

# Original Book Proposal

## Synopsis

**Proposed Book Title:** The Digital Transformation of Oil and Gas

**Proposed Book Subtitle:** Creating and Embracing a More Digital Future

## Author details

- Geoffrey Cann, BComm, MBA

### Author biographies:

<p><b>Geoffrey Cann</b> Geoffrey is an oil and gas Partner in the Calgary office of Deloitte, where he focuses on helping oil and gas companies create and embrace a digital future. He has thirty years of management consulting experience gained through engagements in Canada, Australia, the United States, Hong Kong, China, Japan, South Korea and the Caribbean. Geoffrey holds numerous publications to his name, presents regularly on Strategy topics and has been a guest lecturer at the MBA program at the Haskayne School of Business.</p> <p>He publishes both a weekly blog and podcast on the impact of digital on oil and gas, available at DigitalOilGas.com and on iTunes (Digital Oil and Gas).</p>	
---	--

### Why am I the best person to write this book?

I have over 30 years of technology-based consulting experience gained from working with some of the world's largest oil and gas concerns, including Suncor, KNOC, Shell, Encana, Irving Oil, Enbridge, TCPL, and many others. My first career was as a software developer for Imperial Oil where I worked on large mainframe systems. Since 1996 with Deloitte, I have had a singular focus on the issues of technology strategy and direction for the oil and gas industry, and have advised oil and gas companies on the shift from mainframe technology to client server to the internet age and now digital. My project experience spans several hundred separate assignments covering most of the oil and gas industry, including the upstream, pipelines, LNG, refining, trading, wholesale, retail. I have written 55 articles on the impact of digital on oil and gas, and have the most referenced global blogsite on this topic. Most recently, I was asked to contribute to an IEA publication on the impact of digital on the energy industry.

## About the Book

### In one sentence, why should anyone buy your book?

The oil and gas industry lags other sectors in embracing digital innovation and its leaders urgently need guidance on how digital both disrupts and enhances their industry.

### Specifically what problems does this book solve for its users?

The oil and gas industry has always been an aggressive user of compute technology but has only tentatively embraced the wave of digital change that has impacted other sectors such as retail, entertainment and financial services. The book will set out the reasons why adoption is slow, describe the size and scale of both the opportunity and the threat from digital, identify the key digital technologies and the role that they play in a digital future, and a set of actions that leaders can take to accelerate the adoption of digital in the business.

The book will be based on a subset of the more than 50 articles that I have already authored on this problem addressing strategies, opportunities, use cases, governance and organization.

### What makes the book unique in the marketplace?

Traditionally, the digital industry and the oil and gas industry have operated in distinct spheres with little overlap. However, as with other sectors, the oil and gas industry is being disrupted by digital innovation (GasNinja delivers gasoline to your car avoiding trips to the gas station. Digital allows trucks to platoon, lowering fuel consumption). Developing a comprehensive, independent and unbiased view of the kinds of opportunities and threats afforded by digital on the sector is difficult. There are many pamphlets and brochures from large consultancies and technology companies that explore specific aspects of digital on oil and gas (digital oil field, analytics), but these are frequently sales pitches dressed up like advice. To my knowledge there are no books in the market that occupy the niche of digital and oil and gas.

The specific features of “**The Digital Transformation of Oil and Gas**” that will make it unique in the marketplace include:

1. The book is for **managers**. It equips industry leaders with the understanding necessary to identify promising digital innovations, critical threats to the industry, and the guidance to take effective action.
2. The book is **relevant**. Industry leaders are being bombarded with media stories, conference opportunities and pitches from technology companies on digital. Technology innovation has morphed from the hands of a small number of industry insiders and incumbents to a huge range of start ups. This situation is making the business environment complex and uncertain.

3. The book is **holistic**. The oil and gas industry is broad – on shore, off shore, upstream, midstream, integrated. The book will address the impacts of digital across the breadth of the industry, addressing the key issues facing the industry.
4. The book is **independent and unbiased**. Most publications on the topic of digital innovation in oil and gas stem from technology companies. These publications lack independence, which in part impedes the industry from acting. This book will be written from an independent perspective which will help the industry take meaningful action.

### Why the book is important?

The oil and gas industry is at a cross roads. Historic low prices, rapidly growing alternative fuels like renewables, the permanent swing from peak oil to super abundance, shifting consumer preferences, and global pressures to decarbonize suggest an uncertain industry for the foreseeable future. The world has concluded that many fossil fuel resources must remain in the ground. Digital offers ways to lower costs of production, improve the productivity of the industry, reduce carbon emissions, lower the energy intensity of industry, and regain public confidence.

