

Analytics Project on Netflix

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Checkpoint 1

The organization (maximum 1 page)

- What is the organization's business and mission?

Netflix is an online television network streaming TV shows and movies. Subscribers can watch unlimited TV shows and movies streamed over the Internet to their TVs, computers and mobile devices and also as receive DVDs delivered to their homes. Netflix's core mission is to grow its streaming subscription business domestically and globally to increase consolidated net income. They are continuously improving the customer experience with a focus on expanding their streaming content, enhancing their customer experience and extending their streaming service to even more internet-connected devices.

- How big is it?

According to Forbes 2018, Netflix is one of the largest multinational entertainment platforms with 130 million memberships in over 190 countries and it continues to expand globally. The company reported revenues of US\$11,692.7 million for the fiscal year ended December 2018, an increase of 32.4% over FY2017.

- What kinds of change has it undergone over the course of its history?

The business model and service type have been changed over the course of Netflix's history. In 1997, Reed Hastings founded Netflix as a DVD rental store. Since then, it has grown rapidly in 1998, Netflix has become the world's largest DVD rental store and opened the world's first internet store to offer DVD rentals. In 2007, Netflix offered its subscribers the option to directly watch movies on their personal

computers instead of renting DVDs. In 2010, the company introduced its Netflix App on mobile phones, enabling members to watch a selection of TV shows and movies streamed to their phones. Since 2011, Netflix launched its streaming services globally and expanded its business rapidly.

- What are the biggest challenges it is dealing with now?

The biggest challenges for Netflix are rising content costs, increasing competition and **poor subscriber feedback**. The potential for higher content costs was demonstrated recently by \$100 million that Netflix reportedly paid to renew its licensing of 'Friend' through the end of 2019, comparing to \$30 million previously. There are a few potential competitors on the horizon: Prime videos, Hulu, Youtube, Showtime, HBO and Disney. They have posed great threats to Netflix, especially Disney since it prepares to ban Netflix ads on all of the properties it owns. **Users complain that they can't customize their personal home screens they are actually interested in, and fail to randomly select the content, blaming to the recommender system.**

- What has been the experience of the people in the organization with change?

Netflix's employees have experienced several changes over the past years. The required professional skills, business core value alignment, working time and emotional change are the main differences as Netflix grows. They might even resist changing due to overwhelmed tasks, threats to job status, workgroup breakup, misunderstanding and lack of trust. **However, people in the organization may welcome changes because they have previous experiences dealing with changes.**

- How ready is the organization for changes?

Netflix is ready to change as its competitor Disney kept pushing the game forward in the streaming service industry. Also, the level of change management maturity for Netflix is 3 since change management is initiated at the start of multiple projects, applying a comprehensive approach for managing change, the profitability is high but still have some room for improvement.

- Who are the key players outside the organization, e.g. suppliers, partners, customers, etc. who are relevant to the organization's biggest challenge?

The key players outside Netflix are suppliers, partners, and customers. Suppliers are major TV broadcast networks from ABC, NBC, and CBS, movies and DVDs from film companies. Partners are TV cables such as Altice One, other streaming service providers such as Hulu and Amazon. Customers are mainly subscribers around the globe. All of the players are relevant to the Netflix challenge since they tight up with its business model, contribute to its profitability and provide help when Netflix needs.

Your first project (maximum 1 page)

- Describe the first analytics project that you will lead to establish your credibility and the value of analytics in your organization.

The first analytic project I will lead is to **raise monthly subscription prices to pay escalating content bills, to offer a slew of new content to enhance competitive advantages and to improve customer experience for the benefit of members.**

- What are the goals of this project?

The goal of this project is to understand the business value of the Netflix recommender system, **use data-driven analytics tools to evaluate the overall performance in the streaming service industry, and improve customer experience on a more accurate and personalized recommender system.**

- How does your project align with the mission and the strategic goals of the organization?

Since the mission of Netflix is to grow its streaming subscription business domestically and globally to increase consolidated net income, and to improve customer experience **by expanding content and to extend internet-connected service**, it is highly aligned with the analytic project. The common goal is to improve customer experience, and by improving the Netflix recommender system, it will extend the hours they spend on Netflix and hereby, extending the subscription timeframe. The strategic goal of Netflix is

to expand globally and become the largest online streaming service, and the subscription plan and recommender system is a key factor that differentiates from other streaming services, improving its system and business strategy can directly attract more customers and extend their watching time so that it will potentially increase the number of subscribers.

- What are the benefits of this project to the organization and the people in it?

