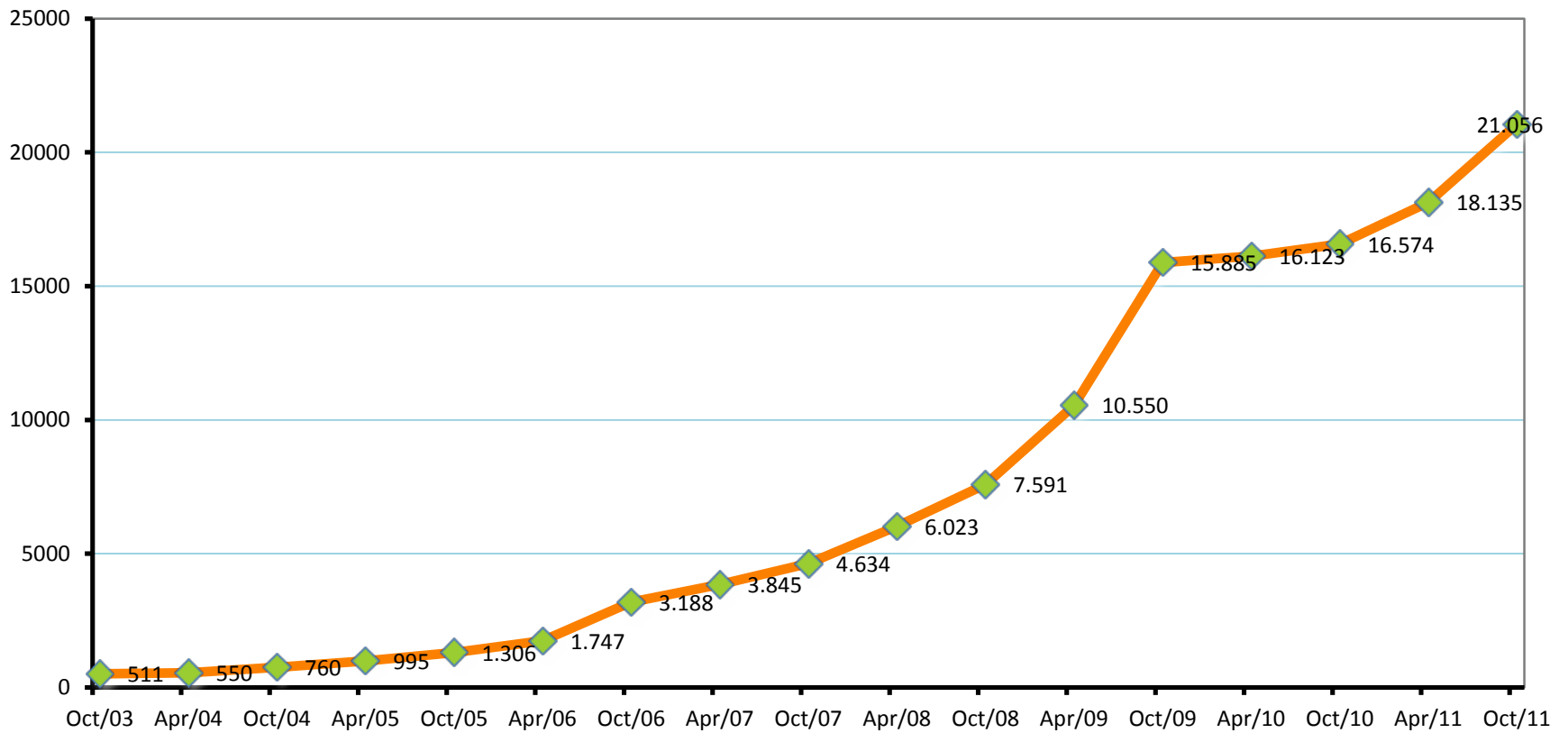   3. OCW content producers
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# OCW as part of the Open movement

**Open Content**

Open Educational Resources

**OCW**

- OCW is only one type of Open Educational Resource (OER).

- OERs are only one type of Open Content.

- **We have much to share with each other.**

# Evolution of the OCW

# Trends and developments

- **Transition from OER → Open Education**
  - OER, Open Teaching and open learning services
  - Most recent: Massive Open Online Courses (MOOC)

- **Paris Declaration on OER (2012)**
  - Recommendation to States to support to its fullest capacity awareness, creation and use of OER
  - Accepted on UNESCO World Congress on OER, Paris, 22 June 2012

- **Existence of infrastructural components to contribute to an ecosystem of open education**. E.g.:
  - Open communities (OpenStudy)
  - P2P university
  - Saylor.org

# Comparing

| | TRADITIONAL | OPEN COURSE WARE | OPEN EDUCATION | ONLINE EDUCATION |
|---|---|---|---|---|
| ACCESS | Tuition fee | Open | Open | Tuition fee |
| STUDENT INTERACTION | Yes, mostly offline | No | Yes, online learning platform & social media | Yes, online learning platform & social media |
| INTERACTION WITH LECTURERS | Yes | No | Yes, online learning platform & social media | Yes, online learning platform & social media |
| EXAMS | Yes | Yes, but self testing | Yes, online | Yes, online and on campus |
| CERTIFICATES | Yes, accredited | No | Yes, non accredited | Yes, accredited |
| DIPLOMA | Yes, accredited | No | No | Yes, accredited |

# Overall objectives

1. Collect and describe case studies that highlight the main benefits of OCW in the world and the current status of the use and impact of OCW materials

2. Describe and assess the impact of social relations that can be drawn from the information provided by the Latin American universities on the use of OCW materials

3. Improve tools to search OCW materials applying the principles of semantic webs

# Types of research strategies used

- Analysis of usability: web analysis
- Statistical analysis of data retrieved through a search engine
- Analysis of key actors
    - Managers:
        - Focus Group
        - Survey
    - Content producers
        - Focus Group
        - Survey
- Social analysis of web content

# A semantic faceted tool developed: Serendipity

Serendipity

Linked OpenCourseWare Data Faceted Search

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Facets

Keywords

Available OCWs

# Focus group with OCW managers

– Meeting with managers of OCW with these criteria

- Different levels of development of the initiative
- Different knowledge and expertise
- Different professional profile

– Guidelines of the focus group

- What is for you the Open Course Ware?
- What opportunities?
- What prospects?
- Disadvantages

# Focus group with OCW producers

– Meeting with OCW producers with these criteria

- Full time professors
- Different knowledge and expertise on OCW
- Different degree of development

– Guidelines of the focus group

- What is for you the Open Course Ware?
- What opportunities?
- What prospects?
- Disadvantages
- Problems faced

# Survey with OCW managers

– Survey

- Use of the call to other universities to:
    - Contact with OCW managers to fulfill a survey
    - Redistribution of a survey through OCW content producer in their institution

– Elements of the survey

- Control data
- Opinion on OER and OCW
- Prospects of improvement

# Survey with OCW producers

– Two step survey

- Pilot in UPM

- Spread of the call to other universities:
  - Contact with OCW managers
  - Redistribution of the survey through these managers

– Elements of the survey

- Control data

- Opinion on OER and OCW

- Past experience with OCW

- Prospects of improvement

# Social Network Analysis

- Creation of a database
  - Over 9.000 OCW courses from several continents
  - Identification of courses according to categories
- Analysis of relationships
- Establisment of nodes between different institutions

# Types of results

- Statistical analysis of data retrieved through a search engine

# OCW in Spain and Latin America

**OCW Courses per country**



■ Argentina  ■ Chile  ■ Colombia  ■ Mexico  ■ Peru  ■ Spain
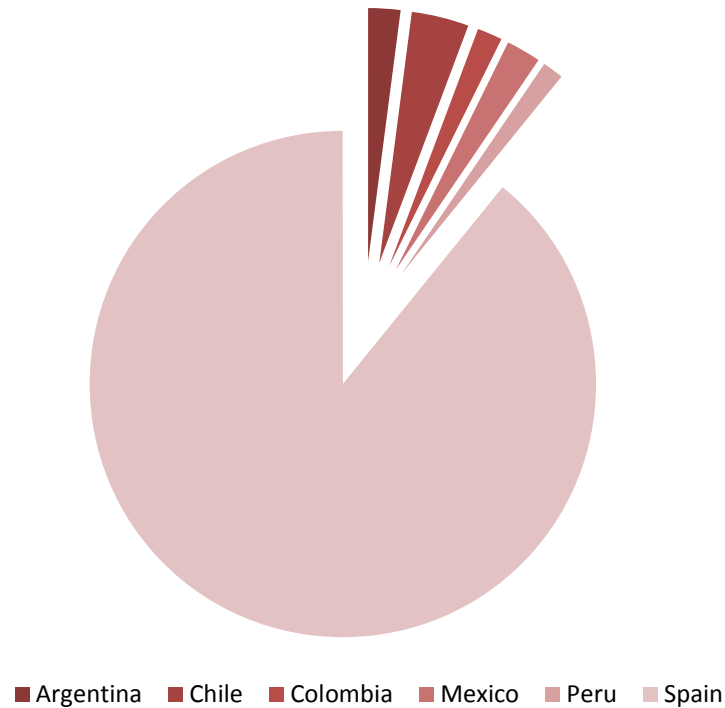
# OCW in Spain and Latin America



