



2020 Houston Professional Petroleum Data Expo

Speakers Abstracts

March 31, 2020

8:10-9:00am

Welcome and PPDM Update

Trudy Curtis (Professional Petroleum Data Management Association)

Short Biography: Trudy is the Chief Executive Officer of the Professional Petroleum Data Management (PPDM) Association, the global Not-For-Profit society focused on data management best practices and standards and data management as a professional discipline. Based in Calgary, Canada, Curtis has nearly four decades of years of experience in the industry and is known around the world for her outspoken advocacy data as a strategic asset, and its management as a core business function.

After receiving a BSc. from the University of Calgary in 1978, Curtis went to work in the Oil and Gas industry. In 1996, she joined the PPDM Association as architect, CIO and ultimately CEO of PPDM Association. Curtis is leading the way to the emergence of data management as a global discipline, the creation and industry adoption of data management standards and best practices, the development of professional development and certification programs for data managers, and the professionalism of data management in the petroleum industry. In addition to her role as CEO of the PPDM Association, Curtis is co-founder of the Standards Leadership Council.



9:00-9:45am

Using Digital Transformation to Transform Your Future - Keynote Presentation

Kentaro Kawamori (Rice Investment Group)

Description of Presentation: With the majority of O&G companies now pursuing at least some digital initiatives, the industry's current challenge is scaling beyond pilots and operationalizing new technology. The start-up and venture ecosystem in O&G technology have been just as behind as overall digital transformation initiatives. This talk will cover why that is the case and how this sector will evolve in 2020 and beyond.

Short Biography: Kentaro Kawamori is a Partner at the Rice Investment Group (RIG) where he focuses on technology investments. Prior to RIG, Kentaro was the Chief Digital Officer at Chesapeake Energy (CHK) where he led the IT, digital, and data functions and developed several industry-first technology platforms and partnerships. Prior to CHK Kentaro was a technology executive and consultant at several large technology firms including Accenture.





10:00-11:30am

Board of Directors Panel Discussion - Strategy

Moderator - Megan Potter (ConocoPhillips)

PPDM Board of Directors Members - James Soos (Infosys), Tarun Chandrasekhar (Riversand), Paloma Urbano (ConocoPhillips), Curley Thomas (Chevron)

Description of Presentation: A Panel Discussion featuring members of the Professional Petroleum Data Management (PPDM) Association's Board of Directors

Short Biography: Megan Potter has over 20 years of subsurface data management and analytics experience. She is currently Supervisor of the Exploration, Subsurface & Strategy Analytics team which focuses on building collaborative visual and predictive analytics solutions. Prior to working at ConocoPhillips, Megan gained a broad range of experience across all areas of data management while working for Devon Energy, Newfield Exploration and Schlumberger Information Solutions. These experiences have given her unique insight into data integration and integrity, which has become a passion for her. Megan received a Bachelor of Science Degree in Geology from the University of Illinois at Urbana - Champaign. She has volunteered for the PPDM Houston Leadership Team since the end of 2016 and is in her second year as chair.

Short Biography: Prior to joining Chevron, Curley worked for ExxonMobil, Hess and Noble Energy. He has worked in the oilfield supporting multiple petrotechnical applications both onshore and offshore. In his previous roles, Curley traveled throughout various oil-producing regions of the world, designing, developing, and implementing digital oilfield and workflow solutions in support of well planning and production optimization. Curley joined Chevron in 2017 as a Well Model and Data Standards Specialist within Chevron's IT organization. Prior to this role, he consulted with Chevron for several years in the Gulf of Mexico business unit on standardizing wellbore schematics, working on the Drilling and Completions Applications Projects (DCAP) team with the rollout of Wellview 10 and most recently as a SME on the cross functional Well Information Project (WIP).

Curley is actively involved with the Professional Petroleum Data Manager (PPDM) organization, where he is not only the driving force behind such work as the Well Status & Classification but has also served as a contributor, panelist, and speaker and now Board Member where he is able to bring his wealth of experience and insight to PPDM's strategy. He has also given presentations at SPE, LIFE, P2 and multiple Peloton conferences. Curley also serves on the PRODML Executive Team for Energetics.

