

A complex network diagram with numerous nodes (dots) of various colors (yellow, orange, brown, grey) connected by thin lines, creating a web-like structure that fills the background of the slide.

STRATEGIC LEADERSHIP AND THE FOURTH INDUSTRIAL REVOLUTION: PROSPECTS, PROMISES AND PITFALLS

Ciaran Heavey

*University College
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Zeki Simsek

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ADVANCING A NEW CONVERSATION

- What adaptations are required to existing theories, concepts, and assumptions amidst the unique organizational and competitive context of the 4IR?
- What new roles, skillsets and capabilities are required of strategic leaders to navigate the distinct strategic demands of the 4IR?
- How do strategic leaders leverage the technological affordances of the 4IR to improve the way they lead and govern organizations?

PRESENTATIONS

Strategic Leadership: Critiques and Challenges in the Fourth Industrial Revolution

Craig Crossland & Joanna T. Campbell



The Future of Corporate Governance in the Fourth Industrial Revolution

Maria Goranova, Yanqiu Ren, Marti Sagarra, Sarthak Singh, & Cynthia E. Clark

PRESENTATIONS

Digital Platforms, Ecosystems and Strategic Leadership



Andreas König, Anastasiya Shylina & Lorenz Graf-Vlachy



Chief Digital Officers: A Framework for Guiding Research on a New Strategic Leader

Markus Menz, Sven Kunisch & Robert Langan

PRESENTATIONS



Executive Digital Savviness: A New Concept for Strategic Leadership Research

Ann Mooney Murphy & Sibel Ozgen Novelli

Strategic Leadership and Ambient Intelligence: Reconciling Exploitation and Exploration

Mariano L.M. Heyden, Zenlin Kwee, Henk Volberda & Simon Wilkie



DISCUSSANTS



Mary Tripsas
University of California, Santa Barbara



Matthew Semadeni
Arizona State University

Strategic Leadership in the Fourth Industrial Revolution
2023 Academy of Management Conference

Strategic Leadership: Critiques & Challenges in the 4IR

Craig Crossland (University of Notre Dame)

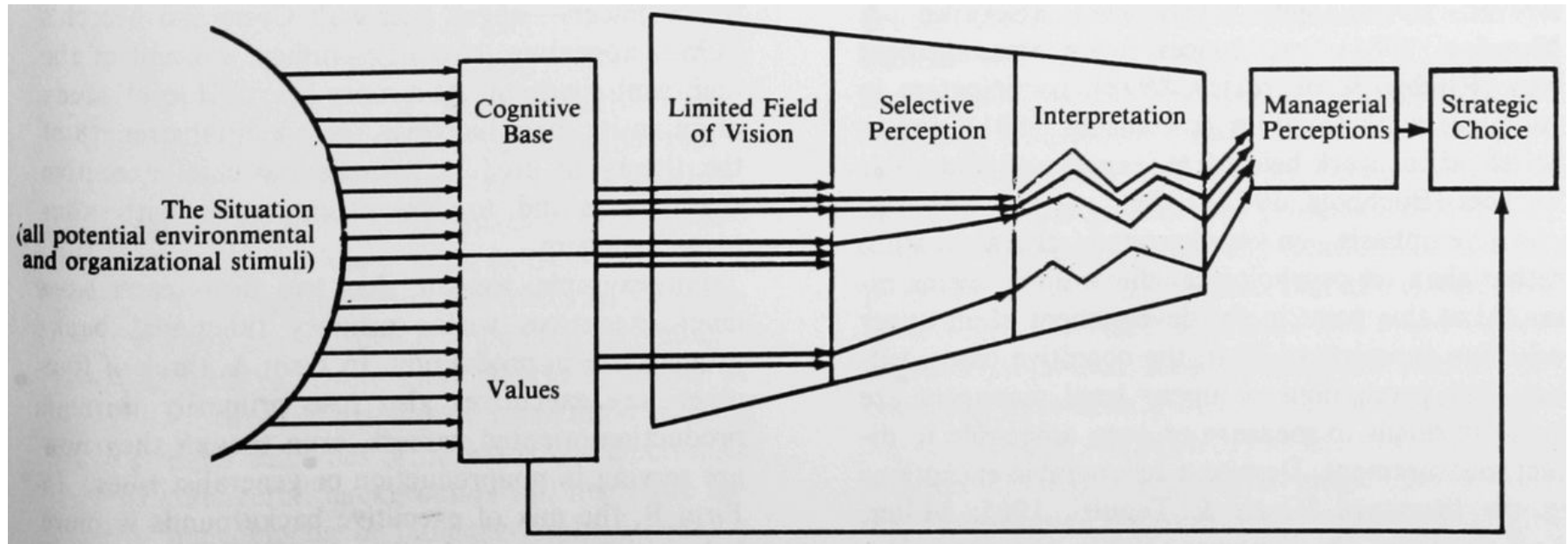
Joanna T. Campbell (University of Cincinnati/University of Notre Dame)

Aaron D. Hill (University of Florida)

- Strategic leadership
 - “The study of the most senior leaders of an organization who have overall decision-making responsibility for the enterprise”
 - Strategic leaders vs. strategic leadership
 - Origins
 - “Strategy is a human construction” (Andrews, 1971)
 - Carnegie School; Problemistic Search/Dominant Coalition; Managerial Treatises; Upper Echelons Theory
 - Related ideas and topics
 - Corporate governance; leadership; behavioral strategy; microfoundations of strategy
-

Upper Echelons Theory

(Hambrick & Mason, 1984; Finkelstein, Hambrick, & Cannella, 2009)



- CEOs' cognitions, preferences, and values influence their interpretations of strategic situations
- Objectively similar situations can lead to a wide range of different choices

Assessing the Field

- Common critiques (see Neely et al., 2020):
 - Incongruence of theory and method/sample
 - Attention to endogeneity
 - “Black box” processes
- Ongoing challenges:
 - The challenge of offering important insights
 - The challenge of access to strategic leaders to enable inquiry

Broad Implications of the 4IR

- Rise of social media
 - Associated with changes in how strategic leaders interact with constituents
 - Acceleration of big data analytics
 - Possibility for increased tension between leader selection and leader effectiveness
 - Growth of agentic technology
 - Rise of conjoined agency (humans and technology making decisions together)
 - Emergence of social issues and societal concerns
 - Greater pressure on leaders to engage
-

Recommendations for Researchers

- Continue striving to close the gap between constructs and measures
 - Consider a configurational approach to strategic leadership
 - Strategic leaders vs. strategic leadership
 - Focus on individual differences in engaging with and taking advantage of 4IR
-

Corporate Governance and the Fourth Industrial Revolution:

Promises & Challenges

Maria
Goranova

Yanqiu
Ren

Marti
Sagarra

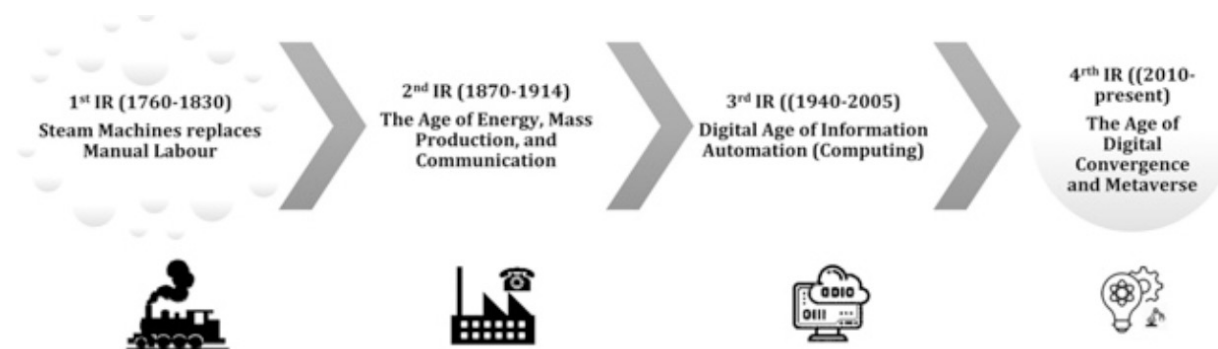
Sarthak
Singh

Cynthia
Clark



Plan

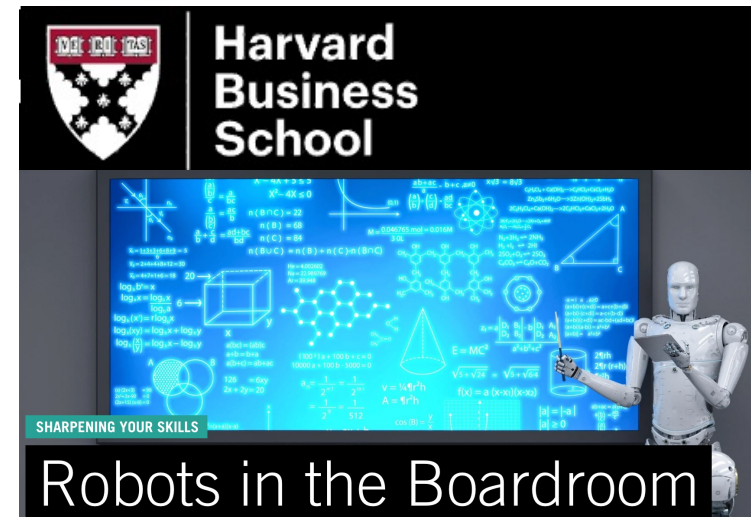
1. Motivation
2. Methodology
3. Corporate Governance
4. Digital Transformation and Corporate Governance



Source: Datta (2023) JITTC

The Future of the Corporation?

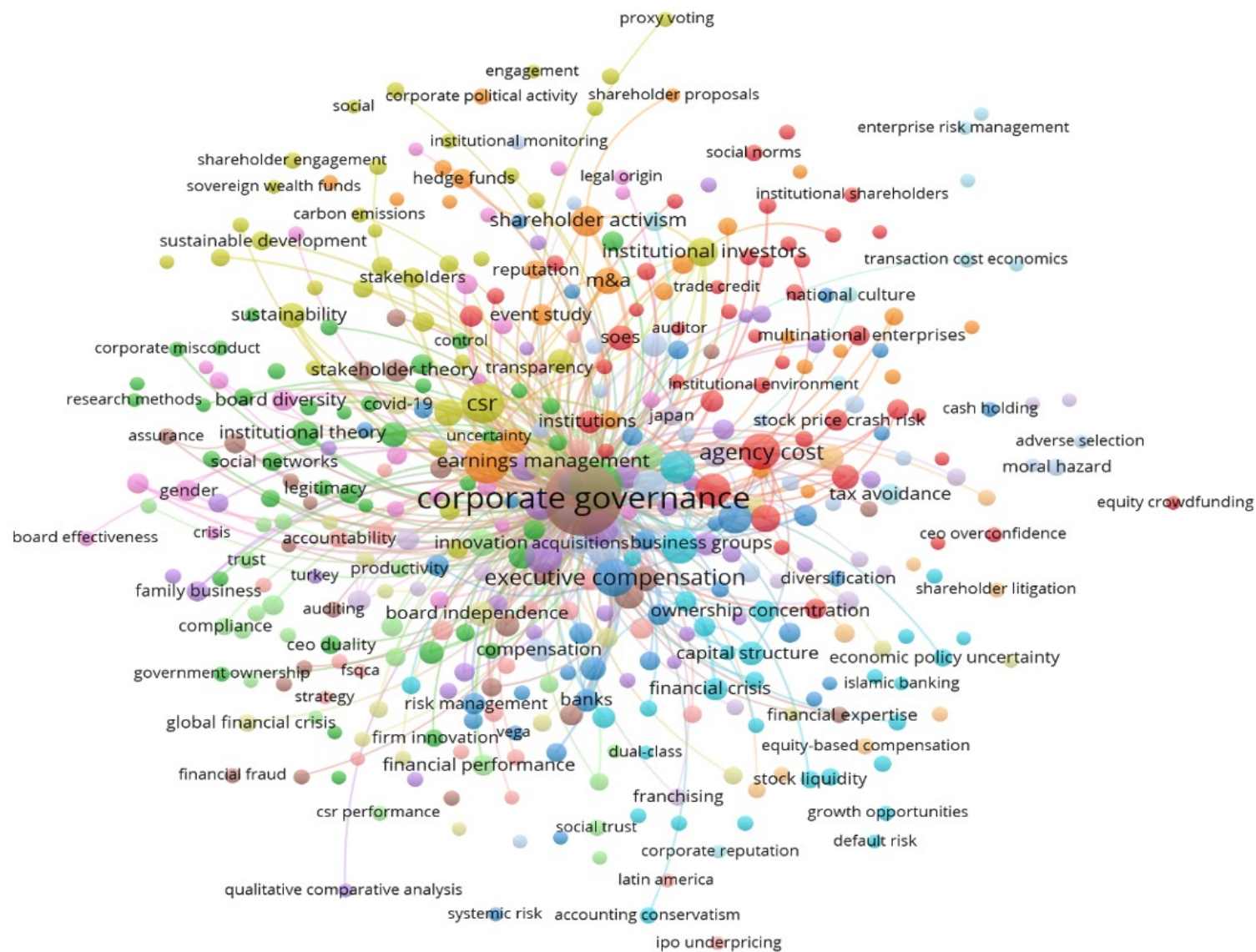
- Self-driving Corporations? (Armour & Eidenmuller, 2020)
- Board of directors using AI and disclosing board's response (Zhao, 2022)
- The unanticipated COVID-19 global event accelerated the emergence of a “business world in which the corporation ‘vanishes’ or becomes increasingly virtualized.” (Patriotta, 2021)

