MAYTAL SAAR-TSECHANSKY

Professor
Chevron Centennial Fellow
Department of Information, Risk and Operations Management
Red McCombs School of Business
The University of Texas at Austin

Office: +1 512.471.1512

Web: maytals.com

Co-founder, Sweetch Inc.

Education

- **Doctor of Philosophy**, 2002
  Doctor of Philosophy in Information Systems,
  Leonard N. Stern School of Business, New York University.

- **Master of Science, Cum Laude**,1997
  Industrial Engineering and Management, Information Systems, Ben-Gurion University, Israel

- **Bachelor of Science, Cum Laude**, 1994
  Industrial Engineering and Management, Ben-Gurion University, Israel

Academic Positions

- Full Professor, The University of Texas at Austin, McCombs School of Business, September 1, 2019.
- Visiting Faculty, Cambridge University, Judge Business School, Cambridge, United Kingdom, 2011-2012
- Association Professor, The University of Texas at Austin, McCombs School of Business, 2010 – 2019.
- Assistant Professor, The University of Texas at Austin, McCombs School of Business, July 2002 – 2010.

Publications

1. "Personality-Based Content Engineering for Rich Digital Media", Haris Krijestorac, Rajiv Garg, and Maytal Saar-Tsechansky, ***Conference on Information Systems & Technology*** **(CIST)**, **2019**.

2. "More For Less: Adaptive Labeling Payment for Online Labor Markets". Tomer Geva, Maytal Saar-Tsechansky, & Harel Lustiger. ***Data Mining and Knowledge Discovery***, **2019** (https://doi.org/10.1007/s10618-019-00637-z).

3. "Using retweets to shape our online persona: a topic modeling approach", Hilah Levin, Gal Oestreicher-Singer, and Maytal Saar-Tsechansky. ***Management Information Systems Quarterly*** **(MISQ, 2019)**.

   An earlier version was published in ICIS 2016: "Using Retweets to Shape our Online Persona: A Topic Modeling Approach", with Hilah Geva and Gal Oestreicher-Singer, ***International Conference on Information Systems***, **2016**.

4. "The Right Music at the Right Time: Adaptive Personalized Playlists Based on Sequence Modeling", Elad Liebman, Maytal Saar-Tsechansky, and Peter Stone. ***Management Information Systems Quarterly*** **(MISQ)**, **2019**.

   An earlier version was published in AAMAS 2015: "DJ-MC: A Reinforcement-Learning Agent for Music Playlist Recommendation", Elad Liebman, Maytal Saar-Tsechansky, and Peter Stone. Proceedings of the 14th ***International Conference on Autonomous Agents and Multiagent Systems*** (AAMAS 2015), 2015. (Top-tier Artificial Intelligence conference, 24% acceptance).

5. "A Scalable Preference Model for Autonomous Decision-Making", Markus Peters, Maytal Saar-Tsechansky, Wolfgang Ketter, Sinead Williamson, Perry Groot, and Tom Heskes, ***Machine Learning***, **2018**, https://doi.org/10.1007/s10994-018-5705-5

6. "Information Systems for a Sustainable Smart Electricity Grid", Wolfgang Ketter, John Collins, Ori Marom, and Maytal Saar-Tsechansky. ***ACM Transactions on Management Information Systems (TMIS)***, Volume 9 Issue 3, November 2018.

7. "Active Learning with Multiple Localized Regression Models", Meghana Deodhar, Joydeep Ghosh, and Maytal Saar-Tsechansky. ***INFORMS Journal on Computing****, Vol 9:3, pp 503-522.* ***2017****.*

8. "Designing Better Playlists with Monte Carlo Tree Search", Elad Liebman, Piyush Khandelwal, Maytal Saar-Tsechansky, and Peter Stone. The Twenty-Ninth ***AAAI Conference on Innovative Applications of Artificial Intelligence (IAAI-17)***, **2017** (25% acceptance rate).

9. "Who is a Good Decision Maker? Data-Driven Expert Ranking under Unobservable Quality", Tomer Geva and Maytal Saar-Tsechansky, ***International Conference on Information Systems***, **2016**.

10. "The Business of Business Data Science", Maytal Saar-Tsechansky, Editorial, ***Management of Information Systems Quarterly*** **(*MISQ*)**, **2015**.

11. "Collaborative Information Acquisition for Data-Driven Decisions", Danxia Kong and Maytal Saar-Tsechansky. ***Machine Learning*****, (2014)**, Volume 95, Issue 1, pages 71-86.

12. "A Reinforcement Learning Approach to Autonomous Decision-Making in Smart Electricity Markets", With Markus Peters, Wolf Ketter, and John Collins. ***Machine Learning***, (**2013**) 92:5–39.