Curley is married with four children and enjoys golf, traveling, and loves college football.

Short Biography: Jim is currently a Partner in Infosys Lt (previously Noah Consulting) and leading the company's Energy Data Management practice. He has more than 25 years of Energy Industry experience, including experience with a broad range of Oil and Gas companies. Jim's experience spans across the upstream value chain ranging from Land administration, Geoscience, Engineering, Production, Revenue Accounting, Marketing, as well as Pipeline Transportation, and Power Generation. Jim's



primary focus is project management for large scale data management projects, Master Data Management, Application Portfolio Strategies, and ERP solutions.
Provide Leadership as Subject Matter Expert on the application, business processes, PPDM, and data quality projects.
Provided Guidance and oversight to E&P Data Management projects.
Guidance and Directions for IT and Information Management Strategies.
Program manager for multiple ERP projects across the Upstream industry; SAP Modules (FI, CO, MM, PS, AM, PREMAS/PRA, BW, JVA, PM)
Established master data management solutions for Well Header data across multiple E&P companies
Project Manager and Data Management architect for Geoscience, Engineering (Drilling, Completion, Operations), Land, EHS, and Assets functional areas
Application Portfolio Management and Program Management of Large Scale operation
Merger and acquisition Program Lead for integrated Oil & gas companies

Short Biography: Tarun Chandrasekhar

Short Biography: Paloma Urbano

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*12:30-1:00pm*

**Digital Transformation Winners: The Competitive Advantage of Secure Efficiency**  
**Norman Thorlakson (Xage Security)**

**Description of Presentation:** Digitizing operational technology in oil & gas improves accuracy, speed and safety. But legacy systems, which weren't designed to be connected, have now become easy to target and compromise. Traditional cybersecurity approaches can't handle the scope or complexity of interconnected operations. For organizations to reap the benefits of digital transformation, they must prioritize comprehensive cybersecurity, covering new and legacy, edge and cloud, so IIoT benefits aren't diminished by the vulnerabilities of legacy systems.

This presentation will walk the audience through the risks of cyberattacks, the challenges faced by the industry, and modern solutions that protect systems and increase operational efficiency:

1) Potential consequences of cyberattacks are massive: they can "shut down entire countries," cause damaging explosions or harm the environment (oil spills, fires, etc.) Attacks include:

- Internal threats: Phishing, malware-infected laptops/phones onsite inside the firewall, and disgruntled employees
- State-directed attacks
- Blackmail/ransomware

- Industrial espionage, such as hacks on petabytes of data stored by individual oil & gas companies
- 2) IIoT devices and data present new challenges for the oil & gas industry, particularly due to:
  - Quantity: The sheer number of connected devices.
  - Diversity: The variety of devices, from legacy to technologically advanced.
  - Distribution: Assets spread over large geographic areas requiring remote maintenance + access.
  - Detection: Only 17% of companies believe they can detect (and contain) a hack.
  - Multiparty access: e.g. across a supply chain.
- 3) To address said challenges, a holistic cybersecurity approach should look like:
  - Qualities
    - Comprehensive: Consistent across devices, control systems, people, applications, and data—with policies defined and automatically enforced on-site.
      - Universal: Able to layer and pair with legacy and modern equipment.
      - Decentralized: Matched to the distributed devices.
  - Resolutions to Previous Concerns
    - Blockchain is the best foundation for IIoT cybersecurity. Decentralized in nature, blockchain distributes authority and is based on consensus, making it consistent and secure across connected devices.
    - Instead of getting weaker with each device added to a system (like many IT security solutions), blockchain strengthens as it scales—perfect for large-scale oil & gas projects.
    - A blockchain fabric can “stand in front of” the most vulnerable systems, providing them a level of security they would otherwise lack.
    - Blockchain’s architecture is designed to identify inconsistencies and isolate compromised devices to prevent system-wide interruptions. Delivering benefits of multi-party trust and data privacy, decentralized immutable records, role-based access control (RBAC) and policy-based enforcement, and encrypted data exchange.
  - Best Practices
    - Companies need to work with leadership and establish a dedicated cybersecurity expert to oversee the intersection of IT and OT cybersecurity.
    - Companies must implement audits that examine internal practices and identify areas of improvement.



