Chihiro Watanabe

List of Publications by Year
in descending order

141	2,478	186265	254184
papers	citations	28 h-index	43 g-index

151	151	151	1228
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Industrial dynamism and the creation of a â€œvirtuous cycleâ€•between R&D, market growth and price reduction. Technovation, 2000, 20, 299-312.	7.8	142
2	Patent statistics: deciphering a â€˜realâ€™ versus a â€˜pseudoâ€™ proxy of innovation. Technovation, 2001, 21, 783-790.	7.8	107
3	Measuring GDP in the digital economy: Increasing dependence on uncaptured GDP. Technological Forecasting and Social Change, 2018, 137, 226-240.	11.6	104
4	Co-evolution of three mega-trends nurtures un-captured GDP â€“ Uberâ€™s ride-sharing revolution. Technology in Society, 2016, 46, 164-185.	9.4	75
5	Promoting industrial development through technology policy: Lessons from Japan and China. Technology in Society, 2006, 28, 303-320.	9.4	66
6	Towards a local learning (innovation) model of solar photovoltaic deployment. Energy Policy, 2008, 36, 508-521.	8.8	65
7	Systems option for sustainable developmentâ€”effect and limit of the Ministry of International Trade and Industry's efforts to substitute technology for energy. Research Policy, 1999, 28, 719-749.	6.4	58
8	Co-evolution between streaming and live music leads a way to the sustainable growth of music industry â€“ Lessons from the US experiences. Technology in Society, 2017, 50, 1-19.	9.4	56
9	Consolidated challenge to social demand for resilient platforms -ÂLessons from Uber's global expansion. Technology in Society, 2017, 48, 33-53.	9.4	56
10	Japanese and US perspectives on the National Innovation Ecosystem. Technology in Society, 2008, 30, 49-63.	9.4	54
11	Institutional elasticity as a significant driver of IT functionality development. Technological Forecasting and Social Change, 2004, 71, 723-750.	11.6	53
12	The co-evolution process of technological innovationâ€”An empirical study of mobile phone vendors and telecommunication service operators in Japan. Technology in Society, 2007, 29, 1-22.	9.4	53
13	A new paradox of the digital economy - Structural sources of the limitation of GDP statistics. Technology in Society, 2018, 55, 9-23.	9.4	51
14	Global technology spillover and its impact on industry's R&D strategies. Technovation, 2001, 21, 281-291.	7.8	47
15	Photovoltaic deployment strategy in Japan and the USAâ€”an institutional appraisal. Energy Policy, 2007, 35, 1186-1195.	8.8	47
16	Digital solutions transform the forest-based bioeconomy into a digital platform industry - A suggestion for a disruptive business model in the digital economy. Technology in Society, 2018, 54, 168-188.	9.4	44
17	Digitalized bioeconomy: Planned obsolescence-driven circular economy enabled by Co-Evolutionary coupling. Technology in Society, 2019, 56, 8-30.	9.4	44
18	Technology spillover as a complement for high-level R&D intensity in the pharmaceutical industry. Technovation, 2002, 22, 245-258.	7.8	42

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19	An innovation management approach for renewable energy deploymentâ€"the case of solar photovoltaic (PV) technology. Energy Policy, 2009, 37, 3535-3544.	8.8	42
20	New paradigm of ICT productivity â€“ Increasing role of un-captured GDP and growing anger of consumers. Technology in Society, 2015, 41, 21-44.	9.4	41
21	Identification of the role of renewable energy. Renewable Energy, 1995, 6, 237-274.	8.9	38
22	Constructing a virtuous cycle of manufacturing agility: concurrent roles of modularity in improving agility and reducing lead time. Technovation, 2004, 24, 573-583.	7.8	36
23	Diffusion, substitution and competition dynamism inside the ICT market: The case of Japan. Technological Forecasting and Social Change, 2006, 73, 731-759.	11.6	36
