

Optimizing efficiency through digitalization in chemicals, petrochemicals and refining
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Exclusive Speaker Interview



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1. What does the subject of digital transformation and IoT mean to you?

Digital transformation is often described as the third industrial revolution. It's affecting all industries, and the energy industry is no different. To me, as the sector continues to evolve, how we develop and use new critical digital capabilities will be paramount. For BP specifically, we recently hired a new Head of Digital into our Downstream business and it's exciting to see how we are advancing our agenda in this space, and the implications and opportunities from a people perspective.

2. What's the greatest impact IoT, data analytics and AI will have on the oil & gas industry? What lies ahead of operators and how will they adapt? -

IoT, data analytics and AI have already begun to have an impact on the oil and gas industry, and these, as well as new technologies, will continue to do so in the future. After years of investment and hype around AI, there is a growing consensus that this technology is actually starting to deliver real value for early adopters.

Across the business, BP has the ambition to become the digital leader in the sector. If we take IoT as an example, it is all about connecting our equipment, our systems and people. It is BP's Industrial Internet of Things. It is part of our strategy to transform, and become more efficient, more resilient and create more value for our shareholders.

More broadly, as an organisation, we're focussed on a dual mission of delivering the energy the world needs while advancing the low carbon agenda to reduce emissions. It will take great technology, the brightest minds and diverse people to accomplish this.

3. How will this paradigm shift affect talent in manufacturing & downstream industry overall?



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The digital revolution has given birth to a new type and form of candidate. Recruitment processes are undergoing an exciting period of change and candidates are now looking for more innovative employers, and we have to make sure we keep up with this.

At BP, we believe that recruitment processes should be made up of a range of different types of interviews and assessments. We've worked to transition from traditional resourcing practices to more modern ways of working, leveraging technology to drive efficiency into our processes, as well as support sourcing and attraction activities and candidate engagement. Examples include the use of video interviewing to assess candidates, and to support our attraction efforts we're using programmatic advertising and "live chat" candidate events. The types of technologies that you would see every day in the fast moving consumer goods (FMCG) and retail space.

It's an exciting time to be part of the HR function at BP. Building on some really solid foundations we're working to deliver an improved employee experience, and build an increased level of empowerment for our leaders and teams. This is being underpinned by improved efficiency and effectiveness, technology and data to enable processes and decision making, and allowing HR experts to focus on real value add partnerships with the business.

4. Will Artificial Intelligence replace humans working in oil and gas?

It is not about whether AI will replace humans working in oil and gas, it is more about how artificial intelligence works collaboratively with humans in order to improve efficiencies and, more importantly, safety.

For example, traditional interviews will always play a part in this spectrum, and are incredibly important in allowing interviewers valuable face-to-face interaction with potential candidates. Technologies like online testing and video interviews are helpful at earlier stages of the recruitment process, but there is no real substitute for meeting people and getting to know them before making final decisions about who to hire.

However, we are already looking at this relationship between person and machine in the wider BP business. BP has begun establishing strategic partnerships with AI leaders. For example our corporate venturing arm, BP Ventures, recently invested in Beyond Limits, a San Francisco based AI company. We can already see real business benefit from this investment and partnership in the Upstream. We will continue to look to uncover these technologies, and see how we can use its capabilities effectively in the Downstream and across the wider business.

5. What are your near term plans to manage change and improve technical expertise in your organization?

We believe technical expertise is already a distinctive capability of our business. This is supported by a comprehensive, BP-wide development plan which uses a balance of experience, exposure and education. Talent & learning at BP is designed to ensure that technical



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development is aligned to the needs of the business, and plays a key role in supporting our modernisation and transformation drive. This can be challenging given the global and diverse nature of our workforce, but technology is a great enabler and we continue to test and adopt new solutions to ensure we are delivering the best possible programmes.

In Resourcing we are continuing the journey to modernise our function. For example, to manage the change we are already using online situation and judgment testing, and we have recently trialled video interviews, which will likely be incorporated into the recruitment process for the next graduate scheme intake. BP is also testing other technologies such as virtual reality and gamification which we might at some point introduce as stages in the wider recruitment process. However, each of these technologies has associated challenges, and we are evaluating the merits of each one before rolling out to candidates. As with existing processes, new recruitment tools are regularly reviewed and adapted to ensure the best outcomes for prospective employees. We must not forget that we are in the business of hiring people, and a personal and human touch will therefore always be required.

6. Do you have any formal training programmes for teaching new skills to the operational staff?

Each technical discipline at BP maintains a wide selection of formal learning courses to enhance learning and performance. These range from classroom courses, distance learning programmes and eLearning to highly sophisticated immersive simulation exercises for front line operations, many of which are delivered through BP's flagship Learning Centres in Houston and Sunbury. We currently have a particular focus on building digital capability across the company and have identified key skill areas and target audiences which we are matching to a range of solutions.

7. What impact does Big Data have on operational efficiency and how is Big Data changing the industry?

Big Data is one of the most important technologies for our industry. When you think about oil & gas, there is an unprecedented amount of data available to us, from down well in the Upstream to our retail forecourts in the Downstream. Data is constantly being captured. We not only need to think about ways in which to capture the data, but also how we use it to improve efficiency and safety. That is why we have one of the world's largest supercomputers in Houston, TX to house all of this available data – it is now about how we use and interpret this real-time big data to improve our operations.

This is the same when thinking about resourcing and talent attraction. There is now far more available data for both candidates and employers and it is important we utilise this data to ensure we not only recruit the right individuals, but that we do so as efficiently and effectively as possible.



8. What will the future workforce look like in the digital age? How well equipped is your organization to handle the challenges?

BP might not traditionally be seen as a digital talent destination, however, we are doing some amazing work with AI, blockchain and big data, so attracting and recruiting specialists in this space will be an ongoing priority. What we have now is a multi-generational workforce. We want to attract and recruit new digital talent, but we will also continue to have requirements for the more traditional skills for some time - we must ensure that we strike a balance between the 'old' and the 'new' skills.

But what will remain is our commitment to deliver energy to the world and how this is closely linked to our investment in the people who'll make it possible. This means providing people with continuous opportunities to evolve their skills and expertise, through world-class training and development, and the kind of career flexibility that enables people to explore their strengths and achieve their potential in whatever inspires them most.

9. Any tips on "Managing Talent in the Digital age"?

There is a lot that can be done to manage talent in the digital age, but I would say my main tip is to try and anticipate the next element of digital revolution within the workforce. Being one step ahead of the curve will allow businesses and specifically employers to be early adopters of technological change and use it to their advantage. And remember, we are still in the process of attracting and recruiting humans!

10. What will be the highlight of your presentation at Asian Downstream Summit?

There are a number of topics and issues that I will address in the presentation. However the main focus and highlight will be on the ever changing talent requirement for oil & gas companies in the digital age.