

Junseok Hwang, Ph.D.

Curriculum Vitae

Basic Information

Current	Tenured Full Professor, Technology Management, Economics, and Policy Program, College of Engineering, Seoul National University
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Educations

Ph. D. 2000	Information Science and Telecommunications, University of Pittsburgh, Pittsburgh, PA , 1996-2000 <i>Dissertation</i> : A Market-Based Model for the Bandwidth Management of IntServ-DiffServ QoS Interconnection
M. S. 1996	Telecommunications, School of Engineering, University of Colorado, Boulder, CO , 1994-1996 <i>Dissertation</i> : The Prospects for Mobile Satellite Communications and Broadband Satellite Communications: Technical and Regulatory Issues and Trend Analysis
B. S. 1989	Mathematics, College of Science, Yonsei University, Seoul, Korea , 1985-1989

Experiences

Director (2003-Date)	International IT Policy Program, Seoul National University, Seoul, Korea
Professor (2010-Date)	Technology Management, Economics, and Policy Program, College of Engineering, Seoul National University, Seoul, Korea
Associate Professor (Oct. 2005 – 2010)	Technology Management, Economics, and Policy Program, College of Engineering, Seoul National University, Seoul, Korea
Assistant Professor (Aug. 2003 – Sep. 2005)	Technology Management, Economics, and Policy Program, College of Engineering, Seoul National University, Seoul, Korea
Assistant Professor (2000 – Aug. 2003)	Syracuse University, Syracuse, NY, <i>Assistant Professor</i>
Visiting Academic Research Fellow (May. 2001 – Aug. 2001)	Hewlett Packard Laboratories, Bristol, U.K.
Teaching Fellow (Mar. 1999 – 2000)	University of Pittsburgh, Pittsburgh, PA
Technical Research Staff (1992 – 1994)	Hyosung Computer, Center for Research and Development, Seoul, Korea
Hardware and System Software Engineer (1989 – 1992)	Hyosung Computer, Center for Research and Development, Seoul, Korea

Research and Project Interests

- Network Economics
- Network Performance and Efficiency
- Next Generation Internet
- Spectrum Allocation Policy
- Entrepreneurship Promotion
- Digital Economy and Innovation Policy
- Intellectual Property Management
- Science Technology Innovation Policy
- IoT and Smart Technology BM and Policy
- Technological Innovation in Information and Communication Technology
- Telecommunication and Smart Media Policy
- Digital Convergence Policy
- Technology Leadership
- Knowledge and Intelligence Management
- Industry 4.0 Smart Nation Policy
- Appropriate Technology for Developing Economy and Community

○ Publications

(International publications)

- Kim, H., Lee, H., & Hwang, J. (2017). Dividing network externality into the number of peers and users — focusing on sociability and enjoyment in online games, *Information Technology & People*.
- Kim, K., Jung, S., Hwang, J., & Hong, A. (2017). A dynamic framework for analyzing technology standardization using network analysis and game theory. *Technology Analysis and Strategic Management*.
- Oh, S., Hong, A., & Hwang, J. (2017). An analysis of CSR on firm financial performance in stakeholder perspectives. *Sustainability*, 9(6), 1023.
- Na, H. S., Hwang, J., Hong, J. Y. J. & Lee, D. (2017). Efficiency comparison of digital content providers with different pricing strategies. *Telematics and Informatics*, 34(2), 657-663.
- Kim, H., Lee, D., & Hwang, J. (2016). Measuring the efficiency of standardisation policy using meta-frontier analysis: a case of mobile platform standardisation. *International Journal of Mobile Communications*, 14(1), 79-98.
- Lee, C., & Hwang, J. (2016). The influence of giant platform on content diversity. *Technological Forecasting and Social Change*, in press.
- Yu, E., Hong, A., & Hwang, J. (2016). A socio-technical analysis of factors affecting the adoption of smart TV in Korea. *Computers in Human Behavior*, 61, 89-102.
- Manandhar, S. P., Kim, S., & Hwang, J. (2015). Success factors of online services in Kathmandu, Nepal: an empirical analysis. *International Journal of Business Information Systems*, 18(4), 422-436.

