Future of Leadership

Corporate hindsight offers insights. However, often too late, and often only after being dissected by every, invited and uninvited, self-acclaimed expert. It is too easy to pass judgement on past events, from the airport executive lounge a few years after mayhem, as a tech-savvy columnist, or as a case study writer decades after.

Having corporate extinctions, a moonshot, or some other outlier spelled out in retrospect, while being interesting, only serves as a small tool in the real-time leadership toolbox. Quite often, these insights are transformed in to platitudes that might sound fantastic on social media, or in a key note, but represents little to no strategic value. Platitudes do not belong in a toolbox.

Still, future leaders should seek insights from others; but it should be as "insights through conversation". The art of it is to identify who should be part of that conversation. By conversation is not meant board meeting – but actual conversation. Many board meetings are still reserved for what could be phrased as "the boardroom boogie". Every move is anticipated, rehearsed and pre-approved.

What better way to spark an insightful and exploratory conversation than with a little help from a few questions? With the support from +100 leadership experts in Denmark and the United States, the key deliverable of this publication is a subset of 12 questions, for the board and C-suite to explore. The objective of the conversation, should not be to come up with immediate answers to the questions, it is more a "talk about the meaning of the question to us" type of conversation. The conversation is more important than any answer.

Keep talking!

Thomas Winther Poulsen
COO, Innovation Centre Denmark Silicon Valley

Future of Leadership

01 — Guide

Everything is changing

Leadership too!

The average tenure of corporations is getting shorter and shorter over the decades.

For S&P 500 corporations, it is forecasted that the average tenure of 24 years in 2016 will shrink to 12 years by 2027. According to Innosight, half of the current S&P 500 companies will be replaced within ten years. So why are these numbers relevant? Because it takes a new form of leadership to embrace the challenges and go through the necessary transformation.

This year, Innovation Centre Denmark (ICDK) in Silicon Valley sets out to explore leadership challenges for top leaders in Denmark. Our initial hypothesis was that drivers such as digitalization, globalization, automation, ESGs, and SDGs need more attention in the boardroom and on the executive level. To test this, ICDK summoned top executives and directors to raise the questions for the future of leadership. Some intensive days in Copenhagen resulted in interesting and challenging questions, along with foresights, insights, outlays of risks, ambitions, wishes, and hopes for changes. In collaboration with the Board Network, Copenhagen Business School – Board Education, and Scandinavian Executive institute, these inputs were gathered to stage further exploration and perspective on three headlines: Digitalization, Sustainability, and Leadership. Regarding Digitalization, the ICDK Education and Science Team took a deep dive into how digitalization is affecting higher education currently and will in the future, with the notion that digital skills are obtained through education and continuous learning.

Through extensive research and expert interviews in Copenhagen and the San Francisco Bay Area, ICDK identified 12 contemporary themes within the three headlines. Twelve provocative questions explore the tensions by examining 12 cases that provide a Silicon Valley perspective to the Danish challenges. Some of them serve as inspiration for the future, and for some readers, these could be the examples not to follow.

For exactly this reason, ICDK is not trying to address the 12 questions with definitive answers. This project is not a diagnosis but seeks to arm readers with the questions, tensions, and cases that can start a conversation and inspire exploration. The goal is to challenge existing answers and engrained beliefs, in addition to generating new, interesting questions and be the departure into a new depiction of the future.

"Boards today are increasingly aware of the rapid changes happening outside of the boardroom. It was a long time ago when compliance was at the core of board work. The modern board needs to actively address the stream of global issues ranging from political and macroeconomic uncertainties, cyber risks and crime, climate and sustainability, and disruptive technologies shaping the business landscape of today. In my experience, boards are actively looking for ways to prepare themselves for the challenges caused by these issues. There will have to be some intense discussions in the boardroom to find ways in which boards can successfully lead the way forward for their corporation and provide the checks and balances needed to align shareholders and stakeholders and the executive team on a shared purpose and mission."

— Tom Jacobsgaard, CEO, CBS Executive

Redefining Leadership

"Traditional boards and their roles are being challenged, and we will see an increased emphasis on stewardship in terms of shareholder engagement, sustainable performance, and corporate culture. The chair will increasingly become the guardian of the long-term view of the firm and the one individual who reminds everyone — board members, executives, and shareholders — of the higher purpose the firm serves, maintaining quality of engagement and ensuring the alignment of the different and shifting interests in and around the boardroom."

— Steen Buchreitz Jensen, CEO, Scandinavian Executive Institute

It seems to be an accepted fact — or at least a bespoke truth — that the world is changing faster and faster and is more volatile, uncertain, complex, and ambiguous than ever before. VUCA-times demands leadership to be change agents as well. Leadership needs to make sure everyone is informed and prepared for what is coming next and maintain an organization of perpetual learners always ready to adjust and adapt. Having a rich asset base and fantastic brand equity will no longer be enough to carry companies through current changes or to maintain dominance and relevance in a particular industry.

The adoption and utilization of technology is changing competition across industries in ways never experienced before. The democratization of technology with, for example, cloud computing, storage and BI is tearing down barriers of entry to almost any industry and accelerating the rate at which companies can start, scale, and succeed (and disrupt?) — changing the competitive landscape and rapidly altering the dynamics of the battle between incumbents and insurgents.

Leadership decisions today will determine the fate of the company and the surrounding ecosystem in 2025, perhaps even sooner. Leadership of incumbents needs to create breakthroughs instead of incremental improvements. Leadership needs to consider timing, team, structure, potential, competition, partnerships, network, ecosystem, impact, etc. with a higher level of uncertainty in a fiercer and faster-moving world than ever seen before.

A rising concern among futurists is that the 2020s and beyond will introduce a hard turn toward local allegiance and ultimately "distributed isolation." To solve the corresponding potential global conflicts and resource allocation, these uncertainties demand innovative solutions supported by corporations and their leadership.

If the world does not follow the (more and more unlikely?) adherence to the post-war tenets of globalization, inclusion and joint solutions, e.g., the Sustainable Development Goals, the scale of change engenders significant economic, environmental, and resource considerations.

Leadership might even face a future where change goes parabolic, making the current heat map seem insignificant, heightening VUCA, and, as a result, exposing nations, institutions, corporations, and citizens to an expanding list of threats, risks, and challenges.

Such developments increases the need for "next level" societal conversations with the (still emerging) corporate superpowers and how they will take the necessary responsibility for narrowing the chasm between those who have and those who have not, driving a sustainable future and changing the rules toward a more concerned and engaged type of leadership.

As one superpower in the San Francisco Bay Area coins it, "Business is the greatest platform for change. The world can only hope that every superpower feels the same way and lends their platform to the purpose."

Readers' guide for the Future of Leadership

This publication consists of five booklets	01. Introduction (this booklet)
	02. Digitalization
	02a. Digitalization – an academic perspective
	03. Sustainability
	04. Leadership
	When getting started on reading the Future of Leadership publication, readers might find it helpful to read this short guide. This serves as a brief overview of the concepts: Tensions, Questions, Cases, and Themes.
Themes:	There are three overarching themes in this publication. Digitalization and Sustainability are themes that are both drivers for leadership and megatrends of business and society in general. The third theme, Leadership, is as important as ever, but expectations for future leaders are affected by new drivers and require new perspectives.
Tensions:	Tensions are meant to be a spectrum in which leaders and their organizations can place themselves. One end of the tension is not right, while the other is wrong. Organizations have different needs — some might find themselves moving from one side to the other, and others are already where they want to be.
Questions:	The Questions are meant to make readers reflect on their own positions. When asking these questions to each other, answers might not come right away. The point is to start a process where the cases can serve as inspiration for readers to find the answers best suited for them.
Cases:	The Cases are the source of inspiration. Some of the cases are based on interviews with business leaders and academic; others are broader perspectives on tension. The Case is not necessarily a direct answer to the Questions, nor should they be. Readers might recognize aspects from own experiences, and some will be completely new.
	To get an overview of all Themes, Tensions, Questions, and Cases, go to the publication folder.

The Cases

The five booklets in this publication each examine a theme in the Future of Leadership. Here readers can find their ways around the publication through short extracts from all the cases showcased in the booklets.

In the Digitalization booklet	The Digitalization booklet addresses the tensions: Data, Workforce, and Organization. Read more about the tensions, questions, and cases below.

Why are you not a data company?

Utilization of data is the most transformative business component in this decade. On one end, companies can use data to optimize products and business processes; on the other hand, data can shape and transform the business model opening for new opportunities, revenue streams, and markets. The case of the Amazoogle Business Model exemplifies the tension of data used in the spectrum from optimizing products to transforming the business. Moreover, the case is an explanation of why Amazon and Google can differentiate themselves from early and current competitors.

Data: Product ⟷ Business Model
Case on the "Amazoogle"
interview with Shomit Ghose, ONSET Ventures

Who cannot be replaced by robots?

Digital augmentation of the workforce is nothing new, and emerging technologies continue to create opportunities for companies to increase efficiency in the organization. From automating processes entirely, or to augment employees to make processes seamless, are some of the options to consider for companies. This is why this distinguishing between automation and augmentation is important when investing in emerging technology such as ML and AI. At Lyft, they want to change the way humans move, and the technology behind autonomous vehicles might cause the automation of some types of work, while it might augment others.

Workforce: Automation ⟷ Augmentation
Case on Lyft Level 5
Interview with Johan Jessen, Lyft

Cancel all
meetings?

New organizational structures are enabled through technology due
to fewer limitations for collaboration between people internally and
external to the organization. The virtual organization gives flexibility
and allows people to work together without physical limitations.
Likewise, physical organizations with face-to-face meetings and
office spaces can take advantage of digital technology to increase
efficiency and flexibility. Asana supports both remote work and
virtual enhancement, and they believe digital solutions can be the
cure for "work about work."

Organization: Virtual ⟷ Physical
Case on Asana

Read all the cases in the orange booklet.

In the Digitalization
booklet
— An academic
perspective

This booklet dives into how digitalization affects higher education.
Emerging technologies pose both challenges and opportunities
to the universities. From the academic perspective, two central
digital developments are outlined: the increasing importance
of computer and data science, and educational technologies.
These digital developments raise important questions about how
universities can meet the challenges and reap the benefits of the
new technologies.

Read the Academic Perspective in the red booklet.

| In the Sustainability booklet | The Sustainability booklet addresses the tensions: Reporting, Focus, and Purpose. Read more about the tensions, questions, and cases below. |

In the Sustainability booklet

The Sustainability booklet addresses the tensions: Reporting, Focus, and Purpose. Read more about the tensions, questions, and cases below.

How do you measure sustainability?

Due to few regulative standards for reporting on sustainability measures, leaders will have to decide if they want to conform to existing standards or set precedence for what and how to report on sustainability in terms of both social and environmental criteria. Salesforce is one of the big Silicon Valley tech companies that has done immense work on disclosing and developing accurate measurements of its sustainability program.

Reporting: Conformist ⟷ Beacon
Case on Salesforce
Interview with Chris Power, Salesforce

How are you visionary enough?

