

How to Overcome Organizational Inertia by Shaping Institutions and Value Propositions: an Analysis of the Impact of Service-Catalogs

14. - 15. Oktober 2021, Bildungscampus Heilbronn



Markus Warg

Institut für Service Design,
Hamburg, Germany
www.ifsd.hamburg



Stephan Hans

SDA SE
Hamburg, Germany
www.sda.se

Agenda

- 01** Purpose and Methodology
- 02** Problemizing Organizational Inertia
- 03** Impacts from IAD framework, Coleman's Boat, Service-Dominant Logic and Service Science
- 04** Solution Pattern & Solutions
- 05** Findings

“How can organizations overcome inertia as barriers to new value creation paths by shaping institutions?”

We apply the **Design Science Research Methodology (DSRM)** for two reasons. First, it serves as a widely accepted framework to address the design product and the design process. Secondly, as a methodology that views design as an "act of creating an explicitly applicable solution to a problem" (Peppers, Tuunanen, Rothenberger, & Chatterjee, 2008).

We complement the DSRM with an embedded single case study. By analyzing different use cases within a single case study and using more than one perspective, we aim to gain a better understanding of the relevance of the solution created.

Peppers, Ken, Tuunanen, Tuure, Rothenberger, Marcus A., & Chatterjee, Samir. (2008). A Design Science Research Methodology for Information Systems Research. *Journal of Management Information Systems*, 24(3), 45–77.

Organizational Inertia

One of the biggest obstacles to digital transformation, especially in terms of exploiting the opportunities offered by digital service platforms and ecosystems, is organizational inertia. Inertia prevents transformation where existing resources and capabilities act as barriers.

Organizational inertia, for example, is often a characteristic of incumbent companies that are deeply embedded in existing relationships with customers and suppliers. **In particular when companies as actors experience successful times, organizational “lock-in” effects occur with regard to the technologies, processes and the social norms and rules in use (institutions).**

(Arthur, 1989) and others have already outlined a phenomenon of organizational inertia by describing that increasing returns lead to a **"lock-in" effect of incumbent technologies and rules and discourage the adoption of potentially better alternatives.**

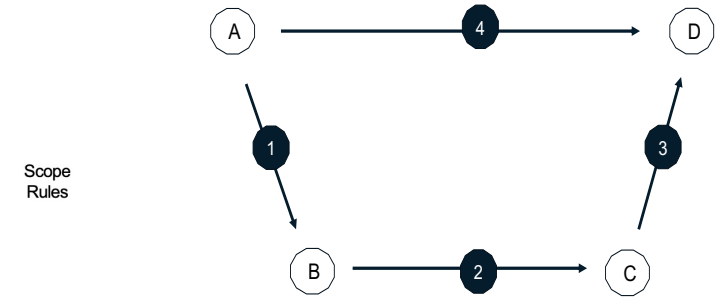
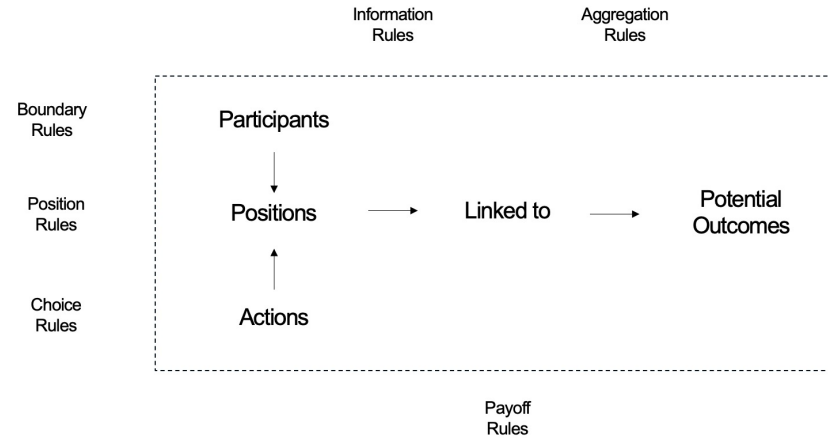
Arthur, W Brian. (1989). Competing technologies, increasing returns, and lock-in by historical events. *The economic journal*, 99(394), 116-131.