- Governments also need to continue to develop cybersecurity regulation that pushes the industry forward. As demonstrated in US utilities, the entire industry benefits when companies must meet cybersecurity standards.
- Companies must design SOPs that ensure cross-functional and end-to-end security, avoiding vulnerabilities “at the seams.”
- Companies require comprehensive identity and access control systems to block rogue systems and prevent unauthorized digital interactions.

From the presentation, the audience will walk away with 1) a better understanding of new means to securely digitize device data that drive operational improvements 2) how a decentralized enforcement approach meets the demands of digitized oil & gas operations 3) how to proactively safeguard assets from cyber risks.

**Short Biography:** Norman Thorlakson is SVP of Sales & Business Development at Xage, where he leads customer expansion across industries such as manufacturing, oil & gas, transportation, and utilities. He has 25+ years of leadership experience at companies like Schneider-Electric where he led HMI & SCADA Software, Mercator, where he led sales for N. American manufacturing, Honeywell, Wonderware, & Invensys. Norman holds a BA from California Lutheran University & an MBA from California State University, Northridge.

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Data Consortiums for Oil & Gas - How Industry-wide Data Reveals New Value

Preston Cody (Wood Mackenzie)

Description of Presentation: Paper will describe a case study from one of our pilot projects with contributed data, explaining the enhanced value realized by applying advanced analytics to a broader, higher fidelity dataset than is available publicly or to any single operator. Through this case study, we will demonstrate how combined datasets improve the predictive power of supervised learning techniques. As part of the case study, Wood Mac will explain how the data was integrated from multiple operators, the challenges involved in such a collaboration, and lessons learned. The perspective we provide will benefit attendees as they address their own internal challenges integrating data across functional and regional silos, from external data vendors, and between operating partners and their supply chain. Our objective is to continue to strengthen the case for industry collaboration and data sharing.

Short Biography: Preston leads the Analytics Lab at Wood Mackenzie, where we work with our clients to discover new ways to unlock value with data and analytics. Since 2015 he has worked on innovative new products and developing the Wood Mac strategy for transforming its data services into a cloud-based, integrated environment for analysis. Preston holds a BA in Economics and Certificate in Applied Computer Science from Princeton University and an MBA from the University of Texas.

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## **Using a Sensor-Driven Completions Operating System to Capture Complete and Truthful Data** **Chad Van Buskirk (Cold Bore Technologies)**

**Description of Presentation:** Onshore completions operations have become much more complex and expensive in the past fifteen years as the advancements in technology have enabled the drilling and completion of much longer horizontal wells. Longer laterals have resulted in many more stages per well, along with an increase in the number of wells per pad. As a result, operators are now spending on average, \$7,500 per hour on completions or \$125 per minute. It is imperative that they have very detailed insight into every second of these operations to understand exactly what is occurring in real-time, the duration, as well as the cause and effect. They need to know where they are spending valuable time and resources as well as identifying opportunities to improve their processes across multi well pad operations.

The greatest challenge is that most producers today are still gathering completions operational data in a process that involves manually recording field data by hand by the Company Man who then enters it into an Excel spreadsheet, which is then transferred into other programs used for time log tracking – such as WellView or OpenWells. Like with any process, manually captured data, is not only subjective, but is often inconsistent and subject to errors and omissions. This makes it difficult if not impossible to use the data with any confidence or without many hours spent on data cleaning. And since it is not being captured on a second by second basis, it is a very low-resolution data. All of this presents great risk and concern since multi-million-dollar decisions are based on this information daily. Data integrity and accuracy are paramount.