Balancing short-term interests from year to year and the long-term strategy is a significant tension for leaders. Patagonia wants to be a company that will last for 100 years, which affects the decision-making and corporate governance and puts pressure on finding the right way to build the best products as well as doing "no unnecessary harm" to the environment. Robert Strand from UC Berkeley, who has worked with Patagonia, gives his views on what boards can learn from their long-term approach.

Focus: short-term ⟷ long-term
Case on Patagonia
Interview with Robert Strand, UC Berkeley

Is greed losing its edge?

Investors are increasingly using sustainability criteria to determine which companies to invest in long term. Social criteria evolves around developing a company culture based on inclusion, having products and services meant for a diverse consumer base, and diversity in hiring and promoting employees — but how do these criteria go hand-in-hand with growth and profitability? Kapor Capital claims to have found the right recipe to do both.

Intent: Dollars ⟷ Impact
Case on Kapor Capital
Interview with Freada Kapor Klein

Read all the cases in the green booklet.

In the Leadership booklet	The Leadership booklet distinguishes between two kinds of leadership: leadership in the role as a board of directors and leadership as an executive. The tensions aimed for directors are Transparency, Social Media, and CEO, and the tensions aimed for executives are Risk, Executive Team, and Exploration.

What are you hiding?

How can firms find new governance structures when boards and management have different expectations and needs for transparency? Traditionally, the board has been expected to make decisions based on highly condensed material presented by executives, but at the streaming company Netflix, this approach is radically different. Instead of bringing the conclusions to the board, the board gains access to analysis and draws conclusions based on additional observations. Netflix is known for a "genuine transparency" governance structure.

Transparency: Conclusion ⟷ Dialogue
Case on Netflix with David F. Larcker, Stanford

Do you control (SO)ME?

Social media and new communication channels are creating a new form of hypertransparency that poses potential information risk for corporations. Governing new channels is difficult in terms of putting policies in place and making them actionable. Boards need to make considerations in regard to protecting the privacy of the employees and the business value from social media.

Social Media: Private ⟷ Business Value
Case on information governance
Interview with Robert Cruz, Smarsh

Is the founder a mirage or a North Star?

Founders in Silicon Valley have historically been attributed tremendous value for the success of their companies. There is an old saying in the Valley that venture capitalists invest in the jockey and not the horse, meaning that founders are often the reason investors invest. This tension investigates the founder's impact on the company, both when it is good and when it is bad. The case of WeWork is great for illustrating the precautions boards need to take.

CEO: MBA ⟷ Founder
Case on WeWork
Interview with Adam J. Epstein, Third Creek Advisors LLC

Is risk-taking a skill?

In a time where digitalization and disruption come knocking, it is important to balance risk averseness with risk appetite for untapped potential. Amazon is one of the most famous risk-takers, which falls back to the ideology of founder Jeff Bezos and how risk-taking is incorporated in the company culture.

Risk: Averse ⟷ Appetite
Case on Amazon

Controlled anarchy or dead by predictability?

What would a company look like if it did not have any executives? This is exactly what the thinkers behind DAOs (Decentralized Autonomous Organization) are imagining. when exploring ways in which blockchain can remove human error from decision-making. Many new projects in the Ethereum blockchain space explore ways in which blockchain can remove human error from decision-making. These methods can eventually impact the structure of organizations.

Executive team: Hierarchy ⟷ Autonomy
Case on decentralized autonomous organizations
Interview with Kevin Owocki, Gitcoin

Do you think like a winner?

The Silicon Valley ecosystem is famous for its unique conditions for start-ups. Academia, business, and capital flow together to achieve the optimal conditions for innovation and growth. To tap into this thinking, companies benefit from horizontal networks instead of vertical ones.

Exploration: Vertical ⟷ Horizontal
Interview with AnnaLee Saxenian, UC Berkeley

Read all the cases on Leadership in the purple booklet.

DIGITALIZATION

PRODUCT — DATA — BUSINESS MODEL

Why are you not a data company?

AUTOMATION — WORKFORCE — AUGMENTATION

Who cannot be replaced by robots?

PHYSICAL — ORGANIZATION — VIRTUAL

Cancel all meetings?

SUSTAINABILITY

CONFORMIST — REPORTING — BEACON

How do you measure sustainability?

SHORT-TERM — FOCUS — LONG-TERM

How are you visionary enough?

DOLLARS — PURPOSE — IMPACT

Is greed losing its edge?

LEADERSHIP

DIRECTORS

CONCLUSION — TRANSPARENCY — DIALOGUE

What are you hiding?

PRIVATE — SOCIAL MEDIA — BUSINESS VALUE

Do you control (SO)ME?

MBA — CEO — FOUNDER

Is the founder a mirage or a north star?

EXECUTIVES

AVERSE — RISK — APPETITE

Is risk-taking a skill?

HIERARCHY — EXECUTIVE TEAM — AUTONOMOUS

Controlled Anarchy or dead by predictability?

VERTICAL — EXPLORATION — HORIZONTAL

Do you think like a winner?

Future of Leadership

02 — Digitalization

Digital

ization

Intro

This booklet explores the impact of digitalization, as a broadly defined concept, on leadership in the future. It is hardly a surprise that digitalization plays an important role, though one single definition of the megatrend has not been coined. The three perspectives in this booklet are of the utmost importance for leadership; these perspectives are formed into the tensions revolving around data, workforce, and organization. With each tension, a core question follows to make readers reflect on their own situation and potential.

Tensions

Data:
Product ⟷
Business Model

"When a company like Ford implements the Alexa system … Ford may gift something of ultimately strategic value, its data, to Amazon."

Why are you not a data company?
Case on the "Amazoogle"
Interview with Shomit Ghose, ONSET Ventures

Workforce:
Automation ⟷
Augmentation

"I don't see a future where humans are completely separated from driving."

Who cannot be replaced by robots?
Case on Lyft Level 5
Interview with Johan Jessen, Lyft

Organization:
Physical ⟷ Virtual

"But we also need something that connotes more emotion … relationships will be more important than ever in the future."

Cancel all meetings?
Case on Asana

Why are you not a data company?

Google

Amazon

Google and Amazon have both made exceptional businesses out of data and using it to grow their businesses. There are many ways to attribute the success of the Amazoogle, but the central one for this case is how data becomes the main asset of the company — not the products, such as an e-commerce platform, search engine, or home assistants, but the data aggregated by them.

"When a company like Ford implements the Alexa system … Ford may gift something of ultimately strategic value, its data, to Amazon."

The concept of Amazoogle got its name from the article, "The Red Queen and the Inevitability of the Amazoogle Business Model" by Shomit Ghose, a Silicon Valley venture capitalist specializing in information technology and lecturer at UC Berkeley. The model is not necessarily about companies not making and improving products with data but more about how they need to change their understanding of themselves as a company.

"When a company like Ford implements the Alexa system in their vehicles, they do so with the notion of competing against traditional competitors such as Chevrolet. Both companies see themselves as automobile companies that compete on features and price. As a result, Ford may gift something of ultimately strategic value, its data, to Amazon."

Besides installing software in Ford vehicles, Amazon's $13.7 billion acquisition of Whole Foods is another example of how the company is expanding its data pool to gain more extensive knowledge on consumer behavioral patterns.

"The problem is that many of these companies — it can be in retail, pharmaceuticals, or any other industry — look mainly to their traditional competitors instead of looking to those who might disrupt their entire industry. Needless to say, if you're not willing to disrupt your own business model, someone else will do it for you to your ultimate detriment."

Historically, this is what separated Google from its early competitors. Google did not beat Yahoo because of a much better search engine but because they used the search engine data to expand across sectors from search engine, browser, email client to advertising, AI, self-driving vehicles, and cloud service. The latest addition to Google is their checking accounts in the U.S., which will give them extensive knowledge of users' payments. It might not come as a surprise that Amazon and Alphabet (Google) rank as first and second, respectively, in companies that spend the most on R&D.

When transformative actions happen in relation to digitizing existing data, implementing digital elements in sales, communication, and customer relations, the company can aggregate data that will help streamline business processes, deliver services more efficiently, and enhance products. These actions fall into the product end of the tension spectrum, while the next step will be to look at how data can be used to transform the business model and place a company on the other side of the spectrum.

Data has a better idea

Source: Unsplash
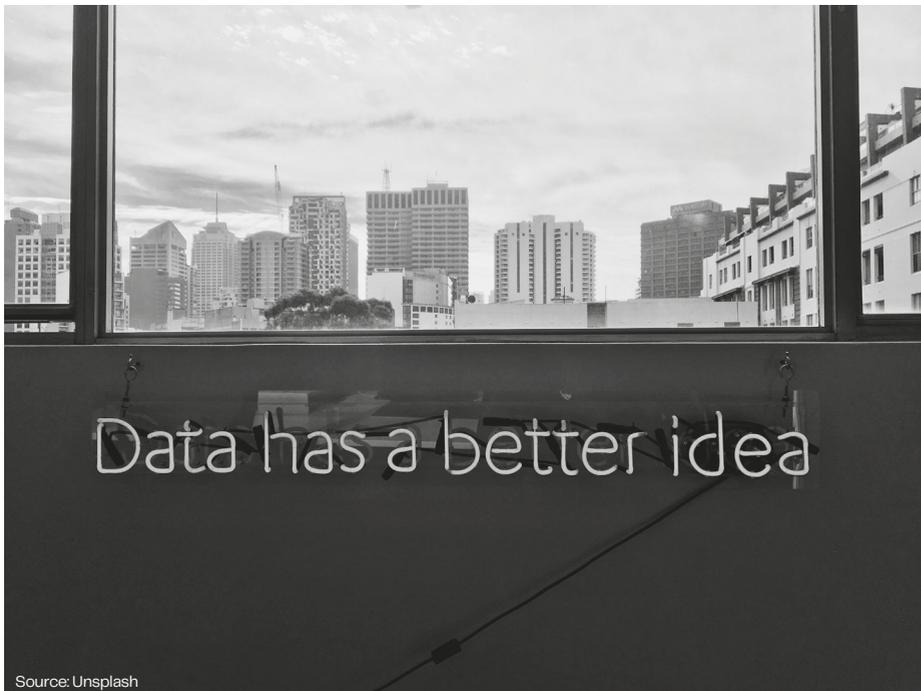
About Shomit Ghose
Shomit Ghose is a partner in Onset Ventures, where he leads investments in information technology and life science. Prior to his venture capital (VC) engagement, he was part of multiple start-ups both as a software engineer and an executive going back 20 years with successful IPOs and acquisitions behind him. Ghose serves as a director on several boards, including Innovation Centre Denmark's advisory board. He also teaches data-driven business models to software engineer graduates at UC Berkeley.

Who cannot be replaced by robots?

