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Big Data Analysis and Its Application in Different Industrial Domains

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Abstract: Big data can bring “great value” to our lives in almost every aspect. Technologically, Big Data brings changes in our lives as it enables the full integration and analysis of diverse and heterogeneous data to help us make decisions. Today, with Big Data technology, thousands of data from seemingly unrelated domains can help make important decisions. This is the power of Big Data. Application Areas Health, Well-being, Policy Making and Public Opinion, Smart Cities and More Efficient Society and Robotic Interaction, New Online Education Model: Model student-teacher geometry Foundations in Big Data Analytics Research: Develop and research fundamental theories, algorithms, techniques, methodologies, technologies to solve problems effectively and efficiently to allow the application of Big Data problems. Scientists in the field and big data researchers. This Paper Presentation talks about Big Data analysis and its application in different industrial domains under the following sub topic: Introduction: A brief overview of Big Data analysis and its significant application in different industry and in the field of research.

Case study: Discussion of a case study of Big Data together with IoT provides the infrastructure for collecting the data for different domain application of smart cities as important application goal.

Work flow: Showcases simplified version of overall work flow of the case study.

Conclusion: Discussion of concluded outcome and breakthrough of data analytics.

Keywords: BIG data, IoT,

I. INTRODUCTION

In today's omnichannel world, data analytics has gone a long way in measuring and predicting impact at the channel level to understand where best to spend marketing money. Questions about who to target, which channels and how much to spend per channel will always be with us. To answer these questions and more, machine learning pushed all boundaries to develop a multi-step composite model. After preprocessing the data, machine learning is used to update the decay parameters for each channel. Since we are using a sampling algorithm to estimate the following distribution, this can take a long time. The attribution side of the model is established at the final stage of estimating the impact of each channel at an individual level. This is done using decay parameters updated with Machine Learning. The model is built with the constraints and prior knowledge of the channel impact values applied from the model at the channel level. Compared to standard approaches, attribution models are able to predict significantly greater impact on omnichannel marketing campaigns. Using the results of the model, micro-segmentation allows to group customers into viable segments to receive specific channels and/or advertise with a personalized message that will be relevant to the audience. The non-linear channel response curves use an attribution model that allows for marginal attribution measurement, allows for optimal allocation of investments to maximize the model, and can also be updated as the campaign progresses. are working to support campaign optimization decisions. This advanced modeling solution captures impact behavior changes over several months to show which channels, tactics, and metrics need to be tweaked to improve campaign results. Results from past and present campaigns are integrated and leveraged by marketers. These templates and revision information keep your preferences and channel combinations relevant and readily available for the next round of campaign planning, establishing a culture of continuous learning and optimization.

II. CASE STUDY: RELATION TO SMART CITIES AND IOT (INTERNET OF THINGS) IN EAST KOWLOON PROJECT OF ENERGIZING HONG KONG

Via Smart Cities

Big Data together with IoT provides the infrastructure for collecting the data for different domain application of smart cities as important application goal.

Big Data Analytics: Data mining and machine learning Large-scale machine learning, data mining and data visualization

