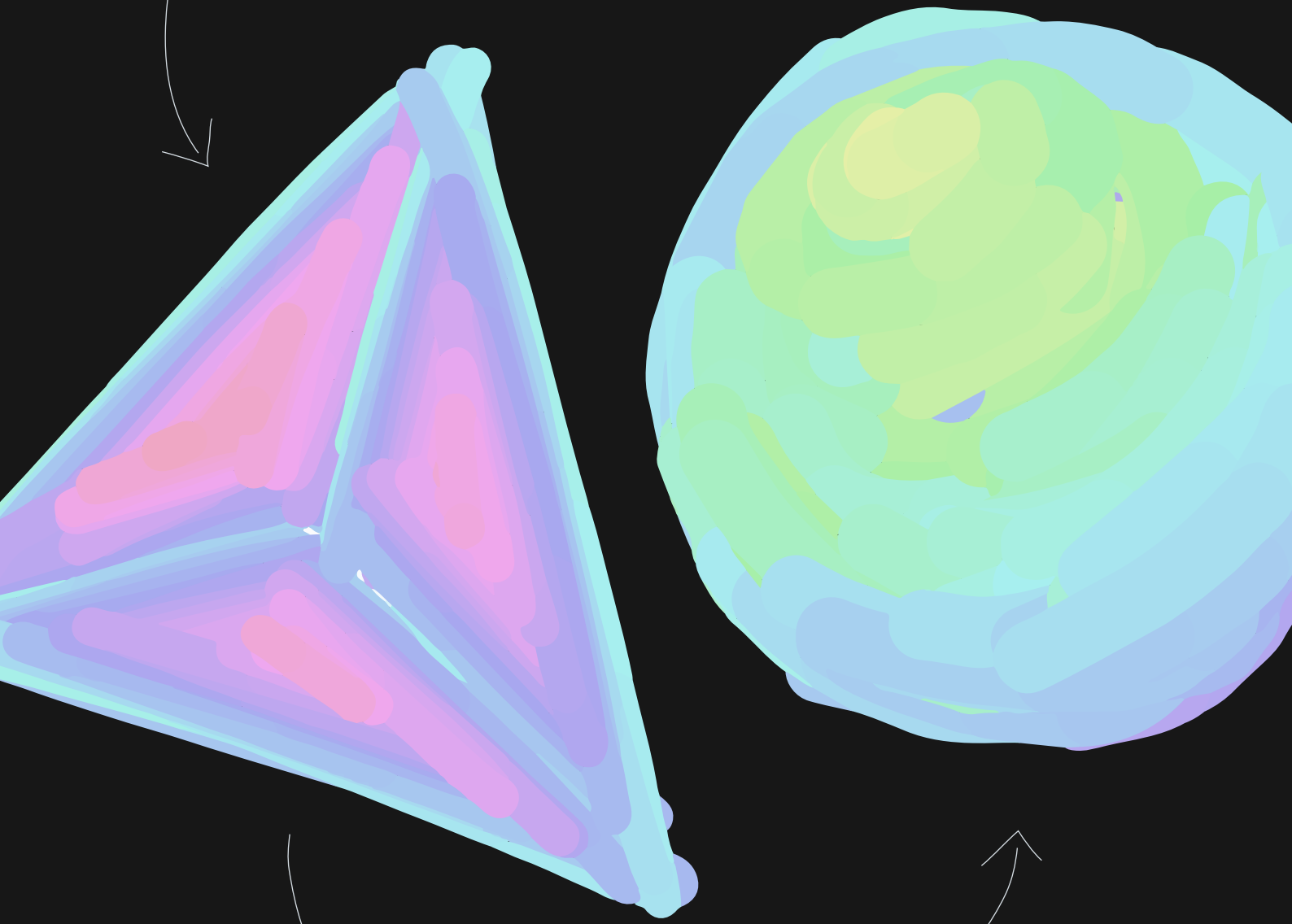
Transformative Times



The Coordination Economy

This report is about progress. We address an aspect of human activity that, while present for centuries, is becoming increasingly relevant for organisations of all scales: the compounding relationship between abstraction and coordination.

with company

About with company

We are a Lisbon based company committed to improving individuals, organisations and ecosystems, in order to (re)question societal needs and drive us to better futures.

It’s in our name: we do it with scaled collaboration and mutual inspiration. The unknown is our playground, and we grow better when we play together.

For the last 6 years, we have been working alongside public and private organisations, tackling challenges related to antibiotics, rural property management, the digitalisation of insurance and ageing, to name just a few.

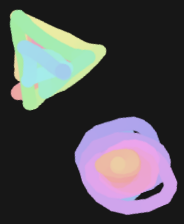
Learn more at with-company.com

An introduction to Transformative Times

At the beginning of 2020, With Company launched Transformative Times, an initiative designed to help us make sense of the world by diving into global topics that change and shape our ways of living. We believe that understanding complexity isn't about adding information on top of information, but about appreciating the underlying principles of our systems, how they function, and how we can leverage them to drive us in desirable directions.

Our first study, exploring the changes made by individuals and societies in response to COVID-19, kicked-off in May and upon closing it, we came to realise that just publishing an analysis of our results wouldn't be enough. We believe that this past year has set the stage for a more profound conversation. One about how we might catalyse the next decade of value creation across all of society, for individuals, private organisations and even at a state-level.

Following months of research, our Key Indicators series, our interviews with some of our favourite thinkers and, of course, learnings from participants in our study, we believe that to better equip ourselves for the future we need a new mental model — The Coordination Economy.



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Introduction

We only need to take a brief dip into our collective history to understand that our progress as a species can be accredited, in part, to our ability to think beyond our immediate surroundings and work together.[1]

While other animals may cooperate, humans do so at incredible scale. While other species may even learn and build tools (*some reports even show that crows have entered the stone age*[2]), we do so at a much higher level; using abstract thought to overcome complexity. This ability has been instrumental to the economic, technological, scientific and cultural advances that have transformed our lives and raised standards of living over centuries.[3]

Today, these abstractions most obviously take the form of the vast networks of cooperation and coordination that allow our society of complex, interconnected systems to function. Governments, financial markets, the internet, the gig-economy. To paraphrase John Culkin, we shaped them and, in return, they shape us.[4]

At With Company, we believe that this interconnectedness calls for a new addition to our toolkit. A mental model that allows us to systematise and accelerate progress at the same time as building much-needed resilience into our systems whose fragility has been exposed by the coronavirus pandemic.

1 **Flack, J, Mitchell, M 2020, Uncertainty Times, aeon,** <https://aeon.co/essays/complex-systems-science-allows-us-to-see-new-paths-forward>

2 **Troscianko, J, & Rutz, C, (2015), Activity profiles and hook-tool use of New Caledonian crows recorded by bird-borne video cameras. The Royal Society Publishing.** DOI: https://doi.org/10.1098/rsbl.2015.0777

3 **Collison, P, & Cowen, T 2019, We Need a New Science of Progress, The Atlantic,** <https://www.theatlantic.com/science/archive/2019/07/we-need-new-science-progress/594946/>

4 https://www.unz.com/print/SaturdayRev-1967mar18-00051/

The Coordination Economy

A mental model that utilises the relationship between abstraction and coordination to unlock value and accelerate progress.

In The Coordination Economy, organisations take inefficient processes, tools, behaviours and actions and — through the abstraction of their functions — develop more efficient replacements, often taking the form of standards, protocols, APIs and interfaces. This increased efficiency decreases the cost of bringing together previously disconnected elements of a given system; allowing for new value to be created through coordination-based solutions, be it pages on the internet (*Google*), or cars on the road (*Uber*). This is not a new phenomenon, but the influence it has on organisations of all scales is undoubtedly accelerating.

