How Can AI and Self-Learning Bots Ensure Contractual Performance and Compliance?

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Presented By:
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BP is a complex organization:

- 74,500 employees
- Operating in 72 countries
- $220bn revenue
- 570m litres of oil (or equivalent) per day
- 2,900bn litres of oil equivalent proved reserves
- 4 planes fuelled every minute
- 14.2bn tonnes of petrochemicals per year
- 18,000 retail sites
What is App Orchid?

• Industry Leading Pioneer in AI, Machine Learning and Natural Language Processing (NLP) for Enterprise Applications

• Gartner Cool Vendor for 2016, thrice awarded top 50 innovative companies to watch by Silicon Review, HANA Innovation and others

• Preconfigured Applications for Procurement, Customer Management, Safety to name a few

• Multiple Fortune 500 companies as Clients in Healthcare, Energy, & Insurance

• Rapid “Time to market” apps that enable enterprises to “test drive” complex digital ideas with minimum risk and investment
Session Objectives:

• Let’s understand the contemporary challenges in achieving contractual performance and compliance
• Review a BP Case Study on how to address the challenges and opportunity
• Experience how AI and Bots can address the opportunity through a demonstration
• Get a “peek under the hood” to understand how the technology works to address the opportunity
• Understand the benefits of leveraging AI and Bots to address contractual performance and compliance
Audience Polling Questions:

• A Raise of Hands – “How many of your procurement organizations are currently using AI and machine learning to address business challenges?”

• A Raise of Hands for the rest of the Audience – “How many of you believe that within the next 2-3 years your procurement organization will be adopting the use of AI and machine learning?”
So, What is the Problem?
It gets worse!

- Highlight services / products that were procured incorrectly
- Tedious & Endless Negotiation Cycles
- Understanding Grade Pyramids from unstructured documents [SOWs]
- Ratio of Project Managers to Execution team
- Normalization of Rate cards across Roles, projects and vendors
- Inadequate and Duplicity of resource commitments
- Contract Compliance – Communication of Golden Rules
- Finding Contingent Labor within Managed Services
How Did We Start on this Journey?

• Curiosity on whether we could use AI/Machine Learning within our area to bring value to BP
• Created Use Cases that we thought were applicable to be used with emerging advancements in AI/Machine Learning
• Engaged with a partner to understand which of our use cases were good candidates for actual use
Use Case We Explored:

- Identify orders in our IT managed services that could be managed through our contingent labor buying channel (agency under services)
- Harvest information from Word, PDF, and Excel and structure in a way that we use for further evaluation
- Ensure uniformity of billing rates across projects and resources at scale
- Identify roles and quantities inside the orders
- Highlight orders that needed to be looked at closely
- Identify areas for savings or where value leakage has occurred
How did we leverage AI/Machine Learning technology during this Journey?

- Digitizing the Problem Statement
  - Sample SOW Documents & Contracts → Convert Problem Statement into a training model → Test Drive Results and Validate with End User

- Application of Bots to Develop Business Patterns
  - Application of AI Bots against all Documents → Feed The Results of the bots against ML Models → Calibrate and Improve The Results

- Digitizing the Business Outcome
  - Present the Results via Apps → Feedback and Improvement → Acceptance and Incorporation of Results into Best Practices
Digitizing the Opportunity Statement

Step 1: Read and Parse SOW PDF

Step 2: Match Roles with Rate Card

Step 3: Look for T&M opportunities

Step 4: Estimate profit leak
Ingesting Documents for Analysis
Intelligent Content Extraction using Bots
To Summarize What You Just Saw:

- Scanning through the massive Corpus of Documents
- Ingest the documents with the AI System
- The AI System Samples the documents and asks relevant questions
- Based on User Feedback the system interprets and develops the machine learning models.
- The machine learning models are improved with ingestion of Training data
- The Training data is validated with “Real Life Results”
- Problem Statement is established across the following dimensions.
  - Rate Cards and Resource Identifications
  - Determination of Flex Projects
  - Project and Role Determination
How did BP benefit from this?

- Made machine learning a real and attainable tool in our toolbox:
  
  “Proved that we could harness machine learning to a high degree of accuracy to replace work that currently was being performed by a resource while doing it faster and having a documented and auditable trail of the work being conducted.”

- Highlighted other areas we can exploit and explore using similar approaches with a high success rate

- Demonstrated that focus on non-revenue areas (i.e. procurement), are worthy areas for investment in machine learning that can drive further efficiencies and benefits.
How to get started on your own journey:

• Demystify AI/Machine Learning – Get Educated...Avoid the Hype!

• Don’t need to recreate the wheel...lots of “Use Cases” being piloted across all industries...the best ideas are sometimes borrowed!

• Start with a manageable scope involving LOTS of data...

• Be prepared to stumble and even “quickly” fail and restart...
Final Audience Polling Question:

• A Raise of Hands – “How many of you feel that the BP use case would be of potential value to your organization?

• A Raise of Hands – “How many of you are willing to collaborate with SIG Members to tackle Use Cases of common interest in the future?

If you’re interested in taking the next step, catch Mike and Karthik after this session to explore the possibilities of collaborating on how to address these and other challenges through AI and Machine Learning.
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Digital = A Single Pane of Glass View

People
- Improved Engagement between FSRs and Customers

Process
- Predictable Business Performance and Results

Things
- Reliable Asset Performance and reduced downtime.
Evaluation How-to:

Why?
- Your feedback drives SIG Event content
- By signing and submitting your evaluation, you are automatically entered into a prize drawing

How?
From the App
1. Select Schedule
2. Select Schedule by Day
3. Select Day
4. Select Session S27
5. Scroll to Session Survey

COMPLETE & SUBMIT EVAL
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Are You a Winner?

Engage with SIG on Twitter during the Summit!
Follow @SIGinsights
Mention #SIGfall17 in your tweets!

All Tweeters will be entered to win a $50 Gift Card.
The winner will be announced Thursday, October 12, 2017