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Wider Fields for Actuaries

Falco Valkenburg

penultimate chairperson Actuarial Association of Europe

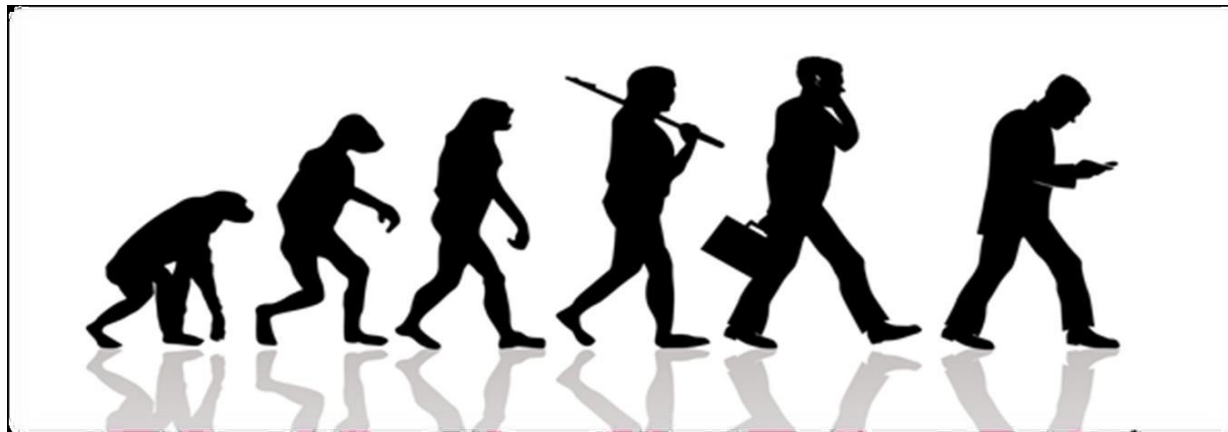


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Actuaries: Where did we start? Where are we now? Where will we go?



