

# LEARNING ANALYTICS AT UOC: FIGHTING DROPOUT

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# DATA GATHERING

- Data fragmentation and duplication
- Seamless integration within UOC processes:
  - Transparent
  - Supported by small E-T-L processes
- LRS evidence-based data only: user actions
- xAPI inspired model: [U, T, S, R, X]
- One-table-fits-all (and a few more for U, R)
- High-level indicators as services
- Data is anonymized but also user-traceable

# DATA SOURCES

- Student's socio-demographic and academic background
- Pre-enrolment and enrolment data
- Semester data:
  - Connection patterns
  - Interaction with the Virtual Campus and peers
  - Use of resources and communication spaces
  - Continuous evaluation
  - Academic performance
- Surveys

# LRS DIMENSIONS

- Longitudinal:
  - Historic data
  - Current semester
  - Apps “on-the-fly”
- Access:
  - Raw data, CSV files
  - Indicators
  - Dashboards

# LRS CHALLENGES

- Completeness
- Complex semantics
- Quality
- Efficiency:  $10^8 - 10^9$  records / semester
- To promote a Learning Analytics culture:
  - Awareness
  - Training
  - Support from experiment design to publication
- Share educational data with other HE institutions

# FIGHTING DROPOUT

- Include UOC educational model details:
  - Diverse student profiles and goals
  - (Lack of) institutional requirements
- Empirical definition of dropout in online higher education: taking a break  $\approx$  dropout
- Early detection: inter and intra-semester
- External (student) and internal (institution) factors: manage expectations / reduce friction
- Additional data: surveys, interviews

# PRELIMINARY RESULTS

Continuous evaluation → Success → No break

- Interventions:
  - Analysis of course / subject combinations
  - Coordination among course calendars
  - Course recommender
  - Continuous evaluation alternatives
  - Navigation as early dropout detection

# INTERESTED?

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LAIKA research group: <http://oer.uoc.edu/LAIKA/>

PhD and Post-doc positions available!