Digitizing is the Future for Wholesaler-Distributors

Dane Poeske
December 6, 2017
Businesses must translate huge amounts of information and then digitize their entire end-to-end processes to be more flexible and nimble or they will not survive.

There are three disruptive technologies that are being tested and deployed across the globe to manage the rapidly growing demands from our customers. Watson is one new technology to help organizations manage information and make better informed decisions quickly. The second is Blockchain, which digitizes transactions between parties to create an unalterable system of record. Finally, the Internet of Things (IoT) can track the physical movement of goods and monitor the performance of these goods in new and exciting ways.

These three technologies can fundamentally change the way products and services are managed throughout the existing business ecosystem
Survival is Optional
Since 2000 over 50% of the Fortune 500 have disappeared in one way or another.

This is before the impact of digital technologies had truly taken hold. During that period there have been a series of breakthroughs in digital technologies giving birth to media giants such as Facebook, and transportation companies such as Uber.

Disruption and digital transformation are the new games in town.
Survival is Optional

THREE FORCES THAT ARE DRIVING DISRUPTION

Technology Forces
- Cloud & flexible service delivery
- 4th Industrial Revolution

Explosion of data

Macro Forces
- Demographic Shifts
- Regulatory shifts
- Security risks
- Climate Change

Competitive Forces
- Globalization
- Relentless focus on cost

Skill shortages
New entrants
Sharing economy
Survival is Optional
THE SHAPE OF OUR INDUSTRY IS CHANGING

Fragmentation of traditional value chains
New technologies create more transparent value chains that are easier to decompose by function

Convergence of industries
New competitors are emerging that compete in specific value chain functions across industries

Emergence of new ecosystems
New types of ecosystems emerge, displacing traditional industries

55% Executives feel traditional value chains are being replaced

51% Executives feel boundary between industries are blurring

69% CEOs rate ecosystems as the most impactful business trend

Source[1],[2]: 'Global Ecosystem Survey', IBM Institute for Business Value, 2016, n=2156
Source[3]: 'Redefining Competition: Insights from the Global C-suite Study--The CEO perspective', IBM Institute for Business Value, 2016, Source: Q1.3.a Which of the following trends will impact your business most in 3 to 5 years? (Industry convergence. The merging of industries, as suppliers, distributors, customers and competitors increasingly cooperate in ecosystems created to deliver new products and services); (n= 600)
Why Amazon May Want to Crush Walgreens and CVS By Selling Prescription Drugs

Amazon Pharmacy could radically disrupt the generic drug business. Here is the opportunity for the e-commerce giant.

By Annie Palmer  Oct 20, 2017 4:48 PM EDT

CVS reportedly in talks to buy Aetna

The Wall Street Journal reported Thursday that CVS Health (CVS) is in talks to acquire the health insurer for $66 billion.

By Julia Horowitz  October 26, 2017: 5:40 PM ET
THE 4TH INDUSTRIAL REVOLUTION IS HAPPENING NOW
The Fourth Industrial Revolution

What is it?

Convergence of new technologies that are fusing the physical, digital and biological worlds, and impacting all disciplines, economies, and industries.
The Fourth Industrial Revolution

Un-structured data is changing the world we know today

2017 - 2025
The Fourth Industrial Revolution – The 5 Next Steps

WHAT WILL SUCCESS LOOK LIKE

1. Build a new value chain strategic plan with digital initiatives

2. Invest in a transformational strategies with specific digital goals:
   - Drive revenue growth with new business models
   - De-capitalize assets by adding third party ecosystem partners
   - Re-invest in new human capital
   - Increase investment substantially in Big Data, AI, Internet of Things and Blockchain

3. Design new product and services that are consumer-centric and that customers will love
   - Improve digital engagement by using new data including B2B and B2C

4. Reinvent the end-to-end manufacturing and the supply chain
   - Create smart factories and connected supply chains
   - Segment the supply chain to support “consumer as the channel”

5. Drive productivity with extensive use of robotics and automation
Watson AI
What is Watson?

AUGMENTED INTELLIGENCE

Cognitive Signals

Watson is an artificial intelligence platform comprised of pre-trained cognitive services. Watson mimics how humans learn and interact.

How does Watson work?

UNDERSTANDS
Cognitive systems understand imagery, language and other unstructured data like humans do.

REASONS
They can reason, grasp underlying concepts, form hypotheses, and infer and extract ideas.

LEARNs
With each data point, interaction and outcome, they develop and sharpen expertise, so they never stop learning.

