CSEG Chief Geophysicist Forum 2018

The Chief Geophysicist Forum has been a standing committee of the CSEG since 1999 with ~30 of the over 65 members of the Forum continuing to meet quarterly in 2018 with the mission to "Promote discussion that invites members to advocate for the application of geophysics that drives measurable business benefits".

The focus in 2018 was to shift to thinking about the future rather than the past and discussing the opportunities Geophysicists have, to be at the forefront of new technology developments. The three themes focusing the discussions within each meeting included:

1. **Innovation in Geophysics** (inspire members and enable discussion on business opportunities and challenges)

2. **Strengthening the CGF membership** (focus on broadening diversity, and getting a range of companies at the table)

3. **Promoting the CSEG & ties to Affiliations** (APEGA, CAPP, CAGC)

To inform our discussions, we invited several guest speakers through the course of the year to speak to the Forum. Andrea Crook inspired us by sharing Five Innovations in Geophysical Acquisition in March. In June, Dale VanHooren informed us and led a discussion around Nexen Professionalism: A Geoscience Perspective. In September, Corey Lea shared an Overview of Cloud Computing along with Allan Chatenay who provided an intriguing update on PinPoint Ultra High Density Seismic Acquisition. To round out the year in December, the Forum members were actively engaged in discussions intended to draw out member insights in four key areas:

1. What does the (near) future Geophysical workforce look like?

2. What are the opportunities/challenges related to Ai/Machine Learning for Geophysics?

3. How will Geophysicists provide economic value and influence decisions?

4. How will we make the CGF the most effective in 2019+?

In all the CGF meetings I have been at over the years, this discussion breakout meeting was the all time best. We are so fortunate to have such an engaged community, and the CGF members' energy for these discussions was overwhelmingly positive. Highly condensed views from the four discussions include:

1. Our industry is not hiring enough young people. Focus mentorship on first principles and outcomes and let the developing workforce create new ways of problem solving; workforce will need to develop workflows that keep pace with technology advancements; skillsets must include Ai, ML, collaboration

2. Opportunities include integration of non-geophysical data; removal of mundane tasks and improved efficiencies, reduced costs, improved first-pass interpretations, more time for analysis, overall extracting more value from the data. Challenges include IT investment, new skillsets required, database setup and integrity, Cloud security, lack of trust in interpretations from algorithms

3. Value adds included identifying and quantifying resource, influencing public policy, risk analysis, differentiating top from bottom tier opportunities, impacting capital efficiency. Key behaviours to influence included use of visualization, rules of thumb, having business aptitude, knowing how to quantify economic value, deliver results quickly over perfectly, drive integration, get vocal, mentor

4. CGF seen as a "brain trust", share emerging technologies, explore opportunities for working with CAPP and other industry groups, establish more formal terms of reference, continue to diversify membership to get more mid-career people involved.

Whenever I volunteer, I always gain more than I ever expected, and this experience was no different. It was an honour to serve the CSEG in capacity as Chair for 2018, and the CGF continues to be in good hands with Ed Chow as Chair for 2019, and Matt Ng as Vice-Chair. All the best to them in 2019!

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CHAIR, CGF 2018