As I indicated above, this project will analyze the business value of the Netflix recommender system, improve customer experience on a more personalized system and potentially increase customer growth. People working with this project will get a better understanding of the algorithms, the business value of the recommender system, and gain more insider information about the industry, improve personal professional skills and earn personal credibility and wealth.

Assessing the organization's receptivity to this first project (maximum 2 pages)

- Who within the organization are the major supporters who would like to see this project started? What factors are motivating them to support your project?

Data scientists and business analytical teams are the major supporters of this project. This project will focus on the various data collections and algorithms that make up the Netflix recommender system and analyze its business purpose. We dig in the motivation behind and review the data model and approach that we use to improve the recommendation algorithms. Data scientists and business analysts are capable to do these tasks and push the project forward. In addition, the C-suite would like to hear about the results of the project which might bring more subscribers and better customer experience. Also, data-driven is the direction that Netflix is pushing in. The exciting benefit of this project is that it costs less than other marketing and operational projects since we use inside customer data and build better models based on the existing algorithms, saving us money and time to establish a new system. The factors that

motivate them to support my project are the surmountable challenge, the result of analytics and the improvement of personal skills and potential wealth.

- Who within the organization might more slowly embrace this project? What factors are motivating their reluctance to support your project?

People from mid-level departments might more slowly embrace this project. Time conflict, different working experience, lack of understanding, different professional skills, various working goals, and manager's opinion are the factors that motivate their reluctance. Recommender system is not their focus or main job to concentrate on, yet did not realize the importance of improving the system and building better models to raise the accuracy of the personal recommendation. In addition, the upcoming project will bring uncertainty in the workplace, and mid-level department heads may suffer from loss of credibility or even job in Netflix.

- Who within the organization might be opposed to the project? What factors are motivating them to oppose your project?

Netflix employees are more likely to be opposed to this project. According to the article 'challenging resistance to change', misunderstanding, emotional side effects, lack of trust, personality conflicts, the threat to job security and workgroup breakup are the main causes of resistance to change. In this case, some Netflix employees might think the recommender system is good enough for subscribers and they are working on other segments of the firm such as increasing content, gaining more partnerships and creating more original content. This project might not be the most attractive one to invest time and money.

- How would you use analytics to assess and monitor the receptivity of different stakeholders within the organization for this project?

Communication is the key to know stakeholders' opinions and suggestions on this project. For C suites, I will utilize sentimental analysis to assess internal email announcements and external social media interaction. For mid-level management, a quick survey through email or in-person is a good idea as an analytic tool to assess the monitor the receptivity of stakeholders. Questions on the survey could be the

satisfaction of the result of the project using a ranking system such as on a scale of one to five, the influence on their daily work when the project starts, the awareness of the importance of the project, and some open-ended questions to hear their thoughts and advice. Upon launch of the project, I will utilize KPIs to compare performance before and after the project.

The steps to getting this first project started (maximum 2 pages)

- Given the readiness of the organization and your assessment of different stakeholders, what steps will you take to start your project?

According to John's 8 step model, we might first need to create a sense of urgency as the first step. It can be difficult to excite the employee after going through various changes in the past decades, people are not that reluctant towards change itself but are also struggled with endless projects and tasks without a clear vision of the benefits. To build a sense of urgency, we should first identify potential threats, opportunities and develop scenarios showing what could happen in the future. Secondly, start honest discussions, and give dynamic and convincing reasons to get people talking and thinking. We have to work really hard on step one and spend significant time and energy building urgency. Also, it is really important to not only create urgency but to involve employees from the planning stage to start the project. Analytics would have to understand the needs of each team, ensure relevant data is collected and the strategic direction is united. The role of the team to support the existing tasks by improving the analytical capabilities of Netflix but not replacing or creating any existing positions would potentially decrease the possibilities of resisting change.

The second step is to create a vision and communicate about it. A clear vision can help everyone understand why I am asking them to do something. When people see for themselves what I am trying to achieve, the directives they are given tend to make more sense. To achieve this, I have to determine the values that are central to the project and develop a vision that captures what I see in the future of Netflix. Communication of the vision has to be clear and inclusive, as the vision will probably have strong competition

from other day-to-day communications within Netflix, openly and honestly address people's concerns and anxieties is important to make the process smoother.

Creating short-term wins to engage and motivate is especially important because nothing motivates more than success and revenue. Create short-term targets to be achievable and each win that we produce can further motivate the entire staff.

