DATA SCIENCE STRATEGIES FOR CONSULTANTS

Ron Schwartz, MBA, FCMC, President of Adante Consulting

February 8, 2023 12:30 p.m. ET



CM

Un NIVEAU SUPÉRIEUR de conseil en management ONTARIO

A HIGHER LEVEL of management consulting

ONTARIO



The 2nd Wednesday of the month 12:30pm eastern

□ <u>March 8</u> Women in Consulting with Jennifer Smith, CMC

□ <u>Feb 28</u> Converge Networking, featuring John Gelder, FCMC and Joyce Bassey, CMC

April 12 Knowledge is Power – The Essentials of Management Consulting & the Common Body of Knowledge, with Kevin Schwenker, FCMC & Husam Sha'ath, FCMC

□ <u>April 25</u> – Ontario Annual General Meeting





WHY JOIN?

MEMBERSHIP CONNECTS YOU





















CMC-Canada Renewal

Keep your membership active!

CMC-Canada values you as a member and we hope you will continue your participation with the association. Check out the whole process How-To

Renew Video

RENEW

Member access to benefits, including:

International certification , Advocacy, TN Visa & Affinity



CPD - Need to submit?

Simply have your total CPD hours handy and enter into the "CPD 2022" field, easy.





How to Participate

- Participant controls in the lower left corner of the Zoom screen
- You will be muted for this call, for portions of this call we may unmute.
- To ask a question Type the question into the chat tool or raise your hand to ask a question directly.
- We kindly ask that you turn your Video on if you are able to. We want to see your smiling faces!
- This session will be recorded
- A copy of the presentation will be available after the event.





ABOUT OUR PRESENTER

Ron Schwartz, FCMC

- Over 25 years of experience in Business strategy and execution, Data science, data analytics and data mining.
- □ MBA and the FCMC designation.
- Taught courses at the University level, speaks at conferences and has Published articles.







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State of the Art – 2023



Poll 1 State of the Art

What's New in 2023. ChatGPT – Have you heard of it / tried it? (choose all that apply)

- □ I have heard of it, but not ever tried/used it
- I am not sure what it is
- I tried it and was impressed
- I tried it and was not so impressed
- I can see how it will help my client(s)
- I cannot see how it will help my client(s)





State of the Art

I asked ChatGPT to:

write a 250 word blog on data science advice for consultants in 2022

• This is the exact reply

• See the Appendix for all three questions and ChatGPT's replies

A HIGHER LEVEL of management consulting ONTARIO "Data science is a rapidly growing field that is becoming increasingly important for businesses of all sizes and in all industries. As a consultant in this field, it is important to stay up-to-date on the latest tools and techniques in order to provide the best possible service to your clients.

One of the most important things to focus on as a data science consultant is to stay current with the latest technologies. This includes programming languages such as Python and R, as well as data visualization and machine learning tools like Tableau and TensorFlow. It is also important to be familiar with big data platforms like Hadoop and Spark.

Another important aspect of being a successful data science consultant is to have strong communication skills. Being able to explain complex technical concepts to non-technical stakeholders is crucial for ensuring that your clients understand the value of your work and can make informed decisions based on your findings.

Additionally, it's also important to have a good understanding of the business and industry you are working in. This allows you to identify key metrics and KPIs that will be most relevant to your clients and to tailor your analysis and recommendations accordingly.

It's also crucial to have a good project management skills. Data science projects can be complex and time-consuming, and it's important to be able to manage resources and timelines effectively in order to deliver results on time and on budget.

Finally, it's important to be a lifelong learner and to continuously educate yourself about new tools, techniques, and industry developments. The field of data science is constantly evolving, and staying current is essential for providing the best possible service to your clients.

What's New in 2023

- ChatGPT- Clearly taking over the "hype cycle"
 - Will likely have some good impact, but not right away
- Some "other" candidates
 - Last year's and other "recent" developments that are still improving...
 - Low Code / No Code technologies
 - Data Meshes, Data Fabrics, Data Lakes
 - Snowflake / Databricks for larger firms...
- What's "best" depends a lot on...
 - Your size
 - Your needs
 - Your current capabilities and skills
 - Your goals





What are you trying to do with data? Data projects fall into two big buckets..