INTERACTS
With abilities to see, talk and hear, cognitive systems interact with humans in a natural way.
IBM Watson leverages multiple forms of AI

**Computer Vision**
How to recognize objects?

**Speech Recognition & Synthesis**
How to turn sounds into words and vice versa?

**Natural Language Processing & Generation**
How to extract meaning from language, and convey meaning through generated sentences?

**Knowledge Representation**
How to sort information in a practical way (hierarchies, semantic networks)?

**Reasoning**
How to combine pieces of information to reach conclusions?

**Planning**
How to schedule a sequence of actions to fulfill a given goal and make sure they are well executed?
Watson is a Platform of Services

Leverage Watson APIs and Reusable Machine Learning Algorithms

Analyzes Unstructured Data

Uses natural language processing to understand

Understands complex questions

Evaluates all possible meanings and determines what is being asked

Presents answers and questions

Based on supporting evidence and quality of information found

500+ Watson ecosystem partner companies...

50,000+ Developers WW

9,000+ Apps in test, beta or production

3B+ Watson API calls a month and growing

Leverages Watson APIs and reusable machine learning algorithms

Uses natural language processing to understand

Understands complex questions

Evaluates all possible meanings and determines what is being asked

Presents answers and questions

Based on supporting evidence and quality of information found
Watson adds the Power of Analytics

COMBINING WATSON WITH OTHER TECHNOLOGIES CREATES THE TRANSFORMATION

► What happened?

Descriptive
Get in touch with reality, a single source of the truth, visibility

► What will happen?

Predictive
Understand the most likely future scenario, and its business implications

► What should we do?

Prescriptive
Collaborate for maximum business value, informed by advanced analytics

► How do we leverage and learn from rapidly changing data of different types?

Cognitive
Deeply analytical computing systems that learn & interact naturally with people
# IBM Watson Processes & Services – Cognitive Automation

<table>
<thead>
<tr>
<th>Capability</th>
<th>Employee Assist</th>
<th>Agent Assist</th>
<th>Coding Assist</th>
<th>Automated Business Requests</th>
<th>Automated Service Requests</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>What is this?</strong></td>
<td>The end user can talk to Watson about how to do things and get context sensitive advise</td>
<td>Watson accelerates issue resolution through interaction with the IBM support agent</td>
<td>Watson coaches the junior developer, making them more effective and freeing up senior resource time</td>
<td>The user can get help from Watson in a catalogue of business scenarios – with automations accelerating the process</td>
<td>The end user can request Watson to execute activities in a catalogue of standard service request automations</td>
</tr>
<tr>
<td><strong>Example(s)</strong></td>
<td>How do I cancel my purchase order? How do I know which material group to select?</td>
<td>Agent requests information on how to fix a particular error code and receives information from another account which helps solve the problem</td>
<td>Developer requests guidance on how to efficiently structure an internal table in which to load transaction data</td>
<td>User is travelling and needs to correct a purchase order error – asks Watson who clarifies the change to be made and executes it when authorised</td>
<td>Technical help scenarios where the helpdesk is needed. E.g. password reset, unblocking a user, refreshing a training system</td>
</tr>
</tbody>
</table>
## IBM Watson Processes & Services – Cognitive Automation

### IBM Automation with Watson for SAP

<table>
<thead>
<tr>
<th>Capability</th>
<th>Business Process Self Heal</th>
<th>Technical Self Heal</th>
<th>Cognitive Service Analytics</th>
<th>Dynamic Automation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>What is this?</strong></td>
<td>The monitoring solution is able to spot an issue with a business process and automatically execute resolution steps</td>
<td>Hands off automated issue resolution – our monitoring solution raises the ticket, analyses and resolves the problem</td>
<td>System, ticket and other analytics which gives proper insight into business and technical performance and tangible improvement steps</td>
<td>Catalogue of automations that are triggered by the support agent to do jobs faster and cheaper</td>
</tr>
<tr>
<td><strong>Example(s)</strong></td>
<td>Purchase order approval is slow (approver OOO) and is automatically re-routed. Deal with stock shortages. Prompt actions on incompletion logs.</td>
<td>The standard Solman alerts and subsequent actions. Repair broken connections between applications. Sort out table space issues.</td>
<td>Analysis spots a peak of tickets in Finance on a Friday – determines there is a shift of users that need to be trained as well as a process improvement</td>
<td>As part of our service we need to periodically refresh the regression test environment – we set up an automation to do that set up of technical monitoring</td>
</tr>
</tbody>
</table>
In past engagements, IBM has delivered

