

## WINTER 2024 TERM

### 1. Course Information: FIMS9328: Misinformation and Viral Deception

**Informational website:** <http://victoriarubin.fims.uwo.ca/teaching/misinformation-and-viral-deception/> is accessible to everyone (via Instructor's website).

**OWL Course website** will be accessible to **enrolled** students.

**Enrolment Restrictions:** enrollment in this course is restricted to **graduate students at FIMS**, as well as any graduate student that has obtained **special permission to enroll** in this course from the course Instructor as well as the Graduate Chair (or equivalent) from the student's home program.

**Format:** an in-person class (on Western campus)

**Time:** Tuesdays, 9:00- 11:50 a.m.

### 2. Instructor Information:

**Prof. Victoria Rubin, Ph.D.**

Associate Professor

Faculty of Information and Media Studies

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Website: <http://victoriarubin.fims.uwo.ca/about/>

### 3. Course Description:

Foundations of credibility assessment and information quality verification. Philosophical and psychological underpinnings of deceptive behaviors. Information manipulation by digital environment type (fudging, forging, spamming, trolling), format (image- or text-based), domain (communication, news provision, information organization). Best prevention guidelines for digital/off-line environments. Technological advancements in lie detection and information verification.

#### Objectives:

- To develop an in-depth understanding of general principles of misinformation and disinformation behaviours and understanding of viral spread of inaccurate, incorrect, false or otherwise misleading information.
- To discuss and develop interdisciplinary appreciation for existing content verification and quality assessment methodologies, their benefits and limitations.
- To aggregate and critically evaluate best practices for preventative or corrective interventions for misinformation/disinformation, information verification, and information/media literacy.
- To develop an ability to communicate the concepts related to misinformation, disinformation and broader information manipulation clearly and effectively to users, colleagues, paraprofessionals and other stakeholders in and across various disciplinary communities.

#### Problem Statement:

Recent controversies over “fake news” and concerns over entering a “post-truth” era, highlighted the need for deeper understanding of the problematical information that circulates in contemporary technologically-mediated environments. Such information may be inaccurate, misleading, inappropriately attributed, or altogether fabricated and it has a potential to disrupt politics, business, and culture (Jack, 2017). Everyday life decision-making, behavior, and mood are influenced by the quality of information we receive. When professional analysts sift through the news, their future forecasts, fact and pattern discovery depend on veracity of the information in knowledge management and curation areas. It is critical to distinguish truthful, credible information from deceptively manipulated one. Few verification mechanisms currently exist, and the sheer volume of the information requires systematic guidelines and novel technological approaches (Rubin, Chen, & Conroy, 2015) This course will discuss deception, as a deliberate effort to create false beliefs or conclusions, in contrast with other closely related phenomena such as misinformation (Fox, 1983) and disinformation. While both terms refer to

misleading information, misinformation is usually used to imply no deliberate intent to mislead, while disinformation implies knowing deception.

The significance of the course material to the information professional is four-fold:

- 1) Analytical methods complement and enhance the notoriously poor human ability to discern information from misinformation.
- 2) Credibility assessment of digital sources will be addressed.
- 3) Metrics of information quality assessment will be discussed.
- 4) The mere awareness of potential digital deception constitutes part of new media literacy and can prevent undesirable consequences.

#### **Course Content (Subject to Modifications and Refinement):**

- Introduction to misinformation, deception and information manipulation.
- Philosophical and ethical foundation of morality. Information quality.
- Psychological basics of deceptive and deviant behaviors.
- Deception in computer-mediate environments.
- Credibility assessments in law enforcement and related information policies.
- Digital environments specificity (“fake news” controversy, fake social network and dating profiles, fudged online resumes, fake product reviews, “butler lies” in texting, “gaslighting”, spam and phishing, astroturfing and “xuanchuan”, i.e., flooding conversational spaces with positive messages or attempts to change the subject).
- Organizational concerns (forged science and misinterpretation of data).
- Case studies from broad selections of disciplines (politics, civics, health insurances, etc.)
- Methodological advancements in prevention, detection and deterrence.
- Text analytics for information verification.
- Best practices, guidelines, workflows and polices.
- Special cases: practitioners in education, libraries, news production, law enforcement.

