preference defined in the user profile. The result is a set of suggested resources of current interest to the user, of which he or she is notified at PLE login through a set of structured links on the user's home page. It is argued that context-aware PLE can support the identification and distribution of relevant resources, relating to any activity defined by the user in their PLE profile automatically, and with little effort on the part of the user.

In addition, this paper also proposes a BN model; and the presented model aims at helping students to get a suitable provider. This model could be used to determine the priority provider to the students.

The steps for using BN are: firstly, that the variables have been identified. Secondly, that the strength of the relationship between the variables has been shown by CPT. Finally, that the evidence has been specified and the result is shown.

## 6. Acknowledgment

My thanks go to all staff and students in Software Technology Research Laboratory at De Montfort University, UK. The research has been funded by the Majmaah University in Saudi Arabia.

## 7. References

- Y. Y. C. Charles, "Virtual Learning Environment (VLE): A Web-Based Collaborative Learning System," 1998, pp. 480-480.
- [2] D. Gillet, E.L. Law, and A. Chatterjee, "Personal learning environments in a global higher engineering education Web 2.0 realm," in Education Engineering (EDUCON), 2010 IEEE, 2010, pp. 897-906.
- [3] G. Attwell, "Personal Learning Environments-the future of eLearning?," eLearning papers, vol. 2, pp. 1-7, 2007.
- [4] F. Wang, X. Li, C. Zhao, and C. Xu, "Construct Personal Learning Environment Based on Web2.0," in Management and Service Science, 2009. MASS '09. International Conference on, 2009, pp. 1-4.
- [5] M. van Harmelen, "Personal Learning Environments," in Advanced Learning Technologies, 2006. Sixth International Conference on, 2006, pp. 815-816.
- [6] S. Wilson, O. Liber, M. Johnson, P. Beauvoir, and P. Sharples, C. Milligan, "Personal Learning Environments: Challenging the dominant design of educational systems," Interactive Learning Environments, vol. 16, pp. 1-2, 2008.
- [7] T. Valtonen, S. Hacklin, P. Dillon, m. Vesisenaho, J. Kukkonen, and A. Hietanen, "Perspectives on personal learning environments held by vocational students," Computers & Computer
- [8] H. Zhao, L. Yang, and Y. Wang, "The personal learning environment (PLE) based on web2.0," in Web Society (SWS), 2010 IEEE 2nd Symposium on, 2010, pp. 22-25.
- [9] O. Liber, "Colloquia–a conversation manager," Campus-Wide Information Systems, vol. 17, pp. 56-62, 2000.
- [10] M. Baldauf, S. Dustdar, and F. Rosenberg, "A survey on context-aware systems," International Journal of Ad Hoc and Ubiquitous Computing, vol. 2, pp. 263-277, 2007.
- [11] J. Hong, E. Suh, and S. Kim, "Context-aware systems: A literature review and classification," Expert Systems with Applications, vol. 36, pp. 8509-8522, 2009.

- [12] A. K. Dey, "Understanding and using context," Personal and ubiquitous computing, vol. 5, pp. 4-7, 2001.
- [13] B. N. Schilit, N. Adams, and R. Want, "Context-aware computing applications," 1994, pp. 85-90.
- [14] J. Indulska and P. Sutton, "Location management in pervasive systems," 2003, pp. 143-151.
- [15] A. Schmidt and K. Van Laerhoven, "How to build smart appliances?," Personal Communications, IEEE, vol. 8, pp. 66-71, 2001.
- [16] Krishnakumar, K. (2003). Intelligent Systems for Aerospace Engineering-An Overview, DTIC Document.
- [17] Korb, K. B. and A. E. Nicholson (2003). Bayesian artificial intelligence, Chapman & Hall/CRC.
- [18] Si, H., Y. Kawahara, et al. (2005). "A stochastic approach for creating context-aware services based on context histories in smart home." COGNITIVE SCIENCE RESEARCH PAPER-UNIVERSITY OF SUSSEX CSRP 577: 37.
- [19] Pourret, O., P. Naïm, et al. (2008). Bayesian networks: a practical guide to applications, Wiley.
- [20] Mihajlovic, V. and M. Petkovic (2001). "Dynamic bayesian networks: A state of the art."