

TRACK 05: INFORMATION SYSTEM

Exploring Green Information Technology Implementation in Collaborative Enterprise

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The rapid increase of Collaborative Enterprises (CE) such as organizations and various institutions reflects the growing number of foreign and local investors initiating domestic based enterprises all over the world. Consequently, sustainability in CE calls the organizations management to promote Green Information Technology (IT) initiatives that can decrease water, cost and energy consumptions while having negligible carbon footprint. Green IT towards energy efficient aims to support CE deploy better lighting, operational temperature control, better indoor air and ventilation which contribute to healthy working environments by decreasing dangerous air pollutants that may result to respiratory disease within enterprise buildings. However in implementing Green IT initiatives in CE, comprehensive strategies should also be put in place to change the managerial and administrative mind-sets of organizations management and more specifically staffs and practitioners towards ensuring that they support Green IT. CE needs to be aware of the dimensions to be considered by staffs and practitioners in implementing Green IT initiatives. Therefore this paper explores existing studies on Green IT to identify the dimensions of Green IT implementation in CE by utilizing secondary data synthesized and extracted from previous studies. Based on the dimension a multi-dimensional model is designed and explored using survey data collected from 133 respondents from various collaborative enterprises across Malaysia. Findings from the survey shows that all dimensions in the model were important and are to be considered in implementing Green IT initiatives in collaborative enterprises.

Keywords: Sustainability, Green IT, Green IT Implementation Initiatives, Green IT Dimensions, Collaborative Enterprise.

Challenges and Issues in Unstructured Big Data: A Systematic Literature Review

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In past years, data mining had been a standard approach to extract hidden knowledge or pattern known as Knowledge Discovery in Database (KDD). However, KDD approach is unable to handle a terabytes or petabytes of 'Big Data'. The presence of Big Data term arises due to the growth of data volume, velocity, variety, veracity, and value. The objectives of this study are to explore the various data types available in Big Data and current challenges in Big Data. A systematic literature review is conducted to fulfill the research objectives. Several research questions arise in this study for example what type of data available in Big Data as well as what are the major challenges and issues emerged from previous studies. The outcomes of this review identified three data types in Big Data which are unstructured, semi-structured and structured data. Besides, there are also three greatest challenges in Big Data which are data, processing and management challenge. The result also reveals that process challenge is the most critical challenge in Big Data. This extensive systematic literature review can contribute knowledge to the Big Data area as well as for future research.

Keywords: Data Mining, Big data, Unstructured Data, Structured Data, Computational Intelligence