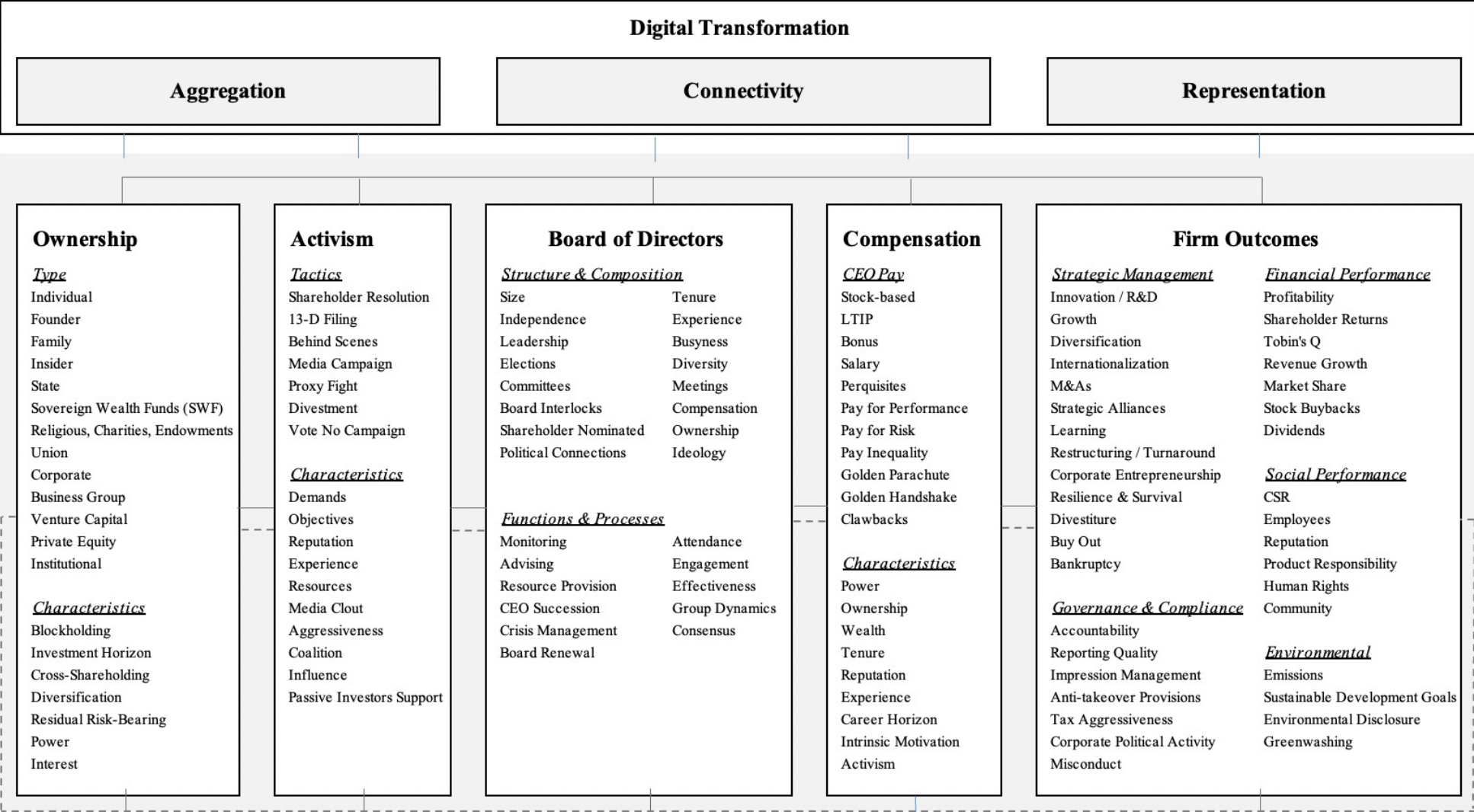


AI robot panel tells UN press conference they could be better world leaders than humans



Source: NBC, July 7, 2023





Feedback Loop & Spillovers

What is the Purpose of Corporate Governance?

1. What is a firm?
2. What is a firm's purpose?
3. Whom can we trust to execute the corporate purpose?

The Firm: Irrelevant or Essential?

1. “Nexus of contracts”

- Empty box, legal fiction, an “artificial construct under the law” (Jensen & Meckling, 1976)
- “a firm itself has no interests: only the stakeholders have interests” (Inkpen & Sundaram, 2022)

2. AI and digital transformation reducing transaction costs

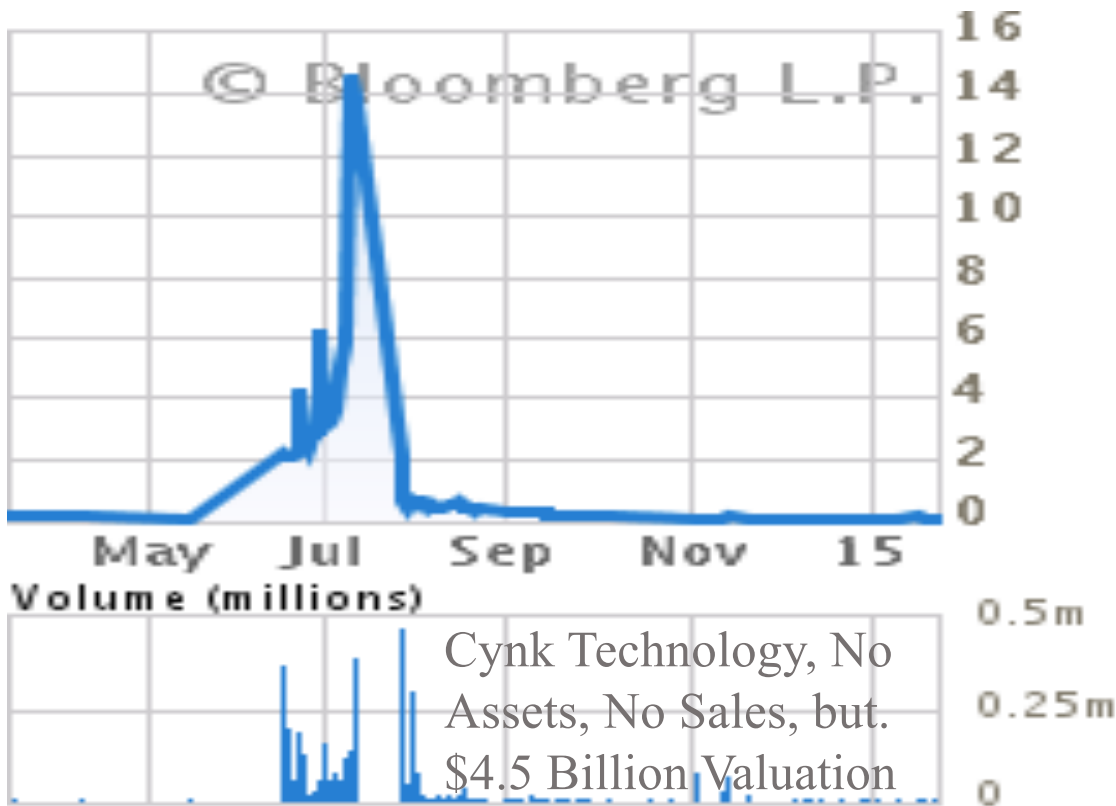
- Potential to render the firm obsolete? (Birkinshaw, 2018)
- Undermine shared values, trust, and beliefs? (Great Resignation, Quiet Quitting)
- Increased efficiency and productivity, eroded organizational identity?

3. AI and digital transformation increasing uncertainty

- “as the sense of a predictable future slips away” (Zuboff, 2019)
- Firms → uncertainty and trust (Pavlou et al., 2007; Zahedi & Song, 2008)

Firms:

Legal Fictions vs. Building Blocks of Economic Prosperity

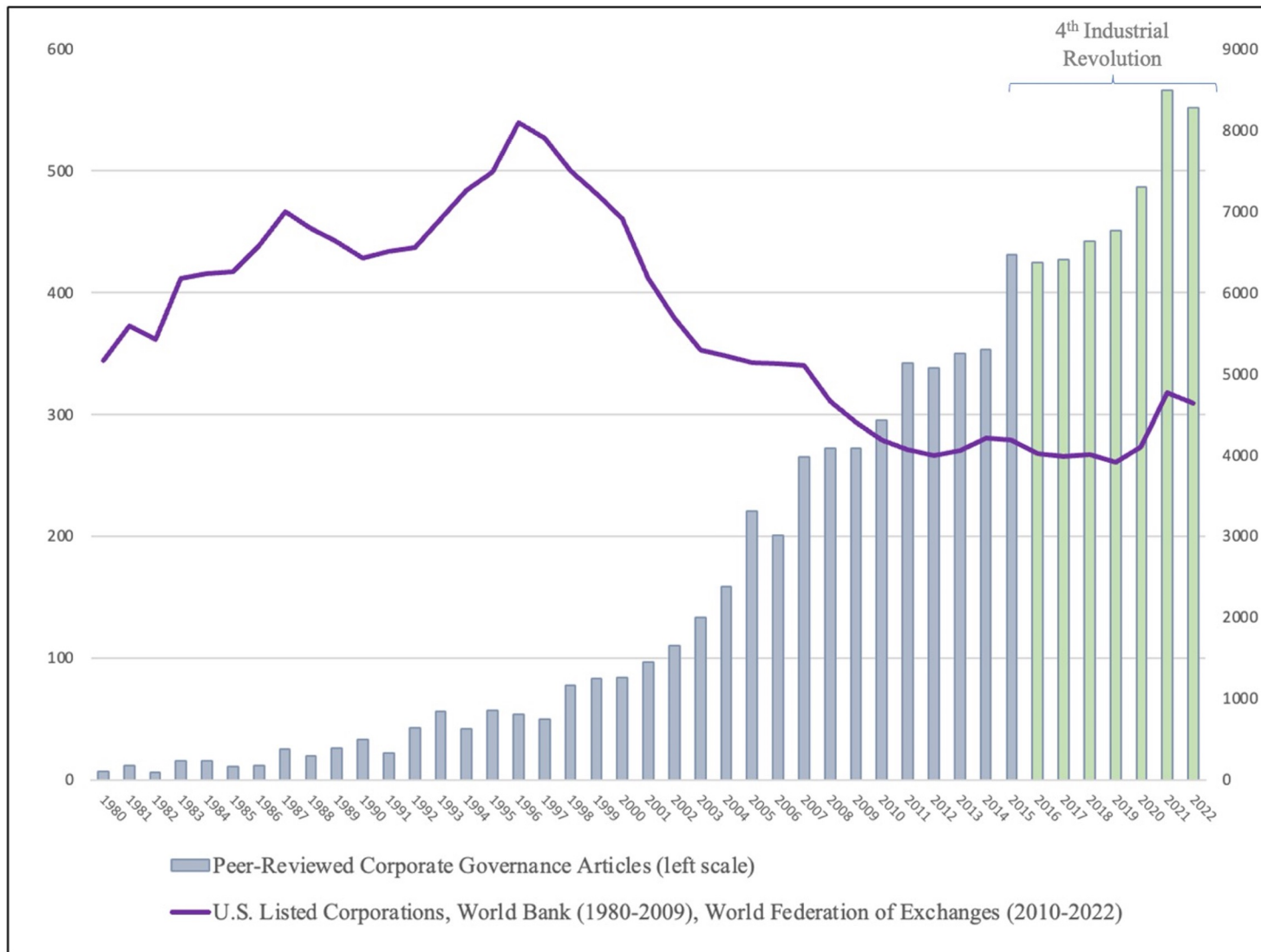


Firms:

