



University  
of Victoria

# Health Information Science Seminar Series

**Dr. John Chelsom** (Seven Informatics, Oxford, UK)

## Artificial Intelligence Techniques Using Structured Health Records

Wednesday, October 7<sup>th</sup>, 2020

10:00 am - 11:00 am Pacific (Online via Zoom)

### Abstract

We are currently at the start of the third wave of the discipline of Artificial Intelligence. The first wave, and the birth of the discipline, started with the Dartmouth Conference in 1956, organised by John McCarthy and Claude Shannon, and attended by early pioneers such as Marvin Minsky, Allen Newell and Herb Simon. The second wave, in the mid 1980's, saw the emergence of 'expert systems' and 'knowledge-based systems' as a paradigm for reasoning with declarative, rather than procedural knowledge. Although the technology for pattern recognition and machine learning continued to develop throughout the two decades around the turn of the century, the widespread deployment of knowledge-based systems was hampered by a lack of robust, large-scale declarative knowledge bases and structured observational data. The third wave of AI is driven by advances in speech recognition, natural language processing, speech synthesis, pattern matching and machine learning for mining unstructured or semi-structured Big Data sets.

In this seminar we are going to buck the trend of the Third Wave and look at AI techniques using structured health records and knowledge bases.

**Dr. John Chelsom** has a degree in Engineering Science from the University of Oxford and a PhD from City University, London for his thesis on artificial intelligence in medicine. He has been a Visiting Professor in Health Informatics at City University, London and is an Adjunct Assistant Professor at the University of Victoria, Canada. John is Program Director of the MSc in Applied Health Informatics at Fordham University and a consultant for the World Bank, where he is an invited expert on Telemedicine.

As Managing Director of CSW Group from 1993 to 2008, Dr. Chelsom brought the web-based Case Notes EHR system to the UK market in 1999 and developed knowledge management systems for organisations such as the British Medical Journal and the Royal Pharmaceutical Society. As part of the UK Government's NPfIT project which started in 2003, Case Notes was the primary clinical system in the national architecture for a shared electronic health record for the population of England. Cases Notes was also used for a proof of concept of health records for the UK armed forces, the single health record across Wales and for the management of long term conditions in England's Whole System Demonstrator - largest randomised control trial of telehealth and telecare in the world.

Since 2010 John has been the lead architect of the open source cityEHR product – a standards-based health records system used in a number of hospitals in England.

Join LIVE online: <https://uvic.zoom.us/j/94238877003?pwd=dzcvVUk4b1JjcjFYNHV0MWF5RUxIZz09>

**Meeting ID:** 942 3887 7003

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