

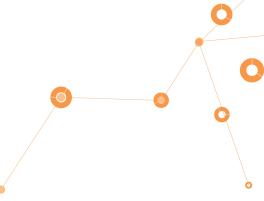
What is disruption?

On Monday morning, product manager Peter arrives at his office in a large Danish pharmaceutical business. Intrigued, he opens an email from RADS (public regional medical committee). In brief, the email explains that they will no longer be using the company's products but, instead, a cheaper product from China. It was not just 10% of all sales that disappeared, not even just 30%. All sales disappeared from one day to another, because new technology had created a competing product at only 30% of the price.

Disruption is a quick, life-threatening change of your business terms.¹ We all know examples from Airbnb and Apple, but disruption is not just something from Silicon Valley or Shanghai. It is happening right now – just outside your door. We see free newspapers, car sharing, low-cost businesses, dentist chains, and online real estate agents fighting with established players for market share and customers. Both your doctor and your lawyer are already feeling disrupted by Google – without them necessarily being familiar with the term.

And disruption will knock on your door, too. No one will escape from disruption in the coming years. For example, analyses show (e.g., Frey & Osborne and Jan Damsgaard) that up to 50% of all jobs will be threatened by automation (not globalizing or outsourcing) over the next 10 years – from pilot to auditor, accountant, and real estate agent. An analysis from Accenture shows that 95% of CEOs expect major strategic challenges – and only 20% of their organizations are prepared for this.

Jim Snabe (a Dane who has been highly placed abroad as CEO of SAP) was quoted in the Danish newspaper Berlingske: "In 3-5 years, the core business will be dead." Of course, it is not certain – but that is what you should prepare for. The scenario you should get ready for: What should we do if our core business is going away? That is why it is urgent to find good responses.



We are using a broad definition of the term 'disruption'. The original definition by Clayton Christensen in HBR 1995 is very narrow and less applicable outside of a research context. Later he relents and explains how established businesses have a chance after all.

What is the problem?

- 9 out of 10 businesses cannot keep up with development.
- Many people, from board members to younger managers, think: "Well, what's new about that? We've known about IT challenges for years now..."
- Many businesses conveniently leave the issue to the manager of IT.
- 88% of managers are worried about disruption, but only a few have a strategy.

Harvard professor Clayton Christensen underlines his point repeatedly: The old companies do not have a chance because they are bound by obligations to their existing customers. We would like to disprove this. We want to show a path for established companies. The good news is that there are plenty of examples of old companies preparing accordingly and doing well. Take the private car market as an example. It was disrupted by

private leasing – but 'old' Peugeot came out as a winner with aggressive leasing deals. They are now controlling 38% of the new private leasing market. Car-sharing also disrupted the market. 'Old' BMW and Mercedes came out as winners by selling large numbers of cars for sharing. Egmont and Schibsted are 'old' media companies which dealt with digitalization, while others struggle with one foot in the grave.

Events are very fast-paced when new digital players attack and grow. You quickly become marginalized if you do not respond accordingly.

It is not always necessary to be 'first movers' or on the 'bleeding edge', but you have to be aboard the train. That is your job as a manager!

Patterns in disruption

It may look like a tsunami, but luckily there are patterns in how disruption unfolds. As a manager, you need to know and understand these patterns to guide your organization through disruption.

Examples:

- When new players arrive, they follow a specific pattern.
- When they knock down the door to your market, they use specific resources.
- The new innovative business models are grouped into 10 types.
- Behind it all are 10 paradigm shifts.
- The companies which successfully handle disruption organize themselves in a specific manner.
- There are some solid steps in how to deal with disruption.

Finally, you can summarize the entire strategic disruption challenge into one question. The question you need to ask your organization is:

How can we give the customers something new and a solid boost in service, and in such a way that it is much less expensive?

That, in short, is your disruption challenge!