Legal Fictions vs. Building Blocks of Economic Prosperity

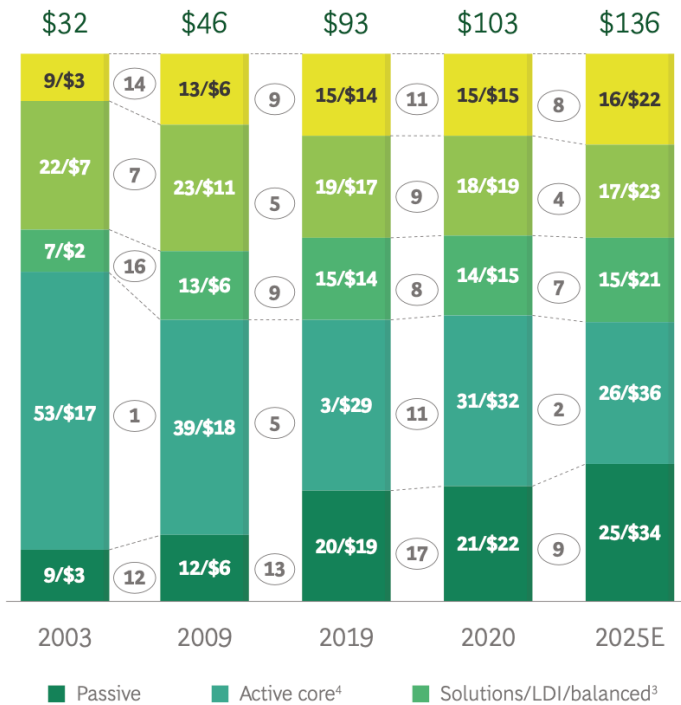


Adapted from Business Insider

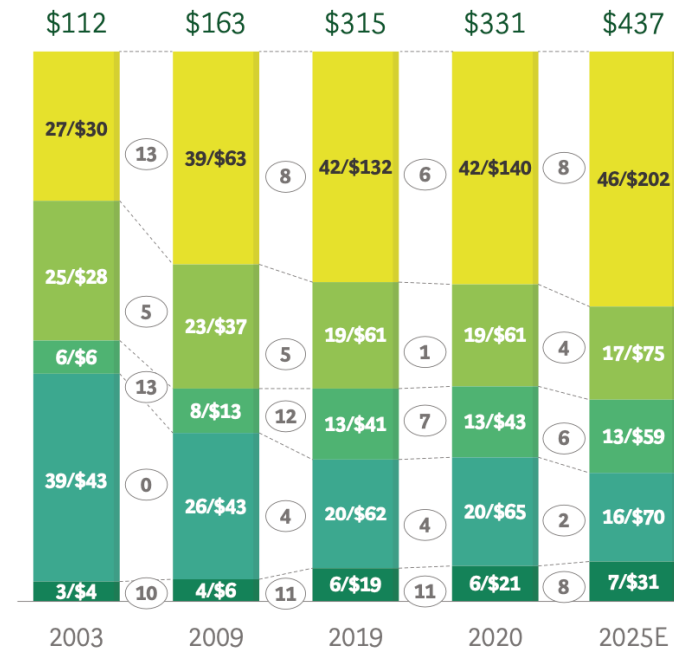


The \$126 Trillion Machine

GLOBAL AUM SPLIT BY PRODUCT
(%/\$trillions)



GLOBAL REVENUE SPLIT BY PRODUCT
(%/\$billions)



Source: Boston Consulting Group (2021)

Toward *Strategic* Corporate Governance

Goranova & Ryan (2022) Journal of Management Studies

A. Traditional Assumptions about Shareholders

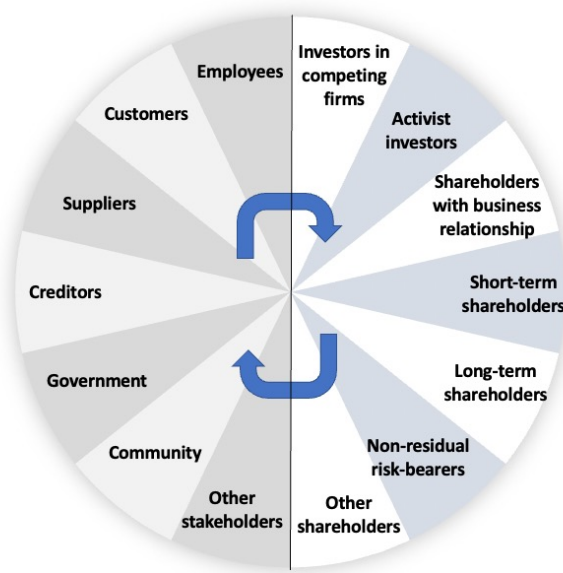


Corporate Governance:

Purpose: Maximize Shareholder Value

- What is good for shareholders is good for the firm
- Shareholders are residual-risk bearers
- Shareholder interests are homogeneous

B. Relaxed Assumptions about Shareholders

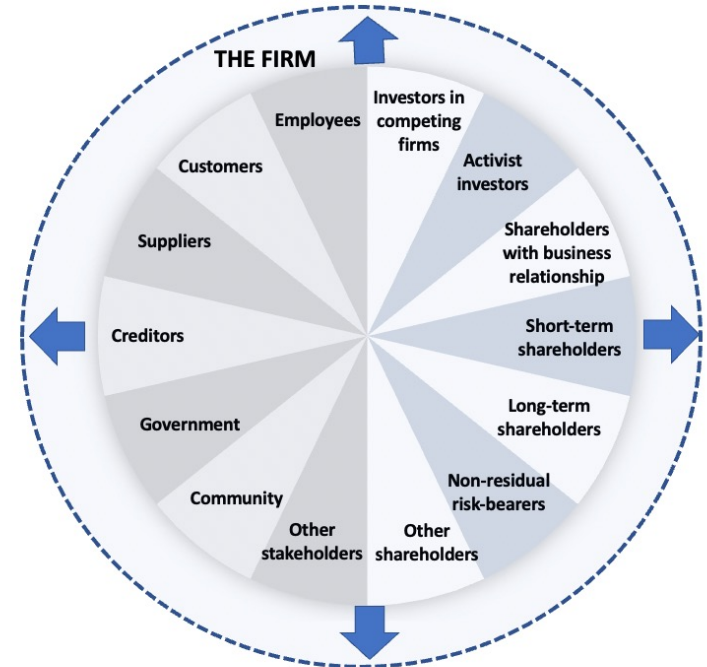


Governance Challenges:

Contemporary Shareholder Practices

- Shareholders investing in the firm's competitors
- Shareholders serving as agents of residual risk-bearers
- Shareholders with heterogeneous interests

C. Toward *Strategic* Corporate Governance



Strategic Corporate Governance:

Purpose: Sustainable Competitive Advantage

- Competitive firms will create more long-term value for both shareholders and other stakeholders
- Goal with internal, firm-specific locus that could be monitored and incentivized