Finally, to make any change stick, it should become part of the core of Netflix. Our corporate culture often determines what gets done, so the value behind the vision must be demonstrated in daily work. It will help give the change a solid place in Netflix's culture to make continuous efforts to ensure that the change is seen in every aspect of Netflix. It is also important that the leaders continue to support the change, this includes existing staff and new leaders who are brought in.

- Which stakeholders (or groups of stakeholders) will you communicate with? In what sequence?

The first stakeholder to communicate with would be C suite, as we need to get support from the management team to get approved budget and proper team members.

The second group would be the IT and R&D department since the core of the project is to use data to analyze the recommender system, we need some data scientists and business analysts to do the major job. Communicating with these teams first and solving any misunderstanding issues can decrease the level of resistance of the project.

- What are your key messages for each stakeholder (or groups of stakeholders)? Why do you think these messages will be effective?

The key message for c suite would allow Netflix to become a more data-driven firm and the personalized online streaming service thanks to the improved user experience.

It aligns with Netflix's mission and vision in the long run, as well as threats its competitors in the field.

The key message for IT and R&D departments would use the inside customer data to have a better understanding of subscribers, improve models and get the right movies and shows for each user. This would be effective as employees would benefit both as a

team and as an individual by increasing the accuracy of the recommender system and gain professional skills and wealth.

Checkpoint 2

The change required to capture value from the insights generated from the first project (maximum 3 pages)

- What actions and changes need to be taken to benefit from the insights that you generated in your first project ?

After generating the insights in the first project, a series of actions for Netflix to implement the changes is as follows:

1. Plan for specific steps, timeline, and resources needed to implement specific changes
2. Acquire the resources needed
3. Communicate the plan for overall changes to every employee in specific teams
4. Allocate and communicate new responsibilities to current employees especially to the data analytics team
5. Foster organizational receptivity toward the changes and encourage actions

- In what ways would those changes benefit the organization and the people in it?

It is first and foremost important to have a clear plan for actions and timeline drafted to guide actions. Without clear next steps, Netflix would have no clue on how to move forward with the insights. Additional resources required should also be identified before implementation. **The resources could be the capital needed to fund investments in constructing a new content or implementing new technologies.** Another area of resources is human capital - Netflix would hire new employees for an added or growing

function. Data scientists would be hired for the change in order to grow as an analytics-based organization.

It is crucial to communicate the overall mission and vision and specific changes planned to every department to accomplish its goal - **grow its streaming subscription business worldwide to increase consolidated net income, improve user experience by new content and customized recommender system to keep them.** Changes made to existing service may demand new responsibilities to teams and employees, such as new data algorithm experts and new segregation of the customer service team.

Finally, Netflix needs to make sure that there is minimal resistance among employees. and that everyone knows his or her own responsibilities and behaviors to comply with the changes, and is properly accommodated for the provided with training to perform the new tasks.

- Which stakeholders (or groups of stakeholders) might quickly embrace these changes? What factors are motivating their support for the changes?

The speed in which a stakeholder embraces the changes depends on the direct benefits that the stakeholder is expected to enjoy. The C-suites executives will expect the most direct benefits in forms of improved ROI, meeting investor goals, improved profits, and bonuses if the changes are implemented successfully. In addition to observing the direct benefits from these changes, they also feel more accountable for the success of Netflix and significant in implementing these changes. **The preliminary success can give C-level executives confidence in embracing continuous growth of Netflix. When they play an important role in implementing these changes and are held largely accountable for the success or failure of the changes, they will feel more motivated to undertake the implementation. As a result, they will be the quickest to embrace the changes.**

- Which stakeholders (or groups of stakeholders) might more slowly embrace these changes? What factors are motivating their reluctance to support the changes?

On the opposite, mid-level management team with little to no direct benefits, will be the slowest to embrace the changes. Although some of them may experience some indirect benefits, such as improvements in operational processes that take some stress off their daily work routine, some of them may be given more responsibilities as a result of the changes. Moreover, they may see themselves as an insignificant player in the entire implementation, that their actions or behaviors would be of little help to the success of these changes. As a result, they would be slower or more reluctant to embrace the changes.

- Which stakeholders (or groups of stakeholders) might oppose these changes?
What factors are motivating their opposition to the changes?

Netflix employees are more likely to be opposed to this project. According to the article 'challenging resistance to change', misunderstanding, emotional side effects, lack of trust, personality conflicts, the threat to job security and workgroup breakup are the main causes of resistance to change. Undoubtedly, the term change is associated with uncertainty, leading to chaos affecting the previous secure routines and status quo in the workplace. In this case, some Netflix employees might think the recommender system is good enough for subscribers and they are working on other segments of the firm such as increasing content, gaining more partnerships and creating more original content. This project might not be the most attractive one to invest time and money in.