Many years ago, the drilling industry resolved a similar data acquisition and management challenge by implementing a technology known as an Electronic Drilling Recorder (EDR) system - such as that offered by Pason. With EDR systems, the drilling industry has been correlating multiple data sources in real-time so the drillers can optimize the drilling of the well, in addition to generating actual time log data that enables appropriate payment transactions.

To address these major issues with completions, Cold Bore Technology developed the first Completions Operating System known as SmartPAD. It is a digital system that enables remote access and the visibility of the operations data and critical path work-flow overview, in real-time. The Completions Operating System normalizes the multiple data formats from the various service companies such as Frac, Wireline, Pump Down and Coil, then contextually correlates it to the IIoT sensor-driven operational work-flow data provided directly from the operation of the Frac Tree to generate a Critical Path Timeline. All the data is displayed on the dashboard in real-time so it can be instantly used. All valve positions on the frac tree are also displayed in real-time, which is a significant safety feature for the on-site personnel. Well information management systems such as WellView and OpenWells can then auto populated from the COS to reduce the amount of manual data entry time and to increase the resolution quality of the data. Every second of the operation is recorded and time-stamped along with the detailed context necessary for a complete understanding of the chronological chain of events. This enables comprehensive tracking of Productivity Efficiency Gains (PEG), Scheduled Operations and Non-Productive Time (NPT) - all critical aspects to track and identify. When all time, data, and operations are tracked to the second, properly



captured, organized and managed in real-time, new opportunities of optimization arise for the producer and service companies working side by side. The challenge of different service company data formats will no longer be an issue so operators can now identify and modify new processes opportunities based on the correlation of all their data.

In conclusion, operators are seeking new ways to improve efficiency and reduce costs. This system is the first IIoT-sensor based, completions operating system which enables real-time access, tracking and analysis of multi-well pad operations. It is moving the completions operations from generalized, manual and subjective data capture to granular and automated sensor-driven operational data capture in real-time. It is helping operators improve their efficiency, enhance their onsite visibility, safety and reduce their overall frac time, resulting in costs savings of tens of thousands of dollars per pad. The comprehensive tracking of every minute detail of the operations provides the instantaneous visibility and new insight of the operations.

**Short Biography:** Chad Van Buskirk is a registered Professional Engineer with 20 years' experience in the oil & gas world. He has worked in 9 countries and 5 continents in that time. Chad has worked as an engineer in completions technology, a fracturing engineer, and in well services as a business development technical sales account representative. Chad has also held a field service manager role, managing 4 countries in well construction. Now a Technical Sales Representative for Cold Bore Technology, Chad works to usher in the Industrial Internet of Things (IIoT) to the O&G Completions space with SmartPAD. Chad is a husband, father of 2, he is halfway through an MBA and his passions include snowboarding, continuous learning and working out..

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Presentation TBD

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*1:00-1:45pm*

### **Encino Energy - Data Strategy in a \$2B Startup**

**J Baron Unbehagen (Encino Energy)**

**Description of Presentation:** • What is the Encino Case for Change o Brief review of EAP as a \$2B start up o Highlights of strategy for future growth • Technology selection and guiding principles are core to Encino data strategy • Encino before and after acquisition • Data as an asset and the Encino Data Whole product model • Encino Data Governance Model • We will discuss challenges/lessons learned throughout

**Short Biography:** Baron is responsible for driving Encino's strategic technology vision, ensuring Encino's ability to develop and deploy technology that meets the needs of and drives business opportunities and company growth. Prior to his role as CIO, Baron led sales, marketing, and product direction for SaaS technology platforms servicing financial, retail, and systems management vertical markets for such companies as RMS, Bancvue, S1 Corporation, Works, and Tivoli Systems.