A. Years 1970-2015			B. Year 2016			C. Year 2017			D. Year 2018			E. Year 2019			F. Year 2020			G. Year 2021			H. Year 2022		
#	Keyword	#	Keyword	#	Keyword	#	Keyword	#	Keyword	#	Keyword	#	Keyword	#	Keyword	#	Keyword	#	Keyword	#	Keyword	#	
1	corporate governance	1884	corporate governance	212	corporate governance	212	corporate governance	240	1	corporate governance	209	corporate governance	240	1	corporate governance	286	corporate governance	259	1	corporate governance	286	corporate governance	
2	agency theory	523	agency theory	45	agency theory	58	agency theory	58	2	agency theory	60	agency theory	56	2	agency theory	68	agency theory	60	2	agency theory	68	agency theory	
3	board of directors	253	executive compensation	25	board of directors	27	board of directors	35	3	board of directors	31	board of directors	32	3	board of directors	45	board of directors	39	3	board of directors	45	board of directors	
4	executive compensation	195	board of directors	24	agency cost	27	CSR	25	4	CSR	27	executive compensation	30	4	CSR	38	CSR	33	4	executive compensation	24	executive compensation	
5	agency cost	187	CSR	24	CSR	20	China	20	5	agency cost	23	CSR	25	5	agency cost	24	executive compensation	22	5	agency cost	24	executive compensation	
6	ownership structure	185	agency cost	22	China	20	firm performance	19	6	firm performance	23	family firms	23	6	firm performance	21	earnings management	21	6	firm performance	21	earnings management	
7	firm performance	134	China	21	firm performance	16	executive compensation	19	7	executive compensation	23	ownership structure	20	7	executive compensation	21	agency cost	18	7	executive compensation	21	agency cost	
8	China	116	ownership structure	19	ownership structure	15	agency cost	17	8	ownership structure	17	agency cost	18	8	ownership structure	19	firm value	17	8	ownership structure	19	firm value	
9	CSR	101	family firms	16	executive compensation	15	board independence	12	9	CEO compensation	12	firm performance	16	9	CEO compensation	17	information asymmetry	17	9	CEO compensation	17	information asymmetry	
10	earnings management	85	firm performance	14	institutional investors	13	monitoring	12	10	firm value	12	CEO compensation	15	10	firm value	17	family firms	16	10	firm value	17	family firms	
11	family firms	83	ownership	13	CEO compensation	13	agency problem	11	11	family firms	11	firm value	14	11	family firms	16	shareholder activism	16	11	family firms	16	shareholder activism	
12	ownership	77	agency problem	11	emerging economies	11	CEO compensation	11	12	audit committee	9	shareholder activism	13	12	audit committee	15	Covid-19	13	12	audit committee	15	Covid-19	
13	CEO compensation	66	<u>stewardship theory</u>	9	agency problem	10	firm value	11	13	China	9	agency problem	12	13	China	14	China	13	13	China	14	China	
14	governance	63	firm value	9	firm value	10	ownership structure	10	14	shareholder activism	9	ownership	11	14	shareholder activism	13	firm performance	12	14	shareholder activism	13	firm performance	
15	performance	61	CEO compensation	9	M&A	10	board composition	10	15	agency problem	9	emerging economies	11	15	agency problem	12	ownership structure	12	15	agency problem	12	ownership structure	
16	agency problem	61	audit committee	7	<u>innovation</u>	9	family firms	10	16	earnings management	8	M&A	10	16	earnings management	12	agency problem	12	16	earnings management	12	agency problem	
17	corporate control	60	emerging economies	7	earnings management	9	shareholder activism	9	17	emerging economies	8	institutional ownership	9	17	emerging economies	10	performance	11	17	emerging economies	10	performance	
18	board composition	56	<u>gender diversity</u>	7	information asymmetry	7	governance	8	18	institutional investors	8	audit committee	9	18	institutional investors	10	governance	11	18	institutional investors	10	governance	
19	regulation	55	CEO turnover	7	compensation	7	CEO turnover	8	19	performance	8	China	9	19	performance	10	<u>board gender diversity</u>	10	19	performance	10	<u>board gender diversity</u>	
20	IPO	55	information asymmetry	6	audit committee	7	independent directors	8	20	SOEs	7	investor protection	9	20	SOEs	9	emerging economies	9	20	SOEs	9	emerging economies	
21	institutional theory	54	<u>gender</u>	6	gender diversity	7	emerging economies	8	21	independent directors	7	sustainability	8	21	independent directors	9	CEO compensation	9	21	independent directors	9	CEO compensation	
22	emerging economies	54	investor protection	6	<u>SOEs</u>	7	institutional investors	8	22	M&A	7	innovation	8	22	M&A	9	institutional investors	9	22	M&A	9	institutional investors	
23	firm value	54	regulation	6	shareholder activism	7	<u>sustainability</u>	7	23	disclosure	6	information asymmetry	8	23	disclosure	9	M&A	9	23	disclosure	9	M&A	
24	institutional investors	53	shareholder activism	6	investment	6	stakeholder theory	7	24	<u>corruption</u>	5	monitoring	7	24	<u>corruption</u>	9	innovation	8	24	<u>corruption</u>	9	innovation	
25	audit committee	51	earnings management	6	board independence	6	financial crisis	7	25	capital structure	5	business groups	7	25	capital structure	8	audit committee	8	25	capital structure	8	audit committee	
26	shareholder activism	50	institutional investors	6	institutional theory	6	audit committee	7	26	financial performance	5	cash holdings	7	26	financial performance	8	<u>ESG</u>	8	26	financial performance	8	<u>ESG</u>	
27	monitoring	49	governance	5	<u>ownership concentration</u>	6	<u>internal audit</u>	6	27	information asymmetry	5	earnings management	7	27	information asymmetry	8	investor protection	8	27	information asymmetry	8	investor protection	
28	capital structure	49	capital structure	5	<u>financial crisis</u>	6	earnings management	6	28	CEO	5	gender diversity	7	28	CEO	8	stakeholder theory	8	28	CEO	8	stakeholder theory	
29	compensation	48	monitoring	5	capital structure	6	Sarbanes-Oxley Act	6	29	compensation	5	SOEs	7	29	compensation	8	CEO	8	29	compensation	8	CEO	
30	M&A	47	<u>banks</u>	5	cash holdings	6	<u>family business</u>	6	30	incentives	5	<u>short-termism</u>	6	30	incentives	8	risk taking	7	30	incentives	8	risk taking	
31	privatization	43	business groups	5	family firms	6	IPO	6	31	CEO power	5	audit fees	6	31	CEO power	8	institutional theory	7	31	CEO power	8	institutional theory	
32	board structure	42	<u>independent directors</u>	5	<u>audit quality</u>	5	performance	6	32	gender diversity	5	institutional theory	6	32	gender diversity	7	resource dependence theory	7	32	gender diversity	7	resource dependence theory	
33	incentives	41	stakeholder theory	4	<u>financial constraints</u>	5	capital structure	6	33	investor protection	5	cost of debt	6	33	investor protection	7	gender diversity	7	33	investor protection	7	gender diversity	
34	investor protection	40	compensation	4	<u>risk</u>	5	stewardship theory	6	34	<u>multinational enterprises</u>	5	<u>event study</u>	6	34	<u>multinational enterprises</u>	7	<u>stock price crash risk</u>	7	34	<u>multinational enterprises</u>	7	<u>stock price crash risk</u>	
35	business ethics	39	disclosure	4	CEO turnover	5	<u>political connections</u>	6	35	<u>insider ownership</u>	5	board composition	6	35	<u>insider ownership</u>	7	<u>corporate culture</u>	6	35	<u>insider ownership</u>	7	<u>corporate culture</u>	
36	stakeholders	39	<u>board diversity</u>	4	investor protection	5	institutional theory	5	36	risk taking	5	political connections	6	36	risk taking	7	ownership	6	36	risk taking	7	ownership	
37	business groups	36	<u>resource dependence theory</u>	4	performance	5	investment	5	37	Sarbanes-Oxley Act	5	<u>hedge fund activism</u>	6	37	Sarbanes-Oxley Act	6	political connections	6	37	Sarbanes-Oxley Act	6	political connections	
38	CEO turnover	35	<u>risk management</u>	4	<u>dividend</u>	5	<u>stakeholder engagement</u>	5	38	<u>cost of debt</u>	4	stakeholders	5	38	<u>cost of debt</u>	6	sustainability	6	38	<u>cost of debt</u>	6	sustainability	
39	takeovers	34	board composition	4	board composition	5	cash holdings	5	39	institutions	4	institutions	5	39	institutions	6	<u>financial reporting quality</u>	6	39	institutions	6	<u>financial reporting quality</u>	
40	shareholder value	34	board structure	4	<u>CEO power</u>	4	dividend	5	40	<u>entrepreneurship</u>	4	ownership concentration	5	40	<u>entrepreneurship</u>	6	female directors	6	40	<u>entrepreneurship</u>	6	female directors	
41	CEO	33	<u>diversity</u>	4	<u>real options</u>	4	disclosure	5	41	financial crisis	4	<u>investment efficiency</u>	5	41	financial crisis	6	<u>internationalization</u>	6	41	financial crisis	6	<u>internationalization</u>	
42	information asymmetry	33	<u>female directors</u>	4	<u>dividend policy</u>	4	<u>assurance</u>	5	42	stewardship theory	4	board diversity	5	42	stewardship theory	6	compensation	6	42	stewardship theory	6	compensation	
43	Sarbanes-Oxley Act	33	<u>national culture</u>	4	CEO	4	<u>voluntary disclosure</u>	5	43	governance	4	disclosure	5	43	governance	6	<u>top management teams</u>	5	43	governance	6	<u>top management teams</u>	
44	financial performance	33	<u>risk taking</u>	4	<u>institutional ownership</u>	4	information asymmetry	5	44	<u>information environment</u>	4	governance	5	44	<u>information environment</u>	6	risk management	5	44	<u>information environment</u>	6	risk management	
45	board independence	32	<u>cash holdings</u>	4	<u>resource-based view</u>	4	<u>hedge funds</u>	5	45	<u>outside directors</u>	4	takeovers	5	45	<u>outside directors</u>	6	<u>sustainable development</u>	5	45	<u>outside directors</u>	6	<u>sustainable development</u>	
46	stakeholder theory	32	<u>cross-listing</u>	4	<u>financial reporting</u>	4	<u>entrenchment</u>	4	46	<u>blockholders</u>	4	institutional investors	5	46	<u>blockholders</u>	5	<u>upper echelons theory</u>	5	46	<u>blockholders</u>	5	<u>upper echelons theory</u>	
47	disclosure	32	<u>family control</u>	4	acquisitions	4	innovation	4	47	<u>audit fees</u>	4	family business	4	47	<u>audit fees</u>	5	board diversity	5	47	<u>audit fees</u>	5	board diversity	
48	diversification	32	<u>institutions</u>	4	IPO	4	<u>state ownership</u>	4	48	audit quality	4	<u>family ownership</u>	4	48	audit quality	5	financial performance	5	48	audit quality	5	financial performance	
49	acquisitions	31	<u>managerial incentives</u>	4	financial performance	4	incentives	4	49	institutional theory	4	female directors	4	49	institutional theory	5	hedge fund activism	5	49	institutional theory	5	hedge fund activism	
50	ethics	30	<u>banking</u>	4	<u>SMEs</u>	4	board structure	4	50	<u>social capital</u>	4	banks	4	50	<u>social capital</u>	5	information environment	5	50	<u>social capital</u>	5	information environment	
Top 50 total occ:		5513	Top 50 total occ:		645	Top 50 total occ:		669	Top 50 total occ:		717	Top 50 total occ:		665	Top 50 total occ:		757	Top 50 total occ:		883	Top 50 total occ:		819
Total A and A* articles		4621	Total A and A* articles		425	Total A and A* articles		427	Total A and A* articles		442	Total A and A* articles		451	Total A and A* articles		487	Total A and A* articles		566	Total A and A* articles		552

Can We Trust Corporate Managers?



"Should we railroad only to maximize short-term returns at all cost for as long as we can before worn-out assets, frustrated customers, concerned communities, burned-out employees, chagrined regulators and upset elected officials blow the whistle?" (ousted CEO, 2021)



What is a Firm's Purpose?

- “While it is undoubtedly true that **Exxon ‘wants’ to produce petroleum**, we cannot, therefore, conclude that all of its members - or indeed, **any of its members - personally want to produce or has the goal of producing petroleum**, nor is it likely that many of the members joined Exxon in order to satisfy a preexisting desire to produce petroleum. Exxon does not produce petroleum because its members want to.” (Hess, 2018:35)
- “Without a sense of purpose, no company... can achieve its full potential...It will succumb to short-term pressures to distribute earnings, and, in the process, sacrifice investments in employee development, innovation, and capital expenditures that are necessary for long-term growth. It will remain **exposed to activist campaigns that articulate a clearer goal, even if that goal serves only the shortest and narrowest of objectives.**” (L. Fink, BlackRock, 2018)
- “they had voted the equivalent of public Benefit Corporation [B-Corp] status, 99%, **not even a year before**, they had agreed with the €3 billion climate and digital acceleration plan that we had announced a year before...None of them were opposed to what we were doing” - Emanuel Faber’s reaction to his ouster from Danone by Bluebell Cap (0.5% stake) (Walt, 2021).

Hedge funds

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The little-known activist fund that helped topple Danone's CEO

Bluebell Capital runs just €70m in assets but has big targets in its sights



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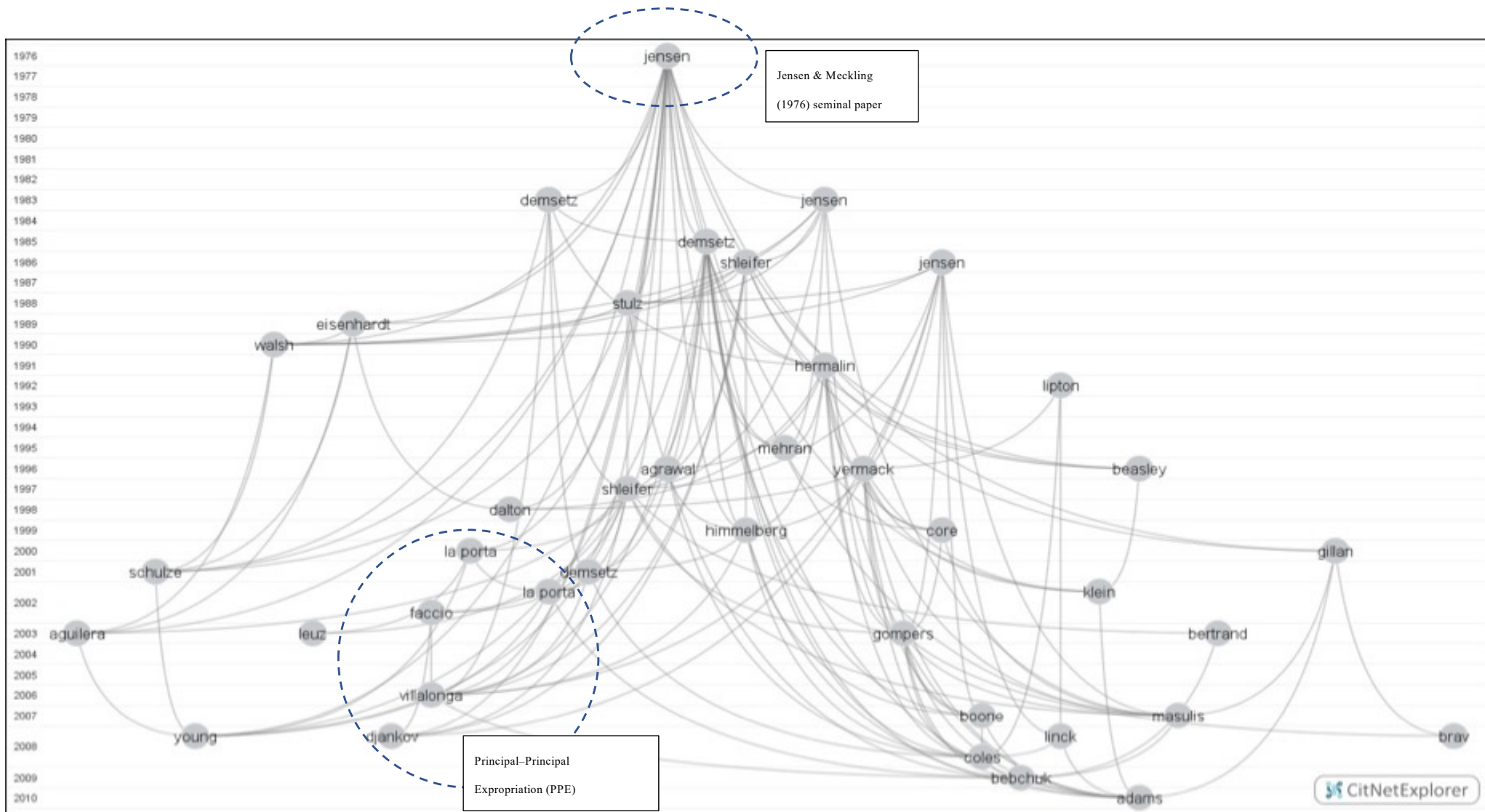
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BUSINESS

CEO of Yogurt Giant Danone Steps Aside After Clash With Activists

Investors had called for Emmanuel Faber's ouster, citing Danone's lackluster share price and underperforming brands

