

# Moving fast and breaking things

The hottest ICT topic today is **digital business transformation**. But what does it really mean? Is digital business transformation just a buzzword that your colleagues and competitors throw around carelessly? Or is there a real story behind it all? We set out to answer these burning questions – and **what we found may surprise you**.

“The digital economy is eating the physical economy – and ultimately this is what digital business transformation is all about.”

► **EVERYBODY TALKS ABOUT IT.** Newspapers write about it. Conferences are dedicated to it. Companies build apps because of it. Business consultants pitch their services based on it. Corporate executives buzz about it. And self-proclaimed experts claim to know how to do it. Anybody who hasn't hidden away in a cave for the last couple of years is probably up to speed with the general lingo by now: disruption, innovation, crowdfunding, big data, cloud, UX, platforms, mobile first, fail fast, Networked Society, crowdsourcing, Internet of Things, 3D printing, augmented reality, open source, sharing economy, APIs...But what does digital business transformation really mean?

We set out to make sense of digital business transformation, to understand what it actually means for companies and markets, and to piece together the story that we thought we could glimpse behind all these new cool words. We figured that a good starting point would be the people actually carrying the digital torch: the digital entrepreneurs that run the latest generation of purely digital companies. We wanted to understand how they founded their businesses, how they are building their business models and how they operate. And guess what? Along the way we discovered there actually is a fundamental shift going on in all the markets that are transforming digitally.

This is the short version of the very long story of that shift.

## THE SECOND ECONOMY

In the beginning there was only a physical economy. The physical economy is made up of markets where products and services have a predominantly physical character and are exchanged for other products and services with a predominantly physical character – or for physical money – through business processes that are executed manually.

In 2011, the economist W. Brian Arthur, an external professor at the Santa Fe Institute and a visiting researcher at Palo Alto Research Center Incorporated (PARC), both in the US, coined the term *the second economy*. Arthur argues that in the last 20 years or so we have seen the development of a second economy – a digital economy. The second economy is characterized by the fact that business processes that once took place among human beings are now being executed electronically. Physical products and services get digital representations, like in the case of e-books and web shops. Manual processes are executed by software programs in conversations with other software programs. In his paper *The Second Economy*, Arthur writes: “We can say that another economy – a second economy – of all these digitized business pro-





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cesses conversing, executing, and triggering further actions is silently forming alongside the physical economy?”

Arthur goes on to describe the second economy as a neural system for the physical economy, whereas the physical economy is a muscular system. The second economy is basically a machine-to-machine economy, or perhaps more accurately a technology-to-technology economy. The prime manifestation of the second economy is probably the IT systems of any company of any size.

#### THE THIRD ECONOMY

When we started to research the emerging breed of digitally native companies and talk to the people running them about what they do, how they operate and how they perceive the world, we felt that Arthur’s neural system analogy didn’t fully capture what is currently going on in the digital space. Now that the physical economy has a digital, technology-to-technology representation in place, there are independent and very innovative phenomena occurring based on that very digital representation and neural system. As Karl Bjurström at Capgemini Consulting says: “Now is the time when we see both exciting and strange things happening around digital transformation across industries, people and society.”

Consider, for example, the development of the thriving app economy. The app economy is

based on the premise of an infrastructure of internet and smartphones being in place. Even if many apps are mere representations of physical services (newspaper apps, for example), there’s a whole ocean of apps that could not have existed at all directly on top of a purely physical economy (all social networks and location-based services, for example). Mike Melli, co-founder of the social network Thumb, says: “It’s not only about connecting, and it’s not only about reaching a global audience. It’s about having your users available right then and there. It’s the immediacy and the real time of it that’s been huge for us. It has enabled things like Thumb or Snapshot, as well as all these other companies, to have a product that couldn’t have existed before.”

A new digital currency like Bitcoin and a new digital payment system like Klarna – or the even more innovative payment system under development in the US called Dwolla – are other examples of this new economic ecosystem that is currently emerging on top of the physical economy.

We would describe what is currently happening in the digital space as the third economy. If the second economy is a digital representation of the physical economy, the third economy is the digital blooming based on the infrastructure that the second economy has set up. Or to use another analogy: if the second economy is the railroad that was built on dirt roads to make

transport more efficient, the third economy is the train itself, and – even more interestingly – what is sold in the train’s bistro. The third economy is something different to the first and the second economy.

#### **A WONDERFUL TIME?**

We are currently seeing an explosion of this third economy, with new business initiatives starting up every day to take advantage of and leverage the accelerating transformation from physical to digital in a variety of markets. These third-economy markets run at an absurdly high speed, where companies should always have launched their product yesterday to be really relevant. They are super focused on constant innovation, and on building great products that provide outstanding experiences originating from real, everyday user needs. The technology convergence in third-economy markets blurs traditionally distinct product categories and increases the business complexity in these markets, which makes it even more difficult for the old guard of the market to stay tuned into what is really going on.

