

Professor. Frada Burstein
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Biography

Professor Frada Burstein, ICT Educator of the Year 2013, graduated from the Faculty of Applied Mathematics and Cybernetics of Tbilisi State University, Georgia, USSR in 1978 and in 1981 completed her PhD at the Institute of Cybernetics, Georgian Academy of Science (the Branch of USSR Academy of Sciences). Frada's PhD thesis was titled "Research and Development of Man-Machine Procedures for Multicriteria Decision Making (using vector preference relations)". Her professional academic career spans almost twenty years and includes extensive research in the areas of decision theory and decision support systems. Frada has been working with the Faculty of Information Technology at Monash University since 1992 and is currently a Director of Knowledge Management Research Program and a Laboratory at the Caulfield School of IT.

In June 2013 Professor Frada Burstein was named the ICT Educator of the Year for her work in information and communications technology (ICT) education. Professor Burstein, was nominated by the Australian Computer Society (ACS).

Qualifications

Activities

Member - Faculty Research Committee - Faculty of Information Technology, Monash University

Burstein, F. (Member)
1 Jan 2016

Vice Chair - Working Group 8.3 (Decision Support Systems) - International Federation for Information Processing

Burstein, F. (Chair/ Co-Chair)
1 Jan 2016

Vice President - Australian Council for Professors & Heads of Information Systems

Burstein, F. (Chair/ Co-Chair)
1 Jan 2016

Information Communication and Society (Journal)

Burstein, F. (Editorial board member)
1 Jan 2012

Honorary Research Professor - University of Ballarat

Burstein, F. (Visitor)
1 Jan 2011 → 31 Dec 2013

International Journal of Knowledge Management (Journal)

Burstein, F. (Associate editor)
1 Jan 2011

Journal of Decision Systems (Journal)

Burstein, F. (Editor in chief)
1 Jan 2011 → 31 Dec 2015

Journal of Information & Knowledge Management (Journal)

Burstein, F. (Associate editor)

1 Jan 2011 → 1 Jan 2017

Knowledge Management Research and Practice (Journal)

Burstein, F. (Editorial board member)

1 Jan 2011

VINE: the Journal of Information and Knowledge Management Systems (Journal)

Burstein, F. (Editor in chief)

1 Jan 2011 → 1 Jan 2016

Elected Member - Faculty Board - Faculty of Information Technology, Monash University

Burstein, F. (Member)

1 Jan 2010 → 31 Dec 2011

Chair - Special Interest Group in Decision Support - Association for Information Systems

Burstein, F. (Chair/ Co-Chair)

1 Jan 2007 → 1 Jan 2008

Association for Information Systems (External organisation)

Burstein, F. (Member)

1 Jan 2001

Australian Computer Society (External organisation)

Burstein, F. (Executive Member)

1 Jan 2001

Research output**2017**

Delir Haghghi, P., Kang, Y-B., Buchbinder, R., Burstein, F., & Whittle, S. (2017). Investigating subjective experience and the influence of weather among individuals with fibromyalgia: A content analysis of twitter. *JMIR Public Health and Surveillance*, 3(1), [e4]. DOI: 10.2196/publichealth.6344

2016

Kang, Y. B., Delir Haghghi, P., & Burstein, F. (2016). TaxoFinder: A graph-based approach for taxonomy learning. *IEEE Transactions on Knowledge and Data Engineering*, 28(2), 524 - 536. DOI: 10.1109/TKDE.2015.2475759

2015

De Silva, D., Burstein, F., Jelinek, H., & Stranieri, A. (2015). Addressing the complexities of big data analytics in healthcare: The diabetes screening case. *Australasian Journal of Information Systems*, 19, 99 - 115. DOI: 10.3127/ajis.v19i0.1183

Nguyen, V. B., Burstein, F., & Fisher, J. (2015). Improving service of online health information provision: A case of usage-driven design for health information portals. *Information Systems Frontiers*, 17(3), 493 - 511. DOI: 10.1007/s10796-014-9507-4

Nguyen, V. B., Burstein, F., Fisher, J. L., & Wilson, C. C. (2015). Taxonomy of usage issues for consumer-centric online health information provision. *Communications of the Association for Information Systems*, 37(1), 536 - 566.