Evolution of the actuarial profession

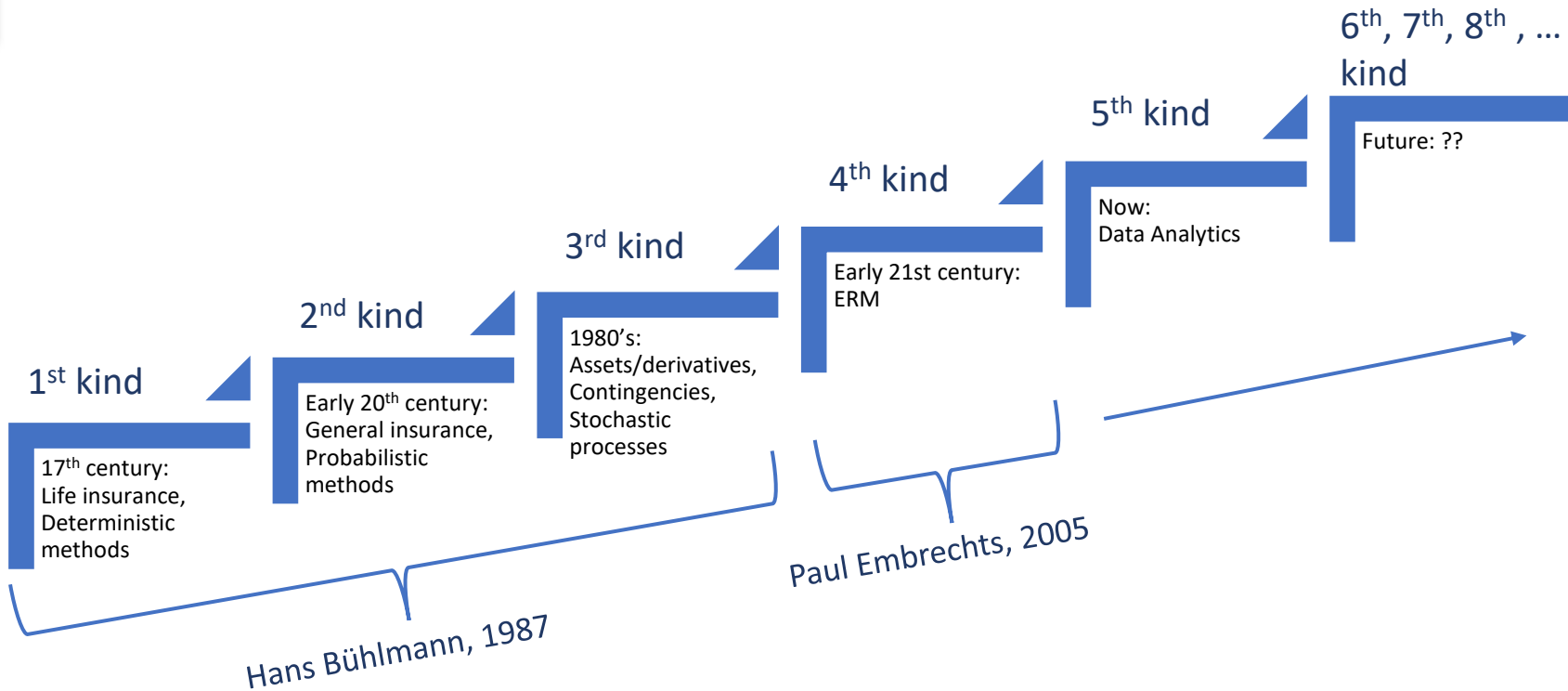


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“Big data is like teenage sex:

Everyone talks about it,

Nobody really knows how to do it,

Everyone thinks everyone else is doing it,

So everyone claims they are doing it ...

[Huuuge data, however, that is the next huge thing.]”



- Dan Ariely, principal, center of advanced hindsight



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Pieter Marres, Dutch actuary:

“Artificial Intelligence is nothing without Actuarial Intelligence”

AI is not an aim in itself. It doesn't get useful just because it is interesting and innovative. Actuaries are good in translating results back to the business problem. Actuaries can judge the impact of the many assumptions. Actuaries also bring in ethics as we subscribe to our Code of Conduct.



Big Data and Data Analytics



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A new domain for actuaries
Some applications:

Insurance

- Pricing
- Fraud detection
- Marketing efficiency
- Underwriting acceptance
- Identifying potential large claims

Banking

- Credit scoring
- Detecting potential criminal transactions
- Marketing efficiency



Can actuaries win from non-actuaries?



YES, we can!

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- Many competitions and hackathons are organised
 - Hackathon = Hacking + Marathon
 - Hacking = exploratory programming \neq breaching computer security
- Actuaries and teams with actuaries seems to do very well
 - I have found several examples worldwide
 - I will mention one that inspires me in a minute



Tesla Insurance



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Tesla pauses insurance sales for an 'algorithm update' just hours after launch – Business Insider, **29 Aug 2019**

"I would love to have some high-energy actuaries... I have great respect for the actuarial profession. You guys are great at math. Please join Tesla, especially if you want to change things and you're annoyed by how slow the industry is. Tesla is the place to be. We want revolutionary actuaries." said Elon Musk – Business Insider, **24 July 2020**



Hackathon winner



Linda Vos, Dutch actuary, PWC Switzerland

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Linda Vos, in the middle, chosen as Actuarial Talent of the Year 2019



Solving the Multiple Sclerosis Puzzle



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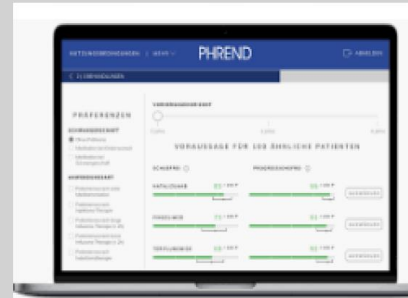
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From shaping the idea in May 2016...



