Still Open During the Covid-19 Lockdown: an Analysis of Online Students’ Engagement with the Virtual Campus

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Context

Universitat Oberta de Catalunya

- Fully online open university with a virtual campus
- Educational model based on completing activities, and continual guidance and support
- Undergraduate degrees follow a 14-16 week schedule
- Connection patterns are a proxy for academic performance

Covid-19 global pandemic

- Lockdown started March the 14th, 2020 (24 days after the beginning of the academic semester)
- Flexibility measures were taken to help students get through the semester
Research questions

Main goal: to measure how the pandemic affected the connection habits of students

RQ1: Did students change their attendance due to the Covid-19 lockdown?

RQ2: Are there differences in their weekly and daily connection patterns during the lockdown period?

RQ3: Regarding persistence throughout the semester, are there differences between groups?
Methodology (Data)

Population: all UOC undergraduate students residing in Spain

Three academic semesters:

- **Spring 2018** 27,009 students
- **Spring 2019** 29,428 students
- **Spring 2020** 31,502 students

Students are mostly part-time (≈ 90%), 25 or more years old (≈ 84%), slight majority of women (≈ 54%), not freshmen (≈ 88%)

No data on family or professional situation
Methodology (Measures)

**Attendance**: percentage of unique students connected to the Virtual Campus per day

\[
\text{Number of students connected} / \text{Total number of students}
\]

**Day of the week / Hour of the day**: percentage of connections by day of the week / hour of the day

**Persistence**: percentage of days connected to the Virtual Campus since the beginning of the semester

\[
\text{Number of days connected in range } [1..i] / i
\]
Percentage of different users connected to the Virtual Campus

Attendance

Day

Semester
- Spring 2018
- Spring 2019
- Spring 2020

Easter 2018
Easter 2020
Easter 2019

Percentage of different users
Higher energy consumption

10h-19h

+3.87%

+6.55%

+7.39%
Conclusions

Change in connection patterns

- **RQ1**: Yes, more students connected throughout the academic semester
- **RQ2**: Yes, connection patterns also changed
  - More spread throughout the week (no weekends, no holidays)
  - More concentrated during the day (not early in the morning or late at night)
- **RQ3**: No, lockdown changed connection patterns for all groups. Nevertheless, freshmen were the only group that did not show an increase in persistence

Future research

- Impact on academic performance
- Impact on subsequent semesters