

Direct Economy

An essay for a better understanding of the future

By Xavier Laurent Comtesse, ThinkStudio.com

English Summary¹ by Marc Dangeard²

¹ Full version (in french) at <http://www.thinkstudio.com>

² Marc Dangeard - marc@dangeard.com

Findings

The changes brought about by the emergence and use of technologies of cooperation can be analyzed through a matrix tracking levels of knowledge on one axis, and levels of interactivity of the other axis.

Levels of Interactivity:

- Passive consumption: The consumer is getting products or services with no real interaction and no real choice. He has to take whatever is available.
- Self Service: The consumer is given the ability to choose between various products or services.
- DIY: Do It Yourself: The consumer starts getting involved in the value chain.
- Co-design: The consumer starts adding value by customizing the product and therefore defining his needs himself (as opposed to buying a product defined by the product management team).
- Co-creation: The consumer is involved in the design of the product or service itself.

Levels of knowledge

- Raw Data: Data, typically from measurements, or attributes (small, big, expensive, etc...)
- Information: Data that I can make sense of. Data within a referential or data that can be tied to a process, so that I establish a first level of knowledge. If I can measure, and if I can compare, I will be able to develop a better sense of understanding
- Classification, categorization: When I can better define the context, place the information into categories
- Process/Time: When you start introducing the concept of time, and evolution over time.
- Logic: When you understand enough of a thing that you can capture this understanding into a logical model. From this comes automation.

One Sentence Summary

Most issues related to the social, political and economic changes we are witnessing today due to the emergence and use of technologies of cooperation can be analyzed by using a matrix tracking levels of knowledge on one axis, and levels of interactivity of the other axis.

One Paragraph Summary

The world is changing and we hear the thought leaders talk about crowdsourcing, collective intelligence, the power of networks, etc... All these major trends are impacting the social, political and economic arenas. Xavier Comtesse now proposes to look at these events through the lens of a matrix that tracks the various levels of knowledge on one axis, and the various levels of interactivity of the other axis.

The various levels of knowledge are Raw Data, Information, Classification/categorization, Process/Time, and Logic.

The various levels of interactivity are Passive consumption, Self Service, Do It Yourself, Co-design, and Co-creation.

Looking at such a matrix can help understand and analyze a disruptive process within a company, but also it can help analyze a market, or define a strategy or confirm product/service requirements.

The model has been tested against existing known cases and has been validated by entrepreneurs who have experienced transformation and witnessed the results of such disruption in their businesses. Similar to the fundamental change that Direct Democracy brought to Switzerland, the world seems to be evolving towards a Direct Economy that radically changes the underlying mechanism we rely on today.

Full Summary

Background

The story starts at a banker's conference where Xavier was doing a presentation on e-Banking. The room suddenly woke up at the last slide when he offered a model to explain how banks could move forward. The impact was stunning, all of a sudden everybody wanted to jump into the discussion.

The model was the result of observations from Swissquote Inc, where intermediaries had become agents of change within the company and had help transform it into a hyperproductive company.

The model has since then been refined, with the definition of the "transformActors" and "ConsumActors", and the classification of knowledge (inspired from Mathematics) and interactivity along the 2 axis of a matrix.

The model has also been validated against 3 real cases with 3 Swiss companies: Swissquote, Largeur.com and Cla-Val.

The Model

1. The problem:

low cost offshoring, baby boomers reaching retirement age, etc... create tension in the economy. And the answer is not in lowering costs, but rather in achieving high productivity.

2. The solution:

changing Consumers into ConsumActors. We have heard of crowdsourcing, but the real underlying change is that the customers are getting more involved into the value chain.

3. Technologies of Cooperation

While technology helps improve processes, the real value behind these technologies is the shift in the interactivity between the producers and the consumers: consumers are getting used to getting more and more involved into the process (self service, product configuration and customization, etc...)

4. Levels of interactivity

The level of interactivity that is possible with ConsumActors can be classified as follows:

4.1 Passive consumption:

The consumer is getting products or services with no real interaction and no real choice. He has to take whatever is available.

4.2 Self Service

The consumer is now given the ability to choose between various products or services. This first step is already a huge step forward, as the consumer can go around the vendor to pick and choose what he wants.

4.3 DIY: Do It Yourself

At this level, the consumer starts getting involved in the value chain. This is what IKEA offers, where you are not just buying a product, you are actually also delivering it to your home and building it yourself. This case is an example of the first disruption from the standard retail value chain.

4.4 Co-design

At this level, the consumer starts adding value by customizing the product and therefore defining his needs himself (as opposed to buying a product defined by the product management team). This is what Dell is asking from customers when they have to pick and choose options to build a computer.