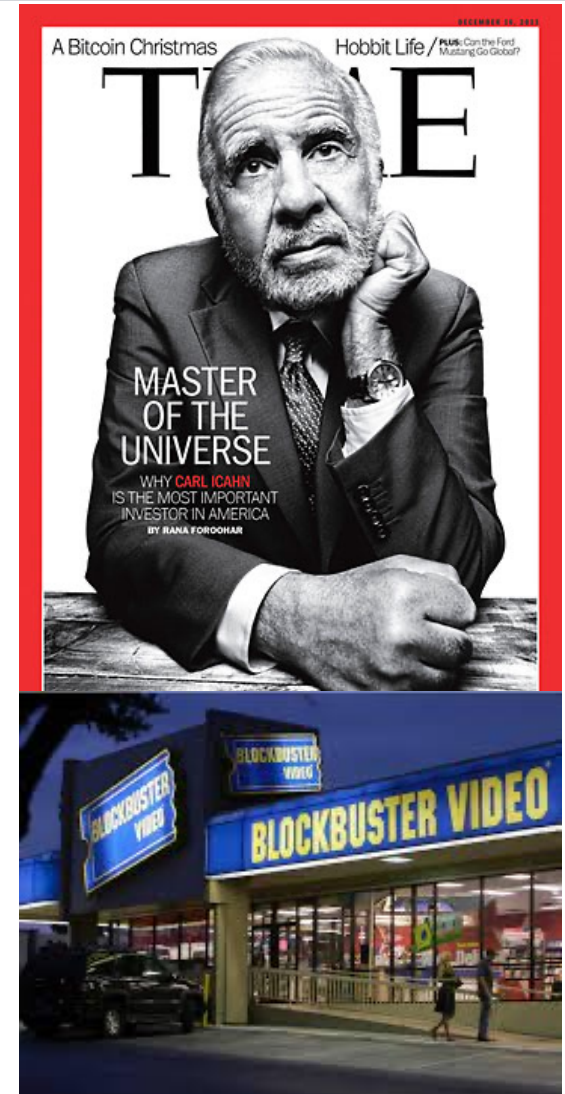
- 0.5% stake in Danone
- Backed by Elliott & Third Point
- “They were particularly effective in building a consensus among fellow shareholders who may have been nervous of being seen to criticize Faber’s ethical credentials” (veteran hedge fund activist)
- Not Danone’s first HF activist (Nelson Peltz)
- “We only have one responsibility as investors: to maximize return. That’s it. So basically *we can tell a company to fire five thousand employees tomorrow, and if that maximizes return for the company we did something well. We can tell that company to do something that maybe is bad for the environment*” (L. Fink, BlackRock, 2016)



Can We Trust the Owners?



Bill Ackman (18% stake in JCP)
“Ruined The Lives Of Thousands Of
JCPenney Employees”



Can We Trust the ‘Owners’ (i.e., the other set of agents)?



- Ackman (Sep. 2014): “Allergan has distinguished itself in running the most shareholder-unfriendly, hostile defense process perhaps in the history of corporate America. In doing so, Allergan has wasted corporate resources, poisoned its relationship with its shareholders, and destroyed shareholder value.”
- Market for Corporate Control → Market for Corporate Influence
- **Private Benefits of Control → Private Benefits of Influence?**



REUTERS BREAKINGVIEWS

**The
Economist**

FEBRUARY 7TH-13TH 2015

Economist.com

Greece's bond bombshell
In praise of three-parent babies
Nigeria's blood-soaked election
Will India pollute more than China?
How to quit the corner office

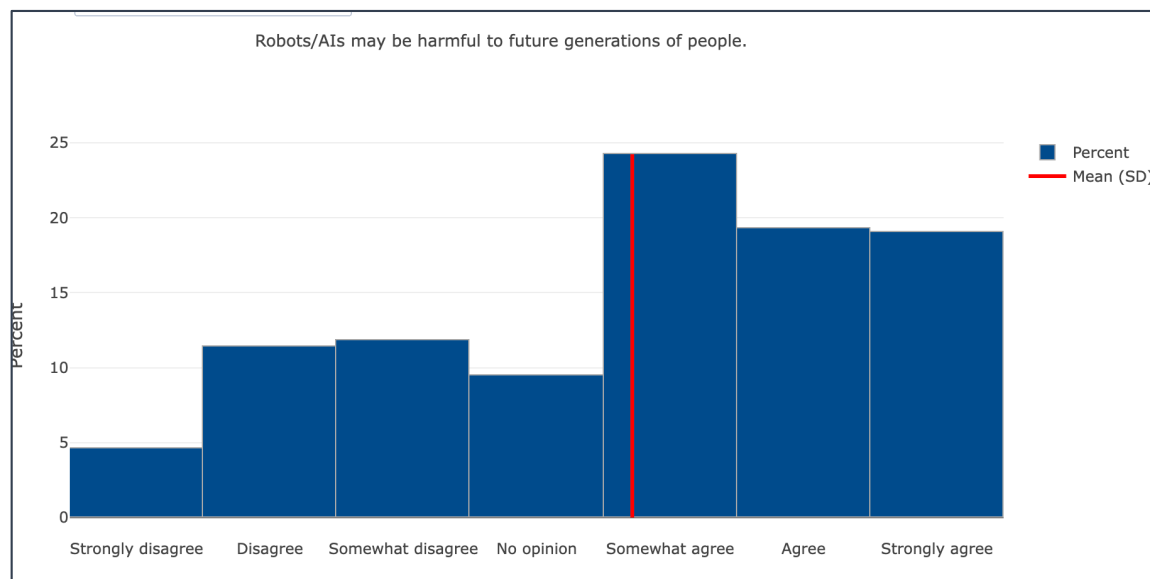
Capitalism's unlikely heroes

Why activist investors
are good for the
public company



So, Can We Trust the AI Designers and AI?

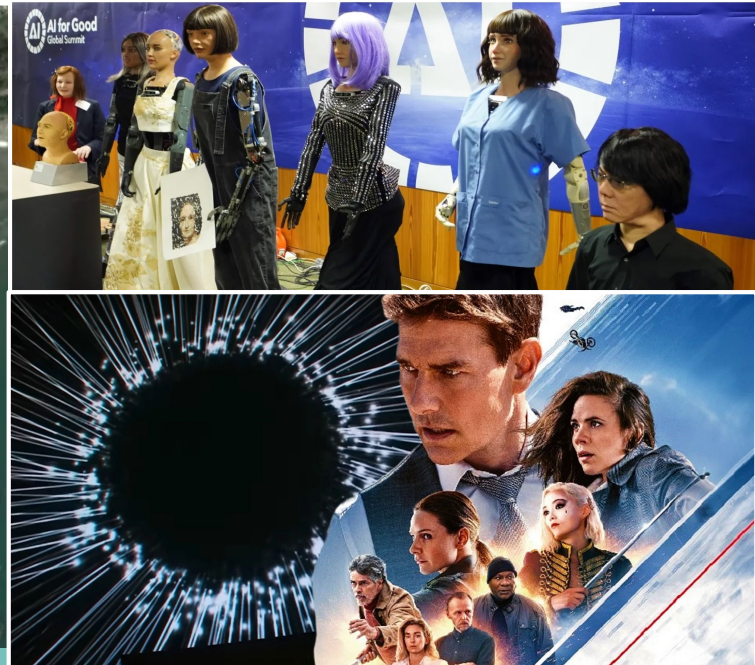
- Artificial Intelligence (AI) could minimize governance costs in the future and eventually replace management and board of directors (Armour & Eidenmuller, 2020; Petrin, 2019; Zhao, 2022).
- “AI systems with human-competitive intelligence can pose profound risks to society and humanity” (Open Letter, 2023)



AIMS Survey: 69% perceived AIs as threatening to future generations of people

So, Can We Trust AGI?

- Training on human generated data
- Information vs. knowledge
- Uncertainty and decision making with discontinuity
- Responsibility & accountability



Thank You!



Digital Platforms, Ecosystems, and Strategic Leadership



There are three questions I would like to focus on today

Questions and takeaways of this presentation

1. What is new about business ecosystems for strategic leadership research?
2. What are the implications of the platform ecosystem characteristics for strategic leaders' managerial roles?
3. What are the future research avenues?

As the underlying logic of ecosystem business differs, there is an urgent need to re-visit strategic leadership theories

What is new about business ecosystems for strategic leadership research

	Old world	New world
Market structures	Slow-moving markets with diversified corporations (Chandler, 1962)	Dynamic markets with entrepreneurial, disruptive enterprises (König et al., 2023)
Organizational structures	Multi-divisional, vertically integrated (Chandler, 1962, 1977)	Porous, inclusive, and permeable (Jacobides et al., 2018; Ocasio et al., 2023)
Attention structures	Focused, selected, and structurally distributed (Ocasio, 1997)	Less hierarchical and formalized, highly integrated, and dynamic (Ocasio et al., 2023)

As the context in which strategic leaders are active differs, so may the outcomes related to different constructs, e.g.,

- Executive character traits
- Managerial orientation

differ substantially

In our first project, we distilled the main characteristics of platform ecosystems and applied our findings to Mintzberg's (1973) managerial roles

Implications of the platform ecosystem characteristics for strategic leaders' managerial roles

	Value co-creation	Ecosystem governance
Interpersonal roles • Figurehead • Liaison • Leader	Building, engaging, and cultivating the ecosystem	Gaining legitimacy and fostering common goals
Informational roles • Monitor • Disseminator • Spokesperson	Enabling interorganizational learning	Using information as an incentive for intra-platform compliance
Decisional roles • Entrepreneur • Disturbance handler • Resource allocator • Negotiator	Detecting opportunities beyond firm's boundaries and allocating shared resources	Sharing of decisional power across ecosystem

Currently, we are extending strategic leadership into the business ecosystem context in the following projects

Some of our current projects

	CEO Narcissism in Ecosystems	Ecosystem Orientation	Business Ecosystems across Cultures
Study type	Conceptual	Qualitative/quantitative	Qualitative comparative/configurational (QCA)
Key question	What is the impact of executive narcissism on the ecosystem participation dynamics?	How does the ecosystem orientation of executives influence ecosystemization of a firm?	How do cultural and institutional contexts affect emergence of business ecosystems?
Contribution	Conceptualization of an interplay between CEOs with various levels of narcissism	Conceptualization and measurement of ecosystem orientation	Integration of strategic management and international business perspectives

Lastly, we are organizing an EIASM conference on the topic of strategic Leadership and Attention in a Post-Chandlerian World

