Data Scientist and Business Intelligence Analyst A Comparison

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A data scientist is a person who has more knowledge of programming than a Statistician or Business Intelligence person but lesser than a Software developer while on the other side he has more Data knowledge like algorithms, stats, mathematics, etc than a software developer but lesser than a Statistician.

Lets look at their commonalities

Both data scientists and BI analysts do visualizations.

Both data scientists and BI analysts work with data sources.

Both data scientists and BI analysts do programming.

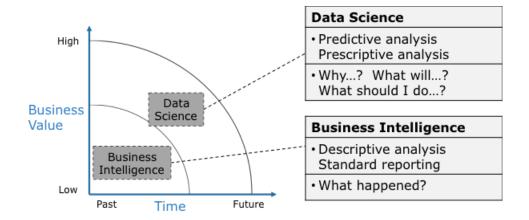
But in addition to that, data scientists are expected to be statistically literate, run experiments, interpret data with a mind on causation and - most often - do data modelling.

| | Business Intelligence | Data Science |
|----------|---------------------------------|--|
| Data | Complete Data | Missing Data |
| | Quality | Quantity |
| | Absolute | Approximate |
| | Structured Data | Structured and Unstructured Data |
| Tools | Decision Support System Lineage | Statistical Science Lineage |
| | Relational Data Centric | NoSQL, Grid Computing and Cloud Centric Stores |
| | Reporting Focus | Statistics and Experiments Focus |
| | ETL/OLAP | Data Munging and Machine Learning |
| | Mostly Proprietary Tools | Mostly Open Source Tools |
| Business | IT Owned | Analytics-Owned |
| | Division of Labour | Jack of all Trades |
| | More Governance | Less Governance |
| | Well Defined Role | Role Not Defined Well |

Bottom line:

Business Intelligence analyst: More of Computer science - Less of Maths Data

Scientist: More of Maths - Less of Computer science



I feel that the skills required for both the roles over lap a lot. However Data Scientists asks questions, build products out data while BI engineers just try to communicate what the underlying data it trying to tell via Dashboards and Visualisations.

References

Chart 1

Quora ²

Image 3

 $^{^{1} \}rm http://www.thisisthegreenroom.com/2011/data-science-vs-business-intelligence/2011/data-science-vs-busi$

 $^{^2} https://www.quora.com/What-is-the-difference-between-a-data-scientist-and-a-business-intelligence-analyst$

 $^{^3} https://infocus.emc.com/william_schmarzo/dynamic-duo-analytic-power-business-intelligence-analyst-plus-data-scientist/$