4.5 Co-creation

This is the ultimate level of involvement, where the consumer is actually involved in the design of the product or service itself. This is what Open Source does for developers, and what Wikipedia does for knowledge consumers. Similarly Procter and Gamble has a "Connect and Develop" program that lets innovators define products.

5. Levels of knowledge

Being able to interact at the various level listed above requires various levels of access to knowledge. For example co-designing a computer on the Dell website implies that the consumer has a good understanding of the various components and their importance within the system. A slow processor with lots of memory, or a fast processor with very little RAM are not going to be good options.

And then knowledge includes a notion of context that should also be taken into account: knowing that something is small is only useful relative to a context: is Jean small because he is only 4 years old, or is he small because most people his age are typically 5' tall?

Following these concepts, knowledge can be classified as follows:

5.1 Basic Knowledge

5.1.1 Raw Data

Data, typically from measurements, or attributes (small, big, expensive, etc...)

5.1.2 Information

Information is data that I can make sense of. Data within a referential or data that can be tied to a process, so that I can establish a first level of knowledge. If I can measure, and if I can compare, I will be able to develop a sense of understanding: Jean is 4 feet, and I can measure his classmates to decide whether Jean is small or not. From information I can develop basic knowledge.

5.2 Formal knowledge

5.2.1 Classification, categorization

This second level of knowledge is when I can better define the context. In the example of Jean, I can place the information into categories to reach another level of understanding: boy/girl, small/tall. By defining categories and sub-categories, I can refine the level of knowledge I have.

5.2.2 Process/Time

The third level of knowledge is when you start introducing the concept of time, and evolution over time. This introduces another level of complexity and another level of understanding beyond what can be known now.

5.2.3 Logic

The final level of knowledge is when you understand enough of a thing that you can capture this understanding into a logical model. From this comes automation. This is how we started building calculators, encapsulating logic into a machine, and now expanding to building transistors into microchips to build computers for example. It all seems as if mathematic algorithms were slowly but irreversibly being materialized into automated processes. And we are only at the very beginning of an exponential curve in this area.

5.3. Informal Knowledge

Another type of knowledge that will not be considered in this document, but should be mentioned, is informal knowledge.

5.3.1 Informal Experience

This is knowledge learned from accumulated experience. This is how people learn how to drive for example

5.3.2 Informal Thinking

This is the knowledge from "soft" fields, for example philosophical, cultural, religious, moral or ethical knowledge. They should not be ignored since they are at the forefront of

the political, social and cultural scene. An expression of this type of knowledge is on display in blogs or reality TV shows for example.

The management of Knowledge is what has led to major changes in the way we work today:

- It all started with the concept of “Community of practice” presented by Etienne Wenger on 9/18/88
- It evolved towards becoming a core engine of the enterprise, with Knowledge Management, to manage both static (as in encyclopedias) and dynamic knowledge (as in knowledge facilitated by groupware, starting with email).
- It has also now been opened and shared to allow for collective intelligence, benefiting both from internal and external input.
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6. The matrix

Using the 2 axis that were defined, it is possible to create a matrix that can be used to resolve the issue of transferring production from the producer to the consumer.

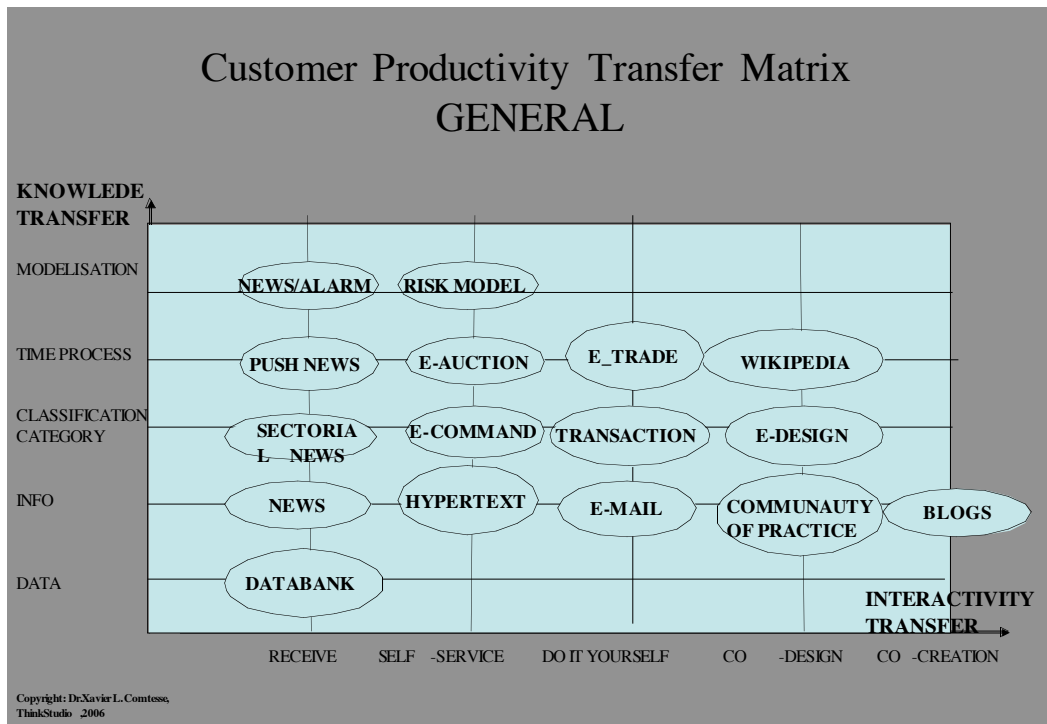
On the vertical axis:

Data - info - classification/categories - time process - model

On the horizontal axis:

Receive - Self Service - Do It Yourself - Co-design - Co-creation

To use the matrix you need to start from the bottom left (data/Receive), to then evolve towards the right to include the consumer into the value chain and define the level of knowledge that needs to be transferred to the consumer to enable his involvement.



7. The matrix can be used for several analytical purposes

7.1 Historical analysis - the matrix can be used to compare the result of 2 strategies used at different times, to analyze why one worked better than the other:

Nestle had tried to sell Nespresso through the regular channels without much success. Then they decided to change strategy (break with history) and created the Club Nespresso, where customers are educated and provided with a tool to order directly online, which completely change the buying and consuming experience

7.2. Market analysis - the matrix can be used to compare the strategy of two different companies on the same market:

Napster introduced technology that allowed users to download songs for free. The technology also allowed mixing and matching of songs so that users could create their own CDs. The same concept was then used by Apple to create iTunes and the iPod, while Sony decided to simply extend its existing model to make room for this new technology, but trying to keep as-is the control of the IP.

The matrix shows that the game was about adding a level of freedom in the consumption of songs, rather than just extending technology.

7.3 Strategic analysis - the matrix can be used to define where to direct future developments:

Telcos are being threatened by VOIP, which allows near free communication anywhere around the world. Several options are available for them to react: bundle services, or offer new services for mobile, where VOIP is not a player today. Docomo is now offering payments through mobile phones, thus starting to compete with banks. The matrix can help figure out which players they should work with to make this strategy successful

7.4 Positioning analysis - the matrix can help position a product on a market. A computer is a complex thing and I can decide to buy through an expert who will help me design the computer I need, or I can go to Dell to build online my own. The 2 market segments can co-exist today, but the matrix can help understand which market will survive in the long term

8. Case studies

8.1 Swissquote (a Swiss equivalent of eTrade)

From the CEO perspective, the success of Swissquote is due to:

- Empowerment: providing the right information and tools to customers to allow them to trade online
- Monitoring: performing statistical analysis to evaluate risk, as a tool for both the bank and the users
- E-wealth management: tools to help users optimize their investments

One challenge was and still is the education of customers. 2 types of classes are offered: first step (free), and paying classes on specific topics. This is a very costly undertaking, a risk taken to help the transformation

The other challenge is to provide the right tools, allowing to perform complex operations while remaining user friendly. This challenge still needs to be addressed today.

Looking at the banking industry, there are 2 major trends that can be identified:

- Communities of practice are taking over the education of consumers and improved interactions
- Models need to be improved to help provide more sophisticated tools

The matrix can help clarify these trends and challenges

8.2 Largeur.com - citizen journalism

After several experiments, Largeur.com has settled for a model where they produce high quality journalism but getting the content from freelancers and offering aggressive prices. Once the customer base was established, they looked into opening the platform to students and other members of the civil society (teachers, thought leaders but also

unemployed people), which are representative of the audience they are addressing already.

The media industry is organized around 3 major poles:

- Convergence (synergy between traditional media and the Internet) - Financial Times, Wall Street Journal
- Divergence (break from the traditional model to go towards a crowdsourcing approach) - OhMyNews
- Complementarities (compromise between the other two) - TSR.ch

The matrix can help rationalize the various content production and content delivery tools (blogs, RSS, Web, SMS/MMS, and Newspapers) to better understand the media industry

8.3 Cla-Val - pumps to regulate pressure

They have evolved around 4 major poles:

- Commoditization: they have accumulated over the years more than 100 standard products
- Customization: their customers cannot get an end to end solution from just the standard products
- Geographical expansion: the experience gained in the implementation of custom solutions opens new geographical markets and allows rapid expansion
- Customer innovation: customization has also introduced flexibility into the system, and combined with remote management capabilities has enabled co-innovation

The matrix clearly shows how this evolution was possible.

