

Post-graduate Students and Researchers working in the fields of social sciences and humanities are invited to participate in the course:

"Research Methods for Multimodal Communication and Discourse Analyses"

The course will consist of 4 two-hour sessions, conducted by Professor Francis Steen (Communication Studies, UCLA, USA), Professor Mark Turner (Cognitive Science, CWRU, USA), Dr Anna Pleshakova (School of Interdisciplinary Area Studies, U of Oxford) and Dr Xavier Laurent (IT Services, U of Oxford). The course sessions will run on Wednesdays (5.15-7.15pm) in Weeks 1-4 of Trinity Term 2017, in the IT Services Building, 13 Banbury Rd.

Please email Dr Xavier Laurent (<u>xavier.laurent@it.ox.ac.uk</u>) to register for the course. The registration deadline is the 13th of April.

The course is free, and there is no registration fee. The course places are limited to 15 participants and will be allocated on a 'first come, first served' basis.

Once registered, the participants will be added to the course's Weblearn site, thereby getting access to the course materials as well as the Red Hen Lab's datasets.

Using Red Hen Lab (<u>www.redhenlab.org</u>) as a platform, the course will offer training in new methods suitable for media and political communication and discourse analyses. Our approach to training combines media analysis, computational analysis and cognitive (linguistic) analysis, focusing on English and Russian language media data. The course will introduce and offer training in a variety of available open-access computer tools for tagging text and video (e.g. natural language processing for semantic and syntactic levels; tagging in Elan), tools for frame detection, metaphor detection, sentiment detection, among others; i.e. the tools used by Red Hen Lab to create combined pipelines for manual, semi-automatic, and automatic analyses of large media datasets.

Brief Outline of the Teaching Module

Session 1 (2 hours): Red Hen Lab key research projects/methods, Datasets, and Search Engines; Edge Search Engine and Edge 2 Search Engine

Session 2 (2 hours) Text Tagging: NLP tools, suitable for more advanced communication and discourse analyses and FrameNet type tools

Session 3 (2 hours) Video Tagging and Multimodal Tagging: Introduction to video tagging tools; Video tagging with ELAN

Session 4 (2 hours) Multimodal Statistical Analysis with R;

Using Red Hen Lab Datasets for Multimodal Viewpoint Construction Analysis of Media

Cognitive Approach to Media Analysis: Viewpoint Blending Analysis and Blended Joint Attention Analysis

Session Delivery Mode

Each session will offer a brief overview of the topic it is devoted to, plus basic explanations and practical assignments. Sessions will be delivered in a very hands-on mode, to ensure that students obtain a good understanding of the tools and methodology involved in tagging big multimodal datasets in their relation to the challenges of their areas of research.





FURTHER INFORMATION

(see more at <u>www.redhenlab.org</u>)

What is Red Hen Lab?

Red Hen Lab is an international consortium for research on multimodal communication. It develops open-source tools for joint parsing and tagging of text, audio & speech and video, using a very large international dataset, mostly made up of TV news broadcasts, in a variety of languages. Red Hen Lab automatically ingests, processes, and tags about 150 hours of new recordings daily. It develops machine learning classifiers, search instruments, visualization tools, and other computational and statistical instruments for the purposes of research into multimodal communication. It operates as a cooperative of engaged researchers who collaborate closely and contribute power and content to Red Hen Lab and hence to each other and to future researchers.

Overall, Red Hen Lab's datasets now include news shows broadcast by more than 60 TV channels in US, Germany, Czech Republic, Poland, Russia, Portugal, Norway, Denmark, Spain, Brazil, among other countries. All Red Hen Lab datasets are unique, both in terms of the type of data, and the research opportunities offered. They are also closed; however, Oxford research students and researchers taking the proposed teaching course will be granted access to Red Hen Lab datasets.

Challenges and Solutions Related to Big Multimodal Datasets Analysis

While text corpora pose known problems and partial solutions, massive video corpora remain largely inaccessible to systematic analysis. Textual and visual information is complementary rather than duplicative, adding complexity to the parsing task.

The computational challenges exist at three levels:

- Surface ontologies -- classifying, identifying, and labelling people, actions, objects, and places shown in video frames
- Syntagmatic ontologies -- detecting story boundaries, story topics, scene types, and spatiotemporal patterns
- Communicative ontologies -- camera techniques, presentational patterns, persuasion effects.

TV news shows, unlike surveillance video, are professionally constructed as intentional acts of communication, therefore the computational challenges related to dataset analysis can only be met through a close collaboration of computer scientists, media scholars and cognitive scientists.

Communicative frames inform the choice of computational techniques, and available computational techniques in turn inform which cognitive effects to focus on. Coverage from different networks and countries can be used to triangulate on a single event, creating a multiperspective construct.

This approach is reflected in the design of the proposed teaching course, which is anchored in three types of analysis: computational analysis, media analysis and cognitive (linguistic) analysis.

