# Won Gyun No

#### **Associate Professor**

Rutgers, The State University of New Jersey
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## **EDUCATION**

Ph.D.	The University of Waterloo, Waterloo, Ontario, Canada	2007
MAcc.	The University of Wisconsin, Madison, Wisconsin, USA	1999
M.S.	Chonnam National University, Kwangju, South Korea	1996
B.A.	Chonnam National University, Kwangju, South Korea	1994

## **ACADEMIC APPOINTMENTS**

Associate Professor, Rutgers Business School	Jul. 2020 – Current
Assistant Professor, Rutgers Business School	Sept. 2014 – Jun. 2020
Assistant Professor, College of Business, Iowa State University	Aug. 2008 – Jun. 2014

## **PUBLICATIONS**

#### Journal Publications

- "Chain of Values: Examining the Economic Impacts of Blockchain on the Value-Added Tax System" (with by Arion Cheong, Soohyun Cho, Kyungha Lee, and Miklos A. Vasarhelyi), *Journal of Management Information Systems*. Vol. 38, No. 2, 2011: 288-313.
- "Classifying the Contents of Cybersecurity Risk Disclosure through Textual Analysis and Factor Analysis" (with Arion Cheong, Kyunghee Yoon, and Soohyun Cho). *Journal of Information Systems*. Vol. 35, No. 2, Summer 2021: 179-194.
- "Green IT Perceptions and Activities of Internal Auditors in Australia, Canada, and the United States" (with Glen L. Gray, Kyunghee Yoon, and Peter Roebuck), *Journal of Information Systems*. Vol. 35, No. 1, Spring 2021: 187-211.
- "How Significant are the Differences in Financial Data Provided by Key Data Sources? A Comparison of XBRL, Compustat, Yahoo! Finance, and Google Finance" (with J. Efrim Boritz), *Journal of Information Systems*. Vol. 34, No. 3, Fall 2020: 47-75.

- "XBRL Mandate and Timeliness of Financial Reporting: The Effect of Internal Control Problems" (with Seokyoun Hwang and Jongkyum Kim). *Journal of Accounting, Auditing, and Finance*. June 2020: 1-27.
- "Are External Auditors Concerned about Cyber Incidents? Evidence from Audit Fees?" (with He Li and J. Efrim Boritz), *Auditing: A Journal of Practice & Theory*, Vol. 39, No. 1, February 2020: 151-171.
- "Multidimensional Audit Data Selection (MADS): A Framework for Using Data Analytics in the Audit Data Selection Process" (with Kyungha Lee, Feiqi Huang, and Feiqi Huang), *Accounting Horizon*, Vol. 33, No. 3, September 2019: 127-140.
- "Discrepancies in Hospital Financial Information: Comparison of Financial Data in State Data Repositories and the Healthcare Cost Reporting Information System" (with Melvin A. Lamboy-Ruiz and Olena V. Watanabe), *Journal of Information Systems*, Vol. 33, No. 3, Fall 2019: 19-44.
- "Do Managers Use Extension Elements Strategically in the SEC's Tagged Data for Financial Statements? Evidence from XBRL Complexity" (with Feiqi Huang and Miklos A. Vasarhelyi), *Journal of Information Systems*, Vol. 33, No. 3, Fall 2019: 61-74.
- "SEC's Cybersecurity Disclosure Guidance and Disclosed Cybersecurity Risk Factors" (with He Li and Tawei Wang), *International Journal of Accounting Information Systems*, Vol. 30, September 2018: 40-55.
- "Are Commercial Financial Databases Reliable? New Evidence from Korea" (with Hyunjung Nam and Youngsu Lee), *Sustainability*, Vol. 9, Issue 8, August 2017: 1406 (1-23).
- "Cybersecurity and Continuous Assurance" (with Miklos A. Vasarhelyi), *Journal of Emerging Technologies in Accounting*, Vol. 14, No. 1, Spring 2016: 1-12.
- "Computer-Assisted Functions for Auditing XBRL-Related Documents" (with J. Efrim Boritz), Journal of Emerging Technologies in Accounting, Vol. 13, No. 1, Spring 2016: 53-83.
- "Internal Auditors' Experiences and Opinions Regarding Green IT: Assessing the Gap in Normative and Positive Perspectives" (with Glen L. Gray and David W. Miller), *Journal of Information Systems*, Vol. 28, No. 1, Spring 2014: 75-109.
- "XBRL Implementation: A Field Investigation to Identify Research Opportunities" (with Diane J. Janvrin), *Journal of Information Systems*, Vol. 26, No. 1, Spring 2012: 169-197.
- "The Effect of Mandatory XBRL Reporting across the Financial Information Environment: Evidence in the First Wave of Mandated U.S. Filers" (with Joung W. Kim and Jee-Hae Lim), *Journal of Information Systems*, Vol. 26, No. 1, Spring 2012: 127-153.
- "E-Commerce and Privacy: Exploring What We Know and Opportunities for Future Discovery" (with J. Efrim Boritz), *Journal of Information Systems*, Vol. 25, No. 2, Fall 2011: 11-45.