Source: Unsplash

Workforce
Automation ⟷ Augmentation

If you are curious about the future of the workforce, you can get a peek behind the curtains of Lyft Level 5. Passengers can already hail rides with a self-driving vehicle in Las Vegas through Lyft's open platform. In the summer of 2019, Lyft Level 5 published the largest open source data set for autonomous vehicle development. So far, self-driving vehicles on Lyft's platform have completed 75,000 commercial rides through their partner Aptiv. But even as a born-digital company, it does not make Lyft immune to disruption or the need to adapt to the future in the same way brick-and-mortar companies have to.

"Companies in the U.S. are better at confronting existing industries. There is no need to fear AI and machine learning.

For companies, my advice would be to just get going. Companies should see emerging technologies as a great opportunity to look into engrained business processes and get rid of bad habits. Solving the really hard and important challenges is a huge business opportunity."

Johan Jessen, design manager with responsibility for all design aspects of the AV software, explains how Lyft's mission is to make personal cars redundant and offer transportation as a service. At Lyft, that also means they spend a great amount of time imagining the challenges of mobility in the future in terms of infrastructure, workforce, and passengers.

"I believe we won't see the real impact of autonomous vehicles before a decade from now, and even at that time, I don't see a future where humans are completely separated from driving.

But the ways in which humans are involved will change. The software and hardware tools will need to be engineered, the vehicles maintained and cleaned, and people still expect great customer service from transportation."

At large, Lyft sees autonomous vehicles as an augmentation of humans. As driving is automated, it leaves room to use the skills significant to humans, such as critical thinking, interpersonal skills, communication, and learning. But the most complex task is adjusting human behavioral patterns to be independent of personal vehicles.

About Lyft

Lyft is a ride–hailing company operating in 640 U.S. cities and 9 Canadian cities with more than 22 million active riders in Q3 of 2019. The company dates back to 2012 and went public in 2019 with a valuation of $24 billion. Level 5 is Lyft's autonomous vehicle division that leverages ride–sharing data from the platform to do 3D visualizations for AV, build APIs for AV partners to plug into the platform, and work on the next generation of self–driving cars.

Cancel all meetings?

Organization
Virtual ⟷ Physical

More than 900 start-ups are hiring remotely in Silicon Valley. While Silicon Valley is, in fact, a physical place famously known as a hub for tech and innovation, somehow, it is becoming increasingly virtual. There are two simple explanations for this. First, the generated jobs are in computing, making it easy for employees to work remotely. Second, San Francisco Bay Area is one of the most expensive places to live in the world, making it desirable for employees to cash in a Silicon Valley paycheck while working from somewhere else.

Flexibility is one of the major benefits for employees to take remote and gig work, while the tricky part is to coordinate and manage projects and ensure effective communication when there is little face-to-face time. Interestingly, Silicon Valley is solving this problem by fostering companies like Slack, Trello, Zoom, HighFive, and Asana to enable virtual cooperation between coworkers in both remote and on-site companies. Asana includes features such as chat, project management, and task coordinating on its platform.

"But we also need something that connotes more emotion … relationships will be more important than ever in the future."

Chris Farinacci, the COO of Asana, who delivered a keynote at Innovation Centre Denmark's Future of Work Masterclass in 2018, spoke about how Asana offers companies a chance to avoid "soul-sucking work about work" — a relevant distinction when organizing virtual work. In the company's 2019 Anatomy of Work report, it suggests that an employee only spends 27% of their time on skilled work and more than four hours a week on duplicate work. The complexity of managing teams might increase in larger organizations across the globe, but smaller teams also find an increased need for virtual elements to support their work efforts. This, both to minimize time spent on coordination and keep all team members up to speed when some are remote or away.

Software can especially support three standardized needs for businesses today: communications, digital sharing of work, and coordination. Asana is mainly focusing on the latter. In 2019, Asana crossed the $100 million mark in revenue, where Atlassian,

the owner of Trello, delivered $450 million in annual recurring revenue, speaking to the fact that SaaS platforms for organizational coordination are growing categories. Uber, Dropbox, Airbnb, and Pinterest are examples of companies that all use both Slack and Asana to manage projects and communicate cross-borders. Smaller remote companies, such as an online hosting company, compared benefits from particularly Asana and testified to never having meetings because of it.

According to Asana's co-founder, Dustin Moskovitz, who also co-founded Facebook, video conferencing is one of the applications that will have the most impact on remote work in the future — something Asana does not currently support. For the same reason, Slack is making it possible to integrate Zoom to ease the use of both platforms and streamline communications when working remotely. "But we also need something that connotes more emotion," said Moskovitz in an interview with Quartz. Because one of the challenges for companies relying on remote work and its conveyed flexibility is that the virtual elements, such as SaaS solutions, should not obscure the people using it. Moskovitz believes that relationships will be more important than ever in the future, whereas tools such as Asana are only meant to support the people using them to find clarity about what is important.

About Asana
Asana is an SaaS tool for work and team management. It began under the name Task and was an internal tool developed for Facebook employees by Dustin Moskovitz, co-founder of Facebook, and Justin Rosenstein, ex-Google and Facebook engineer. In 2012, Asana launched commercially with Moskovitz as CEO. The company has received $212 million in funding and is valued at $1.5 billion.

Breakdown of activity per week

Skilled work
27%

Strategizing
and planning
13%

Work
about work
60 %
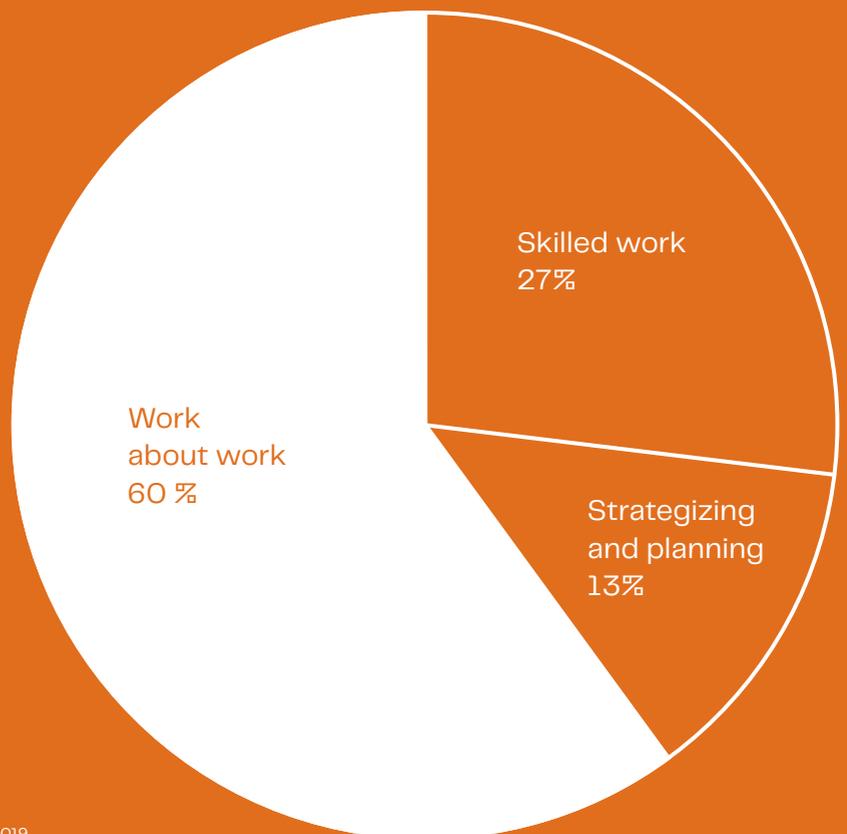
Future of Leadership

O2A – Digitalization An Academic Perspective

Digitalization — An Academic Perspective

03

Keeping up with the digital reality of today has become a major concern for many universities in Denmark and in the U.S. Students are digital natives and demand education with seamless digital interfaces. Employers require new skills in data analysis and new technology, and educators see the potential for using digital technologies to provide new content and courses for students. Being "digital" is no longer about having rooms full of computers, printers, and keeping the campus Wi-Fi running smoothly. Being digital means taking stock of how large amounts of data and new methods to utilize data will change what universities should teach but also to rethink how to teach courses based on the possibilities of technology.

This booklet answers two central questions on how universities can handle the challenges of emerging technology:

How can universities integrate new technology into curricula and provide students with new tools to analyze their field of study?

How can universities use EDU–IT and upskill faculty to use new technology to deliver and support their teaching?

01

How can universities integrate new technology into curricula and provide students with new tools to analyze their field of study?

02

How can universities use EDU-IT and upskill faculty to use new technology to deliver and support their teaching?

This booklet answers these questions with case studies based on interviews and visits to four U.S. elite universities located in major tech hubs: UC Berkeley, Stanford, Northeastern University, and MIT.

All four universities see digitalization as a strategic priority, but there are different approaches to the organizational setup. However, they are all investing in new courses, centers, or other initiatives to introduce skills in computer and data science across departments. The universities also have a common emphasis on integrating the digital skills with the students' field of study by teaching the students exactly those digital skills that will provide them with new ways of studying their own field. The universities are upskilling faculty members to use new technological tools, and the common trend is that most of the implementation is based on a voluntary bottom-up process. They all introduce new educational technology that has the potential to increase students learning by broadening the reach of courses or using data-driven education to enable targeted teaching methods.

How can universities integrate new technology into curricula and provide students with new tools to analyze their field of study?

In November 2018, UC Berkeley announced a major structural change to establish a new Division for Data Science and Information. The mission statement for the Division is "Redefining the research university for the digital age." To do so, the Division will engage with departments, schools, and colleges across UC Berkeley to spur faculty hiring and education in data science–related fields.

MIT announced in October 2018 that it would incorporate digital technologies and AI across all of their degrees by building a cross-functional MIT Schwarzman College of Computing. Here they offer computer science skills to all their students, regardless if they belong to MIT's School of Engineering or Humanities. According to the MIT president, Rafael Reif, "Computing is no longer the domain of the experts alone; it is everywhere, and it needs to be understood and mastered by almost everyone."

At Stanford University, however, instead of creating a new center for data science, the university aims to weave data science research and education into activities across disciplines. Stanford has also elevated digital technology in its latest vision for the university by defining "Shaping the Digital Future: Data Science & Human-Centered AI" as a major pillar in advancing all academic disciplines.

At Northeastern University, the Khoury College of Computer Sciences has grown rapidly over the last five years and will continue to do so for the next few years. As of now, the Khoury College of Computer Sciences has eight master programs, five of which are interdisciplinary collaborations with other departments. "CS for Everyone" is the mission behind the development of the college.

Digital literacy or hard technical skills

Students across disciplines have different prerequisites for learning highly technical tools like machine learning and AI. Students of natural sciences and engineering typically have a higher propensity for math–based methods than students from social sciences and humanities. Conversely, students of social sciences and humanities might be more familiar with ethical discussions surrounding use of data. On the less technical end, courses with no prerequisites aim to give the students a coding literacy. They introduce students to the basics of coding and enable them to know the principles of, for example, machine learning, and discuss how it can be used. An example of a course of this type is Data 8 at UC Berkeley. The course is teaching students the basics of inference and computing while including contextual and ethical topics, such as data privacy and bias in AI or machine learning. The course has been one of the most popular in terms of enrollment numbers in UC Berkeley history. About 3,700 Berkeley students per year enroll in this course, which is about half of all new undergraduate students. Of the more computationally demanding type of courses, Berkeley has created the Data 100 course that teaches data collection and cleaning, exploratory analysis, visualization, statistical inference, and prediction. In 2018, about 1,500 students enrolled in Data 100, and as the graph illustrates, the trend is clearly upward.

