The increase in computational capabilities, together with the fall of computing cost, and data availability, has increased digitalisation. New opportunities that are being realised as a result of digitalisation include connectivity, monitoring and awareness. Business models are undergoing their digital revolution, and with that comes a significant implication for risk management. The fourth industrial revolution, the internet of things and big data, is changing how business processes are conducted and how we conduct our daily lives(Zio, 2018).

While the innovations that are being developed offer a potential increase in well-being and benefits, it also introduces failure mechanisms and hazards and creates new risks. On the other hand, increased computational capabilities and data availability allow risk managers to digitise risk. Digitisation of risk could offer risk executives an improved experience, such as the use of advanced analytics to generate insights that are difficult to produce today(such as complex correlation and trend analyses). Risk executives will deploy a centralised “nerve centre” where newly artificially intelligent models will harness improved connectivity to set limits dynamically, detect emergent risks, and evaluate those risks immediately.

Holzhauer (2017) list the seven building blocks of digital risk as follows;

1. Data Management. Enhanced data governance and operating models will improve data quality, make risk and business decisions more consistent, and ensure responsiveness to risk’s data needs.
2. Process and workflow automation. As risk automates tasks such as collateral data entry, it can often combine several into intelligent workflows through robotic process automation (RPA).
3. Advanced analytics and decision automation. Sophisticated risk models(those built on machine learning algorithms) can find complex patterns and make accurate predictions of default and other risks.
4. A cohesive, timely and flexible infrastructure. The risk infrastructure will evolve to support several other building blocks: innovative data-storage solutions.
5. Innovative visualisations and interfaces. Risk will deliver its insights in more intuitive, interactive and personalised ways through dashboards, augmented reality platforms for customers, and other interfaces.
6. External ecosystem. Risk will partner with external providers to risk detection.
7. Talent and culture. Risk will have a far greater share of digital-savvy personnel with fluency in the language of both risk and the business, operation with the agile culture that values innovation and experimentation.

References:

Holzhauer, H. M. (2017) ‘The Future of Risk Management’, in Investment Risk Management. Oxford University Press, pp. 580–598. doi: 10.1093/acprof:oso/9780199331963.003.0030.

Zio, E. (2018) ‘The future of risk assessment’, Reliability Engineering and System Safety, 177, pp. 176–190. doi: 10.1016/j.ress.2018.04.020.