

PARTNER POV



Capitalize on Your Data

The impact of the Fourth Industrial Revolution on your legacy software assets

The explosion of disruptive forces in the business environment during the last couple of years has confronted executive business leaders with a challenge like never before. The velocity and potential disruption of new technologies and approaches threatens every business model and process. Yet they also promise immense return to those who successfully understand how to use data to create visibility and trends in the business ecosystem.

Not only do we face the continued impact of new technologies; we find ourselves in an era where digitization and trend analysis span well beyond the sphere of our


own business. While the impact of digitization remained largely linear up to now, expect exponential shocks going forward.

Unprecedented velocity, scope and systems impact result from the addition of more and more data sources. Yet companies sit on a goldmine of available data that could allow them to create valuable models. Legacy systems and data captured in legacy databases impede easily extracting that information.

At the epicenter of the economy, the customer and their expectations affect everything from business, product enhancement, innovation and organizational

forms. Mobile networks and data force absolute responsiveness and transparency in the way businesses interact, design, market and deliver products and services. The demand for continuous improvement and innovation is only set to increase, in order to remain relevant.

Terms and considerations like cognitive computing, the Internet of Things, real-time analytics, artificial intelligence (AI), Infonomics, agility, technical debt, data governance, data quality, digital disruption, master data management enter into most executive considerations on a daily basis. Fundamentally, the amount of data we work with (a natural consequence of the Fourth Industrial Revolution) could potentially drown us.

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Data at the Center

Data, and how we could use that data to transform the way things work, underpins most of these developments, including the Fourth Industrial Revolution (bit.ly/2HPzJz1). Unfortunately, many unscrupulous vendors deliberately try to confuse an already perplexing subject, in order to participate and gain from the consequential investments.

Although the manufacturing process sits at the epicenter of the Fourth Industrial Revolution, this new revolution is changing the entire business landscape irrevocably. Data from almost limitless sources demands executive oversight like never before. The C-suite can no longer ignore this deluge or leave it to IT staff. Data forms the lifeblood of any company today and must be managed as a precious asset.

At the opposite end of the spectrum, many IBM i development shops have operated under strict cost-saving initiatives for years. Combined with the extremely reliable and forgiving nature of the platform, installations have quietly clocked up technical debt at an alarming rate.

The C-suite faces the conundrum today of meeting the challenges presented by the Fourth Industrial Revolution with legacy applications, while simultaneously training young developers to replace the current aging workforce and accept responsibility for the heritage software portfolio.

Addressing Modernization Challenges

The first critical question to assess is whether heritage applications deliver the required functionality. During this evaluation, you should document operational considerations, but append them to an “operational constraints” section.

Only consider modernizing an application if it provides a 75 to 90 percent functional fit for the business requirement. If it doesn't

meet that threshold, you should instead invest your time on replacing the application.

Once you clearly determine the relevance of the current software assets, develop a strategic plan to establish the application on a sound footing, while addressing the identified operational weaknesses and requirements. Invest the necessary funds to establish the data and software assets on a solid footing, ready to serve the company another 10 to 20 years.

The C-suite requires brutal honesty during this analysis and must acknowledge the consequences of too much past emphasis on operational cost saving measures, which consistently leads to technical debt and stagnation. Executives must calculate a monetary value of the debt that accrued during the austerity measures. This should include continued education, as often the staff running IBM i applications and workloads received considerably less investment into their skills during the past 10 to 20 years than their counterparts on other platforms.

The focus should be on your lifeblood (data) and how to utilize that data to generate real-time trends as input to cognitive and AI systems to make decisions. Establish data centrality, innovation and continuous improvement as core strategic management objectives.

Industry and vendor assertions need a critical assessment for relevance and accuracy, and measurement against the documented strategic plan to improve the software and data assets. The C-suite should embrace a mercenary approach in their quest to establish a leadership position and gaining maximum value from exploring the gold they have. New technology can extract a higher grade of “gold” from the old mine dump (data) than from new resources.

The Value of Data

Despite substantial technical debt, significant value remains in

organizations' software assets and underlying data. Unlocking this value often costs a fraction (usually about 20 percent) of replacement or redevelopment.

With data, innovation and continuous improvement becoming integral to day-to-day IT operations, the C-suite can expect:

- A potential reduction in their code base
- A significant improvement in the data quality and currency
- A major enhancement to data security and protection of a significant asset
- Developers that are 2x to 3x more productive, with a considerable improvement in application quality and reduction in software errors
- An additional decade of life from existing software assets
- A new application at approximately 20 percent of the cost of redevelopment or replacement, without the associated disruption
- Applications that can implement and leverage the latest technological trends such as cognitive, integrated real-time analytics, microservices, etc.
- A modern platform for new developers to assume ownership of and ensure the future of the applications
- The ability of the development team to deliver new functionality rapidly
- A nimble platform facilitating rapid response to changes in the business environment or technological advances

You can't afford to ignore your legacy systems, as that will almost certainly guarantee the demise of your company. However, addressing the issue with data as the focus can make the process far less painful than you might expect. 🛠️