

I. Introducing CorpTech

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Auto(mated) Reporting

Auto Disclosure

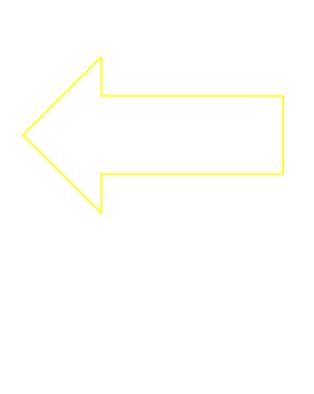
Auto Compliance

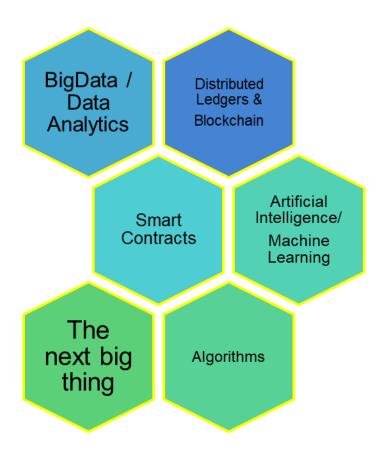
Auto Risk Management

Auto Meetings

Auto Monitoring?

Auto Mediation?





II.1. Optimistic predictions about technology and corporate governance

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- Technology will make the monitoring function of the board obsolete (eg Hamdani et al)
 - CorpTech will allow improvements in:
 - Director selection
 - Compensation setting
 - And especially Governance, Risk & Compliance (GRC) functions
 - Can CorpTech even replace the (monitoring) board?

II.2. Optimistic predictions about technology and corporate governance





 Technology makes the (mediation) function of the board obsolete (Yermack; Lafarre and Van der Elst) by making its intermediation unnecessary

Reduced information asymmetries btw shareholders and managers

Improved analytics for shareholders (better knowledge)

Lower (informed) voting costs



- Comparing perfect (future) CorpTech with imperfect humanpopulated Boards
- How good is technology really viz. humans?
 - After all, CorpTech is itself the product of humans
 - AND humans are conflicted.
- Consider tech limitations and governance-inherent traits

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IT Limitations

- Data dependency
 - Data governance (Armour-Eidenmueller)
- Al is (for now?) stupid. In particular:
 - Ethics difficult to code
 - Inferior handling of incomplete legal environment
 - Many GRC (and, generally, board-decided) issues have "political," highly context-specific, nuanced elements, that AI doesn't and will not (for the predictable future) handle



Governance inherent traits

- Governance is about incomplete contracts
 - Complex, long-term "self-driving contracts" are still a long way from here
- Conflicts of interest: software engineers are human, and must sell / move up in the corporate hierarchy
 - Who are the buyers / decision makers within corporations?
- Who controls the data?

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IT Limitations

- Dialogue is key
- Algos (obviously) not good at mediating among shareholders with diverse interests
 - Which means management would be in charge of directly engaging with shareholders and mediate among them
 - And that would arguably be inferior to board's involvement

IV.2. Board Disintermediation? (2)

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Governance inherent traits

- Information asymmetries to persist:
 - Disclosure is better, but still patchy, and for good reasons
- Collective action problems are here to stay
 - Automation in proxy advisory services as a solution?
- Less activism? Possibly more (lower costs of identifying targets)
 - Greater need for mediating board
- More monitoring via more efficient prices?
 - Still mediated by governance

V. Adapting to a CorpTech Environment

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- CorpTech ever more central to corporate governance
 - As a tool, for sure
 - As something to keep an eye on:
 - It can better tackle some agency problems so long as managers and shareholder interests are aligned
 - But it is bound to exacerbate agency problem when alignment is imperfect:
 - It "maximizes" opportunism
 - Eg, "perfect" compensation package for CEO, given constraints
 - And may even create an illusion of objectivity / inevitability



Question: How should CG adapt?

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- IT firms compete to provide the best products
 - Competitive market? Or oligopoly?
 - Building a pro-shareholder (or even pro-society) brand?
 - Contractual governance in the relationship btw corporation and IT supplier is a problem
 - Data control issues
 - Standardized software? → No two firms are alike
- Aligning management's incentives (eg, via compensation)?
 - Catch 22: you need incentive alignment to get the algo that aligns incentives, but if you get the incentives right, you don't need the incentivealigning algo



- Broaden (independent) board members remit, to include monitoring over CorpTech
 - Tech Committee
 - Today: Cybersecurity and operating IT risk;



- Tomorrow: CorpTech governance
 - Monitoring of contractual governance, of design of crucial algos, and of coders' compensation
 - Direct role would be too much



- CorpTech Licensing? Outside financial sector??
 - Expertise, resources etc. of watchdog
 - Limit to innovation
- Code disclosure?
 - Rely on crowd testing?
 - But any CorpTech is data-specific; not effective
- Disclosure of CorpTech governance arrangements

VI. Wrap up and Conclusion

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Whether CorpTech can replace (functions of) boards of directors is the wrong question.

Firms with the right CorpTech *and* CorpTech *governance* will have advantages over firms without CorpTech or with the wrong CorpTech arrangements.

As part of a framework for the right CorpTech arrangements, our work identifies why CorpTech may not be as beneficial as it looks, esp. without adapting CG arrangements.

Thanks!

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Recommended Readings

- Corporate Technologies and the Tech Nirvana
 Fallacy by Luca Enriques, Dirk A. Zetzsche :: SSRN
- The Dark Side of Digital Financial Transformation: The New Risks of FinTech and the Rise of TechRisk by Ross P. Buckley, Douglas W. Arner, Dirk A. Zetzsche, Eriks Selga :: SSRN
- Artificial Intelligence in Finance: Putting the Human in the Loop by Dirk A. Zetzsche, Douglas W. Arner, Ross P. Buckley, Brian Tang :: SSRN

Professor Dirk Zetzsche
ADA Chair in Financial Law (inclusive finance)

<u>Dirk.zetzsche@uni.lu</u>

<u>www.ssrn.com/author=357808</u>