**OCW courses by region**
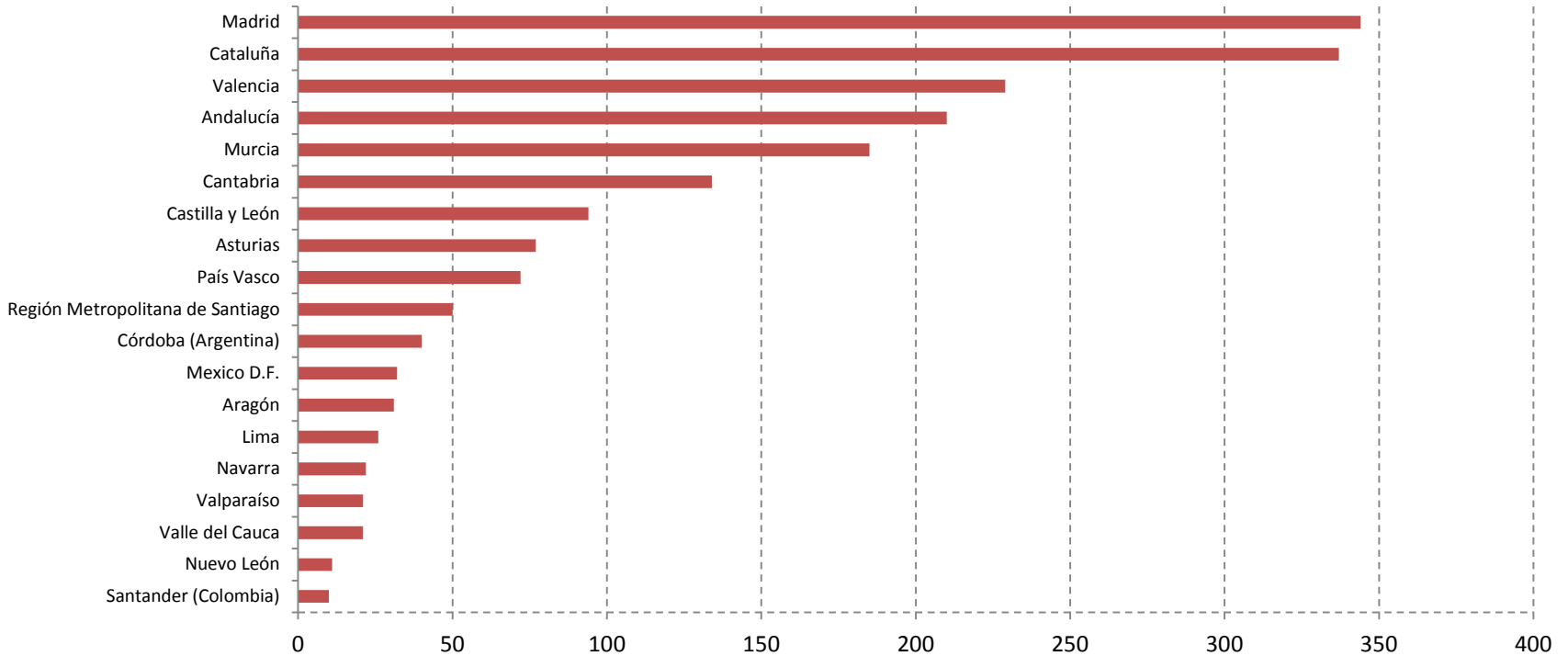
# OCW in Spain and Latin America



**Number of OCW courses per University**
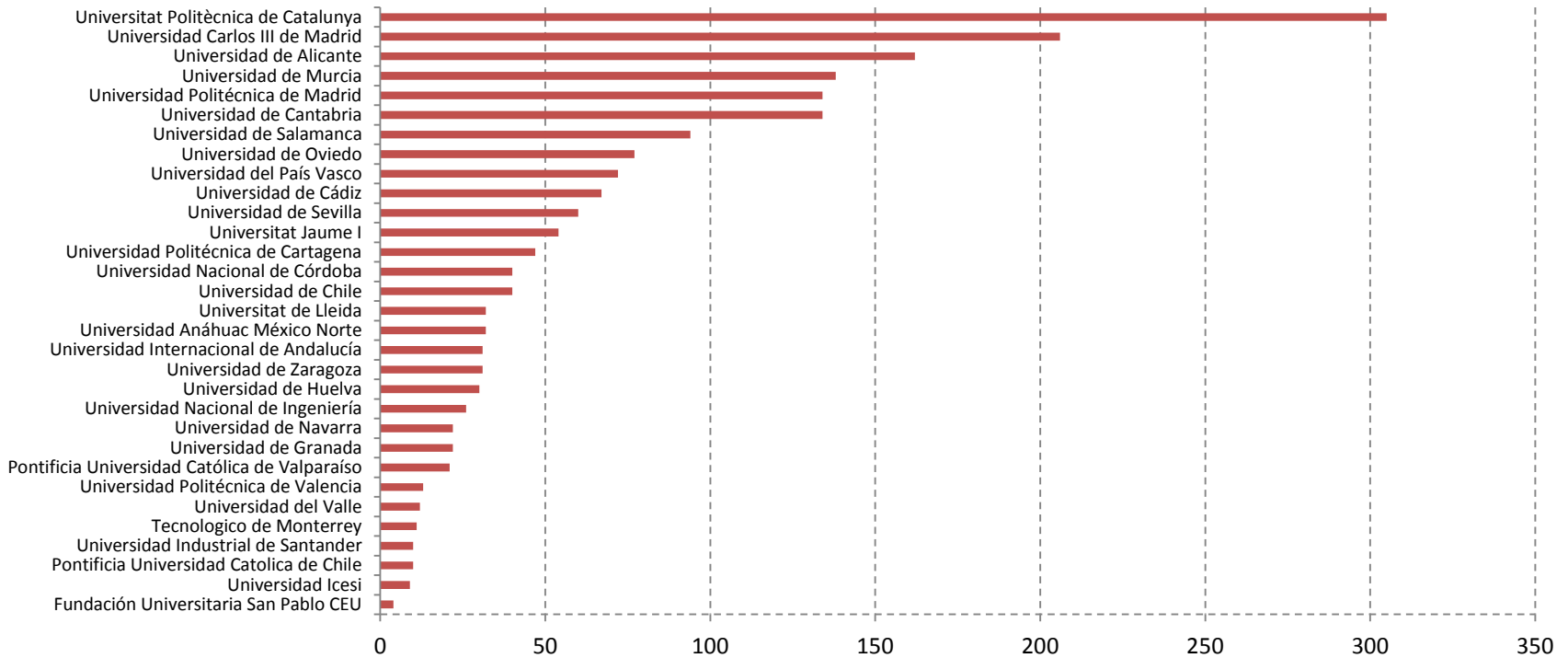
# OCW in Spain and Latin America

**Language used in OCW produced in Spain and Latin America**
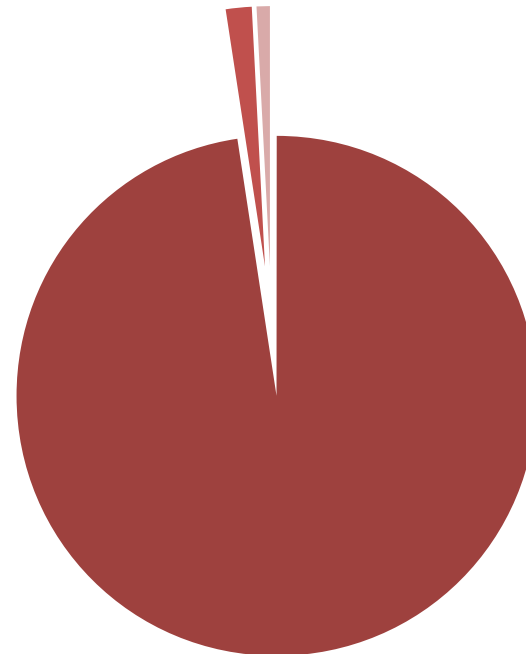


■ Spanish  ■ Catalan  ■ English

# OCW in Spain and Latin America

## OCW Courses by knowledge area



■ Not available  ■ Humanities  ■ Sciences  ■ Health Sciences  ■ Social and Juridical Sciences  ■ Engineering and Architecture