03

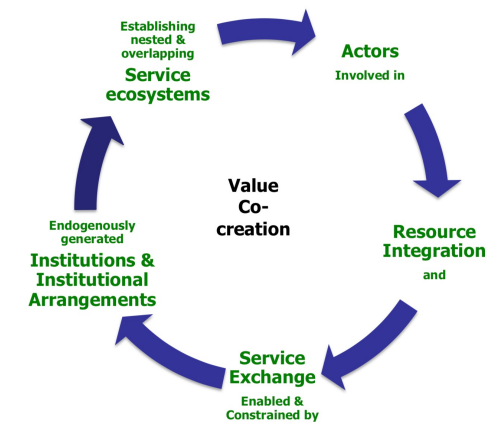
Adapted theories

Impacts from theories and concepts

Concepts of IAD framework, Coleman's Boat, Service-Dominant Logic and Service Science





- Ostrom, Elinor. (2005). *Understanding institutional diversity*: Princeton university press.
- Coleman, James S. (1990). *Foundations of social theory*: Harvard university press.
- Vargo, Stephen L, & Lusch, Robert F. (2016). Institutions and axioms: an extension and update of service-dominant logic. *Journal of the Academy of Marketing Science*, 44(1), 5-23.
- Spohrer, James C, Kieliszewski, Cheryl A, Lyons, Kelly, Maglio, Paul P, Sawatani, Yuriko, & Patrício, Lia. (2019). *Handbook of service science*: Springer.

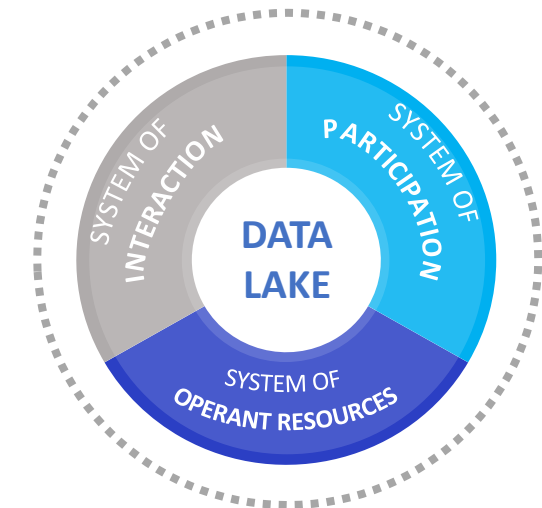


Architecture (SDA) as medium and output of actor engagement.*

Implemented on technological platforms for structuring actor engagement and the process of value co-creation.

Solution Pattern: Service Dominant Architecture (SDA)

	 Goods-Dominant	 Service-Dominant
Value Proposition	Exchange Value	Value-in-use
Object of Exchange	Product	Skills, Knowledge, Services
Role of Customer	Consumer	Co-Creator Interactive