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- Shin, D. H., Kim, H., & Hwang, J. (2015). Standardization revisited: A critical literature review on standards and innovation. *Computer Standards & Interfaces*, 38, 152-157.
- Lee, C., Lee, D., & Hwang, J. (2015). Platform openness and the productivity of content providers: A meta-frontier analysis. *Telecommunications Policy*, 39(7), 553-562.
- Yang, A., Lee, D., Hwang, J., & Shin, J. (2013). The influence of regulations on the efficiency of telecommunications operators: A meta-frontier analysis. *Telecommunications Policy*, 37(11), 1071-1082.
- Lee, D., & Hwang, J. (2012). Keeping the network neutral: Game theory analysis on Internet service provider discrimination against application service providers. *International Information Institute (Tokyo). Information*, 15(4), 1435.
- Jung, H., Kim, E., Kim, S., & Hwang, J. (2012). How diversification affects innovation by a Korean mobile content firm. *International Journal of Mobile Communications*, 10(5), 521-535.
- Yoon, H., Hwang, J., & Weiss, M. B. (2012). An analytic research on secondary-spectrum trading mechanisms based on technical and market changes. *Computer Networks*, 56(1), 3-19.
- Cho, Y., Hwang, J., & Lee, D. (2012). Identification of effective opinion leaders in the diffusion of technological innovation: A social network approach. *Technological Forecasting and Social Change*, 79(1), 97-106.
- Choi, D. O., Oh, J., Kim, Y., & Hwang, J. (2012). Competition in the Korean Internet portal market: network effects, profit, and market efficiency. *Review of Industrial Organization*, 40(1), 51-73.
- Hee Lee, C., Lee, D., & Hwang, J. (2012). Research on public remuneration of open content based on collective license. *Innovation*, 14(4), 576-594.
- Hwang, J., Lee, D., & Lee, K. (2011). Internet pricing and network neutrality: how Internet pricing schemes affect the incentives of Internet service providers. *International Telecommunications*

- Hwang, J., & Kim, S. (2011). Factors affecting successful innovation by content-layer firms in Korea. *The Service Industries Journal*, 31(7), 1093-1107.
- Hong, A., Lee, D., & Hwang, J. (2011). Metafrontier production function analysis of horizontal and vertical integration in Korea's cable TV industry. *Journal of Media Economics*, 24(4), 221-236.
- Hwang, J., Kim, S. Y., Kim, H. J., & Park, J. (2011). An optimal trust management method to protect privacy and strengthen objectivity in utility computing services. *International Journal of Information Technology & Decision Making*, 10(02), 287-308.
- Lee, D., & Hwang, J. (2011). Network neutrality and difference in efficiency among Internet application service providers: A meta-frontier analysis. *Telecommunications Policy*, 35(8), 764-772.
- Hwang, J., Kim, H. J., & Park, J. (2010). Managing risks in an open computing environment using mean absolute deviation portfolio optimization. *Future Generation Computer Systems*, 26(8), 1381-1390.
- Hwang, J., & Lee, Y. (2010). External knowledge search, innovative performance and productivity in the Korean ICT sector. *Telecommunications Policy*, 34(10), 562-571.
- Syamsuddin, I., & Hwang, J. (2010). The use of AHP in security policy decision making: an open office calc application. *Journal of Software*, 5(10), 1162-1169.
- Abbasi, A., Altmann, J., & Hwang, J. (2010). Evaluating scholars based on their academic collaboration activities: two indices, the RC-index and the CC-index, for quantifying collaboration activities of researchers and scientific communities. *Scientometrics*, 83(1), 1-13.
- Suh, D., & Hwang, J. (2010). An analysis of the effect of software intellectual property rights on the

performance of software firms in South Korea. *Technovation*, 30(5), 376-385.

Hwang, J., & Yoon, H. (2009). A mixed spectrum management framework for the future wireless service based on techno-economic analysis: The Korean spectrum policy study. *Telecommunications Policy*, 33(8), 407-421.

Hwang, J., Kim, E., & Kim, S. (2009). Factors affecting open technological innovation in open source software companies in Korea. *Innovation*, 11(3), 279-290.

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Hwang, J., Altmann, J., & Kim, K. (2009). The structural evolution of the Web 2.0 service network. *Online Information Review*, 33(6), 1040-1057.

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Okumus, I., Mantar, H., Hwang, J., & Chapin, S. (2009). Inter-Domain Traffic Engineering on Diffserv Networks: A Region-based Approach. *Przegląd Elektrotechniczny*, 85(10), 137-145.

Hwang, J., Cho, Y. & Long, N. V. (2009). Investigation of factors affecting the diffusion of mobile telephone services: An empirical analysis for Vietnam. *Telecommunications Policy*, 33(9), 534-543.

Hwang, J., Lee, Y. & Kim, S. (2009). Modeling Weblog Success: Case of Korea. *Journal of Universal Computer Science*, 15(8), 1589-1606.

Altmann, J., Abbasi, A. & Hwang, J. (2009). Evaluating the Productivity of Researchers and Their Communities: the RP-Index and the CP-index. *International Journal of Computer Science and*

- Hwang, J., & Weiss, M. B. (2008). Service differentiation economic models and analysis of market-based QoS interconnections. *Telematics and Informatics, 25(4)*, 262-279.
- Aoun, D., & Hwang, J. (2008). The effects of cash flow and size on the investment decisions of ICT firms: A dynamic approach. *Information Economics and Policy, 20(2)*, 120-134.
- Hwang, J., Shin, A., & Yoon, H. (2008, October). Incentives for Cooperative Relay in Heterogeneous Networks: A Dynamic Reputation-Based Approach. In *APNOMS* (pp. 527-530).
- Mantar, H. A., Okumus, I. T., Hwang, J., & Chapin S. J. (2008). Design and evaluation of inter-bandwidth broker signaling. *International Journal of Communication Systems, 21(8)*, 843-861.
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- Okumus, I. T., Mantar, H. A., Hwang, J., & Chapin, S. J. (2005). Inter-domain QoS routing on Diffserv networks: a region-based approach. *Computer communications, 28(2)*, 174-188.
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(Domestic publications)

Lee, J., Hwang, J., & Kim, J. (2016). The Sharing Economy Business Model per the Analysis of Value Attributes. *Journal of Information Technology Services*, 15(4).

