

ARE WE OPENING OUR DIGITAL ACCOUNTS TO LEAVE THE ANALOG BEHIND,  
OR TO BRIDGE THE DIGITAL DIVIDE AND TOUCH EVERY STAKEHOLDER'S LIFE!

## MULTIDIMENSIONAL DIGITIZATION FRAMEWORK FOR DIGITAL TRANSFORMATION



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# Digital Ubiquity and the Art of Corporate Endurance

We have often heard information to be the new currency in this digital-first generation. When we dig deeper into the ever-rising tide of information, a lot of analog currency transactions corroborate Gartner's belief that most organizations lack the skills and knowledge to successfully execute a digital strategy. By 2020, information will be used for reinventing 80% of business processes and products from a decade earlier.

Industries must first understand their common vernacular of what 'digital' means for them: How to build new frontiers of value while embracing digital opportunities proactively amidst their biggest threats. Following the leader can be a dangerous game; a company with IT constraints isn't in the same league as one that delivers cutting-edge customer experiences. **A bi-modal adaptive approach** establishes agility and personalization in customer-facing initiatives while evolving core systems to maintain stability and reliability. Luxottica follows this approach to extend the impact of bimodal maturity with a Facebook-like retailer site on the CRM platform.

Digitization is exerting unprecedented pressure on organizations to evolve as Standard & Poor's data shows

how the average corporate lifespan of leading companies is falling from **61 years in 1958** to just **18 years in 2011**. Industries are looking to reinvent themselves with the possibilities of new technologies to transform their business as everyone appears to be at the threat of disruption. A number of non-technology companies have also launched innovation labs to this end; hardware chains like Lowe's Cos. and Home Depot Inc., retailers like Target Corp., Sears Holdings Corp., and real-estate giant Westfield Corp are some that have taken to emerging technology investments in the recent years. GE has shown what **digital ubiquity** can do to its business by extending digitization and connectivity to formerly analog transactions, processes or operations. This has revolutionized value creation and capture leading to outcome-based business models to transform customer engagement.

Evolution of IT Architecture and Business Models are moving in Parallel to create a Global Interconnected Platform.





