

Evaluation of XML Instance Generator for Testing of Web Services

Bryan Alfaro, and Andrew Tappenden* (The King's University)

Oral Presentation Abstract:

XML is one of the standard language for the exchange of data between web applications. As a result of XMLs prominence it is important to test web applications that rely on XML, reducing security threats and bug occurrences during the data exchange process. Existing tools such as ToXgene (Tox XML instance Generator), TAXI (Testing by Automatically generated XML Instances) and AGOXI (Automated Generation of XML Instances) can be used to automatically generate XML instances from an XML schema, and therefore lower the costs associated with software testing and maintenance. Each of the three XML instance generators were studied and evaluated for efficacy by applying the generators to over 12,000 unique XSDs extracted from external real-world WSDL documents. The XML generators were examined to determine the coverage of the grammatical space and their adequacy to produce valid XML instances. A summary of the capabilities of each XML instance generator is presented.

* Indicates faculty mentor