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Enterprise Architecture Debts – A Concept to Manage EA Evolution?

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Recommended Citation

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The EA discipline provides methods and tools for aligning business with corporate IT and even fostering (digital) innovation in an organization. Despite the plethora of research and practice, business-IT alignment is still a challenging task as it requires changes throughout an enterprise's technology, processes, and organization. The complexity of those changes does not only lie in their nature but is also influenced by the corporate environment. Established IT systems, technical debt (TD), outdated processes or even an extensive EAM framework might hamper the introduction or renovation of required business systems and processes. Furthermore, those debts slow down innovation and impose a tremendous risk on continuously optimizing business and IT. Even though these debts might have a big impact, it is sometimes hard to identify them explicitly due to the complexity of the organization and its processes. Methodical support is required in order to help with identifying them and mitigating the associated risk.

Hitherto, we have proposed the concept of EA Debts arising from the concept of TD. While TD focuses on technical aspects, like flaws in the code basis or issues with the database design, EA Debts try to capture a holistic view on the organization. EA Debts cover aspects among all EA layers but also their interdependencies. We assume that the concept of EA Debts can help enterprise architects to cope with the upcoming challenges related to digitalization and agile projects. It provides them with a means to visualize the consequences of certain decisions on the EA and, thus, eases their argumentation towards a more sustainable architecture.

As the concept of EA Debts is relatively young, it offers a wide spectrum of future research activities: Adopting established metrics that can contribute to the assessment of EA Debt, but also developing new metrics. Thresholds need to be determined that indicate when a metric's value should be interpreted as critical. Management techniques need to be established that keep the level of EA Debt in an organization under control. Finally, socio-technical aspects related to EA Debts in organizations should not be neglected.

In our talk, we like to introduce the topic to the audience and gather their feedback. Furthermore, we like to invite other researchers to contribute to the EA Debt related stream of research in future and to collaborate with us.

References

Hacks, Simon; Hofert, Hendrik; Salentin, Johannes; Yeong, Yoon Chow; Lichter, Horst (2019): Towards the Definition of Enterprise Architecture Debts. In: EDOCW, pp. 9–16.

Yeong, Yoon Chow; Hacks, Simon; Lichter, Horst (2019): Prioritization of EA Debts Facilitating Portfolio Theory. In: QUASOQ. Vol-2511: CEUR-WS.org, pp. 45–52.

Alexander, Peter; Hacks, Simon; Jung, Jürgen; Steffens, Ulrike; Uludag, Ömer; Lichter, Horst (2020): A Framework for Managing Enterprise Architecture Debts - Outline and Research Directions. In: EMISA, vol. 2628: CEUR-WS.org, pp. 5–10.

Salentin, Johannes; Hacks, Simon (2020): Towards a Catalog of Enterprise Architecture Smells. In: WI2020 Community Tracks: GITO Verlag, pp. 276–290.

Presentation at TREO Talks in conjunction with the 41st International Conference on Information Systems, ICIS 2020
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