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The Big Data and Data Ethics

Current Issues in General Insurance

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Big Data and Data Ethics

- The Big Data Landscape
- The Insurance Context
- The Ethics and Governance landscape
- Big Data Traps



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The Big Data Landscape



Regardless of source,

BIG DATA

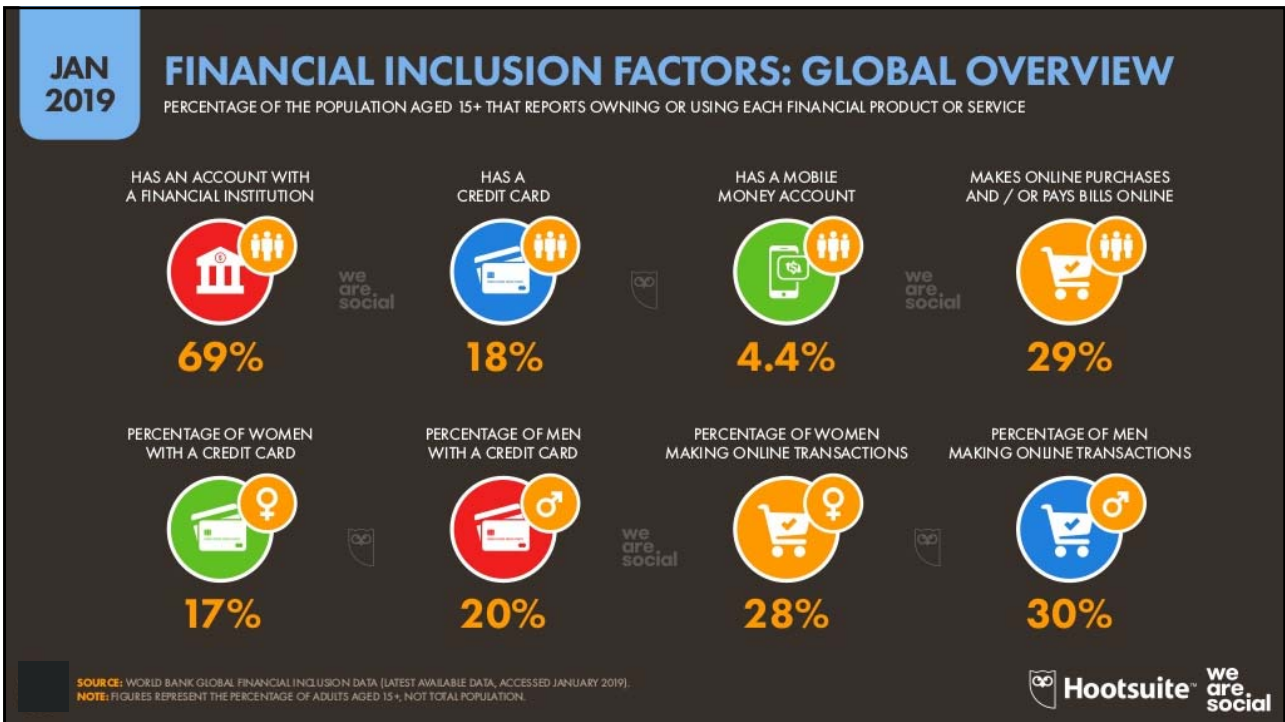
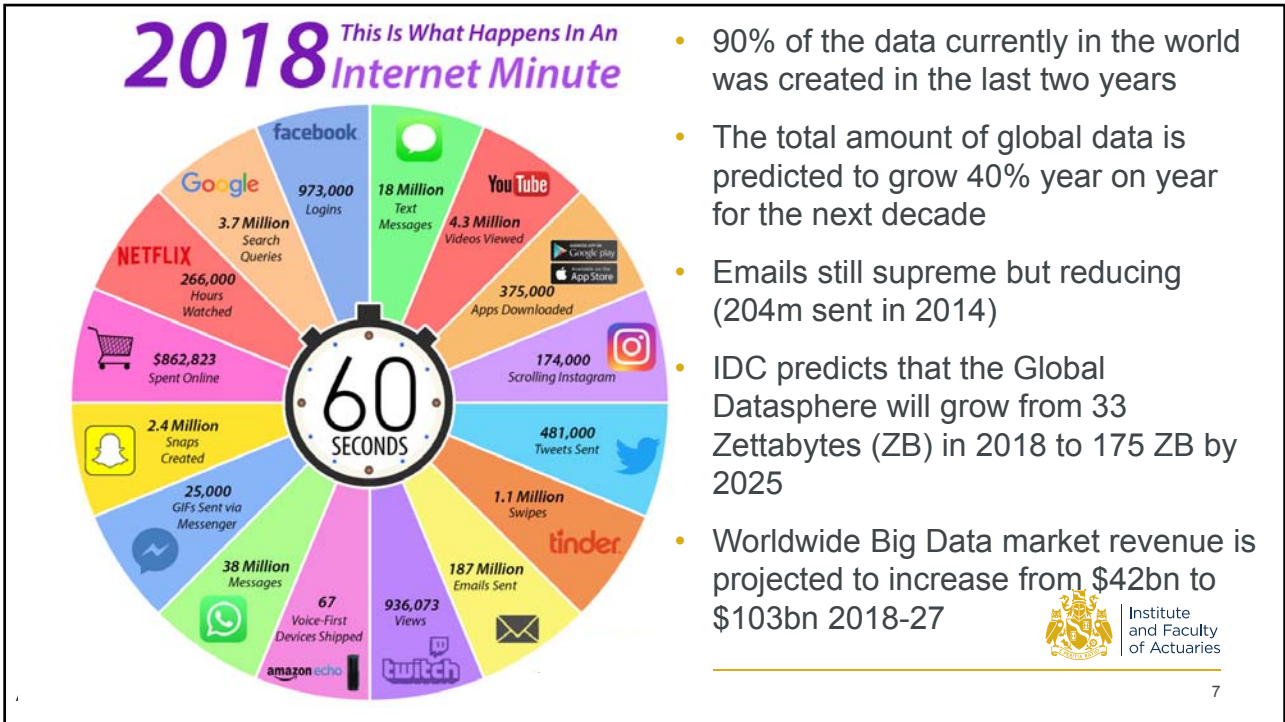
... is about gaining value and insights from extremely large, complex, fast moving or combined data, across a range of sectors in innovative and beneficial ways