09

Increased student demand

800 out of 1,000 freshmen students at MIT take machine learning courses and 96% of MIT students in humanities take courses in computer science. At Stanford, over 90% of students enroll in courses involving data science. At UC Berkeley, 50% of all new undergraduate students enroll in the introductory data science course Data 8 — a course developed due to popular demand among students. The figure below shows the computer science enrollment trend since 2005:
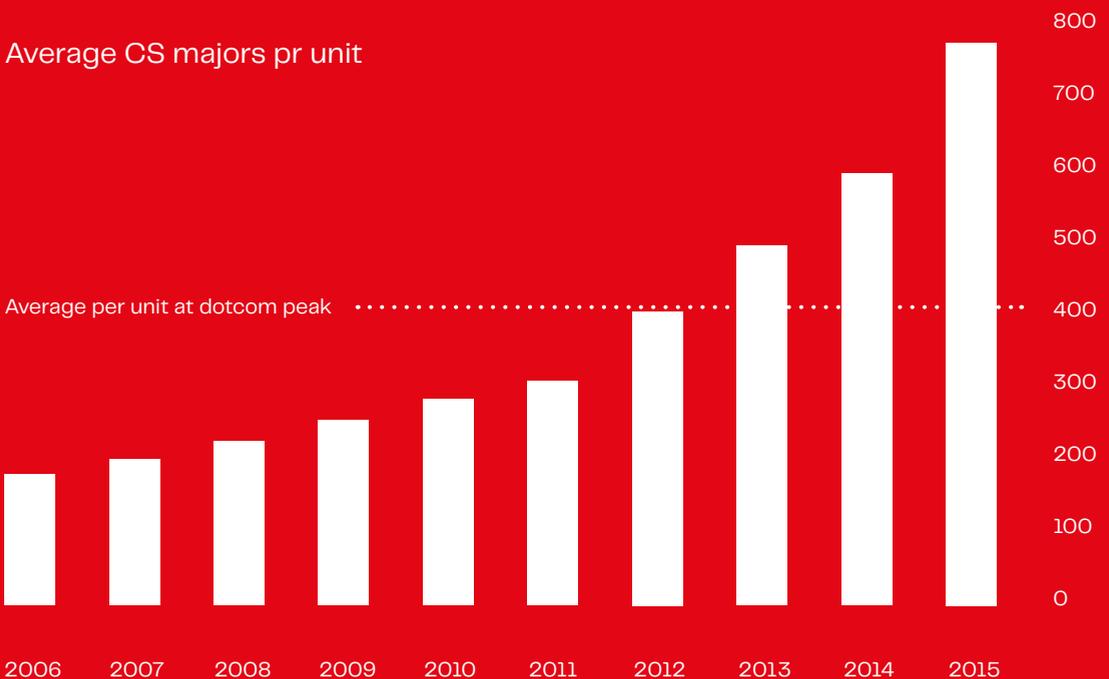
Average CS majors pr unit

Average per unit at dotcom peak •

	800
	700
	600
	500
	400
	300
	200
	100
	0

2006 2007 2008 2009 2010 2011 2012 2013 2014 2015

At UC Berkeley, the courses Data 8 and Data 100 are general, or even generic, in the sense that all students learn data science in the same way regardless of their existing study program. The lectures, materials, and assignments are the same whether you study math or literature.

On the other end of the spectrum, they design an increasing amount of the courses offered to create an interdisciplinary integration by focusing on the application of data science techniques to specific academic subjects. The goal of these courses is not to teach data science for the sake of data science, but to teach those data science techniques and tools that will enable the students to better study their own field.

Graph of Data 100 enrollment

750			
500			
250			
0			
Spring 17	Fall 17	Spring 18	Fall 18
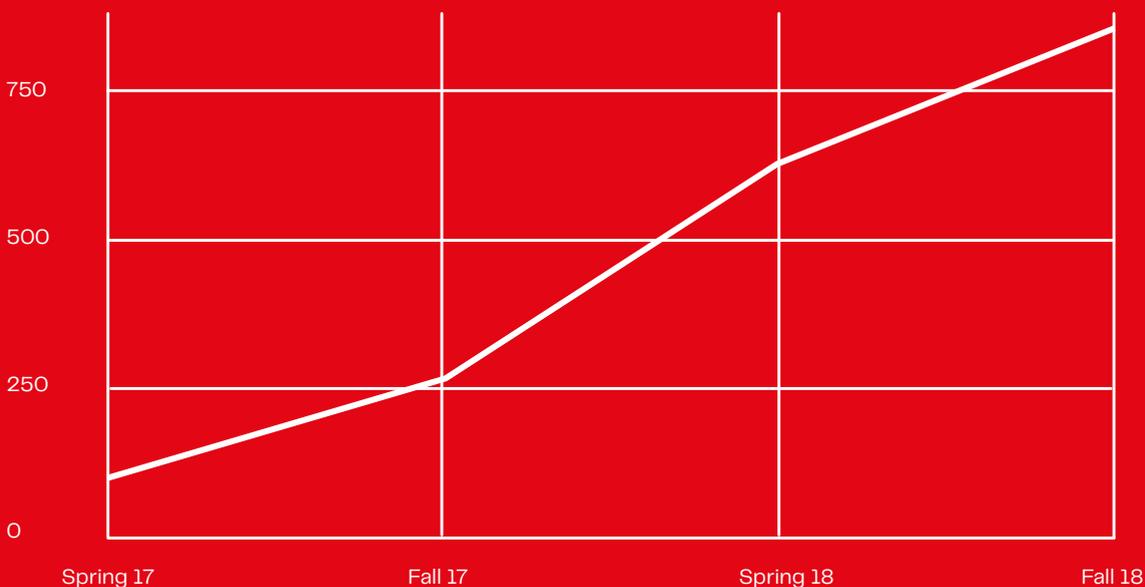
The difficult question here is, how exactly do you do that? How to incorporate data science into diverse curricula and in such a way that you can make an archeology student a better archeology student and a language student a better language student? The answer from the case studies is that this kind of interdisciplinary integration requires courses that, to a higher degree, are tailored to different fields of study.

The Connector Courses at UC Berkeley support the central idea that students apply data science skills obtained through Data 8 to solve specific problems within their own fields of study. Students of biotechnology can, for example, take a course that utilizes data to answer questions about immunotherapy of cancer, while students of geography can use data science techniques to study spatial data. The connector courses combine both curricula and instructors from departments across campus. Another and quite different perspective on how to achieve interdisciplinary integration is in the data science modules at Berkeley. The data science modules give the students hands-on experience with data science in a course they are already taking. For example, a course teaching students rhetoric speech analyses can integrate a module that applies data science techniques to quantify political speeches across time.

At Northeastern University, The Align Program offers students of all backgrounds an interdisciplinary degree in computer science. The Program provides a direct path to a master's in Computer Science for noncomputer science majors and people without programming experience through six semesters. The program is specifically designed for students with a noncomputer science background.

How can universities use EDU-IT and upskill faculty to use new technology to deliver and support their teaching?

13

Diagram showing investment deals in EdTech from 2014–2019 by countries.

DE
2,7%

UK
3,8%

India
7,4%

China
17,2%

United States
48,0%

Other
20,9%
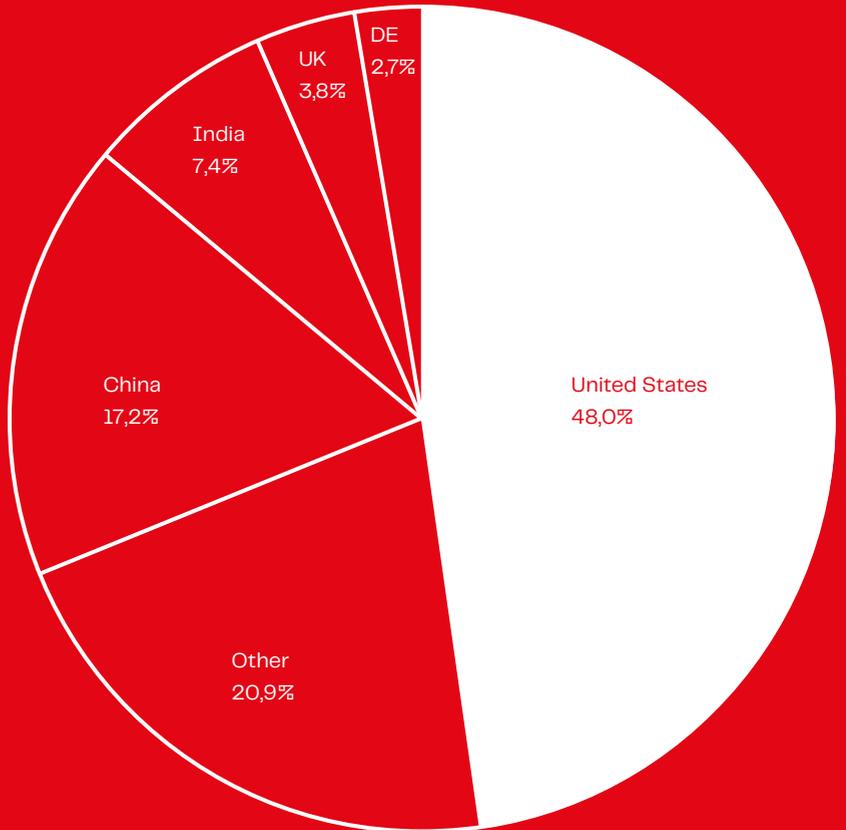
The U.S. context poses an especially interesting case for an outlook on how the universities use educational technologies, since the U.S. is the country in the world with by far the largest number of investment deals going into education technology.

The movement toward developing and deploying EDU–IT and upskilling faculty springs from the belief that introducing new technology holds the potential to improve university education by enabling accessibility, flexibility, and better possibilities for targeted teaching methods. The move from physical teaching spaces to digital interfaces allows data collection on students' behavior, interactions, and understanding of the coursework. This movement allows educators to identify, measure, and monitor sections that are particularly challenging for students and require more attention or explanations during lectures. As an example, Stanford University's School of Engineering is at the forefront when it comes to digitalizing the format of teaching and using digital tracking on their students' interaction with the course material as well as including videos elaborating on the core concepts or especially difficult parts of the material. The digital tracking function allows instructors and lecturers to monitor their students' interaction with the course material to identify sections that are challenging. The students' assignments can adjust in difficulty based on the correctness of previous responses.

Another example is MIT's MITx, which is an online equivalent to physical MIT courses. Students access the MITx courses through edX, an online learning platform developed in partnership between MIT and Harvard University. MIT instructors teach the MITx courses to learners both on-campus and around the world. The learning experience of the MITx courses features multimedia and video content, embedded quizzes with immediate feedback, online laboratories, and peer-to-peer communication.

