# RESUME/ CURRICULUM VITAE

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His current research topics are “Traditional Knowledge for Green Innovation: the Case of Kakishibu (Fermented Astringent Persimmon Juice), Kaki-tannin,” “Culturally Relevant STEAM Education on Kakishibu,” and “Practice on Ethical, Legal and Social Issues/RRI of Educational Technology / AI in Education.”Viewpoint.”

## EDUCATION/ACADEMIC QUALIFICATIONS

2009 **PhD, Life Science**, Department of Biostudies and Society, Graduate School of Biostudies, Kyoto University

**Thesis title**: Implementation and assessment of multimedia presentations for the introduction to genome science

**Thesis advisor**: Dr. Kazuto Kato, leading researcher in Science Communication and Bioethics

2005 **MS, Life Science**, Department of Cell and Developmental Biology, Graduate School of Biostudies, Kyoto University

2003 **BS, Biophysics**, Faculty of Science, Kyoto University

## EMPLOYMENT HISTORY

**2024 March- Chair, Foreign Affairs, Young Academy of Japan, the Science Council of Japan**

**2020 April- Professor, Science Communication Laboratory, Faculty of Education, Shiga University**

**2018 April- Director, NISSAN Global Foundation**

2014 -2020 Associate Professor (Principle Investigator), Science Communication Laboratory, Faculty of Education, Shiga University

2014 -2017 Specially Appointed Associate Professor, Science Communication Group, WPI-iCeMS, Kyoto University

2012-2014 Specially Appointed Senior Lecturer, Science Communication Group, Institute for Integrated Cell-Material Sciences (WPI-iCeMS), Kyoto University

2012-2014 Senior Lecturer, Faculty of Education, Shiga University

2009-2012 Assistant Professor, Science Communication Group, WPI-iCeMS, Kyoto University

# PUBLICATIONS

**Research Papers**

Kei Kano, Hajime Azai, Kimi Hagihara, Manaka Ishikawa, Yuri Nagayasu, Miyu Nishida, Rina Tanaka, Yuzuna Tsushi, Hirofumi Yamada (2024) “Design and Development of an Inclusive Online STEM Course for Families”, Research in Integrated STEM Education , 2(3), 183-205

Takayuki Goto, Goro Horiguchi, Nobutsugu Kanzaki, Atsuo Kishimoto, Hitoshi Sato, Satoshi Takahashi, Kaito Wakabayashi, Eri Mizumachi, Takayuki Shiose, Kei Kano (2024) “Balancing Human Teachers and AI in Education: A Discussion Paper from Ethical, Legal and Social Perspectives”, OECD Discussion Paper , ,

Hiromi M. Yokoyama, Yuko Ikkatai, Euan McKay, Atsushi Inoue, Azusa Minamizaki, Kei Kano (2024) “Can affirmative action overcome STEM gender inequality in Japan? Expectations and concerns”, Asia Pacific Business Review, 1-17

Goto, T, Kano, K, Shiose, T (2023) “Achievement goal impacts students’ preferences for “Personalized Problems” in computer-adaptive tests.”, Japanese Psychological Reserach

Takayuki Goto, Kei Kano, Takayuki Shiose (2023 年 7 月 27 日) “Students’ acceptance on computer-adaptive testing for achievement assessment in Japanese elementary and secondary school”, Frontiers in Education, 8,

Yuko Ikkatai, Atsushi Inoue, Azusa Minamizaki, Kei Kano, Euan McKay, Hiromi M. Yokoyama(2021)”Effect of providing gender equality information on students’ motivations to choose STEM”、PLOS ONE , 6(6), e0252710-e0252710

Yuko Ikkatai, Atsushi Inoue, Kei Kano, Azusa Minamizaki, Euan McKay, Hiromi M. Yokoyama(2021)”Factors related to girls’ choice of physics for university entrance exams in Japan”、Physical Review Physics Education Research 、17(1)、

Yasuhisa Kondo, Eiichi Fujisawa, Kanako Ishikawa, Satoe Nakahara, Kyohei Matsushita, Satoshi Asano, Kaoru Kamatani, Satoko Suetsugu, Kei Kano, Terukazu Kumazawa, Kenichi Sato, Noboru Okuda(2021)”Community capability building for environmental conservation in Lake Biwa (Japan) through an adaptive and abductive approach”、Socio-Ecological Practice Research 、3(2)、 167-183

Yuko Ikkatai, Atsushi Inoue, Azusa Minamizaki, Kei Kano, Euan McKay, Hiromi M. Yokoyama(2021)”Masculinity in the public image of physics and mathematics: a new model comparing Japan and England”、Public Understanding of Science 、30(7)、 096366252110023-096366252110023

Ikkatai, Y, Minamizaki, A, Kano, K, Inoue, A, McKay, E, Yokoyama, H(2020) ”Masculine public image of six scientific fields in Japan: physics, chemistry,mechanical engineering, information science, mathematics, and biology”、Journal of science communication 、19(6)、 1-16

