Recognizing and Addressing Software Disruption Trends in IT

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State of Software Disruption in IT (1)

- Software has been more disruptive than ever for businesses in 2018.

- "An inescapable truth is that every business is becoming a digital business, controlled by software." - *451 Research*

- Companies that don't understand this face the prospect of dislocation – e.g., taxis, banking, and hotels.

State of Software Disruption in IT (2)

- Legacy market participants may feel they have the digital assets and people they need, the report explained, but many lack the imagination to spot where the next disruption is coming from.

- Businesses will need to recognize that their next competitor might have a radically different profile from their current competitors.

- "Technology is becoming a horizontal market across everything." - *Nick Patience, 451 Research*

State of Software Disruption in IT (3)

- Historically, there were businesses that didn't have a lot to do with technology. However, today…

- "It does have something to do with them now, and it has something to do with <u>every single </u>business down to the tractors on a farm, someone doing laundry, or lawyers doing legal work," Patience observed.

- "That's why older companies, like GE, are scrambling to make the adjustment and hiring IT developers," Patience added.

- How serious is GE? In recent ads, what Owen does at GE has the tagline, "The digital company. That's also an industrial company."

The Digital Terrain in IT (1)

- Businesses that do not understand their *digitized* market – will be dislocated.

- "They won't understand what their customers are doing, and if they're sharing the market with competitors who do understand what those customers are doing, then those competitors will be better able to serve them, to sell them stuff, to market to them, to advertise at them—all the things you can do with digital data," Patience said.

- he classic example of software driving industry dislocation is the taxi business - blindsided by Uber. Others?

The Digital Terrain in IT (2)

- "Previously, you received customer-centric stuff 10, 15 years ago, that sounded nice, but it didn't really mean much because the company still controlled when the product was released, what it was called, how much it cost—and most of the reviews and feedback came through its call center so bad news could be filtered.

- Today, your relationship with your customers starts <u>before</u> they purchase anything from you because they're talking about you on social media.

- They talk about what they want and don't want, and what they like or don't like, and they're less likely to call your 1-800 number as they are to rant about you on Twitter.

- That kind of information can give you a competitive advantage if you know it, and put you at a competitive disadvantage if you don't.

Disruption Trends in IT

- Disruption = Market dislocation!

- Three major trends that will drive the disruptive forces of software in the enterprise market in 2018 and beyond:

    1. Analytics

    2. Acceleration

    3. Agility

    4. Watch out for *blockchain* and *containers* – but are these advances or disruoters?

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Analytics

- Analytics will become more prevalent throughout the layers of technology that businesses use. It will appear everywhere, from development, IT management, and databases to customer experience management.

- That's throwing off a lot of data, and that causes organizations to invest in analytics because now they can analyze things they couldn't analyze before. Analytics is becoming <u>easier to use</u> while at the same time becoming <u>more powerful</u>.

- Today's analytics can look beyond the *transactional* data being collected, through *contextual analytics*, which has a surge of interest recently.

- <u>Contextual analytics</u> combine text and advanced analytics with machine learning to uncover insights from a mix of structured and unstructured data.

- Example - selling cars in Brazil and Peru, traditional transactional analytics can predict your profit margins in those countries. Contextual analytics snow the demand for your cars in countries where you don't sell them.

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Acceleration (Speed)

- For today's customer-facing applications, transactions need to be processed automatically and rapidly. If they're not, customers will take their business elsewhere.

- Acceleration in business is having a profound effect on software.

- Business processes are being broken down into micro-processes that can be assembled on the fly to accommodate the assortment of connected devices customers use.

- As a result, the traditional dividing line between front-end and back-end apps is decaying, and the idea of *end-to-end dynamic supply chain apps delivered as SaaS* is gaining prominence.

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Agility (1)

- To cope with the acceleration of business, software development has had to become more agile.

- Monolithic web applications are now replaced by tiny components linked by APIs.

- Developers are doing sprints in two- or three-week cycles rather than an 18- to 24-month waterfall project That's a big change in software development.

- It's also increased the <u>power (leverage) of software developers</u> in an organization.

Agility (2)

- With the DevOps movement, now more than ever, software developers are more involved with business decisions.

- It's a much more collaborative and agile process between the developers and operations people.

- The shift to agile from waterfall is a critical one, and customers are no longer going to wait two years for an upgrade.

Conclusion -
The Digital Business of IT

- However, as digital technology spreads through every kind of business, finding developers to meet the needs of organizations will become increasingly difficult.

- Today, technology infuses every type of business, the battle to attract and retain developer talent goes way beyond the Silicon Valley bubble.

- It affects every organization, whether you're in the business of software, shipping, beverages, or banking; the more digital a business becomes, the more good developers are likely to be needed.

- And if a business thinks it can avoid the headache of finding good developers by farming out its technology needs, relying on outsourcing companies or systems integrators for your digital transformation, be aware that they, too, are competing hard for the same developer talent.

Thank You!