

## Introduction to the Personal Data: Analytics and Management Minitrack

Phil Davies  
Henley Business School  
University of Reading  
[Philip.davies@henley.ac.uk](mailto:Philip.davies@henley.ac.uk)

Joo Hee Oh  
Handong Global University  
[Jooheehoh@handong.edu](mailto:Jooheehoh@handong.edu)

Glenn Parry  
Surrey Business School  
University of Surrey  
[G.parry@surrey.ac.uk](mailto:G.parry@surrey.ac.uk)

For only the second time, HICSS features a minitrack on Personal Data as part of the Decision Analytics and Service Science track. The importance of this minitrack continues to grow as more and more devices connect to the internet, producing exponential amounts of personal data that relate to the individuals using those devices. Whilst the proliferation of personal data allows organizations to better serve customers on demand [1], improve reverse supply chain efficiency [2], and generate both social and economic value [3], challenges remain with respect to how organizations make meaningful insights from personal data [4] and how organizations ensure privacy and confidentiality of data [5]. Whilst not an exhaustive list of challenges and opportunities for the use of personal data, it highlights the need for further research specifically dedicated to personal data analytics and management. Given this, the minitrack invited researchers and practitioners to address some of the core challenges for personal data analytics and management, such as: data analytics and decision technologies, supply and demand chain management, security, ethics, designing with, from and by personal data and the associated business and economic models. Addressing these areas through research has importance in unlocking promising opportunities presented to us by personal data. The challenge has been brought to the fore by the World Economic Forum (WEF) [3] who urge firms, customers and policymakers to address the broad challenges faced with respect to data analytics and management in order to unlock both the societal and economic value of personal data. In 2022, two papers are included within this minitrack that focus on disparate, yet equally important, areas: security for personal data supply chains, and service innovation.

The first paper, titled “From Personal Data to Service Innovation – Guiding the Design of New Service Opportunities” and written by Katharina Bloecher, Fabian Hunke, Rainer Alt and Gerhard Satzger, provides understanding how organizations can harness personal data in their service innovation processes. The research recognizes that there are

methodological shortcomings in current service innovation literature and organizations need further insight into how they can harness personal data within these. To address these shortcomings, a design science research methodology is employed to create a set of design principles for service design tools. These feed into the development and evaluation of a ‘service opportunity canvas’ that supports the matching of customer needs to personal data resources.

The second paper, titled “Barriers and Opportunities in Cyber Risk Management and Compliance Management for Data-Driven Supply Chains” written by Williams Afrifah, Gregory Epiphaniou, Nikolaos Ersotelos, Carsten Maple provides an extensive review of both academic and practitioner works that identify the role personal data plays in managing modern, digitalized, data-driven supply chains. Whilst recognizing the relevance of personal data for supply chain complexity and visibility, the results emphasize the role emerging technology, such as Blockchain and AI, will play in mitigating inefficiencies within personal data supply chains. In particular, how they provide greater visibility and transparency in the management of personal data up and downstream. They provide a future research agenda highlighting the need for the security domain to contribute toward the secure management of personal data supply chains.

Over the past two years, this minitrack has created a community of scholars that provide a broad foundation for further research into personal data analytics and management, opening the door for interesting and insightful debate around the future of personal data analytics and management.

### 1. References

- [1] Ng, I.C.L., Scharf, K., Pogrebna, G., & Maull, R., “Contextual variety, Internet-of-Things and the choice of tailoring over platform: Mass customization strategy in supply chain management”, *International Journal of Production Economics*, Elsevier, 2015, pp. 76-87.

- [2] Parry, G., Brax, S., Maull, R., & Ng. I.C.L, "Operationalising IoT for reverse supply chain: the development of use-visibility measures", *Supply Chain Management: An International Journal*, 2016, Emerald, pp. 228-244.
- [3] World Economic Forum, "Unlocking the value of personal data", World Economic Forum, 2012.
- [4] Ng. I.C.L., & Wakenshaw, S, "The internet of things: review and research directions", *International Journal of Research in Marketing*, Elsevier, 2017, pp. 3-21.
- [5] Epiphaniou, G., Prashant, P., Bottarelli, M., Al-Khateeb, H., Hammoudesh, M., & Maple, C, "Electronic regulation of data sharing and processing using smart ledger technologies for supply chain security, *IEEE Transactions on Engineering Management*, IEEE, 2020, pp. 1059-1073.