    An earlier version was published in ECML 2012: "Autonomous data-driven decision-making in Smart Electricity Markets", *The European Conference on Machine Learning* (*The European Conference on Machine Learning and Principles and Practice of Knowledge Discovery in Databases*), **ECML-PKDD 2012**, with Markus Peters, Wolf Ketter, and John Collins, 2012. (23% acceptance rate.).

13. "Automated data-driven tariff pricing for the Smart Grid", INFORMS Conference on Information Systems and Technology (**CIST 2012**).

14. "Selective Data Acquisition for Machine Learning". J. Attenberg, P. Melville, F. Provost, and M. Saar-Tsechansky. In B. Krishnapuram, S. Yu, B. Rao (eds.), "**Cost-Sensitive Machine Learning**", 2012.

15. "On Data-Driven Analysis of User-Generated Content". Claudia Perlich, Maytal Saar-Tsechansky, Wojciech Gryc, Mary Helander, Rick Lawrence, Yan Liu, Chandan Reddy, Saharon Rosset. Invited article, ***IEEE Intelligent Systems*** 25(1) (**2010**) 12-17

16. "Adaptive Auction Mechanism Design And the Incorporation of Prior Knowledge". David Pardoe, Peter Stone, Maytal Saar-Tsechansky, Tayfun Keskin, and Kerem Tomak. ***INFORMS Journal on Computing***, Vol. 22, No. 3, pp. 353–370, **2010**.

17. "A Framework for Collaborative Information Acquisition Policies". Danxia Kong and Maytal Saar-Tsechansky, **Workshop on Information Technology (WITS)**, 2010.
18. Danxia Kong and Maytal Saar-Tsechansky, Collaborative Information Acquisition, ***Budgeted Learning Workshop*, ICML 2010** (*International Conference on Machine Learning*), 2010.
19. Maytal Saar-Tsechansky, Prem Melville and Foster Provost, "Active Feature-Value Acquisition". ***Management Science***, 55(4), pp. 664–684, 2009.
20. Paul Tetlock, Maytal Saar-Tsechansky and Sofus Macskassy. "More Than Words: Quantifying Language to Measure Firms' Fundamentals". ***Journal of Finance***, 63, 1437-1467, 2008.
21. Maytal Saar-Tsechansky and Foster Provost. "Decision-centric Active Learning of Binary-Outcome Models", ***Information Systems Research***, Vol. 18, No. 1, pp. 1–19, 2007.
22. Maytal Saar-Tsechansky and Foster Provost. "Handling Missing Values When Applying Classification Models". ***Journal of Machine Learning Research***, 8(Jul):1623--1657, 2007.
23. Foster Provost, Prem Melville, and Maytal Saar-Tsechansky. Data acquisition and cost-effective predictive modeling: targeting offers for electronic commerce. Invited paper to appear In the Proceedings of ***The Ninth International Conference on Electronic Commerce***, Minneapolis, 2007.
24. Saar-Tsechansky, Duy Vu, Mikhail Bilenko, and Prem Melville. "Intelligent Information Acquisition for Improved Clustering", ***Workshop on Information Technologies and Systems*** (WITS), 2007.
25. David Pardoe, Peter Stone, Maytal Saar-Tsechansky, and Kerem Tomak, "Adaptive Mechanism Design: A Metalearning Approach". In the Proceedings of ***The Eighth International Conference on Electronic Commerce*,** 2006.
26. Prem Melville, Stewart M. Yang, Maytal Saar-Tsechansky, and Raymond J. Mooney. "Active Learning for Probability Estimation using Jensen-Shannon Divergence", **The *Proceedings of The 16th European Conference on Machine Learning*** (ECML), 2005. 10% acceptance rate.
27. Melville, P., Saar-Tsechansky, M., Provost, F. and Mooney, R.J. An Expected Utility Approach to Active Feature-value Acquisition. ***The Proceedings of the Fifth International Conference on Data Mining*** (ICDM), 2005. 13% acceptance rate.
28. David Pardoe, Peter Stone, Maytal Saar-Tsechansky and Kerem Tomak. Adaptive Auctions: Learning to Adjust to Bidders. ***Workshop on Information Technologies and Systems*** (WITS), 2005. 27% acceptance rate.
29. Melville, P., Saar-Tsechansky, M., Provost, F. and Mooney, R.J. Economical Active Feature-value Acquisition through Expected Utility Estimation***. Proceedings of the KDD-05 Workshop on Utility-Based Data Mining***, Chicago, IL, August 2005.
30. Maytal Saar-Tsechansky and Hsuan Wei-Chen. Variance-Based Active Learning for Classifier Induction. ***Workshop on Information Technologies and Systems (*WITS)**, 2005. 27% acceptance rate.
31. Maytal Saar-Tsechansky and Foster Provost. "Active Sampling for Class Probability Estimation and Ranking." ***Machine Learning***, 54:2, 153-178, 2004.
32. Prem Melville, Maytal Saar-Tsechansky, Foster Provost, and Raymond J. Mooney. "Active Feature Acquisition for Classifier Induction." **The Proceedings of *The Fourth International Conference on Data Mining* (ICDM)**, 2004. 14% acceptance rate.
33. Saar-Tsechansky Maytal and Provost Foster. "Active Learning for Class Probability Estimation and Ranking" **The *Seventeenth International Joint Conference on Artificial Intelligence* (IJCAI-01),** 2001. 24% acceptance rate. (An extended version was published in the *Machine Learning Journal*)

