

DISCUSSION**A review of data science in business and industry and a future view by G. Vicario and S. Coleman**

Data science is such an important part of everyday business and personal life. The review paper by Vicario and Coleman is a timely and welcome addition to literature on the subject.

In particular, the authors provide interesting applications in a range of industry sectors. Business leaders are very keen on seeing practical examples because they know the importance of data science, especially in the new Industry 4.0 scenario. In our book,¹ we provide 21 case studies to demonstrate how data can be monetized. It is vital that there are outlets for reporting such case studies and the authors are sensible to include articles in the trade press, such as CILT's *Focus* magazine, as these have good penetration to people at the hard face of data science.

Familiarity with statistical exploration and graphical techniques is key to help business and citizens understand how data science forms an intrinsic part of their life. Our book² is useful here into giving a practitioner focused background.

As professionals in the European Network for Business and Industrial Statistics (ENBIS), we provide workshops and briefing sessions both face to face and electronically. We focus on having balanced content between science and industry and ensure adequate space at the ENBIS annual conferences for practical considerations and examples. The ENBIS webinar series is aimed at upskilling people and has covered important topics including the *Application of statistics and machine learning to empty property analytics* and most recently *Statistical challenges in industrial processes under feedback control*. Webinar and other presentations are available in the ENBIS Media Centre.

Attitudes to data and data science and the competence of data scientists vary in different companies and, therefore, in different countries. As emphasized in the paper of Vicario and Coleman, it is always important to consider the potential use of the result. Does it lead to a decision and improvement? It is a key feature of data science that there must be a clear motivation around creating business value; this is what distinguishes it from research and other less-focused data exploration. Being successful in data science requires more than being able to use analytical methods; there must be a clear understanding of data and a deep knowledge of the business domain.

A further consideration for data scientists is the ethical responsibility of handling data that is often given for free by users. There is an increasing tendency for people to fall into digital slavery as they live more and more of their lives on social media.^{3,4} Data scientists need to help people realize how valuable their data is and the importance of keeping in control of it.

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REFERENCES

1. Ahlemeyer-Stubbe A, Coleman SY. *Monetising Data: How to Uplift Your Business*. London, UK: Wiley; 2018.
2. Ahlemeyer-Stubbe A, Coleman SY. *A Practical Guide to Data Mining in Business and Industry*. London, UK: Wiley; 2014.
3. Hafen E, Brauchbar M. Liberation from digital slavery. 2019. <https://www.nzz.ch/meinung/debatte/befreiung-aus-der-digitalen-leibeigenschaft-1.18256191>
4. Weber-Herfort C. Digital slavery. 2019. <https://www.psychologie-heute.de/gesellschaft/39065-digitale-leibeigenschaft.html>

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