Data Engineering

- Plumbing
- Data Quality
- Data Usability
- Data Accessibility
- Tools and Techniques

Data Science

- "What if?" Questions
- What can we learn about ...
- Is there a correlation between
- What drives (causes) ...
- Is our hypothesis that "... x ..." True or False ?
- Tools and Techniques



What are you trying to do with data? Data projects fall into <u>maybe three</u> big buckets..

Data Engineering	Data Science
	 What if?" Questions What can we learn about Is there a correlation between What drives (causes) What drives (causes) Is our hypothesis that " x" True or False ? Tools and Techniques



Driving Adoption





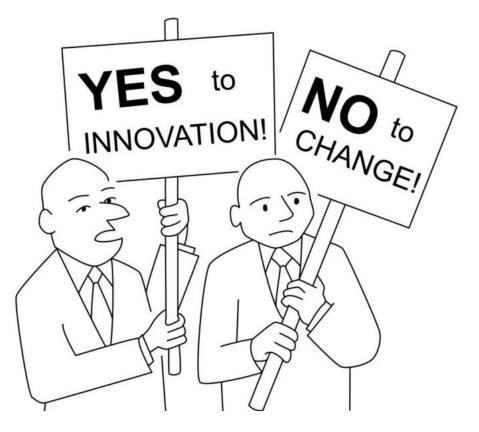
POLL 2 Driving Adoption



What issues have you / your clients experienced?

(choose all that apply)

- Vague client expectations
- Unrealistic expectations
- Built something good, but not widely used
- Project didn't produce the "desired results"
- Client didn't have a team that could adopt
- No experience with this problem





Driving Adoption





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Driving Adoption "Making Clients Data Savvy"

- Actual adoption means clients <u>use</u> what you build
 - Data Warehouse
 - Dashboards
 - Meaningful Insights
 - Al Bots or Dynamic Algorithms
- Key Elements of actual adoption
 - <u>Rightness of the data</u>
 - Usability of the tools
 - Building / adopting new processes
- These are really "change" projects some small, some bigger.
 - Choose your scope carefully



ROI for Data Projects



POLL 3 Your "Data ROI" Experience

What have YOU found to be the key factors in a Data Project's ROI?

(choose all that apply)

- Cost
- Outcome Certainty
- Clarity of Result
- Inability to connect a "result" to a "Hard Return"
- Client Readiness to "believe" the Result
- Other / use chat





Driving ROI

The Goal Line is farther than you think..

- Two Audiences:
 - Your Client, AND
 - Your client's clients

	Data Engineering	Data Science
Define the Audience	 Scope, e.g. Finance, a Division, or the Enterprise, or 	 Scope, often A question or A function or a feature
Define "success"	• Something live, or a pilot, or a POC or	 Techniques in "Data Science" to show that your result is "correct" or "better" or Something live
Objectives / Key Results	 Different by project, but usually definable in advance 	 Sometimes harder, but the same framework applies



Driving ROI

Real ROI will come from change and adoption

- Ultimately
 - Data "will become more than" Projects
- Governance
 - Parameters
 - Ethics
 - How we grow to use "data" well, often
- Skills
 - Technical skills, sure, but, also
 - Devops, Maintenance
 - Analysis skills, beyond "excel"

These are "change" projects, as much as they are "data" projects The data is important. So is the change leadership.





Your Questions

Type your questions into the chat





WHAT'S UP NEXT

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- Feb 28 Converge Networking, featuring John Gelder, FCMC and Joyce Bassey, CMC
- Now Available What's Up Wednesday <u>recorded sessions</u>
- CMC-Ontario <u>Presentation Library</u> PDF download of all past sessions

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ChatGPT Dialogue

The following three questions were posed to ChatGPT, and it's replies are provided....

CMC ChatGPT – Question 1

Posed Question

• write a 250 word blog on data science advice for consultants in 2022

Reply:

Data science is a rapidly growing field that is becoming increasingly important for businesses of all sizes and in all industries. As a consultant in this field, it is important to stay up-to-date on the latest tools and techniques in order to provide the best possible service to your clients.