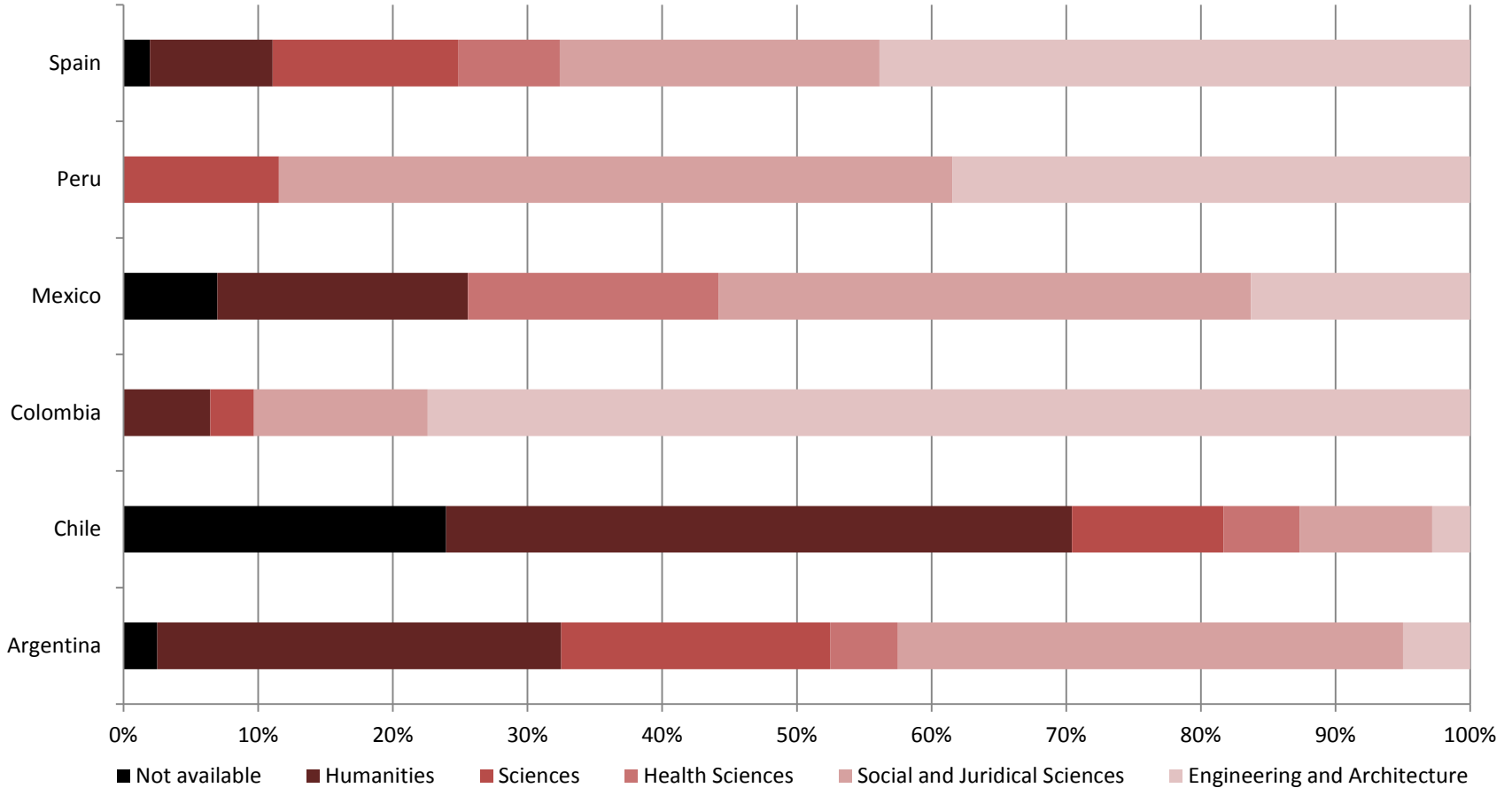
# OCW in Spain and Latin America

# OCW in Spain and Latin America



Legend: Not available | Humanities | Sciences | Health Sciences | Social and Juridical Sciences | Engineering and Architecture
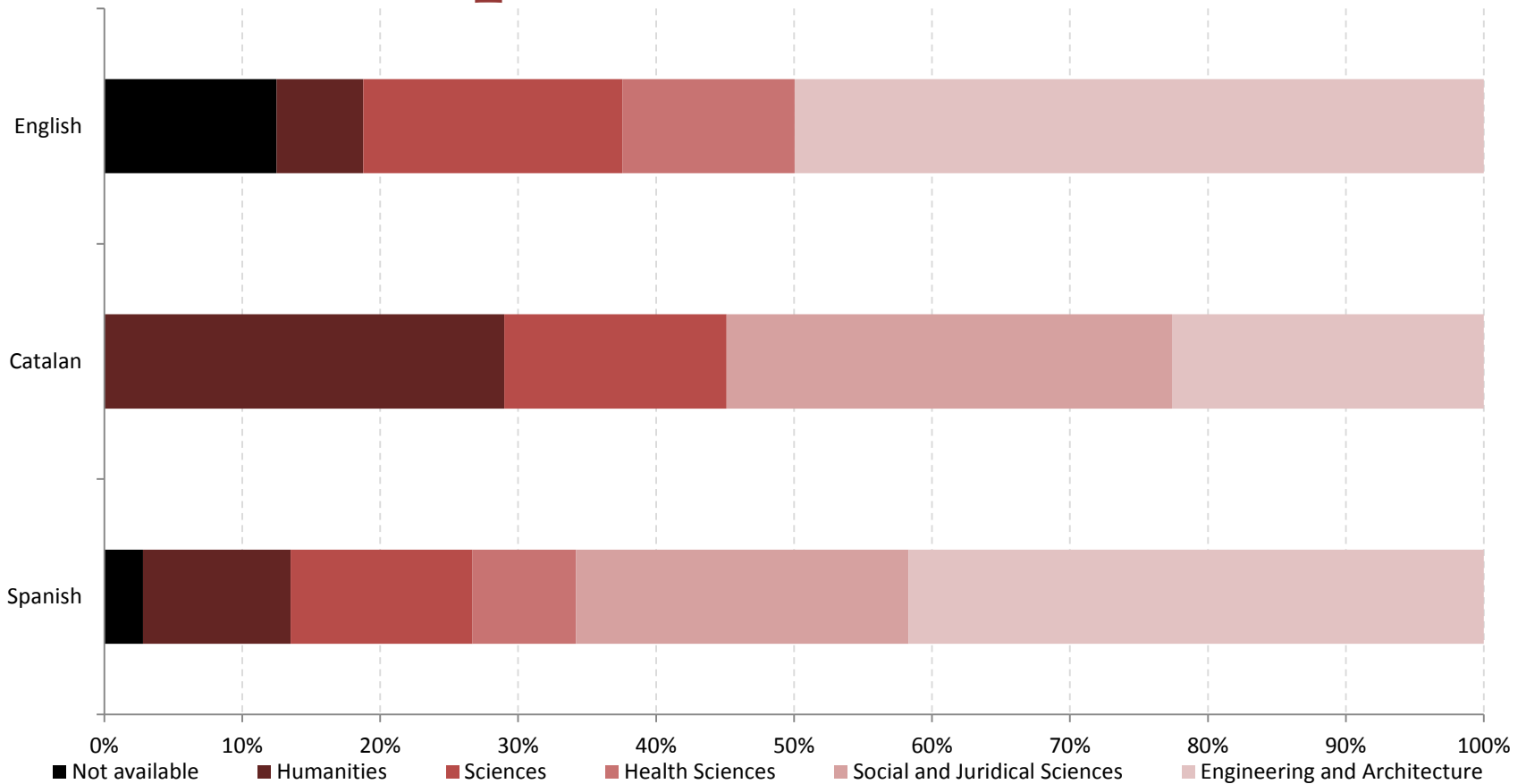
# OCW in Spain and Latin America

**Number of authors per OCW course**
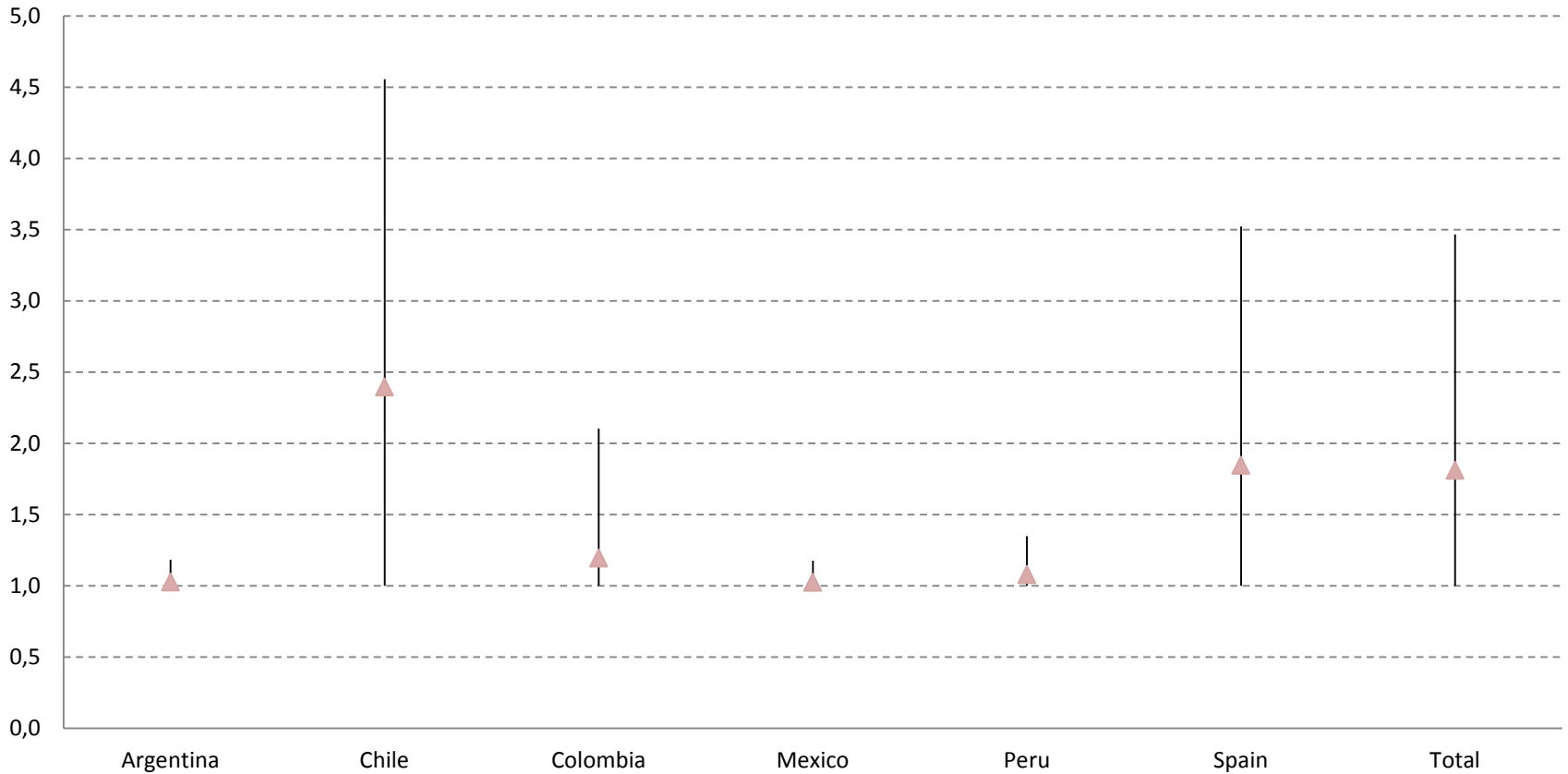
# Types of results

- Focus group on managers
  - Qualitative data
  - Indepth analysis

- Survey on managers
  - Hypothesis testing and assesing problems
  - More general data