The brands in third-economy markets are both all-embracing and super-niche in their categories, and they both compete with one another and collaborate with their biggest competitors to advance their positions. This means that these digital companies are taking over traditional categories in all dimensions. And they scale fast, on a global level, even though they are culturally indiepreneurial (independent and entrepreneurial) compared to the corporate mindsets of large, traditional companies. Matt Mason at BitTorrent says: “It’s a wonderful time. The internet is a big disruptor. But what a wonderful opportunity that sits in front of everybody, to figure out what the new business models are and how to monetize it. We’re sitting at the beginning. This isn’t the end of anything. There’s a huge, huge future in front of us.”

Interestingly, the prime focus of the third economy seems to be on the creation of comprehensible and value-adding user interfaces between humans and technology, that is, services that allow users to take advantage of technology for their own good, rather than technology talking to technology. The digital companies of the third economy go straight to the user with outstanding value propositions, without a thought about traditional value-chain relationships.

#### **EATING THE PHYSICAL ECONOMY**

If the first – physical – economy was business-centric and the second economy was technology-centric, the third economy is much more user-centric. It is more focused on solving

problems for humans and creating life-improving experiences than on technology for technology’s sake or on being single-mindedly business-oriented. To continue the train analogy: people may be able to travel faster with the help of a railroad and a locomotive, but with a comfy train carriage in place they will be able both to enjoy the ride and use the time onboard for something productive.

In the emerging third economy, it’s also obvious that the physical economy and the digital economy are starting to converge and to create completely new business models and services that also bring new digital business logic to the physical space. This means that even the physical economy is changing because of what is happening at the forefront of the digital economy. The digital economy is eating the physical economy – and ultimately this is what digital business transformation is all about. Digital transformation doesn’t only translate markets and traditional business models online; it forces digital business logic, fostered by the new generation of digitally native companies, upon all markets. And digital business logic is not a nice guy to the traditional economic model – it’s ruthlessly disruptive.

“As soon as we start to connect things and create these standardized open worlds we are pulling the rug on the traditional business models. If you don’t keep up and transform and are not ready to risk your existing business you will be out. As soon as things become open, other players emerge and do all this in a new way, which is probably more efficient and more focused on offering services to the users”, says Marcus Lannerbro at Maingate Solutions, which provides M2M connectivity services and information management services in Sweden, Norway and the UK.

While large, traditional companies are primarily engaged in incremental improvements of existing products and services, and are keen to protect their current business model, the digital companies of third-economy markets start out by building businesses based on new disruptive technology, but then also apply new disruptive business logic on top of the new technology. This leaves a huge gap between the digital and the traditional companies in terms of how they model their businesses and how they operate.

#### **TOPPLING THE HOUSE OF CARDS**

In the now emerging third economy, what used to be important market-entry barriers for new entrants are crumbling like houses of cards. Previously, new companies had to invest heavily in acquiring productive resources, setting up shop, gaining distribution and going to market. That is now changing thanks to commoditized

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technology, hyper-connectivity, openly available digital resources and digital networks that consist of both connected people and connected things. Today's new digital market entrants:

▶ **leverage technology** that is cheap and easily available to build products and services that are highly competitive or even better than the established ones

▶ **fund startups cheaply** as all they need is an idea they believe in, a computer and a couple of software developers to get going

▶ use **networked funding** like crowdfunding, bundled funds and services from companies like Lending Club, an online financial community, to get easy access to more significant financial means when they need to scale up business operations

▶ engage in **networked production** as they utilize the connected crowd to help accomplish things, solve problems and build products

▶ set up **ultra-light networked organizations** that assemble productive resources and people from all around the globe, but only when they are actually required

▶ **distribute digitally** by using the internet instead of acquiring and/or paying for a position in the established distribution channels.

The possibility of starting up a business fairly easily in the digital space means that the *absolute number* of new business initiatives in any market increases, that the *variety* of the new business initiatives also increases, and that great initiatives gain *traction* very fast. Nami Zarringhalam, CEO and founder of Truecaller (a Swedish verified mobile phone community with 45 million users today), laughs when he says: "In 2012 we grew from 2 million users to 10 million users. That year we had a total marketing budget of EUR 4,000."

It's probably an understatement to claim that emerging business initiatives in the third economy pose a threat to more established and traditional companies. We see that digital transformation challenges traditional markets in four main capacities:

▶ **The super-efficient competitor** uses new technology to create digital products and services that significantly outperform established products and services in terms of both user experience and cost. The super-efficient competitor is cheaper and better at the same time.

▶ **Outside category competitors** leverage technology and digitally driven market convergence to enter markets at which they didn't previously have a shot. They take the original market actors in a category by surprise, just like Apple once did in the mobile phone category.