- "Assurance on XBRL-Related Documents: The Case of United Technologies Corporation" (with J. Efrim Boritz), *Journal of Information Systems*, Vol. 23, Issue 2, Fall 2009: 49-78.
- "The SEC's XBRL Voluntary Filing Program on EDGAR: A Case for Quality Assurance" (with J. Efrim Boritz), *Current Issues in Auditing*, Vol. 2, Issue 2, December 2008: A36-A50.
- "Security in XML-Based Financial Reporting Services on the Internet" (with J. Efrim Boritz), *Journal of Accounting and Public Policy*, Vol. 24, Issue 1, January–February 2005: 11-35.
- "Assurance Reporting for XML-Based Information Services: XARL (Extensible Assurance Reporting Language)" (with J. Efrim Boritz), *Accounting Perspectives (former Canadian Accounting Perspective)*, Vol. 3, Issue 2, 2004: 207-233.

## Conference Proceedings and Research Monograph

- "A Gap in Perceived Importance of Privacy Policies between Individuals and Companies" (with J. Efrim Boritz), *Proceedings of the 2009 World Congress on Privacy, Security, Trust and the Management of e-Business*. August 25-27, 2009, at Saint John, New Brunswick, Canada.
- "Internet Privacy: Framework, Review, and Opportunities for Future Research" (with J. Efrim Boritz and R. P. Sundarraj), *Proceedings of the 41st Annual Hawaii International Conference on System Sciences (HICSS 2008)*, January 7-10, 2008, at Waikoloa, Big Island, Hawaii, USA.
- "Assurance Reporting for XBRL: XARL (Extensible Assurance Reporting Language)" (with J. Efrim Boritz), In *Trust and Data Assurances in Capital Markets: The Role of Technology Solutions*, ed. S. J. Roohani, 2003: 17-31. Research monograph sponsored by PricewaterhouseCoopers.

#### **Book and Book Chapter**

- "XBRL (Extensible Business Reporting Language): Business Reporting with XML" (with J. Efrim Boritz), In *The Encyclopedia of the Internet*, ed. H. Bidgoli, vol. 3, 2004: 863-885. New York: John Wiley & Sons, Inc.
- "How to Use PC in Your Business Work" (with Young Gi Jung, Kwang Hyuck Kim), 1997, Seoul: SinYoung Inc.

### Manuscripts under Review

- "Data Analytics in Cybersecurity Assurance: Should Data Analytics Be an Integral Part of Cybersecurity Assurance?" (with He Li, Arion Cheong, and Chris K. Halterman). Under the second round review at *Accounting Horizon*.
- "Audit Data Analytics, Machine Learning, and Full Population Testing" (with Feiqi Huang, Miklos A. Vasarhelyi, and Zhaokai Yan). Under review at the *Journal of Finance and Data Science*.

## Research in Progress

- "If you can't measure it, you can't assess it: A new approach to quantifying firms' disclosed cybersecurity risks" (with Arion Cheong, Soohyun Cho, and Miklos A. Vasarhelyi). Unpublished manuscript.
- "Reaping the Whirlwind: Measuring Insider Threat after Massive Layoff from the Dark Web" (with Arion Cheong, Soohyun Cho, Michael Alles, and Miklos A. Vasarhelyi).
- "The Invisible Hands: The Effect of Data Broker Registration on Data Broker's Privacy Disclosure Quality and Data Sharing Activities" (with Arion Cheong Tawei Wang). Unpublished manuscript.
- "An Application of the Multidimensional Audit Data Selection (MADS): A Case Study of an Expenditure Cycle" (with Feiqi Huang). Unpublished manuscript.

