Department of Mathematics, Statistics and Computer Science
St. Francis Xavier University
Presents

User-Friendly Model Checking of Health Care Workflows
by
Yngve Lamo
Bergen University College, Norway
Heaps Chair, St. Francis Xavier University
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The talk is based on a paper with the same name, co-authored with Adrian Rutle (Ålesund University College, Norway), Fazle Rabbi and Wendy MacCaull (St. Francis Xavier University). Workflows in health care are used to make processes more efficient, less error-prone, and flexible. However, most tools and frameworks used for workflow specification are either not user-friendly enough for the domain experts or not formal enough to allow automatic verification. In this talk we propose an MDE-based approach to the definition and management of health care workflows. Workflows are defined as models and will be subject for validation and verification against domain requirements, such as guidelines from central, regional and local health authorities. Most importantly, workflow models will be accessible and understandable for the users, which are mainly clinicians. We propose a user friendly, diagrammatic approach to the specification and verification of workflow models. That is, we utilise diagrammatic specification of workflows and workflow properties, we transform the models to the DiVinE model checker's language DVE, and the properties to LTL, then we check the models against the properties, and finally, if the workflow model is not valid wrt. a property, we present a counter-example in a user-friendly manner.