EIASM 2024

13TH WORKSHOP ON TOP MANAGEMENT TEAMS AND BUSINESS STRATEGY RESEARCH

STRATEGIC LEADERSHIP AND ATTENTION IN A POST-CHANDLERIAN WORLD

June 6-7, 2024

Passau, Germany

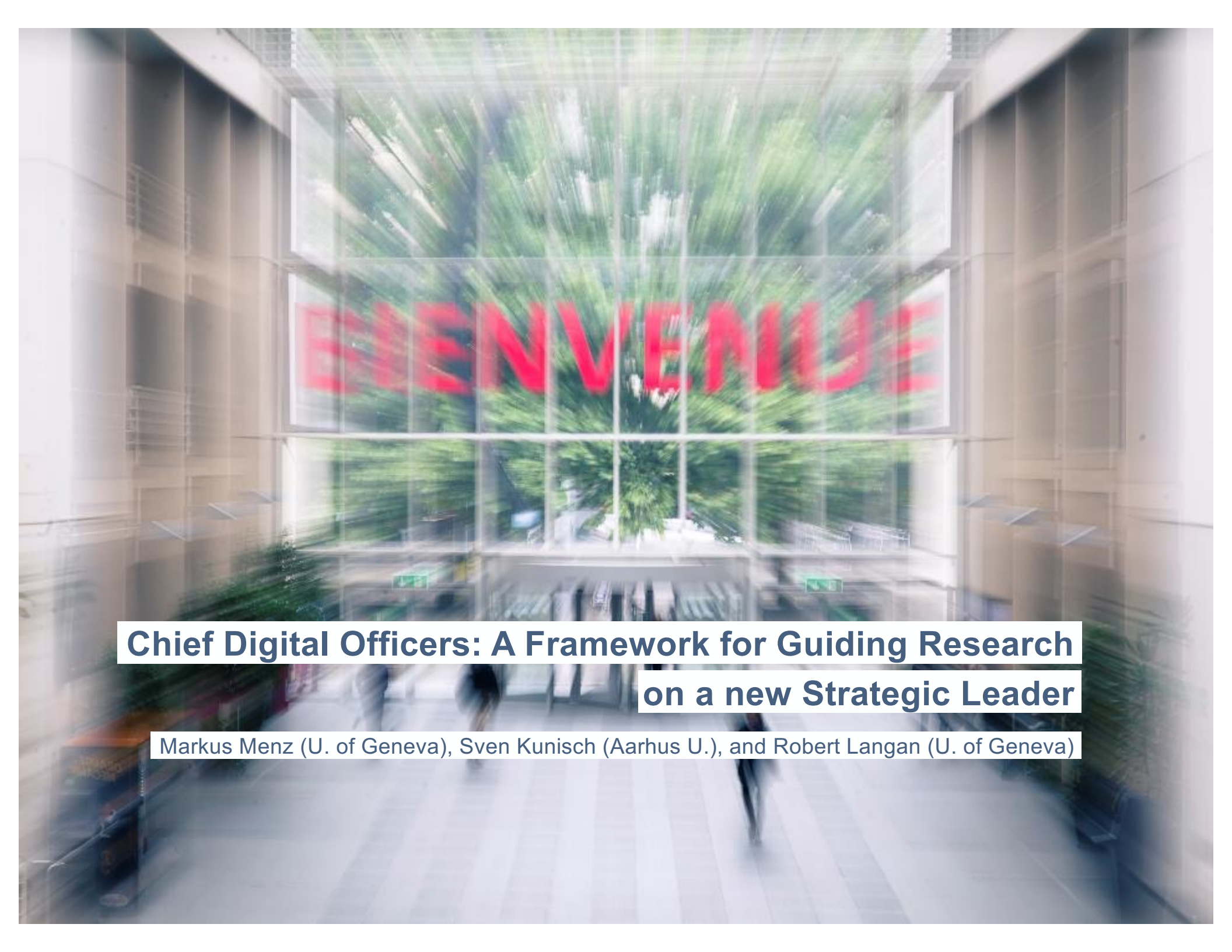
CO-ORGANIZED WITH



CHAIRPERSONS

Andreas König^a, Başak Yakış-Douglas^b, and Lorenz Graf-Vlachy^c

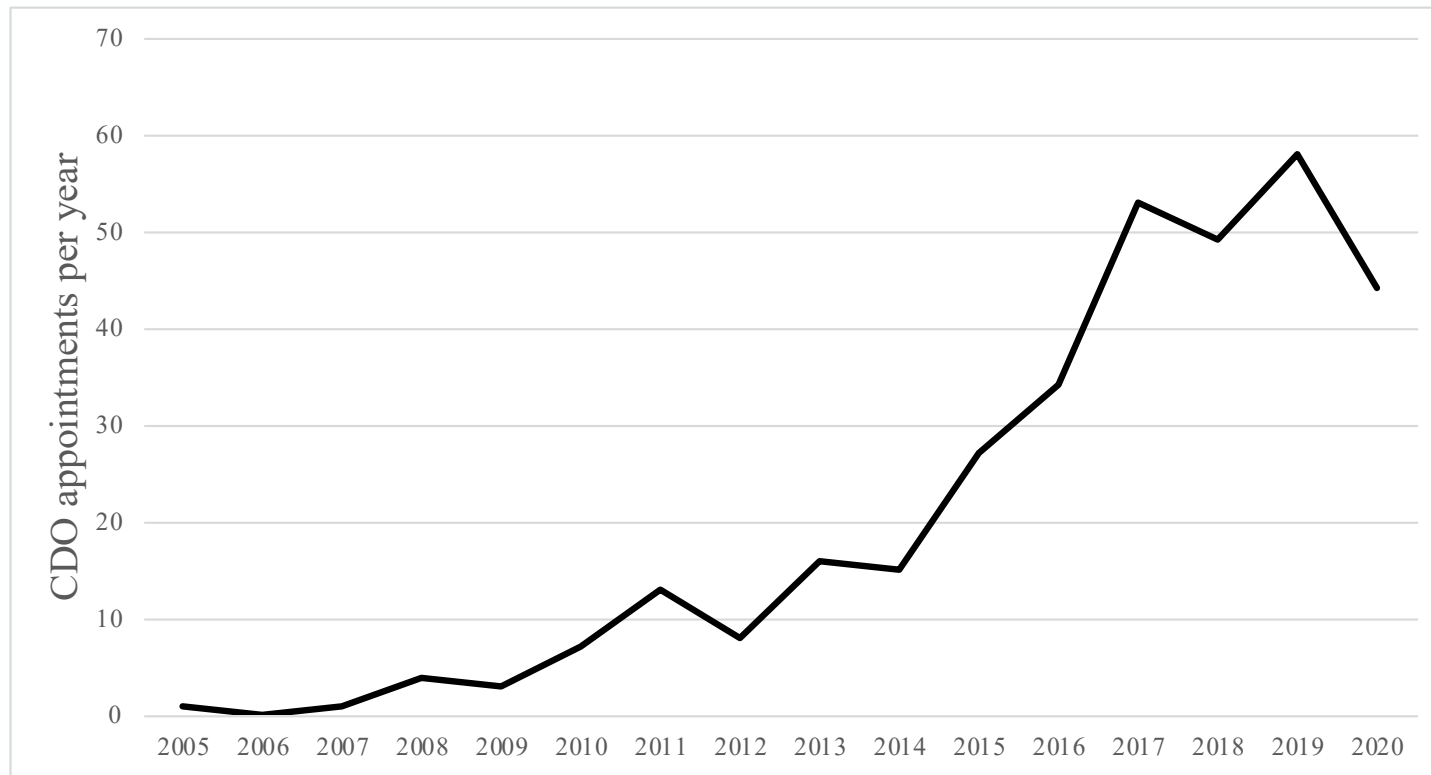
(^aUniversity of Passau; ^bKing's College London and Saïd Business School, University of Oxford;
^cTU Dortmund University)



Chief Digital Officers: A Framework for Guiding Research on a new Strategic Leader

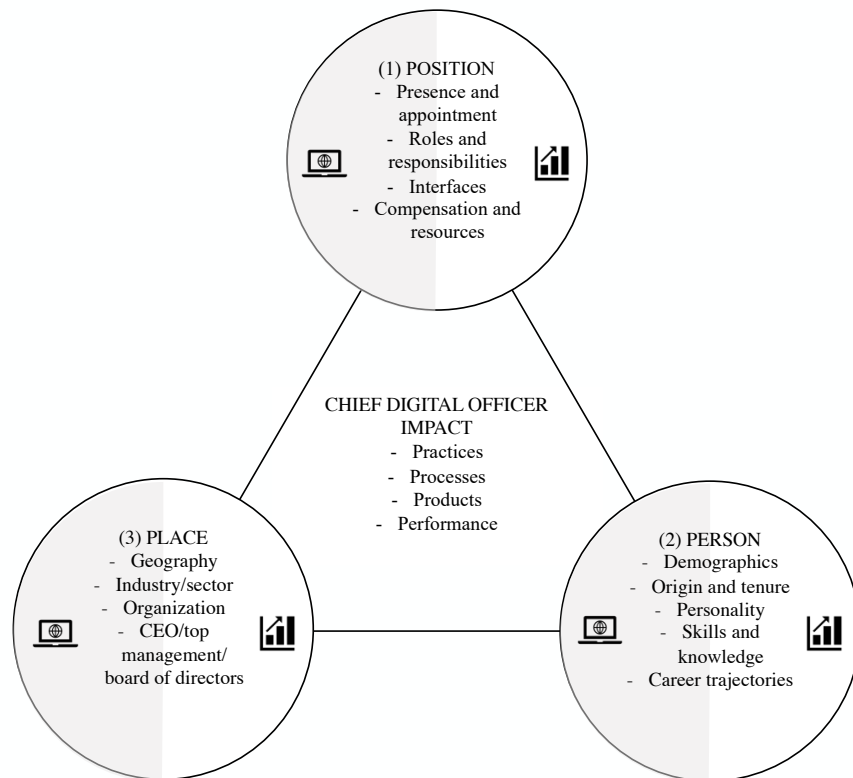
Markus Menz (U. of Geneva), Sven Kunisch (Aarhus U.), and Robert Langan (U. of Geneva)

Chief Digital Officer Appointments*



* Based on CDO appointment announcements by US firms reported in the *BoardEx* database, 2005-2020.

The 3P Framework of Chief Digital Officers



- **A framework as a foundation** for future research and practice; informed by a review of existing research
- The 3P framework fosters a **systematic and holistic analysis** of the CDO
 1. Ensures that the most relevant features of the focal strategic leader are considered in a structured way without neglecting important aspects
 2. Allows assessing the fit of its various components with one another, which the connections between the 3Ps illustrate
- **For firms in the Fourth Industrial Revolution**, the 3P framework enables assessing if and when a CDO position should be created, how it should be designed, and how it should be staffed

Future Research Directions and Questions

Research direction	Exemplary questions
(1) Position: Examining the variety of design options for CDOs	• When do organizations create/have a centralized CDO position or not? Under which conditions does an organization benefit from this choice? • Should a firm create an entirely new CDO position or transform an existing top management position? • Which responsibilities does/should the CDO have? When should the CDO position be more focused on information technology, operations/processes, or business model/marketing/product? • Which role do vertical and horizontal interfaces, especially with other top management positions, play for the CDO's impact? • Which resources does/should the CDO have, and where are/should these be located (e.g., centralized vs. decentralized resources)?
(2) Person: Exploring the individuals who serve as CDOs	• Which background characteristics, capabilities, knowledge, and experiences does/should the CDO have? How do these differ across organizations and role? • To what extent, and under which conditions, do firms benefit from an CDO hired from outside of the organization/industry? • How important is technology experience, and how important business experience for a CDO? • Which personality traits does/should a CDO have? How do these differ to other top managers? • What does the career trajectory of the CDO look like? What do former CDOs do, and what role does their CDO experience play for other jobs?
(3) Place: Analyzing the contextual differences of CDOs	• Which factors in the institutional (geographic) environment influence choices concerning the CDO, and why? • Which factors in the competitive/market environment (industries/sectors) influence the presence and effects of the CDO, and how and why? • What are the factors concerning firm-level (corporate) strategy and (digital) business model and choices concerning the CDO? • To what extent does the firm's governance, board of directors, and executive management affect the creation and design of the CDO position, as well as of the person selected for the position?



Executive Digital Savviness

Ann Mooney Murphy

Sibel Ozgen Novelli

Stevens Institute of Technology

School of Business



ORGANIZATION OF THE PRESENTATION

- Define and discuss executive digital savviness
- Present select insights from interviews conducted with 5 top executives and surveys received from 197 top executives
- Provide a conceptual model of executive digital savviness

4TH INDUSTRIAL REVOLUTION & NEED FOR EXECUTIVE DIGITAL SAVVINESS

- The proliferation of digital technologies distinguishes this industrial revolution from others (Lanzolla et al., 2018; Teece, 2018).
- These new competitive dynamics are so intense and vital to a firm's survival that some experts have described it as **"digital Darwinism"** (Cristofaro, 2020).
- There is an urgent need for top executives to make informed strategic decisions about digital transformation.
- Whereas technology decisions could previously be handled by technical leaders – e.g., CIOs, CTOs, CDOs – in most firms, these decisions require the attention of all top executives, including the CEO (Bharadwaj et al., 2013; Siebel, 2017).
- Only 5%-10% of firms are led by digital-ready leaders (Deloitte, 2017; Mooney et al. 2022, PwC, 2018).

EXECUTIVE DIGITAL SAVVINESS DEFINED

We define executive digital savviness as:

“An executive’s ability to continuously understand new and emerging digital technologies and how to exploit them to benefit their firm.”

It means:

- *Understanding* digital technologies.
- Updating their understanding on a *continuous* basis.
- Exploiting digital technology for the benefit of the firm.

IMPROVED UNDERSTANDING OF DIGITAL SAVINESS WITH INPUT FROM SENIOR EXECUTIVES

- Probed executives using two approaches:
 - Interviews with 5 top executives
 - Surveys collected from 197 most senior executives
- Research was exploratory in nature, and conducted as part of a related research project

THE INTERVIEWS

- 5 interviews conducted
- Titles: CEO, CMO, COO (2) & CIO
- Work Experience: 24 years
- Firm Tenure: 16 years
- Gender composition: 4 male/ 1 female
- Industry representation: 5 sectors – biotechnology; financial services; publishing; media and pharmaceuticals

SELECT EXECUTIVE QUOTES

“I remember one incident a couple of weeks ago where I was in a meeting and I really was like, god all mighty, this is too damn complicated. So I think that ends up being the issue, it’s your ability and appetite, to engage at a detailed level. And sometimes it is just a skill thing.”

Chief Marketing Officer

SELECT EXECUTIVE QUOTES

“Most of us executives came up through the ranks with more of a cursory understanding of technology. You know, enough to be able to ask the right questions to the IT department or the technology leaders. Can’t get away with that anymore given how central digital is to the business. I often feel like I’m drinking from a fire hose trying to keep up.”