Aviva: Public







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The Insurance Context



Insurance Big Data

- Data has been fundamental to the insurance industry for decades
- Slow to respond to new data and technologies?
- Structured vs unstructured
- Use cases



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The Ethics and Governance Landscape

A Force for Good?

“Big Data promises to use data to make the world **transparent**, but its collection is **invisible**, and its tools and techniques are **opaque**, shrouded by layers of physical, legal, and technical privacy by design”.

Professor Neil M. Richards, Washington University School of Law, 2015



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Data Ethics

- Describes the value judgements and approaches made when generating, analysing and disseminating data
- Incorporates reference to data protection and other relevant laws
- Appropriate use of technologies
- Requires a holistic approach including good practice in analytical techniques and information assurance

Actively and demonstratively doing the right thing.



Emerging Governance

- Think tanks
- Data Ethics policies
- Regulators/Governments
- Data ownership





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Big Data Traps

What's the concern?

An 'algorocracy' may lead to adverse outcomes:-

- Sophisticated algorithms deployed in ways that influence or manipulate the decisions we make in unprecedented ways
- automated decision-making can be opaque and may lead to unfair outcomes or overly restrict the level of control over key decisions eg job applications, criminal justice system
- Reduced capacity for new entrants to compete and innovate, while a few large businesses having unprecedented power to influence behaviours and shape our society.
- Geo-political angle



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Insurance Big Data Traps

- Data sources
 - Social media (mis)use
 - Genetic testing
 - Facial recognition
- Data Black Box
 - Aggregated data
 - Biased data
- Hyper-personalisation of pricing



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Discussion

- Aware/surprised/not surprised/shocked?
- Anything to be done? What?
- By whom?
- What are you doing/what is your organisation doing?



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Concluding Thoughts

- Diversity!
- Transparency and fairness
- Individual awareness
- Individual and collective accountability
- Organisation standards and policies



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Diversity at the IFoA

For more information on diversity at the IFoA or to get involved, contact diversity@actuaries.org.uk



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