Hur, J., Kim, S., Cha, N., & Hwang, J. (2016). Research on User Attitudes of Information Privacy: Focusing on the New Payment System. *Information Society and Media*, 17(3).

Chang, J., Hwang, J., & Hong, A. (2016). The Effects of Technology and Strategy on Innovation in the Content Industry: Corporate Strategy of Korea Broadcasting Program Provider. *Information Society and Media*, 17(2).

Shim, D., Kim, E., & Hwang, J. (2015). A Study on Factors Affecting Consumer's Impulse Buying Behaviour on the Social Commerce. *The Academic Society of Global Business Administration*, 12(1).

Kim, K., Jung, S., & Hwang, J. (2015). A Study on Technology Standardization Method Using Network Analysis: Focused on Wireless Communication Technology Layer of Internet of Things. *Journal of Technology Innovation*, 23(3).

Lee, S., Hong, A., & Hwang, J. (2015). A Study on Individual User's Preference for Cloud Storage Service. *Journal of Technology Innovation*, 23(1).

Hwang, J., Hong, A., & Lee, D. (2010). Empirical Analysis of Business Consolidation and Media Regulation under Cable TV Industry. *Journal of Broadcasting and Telecommunication*, 24(2).

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- Hwang, J., & Kwon, O. (2008). The Effect of Entry Timing and Network Structure on the Market Share of Internet Services: The Case of Korean Blog Industry. *Innovation Studies*, 3(1).
- Koh, D., Hwang, J., Oh, H., & Lee, J. (2008). Forecasting Substitution and Competition among Previous and New products using Choice-based Diffusion Model with Switching Cost: Focusing on Substitution and Competition among Previous and New Fixed Charged Broadcasting Services. *Journal of Global Academy of Marketing Science*, 18(2).
- Hwang, J., Ryu, J-Y., & Kim, S. (2007). Comparative study of the successful combinational search strategies for technological innovations in the ICT industry based on the layer model. *Innovation Studies*, 2(1).
- Hwang, J. (2006). Discussion on the IT Innovation Paradigm: the Case of the Digital Content. *Industry Science and Technology Policy* (Vol. 160).
- Hwang, J., & Yoo, J. (2006). Convergence of the Telematics Industry and Welfare Analysis with the Existence of Interoperability. *Telecommunications Review*, 16(1).
- Hwang, J., Jun, Y., & Kim, T-Y. (2005). New Regulation Framework in Digital Convergence Era Korea. *Telecommunications Policy Review*, 12(3).
- Hwang, J., & Suh, D. (2005). Policy Issues on the DRM Technology Standard. *Technology and Law*, 1.
- Hwang, J. (2005). Ubiquitous Technology Convergence and Governance: A Framework for Dynamic Technology Policy. *Telecommunications Review*, 15(1).
- Hwang, J., & Kim, S. (2005). Technology Innovation policy framework for IT industry in Convergence age. *Information and Society*, 8.

Hwang, J., & Song, J. (2004). The Future of the Telecommunications Policy: approach on the Layered Model for Telecommunication Convergence Policy. *Telecommunication Market*, 56.

○ Conference papers

(International conference)

Arnaudov, S., Yoon, H., & Hwang, J. (2017, February). Technology Implementation Success Model Designed for Educational Organizations. In *Platform Technology and Service (PlatCon), 2017 International Conference on* (pp. 1-5). IEEE.

Cha, H. J., Cha, N. J., Kim, J. Y. & Hwang, J. (2017). Effect of Network Structure on Social Information Spread. In *NetSci2016 International School and Conference on Network Science*.

Park, H., Yoon, H., & Hwang, J. (2016, January). Prospect of the next-generation digital content industry: Three perspective approach to the user acceptance of the Realistic content technology. In *Advanced Communication Technology (ICACT), 2016 18th International Conference on* (pp. 675-680). IEEE.

Kashef, M. M., Yoon, H., Keshavarz, M., & Hwang, J. (2016, January). Decision support tool for IoT service providers for utilization of multi clouds. In *Advanced Communication Technology (ICACT), 2016 18th International Conference on* (pp. 91-96). IEEE.

Lee, C., Hong, A., & Hwang, J. (2014, February). The determinants of purchasing the charged contents in the smart-media environment. In *Advanced Communication Technology (ICACT), 2014 16th International Conference on* (pp. 212-217). IEEE.

Lee, S. O., Hong, A., Lee, C., & Hwang, J. (2014, February). ICT as a determinant for human progress: Cross-country time series analyses. In *Advanced Communication Technology (ICACT), 2014 16th International Conference on* (pp. 789-803). IEEE.