...to launching PHREND for neurologists in 2018 and getting awarded with several innovation prices





Some more examples of wider fields



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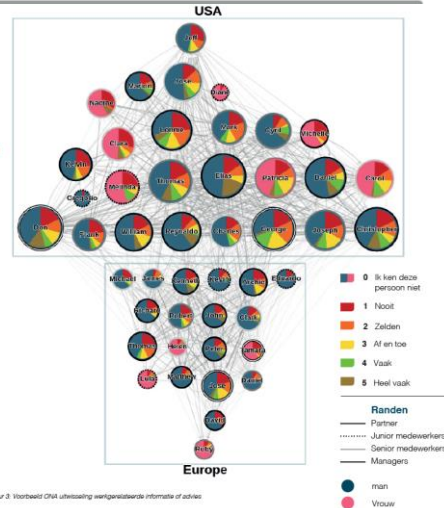
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- Loes de Boer, actuary – Organisational Network Analysis

- Using statistical methods to analyse social relationships



- Loudina Erasmus, actuary – climate economist at ABN AMRO Bank



Figur 3: Voorbeeld ONA uitwisseling van belangrijke informatie of advies





Climate actuary the next kind?



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- Olaf Sleijpen, executive director Dutch Central Bank
- 2 March 2021: “If the Covid-19 pandemic is a meteorite that we didn't see coming before it hit, climate change is like Earth's collision with another planet that we do see coming.”
- European Green Deal: climate neutral in 2050 → action required by all sectors of our economy
- Climate Change Actions a similar economic catalyst as the “Moonspeech” by John F. Kennedy on 25 May 1961?



Wider Fields



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- is about looking for opportunities to contribute in yet another way to the well-being of society,
- using our mathematical and statistical background,
- our expertise to translate results from models back to the business case,
- our skills to communicate risks and opportunities to the stakeholders
- working in multidisciplinary teams,
- always applying our Code of Ethics

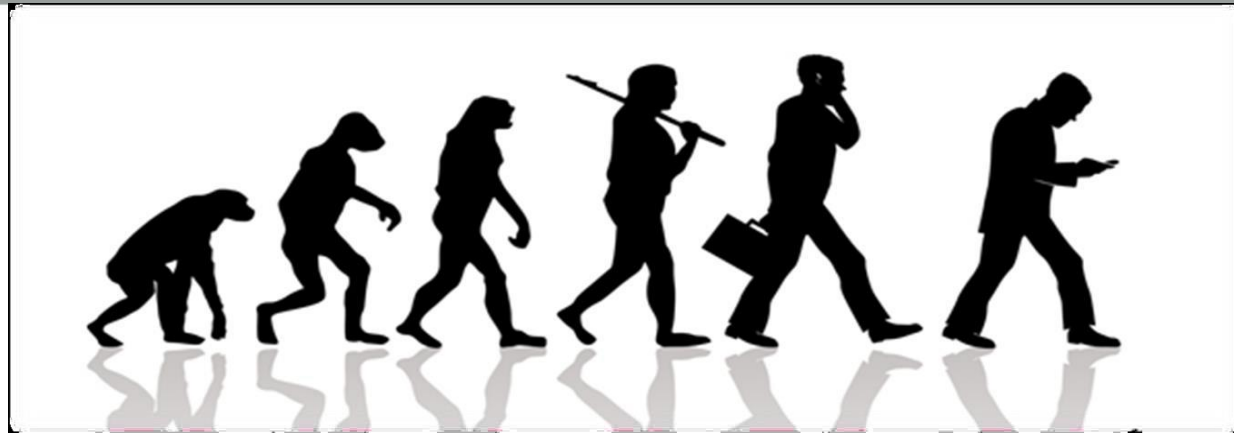


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*“It is not the strongest species that survive,
nor the most intelligent,
but the ones most responsive to change”*

Leon C. Megginson's interpretation of Darwin's work, 1963
Megginson was a Louisiana State University business professor