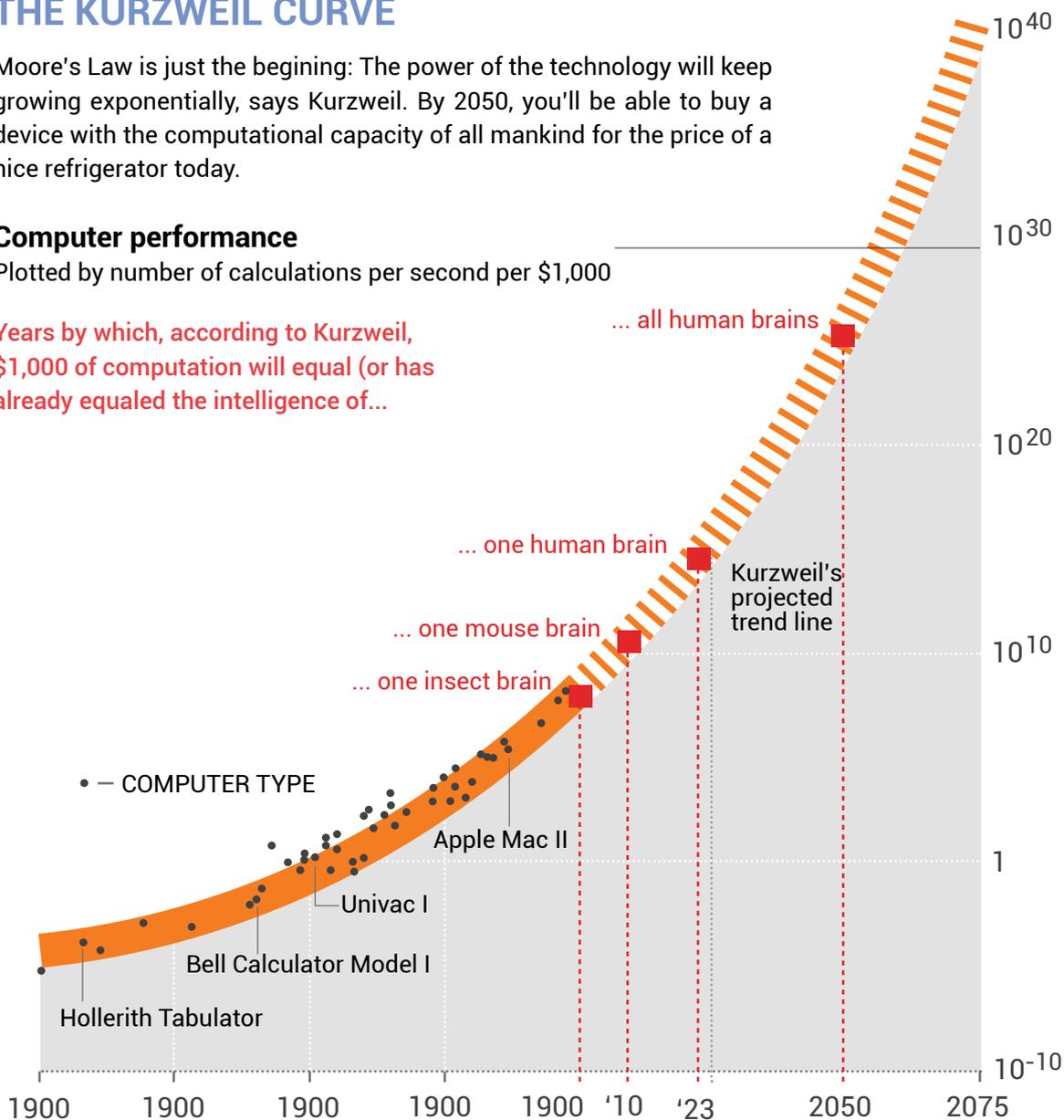
## THE KURZWEIL CURVE

Moore's Law is just the beginning: The power of the technology will keep growing exponentially, says Kurzweil. By 2050, you'll be able to buy a device with the computational capacity of all mankind for the price of a nice refrigerator today.

### Computer performance

Plotted by number of calculations per second per \$1,000

Years by which, according to Kurzweil, \$1,000 of computation will equal (or has already equaled) the intelligence of...



Ray Kurzweil introduced the concept of the 'Law of Accelerating Returns' to depict the exponential rate of change of technology in his book "The Age of Spiritual Machines". Gartner makes the prediction of 25 billion sensors by 2020, data doubling every two years and a 5X growth through 2017. Are we equipped to embrace such technology abundance?

Leading market surveys seem to point otherwise. Harvard Business Review's survey on 436 business leaders have found a third believing IT doesn't understand which digital knowledge is important to specific functions or LOBs. Capgemini and MIT Centre for Digital Business survey indicates that only 7 percent of the 150 enterprises exhibit both a digital-first and dexterous mindset.

So how do we mobilize the organization to architect IT solutions and set the pace for change? With digital becoming pervasive in all aspects of the business, there is a growing need for a multidimensional framework to unite organizational silos and execute digital capabilities across the enterprise landscape.

The Law of Accelerating Returns is shaking the Foundation of IT. There is a crying need for a multidimensional framework that captures the complexities of pervasive technology abundance in the interplay of people, business and objects.



# Digital Roadmap for Dynamic Ecosystems

Digital Transformation isn't just about setting the grand stage adorned with grander strategies; it's how new technologies can be leveraged to steer organizations for success in the digital age. Digitization goes beyond automating business processes to reinventing models that drive customer satisfaction and operational efficiencies. Linear value chains are giving rise to **dynamic ecosystems of value** to touch the lives of every stakeholder while creating a system of trust and reliability.