2014

De Silva, D. P., & Burstein, F. (2014). An intelligent content discovery technique for health portal content management. *JMIR Medical Informatics*, 2(1), 1 - 13. DOI: 10.2196/medinform.2671

Kang, Y. B., Delir Haghghi, P., & Burstein, F. (2014). CFinder: An intelligent key concept finder from text for ontology development. *Expert Systems with Applications*, 41(9), 4494 - 4504. DOI: 10.1016/j.eswa.2014.01.006

2013

Delir Haghghi, P., Burstein, F., Zaslavsky, A., & Arbon, P. A. (2013). Development and evaluation of ontology for intelligent decision support in medical emergency management for mass gatherings. *Decision Support Systems*, 54(2), 1192 - 1204. DOI: 10.1016/j.dss.2012.11.013

Zeitz, K. M., Delir Haghghi, P., Burstein, F., & Williams, J. (2013). Understanding the drivers on medical workloads: An analysis of spectators at the Australian Football League. *Australian Health Review*, 37(3), 402 - 406. DOI: 10.1071/AH13032

2012

Delir Haghghi, P., Burstein, F., & Nguyen, H. T. (2012). Enabling semantic querying in mobile and location-aware DSS for mass gatherings. *Journal of Decision Systems*, 21(4), 259 - 273. DOI: 10.1080/12460125.2012.749670

McKemmish, S. M., Burstein, F. V., Manaszewicz, R., Fisher, J. L., & Evans, J. E. (2012). Inclusive research design: Unravelling the double hermeneutic spiral. *Information, Communication and Society*, 15(7), 1106 - 1135. DOI: 10.1080/1369118X.2012.707225

Zyngier, S. M., & Burstein, F. (2012). Knowledge management governance: The road to continuous benefits realization. *Journal of Information Technology*, 27(2), 140 - 155. DOI: 10.1057/jit.2011.31

2011

Atkinson, B., & Burstein, F. (2011). Biological and information systems approaches. In D. Schwartz, & D. Te'eni (Eds.), *Encyclopedia of Knowledge Management* (Second ed., pp. 62 - 71). Hershey PA USA: IGI Global.

Grigsby, S. A., Burstein, F., & Parker, N. L. (2011). Context modelling in time-critical decision support for medical triage. In F. Burstein, P. Brezillon, & A. Zaslavsky (Eds.), *Supporting Real Time Decision-Making: The Role of Context in Decision Support on the Move* (pp. 287 - 302). New York NY USA: Springer.

Burstein, F., Delir Haghghi, P., & Zaslavsky, A. (2011). Context-aware mobile medical emergency management decision support system for safe transportation. In D. Schuff, D. Paradice, F. Burstein, D. J. Power, & R. Sharda (Eds.), *Decision Support: An Examination of the DSS Discipline* (pp. 163 - 181). New York NY USA: Springer.

Zyngier, S., & Burstein, F. (2011). Knowledge management governance as a mechanism for sustainable organisational knowledge creation and transfer. *International Journal of Strategic Change Management*, 3(3), 211 - 229.

Power, D. J., Burstein, F., & Sharda, R. (2011). Reflections on the past and future of decision support systems: Perspective of eleven pioneers. In D. Schuff, D. Paradice, F. Burstein, D. J. Power, & R. Sharda (Eds.), *Decision Support: An Examination of the DSS Discipline* (pp. 25 - 48). New York NY USA: Springer.

Burstein, F., & Linger, H. (2011). Task-based knowledge management approach. In D. G. Schwartz, & D. Te'eni (Eds.), *Encyclopedia of Knowledge Management: Second Edition* (2nd ed., Vol. 1, pp. 1479 - 1489). Hershey PA [United States]: Information Science Reference. DOI: 10.4018/978-1-59904-931-1.ch141

2010

Atkinson, B. E., & Burstein, F. (2010). Biological and information systems approaches. In *Encyclopedia of Knowledge Management: Second Edition* (Vol. 1, pp. 62-71). IGI Global. DOI: 10.4018/978-1-59904-931-1.ch007

Delir Haghghi, P., Burstein, F., Zaslavsky, A., Arbon, P. A., & Krishnaswamy, S. (2010). The role of domain ontology for medical emergency management in mass gatherings. In A. Respicio, F. Adam, G. Phillips-Wren, C. Teixeira, & J. Telhada (Eds.), *Bridging the Socio-technical Gap in Decision Support Systems: Challenges for the Next Decade* (pp. 520 - 531). Amsterdam Netherlands: IOS Press.

Burstein, F., Sohal, S., Zyngier, S. M., & Sohal, A. S. (2010). Understanding of knowledge management roles and responsibilities: A study in the Australian context. *Knowledge Management Research and Practice*, 8(1), 76 - 88.

