Digital Society Initiative

<u>DSI Challenge Area Health</u>
Open Lecture: Professor Lawrence Hunter

Natural Language Processing in Biomedical Research: The State of the Art and Beyond

September 12, 2019
17:00-18:30

Venue: University of Zurich: "Deutsches Seminar"
SOD-1-104, Schönberggasse 9, 8001 Zürich

We are pleased to welcome **Prof. Lawrence E. Hunter** to the University of Zurich as part of the Digital Society Initiative (DSI). Dr. Lawrence Hunter is professor at the School of Medicine, University of Colorado Denver. He is leading the Center for Computational Pharmacology and the Computational Bioscience Program. (http://compbio.ucdenver.edu/hunter/#toabout)

During the Workshop *Text Analytics for Health: applications and implications*, of the DSI Challenge Area health (https://www.dsi.uzh.ch/en/activities/events/12-13-09-2019.html), Prof Lawrence Hunter agreed to give an open lecture on the current and future state of the art of NLP in biomedical research.

Abstract: Natural Language Processing plays many important roles in biomedical research, ranging from tools to produce systematic reviews to producing standardized phenotypes from electronic patient records. Despite novel challenges not found in general text processing (such as restricted access to relevant texts, specialized sublanguages, and lack of gold standards for evaluation) progress in recent years has led to increasing utilization by researchers throughout biomedicine. After describing the state of the art in several exemplary applications, I will survey recent advances in language models and speculate about their potential applications in biomedical domains. Finally, I will turn to ethical questions raised by these advances.

Invitation: The lecture is open to all researchers interested in text analytics for health and will be followed by a questions-and-answers session. Entrance is free. There is no requirement to register.