Marta Entradas, Martin W. Bauer, Colm O'Muircheartaigh, Frank Marcinkowski, Asako Okamura, Giuseppe Pellegrini, John Besley, Luisa Massarani, Pedro Russo, Anthony Dudo, Barbara Saracino,

Carla Silva, Kei Kano, Luis Amorim, Massimiano Bucchi, Ahmet Suerdem, Tatsuo Oyama, Yuh-Yuh Li(2020)”Public communication by research institutes compared across countries and sciences: Building capacity for engagement or competing for visibility?”、PLOS ONE 、15(7)、

Ikkatai Y., Minamizaki A., Kano K., Inoue A., McKay E., Yokoyama M.(2020)”Gender-biased public perception of STEM fields, focusing on the influence of egalitarian attitudes toward gender roles”、Journal of Science Communication 、19(1)、 1-20

Ikkatai Y, Inoue A, Kano K, Minamizaki A, McKay E, Yokoyama H M(2019)”Parental egalitarian attitudes towards gender roles affect agreement on girls taking STEM fields at university in Japan”、International Journal of Science Education 、41(16)、 2254-2270

Kano K, Kudo M, Yoshizawa G, Mizumachi E, Suga M, Akiya N, Ebina K, Goto T, Itoh M, Joh A, Maenami H, Minamoto T, Mori M, Morimura Y, Motoki T, Nakayama A, Takanashi K(2019) ”How science, technology and innovation can be placed in broader visions — Public opinions from inclusive public engagement activities”、Journal of Science Communication 、18(03)、 1-19

Kudo, M., Yoshizawa, G. and Kano, K., 2018. Engaging with policy practitioners How to cite to promote institutionalisation of public participation in science, technology and innovation policy, Journal of Science Communication, 17(04), 1-11

Suga M., Suzuki N., Fujiwara N., Yoshizawa G., Kudo M., Kano K., 2017. Development of a New Segmentation for Broad Public Engagement in Science, Technology and Innovation Policy : From an Opinion Poll on Science, Technology and Innovation, *Japanese Journal of Science Communication*, 22, 3-13

Goto T., Nakanishi K., Kano K., 2017. A large-scale longitudinal survey of participation in scientific events with a focus on students' learning motivation for science: Antecedents and consequences, *Learning and Individual Differences*, 61, 181-187

Kano K., Ikkatai Y., Mizumachi E., 2017. Assessing Scientific Knowledge of High School Students Participating in an Inquiry-based Hands-on Program, Using a PISA Framework, *Japanese Journal of Science Education* 41(2): 107-115

Maenami H., Yoshizawa G., Kano K., 2016. Interactive Public Comment" for Regional Policy Making and Evaluation, *Annals of the Japan Association of Regional Policy Scientists* **16**: 38-47

Yoshizawa G., Suga M., Kudo M., Mizumachi E., and Kano K., 2016 “Understanding the plurality of public interests for open strategy in science and innovation,” *OECD Bluesky3 Short Paper*

Kano K, Suga M., Yoshizawa G., Kudo M., Mizumachi E., Goto T., Ebina K., 2016 “Engaging the public in STI policymaking —Using segmentation method as an indicator for science and society—,“ *OECD Bluesky3 Short Paper*

Goto T., Kudo M., Kano K., 2015. Measuring Representativeness of Participants in Public Engagement Events. *Japanese Journal of Science Communication* **17:** 3-19

Kano, K., Mizumachi E., Takanashi K., Motoki T., Mori M., Morimura Y., Akiya N., Kato K. 2015. Dialogue Skills Training Program for Scientists, *Journal of Japanese Association for Science Communication* **4(1)**: 18-19

Kano K. 2014. Toward Achieving Broad Public Engagement with Science, Technology, and Innovation Policies: Trials in JAPAN Vision 2020. *International Journal of Deliberative Mechanisms in Science* **3(1)**: 1-23

Goto T., Mizumachi E., Kudo M., Kano K., 2015. Verification on the Utility of Using the Segmentation Method Developed in Australia to Assess USDiences of Science and Technology Events. *Japanese Journal of Science Communication* **15**: 17-35

Mizumachi E., Kano K., Itoh M., Minamoto T., Nakayama A., Ebina K., Akiya N. 2014. Public Comment Workshops on the Draft of" Basic Plan on Space Policy." *Japanese Journal of Science Communication* **15**: 123-136

*Mizumachi E. and Kano K. contributed equally to this work

Akiya N., Takanashi K., Mizumachi E., Mitsuru K., Kano K., 2014. As Any Person, What to Speak : A Way of Handling Speaker's Identity in Workshop. *Japanese Journal of Science Communication* **15**: 107-122

Kano K., Mizumachi E., Iwasaki T., Isobe H., Kawahito Y., Maenami H., 2013. Segmentation and Targeting of Participants in Science Cafes : From the Viewpoint of the Extent of Engagement in Science and Technology. *Japanese Journal of Science Communication* **13**: 3-16

* Kano K. and Mizumachi E. contributed equally to this work

Akiya N., Mizumachi E., Takanashi K., Kano K., 2013. Showing Own State of Knowledge : Analyzing Structures of Participation in Group Interview about Regenerative Medicine. *Japanese Journal of Science Communication* **13**: 17-30