For clarity's sake, we want to explain our use of the word economy (*both in the title of the model and throughout this document*). We are not trying to describe a new economic system, but rather production, consumption and exchange activities that are only possible because we intentionally abstract some of these activities, opening, in the long-run, new possibilities for coordination between people, organisations, and goods.[5]

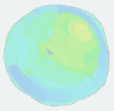
[5] **Collison, P, & Cowen, T 2019, We Need a New Science of Progress, The Atlantic, viewed 24 February 2021,** <https://www.theatlantic.com/science/archive/2019/07/we-need-new-science-progress/594946/>

Defining the Concepts

Before we explore how **The Coordination Economy** has been used to date, and how we believe it can be harnessed in the future[6], there are two concepts that we need to understand: Abstraction and Coordination.

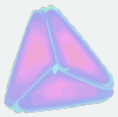
With **Abstraction**, we are referring to the act of reducing the complexity of a given problem to increase efficiency in a process, interaction or event[7]. **Coordination** is conscious (*or unconscious*) cooperative activity at scale between different players, entities or elements of a system that unlocks new forms of value.

As Coordination increases — opening the space for new elements and interactions — our systems become more complex and therefore require further abstraction. As abstraction increases and new ideas are conceived, we need better coordination to organise and integrate them into our systems (*for the remainder of the report, we will refer to this cumulative deployment as the abstraction and coordination loop*).



Abstraction

The act of reducing the complexity of a given problem to increase efficiency.



Coordination

Cooperative activity at scale between different players, entities or elements of a system that unlocks new forms of value.

To better explain the relationship between these two concepts, let's talk about content on Facebook. At its beginnings, users could only see a person's posts by visiting their page. Then, to help users keep up with their network, Facebook abstracted the purpose of these direct visits and created the newsfeed. Later still, with an increase in the amount of content available to each user, Facebook introduced an extra layer of coordination through an algorithmically-driven feed as a way to prioritise content. However, this content-prioritisation has had considerable negative externalities (*highly engaging but polarising, harmful content*), which created the need to scale content moderation past human capabilities. To do this, Facebook abstracted the process of analysing a piece of content into (*more*) algorithms.

6 Gelernter, D. (1993). Mirror Worlds: or the Day Software Puts the Universe in a Shoebox. New York, USA: Oxford University Press

7 What is abstraction?, BBC, viewed 24 February 2021, <https://wgtww.bbc.co.uk/bitesize/guides/zttrcdm/revision/1>

Deployed together, abstraction and coordination induce change. However, at With Company, we don't believe in change simply for its own sake. Change should be about improvement; improvement to our standards of living, our access to wellbeing and our relationship with the world. We need to be intentional about what we want to achieve and set clear goals. In pairing this with the coordination and abstraction loop, we can drive progress.

Progress

Economic, technological, scientific or cultural advances that raise standards of living.

Abstraction + Coordination = Progress

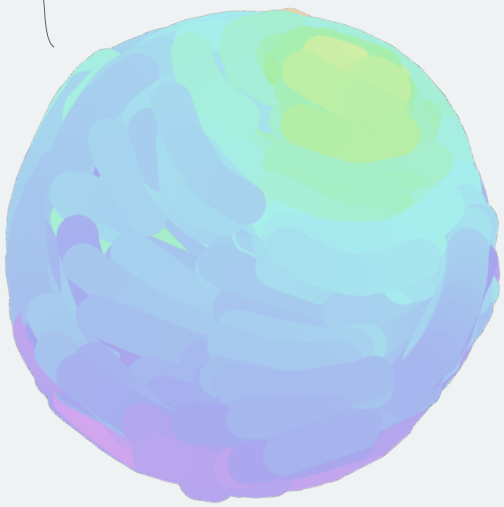


Photo by Takahiro Sakamoto on Unsplash

1.

The Coordination Economy Today

This section is dedicated to identifying examples of how various organisations have benefited from abstraction and coordination; generating enormous amounts of value for individuals, organisations and society in general.

In doing this, we hope to craft a better understanding of what it means for organisations to act with The Coordination Economy and set the stage for a discussion on how the model itself can be actioned.

OpenDoor

For the past two decades, the internet has been the de facto infrastructure for companies taking advantage of the abstraction and coordination loop. Increasingly, however, new companies are not only creating businesses on top of the internet but are using the digital world to fundamentally alter our analogue reality. This is happening in even the most traditional and seemingly immovable spaces. One of these companies is Opendoor.[8, 9]

Founded in 2013, Opendoor allows people to sell property in just a few clicks. It brings simplicity, certainty and speed to a process that traditionally takes several months. Its long-term goal is to increase the number of times people move between properties by increasing the liquidity in the market (*making it almost frictionless to turn an asset into cash*).

Photo by **Aubrey Odom** on Unsplash

[8] **2018, Opendoor overview, investor presentation, Opendoor,** <https://www.opendoor.com/w/wp-content/uploads/2020/09/Opendoor-overview-investor-presentation.pdf>

[9] **McCormick, P, 2020, Knock Knock. Who is there? Opendoor,** <https://notboring.substack.com/p/knock-knock-whos-there-opendoor>

In an era in which new online real-estate platforms are popping-up, how is Opendoor executing this complex operation?

1. Coordination becomes easier if some parts of the system are more stable/predictable, to capitalise on this, Opendoor began with a highly focused rollout. They chose to start in a niche — newly constructed homes in Phoenix, Arizona — to improve their Automated Valuation Model and minimise risk.

2. They also focused on property owners with low price-sensitivity. This enables them to make an instant offer for a property and still make a profit in the future, On average, Opendoor pays 7.3% below a given property's valuation; this is the 'price' property owners pay for the simplicity, certainty and speed offered by Opendoor.

3. After the property owner inserts their address and receives an offer, Opendoor organises an inspection through a local partner or their in-house services. These inspections serve two purposes: to settle on a final price and to feed its data model so that over time its price prediction algorithm is less reliant on analogue work.

4. If the seller accepts the final offer, Opendoor closes the deal, completes any repairs needed and sells the house as quickly as possible. Over the last seven years Opendoor has been able to keep expanding to more price-sensitive sellers, while reducing the friction (*and costs*) of its own operations by increasing algorithmic accuracy.

5. While there is still a lot of ground to cover, in the medium-term Opendoor can expand to value-added services like home decor, or home improvement beyond simple repairs "for a higher discount, we will do X and be able to offer you more". In the long-term, this positions OpenDoor as a layer of essential infrastructure in the real estate sector.

Black Lives Matter

BLM is a case study in coordinated utilisation of social media, turning the conversation towards much-needed social reform. Large social movements are shaped by the technology available to them and often tailor their goals and tactics to the media of the day.[10]

Through the creation of communities on platforms like Facebook and Twitter, the need for "institutional structures to make things work" was removed.[11] This decentralisation, made possible by the tools provided by social media, also significantly reduced the movement's dependency on individuals; which makes the organisation significantly more resilient and allows for a plurality of interconnected narratives.