**Value-in-use
interaction**



**Empowerment
A2A Networks**



**Leveraging
existing
capabilities**

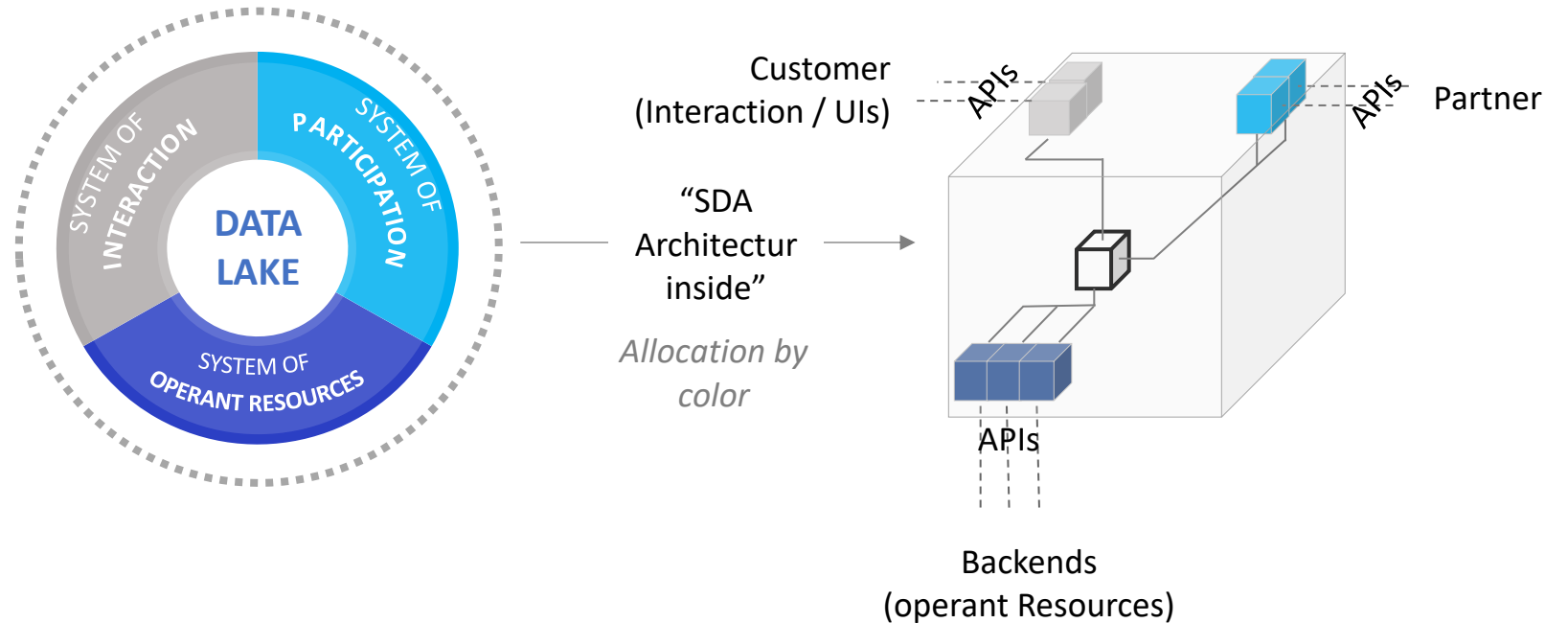


**Rules for actor
coordination**

Giddens, Anthony. (1984). The constitution of society: Outline of the theory of structuration: Univ of California Press.
 Warg, M., Weiß, P., Engel, R., (2015): Service Dominant Architecture (SDA): Mastering digital transformation. University of Applied Sciences Wedel.
 Warg, M., Engel, R. (2016): Service-Dominierte Architektur (SDA): Kernkomponente digitaler Transformation, Zeitschrift für Versicherungswesen, 12
 Weiß, P., Warg, M., Engel, R., & Zolnowski, A. (2016): Service Dominant Architecture based on S-D logic for Mastering Digital Transformation: The case of an insurance company, Paper presented at the 26th Annual RESER Conference 2016, Seite 807 – 826, ISBN [979-12-200-1384-0](#), Oktober 2016

Service Dominant Architecture is reflected as a construction plan for microservices in the technical stacks (bundles of microservices)

Solution Pattern: Service Dominant Architecture (SDA)