Big Data Computing: Data centre support for Analytics

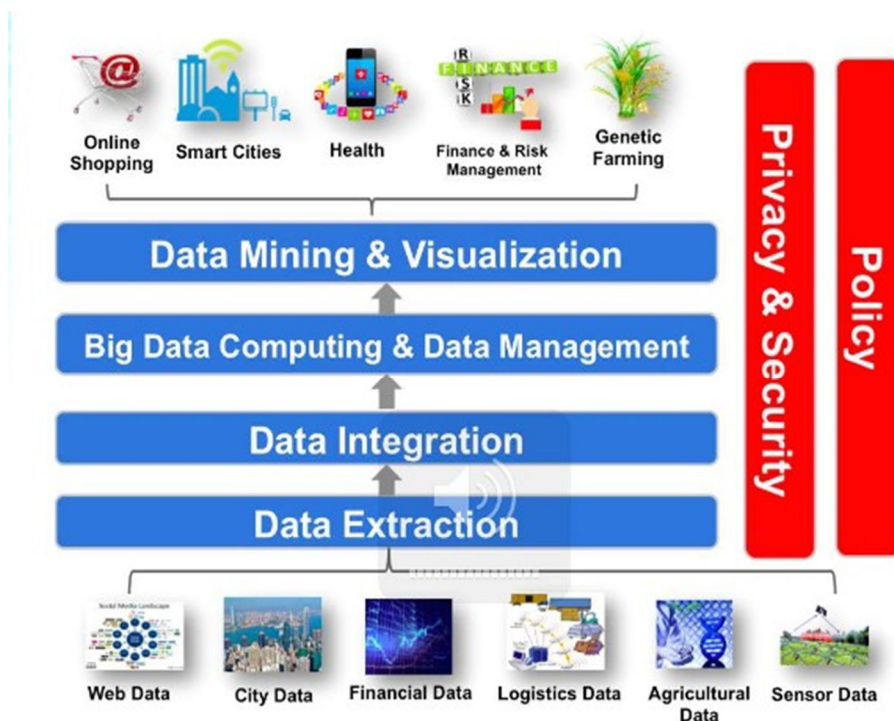
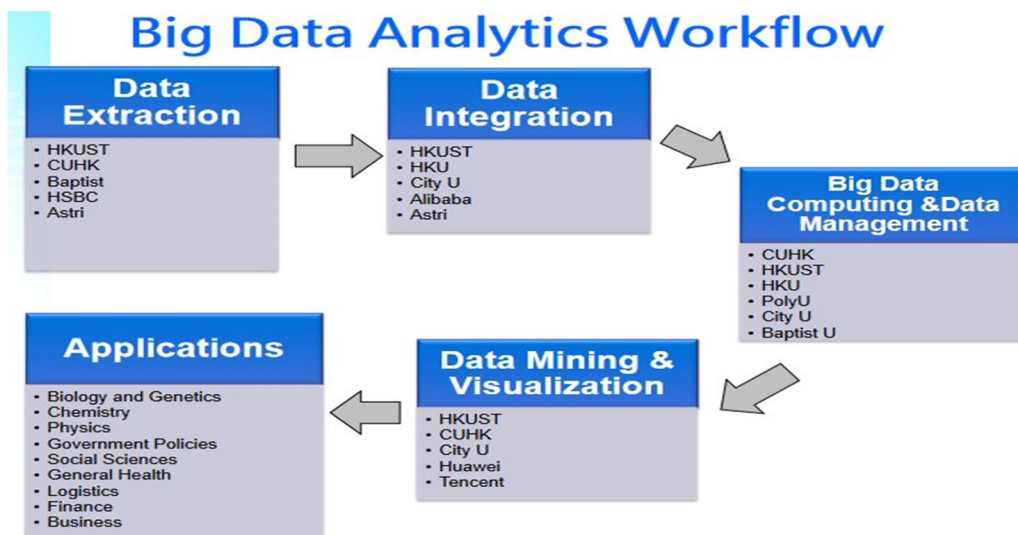
Big data collection and transformation, integration and distributed data management and computing

Big Data Theory, Privacy & Security issues on Analytics

Big data sampling and statistical theory, big data security and privacy

Big Data Science: 4th Paradigm – Analytics for Science and Engineer Big Data and Multi-disciplines (Bio, Chemistry, Engineering, Social)

III. BIG DATA ANALYTICS: WORKFLOW



Concluded Productive Outcomes And Breakthrough Of Data Analytics

IV. CONCLUSION

New methods and solutions are provided by Big Data research in various industry sectors. New apps impact society and industry in Hong Kong and beyond. New Digital Economy is created based on Big Data Research. New educational programs for students who nurture leaders for society and the Big Data industry. New algorithms, methodologies, systems and applications are provided by Big Data research in various industrial fields. New insights from Big Data applications in scientific, engineering and social issues. New perspectives on real-world Big Data practice. New ways to protect the security and privacy of big data involve individuals and organizations.

