

Strategic Innovation Management at Netflix: A Case Study

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Abstract: Netflix is a company that implemented a disruptive innovation and shocked the business market with its way to create and deliver value to their customers, breaking away with the old way to watch a movie at home. The culture of freedom and responsibility engaged by a radical transparency is committed by the whole company where every kind of employee at all teams share ideas and know everything about the company's strategy. This research consists of a description and analysis of the strategic approaches used by Netflix that explain its business success and demonstrates the technology and the business development made by one the most important players in the streaming service. It is entirely based on secondary data obtained through an exploratory literature review over the last ten years. The model by which Netflix manages its innovation process is based on agile frameworks who actively engage the developer's team, team leaders, and top management and have the customer at the center of the value stream. The internal culture of the firm, based on ample freedom and responsibility, and engaged by a radical transparency, is pursued by the whole company where every kind of employee, in all teams, share ideas and know everything about the company's strategy. The article explores and emphasizes the main aspects of the company's strategy to innovation which is based on the development of specific technological approaches based on purpose made algorithms that works to map the streaming user's preferences. It is coupled with the implementation and constant dissemination of the agile mindset linked with frameworks, methods, and techniques such as Scrum, Kanban, and Agile at Scale, which together enable Netflix to sustain and promote its innovative business process. Netflix approach to innovation has become a model for many other companies over the globe to create an environment focused on customer centricity, elect quality as a statement, and align employees with strategy.

Keywords: Netflix, disruptive innovation, agile approaches, technology, business

1. Introduction

Swann (2009) argues that innovation is one of the most important economic and business phenomena of current time and a topic of great practical and policy interest, with widespread implications for the economy and society. Learning is a vital process that underlies organizational innovation and outcomes (Carmeli and Dothan, 2017; Negas et al., 2020, Swann, 2009). Nevertheless, regarding innovation, the service sector was not as deeply investigated as the manufacturing sector over the years but, considering the evolution of film industry and the emergence of the streaming services, the subject has gained space (Chapain & Stachowiak, 2017). Service can be defined as the combination between outcome and experiences provided and received by a customer (Carvalho, 2008). To attend customers' needs the company may involve them in the production process elevating the level of customization in services (Negas et al., 2020). In some cases, the company may develop a new technology to improve an existing service in a first phase. Then, in a second phase of the process the improvement may be focused on quality and distribution of the service and finally the technology may work as a base for a new service (Barras, 1986; Negas et al., 2020).

These kinds of innovation that create a new service may be considered as disruptive. Christensen et al. (2015) contend that disruptive innovation happens when a new product or service turns obsolete their direct market competitors. What the disruption promotes is unexpected but, however, express the market or system's needs, it is not outside the system. An example is the Vinyl Discs that has become obsolete after the CD introduction, which satisfied the same need, a vehicle to reproduce music (Christensen et al., 2015; Negas et al., 2020). Another example is Netflix that started as a traditional film rental business, but its business model broke the competitors and nowadays is the biggest example for the new players in movies streaming.

The innovation business model created by Netflix created millions of satisfied and faithful customers (Blair et al., 2019) and makes it an inspiration for other companies. The Netflix concept started as an on-line movie subscription rental service, which allowed people to rent movies for a fixed monthly fee, maintaining a prioritized list of movies they wished to view (their "queue"). Movies were mailed to them or delivered electronically over the Internet. In the case of DVDs, when customers finished watching the movie, they could return it by post and the next DVD was automatically mailed, postage free (Bennett et al., 2007).

In their famous article about the disruptive company, The Brightline Initiative (2018) contend that Netflix uses flexible and adaptable methods to aid its strategy execution and the company expects employees to “keep nimble by minimizing complexity and finding time to simplify”. They also value cross-organization information sharing, which enables all employees to be directly involved in strategic decision-making (Blair et al., 2019; Brightline Initiative, 2018). The approaches and frameworks which promotes these kinds of employees’ interaction and behavior aligning strategy are called Agile. The goal of this study is, through a literature review, identify which are the characteristics of the Netflix innovative business model highlighted by the authors and also to identify the agile frameworks and approaches behind the processes and operations which permit the firm’s constant adaptation and innovation.