- What steps will you take so that people will implement the changes to capture the value of the insights from your analytics work? Which stakeholders (or groups of stakeholders) will you communicate with? In what sequence? What will your message be for each stakeholder (or groups of stakeholders)? How will you address both the rational and emotional aspects of the change to different stakeholder groups? Why do you think these messages will be effective?

The most important step is to communicate with different levels of employees and let them fully understand the benefits of new changes, so that they will implement the

changes in each department to capture the value of the insights. Once the analytics insights are formed, they need to be communicated first to the C-suite members, especially the CEO of Netflix. The CEO has the power to influence employees down the corporate ladder to participate in the changes and persuade the board of directors and shareholders to build faith in such changes. **The CEO will also be the major strategic director of implementing these changes since he or she would be most familiar with the corporate mission and vision, capabilities and limitations, etc. While the CEO is the first and foremost important stakeholder to inform of the project insights, the next most important stakeholders to inform is the manager of each department. The managers need to adapt to the ideas and learn of their performance expectations.** Most importantly, they have the proximity and power to influence those employees under their management more efficiently than the C-suite does. Finally, the employees in the non-managerial level will be communicated through their managers. They are the last to communicate given their lack of power to demand actions. The message crafted for different stakeholders - C-suite executives, managers, and operational staffs, will be similar in structure but slightly different in content. All messages should be framed as follows: establish credibility, establish common ground, support with evidence, and appeal to emotions. For the C-suite, the message should appeal to their motivations to improve the share value of Netflix to meet investor goals, maximize profits and get rewarded a bonus based on profits. For the managers, the message should appeal to their motivations to improve an operational process under their management, and get rewarded a bonus and opportunities for promotion. For the non-managerial level staff, the message should appeal to their motivations to perform their duties with minimal stress and maximum benefits. This would be effective as employees would benefit both as a team and as an individual by increasing the accuracy of the recommender system and gain professional skills and wealth.

- How would you use analytics to track the implementation and impact of these changes?

One way of using analytics to track the implementation is through design thinking. The empathy map will help Netflix to identify stakeholders' opinions toward the change through observing what they think, see, say and do in regards to the changes. The empathy map will enable Netflix to discover different stakeholder's receptivity toward the changes. In addition, the organization would administer surveys to employees to collect their opinions and use texting mining and sentiment analysis to collect buzz words that reflect different stakeholders' attitudes toward the changes. Then, buzz words are grouped into either "pain" or "gain" by their valence to identify which aspects of the changes motivate different stakeholders to take actions and which aspects lead to resistance.

Expanding the impact (3 pages)

- After the insights of the initial project are starting to be used, what will you do to drive the diffusion of those changes more broadly across the organization?

Given the goal of the initial project is to raise the number of Netflix subscribers and improve the recommender system, measurement of change in number of subscribers, advanced machine learning algorithms and financial impact (ROI, share value) could reveal how changes are diffused through the organization. I will seek support and cooperation from the C-level executives to emphasize the importance of analytics, the urgency of changes, and the optimistic outcome from the initial project. If the changes have been diffused effectively through the organization, the expected benefits of the changes should be realized. An upward trend in the number of subscribers would indicate effective diffusion of changes, and thus the implementation of changes, leading to desired results. Some changes may involve investments, but these changes are expected to increase the number of subscribers, and thus increase revenue. Revenue increasing more than the investment costs in the changes indicates effective diffusion of changes across the organization.

Another appropriate means to measure how changes are diffused through the organization is through measuring employee's performance on a department level and

on an individual level. Changes are accompanied by a set of new metrics on employee performance to measure how well they are doing with their new responsibilities. If they are adapting to their new responsibilities well, they are adapting to the change well. This will indicate an effective diffusion of changes. Performance could be measured on an aggregate level by the department. Department with the greatest performance gap will receive extra attention. Performance could also be measured on an individual level so that employees with higher resistance or lower receptivity to the changes will receive special attention.

- Which stakeholders (or groups of stakeholders) might quickly embrace these changes? What factors are motivating their support for the changes?

Data scientists and c suites are the major supporters of this project. This project will focus on the various data collections and algorithms that make up the Netflix recommender system and analyze its business purpose. We dig in the motivation behind and review the data model and approach that we use to improve the recommendation algorithms. Data scientists and business analysts are capable to do these tasks and push the project forward. In addition, the C-suite would like to hear about the results of the project which might bring more subscribers and better customer experience. Also, data-driven is the direction that Netflix is pushing in. The exciting benefit of this project is that it costs less than other marketing and operational projects since we use inside customer data and build better models based on the existing algorithms, saving us money and time to establish a new system. The factors that motivate them to support my project are the surmountable challenge, the result of analytics and the improvement of personal skills and potential wealth.