24	Competitive advantage in an industry cluster: The case of Dalian Software Park in China. Technology in Society, 2009, 31, 139-149.	9.4	34
25	Operationalization of un-captured GDP - Innovation stream under new global mega-trends. Technology in Society, 2016, 45, 58-77.	9.4	32
26	The transformative direction of innovation toward an IoT-based society - Increasing dependency on uncaptured GDP in global ICT firms. Technology in Society, 2018, 53, 23-46.	9.4	31
27	Trends in the substitution of production factors to technologyâ€"empirical analysis of the inducing impact of the energy crisis on Japanese industrial. Research Policy, 1992, 21, 481-505.	6.4	30
28	A substitution orbit model of competitive innovations. Technological Forecasting and Social Change, 2004, 71, 365-390.	11.6	30
29	Diffusion trajectory of self-propagating innovations interacting with institutionsâ€"incorporation of multi-factors learning function to model PV diffusion in Japan. Energy Policy, 2006, 34, 411-421.	8.8	30
30	The virtuous cycle between institutional elasticity, IT advancement and sustainable growth: can Japan survive in an information society?. Technology in Society, 2003, 25, 319-335.	9.4	29
31	Dependency on un-captured GDP as a source of resilience beyond economic value in countries with advanced ICT infrastructure: Similarities and disparities between Finland and Singapore. Technology in Society, 2015, 42, 104-122.	9.4	29
32	Formation of IT features through interaction with institutional systemsâ€"empirical evidence of unique epidemic behavior. Technovation, 2003, 23, 205-219.	7.8	28
33	Fusing indigenous technology development and market learning for greater functionality developmentâ€"An empirical analysis of the growth trajectory of Canon printers. Technovation, 2009, 29, 265-283.	7.8	28
34	The feedback loop between technology and economic development: An examination of Japanese industry. Technological Forecasting and Social Change, 1995, 49, 127-145.	11.6	27
35	Technological diversification and firm's techno-economic structure: An assessment of Canon's sustainable growth trajectory. Technological Forecasting and Social Change, 2005, 72, 11-27.	11.6	27
36	Technological diversification and assimilation of spillover technology: Canon's scenario for sustainable growth. Technological Forecasting and Social Change, 2004, 71, 941-959.	11.6	25

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37	Co-evolution between trust in teachers and higher education toward digitally-rich learning environments. Technology in Society, 2017, 48, 70-96.	9.4	25
38	A new dimension of potential resources in innovation: A wider scope of patent claims can lead to new functionality development. Technovation, 2006, 26, 796-806.	7.8	24
39	The transformation of R&D into neo open innovation- a new concept in R&D endeavor triggered by amazon. Technology in Society, 2019, 58, 101141.	9.4	24
40	Myth of market needs and technology seeds as a source of product innovation â€" an analysis of pharmaceutical new product development in an anti-hypertensive product innovation. Technovation, 2002, 22, 353-362.	7.8	23
41	Alliance strategy as a competitive strategy for successively creative new product development: the proof of the co-evolution of creativity and efficiency in the Japanese pharmaceutical industry. Technovation, 2002, 22, 607-614.	7.8	23
42	Resilience as a source of survival stategy for high-technology firms experiencing megacompetition. Technovation, 2004, 24, 139-152.	7.8	22
43	The interaction between product concept and institutional inducement: a new driver of product innovation. Technovation, 2000, 20, 11-23.	7.8	21
44	Impacts of functionality development on dynamism between learning and diffusion of technology. Technovation, 2004, 24, 651-664.	7.8	21
45	Evolutional dynamics of product innovation: the case of consumer electronics. Technovation, 2000, 20, 437-449.	7.8	19