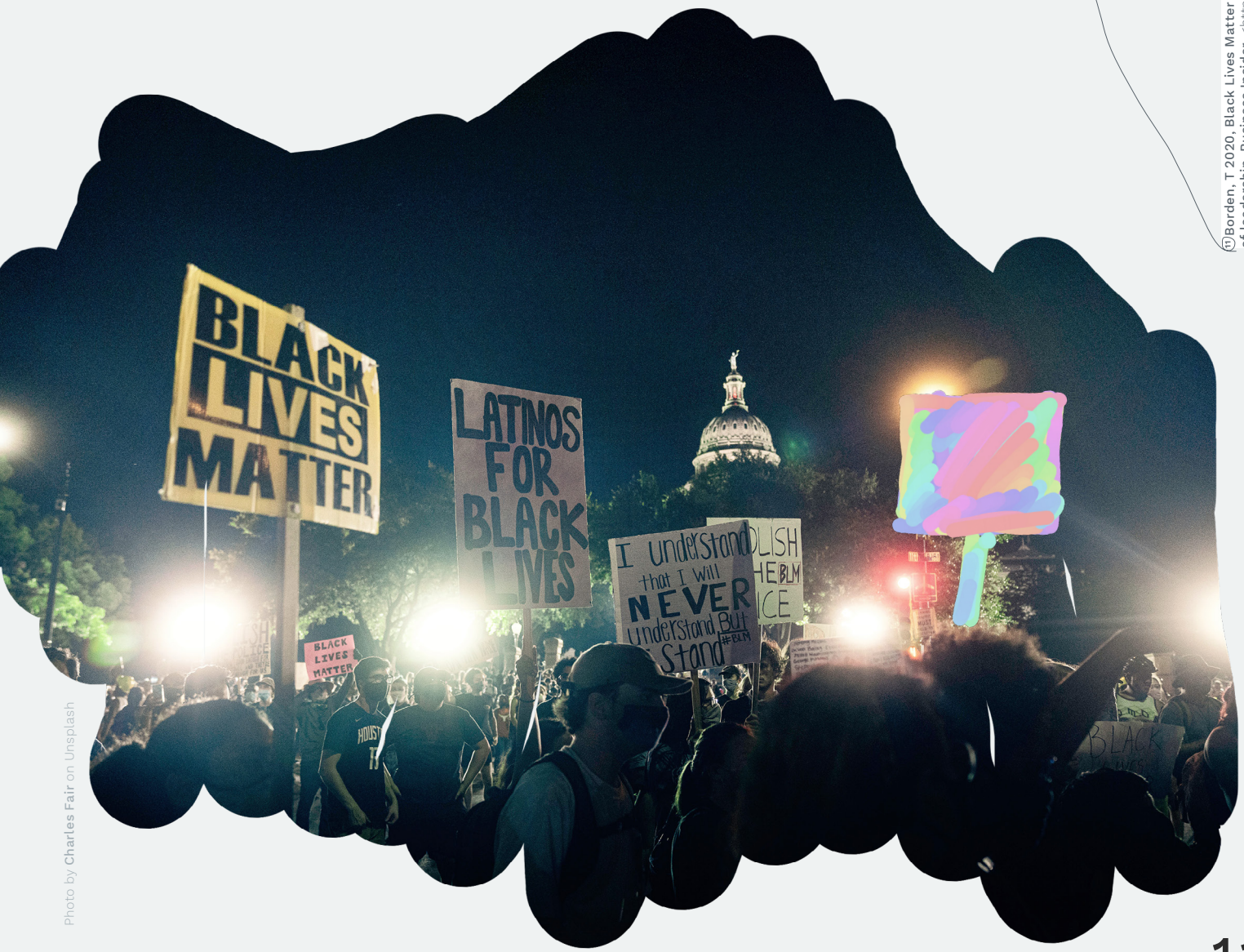


Photo by **Charles Fair** on Unsplash

[10] **Stephen, B n.d., How Social Media Helps Black Lives Matter Fight the Power, Wired,** <https://www.wired.com/2015/10/how-black-lives-matter-uses-social-media-to-fight-the-power/>

[11] **Borden, T 2020, Black Lives Matter is a case study in a new kind of leadership, Business Insider,** <https://www.businessinsider.com/black-lives-matter-history-social-media-movement-growth-2020-6>

How did BLM create their movement on top of platforms to mobilise millions of people around social reform?

1. In response to the acquittal of George Zimmerman, BLM started with a hashtag[12]. Utilising existing mechanisms provided by new-media to provide global reach and insight into “what it means to be black in this country.”

2. Evolving from social-media into a new type of civil rights movement[13] BLM created a grassroots organisation through several protests across the US, allowing people distressed with the state-of-affairs to contribute to something bigger through their individual action.

3. The decentralised operation provides local chapters with a platform to organise their own campaigns, protests, and programs catered to the needs of that area, creating more momentum and value than if these were individually organised.

4. The framework provided by the Black Lives Matter movement allowed for the simplification of complex issues and created a unified mechanism for deeper, more meaningful conversation.

[12] **Chase, G 2018, The Early History of the Black Lives Matter Movement,** <https://scholars.law.unlv.edu/cgi/viewcontent.cgi?article=1757&context=nlj>

[13] **Cobb, J 2016, The Matter of Black Lives, The New Yorker,** <https://www.newyorker.com/magazine/2016/03/14/where-is-black-lives-matter-headed>

Singapore's 'smart nation'

Turning our attention towards action taken at a state-level, Singapore is well known for its efforts to become a 'smart nation'. They have been embracing digital tools to reduce the inherent complexity of government and bring it closer to citizens' needs.

Singapore refers to itself as a "living laboratory" where technologists, entrepreneurs, research institutes and public bodies are encouraged to cooperate at scale[14], trying out new ideas and so-called 'smart-solutions' with global potential. This is all done on top of standards, protocols and data-sets developed and made available by the government.

But how exactly has the Singaporean government catalysed this movement towards a cooperative and highly-connected smart nation?

1. It didn't happen overnight, Singapore has invested in structured ICT developments for decades. They have had a clear and integrated approach to national computerisation since the 1980's[15] and established a series of nationwide services, such as Citizen Connect, that facilitate online transactions with the government.

2. A new set of data standards were developed alongside a new data-architecture system. Created to enable better integration between governmental bodies, these standards ensure that this data can be efficiently accessed and used across all government agencies and services.

3. With the development of the Singapore Government Technology Stack, public agencies can "design, develop and deploy digital services more quickly and securely"[16]. Referred to as its 'digital backbone', the government essentially designed an infrastructure on top of which new forms of value for citizens can be created.

[14] **Smart Nation Singapore, n.d., Transforming Singapore Through Technology, Smart Nation Singapore,** <https://www.smartnation.gov.sg/why-Smart-Nation>

[15] **Ong, T 2017, S'pore went through Smart Nation-like drive in 1980s to make S'poreans computer-literate, Mothership,** <https://mothership.sg/2017/09/spore-went-through-smart-nation-like-drive-in-1980s-to-make-sporeans-computer-literate/>

[16] **Sagar, M 2019, Singapore Government to focus on five key platforms to enhance citizen and business life, OpenGov,** <https://opengovasia.com/singapore-government-to-focus-on-five-key-platforms-to-enhance-citizen-and-business-life/>

4. Some of the most successful solutions have been in transportation and urban mobility. Singapore developed an Intelligent Transport System which amalgamated various other platforms such as One Motoring, a portal where citizens can access traffic information collected from surveillance cameras and MyTransport.sg, a smartphone application that provides real-time information for commuters.

5. The data collected by public bodies isn't exclusive, however. It has been made accessible to the public through the creation of online data-platforms. This is intended to encourage citizen-centric collaboration between the public and private sectors and catalyse innovation.

Photo by **Sven Scheuermeier** on Unsplash

We have highlighted three ways in which organisations of varied scale and influence are using The Coordination Economy **to create new forms of value for the people they serve.**

The use-cases that these examples represent (building on top of existing infrastructure, using existing infrastructure in new ways and creating new infrastructure) are becoming increasingly common. This is due, in part, to the digitisation of all parts of the economy and the increased technological-dependance that goes alongside it. As with other areas of human activity, the pandemic has played a significant role in furthering this acceleration. The following section is dedicated to exploring just this.

Photo by Galen Crout on Unsplash

2.

Coordination and the coronavirus

Before exploring how The Coordination Economy model can be applied by different types of organisations, we want to show why we believe that now is the right time to start talking about it.

In this section we will discuss the ways in which the macro-acceleration brought about by the COVID-19 pandemic has manifested in and helped to develop this model.

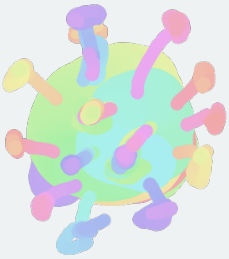
How COVID-19 relates to the Coordination Economy

A year ago, individuals and organisations had to quickly adapt the way they managed their daily lives and expectations for the future. With short notice, homes had to double-up as offices, grocery shopping became a health risk, and digital technologies had to be adopted at significant scale so that everyone could stay connected with their families, friends and colleagues.

