

Vasant Dhar

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Director, PhD Program, NYU Center for Data Science

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RESEARCH

My research focuses on the role of Artificial Intelligence in our lives. One part is about machine-based decision making and the trustworthiness of machines. The other part is about the broader impacts of data and technology in our lives, and the creation of policies for a better future in a world of intelligent machines.

PROFESSIONAL PREPARATION

B.Tech, Indian Institute of Technology, Delhi, May 1978.

M.Phil, University of Pittsburgh, August 1982

Ph.D, University of Pittsburgh, June 1984

APPOINTMENTS

- Professor, Stern School of Business, New York University, September 1983 – current. Teaching:
 - Systematic Investing
 - FinTech
 - Data Science and Machine Learning
- Professor of Data Science and Director of Graduate Studies, Ph.D program in Data Science, Center for Data Science, New York University, Sep 2015 – current.
- Editor in chief, *Big Data* journal, March 2013 – March 2018.

RECENT EDITORIALS

- <https://www.businessinsider.com/social-media-platforms-facebook-google-twitter-undermining-democracy-2020-9>
- <https://www.marketwatch.com/story/day-trading-raises-remind-us-that-humans-are-poor-investors-and-even-worse-traders-2020-06-25>
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- What Lawmakers Need to do to Police Online Content, The Hill, Nov 30, 2018.
- Who Controls Your Data? The Washington Post, Sep 25, 2018.

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- Why Quants Fail in Finance, eFinancialCareers, February 5, 2018.
- We are asking all the wrong questions about the future of jobs, World Economic Forum, August 2017. <https://www.weforum.org/agenda/2017/08/machines-and-the-future-of-work/>
- Should We Regulate Digital Platforms? Big Data, December 2017.
- Social media platforms present dangerous issues for society, CNBC, December 21, 2017.
- What is the Role of Artificial Intelligence in Sports? Big Data, volume 5, number 3, September 2017.
- Big Data as an Enabler for Primary Education, with Nandan Nilekani, Shankar Maruwada, and Nagraj Pappu, Big Data, volume 4, issue 3, September 2016.
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- Why taxing high frequency trading won't work, October 13, 2015, CNBC Commentary <http://www.cnbc.com/2015/10/13/why-taxing-high-frequency-trading-wont-work-commentary.html>
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- Should You Trust Your Money to a Robot? Editorial, Big Data Journal, volume 3, issue 2, June 2015.
- Can Big Data Machines Analyze Stock Market Sentiment? Editorial, Big Data Journal, volume 2, issue 4, December 2014.
- Bright lights, big data: What the market may tell us about a correction, Market Commentary CNBC, November 15, 2014, <http://www.cnbc.com/id/102179024>
- Information Systems Research, September 2014, Data Science, Analytics, Big Data: The Challenges for IS Research (with Ritu Agarwal)
- Big Data Journal, September 2014, Big Data and Predictive Analytics in Healthcare, September 2014.
- Big Data Journal, June 2014, The Rise of Machines in Financial Markets
- Financial Times, March 23, 2014, Caught Between a Rock and a Hard Place: <http://www.ft.com/intl/cms/s/2/4d43d616-a458-11e3-9cb0-00144feab7de.html#axzz2wsx0gbOI>
- CNBC op-ed April 16, 2014, Speed – the only HFT advantage? Not so fast: <http://www.cnbc.com/id/101586488>
- Wired Magazine Op-ed. October 5, 2013, Google in Jeopardy: <http://www.wired.com/2013/10/google-in-jeopardy-what-if-watson-beat-the-search-giant/>
- Financial Times Op-ed., Business Schools Face a Challenging Future, January 7, 2013. Available at: <http://www.ft.com/intl/cms/s/2/e111f93e-3a39-11e2-a00d-00144feabdc0.html#axzz2KQBc0iDL>

Publications

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<https://www.joim.com/wp-content/uploads/emember/downloads/p0644.pdf>
2. Dhar, V., Sun, C., and Batra, P., Transforming Finance into Vision: Concurrent Financial Series as Convolutional Nets, *Big Data*, volume 7, number 4, December 2019.
3. Dhar, V., and Stein, R., Complete and Incomplete FinTech Platforms, *Journal of Investment Management*, vol 16, No 2, 2018.
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6. Dhar, V., Equity, Safety and Privacy in the Autonomous Vehicle Era, *IEEE Computer*, volume 49, number 11, November 2016.
7. Dhar, V., When to Trust Robots With Decisions and When Not To, *Harvard Business Review*, May 2016.
8. Dhar, Geva, Sundararajan, Oestecher-Singer., Prediction in Economic Networks, *Information Systems Research*, Volume 25, Issue 2, June 2014.
9. Dhar, V., Prediction and Data Science, *Communications of the ACM*, volume 56, number 12, December 2013.
10. Maguire, Jon., Vasant Dhar., Data Mining in Healthcare: Using Large Scale Health Care Claims Data for Comparative Effectiveness Research, *Health Systems*, volume 1, Number 2, December 2012.
11. Dhar, V., Prediction in Financial Markets: The Case for Small Disjuncts, *ACM Transactions on Intelligent Systems and Technologies*, volume 2, Number 3, April 2011.
12. Dhar, V., and Ghose, A., Sponsored Search and Market Efficiency, *Information Systems Research*, December 2010.
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14. Dhar, Vasant & Arun Sundararajan (2007) "Information Technologies in Business: A Blueprint for Education and Research," *Information Systems Research*, Volume 18, Number 2, June 2007.
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16. Dhar, V., Chou, D., and Provost (2000)., Discovering Interesting Patterns in Investment Decision Making with GLOWER – A Genetic Learning Algorithm Overlaid With Entropy Reduction, *Data Mining and Knowledge Discovery*, October 2000.
17. Dhar, V., Data Mining in Finance: Using Counterfactuals to Generate Knowledge from Organizational Information Systems, *Information Systems*, Volume 23, No. 7, 1998..
18. Benaroch, M., and Dhar, V., Controlling the Complexity of Investment Decisions Using Qualitative Reasoning Techniques, *Decision Support Systems*, Vol. 15, December 1995.