46	Double spiral trajectory between retail, manufacturing and customers leads a way to service oriented manufacturing. Technovation, 2006, 26, 873-890.	7.8	19
47	Harnessing soft innovation resources leads to neo open innovation. Technology in Society, 2019, 58, 101114.	9.4	19
48	Institutional elasticity towards IT waves for Japan's survivalâ€"the significant role of an IT testbed. Technovation, 2003, 23, 307-320.	7.8	18
49	Functionality development dynamism in a diffusion trajectory: A case of Japan's mobile phones development. Technological Forecasting and Social Change, 2009, 76, 737-753.	11.6	18
50	A comparison of institutional systems affecting software advancement in China and India: The role of outsourcing from Japan and the United States. Technology in Society, 2008, 30, 429-436.	9.4	17
51	New functionality development through follower substitution for a leader in open innovation. Technological Forecasting and Social Change, 2011, 78, 116-131.	11.6	17
52	Converging trend of innovation efforts in high technology firms under paradigm shiftâ€"a case of Japan's electrical machinery. Omega, 2006, 34, 178-188.	5.9	14
53	Institutional structure of sustainable development in BRICs: Focusing on ICT utilization. Technology in Society, 2009, 31, 9-28.	9.4	14
54	Network externality perspective of feed-in-tariffs (FIT) instrumentsâ€"Some observations and suggestions. Energy Policy, 2010, 38, 3266-3269.	8.8	14

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55	Changes in the technology spillover structure due to economic paradigm shifts: A driver of the economic revival in Japan's material industry beyond the year 2000. Technovation, 2009, 29, 5-22.	7.8	13
56	Innovation-consumption Co-emergence Leads a Resilience Business . Innovation and Supply Chain Management, 2013, 7, 92-104.	0.1	13
57	Fusion of technology management and financing management - Amazon's transformative endeavor by orchestrating techno-financing systems. Technology in Society, 2020, 60, 101219.	9.4	13
58	The challenges in Singapore NEWater development: Co-evolutionary development for innovation and industry evolution. Technology in Society, 2011, 33, 200-200.	9.4	12
59	ICT-driven disruptive innovation nurtures un-captured GDP â€“ Harnessing women's potential as untapped resources. Technology in Society, 2017, 51, 81-101.	9.4	11
60	Neo Open Innovation in the Digital Economy : Harnessing Soft Innovation Resources. International Journal of Managing Information Technology, 2018, 10, 53-75.	0.8	11
61	Co-evolutionary coupling leads a way to a novel concept of R&D - Lessons from digitalized bioeconomy. Technology in Society, 2020, 60, 101220.	9.4	11
62	Amazon's New Supra-Omnichannel: Realizing Growing Seamless Switching for Apparel During COVID-19. Technology in Society, 2021, 66, 101645.	9.4	11
63	Unintentional technology spillover between two sectors: kinetic approach. Technovation, 2001, 21, 227-235.	7.8	10
64	Hierarchical impacts of the length of technology waves: An analysis of technolabor homeostasis. Technological Forecasting and Social Change, 2001, 68, 81-104.	11.6	10
65	Dynamic interactions between assimilation capacity, technology spillovers, sales and R&D intensity â€" the case of electrical machinery industry in Japan. Technovation, 2003, 23, 15-34.	7.8	10
66	TOWARDS AN INSTITUTIONS-THEORETIC FRAMEWORK COMPARING SOLAR PHOTOVOLTAIC DIFFUSION PATTERNS IN JAPAN AND THE UNITED STATES. International Journal of Innovation Management, 2007, 11, 565-592.	1.2	10
67	Institutional systems inducing R&D in Amazon- the role of an investor surplus toward stakeholder capitalization. Technology in Society, 2020, 63, 101290.	9.4	10
68	Inducing power of Japanese technological innovation - mechanism of Japan's industrial science and technology policy. Japan and the World Economy, 1992, 3, 361-390.	1.1	9