2009

Lee, W. B., & Burstein, F. (2009). Editorial. *VINE: the Journal of Information and Knowledge Management Systems*, 39 (1), 285-286. DOI: 10.1108/vine.2009.28739aaa.001

Guo, T., Schwartz, D. G., Burstein, F., & Linger, H. (2009). Codifying collaborative knowledge: Using Wikipedia as a basis for automated ontology learning. *Knowledge Management Research and Practice*, 7(3), 206 - 217.

Zhuang, Z. Y., Churilov, L., Burstein, F., & Sikaris, K. (2009). Combining data mining and case-based reasoning for intelligent decision support for pathology ordering by general practitioners. *European Journal of Operational Research*, 195(3), 662 - 675. DOI: 10.1016/j.ejor.2007.11.003

McKemmish, S. M., Manaszewicz, R., Burstein, F., & Fisher, J. L. (2009). Consumer empowerment through metadata-based information quality reporting: The Breast Cancer Knowledge Online portal. *Journal of the American Society for Information Science and Technology*, 60(9), 1792 - 1807.

2008

Fisher, J. L., Burstein, F., Lynch, K., & Lazarenko, E. K. (2008). "Usability + usefulness = trust": An exploratory study of Australian health web sites. *Internet Research*, 18(5), 477 - 498.

Sujanto, F. Y., Ceglowski, A. S., Burstein, F., & Churilov, L. (2008). An integrated framework for comprehensive collaborative emergency management. In P. Zarate, J. P. Belaud, G. Camilleri, & F. Ravat (Eds.), *Collaborative Decision Making: Perspectives and Challenges* (pp. 127 - 138). Amsterdam Netherlands: IOS Press.

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Pier, C., Shandley, K., Fisher, J. L., Burstein, F., Nelson, M., & Piterman, L. (2008). Identifying the health and mental health information needs of people with coronary heart disease, with and without depression. *Medical Journal of Australia*, 188(12), S142 - S144.

Burstein, F., & Cowie, J. (2008). Mobile decision support for time-critical decision making. In F. Adam, & P. Humphreys (Eds.), *Encyclopedia of Decision Making and Decision Support Technologies* (pp. 638 - 644). Hershey PA USA: Information Science Publishing.

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Linger, H., Hasan, H., & Burstein, F. (2007). Integrating doing and thinking in a work context: An Australian knowledge management perspective. *Scandinavian Journal of Information Systems*, 19(1), 59 - 86.

Cowie, J., & Burstein, F. V. (2007). Quality of data model for supporting mobile decision making. *Decision Support Systems*, 43, 1675 - 1683. DOI: 10.1016/j.dss.2006.09.010

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Burstein, F., McKemmish, S. M., Fisher, J. L., Manaszewicz, R., & Malhotra, P. (2006). A role for information portals as intelligent decision support systems: Breast Cancer Knowledge Online experience. In J. N. D. Gupta, G. A. Forgionne, & M. Mora T (Eds.), *Intelligent Decision-making Support Systems: Foundations, Applications and Challenges* (1 ed., pp. 359 - 383). London UK: Springer.

Fisher, J. L., Burstein, F., McKemmish, S. M., & Manaszewicz, R. (2006). Applying a user-centred design approach to building a personalised health information portal for decision support. In F. Adam, P. Brezillion, S. Carlsson, & P. Humphreys (Eds.), *Creativity and Innovation in Decision Making and Decision Support* (1 ed., pp. 488 - 505). London UK: Ludic Publishing.

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Viademonte Da Rosa, S. I., & Burstein, F. (2006). From knowledge discovery to computational intelligence: a framework for intelligent decision support systems. In J. N. D. Gupta, G. A. Forgionne, & M. Mora T (Eds.), *Intelligent Decision-making Support Systems: Foundations, Applications and Challenges* (1 ed., pp. 57 - 78). London UK: Springer.

Burstein, F. V., San Pedro, J. C., Churilov, L., & Wassertheil, J. (2006). Intelligent multiattribute decision support model for medical triage. In B. Bouchon-Meunier, G. Coletti, & R. R. Yager (Eds.), *Modern Information Processing: From Theory to Applications* (1 ed., pp. 269 - 280). Amsterdam The Netherlands: Elsevier.