▶ **Competition from the swarm of niche busi-**

ness initiatives moves like a swarm of bees onto a blooming meadow to capitalize on a number of very specific niches that open up thanks to digital transformation. They attack the market from all angles and leave the original market actors fighting off hundreds of competitive initiatives at the same time. For example, consider the finance sector, which is currently under attack from all angles from niche initiatives like Bitcoin, iZettle, FourSquare, Klarna, Simple, Dwolla, Tink, Qapital, Lending Club, Coin and many more.

▶ **Business logic disruption** pulls the entire rug from under a market's feet as new digital enterprises enter markets with completely different business models that cater to users much more directly, and accordingly render traditional business models obsolete. Say "Spotify" or "Netflix," and everybody instantly understands what you mean.

#### THE DIGITAL DOZEN

In the wake of the third economy we also see new types of market actors entering traditional markets. We see, for example, producing individuals (people that Chris Anderson has labelled The Makers) entering commercial markets as actual competitors to large established businesses. We see consumers engaging much more productively with commercial companies in a strengthened movement of prosumerism. We see small digital startups aiming for a global market from day one, adding to the trend of micro-multinationals that the American economist Hal Varian has talked about as the generation of enterprises that will replace the multinational conglomerates of the 20th century. We see a number of micro-niche businesses emerging to deliver products and services that solve very specific problems or meet very specific needs. We see successful digital businesses like Facebook or Amazon becoming something similar to category monopolists in just a few years' time. And we also see non-commercial problem solvers, such as many companies in the sharing economy sector, that are challenging commercial businesses with new models that cater only to users without any strong interests in making business profits.

The new breed of digital companies and market actors engage in a number of new business practices that are in many cases relatively strange notions for traditional market actors (even if the executives of traditional companies often talk about some of these practices). In our research we have encountered 12 digital business practices utilized in the operations of digital companies. These are:

▶ **extreme user-centrism** that not only under-

stands what users want, but also allows users to be part of the creation of the whole user experience

- ▶ **platform logic** that sets up the business as an open platform on which outside parties can innovate in the spirit of the open-source movement
- ▶ **marketplace logic** that sees the value of turning a digital business into a marketplace in which anybody can participate
- ▶ **the network company** that builds business models that leverage already available resources in the connected network instead of trying to own and possess its own resources
- ▶ **multiple business models** that aggregate a number of niche revenue streams into a lucrative whole
- ▶ **content-driven marketing** that leverages the actual core product through viral effects instead of applying and marketing an artificial brand universe on top of the product
- ▶ **on-demand manufacturing** that produces towards actual demand in a customized fashion rather than estimating hypothetical demand prior to going into production
- ▶ **crowdsourced production** that leverages the productive surplus of the connected network to accomplish things
- ▶ **open innovation** that lets anybody within or outside the organization contribute to product development
- ▶ **the ambition to organize for constant change** in order to stay relevant in markets that do nothing but transform
- ▶ **going tech** and embracing technology as a critical business asset and core competence, no matter what the actual product category is.
- ▶ **digirati culture** that fosters an organizational climate that attracts top-tier talent and keeps them onboard for the ride.

#### MOVING FAST AND BREAKING THINGS

“The major change that is required is not a technology change. Technology is there. It’s a mental change”, says Konstantin Peric, Deputy Director of The Gates Foundation and author of the book *The Castle & the Sandbox*. Peric points to the fact that digital business transformation may be enabled by technology, but the key is how you operate a business in a digitally transformed market. Companies that want to transform digitally in order to stay relevant in their markets have to embrace a digital mindset and apply digital business logic to how they do things. They have to dare to leave their once successful legacy models and business thinking behind.

The digital companies of the third economy don’t care about how things used to be done.

They only care about how things should be done now that we actually have easily available digital technology and a Networked Society at our disposal. They’re making new things up as they go – and they’re moving really fast and breaking a lot of old things in their way, to paraphrase Facebook founder and CEO Mark Zuckerberg. And all those other businesses that don’t adapt to the new reality that the digital companies bring? They risk becoming the things that are about to get broken. ●

*This research was carried out in Stockholm, New York and the San Francisco Bay Area during the fall of 2013. Forty-two digitally native companies were interviewed about their business models and operating models. Thirteen experts and thinkers in the field of digital transformation were also interviewed. This article is an excerpt from the full report on the insights from the research, to be published in the first half of 2014.*

#### ABOUT THE AUTHORS



##### ▶ JAN UNKURI

is Insight Expert & Managing Partner at Augur in Stockholm, Sweden. Unkuri was previously Head of Consumer Research at MTG TV, one of Europe’s largest entertainment broadcasting groups.



##### ▶ ERIK KRUSE

is Strategic Marketing Manager & Networked Society Evangelist at Group Function Sales & Marketing, Ericsson. He drives the company’s Networked Society vision and develops insights in the Networked Society Lab.