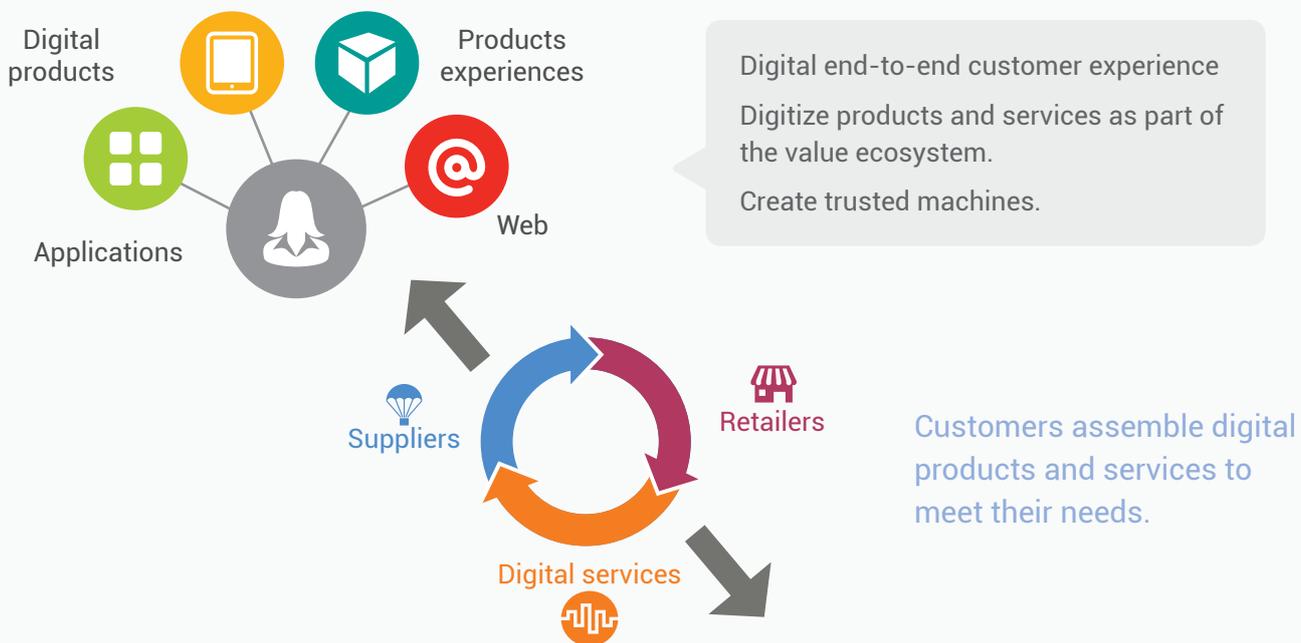
With change becoming evident in every dimension, there still remains a stark separation between data, applications, mobile apps, cloud service, IoT integration technologies. According to HBR, there are still risks stalling greater adoption of such technologies, primarily

the lack of interoperability with existing IT systems and data security.

A highly structured framework enables strong engagement platforms for a digitized ecosystem across the enterprise landscape of customers, partners & employees. The digital drivers combine the interplay of **Social** for a collaborative environment, **Cloud** for business agility, **Mobile/IoT** for accelerated connectivity and **Analytics** for intuitive decision-making paving the way for continuous customer engagement. It's at the intersection of these technologies that marks the rise to the most riveting and disruptive trends. This is a **Unified and Adaptive Approach** to breaking integration siloes and sustaining a disruptive business model for digital affluence.

## OUR DIGITAL LIFESTYLE: ARE WE LIVING IN A DIGITAL BUBBLE?

### Digital customer experience



### Digital operational excellence

Drive rapid customer-centric innovation.  
Source enhanced operational capabilities within a Dynamic ecosystem.  
Digitize for agility over efficiency.



