

Fundamental Overview of potential role of Data Analytics and Artificial intelligence in multiple major industries and sectors that involve a measurement using a scientific technique to produce a data point, its scope and potential that could either drive or ultimately slow down each sectors AI and data analytical advancement

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Abstract

The author will discuss and provide a fundamental overview to AI and Data Analytics in terms of what it actually means when we break down those words, what do we want them to represent and where can they potentially take us in terms of moving forward. Artificial Intelligence and Data Analytics are words that are used more and more in what is seen as the biggest drivers for many sectors in the not too distant future if not presently. Sector's such as the IT, electronic and robotics are areas that most will envisage when thinking about AI and data analytics, an industry that historically is unparalleled with any other sector as in continually improving and evolving to meet its customer's requirements, often doubling its specification at a cheaper price over an extremely short period of time, with revolution and not evolution underpinning the industries development. We can also talk about AI and Data Analytics in terms of specific actual data and technology as a minimum in regard to the gathering, understanding, interpretation and potential value of data wrapped up in technology. The Author however will provide predominantly a fundamental overview to any sector or industry that involves not just the analysis of hard data but the measurement of a value using a scientific technique or principle to produce a data point because it is here that the laws of Artificial Intelligence and Data Analytics change from the above and could be considered as requiring a totally different approach. Due in part and to be discussed to the variables in terms of data when a measurement is required that can be infinitely complex, with the biggest issue being that if all variables are not taken into consideration the potential for endless dead end's and wrong roads resulting in limited final value against market expectations are potentially an unwanted outcome to AI and data analytical investment in the scientific sectors. To be discussed will be what are valid reasons behind why the scientific industries evolve at the pace they do and historically have in comparison with the IT industry, and the potential issues to AI and data analytics making a substantial impact into any industry that requires a scientific measurement that would need to be overcome to provide continuous improvement via the introduction of AI and data analytics..

Biography

Christian Williams has completed his PhD and started working as Laboratory commissioning and fuel chemistry support specialist in Kawasaki Heavy Industries from Apr 2018 – Jan 2019, Ltd.. and from 2019 Feb to 2020 he is working as Freelance laboratory and fuel chemistry specialist in Petroleum Fuels Consultants, Ltd.

Recent publication data:

1. Yu, J., et al., CO₂ Capture and Separations Using MOFs: Computational and Experimental Studies. *Chemical Reviews*, 2017. 117(14): p. 9674-9754.
2. Khan, N.A. and S.H. Jung, Adsorptive removal and separation

of chemicals with metal-organic frameworks: Contribution of π -complexation. *Journal of hazardous materials*, 2017. 325: p. 198-213.

3. Zhu, L., et al., Metal–Organic Frameworks for Heterogeneous Basic Catalysis. *Chemical Reviews*, 2017. 117(12): p. 8129-8176.
4. F. Rouhani, F. Rafizadeh, A. morsali, Highly Electroconductive Metal–Organic Framework: Tunable by Metal Ion Sorption Quantity, *J. Am. Chem. Soc.* 2019 (141) 11173-11182
5. Wu, M.-X. and Y.-W. Yang, Metal–Organic Framework (MOF)-Based Drug/Cargo Delivery and Cancer Therapy. *Advanced Materials*, 2017. 29(23): p. 1606134-n/a.

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