



UNIVERSITY of
RWANDA



PUBLIC LECTURE

Title: Analytics, data science, machine learning..... a panorama of techniques
By Prof. Dominique Haughton (Bentley University)

Venue:UR-CBE,Gikondo Campus, Room: 3L1 Date: Friday 14 June 2019, from 10:00 to 12:00



Dominique Haughton (PhD MIT 1983) is Professor of Mathematical Sciences and Global Studies at Bentley University in Waltham, Massachusetts, near Boston, and Affiliated Researcher at the Université Paris 1 (Pantheon-Sorbonne) and at the Université Toulouse 1. Research interests include applied statistics, business analytics, global analytics, music analytics, data mining, and model selection. Professor Haughton's work concentrates on how to best leverage modern analytics techniques in order to address questions of business or societal interest. United States co-Editor of Case Studies in Business, Industry and Government Statistics (CSBIGS). Author of three monographs, a Springer brief, and of over seventy articles which have appeared in journals such as The American Statistician, Computational Statistics and Data Analysis, Journal of Interactive Marketing, Telecommunications Policy, Economic Development and Cultural Change, Studies in Family Planning, Journal of Population Economics, Journal of Biosocial Science, Annals of Statistics, Sankhya, Journal of Statistical Computation and Simulation, Communications in Statistics, Statistica Sinica. Ecole Normale Supérieure Graduate. Fellow of the American Statistical Association. Elected to the Council of the International Statistical Institute.

This talk will discuss current trends in data mining techniques, with some examples. Techniques include decision trees, neural nets (with recent developments in the area of deep learning), ensemble models, association rules (market basket analysis), extensions of decisions trees: MARS (Multivariate Adaptive Regression Splines) models, Gradient Boosting models and Random Forests, text mining and social network analysis.

The talk is meant to be informal and interactive. One objective is for participants to get a sense of where these techniques might apply in their own research. We will also discuss the pros and cons of commercial versus open source data mining software.