69	Dynamic process of technology spillover; a transfer function approach. Technovation, 2002, 22, 437-444.	7.8	9
70	Co-evolution between internal motivation and external expectation as a source of firm self-propagating function creation. Technovation, 2004, 24, 109-120.	7.8	9
71	Institutional Sources of Resilience in Global ICT Leaders - Harness the Vigor of Emerging Power. Journal of Technology Management for Growing Economies, 2014, 5, 7-34.	1.4	9
72	Diffusion, Substitution and Competition Dynamism Inside the ICT Market: A Case of Japan. , 2009, , 103-134.		9

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73	Japanese industrial science & technology policy in the 1990s. Japan and the World Economy, 1992, 4, 47-67.	1.1	8
74	Mitigating global warming by substituting technology for energy. Energy Policy, 1995, 23, 447-461.	8.8	8
75	The role of techno-countervailing power in inducing the development and dissemination of new functionality – an analysis of Canon printers and Japan's personal computers. International Journal of Technology Management, 2008, 44, 205.	0.5	8
76	Innovation Ecosystem for Sustainable Development. , 0, , .		8
77	A NEW CONCEPT OF R&D IN NEO OPEN INNOVATION - TRANSFORMATION OF R&D TRIGGERED BY AMAZON. International Journal of Managing Information Technology, 2019, 11, 17-35.	0.8	8
78	Technology Leapfrogging: Findings from Singapore's Water Industry. Journal of Technology Management for Growing Economies, 2010, 1, 29-47.	1.4	8
79	The Co-evolution Process of Technological Innovation: An Empirical Study of Mobile Phone Vendors and Telecommunication Service Operators in Japan. , 2009, , 135-158.		8
80	Learning and assimilation vs. M&A and innovation: Japan at the crossroads. Technology in Society, 2009, 31, 218-231.	9.4	7
81	A new perspective of innovation toward a non-contact society - Amazon's initiative in pioneering growing seamless switching. Technology in Society, 2022, 69, 101953.	9.4	7
82	Optimal timing of the development of innovative goods with generation â€" an empirical analysis focusing on Canon's printer series 1The opinions in this paper are those of the authors and do not represent the official opinion of Canon Inc. 1. Technovation, 2002, 22, 175-185.	7.8	6
83	Resonant R&D structure for effective technology development amidst megacompetitionâ€"an empirical analysis of smart cooperative R&D structure in Japanâ€™s transport machinery industry. Technovation, 2004, 24, 955-969.	7.8	6
84	IT substitution for energy leads to a resilient structure for a survival strategy of Japan's electric power industry. Energy Policy, 2005, 33, 1069-1084.	8.8	6
85	Inside the learning dynamism inducing the resonance between innovation and high-demand consumption: A case of Japan's high-functional mobile phones. Technological Forecasting and Social Change, 2012, 79, 1292-1311.	11.6	6
86	Hybrid Role of Soft Innovation Resources : Finland's Notable Resurgence in the Digital Economy. International Journal of Managing Information Technology, 2018, 10, 01-22.	0.8	6
87	Amazon's initiative transforming a non-contact society -ÂDigital disruptionleadsÂtheÂway to stakeholder capitalization. Technology in Society, 2021, 65, 101596.	9.4	6
88	Co-emergence of Institutional Innovation Navigates the New Normal in Growing Economies. Journal of Technology Management for Growing Economies, 2013, 4, 69-81.	1.4	6
89	A Substitution Orbit Model of Competitive Innovations. , 2009, , 57-80.		6
90	Technology spillovers and informatisation in Japan: an analysis of information technology diffusion in large versus small and medium-sized enterprises. International Journal of Technology Management, 1999, 17, 362.	0.5	5

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91	Functionality development as a survival strategy for fine ceramics. Technovation, 2003, 23, 833-842.	7.8	5
