

Learning via Statistics

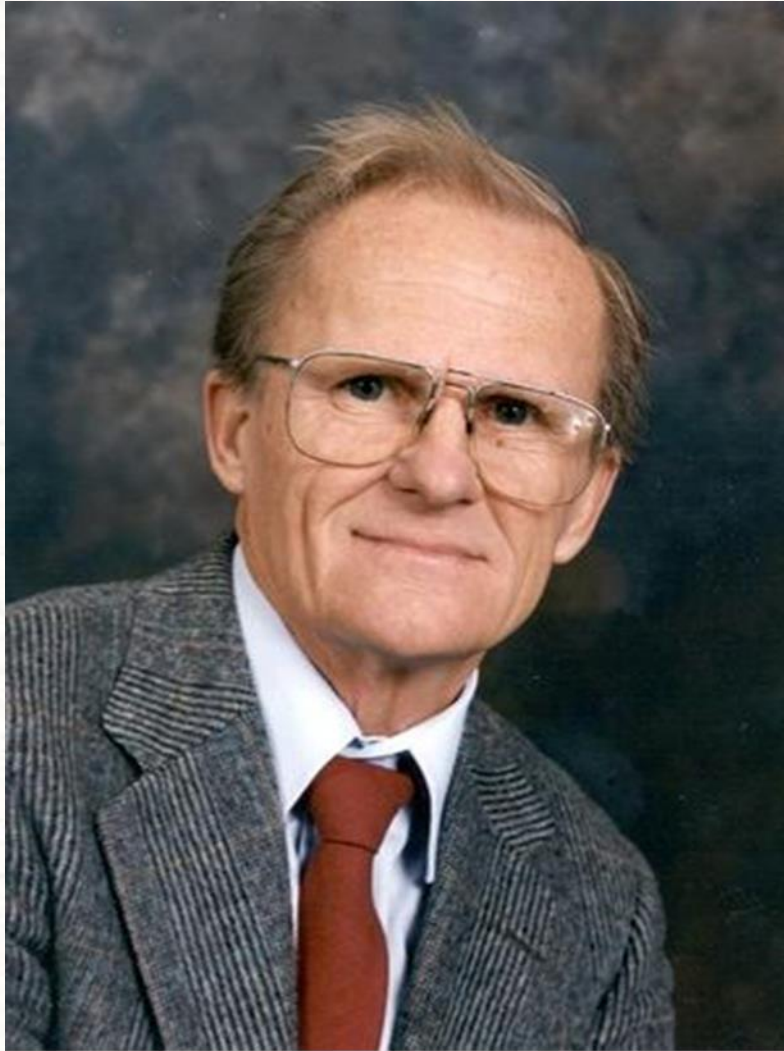


Sir Ronald Aylmer Fisher, 1922

The object of Statistics



The
reduction of
data.



