UCLouvain

Icomu2810

2024

In-depth data collection and analysis methods

| 5.00 credits | 22.5 h | Q2 |
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| Teacher(s) | Heuchenne Cédric ; |
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| Language : | French |
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| Place of the course | Louvain-la-Neuve |
| Learning outcomes | |
| Evaluation methods | Work on real data with final report (to improve if a second chance evaluation has to be held). Language of the evaluation: French |
| Teaching methods | The course takes place in the form of workshops. A survey database, possibly chosen by the audience, is analyzed throughout the course. Firstly, we criticize the way in which it was constructed, while secondly, we extract the main information using factor analysis tools and the inherent graphical representations. |
| | Course given in person. Some videos can nevertheless be used to improve understanding or add technical developments |
| Content | The course mainly concerns the analysis, interpretation and communication of survey results. To this end, the classic sampling methods (quotas, random, stratified, clusters, etc.) used to develop opinion polls are detailed, specifying their characteristics, their interests and limitations. The crucial elements of reliability of studies to which communicators and politicians must be attentive are highlighted. The main tools for analyzing survey data are then discussed with an emphasis on the interpretation and visualization of the results. |
| | Course outline: methods of data collection and analysis |
| | Part I: data collection |
| | - Surveys: general |
| | - Empirical sampling methods - Probabilistic sampling methods |
| | - Construction of a questionnaire: formulation of questions |
| | - Margins of error: formula and characteristic curve |
| | - Weighting, re-balancing of data |
| | Part II: Data Analysis |
| | Databases: matrix elements |
| | - Principal component analysis applied to opinion polls, limitations of correlations |
| | - Multiple correspondence analysis applied to opinion polls |
| | - Multiple factor analysis: detection of the principal components of a survey |
| Inline resources | See course LCOMU2810 on moodle. |
| Faculty or entity in charge | COMU |

| Programmes containing this learning unit (UE) | | | | | |
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| Program title | Acronym | Credits | Prerequisite | Learning outcomes | |
| Master [120] in Information and Communication Science and Technology | STIC2M | 5 | | ٩ | |
| Master [60] in Information and Communication | COMU2M1 | 5 | | • | |
| Mineure en statistique et science des données | MINDATA | 5 | | ٩ | |