The universities have different approaches to the upskilling. Some host workshops, some create courses for faculty members, some place experts in different departments, while others create a central unit for this upskilling. The differences apart, these initiatives all have one thing in common: they are optional for the faculty members to attend or use, and in this sense, the implementation strategy for the digitalization of faculty is, more than anything else, voluntary.

UC Berkeley's answer to how to upskill faculty is through workshops and making sure they have access to all the necessary tools and help they need to make their courses more digital. Stanford University has invested considerable resources in its Center for Interdisciplinary Digital Research that facilitates courses, workshops, and seminars in digital methods to Stanford affiliates. The center also places one of its affiliates, the Academic Technology Specialists (ATS), among the regular faculty in different Stanford departments. ATS at Stanford are experts in both technology and a specific academic field. With this double affiliation, they serve as a liaison from The Center to the faculty, which helps integrate technology broadly across the entire Stanford campus.

Future of
Leadership

03 — Sustainability

Sustair

nability

Intro

This booklet highlights some key issues about sustainability and the future of leadership. Sustainability as a topic is relevant in a very broad range of business subjects reaching from the existential question about a company's purpose to specific accounting of CO_2 emissions. In order to reflect the broad range of perspectives in regard to leadership, the following tensions are selected: purpose, board focus, and reporting.

Tensions

Reporting:
Conformist
⟷ Beacon

"One of the challenges in reporting on sustainability as a software company is that few have done it, which means little comparability as well as few incentives."

How do you measure sustainability?
Case on Salesforce
Interview with Chris Power, Salesforce

Focus:
Short-term
⟷ Long-term

"Today, some companies have more influence than nations, which also should result in hyperprofessional governance, and now more than ever, this calls for long-term stewardship."

How are you visionary enough?
Case on Patagonia
Interview with Robert Strand, UC Berkeley

Purpose:
Dollars ⟷ Impact

"If a company's product caters to an affluent customer base, we are not interested."

Is greed losing its edge?
Case on Kapor Capital
Interview with Freada Kapor Klein, Kapor Capital

How do you measure sustainability?

Source: Unsplash

Reporting
Conformist ⟷ Beacon

CEO and founder of Salesforce, Marc Benioff, has positioned himself as the voice of "new capitalism" with Salesforce as the example. In The New York Times in October 2019, Benioff says, "Yes, profits are important, but so is society. And if our quest for greater profits leaves our world worse off than before, all we will have taught our children is the power of greed."

Salesforce has actively chosen to push the boundaries of what can and should be disclosed in terms of environmental, social, and governance criteria. Among investors, ESG ratings are used to measure the sustainability and ethical impact of an investment in a company or business. These criteria help to better determine the future financial performance of companies.

It was not by external demand that the company started reporting on these criteria. Software companies have few guidelines to follow for reporting on environmental impact. However, Salesforce experienced its stakeholders having an increased focus on both social impact and greenhouse gas emissions from data centers. Setting the standards for ESGs has been and still is a tricky exercise. In the U.S., the organization with the most traction in this field is SASB. SASB, like Salesforce, is constantly trying to update and improve the standards for companies to use when reporting on ESGs.

"One of the challenges in reporting on sustainability as a software company is that few have done it, which means little comparability as well as few incentives."

The Stakeholder Impact Report is one of Salesforce's initiatives to a solution, and for the report to come together and reflect the company's efforts on sustainability, senior manager for Technical Accounting and SEC Reporting, Chris Power, is working across teams such as accounting, sustainability, corporate communication, HR, and IR to ensure the most accurate reporting on ESGs. Salesforce opted to add third-party audits in the reporting to ensure credibility and show that Salesforce takes sustainability seriously.

Reporting on sustainability is a complex technical task; however, soft skills and organizational culture are crucial elements to the success of Salesforce's sustainable development.

"You have to have a culture that enables people to run with these ideas. It can be difficult to formalize structures that enable collaboration across teams. We need passionate people to do this, and we need to have managers that green-light it both among middle managers and at the top. I don't think we could do this at Salesforce if we didn't have this culture."

Companies should look at sustainability as a challenge owned by multiple divisions, and in Salesforce's case, the company sets precedence for other companies looking to go in the same direction. One of the challenges in reporting on sustainability as a software company is that few have done it, which means little comparability as well as few incentives. Instead, Salesforce is trying to take control of the criteria and be transparent in the process of their reporting and developing. Having done the impact reports since 2013, Chris Power and his team are maturing the measurements year after year to accurately report on financial, environmental, and societal impact of running a multibillion-dollar software company.

About Salesforce
Salesforce is mainly known for SaaS such as CRM tools and marketing solutions. The company is valuated at $140 billion, which makes it number 240 on Forbes 500 list. In 2019, Salesforce reports $13 billion in revenue and 36,000 full-time employees.

About Salesforce's Impact Report

The report discloses emissions of domiciles and data centers, ambitions for renewable energy, financials, philanthropic activities, the company narrative, disclosure of demographic within the organization, and ambitions for diversity and inclusion. For the first time in FY 2019, Salesforce reported quantified measurements of social criteria.

An example of the metrics found in the Impact Report.

ESG Metrics and Descriptors

	FY19	FY18	FY17
Data Centers	244,000	201,000	149,000
Business Travel	132,000	112,000	80,000
Offices	38,000	35,000	26,000
Employee Commuting	28,000	26,000	23,000

Source: Greenhouse Gas Emissions by source (MTCO2e)

How are you visionary enough?

Source: Unsplash

Focus
Short–term ⟷ Long–term

"Today, some companies have more influence than nations, which also should result in hyperprofessional governance, and now more than ever, this calls for long-term stewardship."

"Today, some companies have more influence than nations, which also should result in hyperprofessional governance, and now more than ever, this calls for long-term stewardship. In this regard, directors should be held accountable as we would with public servants." Robert Strand of UC Berkeley's Center of Responsibility explains that long-term thinking and responsibility should be the key priorities to executives and directors.

In this regard, companies and its leadership need to be "attentive today, and be accountable for tomorrow." One of the companies famous for looking toward the future of the business, especially in terms of sustainability, is the apparel company Patagonia. At Patagonia, the most important thing is "to build the best product," meaning that the products should be the most durable and long lasting, while causing "no unnecessary harm" to the environment. The company reflects these ethics in its supply chain as well as in its corporate governance practices. Patagonia became a B Corporation in 2011, which protects Patagonia's directors against legal repercussions when they consider social and environmental impact before shareholder financial returns. Thus, shareholders cannot sue Patagonia for not maximizing profit. According to Patagonia's founder, Yvon Chouinard, the company is trying to build something that could last 100 years. In order to do so, Patagonia started donating 1% of total sales to environmental organizations in 1985, and Chouinard said back then, "Every business should say to themselves: 'We're polluters, we're using our nonrenewable resources and, therefore, we should tax ourselves.'"

While compliance tasks have traditionally taken a lot of time for board of directors, rapid introduction of new technologies and sustainability as a megatrend are causing a need for boards to articulate how they wish to deal with a relatively new pressure: The broader purpose. How should boards address the needs of society in an era of great change?

"Boards should say to themselves, 'We are the leadership 20 years from now.' The role of the board is to ensure long-term liability. For this reason, directors need to be educated in what it means to be ethical and responsible — not only responsible to ensure shareholder value but attentive to other stakeholders as well."

Interestingly, when Robert Strand spoke to others about Patagonia and the likeliness of the company going public, the concern was that Patagonia would not be able to keep up its sustainable profile. To Strand, this speaks to a more general problem if you cannot expect public companies to balance a long-term commitment to sustainability while ensuring shareholder value. Rick Ridgeway, VP of Environmental Initiatives and Public Engagement for Patagonia, said in an interview back in 2017 that businesses need to rise to the occasion:

"They don't seem to understand the most fundamental of connections, that without healthy societies, none of them are going to have healthy markets. I am astounded by people who seemingly are so bright and who have such abilities to run big companies who don't even seem to make the most fundamental connections to their business and its long-term health. I admit that's not necessarily connected to the short-term health, but if none of them can see long term, they don't really deserve to be in their positions of leadership."

Challenges managing short-term needs related to shareholder value and supply chain with long-term strategic goals are not unknown to Patagonia either. The tension is interesting because it is constantly there. Companies placed in the long-term end of the spectrum are those that take action when short-term needs conflict with long-term sustainability goals, and they always look for the sweet spot between high performance and reduced environmental impact. According to Patagonia, this is where new disruptive innovation happens.

About Robert Strand
Robert Strand is executive director at the Center for Responsible Business and lecturer at UC Berkeley Haas School of Business. His research focuses on comparing U.S. and Nordic approaches to sustainable and socially responsible business. He is the author of "Patagonia: Driving Sustainable Innovation by Embracing Tensions." (2017)

About Patagonia
Patagonia is a California–based apparel company making clothing for outdoor activities. The famous rock climber Yvon Chouinard founded the company in 1973. Patagonia is considered an "activist company" especially within environmentalism, where they are famously known for donating 1% of revenue each year to sustainability initiatives as well as refusing to take a tax cut from President Trump in 2017. Patagonia is a private company with an estimated revenue of $1 billion in 2018.

Is greed losing its edge?

Impact

Money
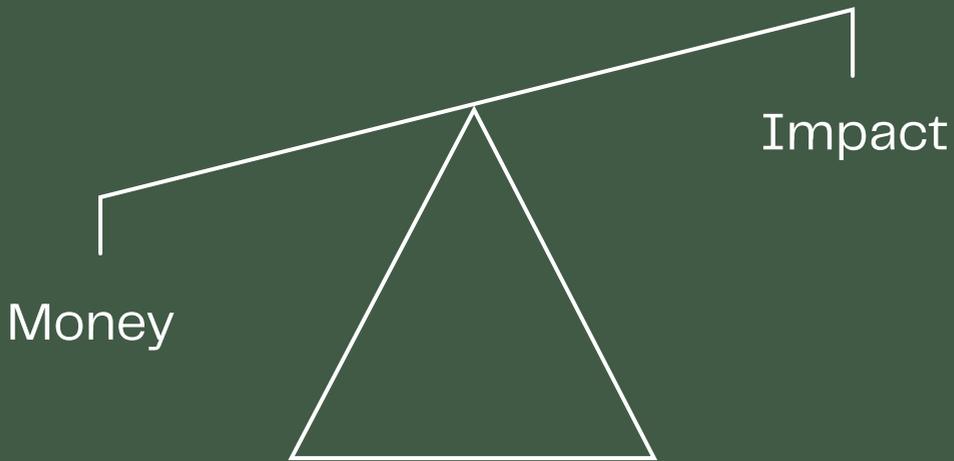
Kapor Capital is not the typical venture capital firm in Silicon Valley. Their investment activities are driven by rigorous criteria and an overarching goal of closing the gaps in society. When releasing the fund's first impact report, they exemplified how it is possible to invest solely in impact start-ups and outperform industry benchmarks at the same time.