From our study, it is clear that what started as an attempt to simply hold still and stay safe quickly evolved. We began to question the way things have always been done and how the uncertain future might bring change to all aspects of our lives. We started to see the potential that these adaptations had to bring permanent change across organisations, industries and society in general.

The coordination needed for this adaptation effort was driven by state-led policy; who can go to work, which commercial spaces can be open, etc. Over time, we formed new habits and our adaptations slowly became the so-called 'new normal'.

These quick and messy adaptations have brought to light two vectors that have historically only been leveraged by 'innovative' players in the global economy:



The decoupling of activities from space and time

Despite our inability to access products, services, support and people like we did before, our need for these things remained. Organisations found new ways to fulfil basic and higher needs from the home, often achieved by altering parts of the experience[17]. Even activities that seemed too complex to adapt, such as primary education, initially transferred mediums and are now being rethought from the ground-up.

The basis of these actions sets us on a trajectory to not only question the relationship between an activity and its physical location but its place in time (*e.g. 100% asynchronous knowledge-based companies*).

[17] **Sagar, M 2019, Singapore Government to focus on five key platforms to enhance citizen and business life, OpenGov,** <https://opengovasia.com/singapore-government-to-focus-on-five-key-platforms-to-enhance-citizen-and-business-life/>

Increased connectedness between digital and physical worlds

On the other hand, organisations needed to find new channels for access and distribution of their value proposition; either through the creation of a new digital presence or the adoption of existing third-party platforms (*e.g. supermarkets entering UberEats*[18]).

The forced digitisation of sectors that previously seemed too hard to bring to the online world presents an enormous opportunity for value creation. A greater number of connected 'nodes' in a system changes how individual players relate with each other, opening the possibility of developing new, previously unpredicted ways of creating value.

[18] **Porter, J 2020, Uber Eats turns to grocery deliveries to fill pandemic-shaped hole in its, The Verge,** <https://www.theverge.com/2020/4/1/21202612/uber-eats-grocery-delivery-paris-france-spain-brazil-galp-carrefour-covid-19>

Over a few short weeks, the entire economy was forced to think like a technology company. **Mental models that were previously only used by those who build for the digital economy became necessary for adequate management of almost every organisation.**

Although this represents a big step forward and unlocks a tremendous amount of new possibilities, it also poses a new set of risks. Whenever software eats a new part of the world[19], value-chains are disrupted, incumbent stakeholders lose power and our ways of living change (just think about journalism before and after the internet). Change is coming. But alongside this change, we need clear intentions and a process to understand how, when and where to act.

[19] **Andreessen, M 2011, Why Software is Eating the World, originally published in The Wall Street Journal,** <https://a16z.com/2011/08/20/why-software-is-eating-the-world/>

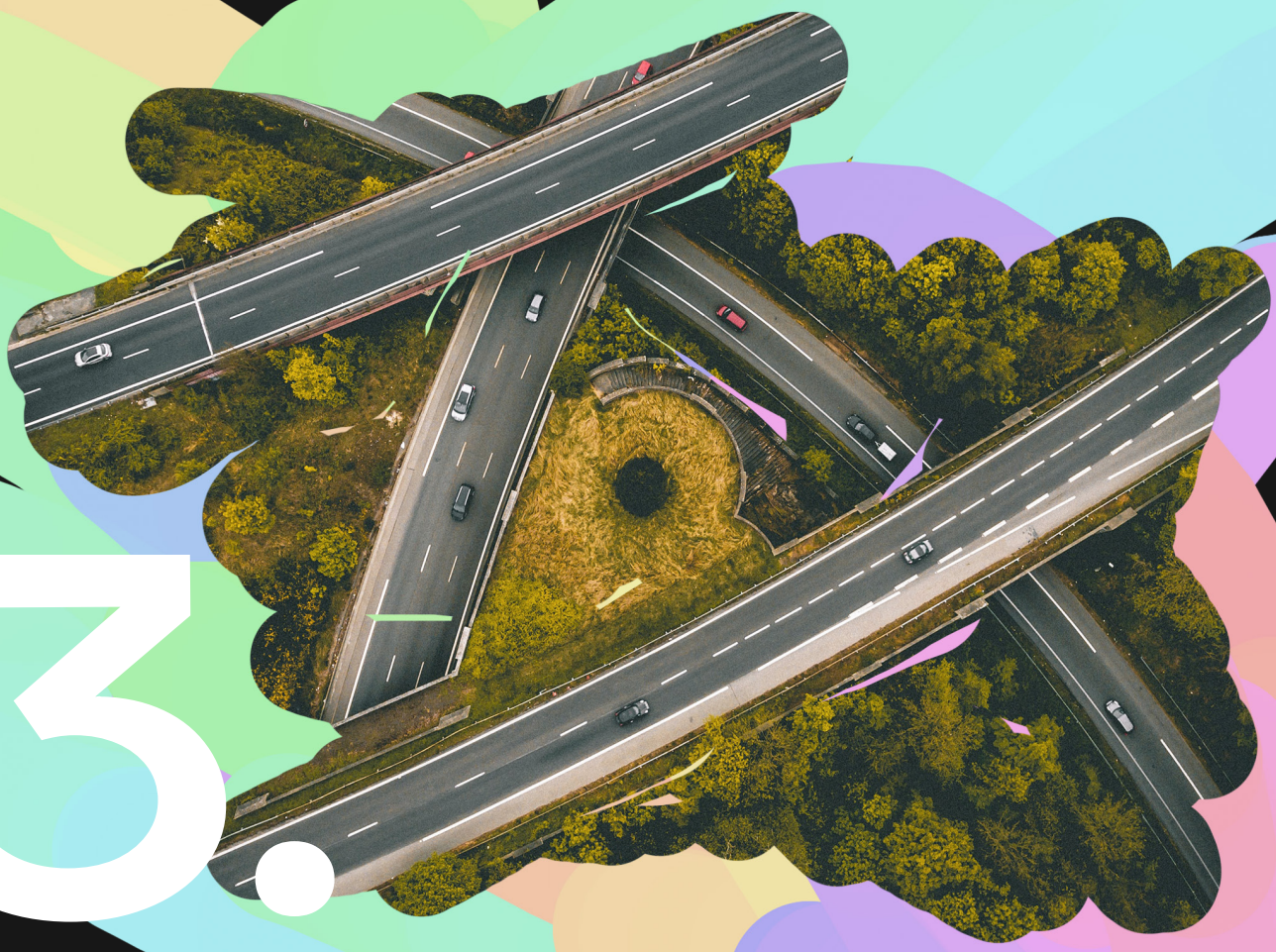


Photo by Ed 259 on Unsplash

3.

Acting in The Coordination Economy

By now, we hope that it is clear that The Coordination Economy overlaps with other contemporary concepts such as the Gig Economy, 'Platformization', and many other models associated with the digitisation of the economy. However, the purpose of The Coordination Economy is different. While these other models work at an operational-level, The Coordination Economy model operates at the system-level; allowing us to better understand the relationship between individual actors and system behaviours so that we can design better organisations, products and services. Focusing on outcomes, not just outputs.

In this section, we outline a starting point for how to understand your positioning and relative influence in The Coordination Economy, what that means for your organisation, and how you might start applying the abstraction and coordination loop to your reality.

Positioning in The Coordination Economy

Depending on the type of organisation you are, the industry you're in, your dependencies/dependents and your level of influence in that industry, your experience with The Coordination Economy will differ. Your positioning is as much about your organisation as it is about the relationships you have with others. Every organisation can be impacted by this model, be it through becoming a coordinator or being coordinated. By navigating your inter-organisational relationships (*or creating new ones*) you can deliver more consumer value. Different positions imply different actions, risks and rewards.

There are clear parallels between the three macro-positions proposed in this section and the use-cases presented earlier in the report. This section, however, focuses on helping organisations to identify their positioning and highlights steps that can be taken to best capitalise on the opportunities presented by The Coordination Economy.