34. Maytal Saar-Tsechansky, Nava Pliskin, Gadi Rabinowitz., Avi Porath, and Mark Tsechansky, "Monitoring Quality of Care with Relational Patterns". ***Topics in Health Information Management***, Vol. 22, N0. 1, 2001.
35. Saar-Tsechansky Maytal, Pliskin Nava, Rabinowitz Gadi, and Tsechansky Mark. "Patterns Extraction for Monitoring Medical Practices," *Proceedings of the 34th Hawaii International Conference on Systems Sciences (HICSS)*. IEEE Computer Society Press, 2001. **Best Paper Award**, **Information Technology in Health Care Track.**
36. Maytal Saar-Tsechansky, Nava Pliskin, Gadi Rabinowitz, and Avi Porath, "Mining Relational Patterns from Multiple Relational Tables," ***Decision Support Systems***, Vol. 27, No. 1-2, 177-195, 1999.

Papers under review, working paper

- " Personality-Based Content Engineering for Rich Digital Media", Haris Krijestorac, Rajiv Garg, and Maytal Saar-Tsechansky, under review, first round, Management Information Systems Quarterly (MISQ).
- "Who is a Good Decision Maker? Data-Driven Expert Ranking under Unobservable Quality", with Tomer Geva. Under review, second round, *Production and Operations Management* (POM).
- "Scoring high-risk patients from EHR histories for disease prevention", Working paper, with Mathias Kraus and Stefan Feuerriegel. Last edited January, 2019.
- "Improving predictive accuracy of onset of chronic diseases with data missing not-at-random in medical health records", Working paper, with Xinqi You. Last edited, December 2018.

Edited Works

- Gary M. Weiss, Maytal Saar-Tsechansky, and Bianca Zadrozny (guest editors). Special Issue on Utility-Based Data Mining, ***Data Mining and Knowledge Discovery***, 17(2), October 2008.
- Bianca Zadrozny, Gary M. Weiss and Maytal Saar-Tsechansky (editors). *Proceedings of the ACM SIGKDD, **International Workshop on Utility-Based Data Mining***, ACM Press, August, 2006.
- Gary M. Weiss, Maytal Saar-Tsechansky and Bianca Zadrozny (editors). *Proceedings of the ACM SIGKDD, **International Workshop on Utility-Based Data Mining***, ACM Press, August 2005.

Honors, Awards, and Distinctions

- The University of Texas at Austin's Bridging Barriers Grand Challenge: "Good Systems" proposal chosen to be the third Bridging Barriers Grand Challenge theme to launch. 2018.
- Nominated for CBA Foundation Advisory Council Award for Teaching Innovation, 2018
- Israel National Cyber Bureau, The Blavatnik Interdisciplinary Cyber Research Center, 2015 ($50,000).
- Research grant award, Center for Identity, University of Texas at Austin, 2015.
- Summer Research Excellence Award, McCombs School of Business, 2015.
- MBA Applause award, 2013

- Israeli Chief Science Office, (Phase I: $415,000) , 2014.
- EUCE Grant Award, 2013.
- Research Excellence Grant, The McCombs School of Business, 2013-2014
- Faculty Research Assignment (FRA) for research at Cambridge University, 2011-2012.
- National Science Foundation (NSF) grant: "Active Learning System for Audit Selection", 2006. Co-PI: Daniele Micci-Barreca, $200,000.
- Chevron Centennial Fellow, The McCombs School of Business
- Nominated for the 2008-09 Trammell/CBA Foundation Teaching Award for Assistant Professors.
- MBA Honor Roll Award for Outstanding MBA Class Instruction, McCombs School of Business, Spring 2006.
- Nominated for the 2006-07 Trammell/CBA Foundation Teaching Award for Assistant Professors, The McCombs School of Business, University of Texas at Austin
- Research Excellence Grant (with Frenkel Ter Hofstede), The McCombs School of Business, 2007-2008.
- Research Grant, The University of Texas at Austin, 2006-2007.
- Research Excellence Grant, The McCombs School of Business, 2005-2006.
- Best Paper Award, The Information Technology in Health Care Track, The 34th Hawaii International Conference on Systems Sciences (HICSS), 2001.
- Winner of the SAP Doctoral Support Award, 2001.
- Fulbright scholarship, 1997.
- Levi Eshkol Scholarship, Israeli Science Ministry, 1996-1997.
- Excellence Award for top ranked students, School of Engineering, Ben-Gurion University; 1992, 1993, 1994.
- Gruss Scholarship for Outstanding students; 1991,1992.