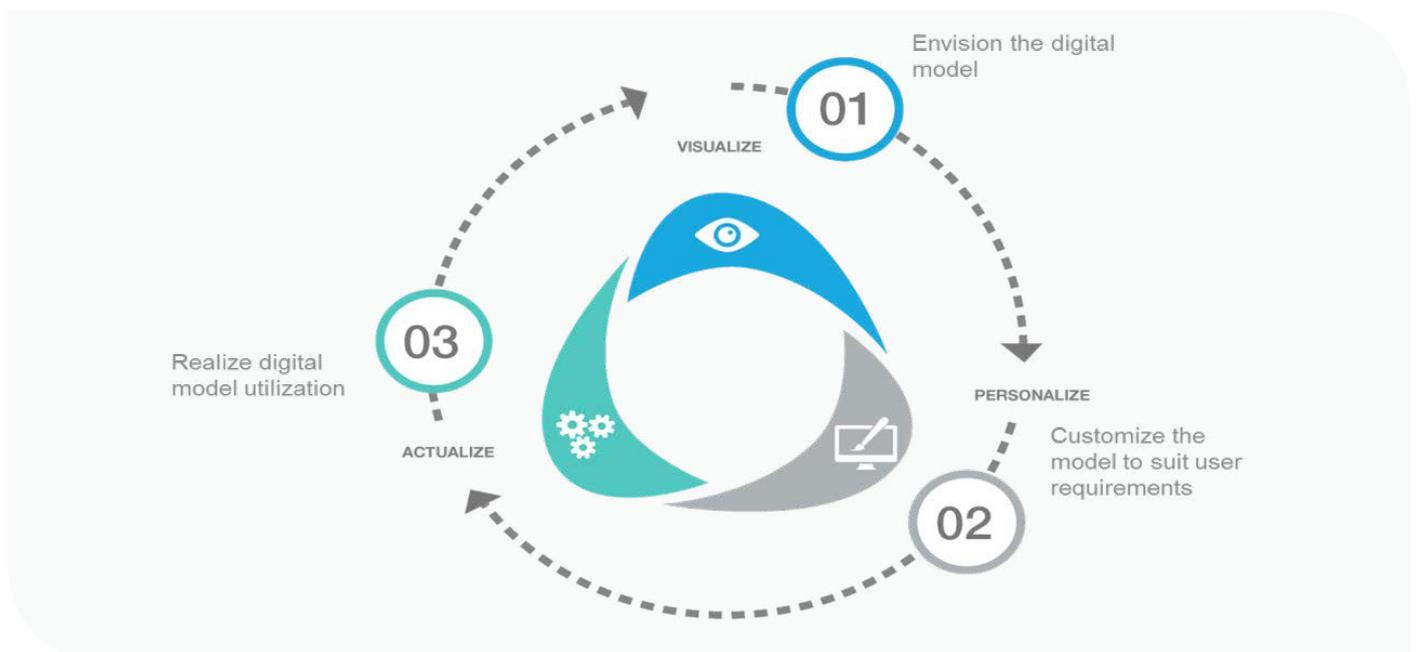


# Roadmap Drivers for Digital Transformation



As a part of Digital Discovery for end-to-end digitization, enterprises would need to:

- **Visualize** the digital model in line with organizational goals
- **Personalize** the model to build digital intensity across the business and customer landscape
- **Actualize** digital model utilization and benefits for all stakeholders





# The Enterprise Landscape

## Building your Nexus- Force by Force

### Cloud

#### SCALABLE AGILE PLATFORM

VISUALIZE	ACTUALIZE
<ul style="list-style-type: none"> <li>Business Agility</li> </ul>	<ul style="list-style-type: none"> <li>Reduced TCO</li> <li>Optimized Development</li> <li>Operational transparency</li> </ul>



Companies are looking to create new business models to build agility resulting in better cost efficiencies, scalability and operational flexibility. They have gone beyond the first generation of Cloud Transformation to improved collaboration and taking intelligence to the Cloud elastically. Security, that is still cited as a barrier will be the biggest driver to cloud adoption through investments in state-of-the-art security through layered security controls like biometric scanners, priviledged user access, default encryptions and so on and so forth.

The public cloud market is estimated to grow at **19.4% CAGR to \$141 billion in 2019**, IDC has said. According to Price Waterhouse Coopers, large technology companies offering enterprise cloud computing services are among the biggest R&D spenders globally. Innovate to the skies or stay rooted to the ground but prepare not to 'cloudwash'! (Forrester coined this term for off-premise services falsely passed off as 'cloud' revenue), seems to be the order of the day.

CIOs are reinventing their IT architectures to a hybrid model that is growing at a CAGR of 27% according to

researcher MarketsandMarkets. Avon Products has overhauled its existing IT infrastructure for a hybrid model of private, managed and public cloud technology. Netflix, on the other hand, has taken to embrace the public cloud model fully even running sensitive applications like customer accounts on AWS's public cloud.

Some of the strategic focus areas for organizations to **personalize** their Cloud re-architecture:

- Cloud Infrastructure Services for handling heterogeneous cloud platforms, deployments and delivery models
- Cloud-based Integrations of cloud applications and infrastructure

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## Social

### COLLABORATIVE ENVIRONMENT

VISUALIZE	ACTUALIZE
<ul style="list-style-type: none"> <li>• Multichannel Communication</li> <li>• Consolidated Information</li> </ul>	<ul style="list-style-type: none"> <li>• Centralized Data</li> <li>• Collaborative Decision-making</li> <li>• Increased Brand Engagement</li> </ul>



SOCIAL

Only 39% of employees say their company encourages collaboration across teams according to the Digitalist Magazine. Are companies underrating their social collaboration strategy and not embedding collaboration technologies within business processes? One of the biggest challenges still remains creating a rationalized data story in core resources- data, integration, security. There is a move from **personalization** to **individualization** with partner organizations aiming to consolidate 30% of their interfaces for more individualized offerings by 2017 according to IDC. Individualized Learning and Instruction across the globe has provided platforms for an adaptive learning experience thus empowering the teacher and student to progress while meeting advanced standards of education.