2. Methodology

This work was carried through a scoping review about disruptive innovation that created a technology business model using the concept of agility. Scoping reviews are a form of knowledge synthesis, which incorporate a range of study designs to comprehensively summarize and synthesize evidence with the aim of informing practice, programs, and policy and providing direction to future research priorities. According to Colquhoun et al. (2014), this methodology is “a form of knowledge synthesis that addresses an exploratory research question aimed at mapping key concepts, types of evidence, and gaps in research related to a defined area or field by systematically searching, selecting, and synthesizing existing knowledge”. The methodology comprehensively summarizes and synthesizes information regarding some research topic, with the aim of informing further practice and research (Colquhoun et al., 2014).

It is a very popular methodology for systematizing scientific knowledge, with a steep growing expression among the scientific community during the last 7 to 8 years. This scoping review followed a 2-step approach and tried to answer the research questions: “What can we learn from the Netflix innovation model?”, “How the Netflix business model is helping to design new ventures?”

A comprehensive search was made in the following databases: Google Scholar, ISI Web of Science, Scopus and ScienceDirect. The set of keywords used to make the research were [("disruptive innovation" OR "netflix" OR "agile approaches") AND ("innovation" OR "netflix" OR "technology business")] and were searched among the Title, Abstract and Keywords for the time span from 2011 to 2021.

3. Netflix history contextualization

The firm was founded in 1997 as an online DVD mail-order rental service, and nowadays Netflix is a global network of entertainment delivering movies and TV series, offering streamed content on a subscription basis on any screen of the internet-connected space (Finn, 2017). The revenue capture approach of the value proposition is based on a flat fee, and on-demand, unlimited and advertising free consumption and no-hassle online cancellation, where the members may leave and join again when they want (Fagerjord & Kueng, 2019).

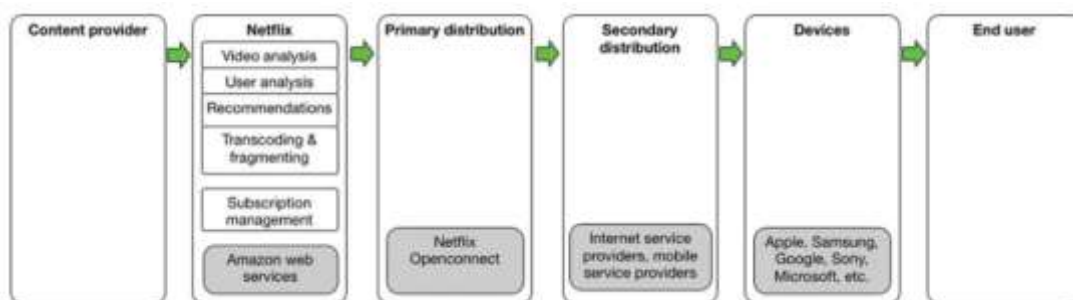


Figure 1: Core stages and actors of Netflix’s streaming video service annotated with key external partners (Fagerjord & Kueng, 2019)

The streaming is not, however, a classic double-sided platform, in that it is not a marketplace that connects buyers and sellers like YouTube, for example, that matches content from millions of producers to audiences and advertisers. Netflix’s network characteristics derive from its large-scale analysis of users’ interactions, which it uses both to algorithmically tailor-make recommendations for each individual user and to decide which new series and films to commission (Fagerjord & Kueng, 2019). Gomez-Uribe and Hunt (2016) explain that the business strategy lies at the intersection of the Internet and storytelling. The main product and source of revenue

is the subscription service that allows members to stream any video in the streaming collection of movies and TV shows at any time on a wide range of Internet-connected devices. Figure 1 shows the flow created to engage the user.

Some authors describe Netflix as a platform business and a network business. As a platform, its central purpose is to match customers and facilitate the exchange of goods and services, thereby creating value for all participants (Evans & Schmalensee, 2016; Florance, 2016; Parker et al., 2016). Platform businesses grow and thrive, not by acquiring other businesses or fixed assets, but by connecting more and more clients within their networks (Fagerjord & Kueng, 2019).