Im, J., & Yang, J. (2014, November). Do Knowledge Sharing Activities Really Help Performance? Korean ICT Industry Case. In *International Conference on Intellectual Capital and Knowledge Management and Organisational Learning* (p. 561). Academic Conferences International Limited.

- Jang, J., Yang, J., & Hong, A. (2014, November). Measurement of Knowledge Potential in the ICT Service Industry: A Quantum Mechanics View. In *International Conference on Intellectual Capital and Knowledge Management and Organisational Learning* (p. 248). Academic Conferences International Limited.
- Hong, A., Yu, E., & Hwang, J. (2014). Analysis on Switching Cost versus Bundling Price under consumer adoption for choosing smart TV over pay TV. In *20th ITS Biennial Conference, Rio de Janeiro 2014*.
- Na, C., Kim, E., & Hwang, J. (2014). Research on open innovation strategy and its performance in Korea smart media industry: Focusing on user innovation strategy. In *20th ITS Biennial Conference, Rio de Janeiro 2014*.
- Lee, C., & Hwang, J. (2014). The influence of gigantic platform on content diversity. In *20th ITS Biennial Conference, Rio de Janeiro 2014*.
- Cho, H., Hong, A., & Hwang, J. (2013). The Effect of Individual, Product characteristics on Purchase Intention for Smartphone: Focusing on Moderating Effect of Terms of Use. In *Korea Knowledge Management Conference*.
- Kim, K., Jung, S., Lee, C., & Hwang, J. (2013). Structure of technology evolution: The way on which ICT industry emerged in Korea. In *24th European Regional ITS Conference, Florence 2013*.
- Hong A., Bhattacharyya, B., & George T. Geis (2012). The Role of M&A in Market Convergence: Amazon, Apple, Google and Microsoft. In *Proceedings of 18th International Business Research Conference 2012*.
- Kim, S., Hwang, J., & Altmann, J. (2012). *Dynamic Scenarios of Trust Establishment in the Public Cloud Service Market* (TEMEP Discussion Paper No. 2012:98). Seoul National University; Technology Management, Economics, and Policy Program (TEMEP).
- Jeong, S., Hong A., & Hwang, J. (2011). A relationship between firm' technical efficiency and stock market reaction in Korean ICT industry. In *Korea Productivity Economic Conference*.

- Kim, K., Altmann, J., & Hwang, J. (2011, January). An analysis of the openness of the web2.0 service network based on two sets of indices for measuring the impact of service ownership. In *System Sciences (HICSS), 2011 44th Hawaii International Conference on* (pp. 1-11). IEEE.
- Kim, S., & Hwang, J. (2011, September). Theoretical Analysis and Simulation to Investigate the Fundamental Rules of Trust Signaling Games in Network-based Transactions. In *FUTURE COMPUTING 2011, The Third International Conference on Future Computational Technologies and Applications*.
- Yoon, H., Hwang, J., & Weiss, M. B. (2010, April). Research on secondary spectrum trading mechanisms based on technical and market changes. In *New Frontiers in Dynamic Spectrum, 2010 IEEE Symposium on* (pp. 1-12). IEEE.
- Kim, K., Altmann, J., & Hwang, J. (2010, March). The impact of the subgroup structure on the evolution of networks: An economic model of network evolution. In *INFOCOM IEEE Conference on Computer Communications Workshops, 2010* (pp. 1-9). IEEE.
- Hwang, J., & Hong, A. (2009). Analysis of the horizontal integration effect on productivity under Cable TV industry: Focusing on cable TV and related service of Korea. In *International Telecommunications Society's 4th Africa-Asia-Australasia Regional Conference*.
- Syamsuddin, I., & Hwang, J. (2009, November). The application of AHP model to guide decision makers: a case study of e-banking security. In *Computer Sciences and Convergence Information Technology, 2009. ICCIT'09. Fourth International Conference on* (pp. 1469-1473). IEEE.
- Hwang, J., & Syamsuddin, I. (2009, May). Information Security Policy Decision Making: An Analytic Hierarchy Process Approach. In *Modelling & Simulation, 2009. AMS'09. Third Asia International Conference on* (pp. 158-163). IEEE.
- Hwang, J., & Yoon, H. (2008, October). Dynamic spectrum management policy for cognitive radio: An analysis of implementation feasibility issues. In *New Frontiers in Dynamic Spectrum Access Networks, 2008. DySPAN 2008. 3rd IEEE Symposium on* (pp. 1-9). IEEE.