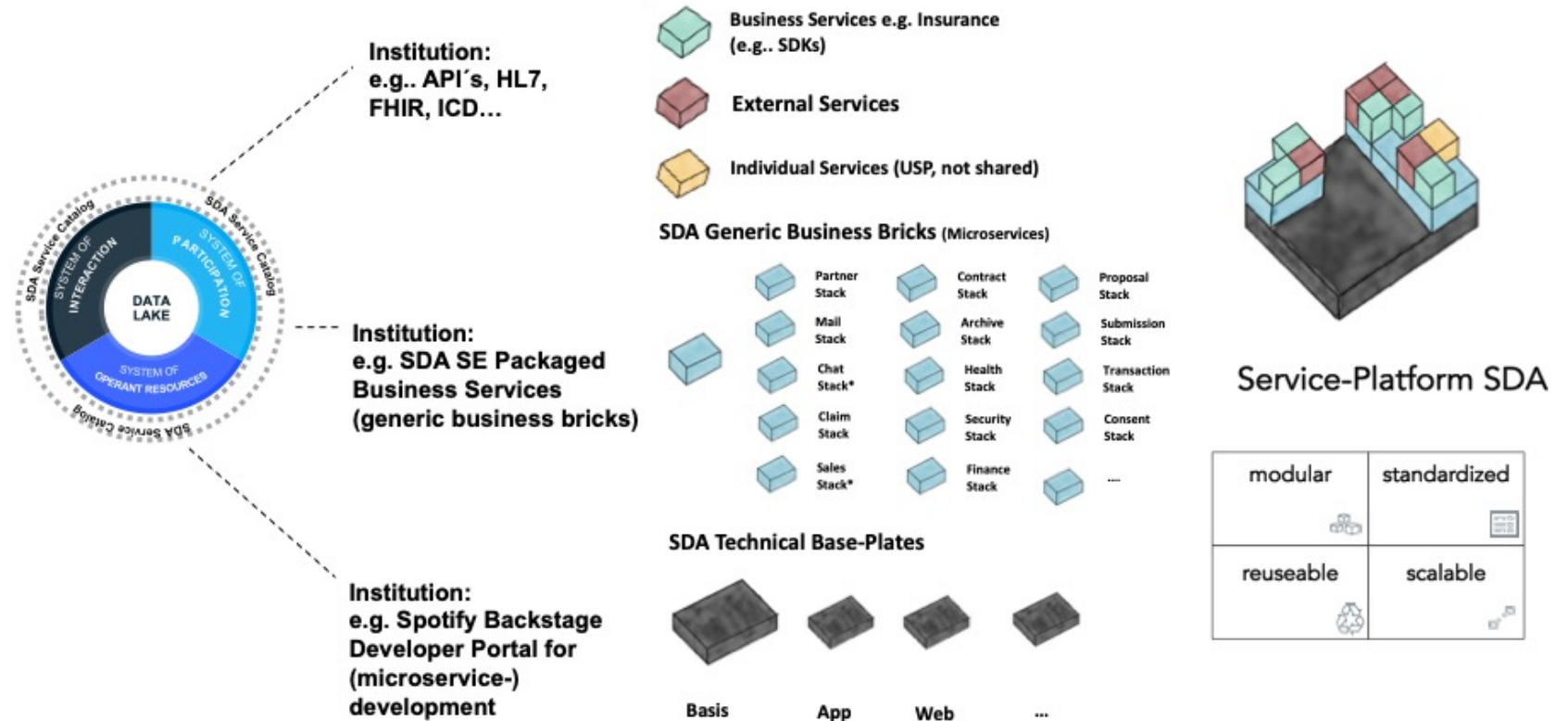


Solution „use case Spotify Backstage Catalog as part of SDA Service Catalog“

SDA Service Catalog
for actor coordination and
resource integration:

- finding (partner, resources)
- adopting (tools)
- institutionalizing (standards)

E.g. Backstage service catalog as
standard for code development
across all phases: development,
storage, quality, documentation,
security.