"At Kapor Capital, we're trying to imagine what sustainable capitalism look like. We have some very rigorous criteria when investing in early stage start-ups that are different from mainstream VC firms in the Valley. We only invest in companies that focus on closing gaps. If a company's products caters to an affluent customer base, we are not interested."

The way the investment team decides if a start-up has gap-closing potential is by looking closely at the core business model and especially who will have access to the product or services. LendUp, a socially responsible lender that offers borrowing alternatives to people that banks and credit unions decline, is one example of a portfolio company. Investing in companies with gap-closing potential is often connected to investing in founders from underrepresented backgrounds, even if it is not a direct criteria for Kapor Capital.

"It often goes hand-in-hand that the founders of the companies we have in our portfolio come from an underrepresented background and are the ones coming up with the business ideas to close gaps of inequality. They have lived the experience and have a better view of what problems need to be solved." Lived experience is important when identifying gaps in the market, and diversity increases the number of perspectives a company, a board, or an investor can gain in terms of opportunities and risks. Kapor Capital's views are supported by McKinsey & Company's reports "Delivering through Diversity"

About Freada Kapor Klein

Dr. Freada Kapor Klein founded venture capital fund, Kapor Capital, and the philanthropic fund Kapor Center for Social Impact with her husband Mitch Kapor. Dr. Klein is known for her efforts to diversify the technology workforce through her investments. She and her husband are early investors in Uber and received a lot of media attention for speaking against their investment after the company's sexual harassment case.

concluding that companies in the top quartile for gender diversity on their executive teams are 21% more likely to have above-average profitability than companies in the fourth quartile. For ethnic and cultural diversity, top-quartile companies were 33% more likely to outperform on profitability. At Kapor Capital, they firmly believe that sustainability and financials are connected.

"I definitely think there is a financial gain from reporting on and keeping track of social criteria. People are the most valuable assets for the company; many companies say that, but they don't act like it."

Three pieces of advice from Freada Kapor Klein:

01
Companies should look at their employee demographic across divisions and not only overall in the organization. How many women are in tech, or how many ethnic minorities are in executive roles?

02
Companies should look at how good the retention rate of women and minorities is and how often these groups receive promotions compared to other groups.

03
Companies should actively seek to recruit employees from underrepresented backgrounds in all divisions as well as sponsor programs for underrepresented groups.

Kapor capital impacts funds outperforms the TVPI benchmarks

3.00	2.39	1.86

TVPI

KCAP	Pitchbook 75th percentile	Cambridge 75th percentile

Kapor capital impacts funds distupts the conventional thinking on vc investing

29.02%	25.96%	26.50%

IRR

KCAP	Pitchbook 75th percentile	Cambridge 75th percentile

Source: Kapor Capital, 2019
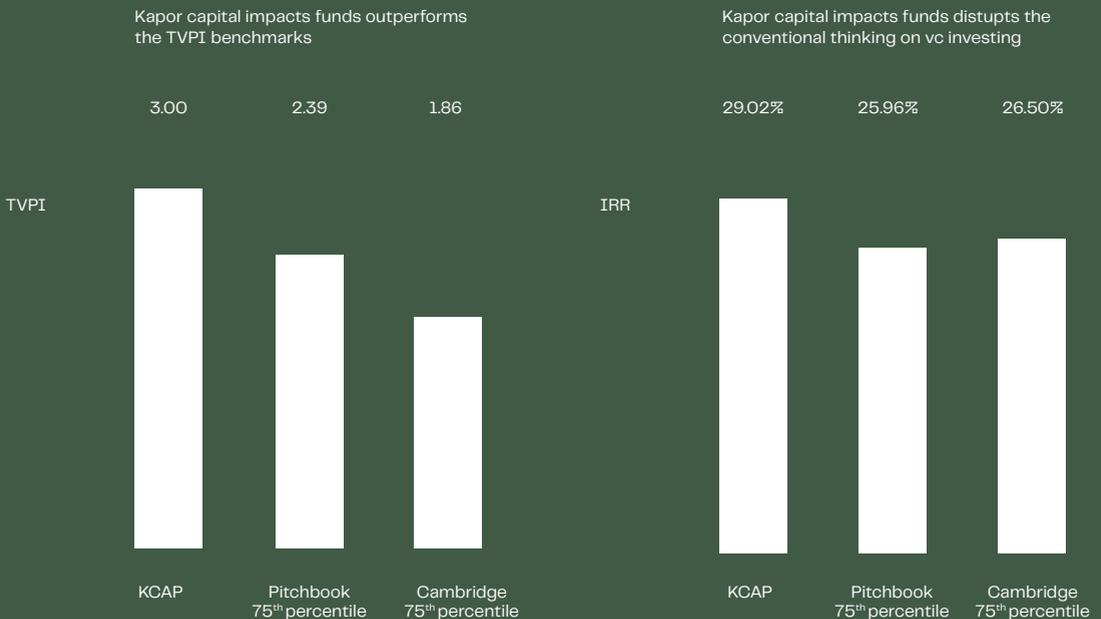
Future of
Leadership

04 — Leadership

Leade

ership

Intro

This booklet analyzes the specific future leadership subjects for the board of directors and executives. There are significant differences in governance practices between the U.S. and Europe, however, perspectives collected in the U.S. are relevant to shed the light on future practices, even if they happen under different regulatory standards. The tensions in this booklet are divided between those more relevant to directors and those more relevant to executives. The tensions for directors are: Social Media, CEO, and Transparency, while the tensions for executives are: Risk, Executive Team, and Exploration.

Tensions

Transparency:
Conclusion
↔ Dialogue

"The board isn't going to have the confidence to make the hard decisions unless they really understand the market and the company."

What are you hiding?
Case on Netflix with David F. Larcker, Stanford

Social Media:
Private ↔
Business Value

"You can't help but have a trade–off between privacy and business interests. It is a complex matter … ."

Do you control (SO)ME?
Interview with Robert Cruz, Smarsh

CEO:
MBA ↔ Founder

"… WeWork is a cautionary tale for the dangers of assembling a board of directors that is contractually foreclosed from … governing."

Is the founder a mirage or a North Star?
Case on WeWork
Interview with Adam J. Epstein, Third Creek Advisors LLC

Risk:
Averse ↔
Appetite

"This way of thinking is something every new employee at Amazon is trained in, even before they are hired, in the interviewing process."

Is risk–taking a skill?
Case on Amazon

Tensions

Executive Team:
Hierarchy ↔
Autonomy

"The people who are making ... decisions, while well intentioned and ideally well informed, are not necessarily closest to the front lines – and thereby customer needs ..."

Controlled anarchy or dead by predictability?
Case on decentralized autonomous organizations
Interview with Kevin Owocki, Gitcoin

Exploration:
Vertical ↔
Horizontal

"If an innovation unit is embedded in the core of an established business, it won't have the independence needed to generate novel — and potentially disruptive — ideas."

Do you think like a winner?
Case on innovative ecosystems
Interview with AnnaLee Saxenian, UC Berkeley

What are you hiding?

Netflix has made significant changes to its business since the beginning, from DVD renting to streaming, expanding internationally, and investing in original content. Netflix directors believe that the board processes played an important role in giving the board confidence in management during these challenges. One director says, "It was a huge leap, and it's hard to imagine we could have done it without the intimate knowledge of the operations and the people."

David F. Larcker of Stanford Graduate School of Business offers an exclusive peak into the boardroom of Netflix, a company known for its transparent and high-performing culture.

"The board isn't going to have the confidence to make the hard decisions unless they really understand the market and the company."

Netflix has successfully closed the information gap limiting the decision-making of directors who are not fully involved with all aspects of the business and market. Traditional ways of reporting to the board tend to be carefully orchestrated by executives, but when engaging directly, the directors get a less edited source of knowledge. According to founder and CEO Reed Hastings, their practices improve the board's ability to provide "an extreme duty of care." "The board isn't going to have the confidence to make the hard decisions unless they really understand the market and the company."

By having board members periodically attend monthly and quarterly senior management meetings, in an observing capacity only, Netflix ensures a transparent governance structure that makes for a well-informed board able to make better long-term decisions. Board communication is structured as approximately 30-page online memos in narrative form that not only include links to supporting analysis but also allow open access to all data and information on the company's internal shared systems, including the ability to ask clarifying questions of the subject authors. Directors at Netflix prepare between 4–6 hours for board meetings.

The question is whether or not this approach could work in other companies or if the success at Netflix is due to a specific company culture that encourages individual initiative and focuses on results instead of processes. Netflix's directors are overwhelmingly positive toward the governance approach and see Netflix as a best practice example of true transparent governance. But for other companies to implement these structures, it would require a modification. They would have to be adjusted to the specific company culture in question.

Source: Unsplash

About David F. Larcker
Professor Larcker's research focuses on executive compensation, corporate governance, and managerial accounting. His work examines the choice of performance measures and compensation contracts in organizations. He is the director of the Corporate Governance Research Initiative at the Stanford Graduate School of Business and senior faculty of the Arthur and Toni Rembe Rock Center for Corporate Governance at Stanford University.

About Netflix
Netflix is a content streaming service, which offers their 150 million users original and third-party content through its platform. Besides being market leading in streaming, Netflix's CEO and founder Reed Hasting is recognized for his views on both corporate governance and culture. Netflix is currently valued at $130 billion.

Do you
control (SO)ME?

Source: Unsplash

Social Media
Private ⟷ Business Value

Emerging social and communication technologies happen faster than firms can install policies for how to use them for business purposes. The internal aspect covers how to secure intellectual property or retain electronic communication when conversations between employees do not happen inside legacy IT systems. The external aspect is how firms can govern social media activity of key employees as a part its risk management strategy.

"Information risk can be anywhere, and as the governing organ in organization, the board would want to be as proactive as possible about managing these risks. This could mean preventive inspections of the communication channels of key employees, including social media accounts."

Robert Cruz is managing director of Information Governance at Smarsh, a software company that offers products to capture and archive from new communication channels. Their clients are increasingly looking for ways to monitor social media communication both for risk management and compliance reasons. As the $20 million settlement between SEC and Elon Musk and Tesla showed, it can be quite costly if firms do not consider information risk. In this case, Musk agreed to get legal approval for tweets that could affect Tesla's share price going forward.

"You can't help but have a trade-off between privacy and business interests. It is a complex matter, because firms have to consider protection of privacy while realizing that behavior on social media has business value, such as in the case with Tesla."

Cruz explains that public companies such as Tesla are especially vulnerable to public information breaches. In Tesla's case, Musk hinted on Twitter that he wanted to take Tesla private for a price of $420 per share and that funding was already secured. As a result, the misleading tweet caused Tesla's stock price to jump over 6% on August 7, 2018.

"You can't help but have a trade-off between privacy and business interests. It is a complex matter … ."

Advice for firms when adopting new communication tools

01

The risks from social media misuse apply to all organizations. All publicly traded corporations need to consider how they monitor for potential disclosure of nonpublic information through all communications channels.

