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Delivering the Digital Services ‘App Store’
presented by Philip Totaro, Founder & CEO
Totaro & Associates, LLC  www.totaro-associates.com

Digitalization Market Drivers

- Process Efficiency
- Cost Reduction
- Speed of Response
- Quality Improvement

Abstract

Digitalization is the recreation of the physical world in a digital environment by leveraging data and simulation techniques to both model and predict. The application of digital services introduces a new business model to complement conventional O&M services in which data, analytics, & the control systems which utilize them are able to be digitally delivered on an as-needed basis. Cost reduction & efficiency are two key drivers.

Objectives

The key benefits of recreating the physical world digitally is the ability to acquire data, analyze it and then compare it to models of the physical systems. The subsequent refinement of those digital models & the ability to accurately predict the physical world enables pre-conception & control of physical systems in order to optimize efficiency & reduce cost. This could yield up to a 24% LCOE reduction on operating assets vs. today.

Methods

The drivers behind the digital transformation have included cost savings, process standardization and enforcement, increased response time / rate, faster content dissemination, and more robust asset management through data analysis and visualization. The need to cultivate higher fidelity data and leverage that data in new ways to streamline operations and increase production is essential to remaining competitive.

Results

Digitalization is still in its infancy, however, there is a definitive opportunity for new business models & capabilities around data-as-a-service (DaaS), analytics, asset performance management, asset health monitoring, & energy trading / balancing. The market for digital services will grow to ~€79.8 billion by 2027.

Conclusions

Thus far, the digital transformation by many companies is well underway, but the contribution which digital services makes to top line & bottom line growth is unclear to most. Quantification of this impact will be necessary in order to see more widespread implementation, & more case studies are required.