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## Seismic Data Management in the Cloud: Real Stories

### **Allan Chatenay (Explor)**

**Description of Presentation:** Seismic Data Management in the Cloud Getting There and How Make the Most of Being There The great seismic migration has begun. The dramatic cost savings of storage in the cloud is certainly captivating. But corporate enterprise data in the cloud is far ahead of subsurface data in the cloud. And well related data types are ahead of seismic data in moving to the cloud. This can be attributed to several factors. Two most prominent factors are that a great deal of seismic data is being held hostage in legacy storage houses, and the complexity of seismic data relationships far exceeds that of other data types, making seismic migration to the cloud particularly challenging. This talk will be an interactive discussion that walks the audience through several case study examples of seismic data migrations, the struggles and challenges faced, the solutions, and the results/outcomes. Data liberation strategies will also be discussed. Lastly, real life scenarios of actually using data in the cloud will be discussed.

**Short Biography:** Allan Châtenay is the President of Explor, a company specializing in developing and implementing advanced geoscience solutions, integrating new technologies and providing the highest quality seismic data to E&P companies. Explor also has a long history of frontier exploration and specializes in challenging and extraordinary projects.

Mr. Châtenay has been in the geophysical industry for over 30 years.

Prior to joining Explor in 2002, he gained over 14 years of experience in the industry while working for Schlumberger.

Allan was born and raised in Calgary, Alberta, where he currently resides with his wife Heather, and their two sons. He volunteers with several industry and community organizations.

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## Digital Transformation Starts at the Source

### **Shane Kempton (Drakewell)**

**Description of Presentation:** Our industry is years away from the level of sophistication and operational knowledge other industries have accomplished. Though it seems daunting there is a clear path forward. A first step is to start to gather the data we need in well-built platforms with sufficient quantity to perform the data science and predictive analytics which are standard elsewhere. The key is capturing data and while in some cases that can happen in an automated fashion, the way to capture human experience is through well designed tools with great user interfaces. We need to improve the software tools used by the people in the field doing the work and making decisions. We need to improve the software tools available to the people at the office managing and facilitating a well being developed and produced. Just as important as the tools, is the attitude toward information technology. As an industry we've tended to treat software like a hobby and sometimes for good reason. Done right, it can make for a more efficient industry and give you a massive competitive advantage. It will be critical for the industry to become more familiar with software. The ability to differentiate between great and mediocre



software will determine failure or success in these initiatives. By giving the people in the field and in the office great ways to capture data and then by turning that data into usable knowledge, we begin the first steps toward facilitating the large data sets needed to create the almost unimaginable operational knowledge we see in other industries.

**Short Biography:** Shane has spent the last 20 years designing, developing and implementing software and has 10 years of experience in developing oil and gas software. From large-scale enterprise management software implementations to multi-million dollar online banking platforms, Shane has a wealth of experience using technology to improve how people work and play.

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SCADA Data Management – Challenges, Solutions & Applications

Telha Ghanchi (Stonebridge Consulting)

Description of Presentation: The fastest growing dataset in oil and gas is the time-series data that is typically loaded into a SCADA system from IOT devices and sensors. This data is a key asset for oil and gas companies for expanding digital transformation through artificial intelligence to drive prescriptive and predictive analytics.

Traditionally IoT devices or sensors send data to PLCs which is then written into a historian. Historians are good for the purpose they are built for, however, when there is a need to analyze historical data, users are limited to the tools that a historian firm provides.

In this session, we will delve into challenges and solutions for managing SCADA data so that is accessible to a variety of tools for analytic purposes. We will also walk through multiple analytical use cases that can be supported when a more comprehensive data management solution is deployed.

Session Outline

- Traditional SCADA data management
- Data Historian Capabilities and Limitations
- Data Movement Architectures
- Cloud Based Data Management Architectures
- Economic Considerations
- Key SCADA Use cases
- Q&A

Short Biography:-----
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*2:00-2:45pm*

**What If?**

**Tammy Carter & Kelly Guillory (Cotabo)**

**Description of Presentation:** We will explore What If? situations in each of these categories below. These are solutions that may have started but have not been fully delivered, solutions that cannot be



delivered as-of-date, or they may be business ideas that others thought were crazy or too-far-out-there! Concept is to present and leave the audience with food-for-thought to always listen to their customer(s). Since, everyone has a customer. It does not make any difference which business function one is in. The presentation will hopefully also allow others to start thinking outside-the-box in each of these categories. And, we will present current efforts underway which contribute to helping the What If? situations possibly become realities. - Big Data - Artificial Intelligence - Cloud Computing - Cyber Security - Blockchain - Internet of Things - Digital Marketing - 3-D Printing - Drones - Robots - Virtual Reality - Augmented Reality

**Short Biography:** Tammy Carter-35+ years of Information Technology and Data Management experience. She consults as a senior business analyst / data analyst. She enjoys helping find the best possible solution(s) to customer situations/challenges.