- Suh, D., Hwang, J., & Oh, D. (2008, October). Do software intellectual property rights affect the performance of firms? case study of south korea. In *Software Engineering Advances, 2008. ICSEA'08. The Third International Conference on* (pp. 307-312). IEEE.
- Hwang, J., & Syamsuddin, I. (2008, November). Failure of e-government implementation: A case study of south Sulawesi. In *Convergence and Hybrid Information Technology, 2008. ICCIT'08. Third International Conference on* (Vol. 2, pp. 952-960). IEEE.
- Hwang, J., & Park, J. (2007). Decision factors of enterprises for adopting grid computing. In *Grid Economics and Business Models, 4th International Workshop, GECON 2007, LNCS 4685*(pp. 16-28).
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- Hwang, J. (2001, September). A Scalable Dynamic Provisioning Mechanism for IntServ-DiffServ Networks for Guaranteed Service. In *The 17th International Teletraffic Congress 2001*.
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- Hwang, J., Weiss, M. B., & Shin, S. J. (2000, September). Dynamic Bandwidth Provisioning Economy of a Market-Based IP QoS Interconnection: IntServ –DiffServ. In *The 28th Telecommunications Policy Research Conference Proceedings*.
- Hwang, J. (2000, July). On the Economics of Interconnection among Hybrid QoS Network in the Next Generation Internet. In *International Telecommunications Society 2000*.
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8th International Conference on Telecommunications Systems.

Hwang, J., & Weiss, M. B. (1999, December). The economics of resource and QoS management over hybrid-QoS networks in the internet. In *Proc. of MIT Tufts Workshop on Internet Service Quality Economics Cambridge, Massachusetts.*

Hwang, J., & Weiss, M. (1999, August). Cost/benefit tradeoff of quality of service mechanisms in integrated services networks. In *27th Annual Telecommunications Policy Research Conference.*

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Weiss, M. B., Hwang, J., & Khalil, A. G. (1996, June). A Tool for Restructuring the Economy: To Develop the Strategic Telecommunications Policy Model for Sustainable Egyptian Economic Growth. In *The 15th International Telecommunications Congress (ITC-15) Conference Workshop Proceedings.*

(Domestic conference)

Cha, H., Hwang, J., & Kim, S. (2017). Characteristics and Strategies of Information Dissemination in Social Network Service. In *2017 Spring the Korean Association for Information Society Conference.*

Hong, A., Lee, C., Na, C., & Hwang, J. (2014). A New Analytic Framework for Media Consumer and Role of Power User in Trans-media Environment: In Perspective of Information, Time, Space. In *The 2nd Korea Media Panel Conference.*

Yoon, Y., & Hwang, J. (2014). Study on Organizational Creativity Enhancement through Business Activity Improvement: Focused on Leadership, Diversity, Education Activity. In *5th Human Capital Corporate Panel Conference.*

Jung, S., Kim, E., Kim, K., & Hwang, J. (2014). The Effect of Integration on the Change of Technological Structure: Based on the German Reunification. In *49th Korea Society for Innovation Management & Economics Conference.*

Kim, S., Hwang, J., & Son, E. (2014). A Study on the Personal Activity for Social Media

- Marketing: Focusing on SNS. In *2014 Fall Korea Society of IT Services Conference*.
- Hong, A., Lee, C., & Hwang, J. (2013). Consumer Behavior Analysis of Contents Purchasing Factors in Smart Media Environment. In *The 1st Korea Media Panel Conference*.
- Choi, D., & Hwang, J. (2008. 02). Analysis of Two-Sided Market Effect on Korea's Internet Portal Market. In *2008 Korea's Allied Economic Associations Annual Meeting*.
- Hong, A., & Hwang, J. (2008. 02). Analysis of Productivity and Technological Efficiency of Broadcasting Industry. In *Korea Productivity Association Conference*.
- Choi, D., Hwang, J., Kim, Y., & Lee, J. (2008. 02). Analysis of Illegal File Sharing and DRM in Online Music Market. In *49th Korea Society for Innovation Management & Economics Conference(2008 Korea's Allied Economic Associations Annual Meeting)*.
- Hwang, J., Lee, D., & Yeo, S. (2007. 11). Simulation Analysis on the Competitive Factors of the IPTV Service under Network Neutrality. In *2007 Korea Association for Telecommunications Policies Conference*.
- Hwang, J. (2006. 12). Regulation System in Digital Convergence Age: Focused on Technological Innovation Strategy of ICT Industry in Perspective of Layer Model. In *The Korean Sociological Association Conference*.
- Hwang, J., Choi, D., & Ko, D. (2006. 02). Competition Forecasting and Optimal Competition Policy in Convergence Market of Telecommunication and Broadcasting: Focusing on the IPTV Case in Korea. In *28th Korea Society for Innovation Management & Economics Conference(2006 Korea's Allied Economic Associations Annual Meeting)*.
- Hwang, J., Kim, J., & Jang, T. (2006. 02). Media Platform Competition under Communication-Broadcasting Convergence Environment in Perspective of Two-Sided Market. In *28th Korea Society for Innovation Management & Economics Conference(2006 Korea's Allied Economic Associations Annual Meeting)*.
- Hwang, J., & Kim, S. (2005. 10). Technology Innovation Policy Framework for IT Industry in Convergence Age. In *2005 Fall the Korean Association for Information Society Conference*

Hwang, J., & Kim, S. (2005. 09). Impact of Communication-Broadcasting Convergence and Our Choice. In *Korea IT Leaders Forum*.