The sun is shining early one morning on the parking lot of one of the large telcos (I never say no to a meeting at 7:30 – the ones working hard deserve it). I am fully prepared to discuss the new business models that threaten the telco industry. However, quickly I become wiser. They are in total control of the strategic movements around them. The actual challenge is the associated management task.

Many people leave disruption to the IT department, which is asked to explore new technology, but this is rarely where the main task is. Disruption is a 360° challenge – including strategic business models, both technological and organizational. The latter is often the more difficult one.

New technology, new business models, and new paradigms demand new organizations.

If a public organization must adapt to a paradigm shift, where waste goes from being pollution to a golden resource, it will obviously demand large adjustments from the organization. If an industry business has to move from unit sales to service business, it will demand dramatic changes. If a truck producer has to sell transport flow at a fixed monthly cost instead of trucks, it requires a transformation of the organization. If any entity (hospital, municipality, taxi company, concrete supplier, etc.) needs to package its offerings through IT and let the internet carry the service to the user, that demands a different type of organization.

You could say that any organization becomes an IT organization. Every company will provide its services through IT – no matter how physical the product is. This requires you to turn your organization upside down – the business culture, customer relations, etc. And, it is hard to let qo...

- Experienced people need to let go of their position as "irreplaceable people who know better." Now there are young people or outside experts in the mix who will be paid for their indispensable expertise.
- Some companies have to let go of customer relations and let them go to the internet.
- Some have to let go of control, safety, and zeromistake-culture.
- Some have to take more risks and finance more uncertain projects.

Agility is the second key managerial challenge associated with disruption. Because there is not just one solution to disruption. It is not a quick fix and then everything is fine again. It is not just one change of the business model. It is an endless chain of events that we must initiate and participate in – reactively and proactively. It is a new stream of business innovation that we must establish and bring our organization onboard. It is a "new normal" that will require agility, quarter after quarter.

This demands a dynamic management to create an organization with an agile culture. An organization which is quick on its feet and moves as fast as the shifts in the markets, customers, branches, and technology. An organization which can drive innovation attempts and adopt new procedures. An organization that does not stop short when a change of course is taken and a new battle must be fought. It demands a good management to create this organization – and even more management to guide the organization through this journey. It is, for example, about:

- What you show as a leader
- What you focus on and cultivate
- What kind of behaviour you legitimize
- How to deal with anchors in the organization
- How you develop yourself to adapt to a new world
- How you transform your own leadership

An industry business has a fine process for product development, a stage-gate model that takes thorough engineers roughly three years from idea to prototype to a tested product. However, disruption from the outside means that you do not have that much time anymore. The company must move to virtual product development without prototypes and with simulation instead of physical tests. Suddenly it is just one year from idea to market.

Volvo has been through this. Their 850 model was crash-tested in 25 prototypes. Their V70 model was crash-tested 10,000 times – but every time virtually. Not a single car was built to be crashed. What went faster? Which would you rather crash in?

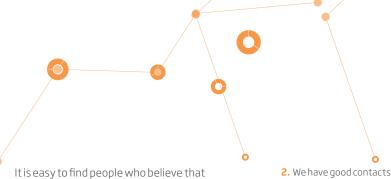
IBM is perhaps the one business that managed to transform the most. Think about its journey from typewriters to mainframes to PCs to laptops and today Watson Cognitive Computing. Everything went through a long chain of transformations. IBM has managed to reinvent itself repeatedly.

Such a fundamental change inside your organization is called "transformation" and is the management task in disruption. It is comparable with changing the entire organizational game from defending a castle to surfing. "From building the strongest bastion to catching the best wave and the next and the next..."

Disruption is a management challenge, more than a digital challenge for the IT department. Disruption requires transformation deeply at the heart of the organization and business model. It is obviously a massive challenge for management.

Technology provides opportunities, while the organization presents the challenges. Your management will determine whether you succeed in transforming your organization to the new world.

6



established businesses do not stand a chance, which is why it is so important to show your resolve and prove that it can be done: the ability to transform instead of lying down to die. To prove the pessimists wrong!

