

Innovation and Development Policy (IDP)

For further information on IDP, please visit our website: <http://idp.casisd.cn/>

Special Issue: Innovation Development and Digital Transformation

Guest Editors

Alan Irwin, Copenhagen Business School

Lutao Ning, Queen Mary, University of London

Kaihua Chen, Chinese Academy of Sciences

Tara Qian Sun, Copenhagen Business School

Contact:

Tara Qian Sun, Copenhagen Business School, qs.digi@cbs.dk

Issues of innovation and development have become increasingly important in the policy- and strategy- making processes of both governments and enterprises, and have received globally growing attention from both policymakers and academia since the 1990s (Chen & Guan, 2011; Dominique & Caroline, 2019; Forsman, 2011; Guan & Chen, 2010; Mu, 2019; Mu et al., 2010; Rainer et al., 2019; Wang et al., 2015).

In the digital age, emerging technologies such as Artificial Intelligence, Blockchain, Internet of Things (IoT), big data, and social media have influenced the form and direction of innovation and development. For example, the use of Blockchain for transparency, traceability and responsibility has changed the innovation process and advanced sustainable development at firm, industry and national levels (Australian Government, 2020; Boucher, 2017; Corbett & Mellouli, 2017; Nguyen, 2016; OECD, 2019; Watson et al., 2010). The use of AI in both private and public sectors such as healthcare regarding diagnosis (Sun & Medaglia, 2019), medical imaging recognition, hospital governance and management, patients engagement management, and new drug development can promote health service innovation (Sun & Medaglia, 2017a, 2017b). The life of individuals, the innovative activities and development strategies of organizations, cities and countries, are affected by digital technologies and the pursuit of digital transformation for a better life, intelligent living environment, and innovative nations.

Thus, it is timely to publish a special issue on these topics in *Innovation and Development Policy*, which has published seminal papers on innovation and development in policy contexts (Dominique & Caroline, 2019; Forsman, 2011; Margaret, 2019; Mu, Chi, et al., 2019; Mu, Li, et al., 2019; Yukihide, 2019). We believe that an assessment of the adoption of digital technologies and digital transformation in multiple sectors can yield new theoretical and empirical insights on innovation and development. It is also important to analyze how the development process, mechanism and factors that influence the innovation and development policies may differ between public sectors and private sectors, and among different industries. The proposed special issue seeks to bring together papers that address these issues from a variety of perspectives and at multiple levels of analysis. Some themes that papers in the proposed special issue might address are:

- Innovation development – national/regional innovation capabilities, national/regional innovation system, science and technology policy, innovation process/performance of firms or industries, etc. - in the context of digital transformation;
- The relationship between digital transformation and innovation development;
- The influences/consequences/implications of the usage of digital technologies for innovation development both in public and private sectors;
- The mechanisms of innovation process/performance/cooperation in the digital-oriented activities;
- The effects of digital technologies on the interactions and collaborations of innovation activities, objectives or actors;
- The use of digital technologies in decision-making process of the innovation activities, e.g. smart city development, science and technology planning, R&D activities, service innovation, entrepreneurship, etc.;
- Patterns of digital transformation in different industries and the innovation performance;
- The use of digital technologies for the SDGs;
- Comparison of innovation policies for digital transformation across different nations and regional settings.
-

Both quantitative and qualitative papers are welcome.

Editorial Process

The editorial process will consist of three stages. In the first stage, papers will be sent for double-blind review to three reviewers. Authors whose papers receive a revise and re-submit will be invited to a special developmental workshop organized by the Guest Editors, which will be held at the University of Chinese Academy of Sciences in Beijing, China. Funding

has been provided for this workshop, which will allow us to pay for accommodation and meals for one author and assigned discussants for each paper. Authors would then be invited to revise and resubmit their papers based on the reviewers' comments and comments from workshop participants. The papers will be reviewed again externally, with final decisions made in the final stage.