Lee, C., & Hwang, J. (2005. 02). A Study on Personalization Service Utilizing Recommender System. In *Korea Association for Telecommunications Policies Seminar(2005 Korea's Allied Economic Associations Annual Meeting)*.

Hwang, J. & Park, J. (2005. 02). Research on the Convergence Layered Technology Policy Model: A Game-Theoretic Study Focused on Home Networking Middleware Industry. In *Korea Association for Telecommunications Policies Seminar(2005 Korea's Allied Economic Associations Annual Meeting)*.

Hwang, J., & Seo, D. (2004. 12). Cost Modelling and Analysis of Identity Management System under Ubiquitous Environment. In *The Korean Association for Information Society Conference*.

Lee, J., Hwang, J., & Seo, I. (2004. 11). Studies on ICT Industries' Practical Use for Total Service Industry Development in Korea. In *2004 Fall Korea Technology Innovation Society Conference*.

Hwang, J., Pyo, K., & Lee, C. (2004. 11). Research on Policy far commercialization of resource transaction based on Grid-Economy. In *2004 Fall Korea Technology Innovation Society Conference*.

Hwang, J., & Kim, J. (2004. 11). A Study on Modeling Tariff and Market Structure of BcN based Mobile Communication Services. In *2004 Korea Association for Telecommunications Policies Conference*.

○ Books

Hwang, J. (2015), **SISAM ARIRANG**, JCI press

Hwang, J. (2014). **The Creatives**. JCI press

Hwang, J. (2013). **Digitalogy**. JCI press

○ Awards

One hundred excellent performances of national R&D projects: Education Program for Management of Technology Degree, Ministry of Education, Science, and Technology, 2009.

Winner of the Excellent Lecture Award, Department of Engineering, Seoul National University, 2009

Winner of the Knut Holt Award for Best Symposium Paper, "Factors affecting open technological innovation in OSS companies in Korea," The 1st ISPIM Innovation Symposium, Singapore, 2008

NSF MWIR 2001-2004 Research Grant Award, MWIR(CISE/ANIR): A Secure and Scalable Bandwidth Management Platform for Open Market-based Dynamic and Distributed Provisioning DiffServ Interconnection, with the Co-PI, Prof. Steve Chapin

2001 Magness Institute Research Grant Awards, "Economics of New Numbering Systems Over Cable Broadband Access Networks: ENUM Service and Infrastructure Development" with the Co-PI, Prof. Milton L. Mueller

Winner of the Best Paper Award "On the Economics of Interconnection among Hybrid QoS Networks in the Next Generation Internet," International Telecommunications Society (ITS) 2000, Buenos Aires, Argentina, July 2000

Winner of the 1999 Beta Phi-Mu Pi Chapter Scholarly Research Paper for a paper entitled "QoS-Support for Internet Telephony: Beyond the Best-Effort Nature of the Internet," March 1999

Graduate Student Assistantship and Full Tuition Scholarship, The School of Information Sciences, University of Pittsburgh, 1996 – 2000

Outstanding Thesis of the Year Award "The Prospects for Mobile Satellite Communications and Broadband Satellite Communications" ITP-School of Engineering-University of Colorado, Boulder, 1996

Excellence in Research and Development, Award in Computing, Hyosung Computer R&D Center, Korea, 1993

○ Research projects

Project Name	Period	Management Agency
Economic Modeling Research for Online Identity Management	20031101 ~ 20041031	Seoul National University Foundation
Policy Studies of Grid Economy on Resource Transactions for Grid Commercialization and Business Models	20040401 ~ 20041130	Ministry of Information and Communication

A Techno-Economic Research for Convergence Services Policy of Telecommunications	20040601 ~ 20050414	Ministry of Information and Communication
Research on 4G Service Environment Definition and SK Telecom's Strategy	20041015 ~ 20041231	SK Telecom
Analysis of Korea's IT Industry and IT Application Plan for Industrial Competitiveness	20040529 ~ 20041128	Korean Agency for Technology and Standards
Research on Communication Environment Change and KT's Law System	20050301 ~ 20061031	KT
Research about the Effect of Frequency Characteristic on Fair Market Competition	20050501 ~ 20051130	Electronics and Telecommunications Research Institute
KT's Grid Application Plan in Convergence Environment of Computing and Communication Service	20050311 ~ 20051210	Convergence Institute
Research on the Convergence Technology Policy in the Area of Telecommunication and Broadcasting	20051101 ~ 20060831	Ministry of Information and Communication
China IT Forum(SNU)	20051101 ~ 20060731	SK Telecom
Funding Project 2005 for Specialized in Culture Contents Institution	20050401 ~ 20051231	Korea Creative Content Agency
International Case Study on Introduction of New Regulation Scheme for Convergence of Telecommunication Services	20050701 ~ 20060430	Ministry of Information and Communication
Global IT Policy Program	20060301 ~ 20070228	Ministry of Information and Communication
Research on the Convergence Technology Policy in the Area of Telecommunication and Broadcasting	20060901 ~ 20070831	Ministry of Information and Communication