**Short Biography:** Kelly Guillory-20+ years of Information Technology consulting experience focused on Information Management principles including data governance, architecture, quality, integration, and master data management.

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If Cloud Storage Is Cheap, Why Aren't We Moving Seismic Data To The Cloud?

Andy James (Bluware)

Description of Presentation: There are many studies that talk about the economies of scale associated to cloud storage that make it so cheap. Yet oil and gas companies managing petabytes of seismic data are not jumping on the cloud storage bandwagon. In this talk, I'll explore why moving petabytes of seismic data to the cloud is difficult. I'll share some of the true costs of managing large data sets in the cloud and why it doesn't add significant business value. In the same way that lifting and shifting legacy tools and services to the cloud yields little value, moving seismic data to the cloud also yields little value. It isn't until applications, workflows and even the data storage formats are re-engineered that real business value and even cost savings can be found. I'll explore how this is possible today with open file formats.

Short Biography: Andy James has 30 years of oil and gas experience focused on technology leadership roles. He has extensive experience in commercial software delivery, product management, and product life cycle. Prior to Bluware, he served 10 years at IHS Markit leading the global software development organization for the upstream oil and gas business. Key contributions include leading the geoscience software organization, migration of key platform technologies to the cloud, and Agile development transformation.

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### Data-Driven Engineered Completion Design

**Mike Hogan (DeepData, Inc.)**

**Description of Presentation:** Completion design is undergoing a digital transformation, evolving from geometric one-size fits all, to engineered design, where each well is designed based on the unique rock properties for that lateral. Engineered completions may leverage Mechanical Specific Energy (MSE),



wireline data (gamma ray, sonic, etc.), mudlog data (cutting analysis), or a blend of the above. We will design an actual completion leveraging this data and generate the operating documents all within 20 minutes, and then have an interactive discussion about how you can prepare your data and infrastructure for this future.

**Short Biography:** Mike Hogan is the founder of DeepData, a SaaS solution that enables completion engineers and geologists to collaborate on engineered completion design. While simple geometric designs typically take hours; using DeepData you can design an engineered completion in 20-minutes. Mike is a parallel entrepreneur, currently running 3 cutting-edge tech businesses. He has sold 4 companies (the last one to Microsoft) and taken one public.

## Detecting, Segmenting and Extracting Tables Stuck In Unstructured Documents

### **Amit Juneja (Agile Data Decisions)**

**Description of Presentation:** The amount of data we can access continues to grow up but most of them are under unstructured formats, such as scanned images, office files or PDF which have a rich content of information but cannot be used directly in BI solutions or analytical tools.

After having applied machine learning solutions to classify the documents, extract textual metadata, or key graphic information such as lithological columns, AgileDD has been developing an advanced solution to extract tables from the reports.

Most O&G technicians have one day or another received a core analysis report, a geochemistry report, a PVT report with several pages of tabulated values with no other choice but to retype the values in Excel to make them usable. This issue not only occurs in the subsurface domain but in all the O&G sector as well as in other industries.

With the support of TOTAL, Technip, Saipem, Schlumberger, Subsea7 and IFPen we have developed a solution to automate the table extraction. This solution combines the sequential processing power of WSFTs (Weighted Finite State Transducers) with ML (Machine Learning) to detect and segment the tables. The approach is very similar to the human approach: A reader can localize a table in a page before starting reading its content just because the text alignment, the spacing between strings, the ratio between numerical and letters, etc. are different to the other parts of the page. All of these features can be captured by a WFST and ML combination for training and detection.