### RESEARCH GRANTS

- CARES Act grant from the Department of Commerce's Economic Development Administration (EDA), \$30,000, 2020
- The SAP/CAAA Research Grant Program, \$6,700, 2013
- 2013 Research Bootstrap Grants (RBG), \$3,900, 2013
- Caseware IDEA Inc. and J.E Boritz Consultants, Ltd. \$35,074, 2012
- Caseware IDEA Inc. and J.E Boritz Consultants, Ltd. \$30,000, 2011
- Caseware IDEA Inc. and J.E Boritz Consultants, Ltd. \$37,500, 2010

#### HONORS AND AWARDS

- American Accounting Association (AAA) Information Systems Section: Mid-Year Meeting Outstanding Research Paper Award, 2010
- 2009 World Congress on Privacy, Security, Trust and the Management of e-Business: Best Paper Award, 2009
- American Accounting Association (AAA) Information Systems Section Outstanding Dissertation Award, 2008

- Winner of the best oral presentation of Graduate Student Research Conference, 2007
- Millennium Graduate Student Bursary, 2006
- International Doctoral Student Award, 2004 2006
- Graduate Merit Scholarship, University of Waterloo, 2005
- UWCISA Research Scholarship, University of Waterloo, 2001 2005
- Teaching Assistantship Excellence Award, Department of Management Sciences, University of Waterloo, 2003
- International Graduate Student Bursary, University of Waterloo, 2000 2003
- Graduate Entrance Scholarship, University of Waterloo, 2000
- Fellowships for academic excellence in Chonnam National University, 1994 1996

## RESEARCH AND PROFESSIONAL EXPERIENCE

Researcher Aug. 2007 – Jul. 2008

Center for Information Systems Assurance, University of Waterloo

**Research Assistant and Online Learning Center Developer**Jan. 2004 – Aug. 2007

Center for Information Systems Assurance (CISA), University of Waterloo

**Webmaster** Jan. 2000 – Jul. 2000

Center on Education and Work (CEW), University of Wisconsin - Madison

System Developer Jan. 1999 – Dec. 1999

School of Business, University of Wisconsin – Madison

Consultant and Instructor Aug. 1996 – Dec. 1996

Information and Computing Institute, Chonnam National University

Network Administrator Mar. 1994 – Nov. 1996

College of Business Administration, Chonnam National University

Consultant and System Developer Jan. 1994 – Mar. 1995

Kwangju Environmental Public Co. (KEP), Kwangju, South Korea

## **CONFERENCE PRESENTATIONS**

"The Impact of Mass Layoffs in IT Firms on Cybersecurity: Evidence from the Darknet Market" (with Arion Cheong, Michael G. Alles, Soohyun Cho, and Miklos A. Vasarhelyi), *Joint Midyear Meeting of the AIS, SET and International Sections*, February 2-6, 2021.

"The Informativeness of Cybersecurity Risk Disclosure: Decoding the Contents of Cybersecurity Risk Disclosure through Textual Analysis" (with Arion Cheong,

- Kyunghee Yoon, and Soohyun Cho), *Joint Midyear Meeting of the AIS, SET and International Sections*, January 23-25, 2020, Orlando, FL.
- "If You Can't Measure It, You Can't Manage It: Assessing Cybersecurity Risk Factors Through Textual Imagification" (with Arion Cheong, Soohyun Cho, and Miklos A. Vasarhelyi), AAA Annual Meeting, August 10-14, 2019, San Francisco, CA.
- "An Application of the Multidimensional Audit Data Selection (MADS): A Case Study of an Expenditure Cycle" (with Feiqi Huang), *AAA Annual Meeting*, August 10-14, 2019, San Francisco, CA.
- "Assessing Cybersecurity Risk Factors through Textual Visualization" (with Arion Cheong, Soohyun Cho, and Miklos A. Vasarhelyi), *AAA Annual Meeting*, August 4-8, 2018, Washington, DC.
- "The Impact of Internal Control Weaknesses on the Timeliness of XBRL Disclosure" (with Seokyoun Hwang and Jongkyum Kim), *Journal of Accounting, Auditing and Finance Conference*, June 24–27 2018, JeJu, South Korea.
- "The RADAR Project: Analytics for the Future of Audit" (with Miklos A. Vasarhelyi), 9th *Annual Pre-ICIS Workshop on Accounting Information Systems*, December 9, 2017, Seoul, Korea.
- "Cyber Risk Disclosure and Cybersecurity Disclosure Guidance" (with He Li, Tawei Wang, and Miklos A. Vasarhelyi), *AAA Annual Meeting*, August 5-9, 2017, San Diego, CA.
- "Do Managers Use Extension Elements Strategically in the SEC's Tagged Data for Financial Statements? Evidence from XBRL Complexity" (with Feiqi Huang and Miklos A. Vasarhelyi), AAA Annual Meeting, August 5–9, 2017, San Diego, CA.
- "Are External Auditors Concerned about Cyber Incidents? Evidence from Audit Fees?" (with He Li and J. Efrim Boritz), *Auditing Section Mid-Year Meeting*, January 12-14, 2017, Orlando, FL.
- "Comparing the Attitudes and Activities of Internal Auditors in Australia, Canada, and the United States Regarding Green IT" (with Glen L. Gray, Kyunghee Yoon, and Peter Roebuck), *AAA Annual Meeting*, August 6-10, 2016, New York, NY.
- "The Quality of Interactive Data: XBRL Versus Compustat, Yahoo finance, and Google Finance" (with J. Efrim Boritz), *AAA Annual Meeting*, August 3-7, 2013, Anaheim, CA.
- "The Quality of Interactive Data: XBRL Versus Compustat, Yahoo finance, and Google Finance" (with J. Efrim Boritz), *AAA IS Section Mid-Year Meeting*, January 10-12, 2013, Ft. Lauderdale, FL.