04

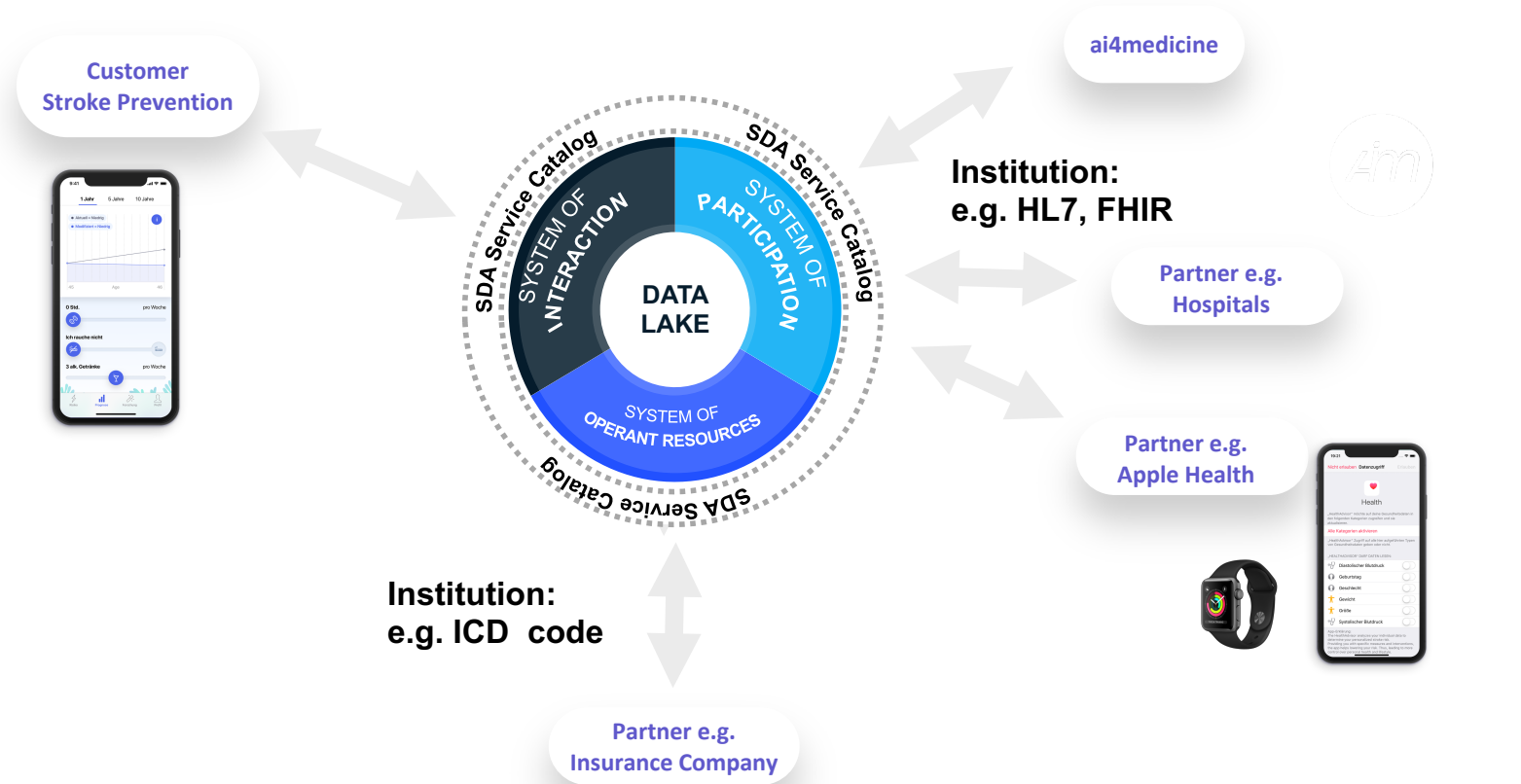
Solutions

Solution:
use case stroke prevention

Actor engaged and coordinated:
Charite based startup, insurance
companies, customer

Rules (institutions) for service
exchange implemented and
institutionalized by SDA Service
Catalog

Solution „use case ai4medicine“



Service Catalogs matter for shaping institutions and overcoming Organizational Inertia

On behalf of the single case study of Service Dominant Architecture with the embedded use cases of Spotify Backstage and ai4medicine, **the relevance of service catalogs for actor engagement, shaping institutions as rules in use and service exchange is demonstrated.**

Within service (eco) systems **service catalogs have strong impact** to overcome organizational inertia as "lock-in" effects of incumbent technologies and business practices. Service Catalogs empower organizations **by finding, adopting and institutionalizing new standards for resource integration, better technologies, business capabilities and processes as socio-technological practices.**

References

Aghina, W., De Smet, A., Weerda, K.,(2015): Agility: It rhymes with stability, McKinsey & Company, McKinsey Quarterly 12/2015

Böhmman T., Warg M., Weiß, P. (2013): Service-Orientierte Geschäftsmodelle erfolgreich umsetzen. Springer Verlag

Böhmman, T., Leimeister, J. M., & Möslin, K. (2014): Service-Systems-Engineering. Wirtschaftsinformatik, 56(2), 83-90.