92	JAPANESE INDUSTRIAL DEVELOPMENT. Australian Journal of Public Administration, 1990, 49, 288-294.	1.7	4
93	Optimal timing of R&D for effective utilization of potential resources in innovation. Journal of Advances in Management Research, 2003, 1, 11-27.	3.0	4
94	A resonant development trajectory for IT deployment: lessons from Japanâ€™s Iâ€mode. Journal of Advances in Management Research, 2007, 4, 7-27.	3.0	4
95	Structural Source of the Trap of ICT Advancement - Lessons from World ICT Top Leaders. Journal of Technology Management for Growing Economies, 2014, 5, 49-71.	1.4	4
96	Technology spillovers and economic vitality: an analysis of institutional flexibility in Japan with comparisons to the USA. International Journal of Technology Management, 2002, 23, 746.	0.5	3
97	National innovation policies in an IT society: the myth of technology policies focusing on supply sides. Science and Public Policy, 2003, 30, 70-84.	2.4	3
98	Coâ€evolution between economic growth, educational development, and urbanization in china: The triggering role of Informatization. Asian Journal of Technology Innovation, 2008, 16, 23-44.	2.8	3
99	Managing Innovation in Japan. , 2009, , .		3
100	Optimization of functionality development. Applied Mathematics and Computation, 2010, 217, 1125-1134.	2.2	3
101	Technology strategy and technology policy. Technovation, 2014, 34, 731-733.	7.8	3
102	Institutional Elasticity as a Significant Driver of IT Functionality Development. , 2009, , 31-56.		3
103	Myth of energy competitiveness in energy producing countries. Energy Economics, 1992, 14, 291-301.	12.1	2
104	Development and diffusion trajectory of innovative products in the light of institutional maturityâ€”a comparative empirical analysis of the laser beam printer and optical cards. Technovation, 2001, 21, 637-647.	7.8	2
105	Management and the effect of MITI's R&D project: case study from a supercomputer project. Technovation, 2003, 23, 221-238.	7.8	2
106	Technological distance between manufacturing sectors and prefectures in Japan: innovative clusters and patents. Journal of Advances in Management Research, 2004, 1, 9-31.	3.0	2
107	Structural source enabling firm revitalization innovation of sectorâ€”An empirical analysis of Japanese 31 industrial Sectors. Technovation, 2008, 28, 37-51.	7.8	2
108	Stimulating R&D: an analysis of the Ministry of International Trade and Industry's 'visions' and the current challenges facing Japan's technology policy-making mechanisms. Science and Public Policy, 1999, 26, 2-16.	2.4	2

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109	Structural change in technoâ€production of Japanâ€™s automotive industry. Journal of Advances in Management Research, 2005, 2, 21-31.	3.0	1
110	Inside the black box of crossâ€functional spillover â€“ a lesson from the functionality development of fine ceramics. Journal of Advances in Management Research, 2005, 2, 7-23.	3.0	1
111	A resilient structure as a survival strategy for Japanâ€™s chemical industry amidst megacompetition. Journal of Advances in Management Research, 2007, 4, 29-48.	3.0	1
112	Timing of the initial functionality development as a key to sustainable functionality: comparative analysis of copying machine development in Canon and Ricoh. Journal of Advances in Management Research, 2008, 5, 42-55.	3.0	1
113	Formation of IT Features through Interaction with Institutional Systems: Empirical Evidence of Unique Epidemic Behavior. , 2009, , 3-30.		1
114	CO-EVOLUTIONARY COUPLING BETWEEN CAPTURED AND UNCAPTURED GDP CYCLES:CROSS LEARNING FROM AMAZON AND FINLAND MODELS FOR SUSTAINABILITY. International Journal of Managing Information Technology, 2019, 11, 33-54.	0.8	1
115	A SOLUTION TO THE DILEMMA BETWEEN R&D EXPANSION AND THE PRODUCTIVITY DECLINE: LESSONS FROM THE R&D MODELS IN AMAZON AND FINLAND. International Journal of Managing Information Technology, 2019, 11, 9-31.	0.8	1