However, key decision makers in oil and gas have world views and industry insights that predate the recent rise of digital innovation. Without guidance and fresh perspectives, they are at risk of being paralyzed by indecision. This wait-and-see attitude has failed many industries already (media, music, retail, consumer goods), while creating enormous wealth elsewhere (the top 6 largest companies in the world by market cap are all digital – Amazon, Apple, Facebook, Google, Microsoft, Tencent).

### What is the Book's Outline?

The book is organized into 5 sections.

1. Defining digital (data, connectivity, compute) in the context of oil and gas. The exponential growth rates of key digital technologies. The history of oil and gas adoption of digital concepts and technologies.
2. The business case for digital in oil and gas. Reducing operating costs, improving productivity, addressing key threats, tackling carbon, optimising energy consumption, expanding resource understanding, creating new business models
3. Key digital technologies – real and emerging (blockchain, cloud computing, collaboration, artificial intelligence, drones and robots, ERP). Early use cases, business benefits.
4. Key risks to be managed. Cyber security, regulatory, skills and capabilities shortages, institutional, intrinsic business impediments, organizational culture
5. Roadmap for getting started, accelerating. Forming strategy, organizing to deliver, governance, funding mechanisms

# The Market and the Marketing

## What is the marketing strategy?

The overall strategy from the author is to leverage the book as part of a broader platform for an advisory business assisting Boards and management cope with digital change.

The specific marketing approach for the book includes:

1. Promotion via my personal network (7000+ followers on LinkedIn, Twitter, iTunes)
2. Promotion via my previous employer (Deloitte, the world's largest professional services firm), with 300,000 employees
3. Speaking at leading conferences (CERAWEEK, TED)
4. Speaking at oil and gas industry forums (COSIA, PTAC)
5. Sharing pertinent sections of the book as articles on LinkedIn
6. Having the book launch in select oil and gas cities across the globe – Calgary, Houston, London, Perth, Dubai

## Who are the primary audience for your book?

The book is intended for both petroleum industry leaders (Board members, executives, middle and upper management, think tanks, research institutes, regulators), and technology innovators (start ups, incumbents), who have an interest in digital. In general, the oil and gas industry is price insensitive and pay for research and insight.

The book can be used in many ways based on the audience type:

- Boards can use the book to encourage, rather than block, digital investments by management.
- The senior management team can use it to formulate and kick-start digital transformation programs.
- Middle level managers can use the book to manage and sustain portfolios of digital projects.
- Regulators can use the book to inform policy choices related to skills and capability needs of digital specific to oil and gas.
- Technology companies can use the book to inform their sales and marketing programs.

## What is the estimate of potential sales?

The oil and gas industry is an economically important industry, but is not a large market in terms of employment. Calgary Economic Development estimates that Calgary has 44,000 employed in the oil and gas sector, of which 15% are managerial, scientific, technical and professional (6000). Extrapolating 6000 globally on an oil production basis, the global sales potential in oil and gas is

150,000, of which perhaps only 10% will purchase (15,000). Other key markets include the technology industry, start ups, venture capital, private equity and other investors.

My blog site provides some further insight into sales potential. With no promotional budget, and just organic growth, in 2017, the site has attracted over 12,000 visitors, who have looked at 25,000 pages. Top articles on blockchain and ERP attract over a 1000 reads each.

### **Who are the key influencers who would endorse your book?**

I believe endorsements could be obtained from my many executive contacts and former clients in the oil and gas industry, at companies such as:

- Cenovus Energy
- CNRL
- Husky Energy
- EnCana
- Shell
- Santos Energy
- GLNG
- Maersk

## **Competition**

### **What books compete with your book?**

There are hundreds of books on the oil and gas industry, but very few at the intersection of digital and oil and gas. Two examples from Amazon are:

- *Intelligent Digital Oil and Gas Fields: Concepts, Collaboration, and Right-Time Decisions*, by Carvajal and Maucec, published by Gulf Publishing
- *Harness Oil and Gas Big Data with Analytics: Optimize Exploration and Production with Data Driven Models*, published by Wiley and SAS Business Series

*Intelligent Digital Oil and Gas Fields* will be released in December 2017. It appears to be solely focused on the application of digital on the subsurface and therefore only relevant to the upstream industry.

*Harness Oil and Gas Big Data* is also focused on just one technology innovation (big data) and one asset type (resources) and is co-authored by a technology vendor (SAS).

## **Specs and Schedule:**

### **How many pages do you expect the book to be?**

About 275 A4 Pages; 100,000 words

### **What use you will make of illustrations or screenshots?**

Any visuals will be created in Microsoft PowerPoint and Microsoft Visio

### **When do you anticipate delivering a complete draft of the manuscript?**

By spring 2018, I should have the draft of the book ready.