Research about SNU Techno-MBA Program	20061201 ~ 20070228	SNU Engineering Education and Research Fund
Studies on Directions and Issues of Communication Law System	20060601 ~ 20061231	KT Ministry of
Human Resource Development Program for Technology Policy and Strategy	20060301 ~ 20070228	Education & Human Resources Development
MOT(Management of Technology) Degree Program	20061001 ~ 20070930	Korea Industrial Technology Foundation
MOT Lecture Program - Decision Making in Technology Management(2007, Fall)	20070901 ~ 20071231	Korea Industrial Technology Foundation
A Study on the Rational Improvement Plan for Regulation in the Telecommunication Market	20070201 ~ 20071231	SK Telecom
Research about SNU Techno-MBA Program(Part 2)	20070301 ~ 20070831	SNU Engineering Education and Research Fund
Research on the Convergence Technology Policy in the Area of Telecommunication and Broadcasting	20070901 ~ 20071231	Ministry of Information and Communication
MOT(Management of Technology) Degree Program	20071001 ~ 20080930	Korea Industrial Technology Foundation
Human Resource Development Program for Technology Policy and Strategy	20070301 ~ 20080229	Ministry of Education & Human Resources Development
MOT(Management of Technology) Degree Program	20081001 ~	Ministry of

	20090930	Knowledge Economy Ministry of
Research on the Convergence Technology Policy in the Area of Telecommunication and Broadcasting	20080101 ~ 20081231	Knowledge Economy Ministry of
MOT(Management of Technology) Degree Program	20080301 ~ 20090228	Education, Science and Technology Korea
A Study on the Openness Effect of Fixed-Mobile Convergence and Future Policy Direction	20080801 ~ 20090131	Telecommunications Operations Association
Research about Development Policy for Global Media Firms	20081016 ~ 20090415	SK Telecom
Global IT Policy Program	20080101 ~ 20081231	Ministry of Knowledge Economy The Samsung Equal
A Study on Information Network Improvement of the Samsung Equal Opportunity Scholarship Foundation	20080201 ~ 20080731	Opportunity Scholarship Foundation
Degree Program for Communication and Broadcasting Convergence	20080301 ~ 20081231	Ministry of Knowledge Economy
Global IT Policy Program	20090101 ~ 20091231	Ministry of Knowledge Economy
Research on the Convergence Technology Policy in the Area of Telecommunication and Broadcasting	20090101 ~ 20091231	Ministry of Knowledge Economy
E-MBA Program	20090301 ~	LG Display

	20110331	
A Study on IT Regulation Law	20090501 ~ 20091031	Ministry of Education, Science and Technology
Studies on a Performance-Measuring Model of BcN Project and its Performance	20090514 ~ 20091213	Ministry of the Interior and Safety
Research about Directions of Internet Industry and Policy in the Convergence Environment	20090519 ~ 20091118	KT
A Study on the Transfer Strategy of Core Competitiveness in the Convergence Environment	20090501 ~ 20091031	SK Telecom
Research about the Effect of Fixed Portal Operator's Entry into Mobile Internet Market	20090601 ~ 20091130	Korea Telecommunications Operations Association
A Study on the Selection of Key Focus Areas of Supercomputing Center	20090801 ~ 20091031	Korea Institute of Science and Technology Information
Analysis of Global Communication Market Environment	20090706 ~ 20090731	KT
Strategies for Transferring and Enhancing Core Competitiveness in the Convergence Environment	20090501 ~ 20091031	SK broadband
A Study on Core Technology and Policy for Mobile P2P- based IPTV Service	20090901 ~ 20100831	Ministry of Education, Science and Technology
MOT(Management of Technology) Degree Program	20091001 ~ 20100930	Ministry of Knowledge Economy
Case Studies and Evaluation Model Development of Domestic and International Technology Management	20091006 ~ 20100228	Korea Institute for Advancement of Technology

Research on the Convergence Technology Policy in the Area of Telecommunication and Broadcasting	20100101 ~ 20101231	Ministry of Knowledge Economy
Global IT Policy Program	20100101 ~ 20101231	Ministry of Knowledge Economy
Economic Effect Analysis of PLSI Project	20100301 ~ 20100930	Korea Institute of Science and Technology
Global Energy Human Resource Belt Development Program	20100301 ~ 20110228	Ministry of Knowledge Economy
E-MBA Program	20100301 ~ 20120331	MBA Program
A Study on Core Technology and Policy for Mobile P2P-based IPTV Service	20100901 ~ 20110831	Ministry of Education, Science and Technology
Analysis of Spectrum Sharing Policy and Institution of Foreign Countries	20100516 ~ 20101231	Ministry of Knowledge Economy
Analysis of Global Communication Market Environment	20100712 ~ 20100730	KT
A Study on Core Technology and Policy for Mobile P2P-based IPTV Service	20110901 ~ 20120831	Ministry of Education, Science and Technology
MOT(Management of Technology) Graduate School Program	20110501 ~ 20120430	Ministry of Knowledge Economy
Research about Directions of Information Society's Governance Policy	20110501 ~ 20111231	National Academy Engineering of