CEO & President

“I remember sitting there for an hour and a half looking at the details...because I come from the technology industry...and some of these issue are very, very complex and technical and very not, sometimes, intuitive. I think there is a premium on that level of executive management...these programs don’t succeed without it.”

Chief Operating Officer

SELECT EXECUTIVE QUOTES

“I have to have the willingness and the ability to commit what is necessary to get it done. Estimates are wrong. They are usually less than what it actually takes. So you’ve got to be willing to say whatever it takes. Or know that you’ve got to be willing to commit what is necessary to make it happen.”

Chief Operating Officer

SELECT EXECUTIVE QUOTES

“I hate to say it but sometimes our executive team members are like deer in headlights. I try to tell them the urgency needed, that our competitors’ tech will leave us behind. But so many of them don’t get it and often get stalled or waiver in how they approach the situation.”

Chief Information Officer

THE SURVEYS

- 197 surveys received
- Titles: the CEO, the President, COO
- Work Experience: 29.87 years
- Firm Tenure: 14.4 years
- Position tenure: 5.45 years
- Gender composition: 88.2% male (11.8% female)
- Firm size: Over 100 employees, with the majority having between 2500 to 5000
- Industry representation: 9 sectors (e.g., finance, insurance and real estate; wholesale and retail trade; industrial manufacturing; aerospace; media & entertainment; professional services; healthcare; mining; public administration; transportation)

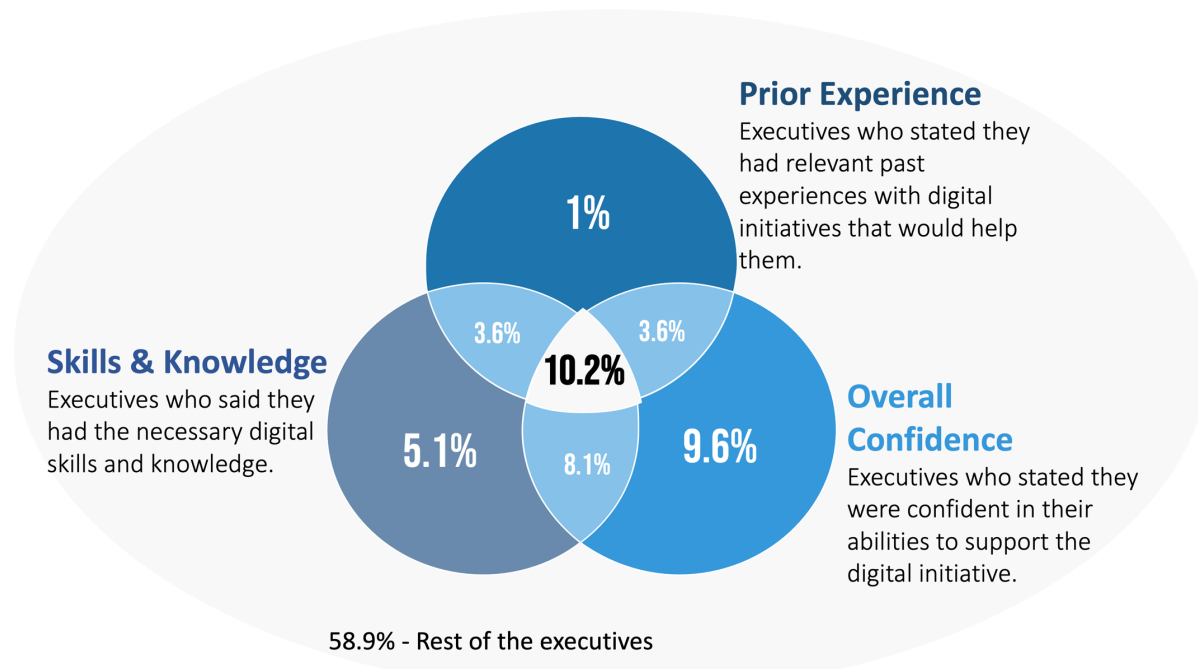
KEY INSIGHT #1: DIGITAL TRANSFORMATION IS A CRITICAL PART OF STRATEGIC DECISION MAKING

*Every top executive responded that they are **personally involved in digital technology initiatives** and that at the time of completing the survey, they were able to **identify a recent digital technology** initiative they were considering.*

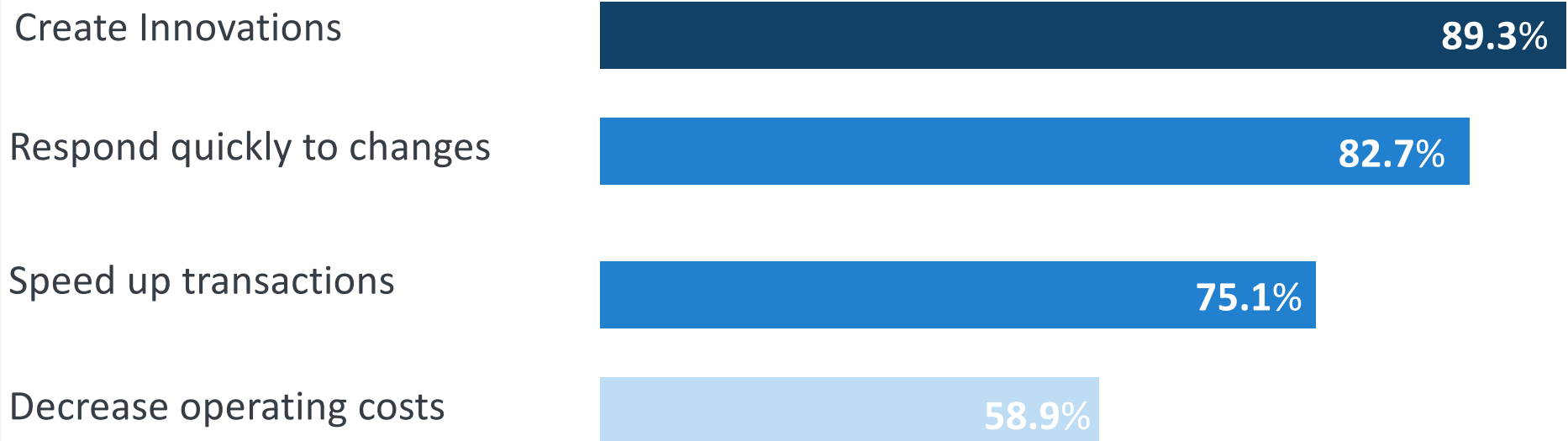
KEY INSIGHT #2: MOST EXECUTIVES DO NOT FEEL CONFIDENT TO ADDRESS DIGITAL TECHNOLOGY INITIATIVES

Digital Savviness

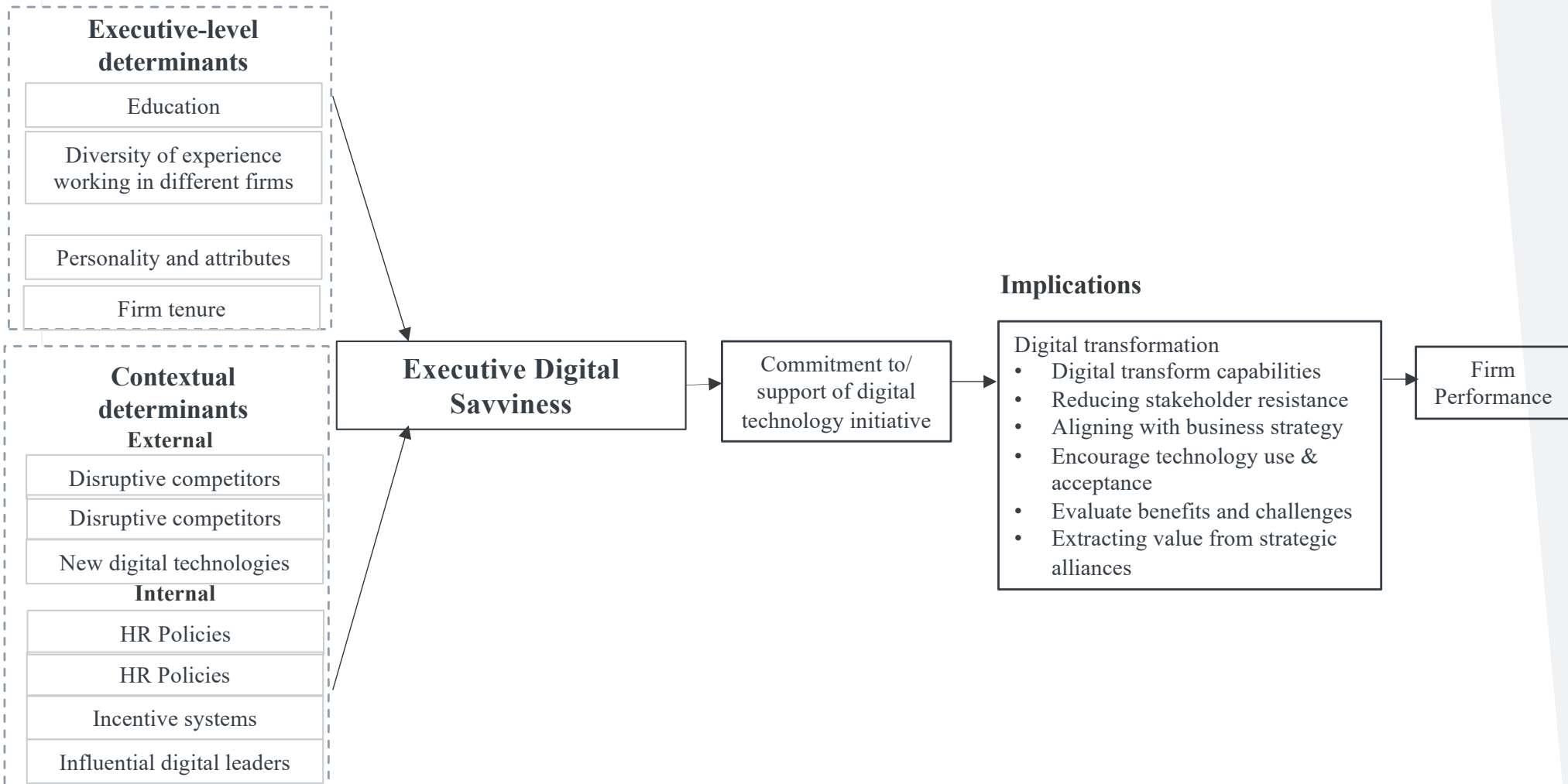
Top executives' confidence to support digital technology initiative



KEY INSIGHT #3: EXECUTIVES AGREE THAT DIGITAL TECHNOLOGY INITIATIVES PROVIDE SIGNIFICANT ADVANTAGES FOR FIRMS



INTEGRATIVE MODEL OF DIGITAL SAVVINESS



CONCLUSION & PATH FORWARD

- Executive digital savviness is an important executive attribute that has growing importance for strategic decision making and firm outcomes.
- Senior executives agree on the importance of digital technology initiatives but also express they do not feel fully confident they have the executive digital savviness they need to address digital technology initiatives effectively.
- Based on related literature and the initial input from interviews and surveys, we offer a conceptual model that delves more deeply into the determinants and consequences of executive digital savviness. We encourage future research to empirically test our model.
- Our research also provides insights for practitioners, particularly executives who are accountable for digital transformation initiatives and the boards who oversee top managers. Steps need to be taken through recruiting or upskilling to keep pace with the fourth industrial revolution.

STRATEGIC LEADERSHIP AND UBIQUITOUS AMBIENT INTELLIGENCE

A new approach to reconcile exploitation and exploration in the 4th Industrial Revolution?

Mariano L.M. Heyden

Zenlin Kwee

Henk W. Volberda

Simon Wilkie





4IR has prompted a challenging information era for strategic leaders through unprecedented speed, scope, and interconnectedness of information.

While information is increasingly abundant, leaders' attention is comparatively scarce.