Singular

The influence of organisations that occupy this space is bound to their organisation and, in general, they have a high level of dependency on others. Because of this, attention should be directed inwards, most likely manifesting in the adoption of existing (*but new-to-the-organisation*) tools, standards and processes.

Ecosystem

Organisations that fall here on the spectrum have the power to change the dynamics or incentive-schemes inside a given vertical or jurisdiction (*e.g. digital aggregators or local councils*). This position gives you the power to implement tools, standards and processes to be used both inside your organisation and by other players in your ecosystem.

Infrastructural

Organisations that occupy the far end of the spectrum can be thought of as 'essential infrastructure' (*e.g. national governments or large-scale social networks*), on top of which lots of organisations depend. In this space, you can drive change across entire industries through the creation of regulations, protocols and standards.

Singular

I can only impact my organisation, what should I do?

Today, entire organisations are either being abstracted into features to strengthen others' value propositions (*think Apple making third-party apps redundant by turning them into system features*), or being replaced by cheaper and more efficient alternatives (*think Amazon & delivery*). The ability for organisations to pursue a featurization strategy is only accelerating with the increased connectedness between the physical and digital worlds.

However, this doesn't mean you are powerless; it represents an opportunity to proactively rethink the way you deliver value/ your business model by understanding both the movements of the players around you and the behaviours of the technological stack you are built on *(think of all the online shops built on top of Shopify and what might happen if Shopify started selling products itself).*

This process begins by mapping the system you participate in and your place in it. The different levers, triggers, dynamics and incentives that make it all work can be hard to grasp without deliberately zooming-out. Once you have a complete picture of your organisation, its relationship with the wider system and the general direction of change, you can determine a path for differentiation. What unreplicable assets (*e.g. relationships with providers, physical stores, IP*) do you have? How can they be used to reinforce your current business model or build a new one?

Another way to successfully operate at this level is for organisations to join forces with similar players to build a common piece of infrastructure; coordinating and scaling their influence past that of the individual organisations. For example, individual farmers creating cooperatives to collectively manage their purchasing, distribution and sales.

What should you be worried about?

- Lack of understanding of the medium to long-term changes in your ecosystem and industry;
- Being abstracted towards commoditization by your competition;
- Adopting new tools, standards and trends without having a clear view of how they will change your organisation.

First Steps

- Map new tools, standards and trends adopted by your peers;
- Identify and follow movements in your ecosystem and industry;
- Sketch possible outcomes from these movements;
- Consciously adopt what will serve you best in the future.

Ecosystem

I support an ecosystem of different organisations, what should I do?

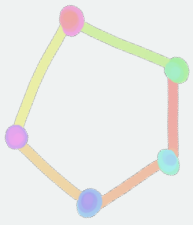
Intentionally or otherwise, organisations that play a key role in an ecosystem become de facto standards-setters through their norms or best-practices. The influence or authority they have over others can be used to ensure their own survival and/or harnessed for the health of the ecosystem they participate in.

Ecosystem-level players have a decision to make, to grow at the expense of the organisations they support (*think UberEats vs. restaurants*) and risk future regulation; or to grow by looking for ways to support the growth of these organisations (*think about how Shopify has expanded the support they give to online businesses*). Focusing on the health of the ecosystem catalyses the creation of more value and diversifies your offerings, which is favourable for long-term business sustainability.

Organisations at this level need to start by crafting an understanding of what they enable or block through their current rules or standards. Are you, for example, limiting the evolution of organisations that depend on you through the slow implementation of new standards? Or are you changing the rules so often that it's difficult for organisations to keep up to date? With this understanding, you can adapt your operations and become a catalyst for growth across your ecosystem.

To further expand their influence and move along the spectrum, ecosystem-level organisations should actively seek to contribute to the creation of new regulations, protocols and standards that will affect their ecosystem.

What should you be worried about?



- Being regulated in the short to medium-term (*if you are a business*);
- Being a barrier to the evolution of the organisations within your ecosystem (*if you are a business or a public organisation*);
- Not having a clear view of the negative externalities that your success might entail for your ecosystem;
- Losing your positioning because you have left space open that competitors can use to draw-in the organisations that feel mistreated by your model/leadership.

First Steps

- Look for opportunities to expand your offering into adjacent parts of the system that have margin for greater efficiency;
- Openly create support mechanisms for organisations impacted by any changes you bring;
- Engage with the organisations that aren't yet in your ecosystem. They might have valid reasons that you and others aren't yet aware of.
- Proactively contribute to the creation of regulation before your impact grows unmanageable;

Infrastructural

I support entire industries, what should I do?

The nature of organisations that operate at this level — infrastructure on top of which others create businesses or a public body with regulatory authority — makes them rule setters. In this position, organisations have the ability to set the direction for innovation across entire industries.

In the recent past, technology companies have become more and more entrenched in this position. For example, Stripe is increasingly the internet's infrastructure for not only payments but financial services as an API. These types of abstractions, which may lead to entire industries being disrupted, open up incredible space for new layers of coordination. However, looking at historical examples of this, it requires direction.

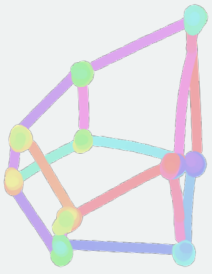
To break the inefficient cycle of private businesses scaling-up essential infrastructure which is then regulated by public institutions (*think railroads, telecom*) both sides need to engage in the design of what Mariana Mazzucato calls Mission-Oriented Innovation Policy.[20] This type of policy fosters innovation in a given direction, rather than — as is common with regulation — disincentivising it.

Organisations at this level need to craft an understanding of where they want to improve society (*e.g. increasingly make primary healthcare free*) and set the boundaries of the playing field (*through collaborative policy, standards and protocols*) in a way that maximises entrepreneurial experimentation and minimises harm to society.

[20] **Mission-oriented innovation, UCL Institute for Innovation and Public Purpose,** <https://www.ucl.ac.uk/bartlett/public-purpose/research/mission-oriented-innovation>

What should you be worried about?

- Not having a clear view of what needs to be improved across society;
- Having your business model (*and ability to keep expanding*) stifled because you refused to engage with public authorities earlier;
- Low rates of progress because everyone is focused in the sectors with less regulation (*where it is easier to innovate*), instead of the sectors where significant progress can be achieved (*think about what actually needs to be done to reinvent public transport vs. all the transport apps that have been created*).



First Steps

- Openly create future scenarios where you can visualise progress in key areas and transform those scenarios into measurable outcomes;
- Ideate platforms, standards, protocols and tools that can enable innovation in a desired direction;
- Develop tech-enabled ways to evaluate the system-level progress towards your desired outcome(s).

Acting on The Coordination Economy

Principles

This section has detailed the three positioning-levels in The Coordination Economy and some first steps to take when applying the loop to your reality. While the specifics of your action may differ depending on your positioning (*and whether you are trying to drive or participate in change*), there are four key principles that can inform and guide your efforts.

Abstract yourself.

Any type of organisation (*or function inside an organisation*) is vulnerable to the abstraction and coordination loop. Considering the progress and potential disruption that this implies, organisations should intentionally self-abstract to unlock this value for themselves.

Start with company.

Coordination systems work best when they aren't forced into the ecosystem. When all players collaborate in the design of a new system, we increase the chance of value creation for ourselves and for the entire value-chain we participate in.

Reduce friction.

Coordination at scale hates friction. In any system, friction can come from human validation, unstandardised processes, time delays, unexpected behaviours and edge cases. By reducing these wherever possible, information and value can flow freely; significantly increasing the likelihood of system adoption.

Become infrastructure.

New coordination systems should allow for cases which fall outside the initial scope; they should have room for stakeholder 'tinkering' (*e.g. Why not use an Uber to move boxes to a new house*). By working towards becoming infrastructure for other organisations (*and people*) we widen the possible use-cases and increase the potential for value creation in the system itself.