9. Conclusion

Direct economy is the result of 5 major factors:

- Introduction of the consumer into the value chain
- Death of the old intermediaries, to leave room for new types of interactions
- Empowerment of ordinary people to include them in the innovation process, which creates the issue of Intellectual Property and how to handle it
- Emergence of new business models that threaten the existing monopolies
- Emergence of new pricing models: donations (OhMyNews) or Bidding (EBay).

IKEA, Easyjet, Dell, Nokia, L'Oreal, Procter&Gamble, Swissquote are examples of the transformations that can be implemented. Companies have to move towards hypergrowth to survive.

What is interesting is that new sub-categories of products are being created in the process (song vs. album), that banks and credit cards were not setup to handle originally.

Hel looks and The Satorialist are examples of what is happening in the fashion industry. Istockphoto, Innocentive or Marketocracy are example of consumer involvement in the value chain.

In conclusion, isn't it that the changes we are witnessing in the economy are similar to what happened with Direct Democracy in Switzerland?
The consumers have been empowered, and are we not slowly evolving towards a Direct Economy, completely changing the underlying principles of the Global Economy as we know it today?

10. Epilogue

While Switzerland introduced Direct Democracy, they are now lagging in their e-government implementation effort. The matrix can help understand what is happening and what needs to be done. It can help compare what is available today against what others in Europe are doing. The key is to enable the transformation towards the ultimate New Business Model.

Why New Business Model?

The old principles no longer work in the new age. Businesses have reached the old model's limits with respect to complexity and speed. The real problem is "a ruinously dysfunctional mismatch between today's business environment and the classic business model... Quite simply, the wrong model may transform a company into the vehicle of its own death."²

Great shifts - genuine and radical transformation - have been shaping the economy and business environment in recent decades. Technology, especially information and communication one, has radically altered the requirements for building and managing a successful business. In this new business climate, although the basic command-and-control business model has survived, it has lost its effectiveness significantly.

The successful companies in the future will be ones wise enough to harness the full potential of the entire organization in the rapidly changing business environment. "The world is going to be too tough and competitors too ingenious as companies are shaken loose from traditional ways of conducting business. The winners will be the unbridled firms that are responsive to challenges and adroit in both creating and capturing opportunities. To match a business environment that is more networked within and among companies, the ability to manufacture value will have to be distributed across the company to much a greater extent than in the past."²

New Focus

Today's most successful executives, while still greatly concerned with cost structure, maximizing operational effectiveness, and business process reengineering, have shifted their focus to issues of how to build capabilities for faster growth, how to attract and retain the best people, how to develop leaders at all levels in the company, how to manage knowledge effectively, how to become a true learning organization, and how to be more effective global corporations.

The new business model has much stronger focus on the basics of what ultimately creates value today - people, knowledge, and coherence.² It fosters the creation of value and ensures that each piece of the business contributes to system-wide value. It also goes beyond the workplace and the interface between government and business and looks into building a favorable social climate within and around the company.

Many leading companies around the world have made attempts to evolve a new business model. While the paradigm is shifting, it has yet to reach the new stable state however.

The Growing Role of the Business Model Architect

In today's knowledge- and innovation-driven complex economy, business architects are in growing demand. They are cross-functionally excellent people who can tie several silos of business development expertise together, create synergies, design winning business model and a balanced business system and then lead people who will put their plans into action... [More](#)

Extended Enterprise

The term "extended enterprise" represents a new concept that a company is made up not just of its employees, its board members, and executives, but also its business partners, its suppliers, and its customers. The notion of extended enterprise includes many different arrangements such as virtual integration, outsourcing, distribution agreements, collaborative marketing, R&D program partnerships, alliances, joint ventures, preferred suppliers, and customer partnership... [More](#)

The rise of the creative consumer

LAST November, engineers in the healthcare division of General Electric (GE) unveiled something called the "LightSpeed VCT", a scanner that can create a startlingly good three-dimensional image of a beating heart. This spring Staples, an American office-

supplies retailer, will stock its shelves with a gadget called a “wordlock”, a padlock that uses words instead of numbers. In Munich, meanwhile, engineers at BMW have begun prototyping telematics (combining computing and telecoms) and online services for a new generation of luxury cars. The connection? In each case, the firm’s customers have played a big part (GE, BMW) or the leading role (Staples) in designing the product.