Kano K., Mizumachi E., Yamamizu K., Tanabe K., 2012. Development of a High-Level Science Education Program for High School Students Using an Emerging Science as a Topic. *Japanese Journal of Science Education* **36(2)**: 162-171

*Mizumachi E., and Kano K. contributed equally to this work

Takanashi K., Kano K., Mizumachi E., Motoki T., 2012. Who Speaks to Whom in Bidirectional Communication? : A Micro-Analysis of Scientists' Communication Skills in Science Cafe? *Japanese Journal of Science Communication* **11**: 3-17

Tsuzuki A., Kano K., Kusumi T., Suzuki M., 2011. Cases of Collaboration among Science Communication Practices and Studies in Australia. *Japanese Journal of Science Communication* **10**: 89-101

Mizumachi E., Matsuda K., Kano K., Kawakami M., Kato K., 2011. Scientists' attitudes toward a dialogue with the public: a study using "science cafes." *Journal of Science Communication* **10(4)**: 1-11

*Mizumachi E., Matsuda K., and Kano K. contributed equally to this work

Shirai T., Mizuamchi E., Kano K., Kurokawa H., Nakaya F., Motoki T., Shiose T., 2011. Bridging the Communication Gap in the Current Nuclear Power Disaster. *Japanese Journal of Science Communication* **9**: 107-119

Okuyama T., Inoue H., Ookuma S., Satoh T., Kano K., Honjoh S., Hisamoto N., Matsumoto K., and Nishida E., 2010. The ERK MAPK pathway regulates longevity through SKN-1 and insulin-like signaling in C. elegans. *The Journal of Biological Chemistry*: in press.

Kano K., 2010. The importance of an awareness of trans-science to science education, as well as of the difference between knowledge of and knowledge about science. *Japanese Journal of Biological Education* **51**: 124-129.

Kato, K., Kano, K., and Shirai, T., 2010. Science Communication: Significance for Genome-Based Personalized Medicine - A View from the Asia-Pacific. *Current Pharmacogenomics and Personalized Medicine* **8**: 92-96

Kano K., Kawakami M., Muroi K., Kato K., 2009. A poster for the introduction to genome science: "Human Genome Map for Every Home". *Japanese Journal of Science Communication* **5**: 133-147

Kano, K., Yahata, S., Muroi, K., Kawakami, M., Tomoda, M., Miyaki, K., Nakayama, T. Kosugi, S., Kato, K., 2008. Multimedia presentations on the human genome: Implementation and assessment of a teaching program for the introduction to genome science using a poster and animations. *Biochemistry and Molecular Biology Education* **36**: 395-401

**Books**

Kei Kano, Nobutsugu Kanzaki, Atsuo Kishimoto, Takayuki Goto, Hitoshi Sato, Takayuki Shiose, Satoshi Takashashi, Yuko Fujimura, Goro Horiguchi, Eri Mizumachi, Masayuki Murakami, Kaito Wakabayashi（2025）A framework for the ELSI (ethical, legal, and social issues) of EdTech that utilizes educational data, Keio University Press

Kano K., 2018, ELSI and Public Engagement on emerging medical technology in “New prevention medicine and public health (4th edition),” Nankodo

Kano K., Azai H., Nakanishi K., Sawada K., Shindo A., Dono Y., Active Learning Textbook of Science, Technology and Society, Learns Co.

Ogawa, Y., Kano, K., Tsunemi, Y. 2015 [Japanese Translation] Communication and Engagement with Science and Technology: Issues and Dilemmas A Reader in Science Communication. Keio University Press (ISBN: 4766422031)

Kano K., 2008. Human Genome Map. *Kyoto University Press* (ISBN:4876988358)

**Educational board games**

Kano K., Shiose T., Ema A., Kudo M., Yoshizawa G., Mizumachi E., 2015. TATEWARI, Cosaic Ltd.

http://www.cosaic.co.jp/games/tatewari.html

Kano K., Mizuamchi E., Toyama M., Wadahama H., Kawakami M., 2014. Hands on with Stem Cells, Sekisui Medical Ltd.

## AWARDS

1) Third place, Startup Pitch@CIC EdTech ～The future of learning with technology
2) Commendation for Science and Technology (Public Understanding of Science Category) by the Minister of Education, Culture, Sports, Science and Technology (MEXT), 2017, MEXT in Japan
3) Shiga University President's Award, 2016, Shiga University
4) Excellent Teacher Award at Shiga University, 2016, Shiga University
5) Knowledge Innovation Award, 2016, Knowledge Capital in Japan
6) Knowledge Innovation Award, 2015, Knowledge Capital in Japan
7) Shiga University President's Award, 2015, Shiga University
8) Commendation for Science and Technology (Public Understanding of Science Category) by the Minister of Education, Culture, Sports, Science and Technology (MEXT), 2014, MEXT
9) Science Agora Award, 2012, Japan Science and Technology Agency
10) Award for the Best Research Paper, 2008, Asian Association for Biology Education