116	The productivity paradox and the limitations of GDP in measuring the digital economy. , 2021, , 19-35.		1
117	Co-evolution between Trust in Teachers and Higher Education Enabled by ICT Advancement â€“ A Suggestion to ICT Growing Economies. Journal of Technology Management for Growing Economies, 2016, 7, 7-38.	1.4	1
118	INSTITUTIONAL MOT: CO-EVOLUTIONARY DYNAMISM OF INNOVATION AND INSTITUTION. Management of Technology, 2007, , 355-366.	0.1	1
119	Industrial ecology and technology policy: Japanese experience. , 2002, , .		1
120	Analysis of institutional factors influencing the service innovation - a case of chinese software industry. , 2007, , .		0
121	An Analysis of High Profitability Mechanism by Means of Dynamism between Technological Diversification, Learning and Functionality Development. Management of Technology, 2008, , 55-72.	0.1	0
122	The impact of diversifying technologies in related areas on firm's profitability: the case of Canon's copying machines and printers. International Journal of Entrepreneurship and Innovation Management, 2009, 10, 178.	0.1	0
123	Effective assimilation of intraâ€technology spillover as a key to sustainable functionality. Journal of Advances in Management Research, 2009, 6, 27-40.	3.0	0
124	Global coevolution as a source of a high-profits resilient structure: a lesson from Shin-Etsu Chemical. International Journal of Society Systems Science, 2010, 2, 63.	0.1	0
125	Innovation Dynamics of Materials Manufacturing Industry: Changes in Management of Technology due to Socio-Economic Changes. Advanced Materials Research, 2012, 452-453, 1020-1024.	0.3	0
126	Increasing dependence on uncaptured GDP and ways to measure it. , 2021, , 37-62.		0

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127	Neo open innovation in the digital economy. , 2021, , 135-164.		0
128	The transformation of R&D into neo open innovation. , 2021, , 165-200.		0
129	The emergence of soft innovation resources. , 2021, , 63-133.		0
130	Operationalizing uncaptured GDP with neo open innovation. , 2021, , 201-218.		0
131	FIRMS WITH ADAPTABILITY LEAD A WAY TO INNOVATIVE DEVELOPMENT. Management of Technology, 2007, , 367-379.	0.1	0
132	An Empirical Analysis of the Institutional Systemâ€™s Effects on the Development of Chinaâ€™s Personal Computer Industryâ€"From Inertia to Innovation. , 2009, , 13-39.		0
133	Impacts of Functionality Development on Dynamism between Learning and Diffusion of Technology. , 2009, , 81-102.		0
134	An Empirical Analysis of the Coevolution of Chinaâ€™s Institutional System and Rapidly Growing PC Sector. , 2009, , 41-64.		0
135	Technological Diversification Strategic Trajectory Leading to an Effective Utilization of Potential Resources in Innovation: A Case of Canon. , 2009, , 179-209.		0
136	JapanÃ¢â‚¬â„¢s Coevolutionary Dynamism between Innovation and Institutional Systems: Hybrid Management Fusing East and West. , 2009, , 211-231.		0
137	Innovation Dynamics of Materials Technology. Advances in Knowledge Acquisition, Transfer and Management Book Series, 2010, , 131-151.	0.2	0
138	Diffusion of Environmental Products and Services â€" Towards an Institutions-Theoretic Framework: Comparing Solar Photovoltaic (PV) Diffusion Patterns in Japan and the US. Series on Technology Management, 2010, , 313-345.	0.1	0
139	Innovation Dynamics of Materials Manufacturing Industry: Changes in Management of Technology due to Socio-Economic Changes. Advanced Materials Research, 0, 452-453, 1020-1024.	0.3	0
140	Utmost Fear Hypothesis Explores Green Technology Driven Energy for Sustainable Growth. Dynamic Modeling and Econometrics in Economics and Finance, 2013, , 191-216.	0.5	0
141	A systems option for sustainable techno-metabolism: An ecological assessment of Japan's industrial technology system. , 0, , 233-263.		0