Gomez-Urbe and Hunt (2016) contend that the internet television space is young, and competition is ripe, thus innovation is crucial. A key pillar of Netflix product is the recommendation system that helps members find videos to watch in every session. The recommendation system is not one algorithm but rather a collection of different algorithms serving different use cases that come together. That is what it creates what is called the complete Netflix experience and makes the innovation happen at the business (Gomez-Urbe & Hunt, 2016).

Another key characteristic of Netflix that is not a secret, on the contrary, they are proud to share, it is their culture of trust. At the article from Brightline Initiative (2018) about the disruptive company, it is possible to see that strategic agility is probably one of the key topics discussed in agile enterprises today, and it is the base of Netflix success. According to a recent global survey conducted by The Economist Intelligence Unit (2020), insufficient agility is the third most common barrier to successful strategy implementation. Now more than ever, the agile concept seems to be essential to any organization's success (Brightline Initiative, 2018).

An agile mindset promotes pillars as transparency, inspection and adaptation and values as courage, focus, openness, commitment, and respect (Schwaber & Sutherland, 2020). Promoting cross-functional and self-organizing teams, the role of leadership is to be servant leaders, leading by example (Modranský, Jakobová, Michal Hanák, et al., 2020). The innovation consists in treating employees as human beings, not as resources, always involving them in decisions and broking departmentalization and hierarchical structures (Manifesto for Agile Software Development, 2001; Modranský, Jakobová, Michal Hanák, et al., 2020).

4. Results and discussion

Netflix runs in very different ways than conventional media companies and has a very different culture. It is one of the many companies that rely on advanced computer technology to deliver its services (Fagerjord & Kueng, 2019). McCord (2018) explains that their engineers are treated like celebrities. Netflix's technology is indeed highly complex, it is possible to create an abstract model of it that can assist the understanding of the company's workings, and draw conclusions on its potential impact on the wider media industry (Bennett et al., 2007; Fagerjord & Kueng, 2019). The streaming company invested far more than their competitors in developing its recommendation system as an asset. Netflix created a highly powerful data mining system that, rather than relying only on a customer's past consumption to create recommendations, also provides cross-reference usage patterns across all users to offer unique recommendations (Gomez-Urbe & Hunt, 2016; Rayna & Striukova, 2016). The business model modified nearly all of the elements of value creation and value proposition, as well as single elements of value delivery (distribution channels) and value capture (the revenue model) in creating its DVD-by-mail and later its streaming video services (Rayna & Striukova, 2016).

Figure 2 presents the innovative value cycle developed by the Netflix that is focused to expand its value networks, through customer ratings and crowdsourcing, using collective wisdom and learning to solve problems or develop a solution, on the Netflix way (Blair et al., 2019; Rayna & Striukova, 2016). Netflix completely redefined the value proposition for the industry, offering unlimited access rather than disk-by-disk rentals. Their strategy is supported by its extensive business model innovations. Weighting of particular components is likely to vary from industry to industry and from firm to firm. For some markets and firms, value creation innovations will be more important. In the Netflix context, value capture or value proposition innovations is leading to a much more significant competitive advantage (Rayna & Striukova, 2016).

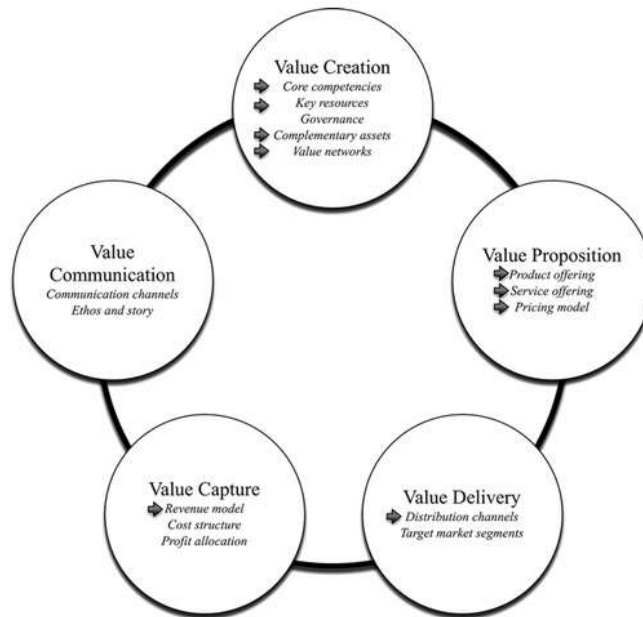


Figure 2: Components affected by Netflix’s business model innovation (Rayna & Striukova, 2016)