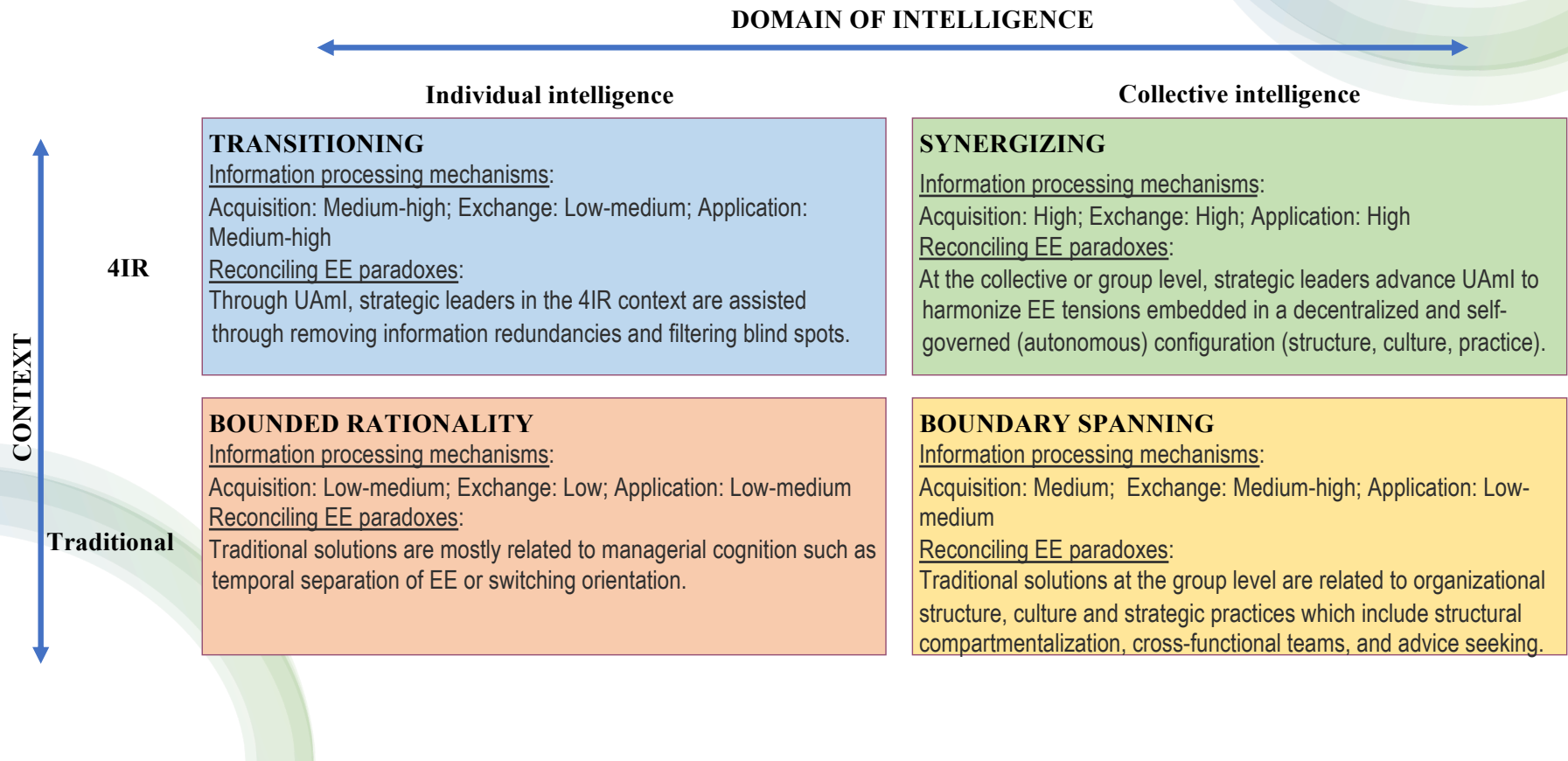
How can strategic leaders improve their information processing capacity to reconcile the tensions of exploration-exploitation in the 4IR context?

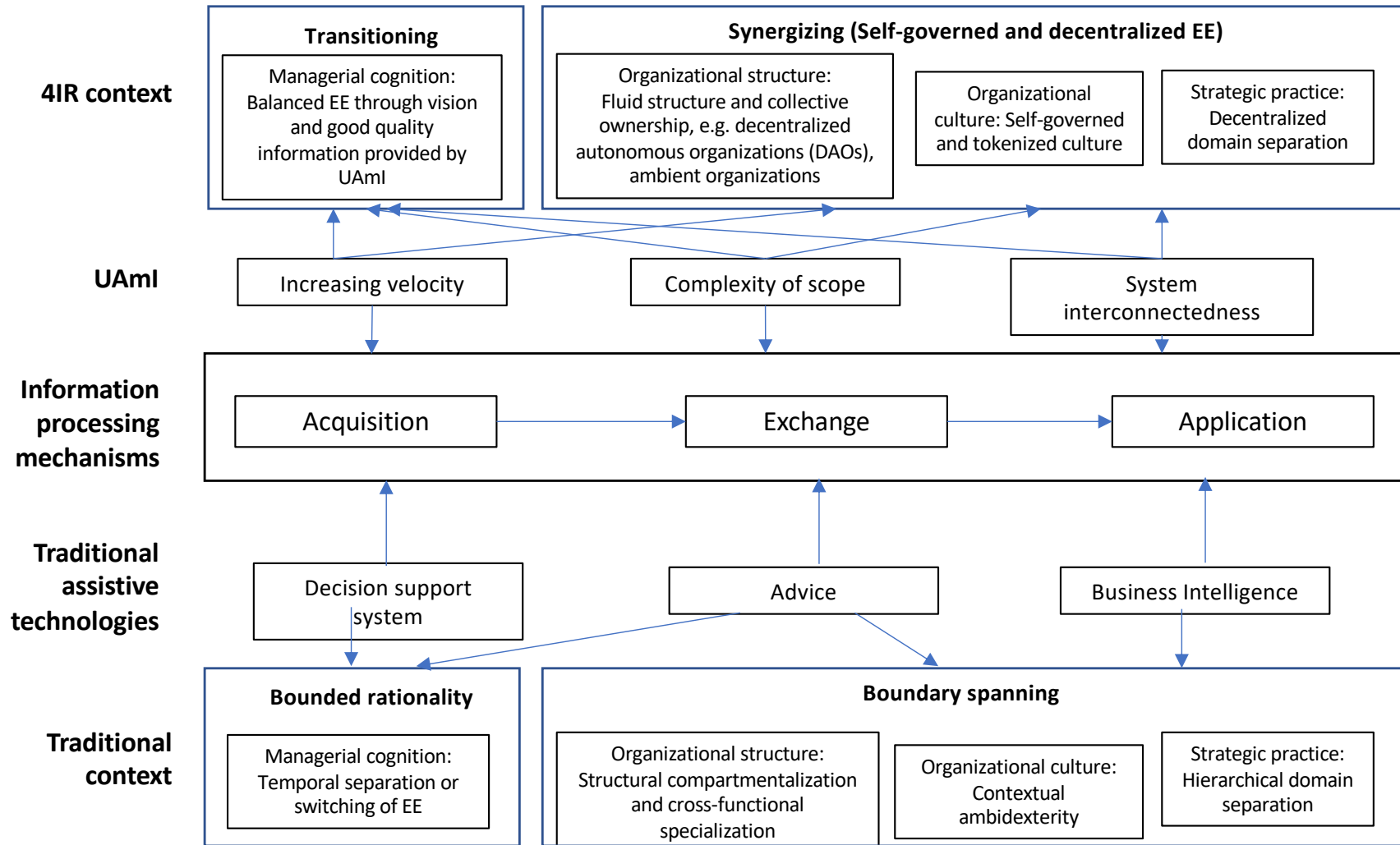
Introducing Ubiquitous Ambient Intelligence (UAmI)

- “Intelligent, pervasive and unobtrusive computer systems embedded into human environments, tailored to the individual’s context-aware needs.” (Bick & Kummer, 2008, p.79)

UAmI Tool	Key Functionality	Reference
Virtual assistant	Voice-activated personal assistant to perform tasks, answer questions, and control smart home devices (e.g. Alexa, Cortana, Siri, Google Assistant).	Abdolrahmani et al. (2018); Islas-Cota et al. (2022)
Intelligent Internet of health things	Remote real-time tracking of user health and fitness data (e.g. activity levels, heart rate, sleep patterns), self-management wellness monitoring and prevention, telemedicine.	Javed et al. (2020); Adeniyi et al. (2021); Whig et al. (2022); Zaman et al. (2022)
Ambient assisted living	Assist dwellers in their daily living activities by customizing indoor comfort management in retirement residence or elderly private home (e.g. DOMUS – domestic ontology managed ubiquitous system).	Cicirelli et al. (2021); Spoladore et al. (2022)
Driver-assistance system	Increase street safety by assisting drivers to drive safer through recognizing driver’s upcoming actions or when the driver is sleepy (e.g. driver’s intent project or artificial co-driver project at MIT, in-vehicle ambient intelligent transport systems (I-VAITS) architecture in smart cars).	Rakotonirainy & Tay (2004); Rawley & Gupta (2023)

Reconciling exploitation-exploration (E-E) paradoxes

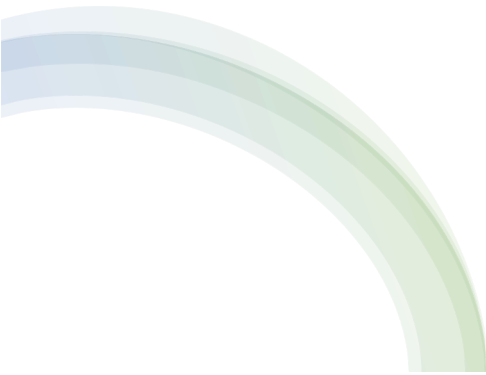




Implications of UAml for Strategic Leaders



UAml makes strategic leaders from consumers of information to decision makers who have a more symbiotic relationship with omnipresent, predictive intelligence.



Future Research Directions

Strategic domain	Guiding questions	Potential contributions	Themes and perspectives
Managerial cognition: <i>Neuroscience foundations of strategic leadership and 4IR</i>	How assistive smart technologies affect our inherent human cognitive capacity?	- Integrate serial and parallel processor models of human brain with UAmI input; - How intelligence needs to be packaged/categorized for improved neuro-processing; - How creativity, emotions, and intelligence interact in 4IR.	Cognitive neuroscience (Boone et al., 2020; Laureiro-Martínez et al., 2015); AI (Amabile, 2020; Felten et al., 2019) and affective neuroscience (Compton, 2003; Davidson et al., 2000; Panksepp, 2004).
Organizational structure: <i>Rethinking upper echelons involvement in strategy processes in 4IR</i>	What kind of vertical and horizontal coordination mechanisms are needed to catalyze information processing in the 4IR context?	- Open up the black box of the richness of strategic leaders (multi-level managers in a firm); - Investigate contextualization of multiple stakeholders to leverage on the interdisciplinarity of stakeholders; - Explore the role of internal/external stakeholders to the exploration-exploitation and other tensions.	Porous bounds of strategic leadership (Van Doorn et al., 2022); role theory (Georgakakis et al., 2022); strategy process (Weiser et al., 2020).
Organizational culture: <i>Strategic leadership and adoption of UAmI ambidextrous solutions in 4IR</i>	How do strategic leaders involve multiple internal and external stakeholders in UAmI adoption?	- Understand how UAmI helps reinforce or counteract reluctance to adopt or biases of internal and external stakeholders; - Understand top-down versus bottom-up processes (locus of tensions between continuity and change) in the TMT-technology imbrication; - Recognize organizational culture that reinforces endogenous and exogenous drivers of adoption.	Strategy implementation (Geroski, 2000; Heyden, Fourné, et al., 2017a; Vaz et al., 2022); stakeholder involvement (Damanpour et al., 2018); TMT-technology imbrication (Leonardi, 2011; López-Muñoz & Escrivá-Esteve, 2017); managerial fads (Nicolai et al., 2010).
Strategic practice: <i>Sociomateriality and strategic leadership interfaces with UAmI</i>	How will UAmI be materially manifested in strategic practice?	- Understanding standards battles for UAmI interfaces; - Understanding how users make sense of designs, preferences, and providers; - Understanding supporting system requirements and user experience considerations.	Sociomateriality (Cecez-Kecmanovic et al., 2014; Orlikowski, 2010); standards battles (Gallagher, 2012).

The background of the slide features a series of concentric, overlapping circles in shades of blue and green, creating a sense of depth and movement. The circles are centered around the text, which is placed in the middle of the composition.

Thank you!
Questions?

FUTURE OPPORTUNITIES

Handbook of Research on Strategic
Leadership in the Fourth Industrial Revolution
(expected publication, early 2024)



JOURNAL OF
MANAGEMENT
STUDIES

Special Issue

Advancing Strategic Leadership Research for
Business Ecosystems: Charting a New Research
Agenda

Submission Deadline: 31 May 2024

Join us for an Online Information Session on September 1st (10am
EST). See JMS website for further details.