One of the most important things to focus on as a data science consultant is to stay current with the latest technologies. This includes programming languages such as Python and R, as well as data visualization and machine learning tools like Tableau and TensorFlow. It is also important to be familiar with big data platforms like Hadoop and Spark.

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It's also crucial to have a good project management skills. Data science projects can be complex and time-consuming, and it's important to be able to manage resources and timelines effectively in order to deliver results on time and on budget.

Finally, it's important to be a lifelong learner and to continuously educate yourself about new tools, techniques, and industry developments. The field of data science is constantly evolving, and staying current is essential for providing the best possible service to your clients.

CMC

ChatGPT – Question 2

 update the blog entry for management consultants advising executives As a management consultant, advising executives in 2022 will require a unique set of skills and knowledge. The business landscape is constantly evolving and executives are under pressure to make strategic decisions that will drive growth and success for their organizations.

One key skill for management consultants advising executives is the ability to understand and analyze complex data. With the increasing availability of data, executives are looking for consultants who can help them make sense of this information and turn it into actionable insights. This requires a strong understanding of data science techniques and tools, as well as the ability to translate technical concepts into plain language for non-technical stakeholders.

Another important skill is strategic thinking. Executives are looking for consultants who can help them identify and address key challenges facing their organizations. This requires the ability to think creatively and critically, as well as the ability to identify and evaluate different options and make recommendations based on the best available evidence.

Communication skills are also crucial when advising executives. As a consultant, you need to be able to clearly and effectively present your findings and recommendations to different stakeholders within the organization. This includes the ability to present data and analysis in a visually compelling way and to facilitate discussions and negotiations with key decision-makers.

In addition, management consultants advising executives should have a strong understanding of the industry and market trends. The ability to anticipate and respond to changes in the business environment is vital for staying ahead of the competition and identifying new opportunities for growth.

Finally, it's important to have a good project management skills. Management consulting projects can be complex and time-consuming, and it's important to be able to manage resources and timelines effectively in order to deliver results on time and on budget.

In conclusion, management consultants advising executives in 2022 should have a strong understanding of data science, strategic thinking, communication skills, industry and market trends, and good project management skills to be able to provide value and make a positive impact on their client's organization. By focusing on these key areas, management consultants can position themselves as trusted and valuable advisors for executives

ChatGPT – Question 3

 update the blog entry for emerging issues in 2023

CMC

As a management consultant, advising executives in 2023 will require a deep understanding of emerging issues that are shaping the business landscape. The world is rapidly changing, and executives are under pressure to navigate these changes and make strategic decisions that will drive growth and success for their organizations.

One key issue that is likely to impact businesses in 2023 is the ongoing global pandemic. The pandemic has had a significant impact on the economy and has led to widespread disruptions in supply chains, changes in consumer behavior, and a shift towards remote work. As a consultant, you should be able to provide guidance on how to navigate these changes and identify new opportunities for growth.

Another important emerging issue is the growing focus on sustainability and environmental, social, and governance (ESG) considerations. Businesses are under increasing pressure to address these issues, and executives are looking for consultants who can help them understand the risks and opportunities associated with ESG, and develop strategies to mitigate risks and capitalize on opportunities.

The increasing use of technology, especially artificial intelligence and automation, is also shaping the business landscape. Consultants should be able to provide guidance on how to leverage these technologies to improve business operations, reduce costs, and drive growth.

Another emerging issue is the rapid changes in the global political and economic environment. Businesses are facing a wide range of challenges, including trade tensions, political instability, and shifting economic conditions. As a consultant, you should be able to help executives understand these changes and develop strategies to mitigate risks and capitalize on opportunities.

In conclusion, as a management consultant advising executives in 2023, you should have a deep understanding of emerging issues such as the ongoing global pandemic, sustainability, ESG considerations, technology, and political and economic environment. By staying up-to-date on these issues and providing guidance on how to navigate them, you can position yourself as a valuable resource for your clients and help them make strategic decisions that drive growth and success for their organizations.