Many authors highlight that Netflix’s focus on its recommendation system has enabled the company to develop essential core competencies, such as a very fine understanding of consumption patterns and a greater understanding of success factors for film and television (Bennett et al., 2007; Fagerjord & Kueng, 2019; Gomez-Uribe & Hunt, 2016; Rayna & Striukova, 2016). The company has put that asset to good use in driving further business model innovations, most notably its foray into original content. Netflix has also developed key resources, such as the recommendation algorithm itself and its vast database of user consumption patterns and user tagging, commenting, and review behaviors (Rayna & Striukova, 2016), which are core assets of its business model.

The high emphasis on personalization enables Netflix algorithms to retain and find any audiences, even for relatively niche videos that would not make sense for broadcast TV models because their audiences would be too small to support significant advertising revenue, or to occupy a broadcast or cable channel time slot. Without personalization, all the streaming members would get the same videos recommended to them (Fagerjord & Kueng, 2019; Gomez-Uribe & Hunt, 2016). Although Gomez-Uribe and Hunt (2016) highlight as well that, to really speed up innovation, Netflix also relies on a different type of experimentation and adaptation based on analyzing historical data. This offline experiment changes from algorithm to algorithm, but it always consists of computing a metric for every tested method or formula variant that describes how well the algorithm version fits previous customer engagement, and they call that the *innovation flow* that is illustrated by Figure 3.

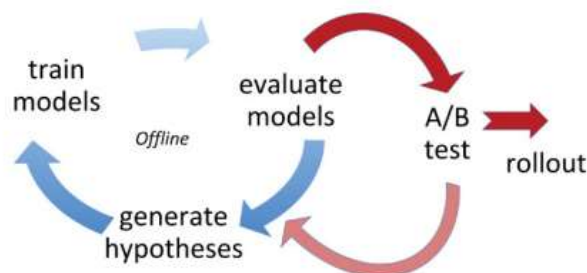


Figure 3: Netflix innovation flow (Gomez-Uribe & Hunt, 2016)

All these innovation process based on algorithm technology is considered by the Brightline Initiative (2018) part of the strategic agility concept for businesses. In order to achieve that, leaders accept responsibility for delivering their company’s strategy as guiding principles. Because leaders take on such an accountability then they can cultivate an environment where employees feel they have the freedom to make the quick decisions that lead to strategic agility, such as, for example, adapt the algorithms based on customers’ responses (Brightline Initiative,

2018; Gomez-Uribe & Hunt, 2016). The sense of delivering awesome experiences starts at the team, by thinking and developing, and then what the customer enjoys is a reflection about the way Netflix works (McCord, 2018).

McCord (2018) contend that, as Netflix well shows, strategic agility does not exist in isolation. It must be meditated as a combination of a trust culture, aligned with the right delivery capabilities, radical transparency and a win-win structure. All of this must coexist in order to help teams work faster and more effectively in the most varied conditions and environments (Brightline Initiative, 2018). In response to this need for increased innovation and adaptability, agile was introduced in the IT industry as a lightweight software project management development and has continuously grown in popularity in companies, such as Amazon, Bosch, Tesla and Spotify (Carmeli & Dothan, 2017; Grass et al., 2020; Lynn, 2021).

Grass et al. (2020) argue that agile teams engage in the process of continuously adapting their innovative endeavors to changes in their environments. This behavior makes their product development efforts less rigid, reduces their cycle times, and equips them with the ability to respond quickly to changing customer requirements (Grass et al., 2020; Modranský, Jakobová, Hanák, et al., 2020; Schwaber & Sutherland, 2020). Firms are being aware that software processes and value innovation requires a different way of running the organization so it can be successful (Denning, 2018). The whole firm has to become nimble, adaptable, and able to adjust on the wing to meet the shifting impulse of a marketplace driven by dynamic changes in customer value.