#### **Assignments:**

The students will be asked to **write a short critical paper, a case study description, and guidelines for preventatives measures/best practices for content verification** suitable to their home discipline, domain of choice and professional context. **The final paper is cumulatively** built upon previously completed sequential assignments (but with an additional component). The students’ work will be presented in **a brief in-class presentation** and at **the end-of-class poster session**.

#### **4. Course Materials:**

Instructor will assign readings from her recently published book, available in print and/or e-format (via Western Libraries) with a print copy placed on reserve at FIMS Graduate Library:

- **Rubin, Victoria L. (2022).** *Misinformation and Disinformation: Detecting Fakes with the Eye and AI*. Springer Nature, Switzerland <https://doi.org/10.1007/978-3-030-95656-1> [Free Chapter: [Introduction](#) | definitions | problem statement | literacy tips]

In addition, readings for this course will be pulled from various disciplines: psychology, philosophy, communication and media studies, journalism, information technology, computer science, library and information science literature (see References at the end). Students will be assigned a selection of book chapters, scientific articles, or critical pieces which will be provided either via reserve shelves in the Graduate Library, or digitally on the course website, or both. Case studies will be drawing on popularized science articles, current and archived news (legitimate and fabricated), and possibly, some publicly available court proceeding records and reports (white papers).

### Electronic Resources and Communications:

The OWL course website will contain selected course materials such as the full course syllabus, select readings, video recordings, and classroom handouts. The handouts will be posted prior to each lecture in the course of the term. Students will **not** be able to modify these materials electronically. The Instructor will also use OWL to communicate class announcements, collect written assignments, and hold Zoom office hours, if needed.

### 5. Class Policies:

Class **attendance** is mandatory. Marks may be deducted for late arrivals or unexcused missed classes, etc. Extra marks are not awarded for attending tutorials.

**Academic accommodation** will be made only on medical or compassionate grounds and for religious holidays. For religious holiday accommodation, the student must notify the Instructor at least one week in advance (please check all class dates and assignment deadlines and notify us as soon as possible if there is any conflict).

**Laptops, cell phones, and other hand-held electronic devices** are permitted in the classroom, provided that you **do not disturb** your colleagues or disrupt the class. Students are **not** permitted to carry on a cell phone conversation in the classroom. If you anticipate an important call, please make appropriate arrangements (e.g., set the phone to vibrate, sit close by the door, leave the room with minimum disturbance to the class).

### 6. Methods of Evaluation:

- Critical analysis (short paper) (10%)
- In-class presentation (10%)
- Case study (short paper) (15%)
- Aggregated best practices/preventative measures/verification strategies (short paper) (15%)
- Poster presentation (15%)
- Final paper (cumulative paper with revisions of previous short papers & an added component) (25%)
- Participation (10%)

### 7. Statement on Academic Offences

Scholastic offences are taken seriously and students are directed to read the appropriate policy, specifically, the definition of what constitutes a Scholastic Offence, at the following Web site:

[http://www.uwo.ca/univsec/pdf/academic\\_policies/appeals/scholastic\\_discipline\\_grad.pdf](http://www.uwo.ca/univsec/pdf/academic_policies/appeals/scholastic_discipline_grad.pdf)

**Plagiarism:** In accordance with policy at Western, students must write their assignments in their own words. Whenever students take an idea or a passage from another author, they must acknowledge their debt both by using quotation marks where appropriate and by proper referencing such as footnotes or citations. Plagiarism is a major academic offence (see The Section on The Scholastic Discipline for Graduate Students from the Rights and Responsibilities in the Academic Handbook [http://www.uwo.ca/univsec/pdf/academic\\_policies/appeals/scholastic\\_discipline\\_grad.pdf](http://www.uwo.ca/univsec/pdf/academic_policies/appeals/scholastic_discipline_grad.pdf)).