Social media helps building competitive listening devices to find innovative ways to reach one's target audience. In this social networking and crowdsourcing age, collaboration and sharing is happening almost everywhere with the advent of websites like **Thingiverse** used for serendipitous discovery and printing of 3D model designs. The presence of smart machines and objects has caused a disruption to the CRM and its ability to capture social customer engagement. Gartner predicts by 2018, 35% of posts on social media channels will be created and read by smart machines.

Real-time transparency and communication has embedded collaboration into streamlined business processes to turn leads into brand evangelists. Unilever's 'Creating Brands for Life' campaign makes customers brand advocates with immense coordination between external creative, local and central marketing teams that is achieved through Unilever's digital platform for social marketing. Facebook at Work is the latest launch of an enterprise social network by 2016 to offer employees the taste of what they experience in personal lives.

Some of the strategic focus areas for organizations to **personalize** their Social re-architecture:

- Portals for digital individualization of customer, supplier, partner
- Multi-channel Integration
- Digital Asset Management
- Digital Marketing and Commerce

There is a move from personalization to individualization with partner organizations aiming to consolidate 30% of their interfaces for more individualized offerings by 2017.



# Mobile

## ACCELERATED CONNECTIVITY

VISUALIZE	ACTUALIZE
<ul style="list-style-type: none"> <li>• Omni-channel customer experience</li> </ul>	<ul style="list-style-type: none"> <li>• Improved Worker Productivity</li> <li>• Increased Employee Responsiveness</li> <li>• Connected User Experience</li> </ul>



Organizations that don't adopt a mobile-first strategy and deliver exceptional user experiences (UXs) would be exposed. A recent report by Flurry says mobile app usage has risen by 58% in 2015, which is surprising given that such rates remain a rarity in a mature industry. Lowe's has tied up with Google to build Project Tango App for customers to experience augmented reality for 3-D mapping of the rooms of their homes and visualizing how products looked well before delivery happens.

The key challenge is how IT can mobilize the business with accelerated mobile app development. Gartner's prediction is that IT capacity would need to rise 5 times in the next 24 months to keep pace with demand for mobile app development services. Decision-making would be easier given that half of all team coordination and communication would happen by way of mobile group collaboration apps by 2018.

Internet of Things (IoT) projects involving a proliferation of devices, complex event processing, APIs and project implementers often overestimate the built-in integration of IoT platforms without due consideration to the

complexities involved. According to Gartner, half of the cost of implementing IoT solutions will be spent on various integrations through 2018. There are a number of use cases, be it in predictive maintenance, telemedicine, smart appliances, connected vehicles that pose diverse integration challenges to three basic elements: device, application/process and data.

Some of the strategic focus areas for organizations to **personalize** their Mobile re-architecture:

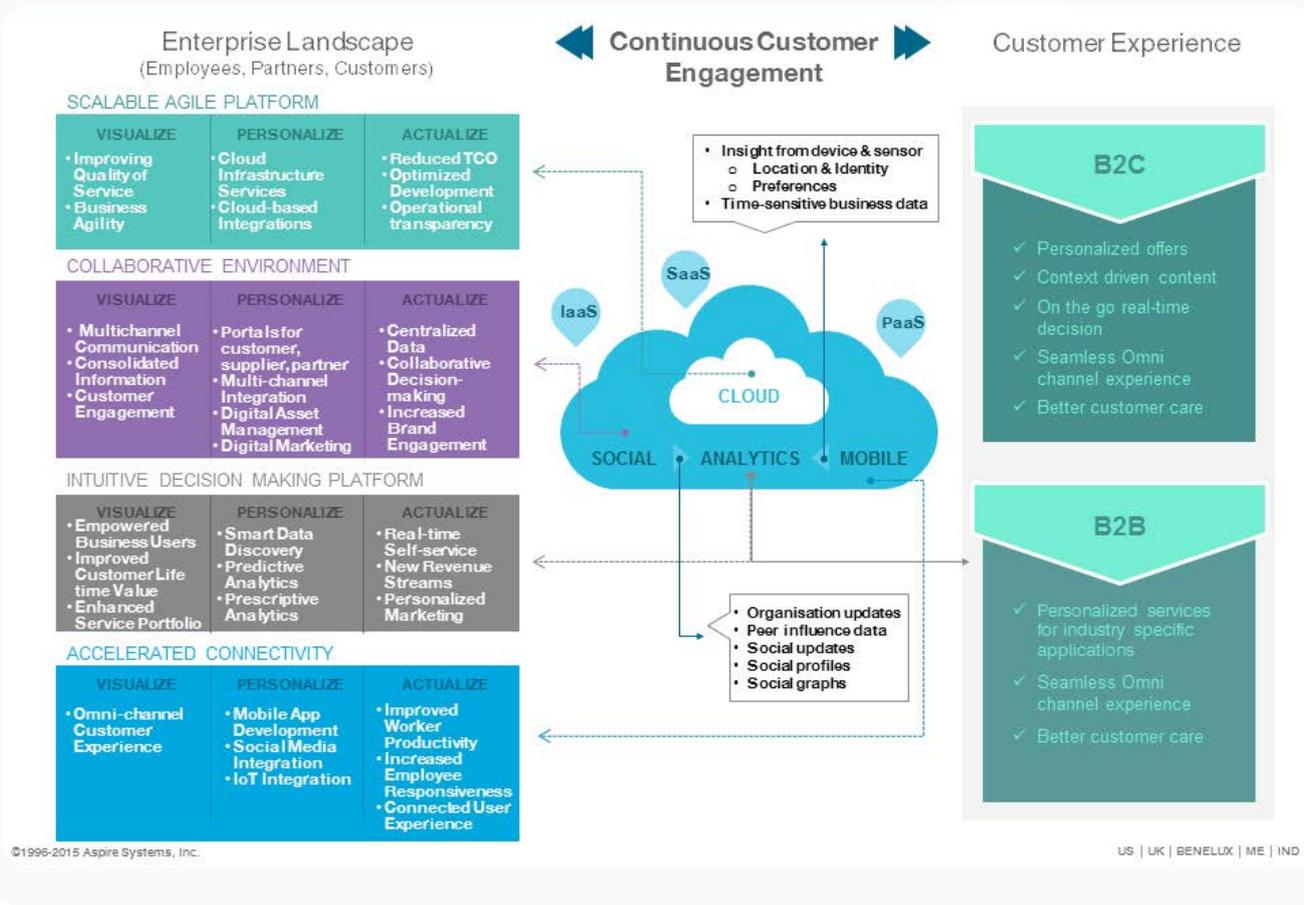
- Mobile App Development Services
- Social Media Integration
- IoT Integration Services

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## Analytics



Analytics is at the heart of this framework- **The Force** that drives every other in preserving the Nexus. Personalizing our overall architecture to sustain digital business transformation would thus entail embedding analytics into all the business processes and social collaboration; in the figure, enabling **Social, Mobile** to feed into **Analytics** for a modern collaborative decision-making platform that can be hosted in the **Cloud**. The Law of Accelerating Returns is backed by the promise of pervasive Big Data to create disruption for real-time business insights and to develop new products and services. Business processes would have embedded predictive and prescriptive algorithms into business processes even as Gartner has predicted that by 2020, 40% of new investments would be made in predictive and prescriptive analytics.

A popular instance of data empowered decision making is Reckitt Benckiser that used search information from medical website, WebMD in 2012 to track cold and flu symptoms across the US, predicting where potential

outbreaks were likely to occur based on consumer insights and targeting in real-time products to those segments. This increased its US sales of cough and cold products by 22%.

Some of the strategic focus areas for organizations to **personalize** their Analytics re-architecture:

- Smart Data Discovery
- Diagnostic Analytics
- Predictive Analytics
- Prescriptive Analytics

Self-service apps, big data discovery and visual analytics will converge into a pervasive next-generation platform that will analyze new IoT application data in motion for actionable insights.



This Framework aims to **individualize** the customer experience through personas rather than just demographics to the extent that it can be a sustainable differentiator. Capturing customer value is an ongoing journey of exploiting all value chains in dynamic ecosystems to make it count for both customers and enterprises:

- For customers, nurturing relationships of purpose and personal value to sustain loyalty
- For enterprises, building superior products/services for higher revenues and profitability

*It's an endeavour to bridge the Digital Divide and touch every stakeholder's life!*



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