How does innovation happen? The familiar story involves boffins in academic institutes and R&D labs. But lately, corporate practice has begun to challenge this old-fashioned notion. Open-source software development is already well-known. Less so is the fact that Bell, an American bicycle-helmet maker, has collected hundreds of ideas for new products from its customers, and is putting several of them into production. Or that Electronic Arts (EA), a maker of computer games, ships programming tools to its customers, posts their modifications online and works their creations into new games. And so on. Not only is the customer king: now he is market-research head, R&D chief and product-development manager, too.

This is not all new. Researchers such as Nikolaus Franke at the University of Vienna and Christian Lüthje at the Technical University of Hamburg have demonstrated the importance of past user contributions to the evolution of everything from sporting equipment to construction materials and scientific instruments. But the rise of online communities, together with the development of powerful and easy-to-use design tools, seems to be boosting the phenomenon, as well as bringing it to the attention of a wider audience, says Eric Von Hippel of the Massachusetts Institute of Technology, who is about to publish a book, “Democratising Innovation” (MIT Press). “User innovation has always been around,” he says. “The difference is that people can no longer deny that it is happening.” Indeed, it is “very likely that the majority of innovation happens this way,” says Mr Von Hippel. Such innovation, he says, has a “much higher rate of success”.

According to Mr Von Hippel, in the past firms have mostly resisted customer innovation or not known what to do with it. American farmers were lobbying manufacturers to make cars with detachable back seats as early as 1909. It took Detroit more than a decade to “invent” the pick-up truck. Even now, carmakers respond to customer modifications such as performance-exhaust systems by voiding the warranty. Within three weeks of launching “Mindstorms”, a build-it-yourself robot development system, in 1997, Lego was facing around 1,000 hackers who had downloaded its operating system, vastly improved it, and posted their work freely online. After a long stunned silence, Lego appears to have accepted the merits of this community’s work: programs written in hacker language may now be uploaded to the Mindstorms website, for example.

Consumer innovation

BMW’s efforts to harness the creativity of its customers began two years ago, says Joerg Reimann, the firm’s head of marketing innovation management, when it posted a toolkit on its website. This toolkit let BMW’s customers develop ideas showing how the firm could take advantage of advances in telematics and in-car online services. From the 1,000 customers who used the toolkit, BMW chose 15 and invited them to meet its

engineers in Munich. Some of their ideas (which remain under wraps for now) have since reached the prototype stage, says BMW. “They were so happy to be invited by us, and that our technical experts were interested in their ideas,” says Mr Reimann. “They didn’t want any money.” BMW is now broadening its customer-innovation efforts.

Westwood Studios, a game developer now owned by EA, first noticed its customers innovating its products after the launch of a game, “Red Alert”, in 1996: gamers were making new content for existing games and posting it freely on fan websites. Westwood “made a conscious decision to embrace this phenomenon”, says Mike Verdu of EA. Soon it was shipping basic game-development tools with its games, and by 1999 had a dedicated department to feed designers and producers working on new projects with customer innovations of existing ones. “The fan community has had a tremendous influence on game design,” says Mr Verdu, “and the games are better as a result.”

Traditionally, firms have innovated by sending out market researchers to discover “unmet needs” among their customers. These researchers report back. The firm decides which ideas to develop and hands them over to project-development teams. Studies suggest that about three-quarters of such projects fail. Harnessing customer innovation requires different methods, says Mr Von Hippel. Instead of taking the temperature of a representative sample of customers, firms must identify the few special customers who innovate.

Researchers call such customers “lead users”. GE’s healthcare division calls them “luminaries”. They tend to be well-published doctors and research scientists from leading medical institutions, says GE, which brings up to 25 luminaries together at regular medical advisory board sessions to discuss the evolution of GE’s technology. GE then shares some of its advanced technology with a subset of luminaries who form an “inner sanctum of good friends”, says Sholom Ackelsberg of GE Healthcare. GE’s products then emerge from collaboration with these groups.

Staples found its luminaries by holding a competition among customers to come up with new product ideas. It got 8,300 submissions, says Michael Collins, boss of the Big Idea Group, a start-up firm that helped Staples to organise its competition.

At the heart of most thinking about innovation is the belief that people expect to be paid for their creative work: hence the need to protect and reward the creation of intellectual property. One really exciting thing about user-led innovation is that customers seem willing to donate their creativity freely, says Mr Von Hippel. This may be because it is their only practical option: patents are costly to get and often provide only weak protection. Some people may value the enhanced reputation and network effects of freely revealing their work more than any money they could make by patenting it. Either way, some firms are starting to believe that there really is such a thing as a free lunch.