Photo by Kvalifik on Unsplash

4.

Applying The Coordination Economy to industry

In this section of the report, we will apply The Coordination Economy to four distinct sectors: Healthcare, Work, Education and Food. In doing this, we hope to highlight some of the areas in which this model can have considerable impact and open a conversation about what it might take to instigate much-needed change.

These four sectors have been significantly impacted by the pandemic, with adaptation to a change in use-patterns often being rushed and messy. Traditionally, innovation in these areas has been constrained by public-policy, but it is clear that shifts in demand are setting the stage for significant change; often not just in the way these services are delivered, but in the very purpose of them.

We will begin by outlining the state-of-play in each sector, then we will identify coordination problems exacerbated by the pandemic, speak to how we might instigate positive change and reflect on the opportunities presented by speculative scenarios. Our scenarios have been written for exploration: their goal is to spark a conversation, not to predict the future.

However, before addressing these sectors individually, it is important to detail the aspects in which they are similar; namely, the dimensions where we see the greatest potential for change through the abstraction and coordination loop.

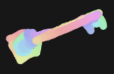
Dimensions for change

Looking back to the two vectors detailed earlier in the report (*the decoupling of activities from space and time, and increased connectedness between the digital and physical worlds*), we believe that they have increased the importance of three complementary dimensions: experience, access and value.

While we advocate that each organisation design its own path within The Coordination Economy, focusing on these three points of leverage will help unlock the full potential of this model.

Experience

In developing new approaches to the experience of an activity, function or entire organisation we look to consumers' 'jobs-to-be-done' and assess how we might redesign the elements of a given solution around these needs.



Access

Focusing primarily on Clayton Christensen's non-consumers, we can understand how our function or organisation can be rethought to serve people that it currently misses. This may be achieved through the implementation of new business & revenue models or the exploitation of new channels.

Value

The final dimension revolves around the ways in which value is created in a given system and who captures it. This provides a fresh perspective on the very purpose of an activity, function or organisation.

Just think about how Airbnb transformed hospitality through these points of leverage: changing who captures value (*and inserting themselves in that equation*); targeting a new category of people (*homeowners*); and adding a human-layer to the experience of visiting a city.

Healthcare

The public healthcare system. Consumer products and services. Every day behaviours and actions to improve our health. Healthcare knowledge generation. The ability to access healthcare. Mental health. The privatisation of healthcare. Medical-grade devices. Personal data.

It has been a difficult year for healthcare and 2021 isn't starting well.[21] Both private and public institutions have struggled to maintain 'normal' care and fight misinformation while coping with the significant strain of a pandemic.

To begin with, we can only hope that our memory of these difficulties will help us in the future. Lessons in long-term thinking over short-term gains have, hopefully, been learned. The benefits of quick and severe intervention, that nations such as South Korea learned from the SARS outbreak of 2015, should be clear to us all.[22]

We believe that this point in time could mark a transition to 21st-century healthcare infrastructure, supported by digital technologies and updated standards of individual wellbeing. The pandemic has undoubtedly highlighted public institutions' dependencies on private tech companies (*think contact tracing*[23]). But we are hopeful that the pandemic-driven cooperation between the public and private sectors is the first step in overcoming large-scale healthcare coordination problems (*for example, pharmaceutical companies collaborating with governments in order to safely speed-up the development of vaccines*).

[21] **Horgan, D, Hackett, J, Westphalen, C.B, Kalra, D, Richer, E, Romao, M, Andreu, A.L, Lal, J.A, Bernini C, Tumiene, B, Boccia, S.k, Montserrat, A (2020), Digitalisation and COVID-19: The Perfect Storm, Biomed Hub,**

[22] **Kim, K, Lee, K, & Lee, J 2020, South Korea's COVID-19 response: hard lessons on saving lives, Development Policy Centre,** <https://devpolicy.org/south-koreas-covid-19-response-20200609-1/>

[23] **Apple and Google partner on COVID-19 contact tracing technology, 2020, Apple,** <https://www.apple.com/pt/newsroom/2020/04/apple-and-google-partner-on-covid-19-contact-tracing-technology/>

Healthcare

The public healthcare system. Consumer products and services. Every day behaviours and actions to improve our health. Healthcare knowledge generation. The ability to access healthcare. Mental health. The privatisation of healthcare. Medical-grade devices. Personal data.

Dimensions for change

Experience

With the digitisation of part of healthcare's stack (*appointment making, quick medical advice, analysis results*) further accelerated by the pandemic, the parts of the experience that are about connecting pieces of information between databases and different players should become as automated as possible (*increased connectedness between physical and digital worlds*). This has the potential to improve several healthcare-related metrics such as the speed of diagnosis, medication adherence, and the time to get an appointment.

Access

The ability to receive primary health-care, preemptively or not, is still not fully democratised. However, new applications of science and technology to consumer-grade products are opening a path towards full democratisation (*we are already seeing the beginning of this with products like the Oura Ring which help people track and measure health related indicators*). Though experience will also play a role, for health, this is the lever to focus on for considerable change.

[27] Horgan, D, Hackett, J, Westphalen, C.B, Kalra, D, Richer, E, Romao, M, Andreu, A.L, Lal, J.A, Bernini C, Tumiene, B, Boccia, S.k, Montserrat, A (2020), Digitalisation and COVID-19: The Perfect Storm, Biomed Hub,

[28] Kim, K, Lee, K, & Lee, J 2020, South Korea's COVID-19 response: hard lessons on saving lives, Development Policy Centre, <https://devpolicy.org/south-koreas-covid-19-response-20200609-1/>

[29] Apple and Google partner on COVID-19 contact tracing technology, 2020, Apple, <https://www.apple.com/pt/newsroom/2020/04/apple-and-google-partner-on-covid-19-contact-tracing-technology/>

Healthcare

E. Romao, M. Montserrat, A
omed Hub,

Scenario #01

Integration of consumer tech

Over the past two decades, we have seen incredible advancements in consumer technology. What started as gimmicks or throwaway mentions to doctor Google has evolved into products and services that allow people to better understand their bodies and act when needed (*imagine, the ultra-personalisation offered by a complex diet-definition process like DayTwo*[24], *but directly integrated into a smart device*).

See https://www.daytwo.com

At the current rate, advances in consumer tech are outpacing those in general medical practice. This dissonance can create a variety of problems, for example, doctors may either not have access to or not know how to properly use the data generated by these smart devices. By aligning the superior access offered by consumer technology with the legitimacy traditionally provided by healthcare infrastructure, we can unlock the full potential of both.

OPPORTUNITIES

- Shared data infrastructures so that healthcare services can access the health monitoring data generated by consumer technology when treating patients;
- Make these devices more accessible to those who are most vulnerable to diseases, either through integrating them into national health services or creating incentives for people to buy them (*e.g. through a significant reduction in insurance premiums*).

Photo by **Solen Feyissa** on Unsplash

Healthcare

Scenario #02

Unbundling of medical appointments

With COVID-19, a significant amount of medical appointments moved online. This decoupling of activity from its physical location is an opportunity to not only make healthcare more accessible (*I can now book an appointment with the best professional, not just the most convenient one*), but allows for physical spaces such as doctor's offices (*the old infrastructure*) to be rethought entirely.

On top of this, the whole concept of a medical appointment is being unbundled from the ground-up. As with any other experience, it can be split into several key moments, each one with a purpose — reassure me, check how I feel, remind me of the exams I should be doing, check an X-ray and more. Several companies are creating new verticals in each of these moments, making them better, faster, more accessible, increasing their efficiency and reimagining their purpose. This type of innovation demands new (*or upgraded*) healthcare infrastructure that can coordinate the data generated from each of these services.

OPPORTUNITIES

- Create integrated medical platforms that have online appointments and allow tracking and monitoring of our health status (*a digitised hospital-chart*);
- Define new protocols and regulations on how data will be managed and used by a variety of different players.