# Survey to OCW managers

**Do you have an exclusive dedication to OCW?**
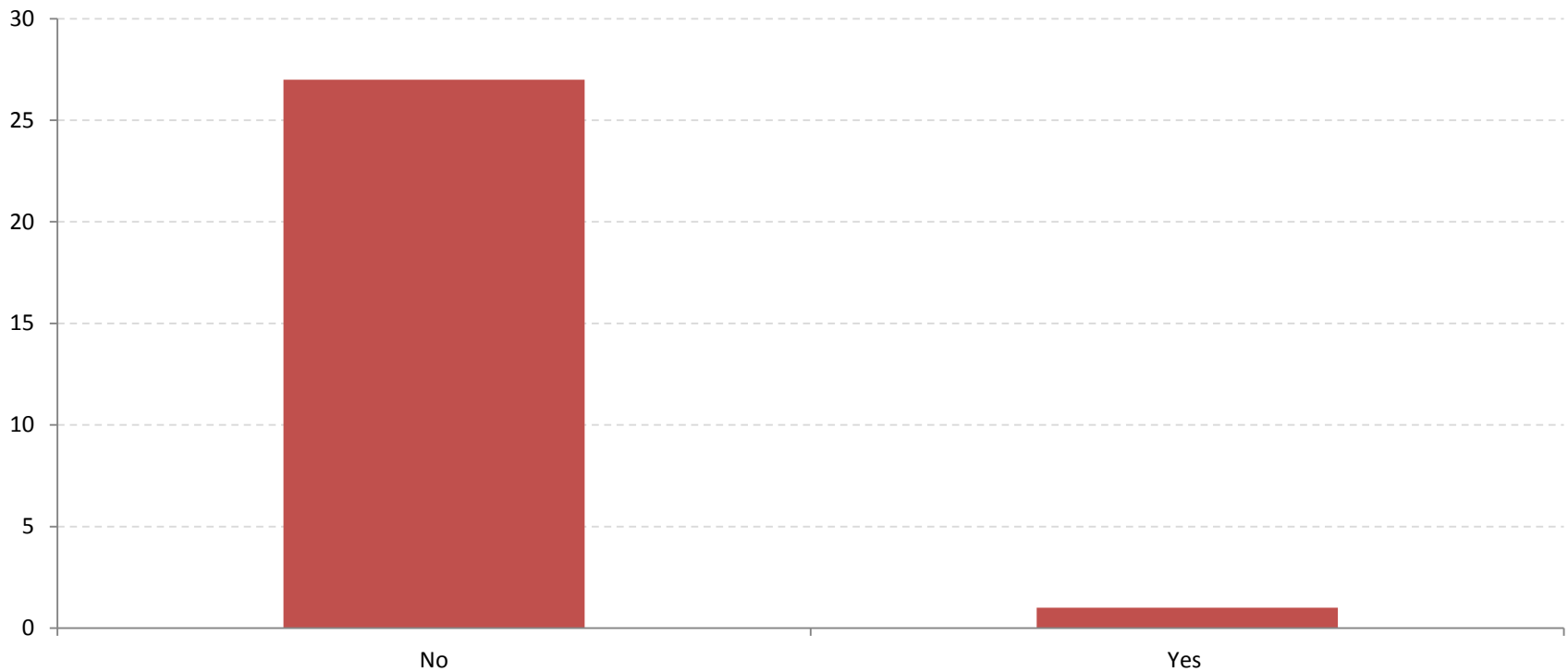
# Survey to OCW managers

**In comparision with other units of your institutions, how do you consider that you office is equipped regarding resources to your disposal?**
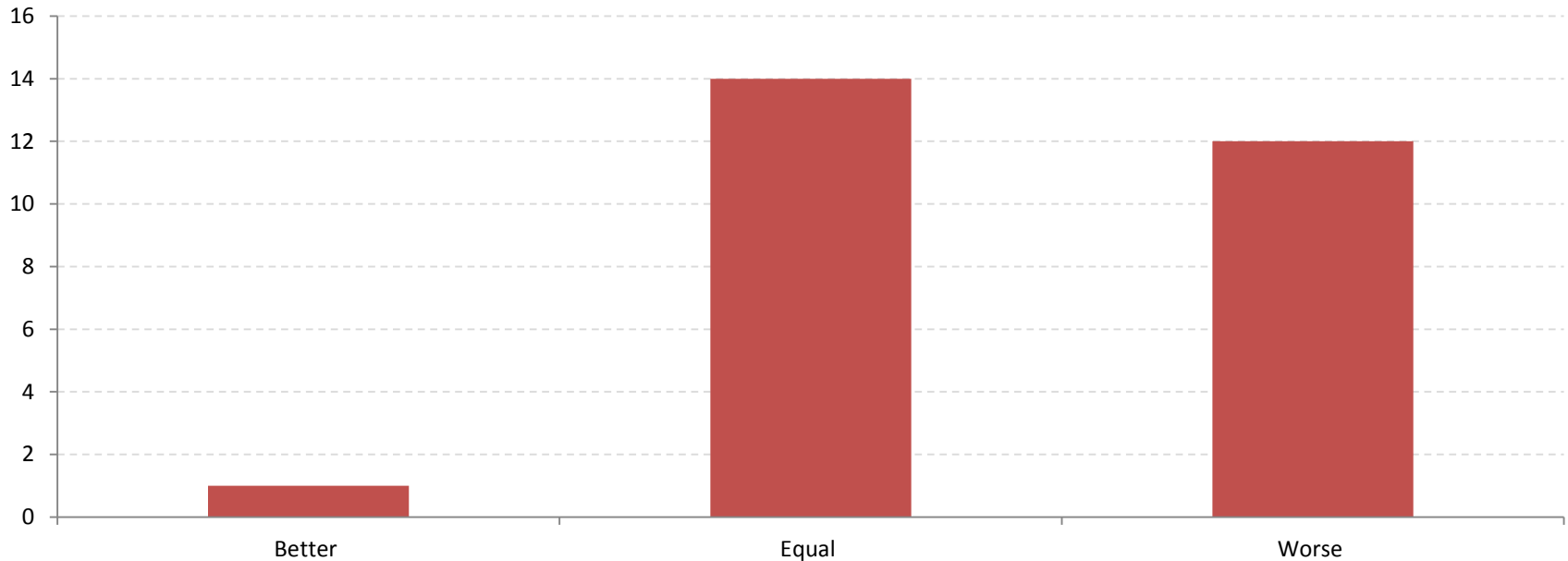
# Survey to OCW managers

