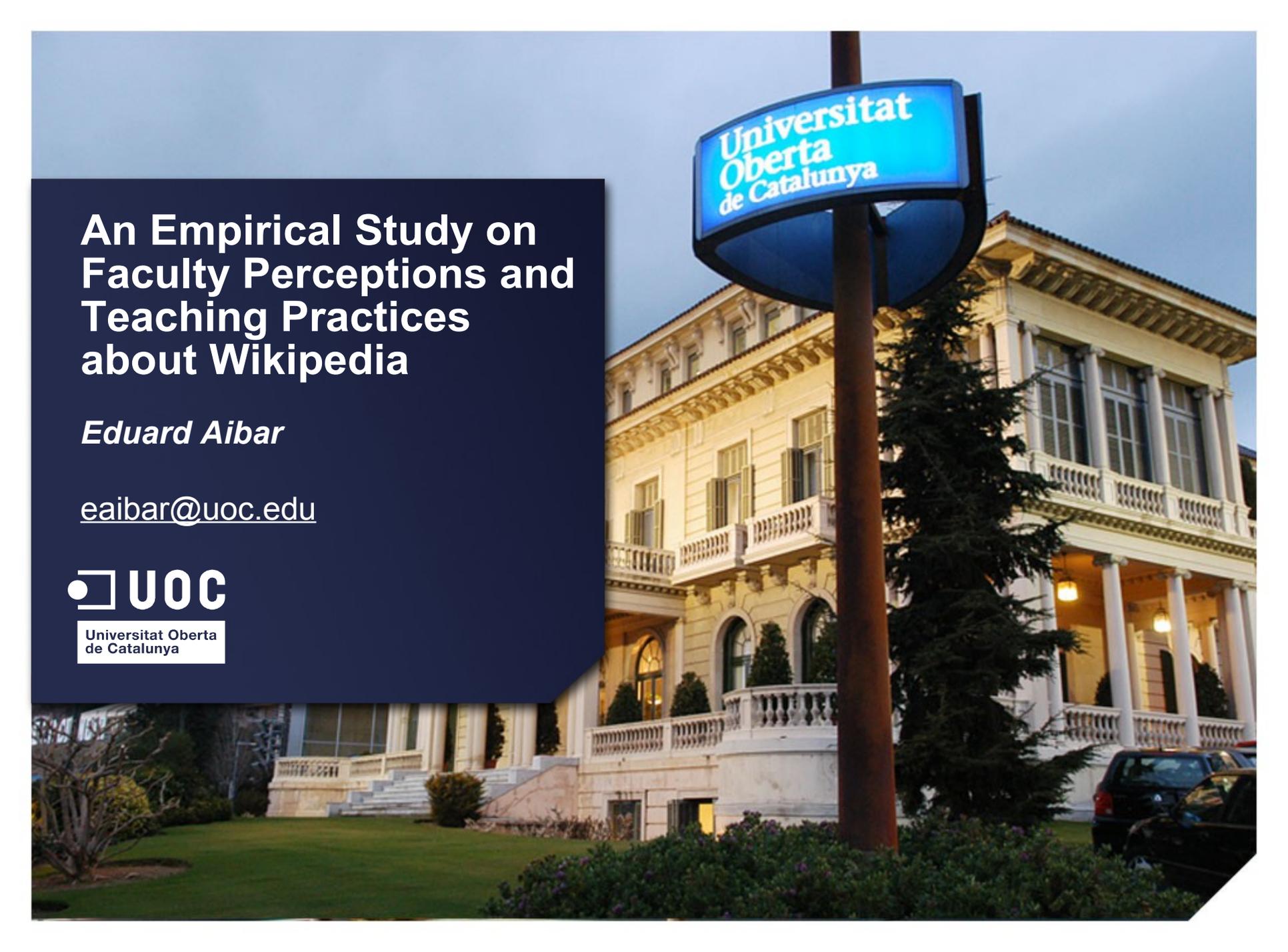# An Empirical Study on Faculty Perceptions and Teaching Practices about Wikipedia

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Research project: *The uses of Internet Open Content in Higher Education: an Empirical Study on Faculty Perceptions, Attitudes and Practices about Wikipedia*

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Basic features

Theoretical background: Peer Production and Science/Academia

> *Mass online commons-based peer production* (Free software – Wikipedia – open hardware)

> Science: open access publication, open data, citizen science, etc.