<table>
<thead>
<tr>
<th>Benefits</th>
<th>Improvement/Reduction</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROI with source-to-pay collaboration</td>
<td>Up to 10x</td>
</tr>
<tr>
<td>Run-rate savings from operational cost baseline</td>
<td>30-60%</td>
</tr>
<tr>
<td>Improvement in working capital</td>
<td>15-25%</td>
</tr>
<tr>
<td>Purchasing and supplier compliance</td>
<td>80-90%</td>
</tr>
<tr>
<td>Reduction in training operational costs</td>
<td>Up to 40%</td>
</tr>
<tr>
<td>Improvements in cross-sell and up-sell rates</td>
<td>5-10%</td>
</tr>
<tr>
<td>Improvement in collections effectiveness</td>
<td>Up to 20%</td>
</tr>
<tr>
<td>Reduction in annual procurement spend</td>
<td>3-7%</td>
</tr>
</tbody>
</table>
IBM Watson – Cognitive Procurement in SAP Ariba

EMBEDDING IBM WATSON INTO SAP ARIBA PROCUREMENT

Cognitive Procurement Is the Game-Changer

Together, IBM and SAP Ariba will create solutions that will augment people so that people can work better

- User Experience: Natural Language (text or voice) to encourage greater engagement & faster results
- Fast Decision Making: aggregation of data, systematic insight and trends to fuel rapid decision support in real time of process
- Enhance Outcomes: self learning processes to uncover insights, automating tasks, driving efficiencies and increased savings

Digital Assistant to guide and advise Users via intuitive conversational environment

Unlock value based on the power of the person and a superior, integrated platform backed by over 30 million users connected to IBM Watson
Blockchain
Blockchain is a technology for a new generation of transactional applications that establishes trust, accountability and transparency while streamlining processes in business networks. Think of it as an operating system for interactions between participants in a business network. It has the potential to vastly reduce the cost and complexity of getting things done.

Blockchain is a design pattern that uses an shared ledger that is open for all participants. Blockchain can reimagine the world’s most fundamental business interactions and open the door to invent new styles of digital interactions.

IBM is applying Blockchain to a very broad range of business applications.
IBM Blockchain addresses **Current Industry Pain Points**

**Data sharing limited to 'one up, one down' without end-to-end transparency**

**Multiple data format & sources**
Lack of trusted, easily auditable records

**Incomplete information**
IBM has pioneered Blockchain for accounts payable leveraging it’s shared ledger & permissions with our proprietary library of smart contracts to reduce operational costs, disputes & time to value.

**60-80%**
Reduction in the cost per invoice to $1 - $2 using Blockchain – defining the new benchmark

**60-70%**
Faster time to value using IBM’s library of smart contracts & reusable business rules to get up & running in 3 months

- Improvements in visibility, trust, and efficiency
- Avoidance of disputes, overhead, and cost intermediaries
Food Transparency using IBM Blockchain

TRACE PRODUCT FROM FARM TO RETAIL SHELF IN SECONDS
IBM Blockchain – Changing Global Transportation

https://www.youtube.com/watch?v=tdhpYQCWNcw
Internet of Things (IoT)
The IoT Platform

HOW IOT WORKS

https://www.youtube.com/watch?v=QSIPNhOiMoE

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IoT is an Ecosystem of Data

Combining Watson and Analytics to Make Sense of All The Data

- Connectivity & Security technology
- Connectivity, Security and edge analytics
- Relationships & reach
- Cloud, Bluemix & IoT Platform
- IBM IoT Industry solutions

Silicon
IoT Devices
Gateways
Networks
Cloud
Solution & Applications

- Your silicon, embedded OS & Recipes
- Your devices and recipes for connecting them
- Your gateway and recipes for connecting them
- Your network
- Additional value add cloud services
- Customer solutions built on IBM IoT technology

End-to-End IoT solution
IoT is Driving Digital Disruption of the Physical World

BUSINESS BENEFITS ARE BIG AND GROWING

- Improving operations and lowering costs
- Creating new products and business models
- Driving engagement and customer experience
IoT allows Asset Management to be Automated

Asset Management System - is comprised of Strategies, Process and Systems that are closely integrated that can enable:

- Investing in assets when needed
- Extend asset life performance and quality
- Eliminate failures
- Prioritize Safety, Environment, Regulatory compliance
- Minimize TCO
Cognitive IoT for Store Health

Understand and predict equipment data, from legacy platforms, if possible, that to transform production strategies, establish predictive failure solutions and minimize manufacturing downtime.

1. New Alarm Management Strategy
   Reduce the 11,000+ unique alarm names to an actionable level with all alarms rationalized against the process and business objectives.