### 7. Support Services

Western is committed to achieving barrier-free accessibility for all its members, including graduate students. As part of this commitment, Western provides a variety of services devoted to promoting, advocating, and accommodating persons with disabilities in their respective graduate program.

Graduate students with disabilities (for example, chronic illnesses, mental health conditions, mobility impairments) are strongly encouraged to register with **Accessible Education Western (AEW)**, a confidential service designed to support graduate and undergraduate students through their academic program. With the appropriate documentation, the student will work with both **AEW** and their graduate programs (normally their Graduate Chair and/or Course instructor) to ensure that appropriate academic accommodations to program requirements are arranged. These accommodations include individual counselling, alternative formatted literature, accessible campus transportation, learning strategy instruction, writing exams and assistive technology instruction.

**Statement on Mental Health:** Students who are in emotional/mental distress should refer to Mental Health@Western [http://www.uwo.ca/health/mental\\_wellbeing/index.html](http://www.uwo.ca/health/mental_wellbeing/index.html) for a complete list of options about how to obtain help.

### Course Sample Readings and References:

- Connor Sullivan, M. (2018). Why librarians can't fight fake news. *Journal of Librarianship and Information Science*. <https://doi.org/10.1177/0961000618764258>
- Cooke, Nicole A. (2018) *Fake News and Alternative Facts: Information Literacy in a Post-truth Era*. ALA Editions, Chicago.
- Goering, Christian Z. & Thomas, Paul L. (eds.) (2018) *Critical Media Literacy and Fake News in Post-truth America*. Brill Sense, Leiden.
- Fox, Christopher (1983). *Information and Misinformation. An Investigation of the Notions of Information, Misinformation, Informing, and Misinforming*. Greenwood Publishing Group.
- Jack, Caroline (2017). Lexicon of Lies: Terms for Problematic Information. *Data&Society*. [https://datasociety.net/pubs/oh/DataAndSociety\\_LexiconofLies.pdf](https://datasociety.net/pubs/oh/DataAndSociety_LexiconofLies.pdf)
- Kovach, Bill & Rosenstiel, Tom (2010). *Blur: How to know what's true in the age of information overload*. Bloomsbury, New York.
- Levine, Timothy R., ed. (2014) *Encyclopedia of Deception*. Los Angeles, Sage Reference.
- Rapp DN (2016) The consequences of reading inaccurate information. *Current Directions in Psychological Science*, 25(4): 281–285.
- Rubin, Victoria L., Chen, Yimin & Conroy, Nadia J. (2015) Deception Detection for News: Three Types of Fakes. *Proceedings of the Association for Information Science and Technology*, Vol. 52. <http://onlinelibrary.wiley.com/doi/10.1002/pra2.2015.145052010083/full>
- Rubin, V. L. (2017) [Deception Detection and Rumor Debunking for Social Media](#). [Abstract available; pre-print upon request.] Chapter 21. In Luke Sloan & Anabel Quan-Haase (eds.), *The SAGE Handbook of Social Media Research Methods*, Sage.
- Rubin, Victoria L. (2018). "[La détection des nouvelles trompeuses et fallacieuses dans les contenus en ligne](#)" [en en français]/"Detecting Deceptive and Misleading News in Online Content" [an English pre-print available upon request]. In Sauvageau, Florian, Thibault, Simon et Trudel, Pierre (eds.), *Les fausses nouvelles, nouveaux visages, nouveaux défis. Comment déterminer la valeur de l'information dans les sociétés démocratiques ?* Québec : Presses de l'Université Laval.
- Rubin, Victoria L., (2019). Disinformation and misinformation triangle: a conceptual model for 'fake news' epidemic, causal factors and interventions. *Journal of Documentation*. 75(5), 1013-1034. <https://doi.org/10.1108/JD-12-2018-0209>  
and
- **Rubin, Victoria L. (2022). *Misinformation and Disinformation: Detecting Fakes with the Eye and AI*. Springer Nature, Switzerland <https://doi.org/10.1007/978-3-030-95656-1> [Free Chapter: [Introduction](#) | definitions | problem statement | literacy tips]**