

Towards a new logic of value co-creation in the digital age: Doing more and agreeing less

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Purpose - Technology has greatly accelerated socio-economic processes (Arthur 2011, 2017; Harari 2014). As a result of Artificial Intelligence (AI) advances, we are witnessing a change in perspective in value co-creation logics. Technologies are more appropriate for some tasks, and perhaps less for tasks that require aligning people and organizations to co-create value. For the first type of task (performance) the question is can businesses provide customers "performance, scalability, and availability" (Thompson 2019). For the second type of task (consensus), the question is what can businesses provide customers (or governments provide citizens, or family leaders provide their families)? Regarding reaching agreement on the value to be co-created – consensus on desired changes in the world – how can groups of people at multiple scales get better faster?

Methodology – According to an integrated framework based on Viable Systems Approach (VSA) & Service Science (SS) new rules should be discovered that improve service systems architectures and allow local optimizations to lead to global optimizations more often (Spohrer et al, 2012). However, additional study and an integrative methodology is required to better comprehend how and why technological growth justifies the social shift from value collinearity to value co-creation processes (Barile, 2009; Barile et al, 2018; Golinelli 2010; Spohrer and Maglio, 2008; Spohrer et al., 2017).

Findings – Increasing technological capabilities may be making reaching consensus more and more difficult, even while it is becoming technologically easier and easier to realize any one of many different outcomes. This is a paradox of increasing levels of technology-mediated value co-creation in business and society – we can do more, but agree less on what needs to be done.

Practical implications – In the digital age, the search for a new logic of value co-creation means transforming the traditional concepts of resources/workers to include both biological and digital forms. This implies focusing on not just smarter service systems, but wiser service systems (increase worker quality-of-life over multiple generations of workers). Wiser service systems will depend on AI applied for IA (Intelligence Augmentation) to reach both smarter and wiser consensus on value co-creation goals. Therefore, it is relevant that a human component (problem solver and/or decision maker) should be able to ensure sustainable decisions for a common welfare (Nonaka, 2011).

Originality – The paper highlights the awareness in the service science, viable systems, and service-dominant logic communities to focus on understanding and extending value co-creation logics from a systems perspective, integrating resources/workers across human cultures, academic disciplines, and industrial systems.

Key words: Value creation, Wise System, Artificial Intelligence, Artificial Augmentation, Digital Thinkers.

Paper type – Conceptual paper



References (max 1 page)

Arthur WB (2011) The Nature of Technology: What It Is and How It Evolves. Free Press.

Arthur WB (2017) Where is technology taking the economy? McKinsey Quarterly. October 2017. URL: https://www.mckinsey.com/business-functions/mckinsey-analytics/our-insights/where-is-technology-taking-the-economy

Barile S., Ferretti M., Bassano C., Piciocchi P., Spohrer J., Pietronudo M.C.: From Smart to Wise Systems: shifting from Artificial Intelligence (AI) to Intelligence Augmentation (IA). Poster in International Workshop on Opentech AI in Helsinki, March 13-14, (2018).

Barile S., Management sistemico vitale, Giappichelli, Torino, (2009).

Barile S., Piciocchi P., Bassano C., Spohrer J.C. e Pietronudo M.C., Re-defining the role of artificial intelligence in wiser service systems. In Janusz Kacprzyk (ed:) Advances in Intelligent Systems and Computing (AISC), Vol. 787, Springer International Publishing AG, part of Springer Nature pp. 159-170. ISSN 2194-5357 - ISBN 978-3-319-94229-2 - eBook, (2019).

Barile, S., Polese, F., Saviano, M., Carrubbo, L., Clarizia, F.: Service research contribution to healthcare networks' understanding. Innovative service perspectives, 71, (2012). 49.

Barile, S., Polese, F.: Smart service systems and viable service systems: Applying systems theory to service science. Service Science, 2(1-2),21-40, (2010).

Barile, S., Saviano, M.: Complexity and Sustainability in Management: Insights from a Systems Perspective. In Social Dynamics in a Systems Perspective (pp. 39-63). Springer, Cham, (2018).

Brynjolfsson, E., Mcafee, A.: The business of artificial intelligence. Harvard Business Review (2017)

Carr, A.: Positive Psychology: The Science of Happiness and Human Strengths. Routledge, New York (2011).

Goleman, D.: Emotional intelligence. New York: Bantam Books, (1995).

Golinelli, G.M. The Viable Systems Approach, Cedam, Kluwer, Torino, (2010).

Harari YN (2014) Sapiens: A brief history of humankind. Random House.

Jordan, M. I., Mitchell, T. M.: Machine learning: Trends, perspectives, and prospects. Science, 349(6245), 255-260, (2015).

Maglio, P.P., Vargo, S.L., Caswell, N., Spohrer, J.: The service system is the basic abstraction of service science. Inf. Sys. and e-bus. Man., 7, 395-406, (2009).

Nonaka, I., Takeuchi, H.: The wise leader. Harvard Bus. Rev. 89, 58-67 (2011).

Piciocchi P., Bassano C., Pietronudo M.C., Spohrer J.: Digital Workers in Service Systems: Challenges and Opportunities", In: Maglio, P. P., Kieliszewski, C. A., Spohrer, J. C., Lyons, K., Patricio, L. & Sawatani, Y. (Eds.) Handbook of Service Science, Vol. II -Springer, New York, pp. 409-432, (2018).

Piciocchi, P., Spohrer, J. C., Martuscelli, L., Pietronudo, M.C., Scocozza, M., Bassano, C.:T-Shape Professionals Co-working in Smart Contexts: VEGA (ST)–Venice Gateway for Science and Technology. In International Conference on Applied Human Factors and Ergonomics. Springer, Cham, (2017).

Ransdell, J.: The relevance of Peircean semiotic to computational intelligence augmentation, (2002).

Rosenberg, N.: Inside the Black Box: Technology and Economics. Cambridge University Press. ISBN 9780521273671, (1982)

Smith, A., Anderson, J.: AI, Robotics, and the Future of Jobs. Pew Research Internet Project. August 6. Washington, DC: Pew Research Center, 2014.

Spohrer, J., Banavar, G.: Cognition as a service: an industry perspective. AI Magazine, 36(4), 71-86, (2015).

Spohrer, J., Bassano, C., Piciocchi, P., Siddike, M. A. K.: What Makes a System Smart? Wise? In Advances in The Human Side of Service Engineering (pp. 23-34). Springer, Cham, (2017).

Spohrer, J., Maglio, P. P.: The emergence of service science: Toward systematic service innovations to accelerate co-creation of value. Production and Operations Management, 17(3), 1-9, (2008).

Spohrer, J., Piciocchi, P., Bassano, C.: Three frameworks for service research: exploring multilevel governance in nested, networked systems. Service Science, 4(2), 147-160, (2012)

Thompson B (2019) AWS, MongoDB, and the Economic Realities of Open Source. URL: https://stratechery.com/2019/aws-mongodb-and-the-economic-realities-of-open-source/

Vargo, S., Lush, R.: Development of new dominating logic of marketing. Russian journal of management, 2(4), 73-106, (2006).