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2005

San Pedro, J. C., Burstein, F., & Sharp, A. (2005). A case-based fuzzy multicriteria decision support model for tropical cyclone forecasting. *European Journal of Operational Research*, 160(2), 308 - 324. DOI: 10.1016/j.ejor.2003.09.003

Linger, H., Burstein, F., & Hasan, H. (2005). Articulating knowledge work: the contributions of activity theory and task-based knowledge management. In G. Whymark, & H. Hasan (Eds.), *Activity as the Focus of Information Systems Research* (1 ed., pp. 71 - 90). Eveleigh NSW Australia: Knowledge Creation Press.

Zyngier, S. M., Burstein, F., & McKay, J. (2005). Governance of strategies to manage organizational knowledge: a mechanism to oversee knowledge needs. In M. E. Jennex (Ed.), *Case studies in knowledge management* (pp. 83 - 103). Hershey USA: IGI Publishing.

Moon, J., & Burstein, F. (2005). Intelligent portals for supporting medical information needs. In A. Tatnall (Ed.), *Web portals: The new gateways to Internet information and services* (pp. 270 - 296). Hershey USA: IGI Publishing.

Owen, J., & Burstein, F. V. (2005). Where knowledge management resides within project management. In M. E. Jennex (Ed.), *Case studies in knowledge management* (pp. 138 - 153). Hershey USA: IGI Publishing.

2004

Cao, P. P., Burstein, F., & San Pedro, J. C. (2004). Extending coordination theory to the field of distributed group multiple criteria decision-making. *Journal of Decision Systems*, 13(3), 287 - 305.

Owen, J., Burstein, F. V., & Mitchell, S. (2004). Knowledge reuse and transfer in a project management environment. *Journal of Information Technology Cases and Application (JITCA)*, 6(4), 21 - 35.

2003

Williamson, K., Wright, S. J., Burstein, F. V., & Schauder, D. E. (2003). Adoption of online databases in public libraries: an Australian case study. *Libres*, 13(2), 1 - 8.

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Burstein, F. V., & Linger, H. (2003). Supporting post-Fordist work practices: a knowledge management framework for supporting knowledge work. *Information Technology and People*, 16(3), 289 - 305. DOI: 10.1108/09593840310489395

2001

Maynard, S., Burstein, F. V., & Arnott, D. R. (2001). A multi-faceted decision support system evaluation approach. *Journal of Decision Systems*, 10(3-4), 395 - 428.

Viademonte, S., & Burstein, F. V. (2001). An intelligent decision support model for aviation weather forecasting. *Lecture Notes in Computer Science*, 2189, 278 - 288. DOI: 10.1007/3-540-44816-0

Viademonte, S., Burstein, F. V., Dahni, R., & Williams, S. (2001). Discovering knowledge from meteorological databases: a Meteorological Aviation Forecast Study. *Lecture Notes in Computer Science*, 2114, 61 - 70. DOI: 10.1007/3-540-44801-2

Linger, H., & Burstein, F. V. (2001). From computation to knowledge management: the changing paradigm of decision support for meteorological forecasting. *Journal of Decision Systems*, 10(2), 195 - 215.

2000

Smith, H. G., Burstein, F. V., Sharma, R., & Sowunmi, A. I. (2000). Organizational Memory Information Systems A Case-based Approach to Decision Support. In *Decision Support Systems for Sustainable Development* (pp. 277 - 290). Massachusetts USA: Kluwer Academic Publishers.

1999

Linger, H., Burstein, F. V., Zaslavsky, A., & Crofts, N. (1999). A Framework for a Dynamic Organizational Memory Information System. *Journal of Organizational Computing and Electronic Commerce*, 189 - 203.

Smith, H. G., Burstein, F. V., & Sowunmi, A. I. (1999). Knowledge Acquisition for Organizational Memory Information Systems in Decision Support. *Journal of Decision Systems*, 1 - 20.

Linger, H., & Burstein, F. V. (1999). Researching Organisational Memory. In *Systems Development Methods for Databases, Enterprise Modeling, and Workflow Management* (pp. 279 - 298). New York NY USA: Kluwer Academic/Plenum Publishers.

1998

Linger, H., Burstein, F. V., Zaslavsky, A., Aitken, C. K., & Crofts, N. (1998). Conceptual development of an information system framework for improving continuity in epidemiological research. *European Journal of Epidemiology*, 587 - 593.

1997

Burstein, F. V., Linger, H., Zaslavsky, A., & Crofts, N. (1997). Supporting Epidemiological Research with an Organisational Memory System. *Informatics in Health Care Australia*, 182 - 190.