> Many similarities but important differences: authorship, formal accreditation, open and post publication peer review, etc.

Research aims:

1. Descriptive and explanatory analysis: attitudes and practices as a function of personal, professional, institutional and social factors

2. Practical purpose: fostering Wikipedia teaching use by designing a guide for best practices

Basic features (2)

Methods:

- **12 semi structured interviews**
- **Online survey with 50 questions:**
  - **Universe: all faculty members of UOC (from 2,128 individuals, 800 valid responses) and UPF (from 1500, 113 valid responses)**
  - **Control items: gender, age, area of expertise, teaching experience, etc.**
  - **5 point Likert scale**
  - **Sampling error: ±2.74% for overall data in the case of maximum uncertainty (p=q=0.5). Confidence level 95%**
  - **Data collected from November 19th to December 3th, 2012**

  Analytical frame: adaptation of a Technology Acceptance Model (TAM)

  - **Statistical techniques:**
    - **Descriptive analysis**
    - **Statistical relationships (correlation, cross tabulation, ANOVA, …)**
    - **Cluster analyses**
    - **Structural equation modeling (SEM)**

Results (descriptive)

1. Wikipedia is mostly seen as a useful tool for teaching but actual teaching use is scarce. Only 9,3% have used it (mostly for preparing teaching materials).

2. Most faculty are regular users for information seeking (for personal and professional matters: 60%). Though few of them edit (5,5%).

3. Unexpected rate of registered users: 13,5%. Catalan pop.: 0,4%.

4. Most faculty don't recommend it to students (46,4%). Only 25,9% do.

5. Quality is mostly considered positively (updated, reliable). But articles are not seen as complete.

6. Trust in editing/reviewing/publishing system is not clear. Little knowledge?

7. Most faculty think the use of Wikipedia is not well considered by colleagues. They, in fact, think colleagues don't use it much.

Results (correlations)

Factors correlated with teaching use of Wikipedia

1. Hard sciences and engineering correlate with teaching use and quality perception.
2. Academic position, age, teaching experience and PhD are not relevant.
3. Colleagues as a strong role model – for teaching use and positive assessment.
4. High correlation with use of other 2.0 tools.
5. Slight gender correlation (disappearing when areas are taken into account).
6. Teaching use correlates with quality and usefulness perception.
7. Active use (editing) is heavily associated with teaching use.
8. Passive use (consulting) in area of expertise is also heavily associated.

Results (cluster analysis)

Cluster 1: ACTIVE (233)
- Mostly men
- Part time teachers
- Engineering and hard sciences (STEM)
- Create and share open resources
- Many edit Wikipedia and are registered
- Cite Wikipedia and see good quality

Cluster 2: FRIENDLY (253)
- They use Wikipedia for preparing their teaching
- Not for teaching activities with students
- Not against students using it

Cluster 3: LOW (153)
- Low use of Wikipedia for teaching
- Frontier between clusters 1 and 4?