## Do you think that those resources are enough?
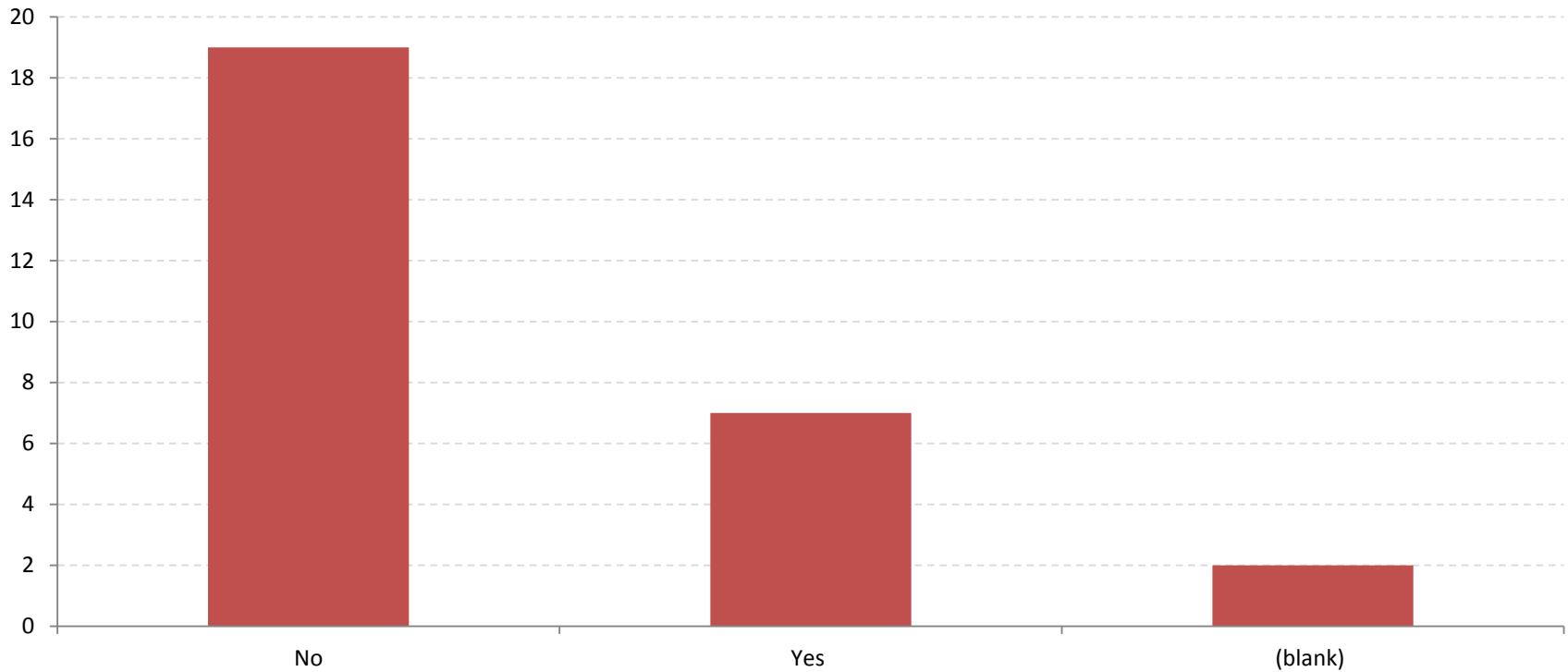
# Survey to OCW managers

**Does your university have a working OCW website?**
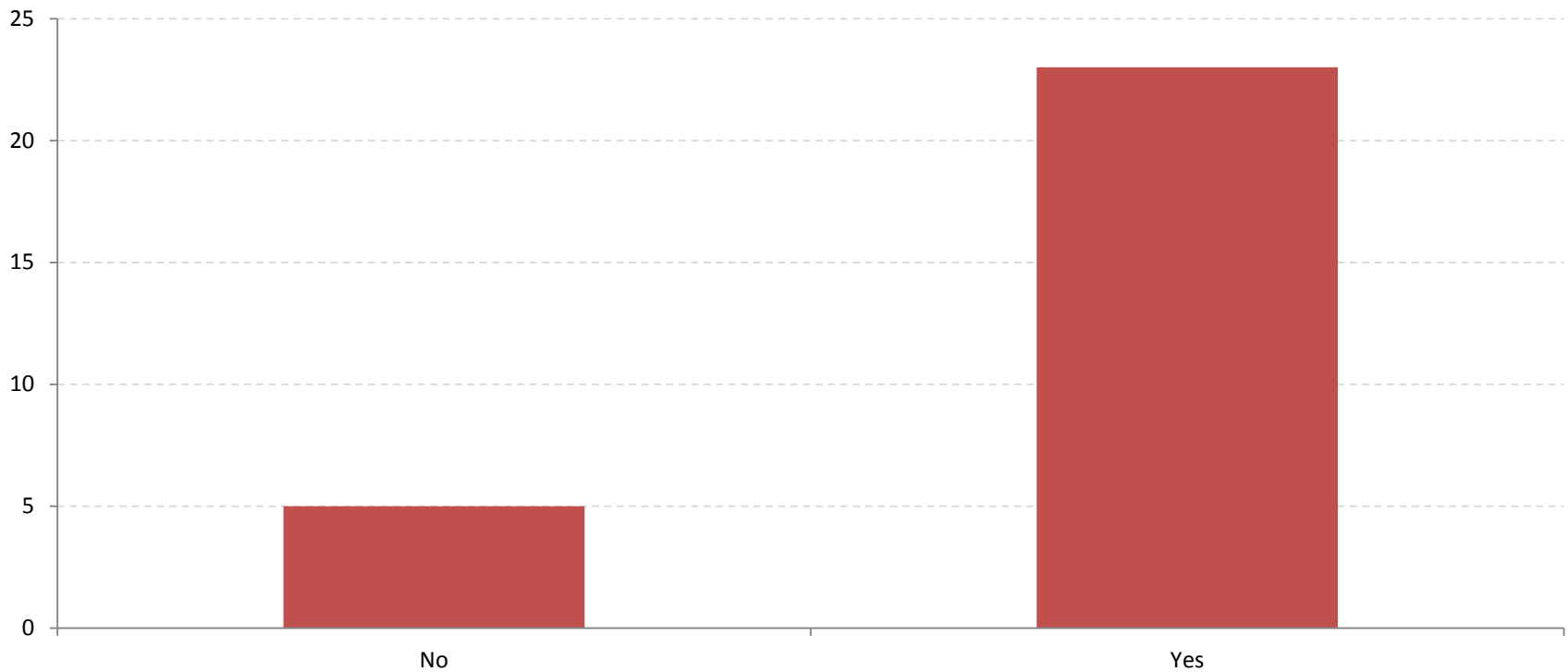
# Survey to OCW managers

**What is your professional profile?**
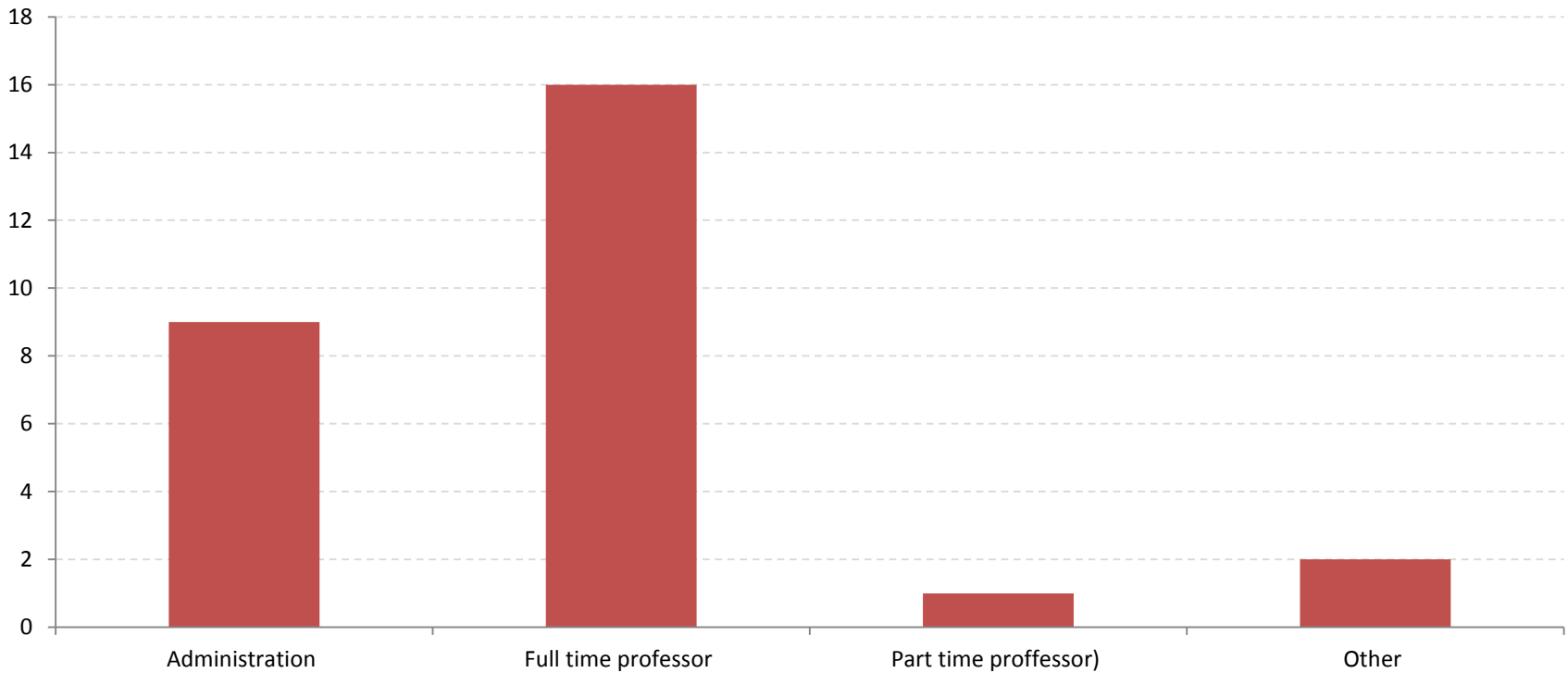
# What is for you the OCW?

- Regarding the first type of definition emphasizes that the OCW OER is a structure. This indicates that the invention of MIT provided a context to the rising phenomenon of OER. In this regard it is considered that the OCW is a support course organized by the OER form, unlike traditional mechanisms by boxes copyright limitations. Thus, one of the participants defined:

   *"For us [OCW] is a web portal that a repository that allows the faculty of the University and its students publish the contents in open classrooms generated in a structured and with a very reasonable cost."*

- In this sense the OCW is defined as a means to store teaching materials from college and make them available to students. These approaches resemble the OCW a Virtual Classroom. Thus OCW is a deposit of material that has been employing class. This will see the implications this has for students and teachers.

   *"Also [OCW] to share knowledge among students and other users, because until recently, students were no longer enrolled could not access the above materials. So we are taking a more once students have finished their studies. "*

# What is for you the OCW?

- Another element highlighted OCW office responsible for the initiative is that it can be a means of promoting the university, a way to show the work done in the classroom for the rest of the world.

