



*Center for Health Outcomes and Informatics Research  
Department of Health Informatics and Data Science*

## **HEALTH INFORMATICS SEMINAR SERIES**

**Presents:**

### **“Review and Updates for the Clinical Natural Language Processing Engines at LUC”**

**Abstract:** *Estimates suggest that 80% of important information in electronic health records (EHRs) is untapped due to difficulty with using free-text notes. These unstructured data often hold key information necessary for clinical decision-making, quality improvement, and research. We will describe development of a clinical natural language processing (NLP) analytics engine (cNAE) and a clinical NLP inference engine (cNIE) which can easily be used by researchers to expand available data for use in research. We will demonstrate the use of the engines in a real-time application using a variety of use cases. We will also provide updates made to the software.*

**Panelists:** Kathleen Bobay, PhD, RN, NEA-BC, FAAN; Ron Price, BA;  
Jason Boyda, MS

**When:** July 12, 2023 12:00 pm – 1:00 pm

**Location:** 228, CTRE, Health Sciences Campus

**Join via Zoom Link:** <https://luc.zoom.us/j/85445276280>

**Kathleen Bobay, PhD, RN, NEA-BC, ACHIP, FAAN**, is a professor in Health Informatics & Data Science, Associate Dean for Faculty Affairs, Parkinson School of Health Sciences & Public Health. Dr. Bobay’s research focuses on measuring the value of nurses in patient outcomes. Her research team has demonstrated how staff nurses can help reduce readmissions and Emergency Department visits in medical-surgical patients after discharge by using standardized nursing and patient readiness for discharge assessments. Dr. Bobay’s current research involves the use of natural language processing to better identify social determinants of health and phenotyping for clinical decision support. Dr. Bobay has a PhD in Nursing Administration and Health Systems from the University of Michigan, and a MSN as a Family Nurse Practitioner from Michigan State University.

**Ron Price, BA**, is the Associate Vice President of Informatics and Clinical Research at Loyola University Chicago in Information Technology Services (ITS). Mr. Price’s responsibilities include direction of technology teams that identify, implement and support computing initiatives that advance the institutions’ strategic goals. Under his leadership, Informatics and Clinical Research has developed a range of educational applications, clinical research data repositories, award-winning web sites and advanced computing infrastructure. A significant focus of his current activities is the creation of high performance computing clusters and technologies supporting large-scale clinical analytics including clinical natural language processing and image analysis. Mr. Price joined the SSOM in 1987 and has held a variety of IT positions. Mr. Price is a Red Hat Certified Engineer (RHCE). Mr. Price holds a Bachelor’s degree from the University of North Carolina at Chapel Hill.

**Jason Boyda, MS**, is a senior programmer analyst responsible for developing and maintaining clinical research applications and software. His work primarily focuses on supporting large-scale, high performance clinical natural language processing systems through his expertise in the Golang programming language, and mobile application development that aims to improve clinical research. Mr. Boyda obtained his MS in Health Informatics & Data Science from Loyola University of Chicago and his bachelor’s degree in Computer Science from the University of Iowa and joined Loyola in 2018, where he has co-authored a handful of publications in health sciences.

**Accreditation Statement:** The Loyola University Chicago Stritch School of Medicine is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians. The Loyola University Chicago Stritch School of Medicine designates this other activity for a maximum of 1.0 AMA PRA Category 1 Credit(s)<sup>™</sup>. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

\* Visit [here](#) to watch previous presentations and to find more information about future Seminars.

