Federica Bologna

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Education

Cornell University   *Ithaca, N.Y.*
Ph.D. in Information Science | Minor: Sociology   *Expected May 2026*

University of Bologna   *Bologna, Italy*
M.A. in Modern, Post-Colonial and Comparative Literature   *2020*

University of Bologna   *Bologna, Italy*
B.A. in Foreign Languages and Literature   *2017*

Research Expertise

Natural Language Processing (NLP), Computational Social Science, Online Communities, Medical Narratives, Machine Learning, Low-Resource Languages, Cultural Analytics, Science of Science, Open Access

Skills

Programming	Python (Scikit-learn, BERT, Spacy, NLTK, Pandas, NumPy, Matplotlib, Plotly, Seaborn etc.), R (tidyverse), Bash
Tools	Git(Hub), LaTeX(Overleaf), Qualtrics, Hugging Face, Microsoft Office
Methods	NLP (supervised classification, topic modeling, etc.), Quantitative(data analysis, statistical testing), Qualitative(surveys)

Research Experience

Stylometric Identification of the "Unknown Male Author" in Veronica Franco's *Terze rime*   *Ithaca, NY*
Cornell University   *Jun 2022 - Present*

- Conducted authorship attribution in low-resource languages, specifically 16th-century Italian, combining character trigrams, supervised classification, and high-dimensional data visualization techniques.
- Provided advice to Cornell experts in Italian renaissance literature on NLP and data analysis techniques.

User Needs and Peer Support in Endometriosis Online Communities   *Ithaca, NY*
Cornell University   *Aug 2021 - Present*

- Investigated aggregate patients' needs, impact of relationships on patients' experiences and peer support practices in two endometriosis online communities.
- Identified large-scale trends in posts' topics, the relationships mentioned, and the support the posts seek using supervised classification with DistilBERT and LDA topic modeling.
- Submitted publication and presented preliminary findings at DH2022.

Open bibliographic data and the Italian National Scientific Qualification *Bologna, Italy*
University of Bologna *Aug 2020 - Jul 2021*

- Evaluated the suitability of open access datasets for academic evaluation processes in Italy analyzing their coverage of publications across academic fields.
- Published results in *Quantitative Science Studies* by MIT Press.

Work Experience

Cornell University *Ithaca, NY*
Teaching Assistant *January 2022 - May 2022*

- Delivered a lecture on the use of NLP and statistical testing to analyse social media data, specifically topic modeling and permutation tests.
- Held office hours to advise students on their class projects and help them succeed in the class.
- Revised problem sets and directed 7 undergrad TAs in the grading of the homework.

University of Bologna *Bologna, Italy*
Research Assistant *Aug 2020 - Jul 2021*

- Built a pipeline to collect and disambiguate citation data from Microsoft Academic Graph, Crossref, OpenAIRE and OpenCitations.
- Queried and manipulated 275+ bibliographic and citation records using MongoDB and multiprocessing with Ray.
- Devised novel methods to visualize large citation networks.

Publications

Under review — User Needs and Peer Support in Endometriosis Online Communities
Federica Bologna, Rosamond Thalken, David Mimno, Matthew Wilkens

Forthcoming — Do open citations give insights on the qualitative peer-review evaluation in research assessments? An analysis of the Italian National Scientific Qualification
Federica Bologna, Angelo Di Iorio, Silvio Peroni, Francesco Poggi
Scientometrics

2022 — Open bibliographic data and the Italian National Scientific Qualification: Measuring coverage of academic fields
Federica Bologna, Angelo Di Iorio, Silvio Peroni, Francesco Poggi
Quantitative Science Studies

2020 — A Computational Approach to Urban Space in Science Fiction
Federica Bologna
Journal of Cultural Analytics

Fun fact :)

The first pesto sauce I have ever enjoyed is this one from Costco.