  *"It can also be renowned for the University, to be known beyond the national context. Through internet right now, being a digital repository, it can be known in other parts of the world and this is important. "*

- OCW is detected that has two sides of self while having a slope of help to others. This highlights that the OCW is also an altruistic movement that enables access to knowledge in higher education for disadvantaged sectors of society and people living in the third world. It also altruistic in the sense that allows teachers to learn from other materials that are made in other universities. One of the participants highlighted:

  *"I think [OCW] has two aspects: a showcase of the University, a way to attract new customers and new students, and then, on the other hand, is an altruistic movement that puts knowledge available to anyone, especially people who have no possibilities of a career, people in the third world or underprivileged. Is the slope Personally I like. "*

- On the other hand pointed out that, beyond what the theory says, the OCW is a concrete initiative with its rulings. So one of the participants said:

  *"I theoretically agree with everything that has been said, that [OCW] promotes visibility, people share, but at my institution I would label the OpenCourseWare as a failed initiative."*

# What opportunities does it offer?

- The first group for the opportunities that have been highlighted in our discussion group is the teacher. The proposal states:

  *Opportunities ... because I believe that our teachers are several. On the one hand, is a way to get noticed, to make known their teaching. It is also a mechanism to improve its content, because when a teacher poses open publish their content because if you normally using in the classroom with students, but now eye will make available to the whole world and then I think a lot . The restructuring, seeking copyright problems and get more attractive ... It is also a way of acknowledgment. Do not give them much, but they offer a certificate of participation in the project and points for extra pay.*

- The next element highlighted OCW producers is how, at the same time it promotes the university, the initiative can serve to promote teachers who publishes it.

  *"At the level of teachers believe that may be important to promote what some teachers are doing and professors from other universities to see what is being done and that there may be some sharing of knowledge."*

# What opportunities does it offer?

- In the same way that promotes the work of teachers the initiative can be used as a means to engage teachers in the use of new technologies in the world of education. Thus the conversion of OCW materials, and equipment made for them in the office, can serve as a bridge for teachers from getting into the publication of open educational materials:

  *"For us it has been a means, say, fundamental both to promote the university and for many teachers who did not have any way affiliated with or virtual classroom with new technology [..]. to sign up to this new way of teaching and new way of transmitting knowledge. "*

  *"There are many teachers who said at the beginning that I did not want to go in because I e-learning requires much effort, I have many students, nobody helps me, the platform is very complicated. And at the moment you say 'you're going to put a number of people who are going to help, we will improve your material will also simplify and you will see ... when you see the results within a month you will see page visit thousand people from Peru and four thousand from Argentina ... seems that this is serious and is a good way to promote the content. "*

# What opportunities does it offer?

- The following elements are stressed about OCW opportunities that may entail for universities is a reduction in the costs. The OCW is thus a mechanism to cut costs and offer more and better content to students.

  *"At our university we have a process very different teaching materials because the materials are responsible, they are paid to authors. It's not like in other universities. It affects us more directly [OCW]. In this regard the fact that the University was passed that all materials were teachers with a Creative Commons license, so we can save many costs, in the sense that it can be reused for other classroom materials. "*

- Thus participants in the discussion group noted that the type of license to be chosen is very important for the future cost structure of universities. The use of more open licenses allows cost savings by reusing materials. This requires a change in the current trend, it was found some consensus on the idea that there is a trend towards the use of more restrictive licenses.

- The OCW offers Spanish universities (and their teachers) an additional opportunity to mark the process of adapting to all studies within grades, according to recent reforms of adaptation to the European Higher Education. In this framework the OCW presents an opportunity to offer subjects that disappear on cessation of the curriculum. This allows materials that have been in use until recently can reuse. This reuse allows teachers, in turn, to have a publication of material that otherwise would have been lost as a result of that adaptation.

# Future prospects

- The first line that is being explored is the integration of multiple tools in a single university teaching open platform. This would melt platforms that are now working in different departments and services, each on its side. This will not only allow them to share resources (human and material) but the own synergies and teamwork can make it work best in each particular. Closely related to the above, is being explored to encourage greater increase in OCW content

"In terms of the future, as we are proposing, we'll see if it's short, medium or long term, we do have some from our office [thought] that [OCW] becomes a production environment."

- Another element is generated controversy regarding the exploitation of OCW as certificate courses. In this regard there are conflicting opinions from those who believe it may be a positive move towards that OCW progressively routed to those observed that potential management problems can reach them unmanageable.

"For the future of OCW movement do not see anything clearly. For me to OCW's what has been done at MIT, that is, a portal, static material, which are mainly study materials, any evaluation material. But two years ago there was talk of the movement of open educational resources, the OCW are sites where you can register, pay a fee and can be evaluated and receive a certificate. When I hear this I enter the seven evils. And who is going to manage this? Frankly I see it very complicated. Also see them as different islands."

# Problems implementing OCW

- The main problem is that some participants noted the complete absence of any institutional support, which has caused even fall off the platform and can not offer the service. In other cases mentioned some OCW offices receive neither funded nor staffed to meet its objectives. Is detected, then, that for some institutions the OCW was an initiative that was set. It notes, for example, "you can get to convince many teachers" but this has not led to the necessary resources to carry it out. Thus, in certain cases it is observed that there was no real involvement in the initiative by the governing bodies. Two participants noted:

  *"But over the years my experience has been the opposite, ie, that the institutional level, at least in this house, has taken this initiative as something good, yes, but it is well noted that there has not been any of support. "*

  *"The problem of our OpenCourseWare is standing, and operate unmanned request. If we had funding, resources and so on, I will post everything on Creative Commons and why we should not have problems. "*

# Problems implementing OCW

- In many cases there is no incentives within the university to publish in the OCW, or salary or recognition.

*At first he was completely lacking in media, so it resorted to force authors to publish through the GIE. This made some materials were not of high quality and there was some discontent and reluctance among certain elements of teacher*

*"[On the draft publication of complete degrees] when you publish everything you are forcing people to publish. And here is the problem, and there are people convinced the people to strive to publish. And when you tell them to publish the first thing you have sent ... We talked with school heads and were you to post bad we do not publish. "*

*"When published with ISBN teachers were very happy, but now you can not do it that way."*

*"[What we tell teachers is that] you who you have to think about what you want. You ask me for what you need and we'll see if it is possible ... What we are asking is that teachers require us innovative things. "*

# Problems implementing OCW

- Other problems that are reported:
    - Sometimes managers are not been able to reach the group of teachers to encourage them to participate.

    *"The problem is that from the point of view of teachers that is very unknown. The teacher misses things we do have, but we have not been able to reach each of the professors of the University. "*

    - Diversity in licensing presents problems

    *"The problem that we're facing is that you choose the more restrictive license ... and then in order to be able to make derivative works is more complicated than if you had chosen a different type of license. "*

# Opinion on OCW in general

| | Valid percentage |
|---|---|
| OER and OCW do not add any value to Higher Education | 1,19 |
| OER and OCW are from the activities a professor should do in Higher Education | 4,15 |
| OER and OCW are important tools for teaching in Higher Education | 83,98 |
| OER and OCW are the future of teaching in Higher Education | 10,68 |
| Total | 100,00 |