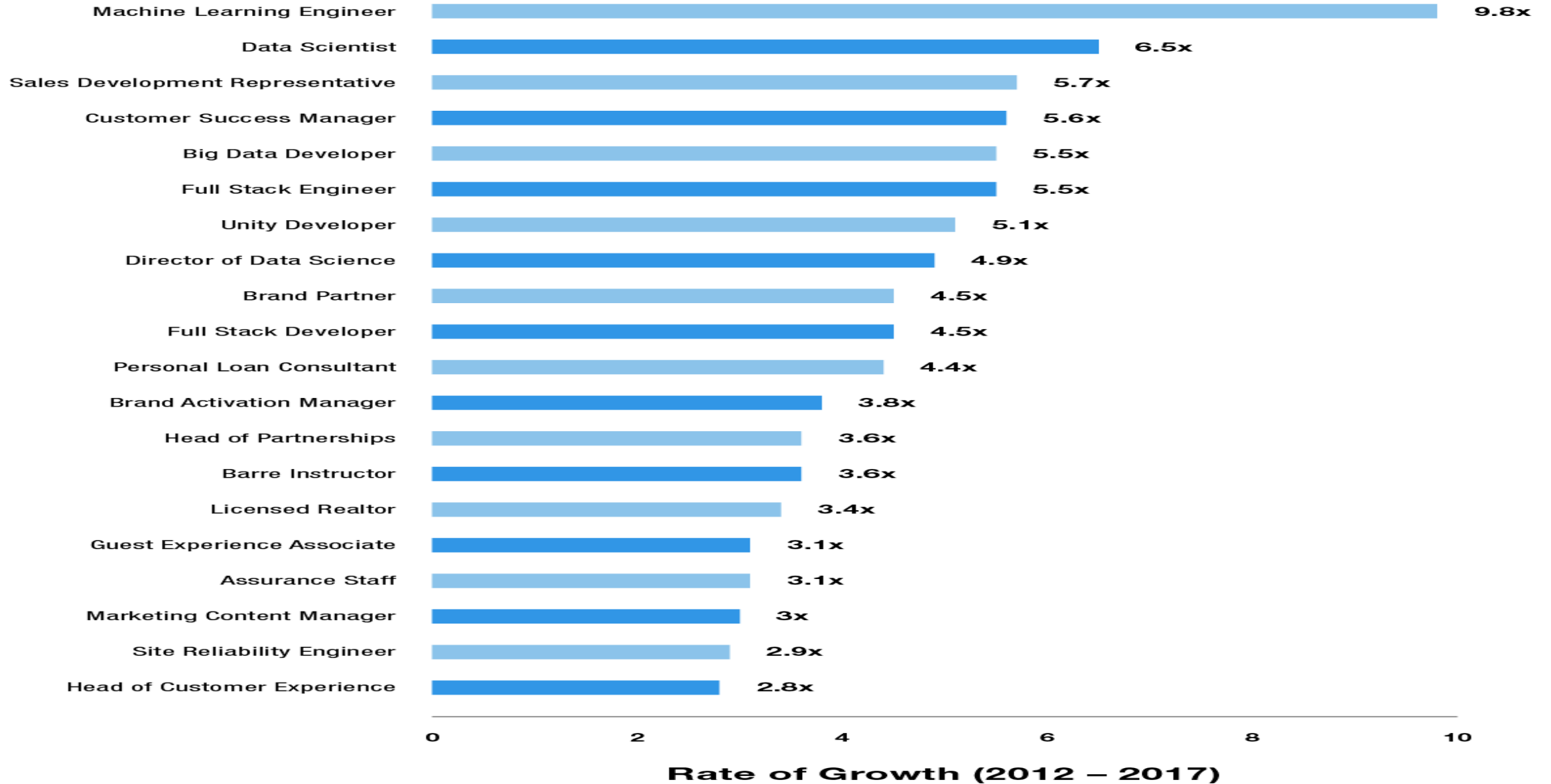
Jorma Rissanen, 1978

The object of Learning



Data
Compression

Top 20 Emerging Jobs



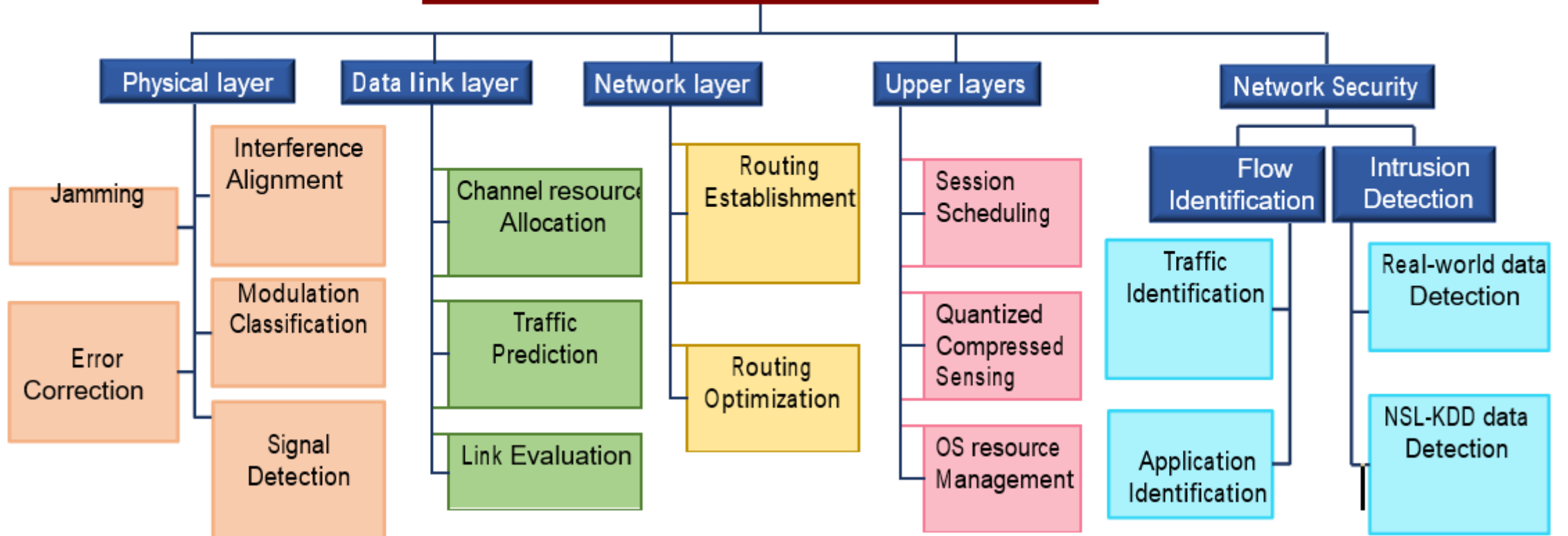
❖ Conventional communication theories exhibit several inherent limitations in fulfilling the **large data** and **ultra-high rate communication** requirements in **complex scenarios**

- Difficult channel modelling in complex scenarios
- Demand for effective and fast signal processing
- Limited block-structure communication

Questions

- Is AI/ML useful in communications?
- What are the Impacts of AI/ML on Communication Technologies?
- Changes on the convention algorithms in communications: How?
- What is the next?

Deep Learning Applications in Wireless Networks





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Machine Learning in Molecular Communication



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- How to Leverage AI for Orchestration and Resource Management in 5G



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Machine Learning in Wireless Communications

- The advantage of Localization via machine learning
- Machine Learning based Resource Allocation Wireless networks.



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Applications of Communication Theory in Machine Learning

- Decentralized and Distributed Systems
- Block Chain Thinking!



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Breaking Deep Neural Networks and Its Consequences in Communication Systems



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Artificial Intelligence and Machine Learning



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Quantum Communications

Thank You!