- "Internal Auditors' Experiences and Opinions Regarding Green IT: Assessing the Gap in Normative and Positive Perspectives" (with Glen L. Gray and David W. Miller), *AAA Annual Meeting*, August 4-8, 2012, Washington, DC.
- "Identifying Value-Added Roles for Internal Auditors in Green IT Activities" (with Glen L. Gray and David W. Miller), *UWCISA Symposium on Information Integrity & Information Systems Assurance*, October 20-22, 2011, Toronto, Canada.
- "The Effect of XBRL Disclosures on Information Environment in the Market: Early Evidence" (with Joung W. Kim and Jee-Hae Lim), *AAA Annual Meeting*, August 6-10, 2011, Denver, CO.
- "The Effect of XBRL Disclosures on Information Environment in the Market: Early Evidence" (with Joung W. Kim and Jee-Hae Lim), *AAA IS Section Mid-Year Meeting*, January 6-8, 2011, Atlanta, GA.
- "XBRL Implementation: A Field Investigation" (with Diane J. Janvrin), *AAA IS Section Mid-Year Meeting*, January 7-9, 2010, Clearwater Beach, FL.
- "Computer-Assisted Functions for Auditing XBRL-Related Documents" (with J. Efrim Boritz), *AAA IS Section Mid-Year Meeting*, January 8-10, 2009, Charleston, SC.
- "A Gap in Perceived Importance of Privacy Policies between Individuals and Companies" (with J. Efrim Boritz), *World Congress on Privacy, Security, Trust and the Management of e-Business*, August 25-27, 2009, Saint John, Canada.
- "Privacy Policy Disclosures of Companies: A Gap in Perceived Importance of Privacy Policies" (with J. Efrim Boritz and R. P. Sundarraj), *AAA Annual Meeting*, August 3-6, 2008, Anaheim, CA.
- "Auditing an XBRL Instance Document: The Case of United Technologies Corporation" (with J. Efrim Boritz), *AAA IS Section Mid-Year Meeting*, January 9-12, 2008, Redondo Beach, CA.
- "Differences in Companies' Privacy Policy Disclosures across Countries and Industries" (with J. Efrim Boritz and R. P. Sundarraj), *AAA IS Section Mid-Year Conference*, January 9-12, 2008, Redondo Beach, CA.
- "The Effect of Privacy Involvement and Privacy Policy Disclosure on Individuals' Privacy Behaviour" (with J. Efrim Boritz and R. P. Sundarraj), *AAA IS Section Mid-Year Meeting*, January 9-12, 2008, Redondo Beach, CA.
- "Privacy Involvement, Privacy Policy Disclosure and Individuals' Privacy Behaviour," Graduate Student Research Conference, University of Waterloo, April 23-26, 2007, Waterloo, Canada.

- "Review of Research on Online Privacy," *UWCISA Symposium on Information Systems Assurance Integrity, Privacy, Security & Trust in an IT Context*, October 20-22, 2005, Toronto, Canada.
- "Infrastructure Requirements for Assurance on XBRL Documents" (with J. Efrim Boritz), *International Conference on XBRL*, October 20-21, 2003, Lawrence, KS.
- "Assurance Reporting for XBRL," *Graduate Student Research Conference*, University of Waterloo, April 2-4, 2003, Waterloo, Canada.