# Own OCW compared to others
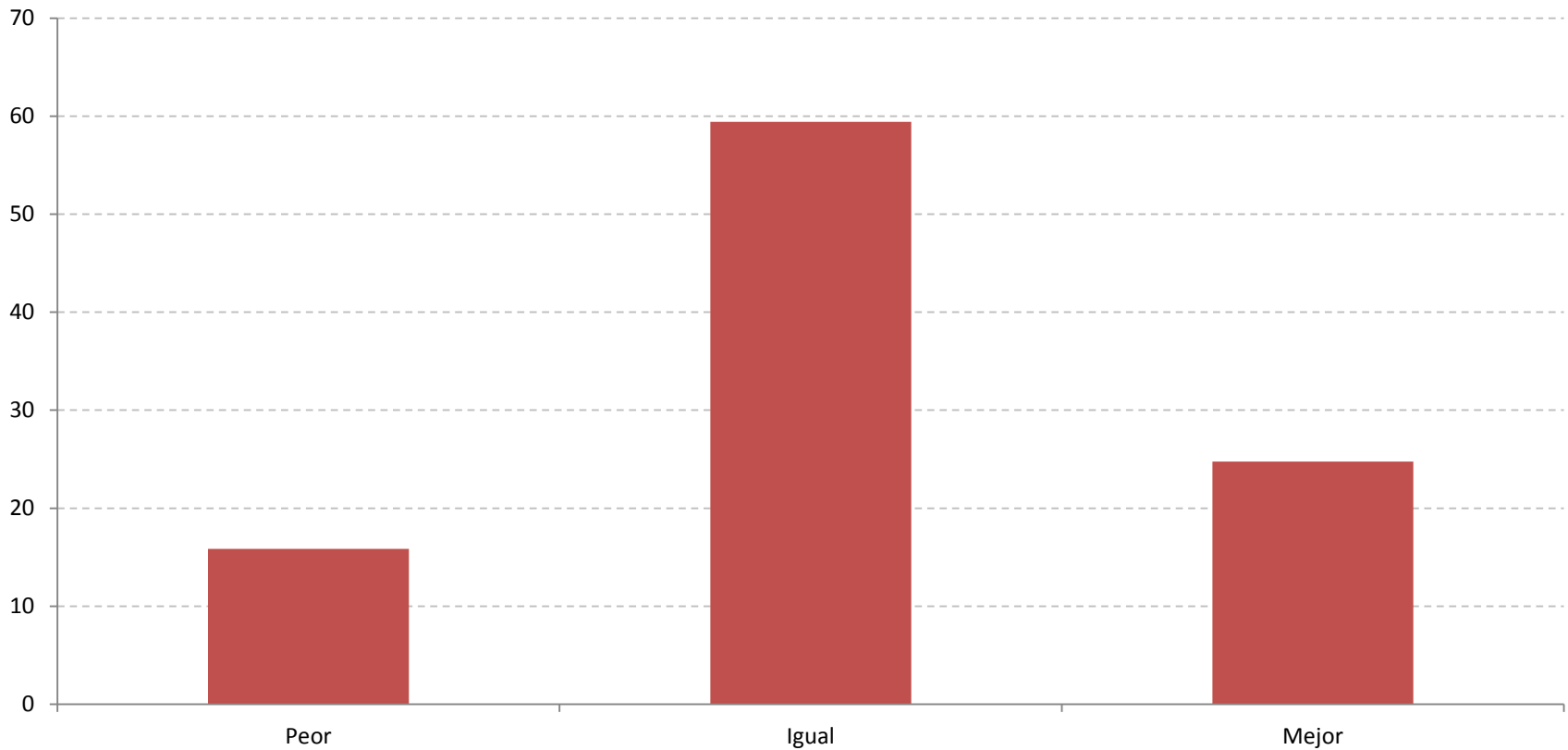
# Opinion OCW of own university
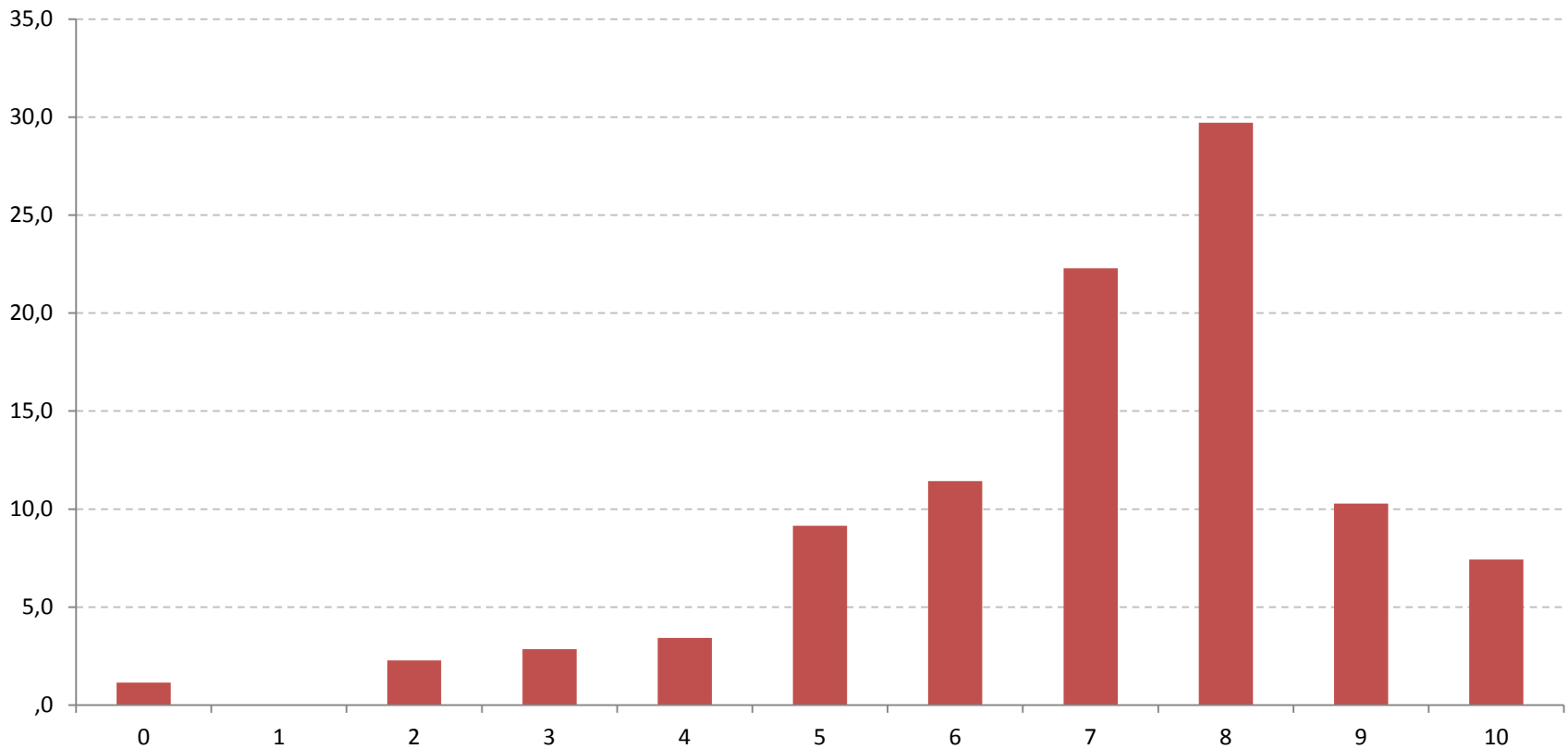
# Reason for not publishing

| | valid percentage |
|---|---|
| I did not know I could publish in OCW | 26,4 |
| Didn't know whom to refer | 9,5 |
| Don't know how copyright works | 10,1 |
| Efforts are not well compensated | 29,7 |
| Tried to publish but it was too complicated | 2,7 |
| Not interested in OCW | 3,4 |
| Lack of time | 7,4 |
| On its way to publish | 4,7 |
| Others | 6,1 |
| Total | 00,0 |

# What is OCW?

- What was meant as OCW raised some controversy. Some participants stressed his character as "a showcase for the university."

  *"I think it's also a "showcase" for the university. I believe that anything done in college who is worthy and who is well made, is a showcase. Then, we must ensure they have good courses in OpenCourseWare. "*

- Others emphasized his *Open* philosophy as its distinctive nature.

  *"I see the advantage of OCW is having things open to everyone. I don't see as an advantage looking at OCW as "showcase", because, if we think like that, we can forget about it. If I consider that my course is a showcase for the university, I would retire it from OCW, because I am aware of its limitations, which are very large.*

  *"The fundamental problem, it seems to me, is that I do not know if we believe in the Open philosophy [...] If you do not believe in the Open philosophy, the OpenCourseWare makes no sense."*

# **What is OCW?**

- Some professors conceived it as a teaching tool

  *"I think this is a teaching tool. We can not forget that, because if we forget this, everything else is meaningless "*

- Other saw it as a publication...

  *"I do not think the OCW is intended as an interactive tool or anything like that. It's just the same as if you place in your ... I do not know…that domain nomenclature, but in his twitter or anything like that."*

  *"This is a photo of the moment. To me [OCW is a] photo of the moment in which you can not adapt the course and improve the course, but you have to publish another course. "*

# Problems with OCW platforms

- Lack of resources

*"When you get a ridiculously small help for an English course, they help you publish in the OCW. So what goes in the OCW in English? A ridiculously small course"*

- Lack of recognition of merit…

*"Another drawback added is the too little recognition that it has, for those who works seriously on this and take time and the rest. Nor financially nor of any kind"*

*"You have to focus and you have to focus on what you need to focus. And time is the time, and you have to post articles. And the people in the end seek for the place that has more recognition."*

# Problems with OCW platforms

- Static nature

  *"From an educational point of view, it is too static. It's too rigid."*

  *"You can not adapt the course and improve the course, but you have to publish another course (the course of 2005, the course of 2006). To me, that's the big brake for publishing in OCW ."*

- Multiplication of teaching platforms

  *"I miss a tool to manage your course and that from that tool your subject goes to all media, and [things] not to be so difficult to publish and [be forced to] do things in eighty sites. You have to do all eighty times. That is appalling. You should have a unique tool and put everything out there. "*
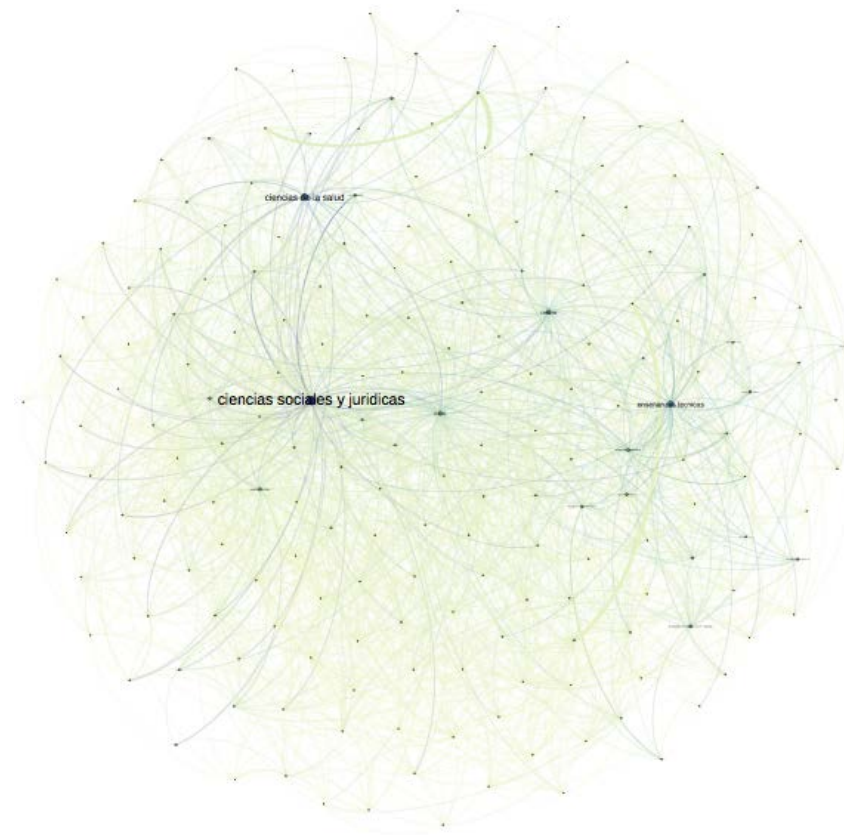
- Lack of quality assessment