It is all about preparation. To be ready. To have an agile organization that understands both the threats and the patterns. It is about getting involved in the battle. Try out some things. Have a series of response strategies prepared. It is a journey of evolution for you and your department. You must unlearn some things and say goodbye to the hierarchy you know.

In the organizational challenge, you will also find some patterns you know and can take advantage of.

- Power and privilege are some of the things that are incredibly hard to let go of, and which keep the old businesses in the old world. This is why disruption is not your biggest enemy - it is yourself!
- Can you do anything about it? Yes, you can develop a new culture. Some theorists write that you cannot, but practice fortunately shows something else.
- Examples of beliefs and mindsets you may have to part ways with are:
- Fair enough let them have it, there is not a lot of profit in it. Our business model is robust and profitable (yes, until they have a relationship with all your customers).

- We have good contacts with our customers and a strong concept of service (yes, until your customers realize that the internet is much faster and open 24/7).
- We focus on our part of the value chain (yes, until someone else puts the chain together from A to Z).
- **4.** Our employees are our greatest asset (yes, or your biggest problem...).
- **5.** We are good at customer communication (yes, until social media breaks loose).

This change projects the image of a new organization. Big changes are usually required.

If disruption is the question, then transformation is the answer...

But what about yourself? If you are not prepared to face the digital management task, then you are just as dead and buried as a dinosaur. A CEO once said this very clearly to me: "I have acknowledged that I cannot be a leader in the future without comprehending this!" Let us just think about this for a second. It is a powerful statement but also very motivating.

A striking pattern among those who have successfully transformed to face disruption is that they have begun a personal journey. It starts with an enthusiastic mind, which can get the whole organization going. Is that you?

The wider perspective – "A world enriched by change"

Finland's prime minister said that Apple has destroyed his country. The Finnish people have been disrupted. Because we send emails instead of letters, their forest industry is collapsing. Also because iPhones beat Nokia. Disruption does not just hit companies but also nations. We have only seen the early stages of this trend.

If we stay in the national perspective, disruption is also a battle against regulation. The easy way in for new innovative players is typically highly regulated markets. The established players are dominating these markets because of the costs of regulation and low competition. That makes them an easy prey. But the point is that the model of society is also being challenged. Regulation is indeed a societal choice. We have decided to regulate taxis - which now are being challenged by Uber. The entire mindset of the freelancer is challenging the Act on Salaried Employees. Financial companies are also being regulated - so what about crowd-funding and peer-to-peer loans or insurance? Many new services today are based on user validation of the provider rather than the government. For example, the customers evaluate the Uber drivers, while the government regulates taxis. Are the customers better at this than the government? In brief, it is about time we start considering some of the areas that are regulated by the government. Should state regulation be

adjusted to the new open market, or must we invent new and different ways of protecting the market? The first lawsuits against Pokémon Go have already occurred because the game places virtual objects on private property. Is our law prepared to handle this? How does it work with liability and insurance in the sharing economy, or all the self-propelled equipment on our roads?

The entire digital economy is not just a perfect fairy tale. It also brings massive problems with safety, counterfeit goods, quality, fraud and identity theft, which hurt the transparency of several markets and provide a setting for "Wild West" business practices. In addition, there are also fundamental questions about law and data safety that have not yet been answered in a satisfying manner. We will also probably have to wait longer for contemporary consumer protection – if it ever comes.

Any e-commerce store will know that there are massive problems with false credit card information online. It is fraud, and then there is "friendly fraud," where even your affiliates use false credit card information to activate a bonus from you without an actual sale. You will find affiliates which are nowhere close to complying with the law or good marketing practices, on your behalf. But of course it also opens new business opportunities, among other things...²

8

Entrepreneurs at Danish business Avenue have as mentioned developed a system to protect yourself from credit card fraud, it is called Evos. It is also an example of pace. With it, they have managed to establish a business in 10 European countries in just a week.