Cluster 4: RELUCTANT (218)
- Mostly women (slightly)
- Full time and part time teachers
- Not in STEM fields
- They do not create or share open resources
- Low (passive) use of Wikipedia
- No active use (editing)
- Never cite Wikipedia
- They see bad quality

Results (structural equations modelling)
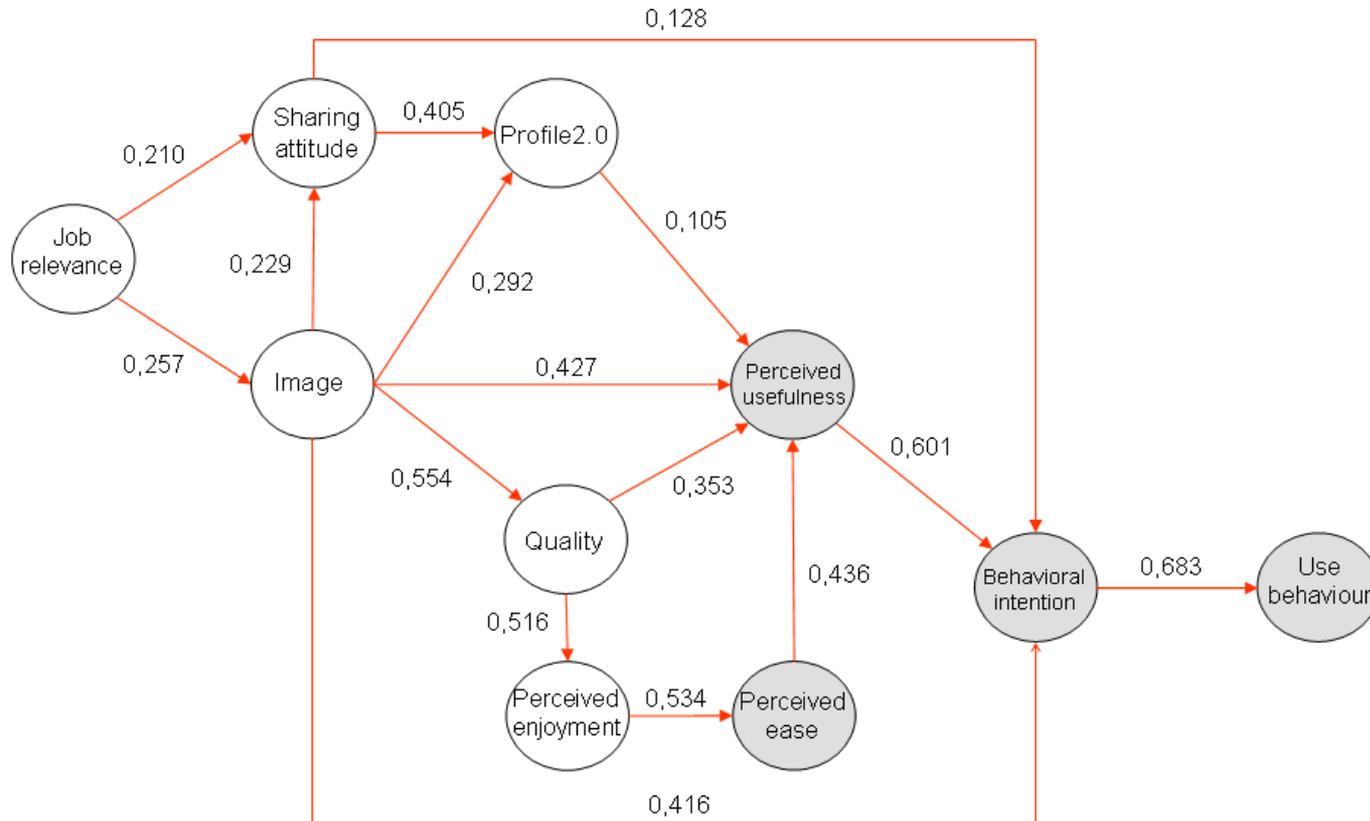
Final remarks

Colleagues as strong role models: science as a peer culture

Perception on quality depends heavily on peers

Private use though public silence: Wikipedia does not belong to science culture

Active faculty are also involved in other cultures

Different cultures within academia/science

Teaching use of Wikipedia does not depend on some factors traditionally associated with 2.0