When it comes to achieving such high adaptability in the product development process through agile methods, Scrum is one of the most well-known and applied frameworks under the umbrella of agile methods (Grass et al., 2020; Hidalgo, 2019; Schwaber & Sutherland, 2020). The Scrum team is self-organizing, cross-functional, and consists of roles such as developers, product owner, and a scrum master. The developers are empowered and deliver increments of a continuously developing product in regular, short intervals, called Sprints (Castillo-Barrera et al., 2018; Grass et al., 2020; Schwaber & Sutherland, 2020). Due to continuous interactions between team members and with leaders and customers provided by Scrum, the importance of the people side is even more pronounced in agile teams. Understanding these human elements is central in realizing the often praised adaptability benefits of agile teams (Grass et al., 2020).

In recent years, the Lean-Kanban approach has become more popular in software development. Kanban is one of the Lean Management tools that help in managing production operations. In agile, Kanban contributes to minimize the Work-In-Process (WIP, which is the number of items that are worked on by the team at any given time) and to maximize the value produced by an organization (Ahmad et al., 2013; Anderson et al., 2012). Since Kanban is a visual method of work, it helps to ensure the transparency that is so crucial to agility runs (Anderson et al., 2012; Grass et al., 2020). This way, the focus is no longer on the power and knowledge of individual executives, but on the democratized decisions of all employees, and anchored in the individual subsystems of the organization. Regarding the strategy to create all the value delivered by the innovation, the necessity of engaged leadership is extreme, and that is one of the things helping to create the disruptive Netflix innovation (Bennett et al., 2007; Blair et al., 2019). Gopalakrishnan (2021) contend that an agile leader is seen to employ a pull approach which is inspirational in nature by supporting learning and tolerance to failure, and to act in an organizational environment structured as a network of small teams, with customer centrality and governance process organized as a network, avoiding hierarchies.

At Netflix, the innovation process comes from the teams, is developed by their engineers, the HR department knows how the process works, in order to hire people aligned with that (Blair et al., 2019; Florance, 2016; McCord, 2018). The top management disseminate the culture aligned with market, having the customer as the business center, and quality is an ever present statement permeating the organization and the people (Blair et al., 2019; Gomez-Uribe & Hunt, 2016; McCord, 2018; Parker et al., 2016).

Rigby et al. (2018) explain that expanding the number of agile teams, which means cross-functionality and self-organization, is an important step toward increasing the agility of a business. But equally important is how those teams interact with the rest of the organization. Even the most advanced agile enterprises (Amazon, Spotify, Google, Netflix, Bosch, SAP, Tesla) operate with a mix of agile teams and traditional structures. To ensure that bureaucratic functions don't hamper the work of agile teams or fail to adopt and commercialize the innovations developed by those teams, such companies constantly push for greater change and adaptation (Blair et al., 2019; Rigby et al., 2018; Scrum Alliance, 2018).

Table 1: The most famous agile frameworks and how they are applied in Netflix agility innovation process