Photo by **Edward Jenner** on Pexels

Work

Distributed organisations & new organisational structures. The unbundling of the firm. Social capital. Companies as lifestyles. New incentive schemes. Global talent. Fully asynchronous work. The safety-net. Innovation culture.

When governments all over the world started implementing strict lockdown measures, organisations and workers were split into two main groups: those whose work could be done from anywhere with a WiFi connection, and those whose work demanded being in-person; with both groups facing their own set of challenges.

The pandemic has highlighted the need for workers to be better supported in times of uncertainty and has made many of us reevaluate what our working life means. It is clear that our social security infrastructure is outdated and unsuited for what Nicolas Colin refers to as the 'Entrepreneurial Age'[25], one in which entrepreneurship becomes the basis for any organisation's strategic positioning (*serving customers at scale while keeping high quality standards*). This may finally be the trigger for legacy employment structures to be adapted to individual desires.

If we approach the challenges presented by this sudden transition with a Coordination Economy perspective, we have the potential to unlock incredible value for both employers and employees.

[25] Colin, N (2028), Hedge: A Greater Safety Net for the Entrepreneurial Age, CreateSpace Independent Publishing Platform

Work

Distributed organisations & new organisational structures. The unbundling of the firm. Social capital. Companies as lifestyles. New incentive schemes. Global talent. Fully asynchronous work. The safety-net. Innovation culture.

When governments all over the world started implementing strict lockdown

Dimensions for change

Experience

The way we experience work is changing. In the long run, this will change what looking for, building and having a career means[26]. People need to be better supported in their diverse 'careers', but this can't depend on tremendous effort from the individual, or a handful of organisations — we need new infrastructure. Innovation in this dimension will help us truly move on from the Fordist paradigm (*of life-long steady jobs*).

Value

Today, centralised and hierarchical organisations capture the most value. Organisations that, because of their artificiality, can outlive their original purpose. We believe that change in this dimension will not only alter the way value is distributed, but also lead to the unbundling of what today we call the firm. Resulting in the complete transformation of the ways in which people get together to tackle a challenge (*and make money from doing so*). We can see the beginnings of this with the trendy Passion Economy concept.[27]

[25] Colin, N (2028), Hedge: A Greater Safety Net for the Entrepreneurial Age, CreateSpace Independent Publishing Platform

[26] McCormick, P 2020, Secure the BaaG, viewed 24 February 2021, <https://notboring.substack.com/p/secure-the-baag>

[27] Jin, L 2019, The Passion Economy and the Future of Work, viewed 24 February 2021, <https://li-jin.co/2019/10/22/the-passion-economy-and-the-future-of-work/>

Work

Scenario #01

Social Capital

In an effort to maintain pace-of-innovation, companies have been adopting remote tools to mimic in-person encounters (*online whiteboards, random coffee meetings, etc*). However, the serendipity that occurs in-person doesn't come solely from random encounters. These encounters exist in context (*an office designed in a certain way*), between people in a certain mood (*influenced by their surroundings*), using tools (*space, shared language, a nearby restaurant*) repeatedly. Serendipity doesn't happen in a vacuum, it happens in context, and it is these contextual interactions that provide organisations with social capital (*individual knowledge that only has value in particular social contexts*[28]).

[28] Avent, R (2017), The Wealth of Humans: Work and its Absence in the Twenty-first Century, Penguin Random House UK

Remote tools don't replace a culture of innovation. They either need to be adapted to each use-case (*each company*) or integrated into processes that are much more than brainstorming sessions in front of a screen. We will find that companies that thrive in the next economy weren't the ones that used randomisers on their Slack, or created communal ideas' boards, but those who could infuse these platforms with the social capital of that company. Building social capital into remote-first organisations is more than creating repositories of knowledge.

OPPORTUNITIES

- Create a social capital API that companies can use to enfuse digital software with their way of doing thing + knowledge, while collecting back things that might add to it;
- Design innovation culture for a digital world, adapted to your specific needs.

Photo by **dylan nolte** on Unsplash

Work

Scenario #02

Power to the people

Due to the pandemic, a vast amount of previously-restricted employees took control over their working environments. This manifested in work-hour adaptation (*after we all stopped overworking every day*), exercising in the middle of the day or taking long lunches. The value of our work was no longer being measured by our presence in an office but by the completion of our tasks; in other words, the performative aspects of our jobs stopped. From the organisation's perspective, it meant a widening of the candidate pool; talent could be sourced globally and remote work became a real alternative.

As we are already experiencing, top talent wants to maintain this lifestyle; what started as an unforeseen benefit will become a non-negotiable demand. To keep up with this demand, legal frameworks around contracts and benefits will have to change (*we are seeing this already with companies like remote.com*). Work is one of the last places where standardisation (*hours, dress codes, etc*) is the norm, and this will finally change with the employee-driven deconstruction of work-related formality.

OPPORTUNITIES

- The automation of non-value-adding activity (*e.g. contract negotiation*);
- Rethinking cross-border taxation and other work-related policies to enable true global remote-first companies.

Photo by **Yasmina H** on Unsplash

Education

Teacher empowerment. Personalised education. New ways of certifying learning. Mission-lead teaching. Unbundling of traditional learning. Passion economy. Upskilling & reskilling. Private vs. Public education. Fabricated scarcity.

For decades, education has been prime for disruption. Legacy providers have struggled to adopt digital technologies and private organisations have been searching for ways to change and improve the ways we all learn. (*think Coursera's university-standard online courses or Google's career certificates*[29]).

Similar to other sectors, education's pandemic-driven adoption of digital platforms was fast and messy. It brought to our attention, once again, the vast inequalities in society[30] with access to a computer, the internet or an adequate working environment a luxury not everyone can afford.

Educational transformation is clearly about more than just changing the medium. Approaching this through the lens of The Coordination Economy, we can gain insight into how we might rethink and rebuild our education systems.

29 **See** https://mymodernmet.com/google-career-certificate/

30 **Esquivel, P, Blume, H, Poston B, & Barajas, J 2020, A generation left behind? Online learning cheats poor students, Times survey finds, Los Angeles Times,** <https://www.latimes.com/california/story/2020-08-13/online-learning-fails-low-income-students-covid-19-left-behind-project>

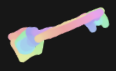
Education

Teacher empowerment. Personalised education. New ways of certifying learning. Mission-lead teaching. Unbundling of traditional learning. Passion economy. Upskilling & reskilling. Private vs. Public education. Fabricated scarcity.

Dimensions for change

Experience

Both the traditional experience of receiving an education, and what it means to learn throughout one's life needs an upgrade. We need to go beyond simply digitising education, and instead rethink it from the ground-up; making it decentralised and more easily transferable across new and traditional education providers.



Access

Great, always accessible, and personalised education is still not accessible for the vast majority of people, no matter where they live. Digital technology can catalyse a movement away from fabricated-scarcity and help provide high-quality education for everyone. Access is about content, teaching, support, practice and evaluation.

Value

As it is today, proper value-capture in the traditional education system is almost non-existent. Teachers, bound to a factory-like education model, are restricted in both what and how they teach, and face increasing workloads. Change in this dimension could empower teachers and reposition them as a key stakeholder in this system.

29 **See** https://mymodernmet.com/google-career-certificate/

30 **Esquivel, P, Blume, H, Poston B, & Barajas, J 2020, A generation left behind? Online learning cheats poor students, Times survey finds, Los Angeles Times,** <https://www.latimes.com/california/story/2020-08-13/online-learning-fails-low-income-students-covid-19-left-behind-project>

Education

Scenario #01

Learning certification

Certification is a significant obstacle when it comes to changing educational systems. The use of archaic, standardised methods of evaluating someone's suitability for a role (*e.g. a bachelor's degree*) is so ingrained in our society that change in this direction is historically limited. Yes, we have platforms like LinkedIn, but these are primarily used to signal the importance of one's job, rather than serving as a replacement for certification.