Our plan is to release this advanced methodology as an Open Source solution under MIT license for the benefit of the Data Management community

The presentation will detail the algorithms and the way they have been implemented and some examples of table automatic detection and segmentation will be discussed.

**Short Biography:** Amit is a data-scientist with more than 20 years of experience in machine learning. After obtaining a PhD in applying machine learning methods to automatic speech recognition, Amit has developed several practical machine learning solutions in diverse industries including oil and gas, automotive and defense. His priority and vision have always been to build solutions that learn continuously from human experience and feedback.



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3:00-3:45pm

Data Trust and Curation starts at the Source

Philippe Flichy (Energy Embassy)

Description of Presentation: In the context of ever expanding data volume and its influence on our decision systems one can wonder how much one can rely on this ever-increasing feed of data or information we have no or little control over. In this context it seems fair to ask, “How do we build trust?” We will demonstrate how indeed we can trust the data once it has been properly (and transparently) validated. At which point we will establish that trusted data becomes an asset for the users and therefore the company which owns it. Such assets deserve to be curated like museums do with their master pieces. Only then can you let the data bloom with the advent of all forms of analytical and correlation tools. The author will highlight how to adapt this logic to remote data gathering and the challenges it has traditionally represented.

Short Biography: Philippe Flichy is a digital transformation strategist and advisor to business to business companies with deep knowledge of the energy industry. He has a track record of leading large-scale integration projects leveraging passion for new technologies, creativity, emotional intelligence, business acumen, and systemic thinking. He is passionate about identifying the internal and external forces around a company to align them to deliver optimal value in light of their digital journey. His analysis is based on “Systems of Trust” approach to develop acceptance of the generational gap all companies experience as well as the evolution of the leaders’ skills demanded in the developing professional digital environment.

He held senior positions at Schlumberger, Baker Hughes and Weatherford and lead successfully technology startups in the Oil & Gas sector. He joined the Oil & Gas industry from the 2002 Salt Lake Olympics delivering all the games results. He initiated the Digital Transformation Study Group at the Society of Petroleum Engineers. Philippe graduated from Boston University in Management Information System.

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**The Tipping Point – How Satellites will change Seismic Exploration**

**Guy Holmes (Tape Ark)**

**Description of Presentation:** Breakthrough simplicity is the term used to describe an approach rooted in finding new ways to make things simpler. But, simplicity isn’t easy, and part of what makes it hard is complexity. Complexity builds over time and gradually comes to be the accepted norm. It takes a group of likeminded mavericks to challenge the status quo.

What started as a ‘thought experiment’ demonstrating how to receive seismic shot data from the field direct to the cloud in real-time, at the 2018 PPDM conference in Houston, has now progressed to a planned proof of concept by Tape Ark using SpaceX’s new satellite system. SpaceX is the world’s fastest-growing private company for manufacturing and launching advanced rockets and spacecraft.



Enabled by SpaceX’s constellation of low Earth orbit satellites called Starlink, the technology will provide fast, reliable internet to areas with little or no connectivity, including offshore locations. Using Starlink, seismic, drilling activities, high-resolution video camera feeds, IoT use cases will be available in the cloud for real time analysis.

**Short Biography:** Guy has spent 20-years of his Oil and Gas career designing and delivering seismic data management software and services. For the past three years, Guy's been a maverick for change; challenging the status quo to migrate legacy data to the cloud so that cloud-enabled technologies can be applied to foster actionable innovation and drive commercial breakthroughs.

Guy has a degree in Physics, an MBA in Technology Management and maintains memberships with PPDM, ASEG, PESA & the Australian Institute of Company Directors. He regularly is a guest speaker for various global industry conferences and writes for the PPDM Foundations Magazine, IQ Magazine, and previously had a regular column in the Australian Society of Exploration Geophysics Preview Magazine. Guy is a father to five kids and has been married for 30 years. Outside of work he enjoys adventures in mountaineering and polar trekking, playing ice hockey, and reading political and business biographies.