- Which stakeholders (or groups of stakeholders) might more slowly embrace these changes? What factors are motivating their reluctance to support the changes?

People from other departments might more slowly embrace this project. Time conflict, different working experience, lack of understanding, different professional skills, various working goals, and manager's opinion are the factors that motivate their reluctance. The recommender system is not their focus or main job to concentrate on, yet did not realize the importance of improving the system and building better models to raise the accuracy of the personal recommendation.

- Which stakeholders (or groups of stakeholders) might oppose these changes?
What factors are motivating their opposition to the changes?

Netflix employees are more likely to be opposed to this project. According to the article 'challenging resistance to change', misunderstanding, emotional side effects, lack of trust, personality conflicts, the threat to job security and workgroup breakup are the main causes of resistance to change. In this case, some Netflix employees might think the recommender system is good enough for subscribers and they are working on other segments of the firm such as increasing content, gaining more partnerships and creating more original content. This project might not be the most attractive one to invest time and money in.

- Which stakeholders (or groups of stakeholders) will you communicate with? In what sequence? What will your message be for each stakeholder (or groups of stakeholders)? Why do you think these messages will be effective?

The first stakeholder to communicate with would be senior managers, as we need to get support from the management team to get approved budget and proper team members. The second group would be the IT and R&D department since the core of the project is to use data to analyze the recommender system, we need some data scientists and business analysts to do the major job. Communicating with these teams first and solving any misunderstanding issues can decrease the level of resistance of the project.

The key message for senior management teams would allow Netflix to become a more data-driven firm and the personalized online streaming service. It aligns with Netflix's

mission and vision in the long run, as well as threats its competitors in the field. The key message for IT and R&D departments would use the inside customer data to have a better understanding of subscribers, improve models and get the right movies and shows for each user. This would be effective as employees would benefit both as a team and as an individual by increasing the accuracy of the recommender system and gain professional skills and wealth.

- How will you use analytics to measure the diffusion of change through the organization?

Analytics could be used in several ways to measure the diffusion of the changes in the organization. First, sentiment analysis could be used to learn if the subscribers are responding positively to the changes as in accordance with original expectations; if not, immediate improvements would be implemented to improve the performance of changes. Secondly, Financial impacts measured in ROI and KPI could benchmarked against analytics predictions; immediate investigations will be taken to identify which part of the changes contributes to the large gap. Thirdly, employee productivity and feedbacks could be analyzed to understand individual level of resistance in order for the organization to better target remove remaining resistance. Finally, employee performance could be benchmarked against expectations; and employees with the greatest performance gaps will be given additional support to adapt to the changes.

- In general, how will your plan help create an organizational culture anchored in data and analytics?

The changes help create an organizational culture anchored in data and analytics by sharing the value of analytics and how it helps achieve organizational goals for everyone in the organization. These changes lead to the learning of new skills and adaptation to new responsibilities in certain employees. Employees will learn to adapt to new job responsibilities and how to cope with changes, as well as develop an analytical mindset. These changes will also establish a system of assessment and improvements

to encourage employees to reach outside of their comfort zone and improve. The training for an analytical mindset and adaptation to changes helps to create an analytical environment for Netflix employees. However, creating data and analytics-driven organizational culture not be done without establishing a learning culture. It is important to provide the resources, adaptable employee learning plan, etc. to establish a learning culture in order to sustain it.

Analytics will have a lasting impact on Netflix through establishing a supportive leadership that has absolute faith in analytics, sets realistic goals and effectively persuade employees to follow suit. Leadership needs to start strong in implementing sweeping change across the organization, and build a coalition, gain supporters, create a series of plans and strategies to create lasting impact. **The analytics program in Netflix needs to be objective and measurable in order to be evaluated for its impact. Everyone involved in the analytics program will need to have access to tools that facilitate cross-collaboration of data sharing and analytics in order to communicate real-time insights and impacts.** After all, everyone needs to be involved in the initiative to create a lasting impact. Finally, there needs to be a mechanism for continuous assessment of the analytics program at Netflix to identify needs for new hires, new skills, and new resources to support its lasting impact on the organization. In summary, analytics creates a data-driven culture in the organization through effective leadership, the establishment of culture for analytics, sufficient tools, and resources for support, and participation, and collaboration of employees and continuous assessment of analytics initiative.