02

Social media and mobile messaging need to be built into ongoing content inspection processes. Content containing risk or value can live anywhere, and processes need toa catch up with today's communications tools.

03

Prereview of social content can pay huge dividends. Tools that inspect content and approve prior to delivery or posting can generate an enormous return on investment — especially when compared to a $20 million fine.

04

Risk is not just about "regulated users." Executive staff, legal teams, and other key stakeholders can also use social media or internal collaborative tools inappropriately. Compliance teams need to broaden their supervisory lens to include these groups.

Unfortunately, the tools that are most fit for capture such as e-mail and digital files do not necessarily meet the expectations for immediate communication such as new collaborative tools and social media. Keeping track of these are difficult, which is why firms need to mitigate risk through strategies for digital information internally and externally. Slack is an example of one of these new tools that offers immediate communication and can be used both to communicate with customers and between employees. However, Slack has also been criticized for its handling of user data, which is something companies should consider when choosing platforms like Slack and others for communication. The challenge is to get policies in place at the same speed as the new communication channels emerge. The policies need to be both adaptable and adjustable for new communication formats.

The advice from Robert Cruz below will guide companies seeking to balance privacy of employees while protecting sensitive information as well as using social media and other channels to provide value to the business.

About Robert Cruz
Robert Cruz is managing director of Information Governance Practices at Smarsh. Smarsh delivers software for companies to capture and archive from communication channels. Cruz focuses on the intersection of compliance, risk, and technology with expertise in information governance, data privacy, and regulatory compliance. He frequently writes about or give presentations on information risk and information governance.

Is the founder a mirage or a North Star?

Source: Unsplash

CEO
MBA ⟷ Founder

"Had WeWork matched its high growth with a business model that created more confidence in a path toward profitability, its CEO, Adam Neumann, might have been able to get somewhat of a "pass" for his eccentric behavior and extravagant spending habits. But with no cognizable path to profitability combined with the unorthodox behavior, it was just untenable for institutional investors. WeWork is a cautionary tale for the dangers of assembling a board of directors that is contractually foreclosed from ... governing."

As put by Adam J. Epstein, a former institutional investor and current advisor of pre-IPO and small-cap boards, a great board will know that no one is irreplaceable. Boards and investors need to avoid "founder worshipping," be realistic about the founder's strengths and weaknesses, and constantly examine and re-examine the most efficacious role for their founder, as the characteristics making the founder capable of potentially transformative value creation can also make them inherently challenging to oversee.

"WeWork is a cautionary tale for the dangers of assembling a board of directors that is contractually foreclosed from ... governing."

"Boards that are faced with the prototypical, enigmatic, first-time founder need to continuously remind each other that it's not the break-neck early growth that defines whether an idea is ultimately a financial success — it's the ability for that nascent company to achieve scale. And scale, in turn, isn't about rule-breaking; it's about systems, processes, and people."

About Adam J. Epstein

Adam Epstein advises small-cap CEOs and boards through his firm Third Creek Advisors LLC. Prior to founding Third Creek, Epstein co-founded and was a principal of Enable Capital Management. He is a former corporate attorney, operating executive, and institutional investor. He is a best-selling author for his book on corporate governance for small-cap boards and CEOs, and he is a key contributor and mentor at the Nasdaq Entrepreneurial Center.

Whether a founder-CEO is a genius is often based on anecdotes or in proximity to the ability of getting investors to write billion-dollar checks in the late stages of raising capital. SoftBank's $7.5 billion investment in WeWork is an example of venture capitalists betting big on the founder, even referring to WeWork as "the next Alibaba Group Holdings" of investments. In the case of WeWork, it is safe to say that this was not true.

01

Boards of high-growth companies should choose an independent chairperson who has direct experience scaling a business in the same or similar industry and experience as a chairperson.

02

The board should remain as objective as possible about the founder's strengths and weaknesses, and wherever possible, try to refocus the CEO's role on their strengths. For example, if a founder's strength is product development, perhaps the board could — sooner than later — hire a chief operating officer to run day-to-day operations, and let the founder-CEO focus their talents on product development.

03

It's never too early to implement scalable systems and processes, and the board needs to continually remind inexperienced founders that systems and processes aren't antithetical to having an agile, nimble business — quite the opposite.

CEO

Founder
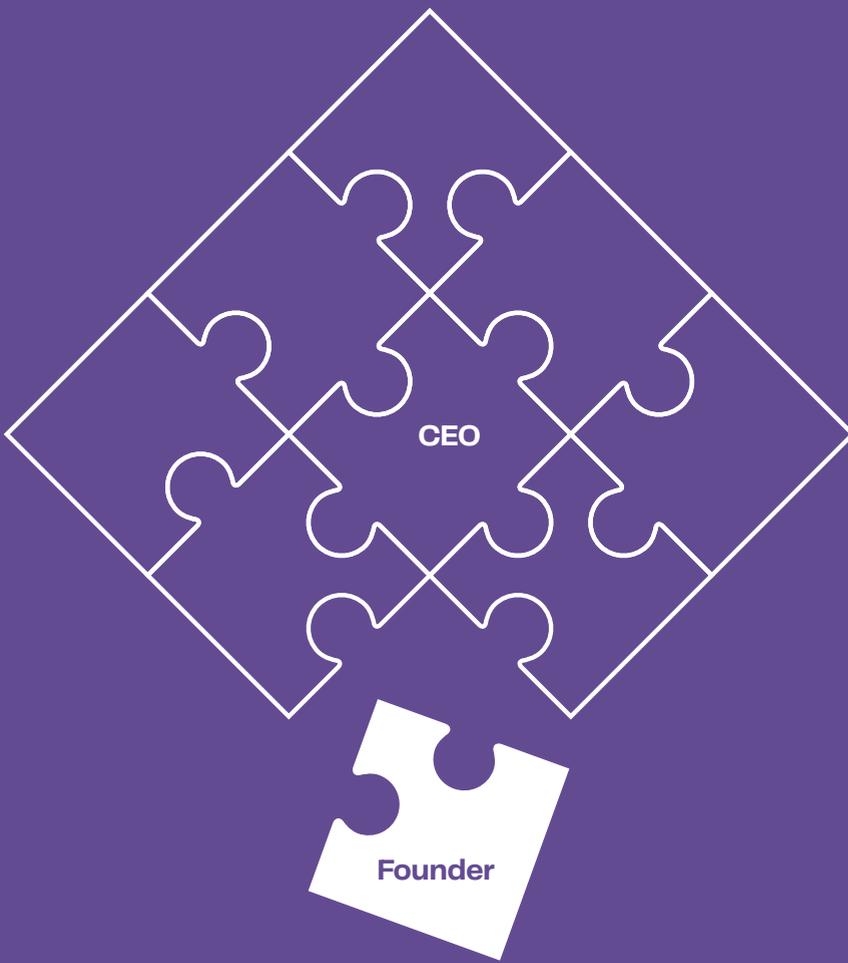
About WeWork

WeWork is an office space solution offering shared workspaces for start-up companies around the world. In 2018, WeWork managed more than four million square meters of office space. The company was set for an IPO in 2019, but turmoil around the S-1 filing caused the company to drop from $47 billion in value to nearly $10 million. SoftBank, WeWork's biggest investor, removed founder Adam Neumann as CEO and chairman in November 2019, with a $1.7 billion golden handshake.

Very few founder-CEOs actually manage to rank at the top of financial performance and employee approval at once — Marc Benioff of Salesforce being one of those few. Subsequently, the decade-old research study, "The Founder's Dilemma" by Noam Wasserman, showed that 50% of all founders are replaced as CEOs by the third round of funding, and founders of fast-growing start-ups tend to get fired even earlier. Despite this, infatuation with the brilliant founder is alive and well in Silicon Valley, which is why boards effectively could ask themselves: Is the founder the right person to be CEO? Where are the skills of the founder best utilized? Is there a need for "adult supervision," and should it be installed before a potential IPO?

There is no statistical evidence that founder-CEOs perform better than so-called MBA-CEOs, but the tension still stands. In this case, it is not necessarily about one over the other but more an exercise for boards to be vigilant

Is risk–taking a skill?

Risk
Averse ⟷ Appetite
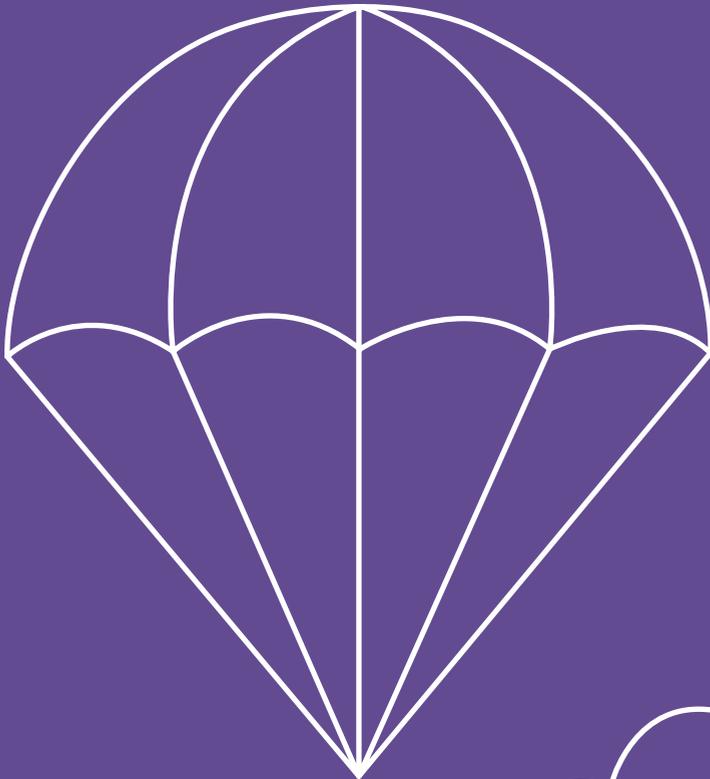
In Jeff Bezos' letter to Amazon's shareholders in 2016, he wrote about type 1 and 2 decisions. Type 2 decisions make up for 80%–90% of the decisions made at Amazon; those are the ones that can be reversed. If an integration fails, it can be pulled back; if a product is not a success, it is not reproduced. Additionally, Bezos wrote to his shareholders back in 2015, "Wandering is an essential counterbalance to efficiency," encouraging experimenting and exploring in order to develop the business.

As I bystander, it can be easy to mistake Bezos' words for serving as branding of the company and not the actual company culture, but when speaking to employees at Amazon, it becomes clear that leadership principles such as customer obsession, take ownership, think big, and dive deep are performed in every decision made in the company.

One hiring manager at AWS explains how they use leadership principles at the company on a daily basis. The 14 Amazon leadership principles simply guide all the thinking. These principles are also key elements in the way new hires enter the company. Without these as part of the candidate's DNA, it is next to impossible to get hired into Amazon. Candidates have to answer questions to explain how they meet the leadership principles. When hired, new employees go through training programs to learn how to incorporate the leadership principles in their daily work tasks. Risk-willingness through these principles is engrained in Amazon's culture.