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Presentation TBD
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**Big Data & Analytics - Real Life Challenges, Examples, and Lessons Learned**

**Cathy Tompkins (Innate Intelligence), Carlos Martinez (Innate Intelligence) & Mark Ferman (Innate Intelligence)**

**Description of Presentation:** The upstream energy industry is no stranger to large quantities of data. Historically upstream firms amassed and processed large amounts of data to enhance planning, exploration, delineation, and field development. So why all the hype about “big data” and what’s different? We will provide an overview of the distinctive challenges and potential value of a Big Data & Analytics approach in the upstream sector. The challenges are real and the stakes are high for companies that want to remain competitive. More specifically we will use real life examples to explore some of the internal and external challenges driving the adoption of Big Data & Analytics as a competitive strategy, provide an overview of several implemented solutions in upstream oil and gas, and talk about some of the pitfalls and lessons learned including the need for a clear strategy, holistic data management, process change, and culture. Some possible use cases for discussion depending on the audience make-up include the following. • Preventative and Predictive Maintenance • Operate by Exception • Well Zone Targeting & Spacing • Frac’ing Techniques The aim of this presentation is to demystify some of the hype around big data and analytics and to present a realistic picture of the pains and gains to be expected. It is not focused on specific technology platforms.

**Short Biography:** Cathy Tompkins is a transformational C-suite level executive with more than 30 years of experience inside Fortune 500 companies and a deep energy and technology background. Her primary practice areas are Information Technology Strategy and Organizational Design. She is an



award-winning CIO who has guided organizations through periods of significant change to achieve their strategic objectives. In her most recent role Cathy served as the Senior Vice President - Information Technology and Chief Information Officer for Chesapeake Energy. During her 15-year tenure she led the organization through a period of unprecedented growth followed by a significant industry downturn and an equally substantial shift toward efficiency, cost leadership and digital innovation. She is a graduate of the University of Alabama with a Bachelor of Science degree in Computer Science and is currently an Adjunct Professor of Information Systems at the University of Oklahoma.

**Short Biography:** Carlos is the President and Founder of Innate Intelligence. His primary practice areas are ERP Project Advisory and Information Technology Strategy. Visionary leader and entrepreneur with thirty-one years of professional consulting experience in the implementation of enterprise-wide software applications and business transformation solutions in the upstream oil and gas industry. During his career with EDS and PriceWaterhouse, Mr. Martinez performed various consulting roles including systems engineer, management consultant, and Principal Consultant. Mr. Martinez was the President and Founder of Strategic Systems & Products (SSP) where he developed the vision and achieved SAP solution certification for the READYUpstream All-In-One solution. He holds a Bachelor’s Degree in Industrial Management from the University of Puerto Rico, a Masters of Business Administration from the University of Texas at Dallas, and has completed Executive Education at the Harvard Business School. He is also a Adjunct Professor of Entrepreneurship at the SMU COX School of Business.

**Short Biography:** Mr. Ferman has a diverse background of IT and oil and gas experience, including more than 35 years in the upstream and downstream markets. His primary practice areas are Data Analytics and Information Technology Strategy. After graduating from Marshall University, Mr. Ferman went to work for Columbia Gas Transmission where he was responsible for engineering the information systems through the pipeline industry’s open transportation transformation. He later became the Chief Information Officer and Vice President of Information Technology for Columbia Natural Resources. Mr. Ferman has entrepreneurial experience as the former Columbia executives started a new oil and gas venture, Triana Energy. Chesapeake Energy purchased Triana and Mr. Ferman became Vice President of IT - Applications and Data. During this time, he had responsibilities for application and digital transformation, including an SAP implementation and championing Big Data for the corporation. Utilizing his digital transformation experience, he has been a spokesman for Cloudera’s data engineering and analysis practices. Mr. Ferman has also served on the advisory board for Oklahoma University’s Information Technology Department.



*4:00-6:00pm*

**Join Us After for the Expo Cocktail Reception!**