To instigate real change to this paradigm, players (*including big corporations, governments, small businesses and education institutions*) need to join forces and develop protocols and standards that are independent of any single organisation and truly represent an individual's knowledge and skill-base.

OPPORTUNITIES

- Large corporations developing their own standards which can then be plugged-in to the reality of smaller companies (*e.g. Google's recently announced education initiative*);
- The creation of national certification protocols involving schools, colleges, universities and governments.

Photo by **Good Free Photos** on Unsplash

Education

Scenario #02

Empowering teachers

Once highly regarded, teaching is now looked upon as a relatively stagnant career-job with incredibly heavy workloads. Priorities have shifted from real teaching to making sure that students move onto the next level. Great teachers, who have a real impact on the future of our lives are harder to find, as their jobs become more difficult and time-consuming.

Thinking back to our first vector, the decoupling of activities from space and time, we can begin to imagine how coordination can be used to empower teachers on their true mission. On the first level, we can simply incentivise the use of existing platforms to digitise teaching; democratising access and dismantling scarcity. Further than this, however, there is potential in reimagining the experience of being a teacher. With weaker ties to geographical location and freedom from strict schedules, the incentives for becoming a teacher are renewed and this career potentially opened to a new category of enthusiastic young people.

OPPORTUNITIES

- Online platforms adopting new standards and protocols, allowing teachers to run their own courses without being linked to a particular school or university;
- Rethink the incentive and reward scheme for teachers and update it for the “entrepreneurial age”.

Photo by **M. Monk** on Unsplash

Food

Food insecurity. Changing meanings. Food as identity. Food as healthcare. Food as science. Food as culture. Algorithmic commerce. Changing value-chains and practises. The agricultural industry. Creation vs. consumption.

The impact of the pandemic on the food industry is almost paradoxical. On one hand, there has been a significant increase in usage of digital-enabled food delivery services and an increase of the types of items available on these platforms (*e.g. expansion to groceries as well as take-away*). On the other, because of major disruptions to income and supply-chains, there has been a significant rise in global food insecurity[31]. As is usually the case, this disproportionally affects low- and medium-income households and countries.

At their core, these are both issues of distribution. Technology has been successfully employed for the last-mile, and has set the stage for further change (*imagine meal planning tools on top of UberEats*). However the issues go further than the last-mile and coordination must be applied upstream if we are to build the much-needed resilience into our food system. Using the abstraction and coordination loop, we can see that new abstractions are required; be it the food itself, production, storage or, of course, distribution.

[31] **Food Security and COVID-19, 2021, World Bank,** <https://www.worldbank.org/en/topic/agriculture/brief/food-security-and-covid-19>

Food

Food insecurity. Changing meanings. Food as identity. Food as healthcare. Food as science. Food as culture. Algorithmic commerce. Changing value-chains and practises. The agricultural industry. Creation vs. consumption.

Dimensions for change

Experience

Starting with the ways we search for, purchase and consume food, experiences will be further transformed by increased connectedness between consumer-facing providers and the level of automation and increased efficiency this will provide. Additionally, new ways of producing food, will alter what eating food means in the long-run (*e.g. lab meat with engineered health enhancing properties*).

Access

It is becoming increasingly difficult to produce food in many of the places where it is needed most. Technological innovation should be used to not only get food to where it is needed, but also to overcome harsh environmental conditions to scale local production capabilities. Access to the right quantity and quality of food is a basic human right and we must make sure it is available everywhere.

Value

The food value-chain will face pressure from two directions. On one side, changes to the way we produce food will accelerate the redundancy of parts of the agricultural industry (*e.g. large-scale cattle-farming*). On the other, changes to the way we purchase and distribute food (*e.g. delivery services*) will impact the relevance of traditional food retailers. The vast amount of value found in these two areas will be redistributed to new players who fill these gaps.

[1] **Food Security and COVID-19, 2021, World Bank,** <https://www.worldbank.org/en/topic/agriculture/brief/food-security-and-covid-19>

Food

Scenario #01

Abstraction begets change

Food itself has been abstracted. There are several organisations that look to a given food (*usually animal-products*) as a collection of molecules with specific characteristics (*taste, texture*), rather than something that necessarily comes directly from nature. These molecules are then reproduced in a lab through the use of engineered plants. This abstraction has not only challenged our understanding of what food actually is, but can be regarded as a step towards ending food scarcity around the world.

Protein can start being produced in the places it is needed most, almost regardless of environmental conditions. This allows for the food consumed in cities to increasingly come from facilities built in the cities themselves. This will allow the system as a whole to become more sustainable through a massive reduction in both waste and transportation distances.

OPPORTUNITIES

- Using these technologies to tackle food-scarcity in historically underserved markets;
- Highly local, direct to consumer brands that partner with city-farms to produce and distribute new-food;
- Food that not only has what people expect, but actually adds health benefits through the adding of pharmaceutical properties.

Photo by **ThisisEngineering RAEng** on Unsplash

Food

Scenario #02

Automated decisions, on-demand delivery

Food related digital aggregators are increasingly becoming the gatekeepers of the relationship between consumers and food-providers. This provides space for the creation of additional tools on top of the ordering service itself (*think personalised meal planning inside UberEats*). These tools have the potential to change the way food providers operate, as each player will try to be on the top of algorithmic preferences, similar to the way that SEO works today.

This will undoubtedly accelerate the phenomenon of Ghost Kitchens, as restaurants need to expand horizontally to meet demand. On the other side of this, we will likely see vertical expansion from the aggregators themselves, creating restaurants, food-services and consumer brands. The shift from on-demand to pseudo-automation implied by these movements will have a significant impact on the relationship people have with food, the experience of buying food and traditional food channels (*restaurants, supermarkets, etc*).

OPPORTUNITIES

- Nutritionists or influencers building menus that are catered to specific needs/diets and integrate into the offerings of digital aggregators across restaurants & groceries;
- Distributed cold-storage that allows the delivery of food/perishables even when people aren't at home.

Photo by **MMaarten van den Heuvel** on Unsplash

This overview is an attempt to map the ways in which The Coordination Economy can be used. As with any similar model, the application of the abstraction and coordination loop can and should be used granularly. Sometimes you will abstract a given function without having a clear view of what the next level of coordination is. Other times, you will only apply this to a narrow reality (*e.g. a specific team inside a company*). Leaps into new possibilities are the result of several smaller changes over time.

This conversation started almost a year ago when we asked you a simple yet projective question: It's 2025, look around, what do you see? For us, however, this is just the beginning. Regardless of the sector, when approached with a Coordination Economy perspective, new questions arise: what function is this activity/organisation fulfilling? Who does it serve? What has been too difficult to abstract until now? What are future layers of coordination, and what might they unlock?

These questions are intentionally open. As we mentioned above, we aren't trying to predict the future or dictate our vision of the world, but look to the horizon. This past year has been full of reactive, necessity-driven innovation and we believe that now is the time for proactivity. By adopting this mental model, we can begin to imagine how we might catalyse the next decade of value creation across all of society — a step towards progress.

Concluding notes

The purpose of this report has been to outline a new mental model; one we believe that both private and public organisations should use to assess current and future opportunities.
Our analysis, of course, began with the pandemic but went much further. We believe the adaptations we have all made should be thought of as a step forward. A step away from being ill-equipped and underprepared, and a step towards a more resilient and prosperous world.

In The Coordination Economy**, organisations of all scales and levels of influence can rethink the production and distribution of resources by reducing the complexity of a given problem (abstraction) and through doing so, unlock new possibilities for coordination. When actioned with intention, this loop can not only create value but be a driver of progress.**

At With Company, we intend to keep exploring The Coordination Economy through Transformative Times and our client work; understanding how it can be applied to our current partnerships, creating ways to quickly apply it to existing challenges, shaping new outcome-centric projects, opening the door to tackle opportunities for improvements across societies around the globe.

If you are curious as to how The Coordination Economy might impact your organisation, or if you want to find out more about With Company, our work and the way we approach challenges, check out our website.

www.with-company.com

Transformative Times

with company