Whenever AWS or any Amazon company start a new project, they begin with considering how the solution will help customers to build value. If there are no clear outcomes for customers, nothing moves forward.

Another important element is to check to what extent the solution will scale. Then they ask themselves the question: "If we were to invest double of what is being proposed what would be the incremental results." In other words, start thinking big right from the start.

Amazon tries to create a frictionless environment for rapid decision–making by having a different approach to how the pitch and grant ideas. First, PowerPoint slides are a no–go when someone wants to pitch an idea. Instead, ideas are presented as narratives written in diligent detail on six pages with small margins. At meetings, the papers are read in silence, given feedback, and at the end, the idea is granted or tossed. This process ensures a rapid decision–making process where all detail are delivered and all input secured for a fast execution.

When failure does happen, procedures are in place to make sure the same failures do not repeat themselves. A person can make many mistakes, as long as it is not the same mistakes. If a team fails on delivering a product, the objective is to use the components from the disposed technology elsewhere to make sure risks are never a waste. This is all a part of the wandering process, and this is how Amazon sustains an innovative culture. In the case, the tension between averseness and appetite is balanced through a culture encouraging big thinking and big betting on ideas and processes that mitigates future risks of failure.

About AWS
Amazon Web Services is an Amazon subsidiary company that has operated since 2006. AWS is market leading as an IaaS provider for individuals, companies, and governments. In 2018, AWS generated 12% of Amazon's total revenue but delivered 56% of Amazon's total operating income.

Controlled anarchy or dead by predictability?

During the past 11 years, since the mythical Satoshi Nakamoto published the Bitcoin white paper, multiple bold blockchain concepts have been launched, and the idea of an internet of value based on blockchain was coined.

One futuristic internet of value concept is called, "Decentralized Autonomous Organizations" or DAOs, which can potentially replace the need for executive and board of directors' decisions with software or so-called smart contracts. A smart contract is essentially software code that ensures that when a rule is met, contracts are executed autonomously.

The first real example of a DAO failed miserably in its attempt to build a crowdfunded venture capital fund based on blockchain. There was a bug in the software code, maybe because the project was too complex and ambitious, and it was hacked almost immediately. Fifty million dollars were stolen in Ether cryptocurrency and caused an existential crisis for the blockchain community.

"The people who are making … decisions, while well intentioned and ideally well informed, are not necessarily closest to the front lines – and thereby customer needs …"

The company was simply called The DAO and now serves as an example of being too ambitious too early with the nascent blockchain technology. However, the idea of DAOs still stands. Kevin Owocki is the founder of Gitcoin, a blockchain project incubated in ConsenSys and a hub for Ethereum development activity.

One of Gitcoin's DAO projects, still in alpha, already serves an important mission in the blockchain open-source community and provides an early indicator of where this technology can take us. The project called Grants allows for a democratic, decentralized, and autonomous distribution of funding for open-source software development and has channelized $800K into various projects since the beginning of 2019.

Owocki believes that in the future, the principles of DAO can eventually be deployed into businesses outside of the Ethereum space.

About Gitcoin and ConsenSys

ConsenSys is a blockchain software technology company founded by Ethereum co-founder Joseph Lubin, with its headquarters in Brooklyn and additional United States offices in Washington, D.C. and San Francisco. Joseph Lubin founded ConsenSys in early 2015 as a software foundry to develop decentralized software services and applications that operate on the Ethereum blockchain. Gitcoin is a platform for freelance developers and a crowdfunding platform for open-source software.

"In a company, the process of decision-making about which projects to fund often happens high up on the organization chart. The people who are making these funding decisions, while well intentioned and ideally well informed, are not necessarily closest to the front lines – and thereby customer needs or projects bottom-up demands. With Quadratic Funding DAOs this process can happen autonomously, decentralized and in a democratic manner, allowing funding decisions that reflect the preferences of a broad base of the organization."

For now, the discussions on the utilization of DAO mainly happen within the Ethereum space, but the disruptive potential on corporate governance goes wider than this. In its most extreme form, the future perspective is that DAOs will be used to power the growth of decentralized companies and funds and thereby change the rules of the game for executives and directors in the same manner as the development of the internet of information.
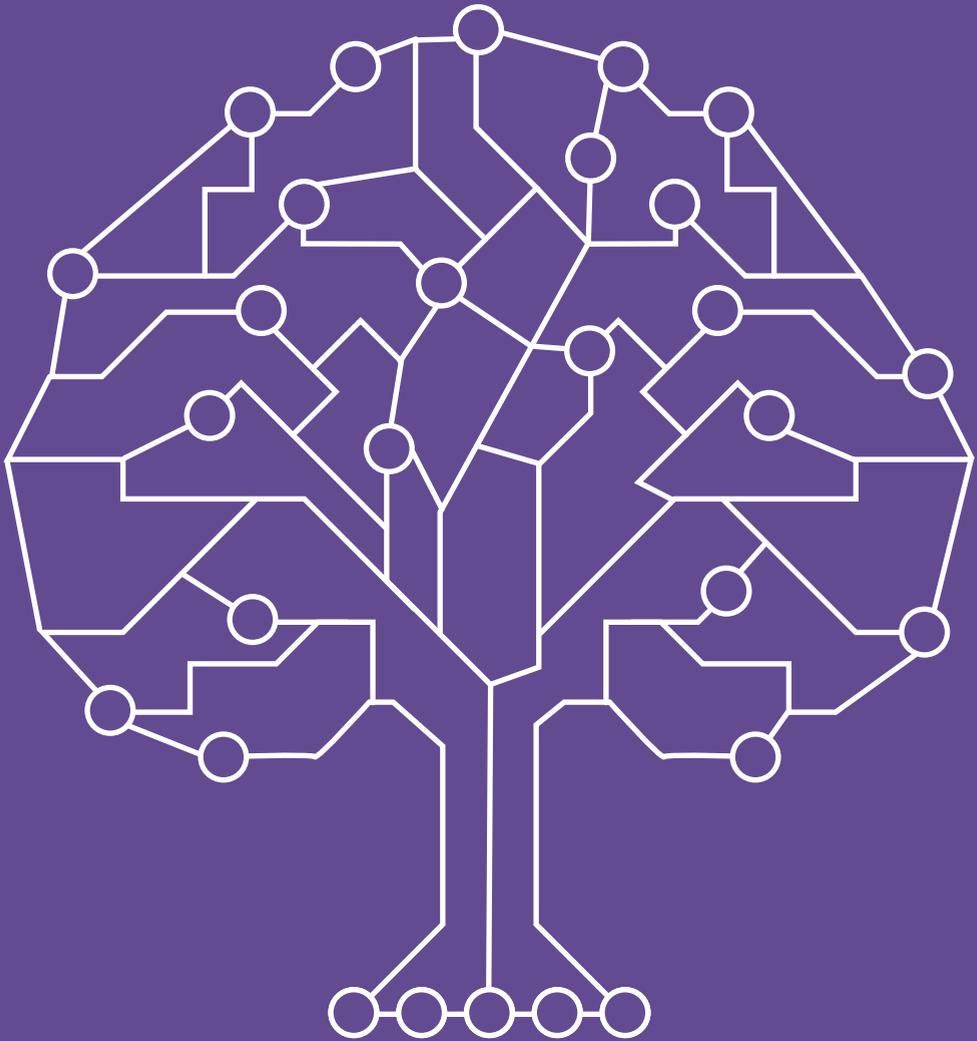
Do you think like a winner?

Source: Shutterstock

The final case tells about the unique conditions under which start-ups, corporations and academia operate in Silicon Valley. Being in the Silicon Valley ecosystem is not a prerequisite for success; there are however ingredients leaders can stir into their own ways of thinking about innovation. Silicon Valley culture follows an autonomous and egalitarian model rather than a hierarchical one. The culture emphasizes that any idea can be good, regardless of where it came from or through which channels. Rapid introduction of innovation and a relatively open management structure are also some of the characteristics of the Silicon Valley culture. The practice of "firm-hopping" among engineers is valued rather than discouraged, because it helps grow the informal social networks across firms and sectors that became so crucial to exploration of innovation in the Valley.

Abandoning vertical ways of thinking about innovation, professor and former Dean of UC Berkeley School of Information AnnaLee Saxenian agrees is not easy. There are however, steps to take and approaches to innovation that can take companies some of the way:

"Corporate innovation needs to be separate from existing operations, even located in an autonomous entity. If an innovation unit is embedded in the core of an established business, it won't have the independence needed to generate novel — and potentially disruptive — ideas. Companies also need to look outside of their own boundaries for new ideas. Start-ups are often excellent sources of innovative ideas and approaches, and collaborating with them can be mutual beneficial."

Another way to abandon vertical thinking is for companies to support informal horizontal networks. This might not be immediately beneficial to a corporation, but it helps them contribute to the innovation ecosystem and serves as a hub for talent and knowledge. As with corporate ventures, it is important to refrain from pushing agendas in these networks but instead support them and help them thrive. One example is setting up networks for professionals and students within a specific industry: energy and environment, software and IT, or entrepreneurship in general.

Professor Saxenian was the first academic to research how geographical proximity affected the innovation ecosystem of Silicon Valley. The ecosystem is the reason Silicon Valley continues to be a hub for innovation and disrupting technologies. Her results were published in 1994 in the book, "Regional Advantage: Culture and Competition in Silicon Valley and Route 128." Twenty-five years after making the conclusion, countless of regions and urban areas are still trying to copy the traits of Silicon Valley — some more successful than others — but never entirely as lucrative.

Silicon Valley is as much a mind-set as it is a physical place in the San Francisco Bay Area, and adjusting from vertical to horizontal thinking is the key to unlocking the potential from the Valley. According to Saxenian's later research, it is not about copying Silicon Valley in its entirety but finding ways to create extensions to it.

"If an innovation unit is embedded in the core of an established business, it won't have the independence needed to generate novel — and potentially disruptive — ideas."

About AnnaLee Saxenian

AnnaLee (Anno) Saxenian is a professor at the School of Information at UC Berkeley, where she focuses on regional economies and the conditions under which people, ideas, and geographies combine and connect into hubs of economic activity. She is widely published in journals and the author of three books on the topic. She holds a PhD from MIT, and a master's from UC Berkeley.

Join the Quest

"We shape the world and the world shapes us. In a world increasingly characterized by extreme change and uncertainty, where technology, big data, and digitalization will continue to play an increasing role in business and society, the future of work is often the focus of discussion.

Equally important to consider is, what is the impact on leadership? Many leaders today find it increasingly difficult to navigate. Traditional leadership models based on an industrial or knowledge worker era are quickly becoming less relevant or obsolete.

The pressing issues facing leaders and organizations today are paradoxical, systemic, and interconnected. They are not a set of problems but a system of economic, technological, societal, ethical, and cultural challenges — all conjoined and hence, complex. As leaders, we will need to change the way we lead, learn, think, and behave to keep pace with this fast-changing environment."

– Chris Shern, CEO, IME