2. Establish Smarter Alerts (Events)
   Significantly reduce the number of alarms (~70%) through Smart Alarm Handling. Integrate into TIRIGA and Watson IoT Platform for Visualization.

3. Enable Predictability from Data Sources
   Leverage diverse set of data sources to predict patterns that cause case temperature increase and eventually food loss.

4. Enable Intelligence to Events
   Apply intelligence through analytical decision making to turn events to an intelligent event and avoid unnecessary alarms.

5. Drive Persona Based Outcome
   Tailor outcomes or actionable events to personas. Provide a unified view and context to resolve the problem quickly and remotely, if needed.

**Current State Facts**

- 70% of alarms don't result in a work order
- 80% of refrigeration alarm volume is spread across 17k unique alarm names
- 7 different legacy control systems to learn and use across our stores
- 85% of initial alarms on this store did not result in a work order
IoT is delivering Predictive Maintenance across Industries

Public Sector Video Explains The Benefits

https://www.youtube.com/watch?v=mlaXbGuMV00
Digital Enterprise
New Business Models
- Developing new ways of realizing and monetizing value
- Spawning new business models, financing and risk assessment

Market Activation
- Creating the strategy and execution plan for delivering experiences to the market
- Engaging and monetizing customer relationships

Actionable Insights
- Employing Predictive, Optimizing, and Advanced analytics to both experience and operations
- Leveraging Cognitive Analytics to create deep and advanced competitive differentiation

Enabling Technologies
- Fuel the industry transformation
- Creating exponential impact through technology combinations

Restless Talent
- Identifying, retaining and building the right talent for a digital organization
- Creating a culture of design thinking, agile working and experimentation

Orchestrated Ecosystems
- Decapitalizing infrastructure and leveraging partner and full network strengths
- Developing novel relationships that unleash new sources of value

Responsive Operations
- Digitization of products, services and processes is critical in redefining experiences with customers
- Leverage predictive analytics, cognitive computing, Internet of Things and automation

Experience
- Creating differentiating experience for customers, employees and others
- Driving the way the organization works (people, process and technology)
Digital Enterprise – IBM & SAP Partnership Solutions

- IoT for Uptime
- Find & Fix
- Heads Up Weather Alerts
- Cognitive Commerce
- Claims Adjust
- Blockchain
- Smart Materials Planning

- Predictive Maintenance
- Talent Advisor
- Parts Expert
- SAP Chatbot
- Truven on HANA
- Visual Inspection with Predictive Quality
- Cognitive Customer for Utilities

- MetroPulse Integration to REX and IBP
- Cognitive Digital Finance RPA
- Revenue Management
- Smart Meter Operations Center
- Cognitive Procurement for Intelligence
- Coldchain Blockchain
- Cognitive Buying Assistance
Combines intelligence from procurement data with predictive insights from unstructured information to enable faster, intelligent decision making across supplier management, contracts, sourcing activities as part of SAP Ariba.

Master data error identification leveraging machine learning algorithms and updating incorrect master data values to avoid negative downstream impacts.

This cognitive and analytics-based solution integrates geolocation, weather, traffic, and demographic data to inform retail execution, supply chain and sourcing processes with hyper-local insights.

Using the advanced analytics and cognitive capabilities, CPG clients can analyze their financial performance and visualize both financial and production metrics to identify trends and pinpoint key drivers.

Provide immediate awareness of relevant customer information; improving overall sales decision-making due to access to timely data, and sales effectiveness on the retail channel by executing relevant store visits.

Hyper local Weather, event and social data is integrated into the Forecasting and Replenishment systems to provide more accurate and timely planning.
Organizational transformation will be a combination from these three areas:

- **Shift**: Shift costs and streamline processes to create business agility.
- **Leverage**: Leverage data and technology to enable faster, well-informed decisions.
- **Innovate**: Innovate through the digitalization of your business.
IBM Digital Transformation

Digital Transformation Will Merge Technology With Business

Key Digital Technologies that are redefining the Industry

- **Artificial Intelligence**
  Serves as engine for learning and personalization

- **Mobile**
  Connects people with insights where they are

- **APIs / Microservices**
  Enables ecosystem partners to collaboratively innovate

- **Cloud**
  Enables the ecosystem to move beyond legacy

- **Blockchain**
  Increases confidence in the system to enable new business models

- **Internet of Things**
  Equips physical assets with digital data to optimize operations

- **Cybersecurity**
  Embeds safeguards into systems and surfaces treats

- **Hyperlocal Geolocation**
  Provides a lens into micro-moments in proximity that spurs action

- **Analytics**
  Surfaces patterns to improve decisions
Thank You