REFERENCES

- [1] Hilbert, Martin; López, Priscila (2011). "The World's Technological Capacity to Store, Communicate, and Compute Information". *Science*. **332** (6025): 60–65. Bibcode:2011Sci...332...60H. doi:10.1126/science.1200970. PMID 21310967. S2CID 206531385. Archived from the original on 14 April 2016. Retrieved 13 April 2016.
- [2] ^ Breur, Tom (July 2016). "Statistical Power Analysis and the contemporary "crisis" in social sciences". *Journal of Marketing Analytics*. London, England: Palgrave Macmillan. **4** (2–3): 61–65. doi:10.1057/s41270-016-0001-3. ISSN 2050-3318.
- [3] ^ Jump up to:^{a b} "The 5 V's of big data". *Watson Health Perspectives*. 17 September 2016. Archived from the original on 18 January 2021. Retrieved 20 January 2021.
- [4] ^ Cappa, Francesco; Oriani, Raffaele; Peruffo, Enzo; McCarthy, Ian (2021). "Big Data for Creating and Capturing Value in the Digitalized Environment: Unpacking the Effects of Volume, Variety, and Veracity on Firm Performance*". *Journal of Product Innovation Management*. **38** (1): 49–67. doi:10.1111/jpip.12545. ISSN 0737-6782.
- [5] ^ boyd, dana; Crawford, Kate (21 September 2011). "Six Provocations for Big Data". *Social Science Research Network: A Decade in Internet Time: Symposium on the Dynamics of the Internet and Society*. doi:10.2139/ssrn.1926431. S2CID 148610111. Archived from the original on 28 February 2020. Retrieved 12 July 2019.
- [6] ^ Jump up to:^{a b c d e f g} "Data, data everywhere". *The Economist*. 25 February 2010. Archived from the original on 27 May 2018. Retrieved 9 December 2012.
- [7] ^ "Community cleverness required". *Nature*. **455** (7209): 1. September 2008. Bibcode:2008Natur.455....1.. doi:10.1038/455001a. PMID 18769385.
- [8] ^ Reichman OJ, Jones MB, Schildhauer MP (February 2011). "Challenges and opportunities of open data in ecology". *Science*. **331** (6018): 703–5. Bibcode:2011Sci...331..703R. doi:10.1126/science.1197962. PMID 21311007. S2CID 22686503. Archived from the original on 19 October 2020. Retrieved 12 July 2019.
- [9] ^ Hellerstein, Joe (9 November 2008). "Parallel Programming in the Age of Big Data". *Gigaom Blog*. Archived from the original on 7 October 2012. Retrieved 21 April 2010.
- [10] ^ Segaran, Toby; Hammerbacher, Jeff (2009). *Beautiful Data: The Stories Behind Elegant Data Solutions*. O'Reilly Media. p. 257. ISBN 978-0-596-15711-1. Archived from the original on 12 May 2016. Retrieved 31 December 2015.
- [11] ^ Jump up to:^{a b} Hilbert M, López P (April 2011). "The world's technological capacity to store, communicate, and compute information" (PDF). *Science*. **332** (6025): 60–5. Bibcode:2011Sci...332...60H. doi:10.1126/science.1200970. PMID 21310967. S2CID 206531385. Archived (PDF) from the original on 19 August 2019. Retrieved 11 May 2019.
- [12] ^ "IBM What is big data? – Bringing big data to the enterprise". *ibm.com*. Archived from the original on 24 August 2013. Retrieved 26 August 2013.
- [13] ^ Reinsel, David; Gantz, John; Rydning, John (13 April 2017). "Data Age 2025: The Evolution of Data to Life-Critical" (PDF). *seagate.com*. Framingham, MA, US: International Data Corporation. Archived (PDF) from the original on 8 December 2017. Retrieved 2 November 2017.
- [14] ^ Oracle and FSN, "Mastering Big Data: CFO Strategies to Transform Insight into Opportunity" Archived 4 August 2013 at the Wayback Machine, December 2012
- [15] ^ Jacobs, A. (6 July 2009). "The Pathologies of Big Data". *ACMQueue*. Archived from the original on 8 December 2015. Retrieved 21 April 2010.
- [16] ^ Magoulas, Roger; Lorica, Ben (February 2009). "Introduction to Big Data". Release 2.0. Sebastopol CA: O'Reilly Media (11). Archived from the original on 2 November 2021. Retrieved 26 February 2021.
- [17] ^ John R. Mashey (25 April 1998). "Big Data ... and the Next Wave of InfraStress" (PDF). Slides from invited talk. Usenix. Archived (PDF) from the original on 12 October 2016. Retrieved 28 September 2016.
- [18] ^ Steve Lohr (1 February 2013). "The Origins of 'Big Data': An Etymological Detective Story". *The New York Times*. Archived from the original on 6 March 2016. Retrieved 28 September 2016.
- [19] ^ Jump up to:^{a b} Snijders, C.; Matzat, U.; Reips, U.-D. (2012). "Big Data: Big gaps of knowledge in the field of Internet". *International Journal of Internet Science*. **7**: 1–5. Archived from the original on 23 November 2019. Retrieved 13 April 2013.
- [20] ^ Dedić, N.; Stanier, C. (2017). "Towards Differentiating Business Intelligence, Big Data, Data Analytics and Knowledge Discovery". *Innovations in Enterprise Information Systems Management and Engineering. Lecture Notes in Business Information Processing*. Vol. 285. Berlin; Heidelberg: Springer International Publishing. pp. 114–122. doi:10.1007/978-3-319-58801-8_10. ISBN 978-3-319-58800-1. ISSN 1865-1356. OCLC 909580101. Archived from the original on 27 November 2020. Retrieved 7 September 2019.



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