Almost all internet trading and digital business is **global** and therefore outside the national scope. You will simply not find any global laws that regulate the market and the players. In the free, liberal mind, you can argue that it is an advantage for the global innovation and competitiveness. That the competition will benefit the consumer. But this requires that you are aware that the rules on the playing field are very different, that the law cannot always keep up. Because, when the authorities have arranged legislation and law under the new and ever changing market conditions, the world will already have moved on long ago.

Often new players will exploit global access to their advantage, which means that they do not feel bound or limited by local laws, regulations, trade agreements and unwritten market rules. It pushes the established players, who faithfully comply with all local rules in a difficult competitive situation. Think about the Danish airline company SAS and RyanAir. When the market is already global, there is no doubt that further local regulation is not the answer to the problem. Hence, our expectation is that instead you will see a deregulation of many markets over the next few years, which increases the chances of disruption.

Disruption in the public sector

A very different angle of disruption is the issue of the public sector. Does it also face disruption? Yes, it is challenged, at least regulatorily, as we have seen. However, this also means that there are other reasons as to why managers in the public sector should read on. Digitalization is already a major theme in the public sector. It will of course continue but what you should pay attention to in particular is the lightningfast development in the expectations of citizens. SMACI (acronym for the brash technologies Social-Mobile-Analytics(big data)-Cloud-Internet of things) also applies to the public sector. When Tinder can simplify the dating websites and the app Mobilepay can make payments more user-friendly, people immediately expect the tax administration, the doctor, and other public services to do the same! And they can do it of course, if they are on their toes...

The public sector also faces Big Data. In this case, the collection and use of data for better services are just as relevant and promising in the public sector as in the private. Could big data replace the (lack of) supervision of municipal subsidies – and create transparency that gives our citizens the confidence that their tax money

is distributed properly to associations and individuals? Could the thousands of public cars collect valuable traffic information that could be used in terms of planning and be sold? Could new laws and directives become evidence-based rather than guesswork? How would public schools look, if they were based on learning big data? It is also the way that Google operates its entire HR efforts. It is just a matter of time before the garbage bins of Copenhagen will be on the internet notifying when they should be emptied.

Some public functions are also being disrupted directly. What will future hospitals look like? Will people be hospitalized at home? Will telemedicine be used, so that x-ray doctors will be Indian specialists who 24/7 oversee the pictures right after they have been taken? Will we experience an explosive growth in wearables technology for measurements and analysis, which the patients carry on themselves instead of old fashion blood samples? Will surgery be completed by a little robot-capsule that you swallow, and the person in charge does not have to be in the hospital but could be a person in Warsaw? The Danish Minister of Justice has already proposed to outsource parts of Danish prisons to cheaper Eastern European countries for inmates who come from there anyway. The subway is already self-propelled and selfpropelled buses have been ordered in the Danish city Aarhus.

Will disruption **save the world?** Maybe. That is the goal for some of the big players.

The causal chain of events you may be able to see on the horizon is:

- Significantly cheaper and more effective solar cells, which along with significantly cheaper and more effective batteries may solve the world's energy problems.
- **2.** It is important, because cheap energy drives our entire world.
- 3. As a side effect, CO2 emissions will drop dramatically. Geopolitically it will have large consequences, if the oil prices continue to drop downwards.
- 4. When the energy problem is solved and cheap energy is available, then the world's water problems will also be solved. Desalination of water requires large amounts of energy. However, if it is available, we can desalinate as much salt water as we want to and ensure clean water all over the globe.
- **5.** If the water supply is sufficient, then there is enough food supply because it can be irrigated.