Bossert, O.; Ip, C.; Laartz, J. (2014): A two-speed IT architecture for the digital enterprise, McKinsey & Company, S.1-6

Daske, L., Engelschall, R., Gutzeit, C., Kansy, R., Müller, A., Schäfer, M., Wacha, E. (2015): Digitale Transformation: Operationalisierung in der Praxis, msg systems AG, S. 1-56

Fonseca, F.J.; Pinto, C.S. (2014): From the classical concept of Services to Service Systems, Procedia Technology, 16, S. 518-524

Frosch, M., Warg, M. (2020): A Conceptual Framework for Workforce Management: Impacts from Service Science and SD Logic, - International Conference on Applied Human Factors ..., 2020 - Springer

Frosch, M., Warg, M., Lange, M. (2021): HR-Management: Impacts from Service (Eco) Systems - Conference on Applied Human Factors and ..., 2021 - Springer

Guelpen, C (2015): Plattformen werden das Geschäftsmodell der Industrie in 2030, <http://bdi.eu/artikel/news/plattformen-werden-das-geschaeftsmodell-der-industrie-in-2030>, abgerufen am 15.3.2016

Kieliszewski, Cheryl A, Spohrer, James C, Lyons, Kelly, Patrício, Lia, & Sawatani, Yuriko. (2018). Handbook of Service Science (Vol. 2): Springer.

Kurzlechner, W., (2016): Agilität und Stabilität? Geht doch!, CIO, 3/2016

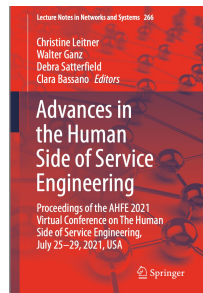
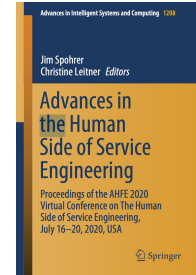
Lamberti, L.; Paladino, A. (2013): Moving forward with service dominant logic: Exploring the strategic orientations of a service-centred view of the firm. Int. Journal of Business Science and Applied Management 8, S. 1-15

Lusch, R. F.; Nambisan, S. (2015): Service Innovation: A Service-Dominant (S-D) Logic Perspective, *MIS Quarterly*, (39), S.155-171

Lusch, R. F.; Vargo, S.L.; Gustafsson, A. (2016): Fostering a trans-disciplinary perspectives of service ecosystems. Journal of Business Research , 47, S. 5-14.

Lusch, R. F., Vargo, S.L., Wessels, G. (2008): Toward a conceptual foundation for service science: Contributions from service-dominant logic. IBM Systems Journal, 47, S. 5-14

Maglio P., Kieliszewski C., Spohrer J., (2010): Handbook of Service Science, Springer Verlag



References

Maglio P., Vargo S.L., Caswell N., Spohrer, J. (2009): The service system is the basic abstraction of service science.

Normann, R. (2001). Reframing Business: When the Map Changes the Landscape. John Wiley & Sons.

Naujoks, H., Schwarz, G., Matouschek, G. , v. Hülsen, B. (2012): Versicherungen: Die digitale Herausforderung, BAIN & Company, München,1-38

Ostrom, Elinor. (1990). Governing the commons: The evolution of institutions for collective action: Cambridge university press.

Ostrom, Elinor. (2005). Understanding institutional diversity: Princeton university press.

Ostrom, Elinor. (2010). Institutional analysis and development: Elements of the framework in historical perspective. Historical developments and theoretical approaches in sociology, 2, 261-288.

Ostrom, Elinor, Gardner, Roy, Walker, James, Walker, James M, & Walker, Jimmy. (1994). Rules, games, and common-pool resources: University of Michigan Press.

Ostrom, Elinor, & Helfrich, Silke. (2012). Was mehr wird, wenn wir teilen: Vom gesellschaftlichen Wert der Gemeingüter: oekom-Verlag.

Shapiro, Carl, & Varian, Hal R. (1998). Information rules: a strategic guide to the network economy. Boston, Massachusetts: Harvard Business Press

Spohrer, J., Maglio, P.P., Bailey, J., Gruhl, D. (2007): Steps toward a science of service systems. IEEE Computer Society, 40, S.71-77

Spohrer, J, Vargo, S.L., Caswell, N., Maglio, P.P. (2008): The Service System is the Basic Abstraction of Service Science, Proc. 41st Annual Hawaii Int Conf Service Science (HICSS 2008), IEEE, S. 104