19. Stein, R., and Dhar, V., Satisfying Customers: Intelligently Scheduling High Volume Service Requests, *AI Expert*, December 1994.
20. Ramesh, B., and Dhar, V., Representing and Maintaining Process Knowledge for Large Scale Systems Development, *IEEE Expert*, Vol. 9, No. 4, April 1994.
21. Dhar, V., and Tuzhilin, A., Abstract Driven Pattern Discovery in Databases, *IEEE Transactions on Knowledge and Data Engineering*, Vol. 5, No. 6, December 1993.
22. Croker, A., and Dhar, V., A Knowledge Representation for Constraint Satisfaction Problems, *IEEE Transactions on Knowledge and Data Engineering*, Vol. 5, No. 5, October 1993.
23. Ramesh, B., and Dhar, V., Process Knowledge-Based Group Support for Requirements Engineering, *IEEE Transactions on Software Engineering*, Vol. 18, No. 6, June 1992.
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25. Chen, H., and Dhar, V., Cognitive Process as a Basis for Intelligent Retrieval Systems Design, *Information Processing and Management*, Vol. 27, No. 3, 1991.
26. Dhar, V., and Ranganathan, N., Integer Programming vs. Expert Systems: An Experimental Comparison, *Communications of the ACM*, Vol. 33, No. 3, March 1990.
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29. Peters, J., Lewis, B., and Dhar, V., Assessing Inherent Risk During Audit Planning: The Development of a Knowledge-Based Model, *Accounting, Organizations, and Society*, Vol. 14, No. 4, pp. 359-378, 1989.
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41. Dhar, V., and Sundarajan, A., Customer Interaction Patterns in Electronic Commerce: Maximizing Information Liquidity for Adaptive Decision Making, European Conference of Information Systems, Vienna, Austria, July 2000.
42. Madhavan, R., Dhar, V., and Weigend, A., The Value of Transparency: An Empirical Comparison of GARCH, Rule-Based, and Neural Net Trading Models, *Neural Networks in Capital Markets*, December 1997.
43. Johar, H., and Dhar, V., Dependency Based Coordination for Consistent Solutions in Distributed Work, *Information and Knowledge Management, CIKM-92*, Baltimore, MD, November, 1992.
44. Benaroch, M., and Dhar, V., Qualitative Synthesis of System Configurations Based on Desired Behavior, *9th Canadian Conference on Artificial Intelligence*, Vancouver, Canada, IEEE Press, May 1992.
45. Ramesh, B., and Dhar, V., Process Knowledge-Based Modification in Systems Development, *AAAI-92 Stanford Spring Symposium*, Stanford, CA, March 1992.
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49. Ramesh, B., and V. Dhar, Capturing and Reasoning with Process Knowledge in Large Scale Systems Design and Maintenance, *Workshop on Design Synthesis*, S. Howell, ed., Silver Springs, MD, September 1991.
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65. Dhar, V., A Value-chain Based Process Model to Support Business Process Reengineering, IBM Technical Report 17221 (#77966), February 1992.
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67. Ramesh, B., and V. Dhar, Role of Process Knowledge in Group Decision Support, working paper, Naval Postgraduate School, Monterey, CA, December 1991.
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69. Dhar, V., Adding the Knowledge Component to Spreadsheet Systems: A Knowledge-based Architecture for the Formulation and Maintenance of Planning

- Models, in *Expertensysteme im Unternehmen (Expert Systems in Business)*, H. Krallman, ed., Erich Schmidt Verlag, Berlin, West Germany, 1986.
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Books/Edited Issues

71. *Data Mining and Knowledge Discovery, Special Issue on Outlier Detection, Volume 20 Number 2, March 2010 Co-editor (with David Hand and Sanjay Chawla)*,
72. Seven Methods for Transforming Corporate data Into Business Intelligence, Vasant Dhar and Roger Stein, published by Prentice-Hall (1997).
73. Intelligent Decision Support Methods: The Science of Knowledge Work, Prentice-Hall, NJ, 1997.
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78. Dhar, V., Duliba, K., and Kauffman, R., Re-Engineering Trading and Treasury Operations in International Financial Services, in *Global Information Systems and Technology*, C. Deans and K. Karwan, eds., Idea Group Publishing, Middletown, PA, 1994.
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