10



A glimpse into the future

Disruption may be the path out of the world's most entrenched problems. And if we are given a future – what will it bring? Here are some examples that will change you and your business' future daily life fundamentally:

• A major disruption of the daily life will be self-driven cars. People are assuming that it will take 20 years before they arrive but we expect it to be much sooner. The subway is already self-propelled and self-propelled buses have already been ordered. Google cars have already driven more than one million kilometers with very few accidents, and in the Swedish city of Göteborg, Volvos are already selfpropelled. In the fall of 2015, American Teslas were automatically updated with a software that included autopilot. The self-propelled cars are approaching. When they really come, they will come with a tidal wave of disruptions. Traffic accidents and auto support will be minimized. The entire infrastructure will be different and much less crowded because the cars will have a better flow. Driving schools will close because your children will not even need a driver's license. Instead, children can drive to activities on their own, so soccer moms or dads can manage a full time job. Race tracks will have golden times because it is only here that gasoline-blooded people will be able to drive.

• Artificial intelligence is another invisible thing that we will come to think about. It is already in many parts of our daily lives, but what happens when technology cannot just drive for us, but also think for us? If the self-propelled taxi through block chain can pay for its own repair and maybe even buy a new taxi for itself... Novo Nordisk has just hired IBM to dig deep into all of its clinical data to find correlations, effects and treatment improvements that no pharmacist would ever have a chance to spot. The financial market is already using a wide range of algorithms and robots to complete investments.3 The latest book of the Millennium series, "That Which Does Not Kill Us", emphasizes an interesting dilemma. What happens the day we manage to develop an artificial intelligence smarter than us? The rationale is that it will also be able to develop an artificial intelligence that will be smarter than itself, that will be able to develop... It may cause a quick explosion of intelligence that will put humans on the sidelines like an irrelevant insect. And it is not pure science fiction - when three technology enthusiasts like Bill Gates, Elon Musk, and Stephen Hawkins all express great concern for artificial intelligence - then it might be worth a thought.

• 3D-print is another great example of IT enabling what will change the world. In 3D-printing, the product is not new - it is the entire process that is shortened from design to production. The product is carried forward by IT. If you wanted a set of shoes produced, then you would have to go through a design process that is converted by an engineer to a manufacturing method. Then you would have to buy materials and set up machinery. Then they could finally be produced in China and the shoe could be shipped back to you. With 3D-printing, you can send the design in one-step: from your PC to the manufacturing machine. It has no salary and it does not have to be in the East. Some people even believe that 3D-printing will help save the world. Food problems can be solved by printing delicious food from raw insect materials.

 Robots and artificial intelligence are expected to take 50% of all the jobs we know today.
 Amazon is trying to make flying shopping drones just as normal as shopping carts. In addition, the drones that can carry a person are to be launched later this year, which means goodbye to the helicopter pilot.

Stanford professor James March often uses the expression "A world enriched by change." Maybe this is exactly how we should look at disruption. It may be a threat to our entire business community and all the existing values and jobs but it also presents a wealth of opportunities.

In brief - be ready!
We believe that from the year 2020, you will no longer be able to recognize the world.



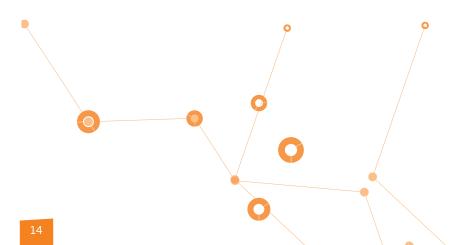
For example, read Michael Lewis' unique book Flash Boys about robots short selling.

Disruption Response Strategy

Below you will find a tool for developing a disruption response strategy. Enjoy!

Tools for disruption strategy





About the authors



Thomas Honoré is CEO and President of Columbus A/S, a global IT company. He has more than 20 years of experience leading tech firms such as IBM and Oracle. Thomas studied at Insead, London Business School, and CBS. He often gives speeches and writes about digitalization.



Tune Hein is one of Denmark's most experienced consultants in strategy, leadership, and change management. He gained his education at DTU, CBS, and IMD, and has worked globally in Accenture and has been stationed in the East. He now runs consultancy business Hein & Partners. (www.heinp.dk) Tune is an author of eight books about management. Besides consulting projects, Tune lectures and works with entrepreneurs.