		Korea
		Korea
Smart Media Convergence Policy Research(SMPR)	20110301 ~ 20111231	Communications Commission
Global IT Policy Program	20110101 ~ 20111231	Ministry of Knowledge Economy
Global Energy Human Resource Belt Development Program	20110301 ~ 20120229	Ministry of Knowledge Economy
Global IT Policy Program	20120101 ~ 20121231	Ministry of Knowledge Economy
MOT(Management of Technology) Graduate School Program	20120501 ~ 20130430	Ministry of Knowledge Economy
Smart Media Convergence Policy Research(SMPR)	20120101 ~ 20121231	Korea Communications Commission
Global Energy Human Resource Belt Development Program	20120301 ~ 20130228	Ministry of Knowledge Economy
Global IT Policy Program	20130101 ~ 20131231	Ministry of Knowledge Economy
Global Energy Human Resource Belt Development Program	20130301 ~ 20140228	Ministry of Knowledge Economy
Smart Media Convergence Policy Research(SMPR)	20130101 ~ 20131231	Korea Communications Commission

Brain Korea 21 Program for Leading Universities & Students	20130901 ~ 20160228	Ministry of Education
Smart Media Convergence Policy Research(SMPR)	20140101 ~ 20141231	Ministry of Science, ICT and Future Planning
Global IT Policy Program	20140101 ~ 20141231	Ministry of Science, ICT and Future Planning
Global IT Policy Program	20150101 ~ 20151231	Ministry of Science, ICT and Future Planning
Global IT Policy Program	20160101 ~ 20161231	Ministry of Science, ICT and Future Planning
Theory Building of Appropriate Technology and Sharing Economy Application for Social Problem Resolution	20161101 ~ 20191031	National Research Foundation of Korea Korea Foundation for the Advancement of Science and Creativity
Research about Improvement and Development of Science Culture Program	20161127 ~ 20170531	Ministry of Science, ICT and Future Planning
Global IT Policy Program	20170101 ~ 20171231	Ministry of Science, ICT and Future Planning
A Study on Evaluation System of Spectrum Utilization	20170426 ~ 20171127	Korea Communications Agency

○ Seminar, Conference, and Symposium (2011~2017)

Period	Activity	Contents
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2011.6.2.~4.	International Symposium 1 st ISGSDV 2011	2011 International Symposium on ICT Development in Indonesia: Green, Smart, Development and Vision
2012.7.3.~5.	International Symposium 2 nd ISGSDV 2012	2012 International Symposium on ICT Development in Indonesia: Green, Smart, Development and Vision
2012.12.20	International Symposium 2012 GLOBAL ICT Seoul Forum & GSDV workshop	Discussion between Global IT Policy Professionals
2013.11.28.	International Conference 2013 GLOBAL ICT Seoul Forum & SMPR Workshop	Discussion between Global IT Policy Professionals & SMPR Workshop
2013.12.23.	International Symposium 3 rd ISGSDV 2013	2013 International Symposium on ICT Development in Korea: Green, Smart, Development and Vision (HURRAY & Dream 2013)
2014.8.27	Seminar and Policy Forum	1 st Digitalogy Humanities and Social Practice Forum
2014.9.20	Seminar and Policy Forum	2 nd Digitalogy Humanities and Social Practice Forum
2014.10.18	Seminar and Policy Forum	3 rd Digitalogy Humanities and Social Practice Forum
2014.11.18	International Conference 2014 GLOBAL ICT Seoul Forum	Discussion between Global IT Policy Professionals
2014.11.22.	Seminar and Policy Forum	4 th Digitalogy Humanities and Social Practice Forum
2014.12.21.~24.	International Symposium 4 th ISGSDV 2014	2014 International Symposium on ICT Development in Korea: Green, Smart, Development and Vision (Dream & Drum 2014) & 5 th Digitalogy Humanities and Social Practice Forum
2015.1.24	Seminar and Policy Forum	6 th Digitalogy Humanities and Social Practice Forum
2015.7.7	Seminar and Policy Forum	7 th Digitalogy Humanities and Social Practice Forum
2015.10.29	International Conference 2015 GLOBAL ICT Seoul Forum	Discussion between Global IT Policy Professionals

2015.11.18.-21	International Academy GLADE	Education	Global Leadership Academy of Digital Evolution
2015.11.28	Seminar and Policy Forum		8 th Digitalogy Humanities and Social Practice Forum
2015.12.16.~18 2015.12.21.~22..	International Symposium 5 th ISGSDV 2015		2015 International Symposium on ICT Development in Korea: Green, Smart, Development and Vision & World Innovation Networking of IT
2016.4.9	Seminar and Policy Forum		9 th Digitalogy Humanities and Social Practice Forum
2016.11.29.~12.02.	International Symposium 6 th ISGSDV 2016		2016 International Symposium on ICT Development in Korea: Green, Smart, Development and Vision
2016.11.30	International Conference 2016 GLOBAL ICT Forum	Seoul	Discussion between Global IT Policy Professionals