## TEACHING EXPERIENCE

**Instructor**, Rutgers, The State University of New Jersey

Fall 2014 – Current

- 011:252: Cybersecurity Management
- 010:485: Accounting Information Systems
- 010:669 Introduction to Cybersecurity
- 010:685: Cybersecurity Assurance
- 010:685: Survey of Accounting Information Systems Research

### **Instructor**, Iowa State University

Fall 2008 – Spring 2014

• ACCT 384: Accounting Information Systems

## Instructor, University of Waterloo

Winter 2006

• MSCI 444: Information Systems Analysis and Design

#### **Teaching Assistant**, University of Waterloo

2002 - 2007

- MSCI 646 (Software Engineering & Database Design)
- MSCI 441 (Management Information Systems)
- MSCI 444 (Information Systems Analysis and Design)
- MSCI 261 (Managerial and Engineering Economics)
- MSCI 211 (Organizational Behaviour)
- MSCI 311 (Organizational Design and Technology).

## **Teaching Assistant**, University of Wisconsin – Madison

1998 - 1999

- ACC 100 (Introductory Financial Accounting)
- ACC 311 & 312 (Financial Reporting I & II)

### SERVICE ACTIVITIES

### **Workshops and Seminars**

- Korean Accounting Association (KAA) Future Accounting Committee Seminar, January 18, 2019, Seoul, South Korea.
- Korean Institute of Certified Public Accountants (KICPA) Seminar, June 8, 2018, Seoul, South Korea.

- SEC XBRL Reporting Workshop, June 28, 2017, Seoul, South Korea.
- XBRL Workshop, August 18, 2016, Seoul, South Korea.
- XBRL Symposium. April 21, 2016, Seoul, South Korea.
- UWCISA 8th Biennial Research Symposium Pre-conference XBRL Workshop. October 3, 2013, Toronto, Canada.
- XBRL Seminar. June 18, 2012, Chonnam Nation University, Gwangju, South Korea.
- XBRL Workshop. June 14, 2012, Dankook University, Seoul, South Korea.
- XBRL Canada Fourth Annual Conference. October 7, 2010, Toronto, Canada.
- XBRL Workshop. July 21, 2010, Chonnam Nation University, Gwangju, South Korea.
- Korean Association of Computer and Accounting Conference Special speaker, June 12, 2010. Gwangju, South Korea.
- XBRL Auditing Focus Group Workshop. August 28, 2008, Toronto, Canada.
- Korean Accounting Association Conference 2006 Special Workshop. June 19, 2006, Gurye, South Korea.
- CAAA Conference 2005 Special Workshop. June 2, 2005, Québec City, Canada.

#### Service as a Referee

- Accounting Perspective
- European Accounting Review
- International Journal of Accounting Information Systems
- Journal of Accounting and Public Policy
- Journal of Business Research
- Journal of Emerging Technologies in Accounting
- Journal of Information Systems
- The Japanese Accounting Review
- AAA Annual Meeting
- AAA IS Section Mid-Year Meeting
- Hawaii International Conference on System Sciences (HICSS)

## **Service in Professional Societies and Organizations**

- Korean Accounting Association (KAA) XBRL Committee: 2015 Present
- AAA IS Section Environmental Scanning Committee: 2013 2015
- Accounting CPE Conference, Iowa State University: 2008, 2009 and 2013 (led a section)
- Faculty advisor of Korean Student Association, Iowa State University: 2013 2014

- Member of Business Learning Team (BLT) Committee, Iowa State University, 2008 2014
- Teaching Assistant Mentor, Expectations workshop, University of Waterloo, April 2004
- Executive Member, Management Sciences Student Association, University of Waterloo, 2003
- Treasurer, KSIBS (Korean Students in Business School), University of Wisconsin -Madison, 1998 - 1999

## **Advisory Activities**

- Provided professional advice and counsel to the Financial Supervisory Service (FSS) in South Korea regarding XBRL adoption and implementation.
- Provided professional advice to XBRL Korea.
- Provided consulting service to WebFilings, LLC.
- Helped a writer of Securities Industry News, Tom Steinert-Threlkeld, when he wrote a news article titled "Will XBRL Filings Produce Reliable Data?" (Mar. 2, 2009).

## PROFESSIONAL SOCIETIES

- American Accounting Association (AAA)
- Canadian Academic Accounting Association (CAAA)
- XBRL International
- XBRL US
- Korean Accounting Association (KAA)