Time Frame for the Special Issue

Stage	Date
Solicitation of papers	May 2020
Deadline for submissions	September 30, 2020
First round external reviews process	October 1, 2020-December 1, 2020
Authors receiving a request to revise and re-submit also notified of acceptance to the special issue workshop	January 2021
Special issue workshop	February 2021 at the University of Chinese Academy of Sciences
Submission of revised papers	March 2021
Second round external reviews	April 2021
Delivery to Innovation and Development Policy	June 2021

Submit

Please submit your paper via our journal website: <http://idp.casisd.cn/>

References

- Australian Government. (2020). *The national blockchain roadmap: Progressing towards a blockchain-empowered future*. 52.
- Boucher, P. (2017). *How blockchain technology could change our lives: In-depth analysis*. <http://bookshop.europa.eu/uri?target=EUB:NOTICE:QA0217043:EN:HTML>
- Chen, K., & Guan, J. (2011). Mapping the functionality of China's regional innovation systems: A structural approach. *China Economic Review*, 22(1), 11–27. <https://doi.org/10.1016/j.chieco.2010.08.002>
- Corbett, J., & Mellouli, S. (2017). Winning the SDG battle in cities: How an integrated information ecosystem can contribute to the achievement of the 2030 sustainable development goals. *Information Systems Journal*, 27(4), 427–461.
- Dominique, G., & Caroline, P. (2019). Promoting Policies that Make Innovation Benefit All: The OECD TIP Group @50. *Innovation and Development Policy*, 1(1), 73-83.
- Forsman, H. (2011). Innovation capacity and innovation development in small enterprises. A comparison between the manufacturing and service sectors. *Research Policy*, 40(5), 739–750. <https://doi.org/10.1016/j.respol.2011.02.003>
- Guan, J., & Chen, K. (2010). Measuring the innovation production process: A cross-region empirical study of China's high-tech innovations. *Technovation*, 30(5–6), 348–358. <https://doi.org/10.1016/j.technovation.2010.02.001>

- Margaret, M.-J. (2019). Canada-China Science and Technology Relations: An 80 Year History of Collaboration. *Innovation and Development Policy*, 1(1), 39-72.
- Mu, R. (2019). Innovation and Development Policy Studies: A new agenda. *Innovation and Development Policy*, 1(1), 1-2.
- Mu, R., Chi, K., & Chen, K. (2019). National Innovation Capacity Index: A Cross-Country Comparative Analysis. *Innovation and Development Policy*, 1(2), 132-158.
- Mu, R., Li, Y., & Chen, K. (2019). National Innovation Development Index: A Cross-country Comparison of Innovation Development Performance. *Innovation and Development Policy*, 1(1), 3-23.
- Mu, R., Ren, Z., Song, H., & Chen, F. (2010). Innovative development and innovation capacity-building in China. *International Journal of Technology Management*, 51(2-4), 427-452.
- Nguyen, Q. K. (2016). Blockchain—A Financial Technology for Future Sustainable Development. *2016 3rd International Conference on Green Technology and Sustainable Development (GTSD)*, 51–54. <https://doi.org/10.1109/GTSD.2016.22>
- OECD. (2019). *Blockchain technologies as a digital enabler for sustainable infrastructure*. <https://www.oecd-ilibrary.org/content/paper/0ec26947-en>
- Rainer, F., Henning, K., & Koen, J. (2019). China's Development of an Innovation-driven Economy—An Intermediate Assessment. *Innovation and Development Policy*, 1(2), 85-103. <https://doi.org/10.3724/SP.J.2096-5141.2019.0006>
- Sun, T. Q., & Medaglia, R. (2017a). *Artificial Intelligence and Public Healthcare Service Innovation: A Service Ecosystem Perspective*. The 40th Information Systems Research Conference in Scandinavia, IRIS 2017. <http://www.forskningsdatabasen.dk/en/catalog/2372902407>
- Sun, T. Q., & Medaglia, R. (2017b). *Artificial Intelligence Entering Public Healthcare Ecosystems: Do Policies Matter?* 2017 Pre-ICIS Workshop on e-Government of International Conference on Information Systems, Seoul. <https://aisnet.org/events/EventDetails.aspx?id=1004363&group=89758>
- Sun, T. Q., & Medaglia, R. (2019). Mapping the challenges of Artificial Intelligence in the public sector: Evidence from public healthcare. *Government Information Quarterly*, 36(2), 368–383. <https://doi.org/10.1016/j.giq.2018.09.008>
- Wang, Y., Sutherland, D., Ning, L., & Pan, X. (2015). The evolving nature of China's regional innovation systems: Insights from an exploration–exploitation approach. *Technological Forecasting and Social Change*, 100, 140–152. <https://doi.org/10.1016/j.techfore.2015.07.010>
- Watson, R. T., Boudreau, M.-C., & Chen, A. J. (2010). Information Systems and Environmentally Sustainable Development: Energy Informatics and New Directions for the IS Community. *MIS Quarterly*, 34(1), 23–38.
- Yukihide, H. (2019). Japanese Science and Technology Basic Plan: A Perspective of Policy Process. *Innovation and Development Policy*, 1(1), 24-38.