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Why it might be impossible for Amazon to do well in the Industrial Internet

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Several major industrial incumbents have invested heavily in digital technology platforms, attempting to emulate the global B2C market leadership of Google, Apple, Facebook and Amazon (GAFA) in the B2B markets of the Industrial IoT. The most aggressive, GE, invested more than $ 4bn in its GE Digital venture and Predix platform[1]. GE Digital's impending triumph in the Industrial IoT was widely foretold in prestigious journals[2]. A few short years later the 'failure' of GE Digital is now widely reported[3].

Our work both in practice and in theory has led us to conclude that industrial incumbents will not succeed easily in the IoT if they simply add connectivity to existing products and push a technology platform. Our view is that successful companies have a very different construct of digital strategy; one not led by technology but rather one focused on enhancing relationships in Value Creating Systems (VCS) by following a 'Networked Strategy' approach[4].

Networked Strategy

The book 'Strategy for a Networked World' by NormannPartners co-founders Rafael Ramírez and Ulf Mannervik represents the latest steps in a long journey of engaged scholarship which began in the 1980's. It outlines the four foundational premises of Networked Strategy:

- **Systems of interactions:** It is the networked structure of the VCS as a whole that matters. As the VCS evolves, it can become a powerful force for disruption and transformation. The VCS is not defined by conventional industry borders, but by the interactions that co-create value - indeed, values - in the system

- **Collaboration**: This is not the world of a passive consumer and an active producer, nor of positioning in a conventional value chain. Here, relationships are the focus. They are contingent, interactive, dynamic and mutual. Key to success in systems is not competition, but to attract others into systems to co-create different values with you and with each other.

- **Multiple values:** Different parties will value different aspects of the networked system, not all of which will be monetary. Understanding these values is critical to understanding the interactions at play, and to enable better system efficiency and better values. In a well-designed VCS the values make music, not noise.

- **Design:** Offerings are designed. Offering design is what strategy is about.

[1] https://www.reuters.com/article/us-ge-digital-outlook-insight/ge-shifts-strategy-financial-targets-for-digital-business-after-missteps-idUSKCN1B80CB
[2] https://hbr.org/2014/11/spotlight-on-managing-the-internet-of-things
[3] https://www.ft.com/content/6b026d42-fc70-11e7-9b32-d7d59aace167
[4] Ramirez, R. & Mannervik (2016) Strategy for a Networked World, London: ICP.

What then is different about a relationship-led B2B IoT strategy – compared to the technology platform led strategies that have been successful in B2C?

- B2B customers – certainly in industries under-pinned by costly, long cycle assets – want assurance that a supportive supplier relationship will be there for many years into the future. A primarily transactional relationship enabled by a slick digital platform is not enough.

- B2B customers insist that their data remains theirs. They will not readily agree to the platform provider aggregating their data with that of other customers. This data aggregation is frequently the key to monetization for technology platform led strategies in B2C environments.

- A one-size-fits-all IoT technology platform will not provide optimal operational performance in different industries with diverse requirements. Instead, bespoke solutions are emerging based on specific models of business relationship appropriate for each industry. There will be no winner-takes-all global platform in the mode of GAFA.

A February 2018 article at Harvard Business Review promoted Amazon as a likely 'winner' in the Industrial IoT[5]. This outcome is even less likely than was the triumph of GE Digital. Here is why:

- To be competitive 'digital native' insurgents will need to acquire physics knowledge equivalent to the industrial incumbents. The key enabler is the largely uncodified 'know how' locked up in the minds of the incumbent practitioners and their wider value creating systems. This knowledge will take decades and cost $bn to acquire - one industry at a time.

- Digital natives will need to acquire customer intimacy. They will only gain this intimacy if they have access to data. They will only gain this access if the actors in the existing industrial value creating systems have trust that their data will not be used to compete against them. It is scarcely conceivable that Amazon would risk industrial customers deserting its immensely valuable AWS platform, which any Industrial Incumbent would do at the first suspicion that another division of Amazon was planning to compete with them.

- The undoubted successes of the digital natives in B2C relies on global scalability and network effects delivering exponential revenue growth from relatively fixed physical assets. In an industrial enterprise, physical assets inevitably scale roughly in proportion to revenue. There are classical economies of scale available, which for example, Elon Musk and Tesla have taken to new levels with the 'gigafactory' concept. This simply proves that the rules of classical economics rather than B2C internet commerce apply.

Getting strategic about design thinking

Platform or technology led strategies like that pursued by General Electric with Predix, and now by the digital natives as they enter B2B internet commerce, demonstrate a limitation of the technology industry. It has been remorselessly applying Design Thinking to technology solutions but less frequently to the underlying business context. Networked Strategy allows the principles of Design Thinking to be first applied to the strategic opportunity. It focuses on the relationships between actors and the different values that those actors can co-create. It follows a rigorous process of problem framing and re-framing, and privileges creativity and innovation above the numerical analysis typical of other tools of strategic management. It facilitates the active design of new offerings in business contexts facing turbulence or outright disruption.

In conclusion, industrial incumbents, by exploiting their deep embedded knowledge and dense networks of existing relationships, can use network strategy to design winning offerings that will frustrate the digital native insurgents.

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[5]https://hbr.org/2018/02/can-anyone-stop-amazon-from-winning-the-industrial-internet