Agile Approaches	Description	Netflix Adaptation	Author/Year
Scrum	Agile frameworks, like Scrum, have been pre-designed as rule-free, adaptable structures for increasing organizational agility. Scrum takes projects and breaks them down into smaller increments. The framework delivers the tasks in cycles known as sprints, which have a recommended duration of 2 week.	Netflix was saturated in an industry of early Scrum adapters, who saw the value of a framework operations model for setting clear priorities and goals, approaching work iteratively to better hit deadlines and responding quickly to exceedingly rapid demand.	(Grass et al., 2020; Scrum Alliance, 2018)
Kanban	The Kanban method in technology projects development drives developers to visualize the workflow, limit work in progress (WIP) at each workflow stage, and measure cycle time. The Kanban board provides visibility to the process because it shows assigned work of each developer, clearly communicates priorities and highlights bottlenecks.	Netflix works with detailed Agile goals involving each viewer, by creating personalized content, those assignments, once approved, will later go to the Kanban until they are achieved, verified, and eliminated, which paves the way for new tasks coming in. An agile project is considered done only when there are not any increments left to deliver.	(Anderson et al., 2012; Grass et al., 2020)
DevOps	DevOps can be succinctly defined as a mindset of molding your process and organizational structures to promote business value, software quality attributes most important to your organization and continuous improvement.	Netflix software-engineering process shows a fundamental understanding of DevOps thinking and a focus on quality attributes through automation-assisted process. Recall, DevOps practitioners espouse a driven focus on quality attributes to meet business needs, leveraging automated processes to achieve consistency and efficiency.	(Cois, 2015)
Agile at Scale	Innovation in ways of working is happening at the organizational, cross-team, cross-product level. Agile at scale is about repeating agile successes embodied in a team across an organization. Applying agile thinking to cross-product projects. Applying agile and lean thinking to development organizations. Applying agile and lean thinking to high assurance environments like medical, security, financial, safety critical, audited, regulated businesses.	Agile exists in pockets at Netflix, but as a whole, enforcing the methodology at scale is both unwieldy and counterintuitive to the structure of the individual teams. Just as agile teams compile a backlog of work to be accomplished in the future, companies that successfully scale up agile usually begin by creating a full taxonomy of opportunities. Following agile’s modular approach, they may break the taxonomy into three components customer experience teams, business process teams, and technology systems teams and then integrate them.	(Macdonagh’s, 2012; Rigby et al., 2018)

Rigby et al. (2018), also contend that agile teams work differently from chain-of-command bureaucracies (Rigby et al., 2018). They are largely self-governing. Senior leaders tell team members where to innovate but not how. And the teams work closely with customers, both externally and internally. Ideally, this puts responsibility for innovation in the hands of those who are closest to customers (Brightline Initiative, 2018; Denning, 2018; Rigby et al., 2018). Burchardt and Maisch (2019) argue that continuous customer involvement can be ensured easier through new digital and open platforms for exchange and online testing and, last but not least, the agile mindset. Further digital services or web-based software tools for collaboration are fostering an open culture in product development and provide potential for increased speed and quality (Alahyari et al., 2019; Burchardt & Maisch, 2019). The tools range from aligning appointments, real-time conversations, written group conversations exchanging documents and advanced online collaboration tools for collaborative production, sharing,

documenting, and communicating. Many of these tools are in their basic version available for free (Burchardt & Maisch, 2019).

Due to the space limitation it is not possible to describe and analyse in detail every aspect of agile tools and approaches applied to the management of innovation at Netflix. Table 1 summarizes the most important of them and how they are used at Netflix.

5. Conclusions

The agile environment revolves around people and outcomes. This literature review was focused to demonstrate how one of the major and pioneer services of streaming develop their innovation process. Netflix becomes disruptive and changed the way of the entertainment films industry perform their business. The way of the technology is straight designed and the level of engagement who starts in the own company, pass through the stakeholders, and reaches the final customer is unique. The engagement promoted at the teams following the Agile good practices is pointed out by the literature as cross-functionality and self-management of the team who create the Netflix technology and makes the company exactly who she is. A culture of openness, trust, commitment, and constant innovation captivates every reader and researcher looking for to understand Netflix history of success. The innovation it does not just reside on products and services created, but at the daily work of the technology teams, leaders, and top management. The Netflix contribution to scientific community is enormous, demonstrating what is creating in practice in business context. The application of methods studied at universities as algorithms and information systems development, and the leadership and innovation model taught in business schools are unique, are instances discussed in all the academic world, read in scientific papers.

The Netflix legacy and their disruptive innovation, based in top technology business, is inspirational and helps to understand what can be expected by the companies in the years to come. The enterprise is helping to design the future of entertainment and films industry, and the business model as well, which came to stay. Netflix is example of good environment to have a job position because they provide purpose to their employees engaging them in decisions and companies' values. It is also a great lab to run experiments and develop studies to understand their business and continuous innovation process.

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