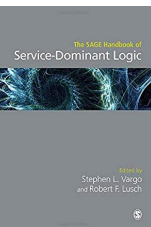
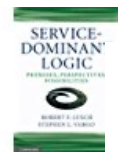
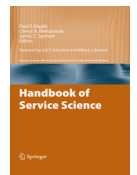
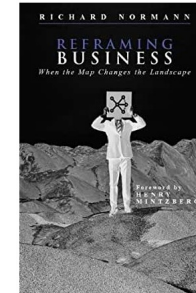
Vargo, S.L.; Lusch, R. F. (2004): Evolving to a New Dominant Logic for Marketing. Journal of Marketing, p. 1-17

Vargo, S.L.; Lusch, R. F. (2008): Service-dominant logic: continuing the evolution. Journal of the Academy of Marketing Science, Heft 36, S. 1-10

Vargo, S. L., & Lusch, R. F. (2016): Institutions and axioms: an extension and update of service-dominant logic. Journal of the Academy of Marketing Science, 44(1), 5-23.

Vargo, Stephen L, & Lusch, Robert F. (2018). The SAGE Handbook of Service-dominant Logic: SAGE Publications Limited.

Warg, M.; Rennebach, S. (2013): Serviceorientierte Geschäftsmodelle und ihr Nutzen für Nachfrager und Anbieter. In: Böhmann, T.; Warg, M.; Weiß, P. (2013), Service-orientierte Geschäftsmodelle, Berlin/Heidelberg 2013, S. 53 ff.



References

Warg, M., Weiß, P., Engel, R., (2015): Service Dominant Architecture (SDA): Mastering digital transformation. University of Applied Sciences Wedel.

Warg, M., Engel, R. (2016): Service-Dominierte Architektur (SDA): Kernkomponente digitaler Transformation, Zeitschrift für Versicherungswesen, 12

Weiß, P., Warg, M., Engel, R., & Zolnowski, A. (2016): Service Dominant Architecture based on S-D logic for Mastering Digital Transformation: The case of an insurance company, Paper presented at the 26th Annual RESER Conference 2016, Seite 807 – 826, ISBN 979-12-200-1384-0, Oktober 2016

Warg, M., Bahrs, Ingo; Stäcker, Jens (2017): Service Dominant Architecture (SDA): Wie die Service-Plattform der Zukunft aussieht, CIO.de, 27.11.2017

Weiß, P., Zolnowski, A., Warg, M. (2017): Service Dominant Architecture to Master Digital Transformation – case of an Insurance Company, QUIS Conference, Porto, 2017 http://www.fh-wedel.de/fileadmin/mitarbeiter/mwa/CIO_ServicePlattform.png

Warg, M., Zolnowski, A. (2017): Let's Get Digital: Digitizing the Insurance Business with Service Platforms; CUTTER Business Technology Journal, Vol. 30, No. 9, 2017

Weiß, P., Zolnowski, A., Warg, M., Schuster, T. (2018): Service Dominant Architecture: Conceptualizing the Foundation for Execution of Digital Strategies based on S-D logic: in Proceedings of the 51st Hawaii International Conference on System Sciences, 03-06 January 2018, Waikoloa Village, HI

Warg, M., Frosch, M., Weiß, P., Zolnowski, A. (2018). "Becoming a Platform Organization: how incumbent companies stay competitive." Cutter Business Technology Journal Vol. 31, No. 11/12: 8.

Warg, M., Zolnowski, A., Frosch, M., Weiß, P. (2019). "From Product Organization to Platform Organization - Observations of Organizational Development in the Insurance Industry." Naples Forum on Service 10.th: 16.

Warg, M., Deetjen, U. (2021): Human Centered Service Design (HCSD): Why HCSD Needs a Multi-level Architectural View; International Conference on Applied Human Factors ..., 2021 - Springer

Weiß, P. W., Markus; Zolnowski, Andreas (2019). Building Systems of Engagement to overcome the challenges of digital transformation. Naples Forum on Service. Ischia. **Williamson, Oliver E. :** Markets and hierarchies, analysis and antitrust implications: a study in the economics of internal organization. Free Press, New York 1975, ISBN 0-02-935360-2.

Zolnowski, A., Warg, M. (2018): Conceptualizing Resource Orchestration - The Role of Service Platforms in Facilitating Service Systems: in Proceedings of the 51st Hawaii International Conference on System Sciences, 03-06 January 2018, Waikoloa Village, HI
<https://scholarspace.manoa.hawaii.edu/bitstream/10125/50018/1/paper0131.pdf>