  *""I force other professors to put things in the OCW, but the last time I went in the site, around three years ago, it was disappointing for me, because there are no courses there. What I see in most cases is a collection of slides."*

# Labels clouds

Relationship
among labels in
Spanish courses

# Labels clouds
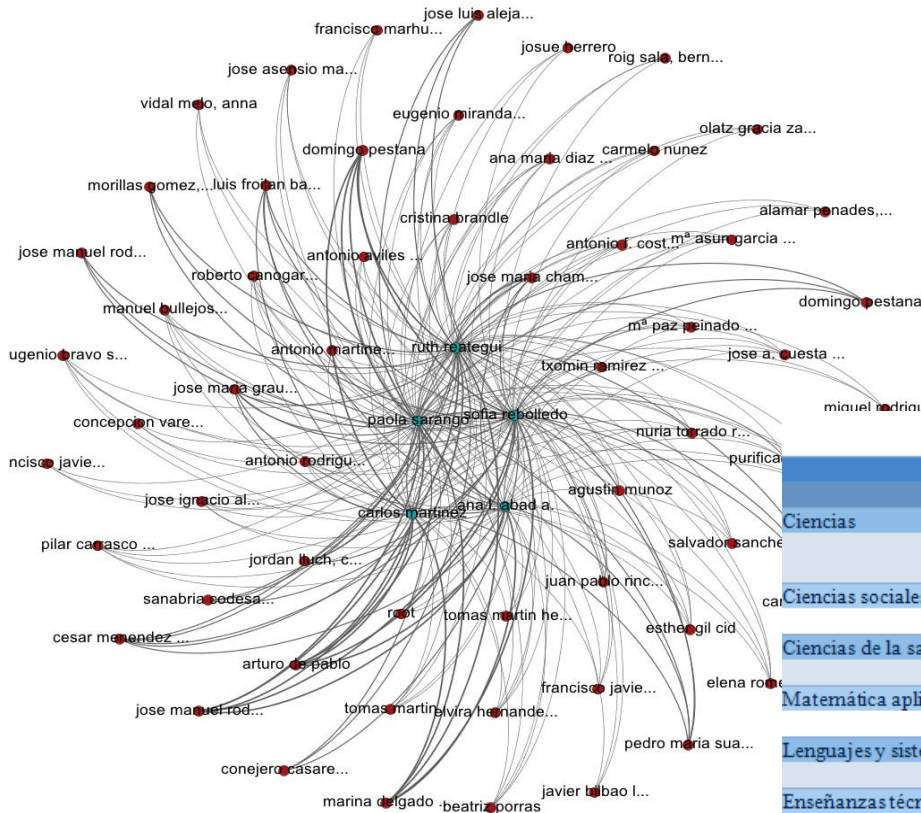


Tabla 28. Etiquetas con mayor potencial de colaboración

| Etiqueta | Total | Europa | América del Norte | América Central | América del Sur |
|---|---|---|---|---|---|
| Ciencias | 205 | 191 España (190) | 2 – México (2) | 1 – Costa Rica (1) | 12 – Perú (7), Argentina (4) y Chile (1) |
| Ciencias sociales y jurídicas | 172 | 172 España | – | 0 | 0 | 0 |
| Ciencias de la salud | 139 | 139 España | – | 0 | 0 | 0 |
| Matemática aplicada | 138 | 136 España | – | 0 | 0 | 2 – Argentina (1) y Colombia (1) |
| Lenguajes y sistemas informáticos | 115 | 106 España | – | 0 | 0 | 9 – Colombia (8) y Argentina (1) |
| Enseñanzas técnicas | 109 | 109 España | – | 0 | 0 | 0 |
| Ciencias sociales | 106 | 105 España | – | 1 – México (1) | 0 | 0 |
| Arquitectura y tecnología de computadores | 101 | 100 España | – | 0 | 0 | 1 – Argentina (1) |
| Caminos | 87 | 87 – España | 0 | 0 | 0 |
| Ingeniería informática | 80 | 80 – España | 0 | 0 | 0 |

# Conclusions of the project

- Deep implementation of the initiative in Spain
- Still weak in Latin American countries
- Development of the OCW in Latin America and Spain mostly in Spanish
- Minor development in English
- Few countries have joined or their data are not accessible in a simple way

# Conclusions of the project

- Plus
  - General positive attitude towards the OCW, both at the office manager level and the content producers
  - Feeling that OCW contributes positively to society
  - Development due to key leaders, involved without incentives

- Minus
  - Feeling of lack of support at the high decision level
  - Lack of incentives for professors to produce contents
    - No recognition as a publication
    - No retribution
  - Stagnation of some initiatives
  - Absence of guidelines and a "quality culture"

# Conclusions of the project

- Absence of consolidated structures of managing in many OCW initiatives
- OCW depending more on individuals
- But there are some stories of success

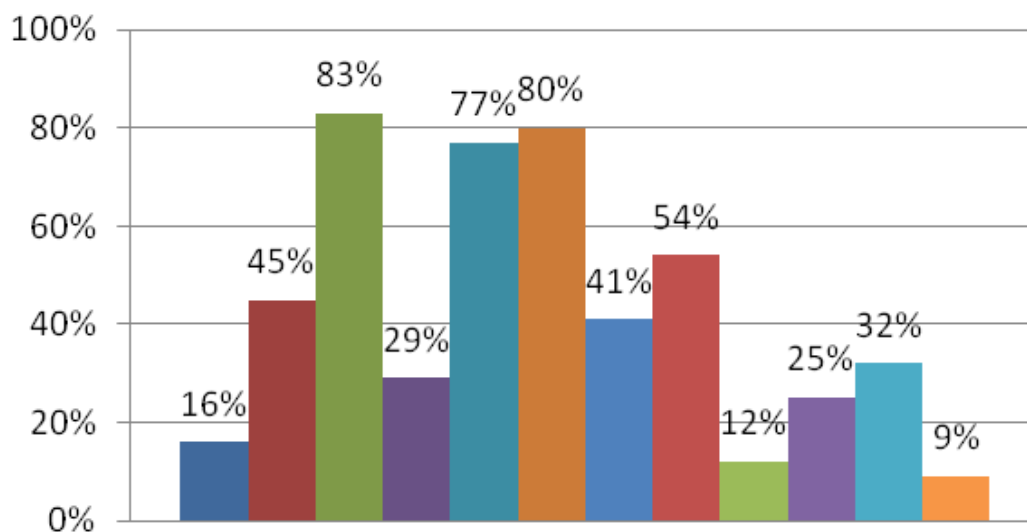# SWOT Analysis

**F**

**D**

### Welcome to the Open philosopy
### Users' perception of Quality of some courses
### Infrastructures operatives (many)
### Receptivity and wish of improvement

**Unknowledge of the Open Philosophy**
**Low Quality Materials**
**Dificulty to publish and update**
### Lack of information

### Spanish Language
**Early arrival to the community**
### OCW as teh future
### OCW Consortium
### Explosion of social networks

**Disappointing of the good authors becasue the quality**
**Global competence**
### Unknowledge by teachers and students
**Recognition policies may not depend on univeersities**
**Economical situation**
**Unknowledge by the Society**

**O**

**A**

# Survey Results EU OCW Project

## Target group

| | Frecuency | % |
|---|---|---|
| Learners | **25** | 80% |
| Faculty members | **14** | 45% |
| Organizational Leaders | **26** | 83% |
| Profesionals | **9** | 29% |
| Other | **24** | 77% |

## The use of OCW/OER in Teaching and Learning

| | Frecuency | % |
|---|---|---|
| To achieve professional qualifications | 7 | 22% |
| To obtain official degrees | 4 | 12% |
| To support teaching | 25 | 80% |
| To increase physical mobility | 2 | 6% |
| To increase virtual mobility | 6 | 19% |
| To simply provide open materials | 24 | 75% |
| Other | 7 | 22% |

## Characteristics of published OCW/OER

| | Frecuency | % |
|---|---|---|
| Texts | 31 | 100% |
| Slides | 24 | 77% |
| Audio materials | 18 | 58% |
| Video materials | 26 | 83% |
| Exercises | 22 | 70% |
| Rubrics | 4 | 12% |
| Other | 11 | 35% |

## Means of evaluating or certifying learning processes via OCW/OER

| | Frecuency | % |
|---|---|---|
| Degrees | 8 | 25% |
| Diplomas | 3 | 9% |
| Certificates | 6 | 19% |
| Test | 7 | 22% |
| Exams | 10 | 32% |
| Other | 6 | 19% |

# Factors

## Factors enabling OCW/OER initiatives

• **Institutional support**

An institution supports open sharing in education through:

-Actively encouraging participation in the production and sharing of OCW/OER amongst faculty members
-Implementing open content or open access policies
-Providing resources (financial and staff) to assist faculty members in the production of OCW/OER
-Providing incentives to faculty members to engage in the production and sharing of OCW/OER

• **Positive attitudes from faculty members**

## Factors inhibiting OCW/OER Initiatives

• **Lack of institutional support**

• **Negative attitudes from faculty**

• **Copyright-related challenges**

• **Lack of information about institutional benefits related to OCW/OER projects**

• **Difficulties with finding appropriate and quality OCW/OER (when attempting to reuse materials produced elsewhere)**

# Thanks!

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- See the full report (only in Spanish) in

  http://ocw.upm.es/documentacion-de-interes