Recent invited Talks and Panels

- University of Maryland at College Park, Robert H. Smith School of Business, Fall 2019
- Keynote: Information Technology Teaching Conference, Wharton School, June 2019
- Duke University, Computer Science & Statistics seminar, Spring 2019
- Notre Dame University, Mendoza College of Business, Spring 2019
- Boston University, Questrom School of Business, Spring 2019
- Cornell University, Operation Technology and Information Management (OTIM) Workshop, Fall 2018
- Temple University, Fox School of Business, Research seminar, Fall 2018
- University of Emory, IS & OM Research Workshop, Summer 2018
- 2018 ISOM Workshop on AI, Machine Learning and Big Data (University of Florida, Warrington)

- University of Michigan State University, Research Seminar, Fall 2018
- Machine Learning and AI in Business Research Panel, Conference on Information Systems and Technology (CIST), 2018.
- University of Minnesota, research seminar, Winter 2018
- University of Iowa, research seminar, Fall 2017.
- École Polytechnique Fédérale de Lausanne (EPFL), research seminar, Switzerland, 2016.

Service

Editorial board memberships and roles

- Editorial board, ***Machine Learning***, 2008-present
- Associate Editor, ***Information Systems Research***, 2010-2013, 2017-present.
- Associate Editor, ***INFORMS Journal on Computing***, 2010-2019.
- Ad-hoc Senior Editor, **INFORMS Production and Operations Management** (POM), 2016.
- **Co-editor**, Special Issue on Utility-Based Data Mining*, Journal of Knowledge Discovery and Data Mining*, 2008

Conference, Workshop Chair, Award committees

- **Conference co-chair**, the Second INFORMS Workshop on Data Science, 2018
- **Judge**, IFNORMS Franz Edelman Award for Achievement in Operations Research and the Management Sciences, 2018.
- **Program Co-Chair and Co-Founder**: INFORMS First Workshop on Data Science, 2017
- **Co-chair**, The Workshop on Social and Business Analytics (WSBA), McCombs 2016
- **Co-chair**, The Workshop on Social and Business Analytics (WSBA), McCombs 2014
- **Co-chair**, The Sixth Symposium on Statistical Challenges in Electronic Commerce Research (SCECR), Austin Texas, 2010.
- **Co-chair**, Workshop on Data–Driven Business Intelligence: Marketing Meets Data Mining, August 22nd -23rd, Austin, Texas, 2009.
- **Co-chair** of The ACM SIGKDD Workshop on Utility-Based Data Mining 2006 (UBDM 06), held in conjunction with The 12th ACM SIGKDD *International Conference on Knowledge Discovery and Data Mining* (KDD 2006), August, 2006, Philadelphia, Pennsylvania.
- **Co-chair** of The ACM SIGKDD Workshop on Utility-Based Data Mining 2005 (UBDM 05), held in conjunction with The 11th ACM SIGKDD *International Conference on Knowledge Discovery and Data Mining* (KDD 2005), August 21-24, 2005, Chicago, Illinois.

Recent NSF Panels

- National Science Foundation panel, Critical Techniques and Technologies for Advancing Foundations and Applications of Big Data Science & Engineering (**BIGDATA**), 2015.
- National Science Foundation, SMALL **Robust Intelligence** (RI), Division of Information and Intelligent Systems (IIS).

Academic Positions

- Visiting Faculty, Tel Aviv University, Fall 2014, Summer 2015.
- Visiting Faculty, Cambridge University, Judge Business School, Cambridge, United Kingdom, 2011-2012
- The University of Texas at Austin, McCombs School of Business, Assistant Professor, July 2002 – 2009
- The University of Texas at Austin, McCombs School of Business, Associate Professor, 2010 – Present.

Non-Academic Positions

- Co-founder, Sweetch Inc. (2014)
- Chief Data Science Officer, Sweetch Inc. (2014-2016).
- Co-founder, Barak Information Systems, 1995-1997.
- Data analyst, the Clalit Health Services (Israel's largest health care provider), 1992-1994.