

Monetize Children's Play

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Abstract

Digital consumers today consist of much younger generations compared with that of five years ago. Some mobile applications now target users who are even below four years old, and very often, their parents are customers as well. It is challenging for companies to find suitable monetization models for digital products that are children facing due to legal and ethical limitations. Since the content delivery platform has now expanded to different mobile systems, companies are looking for other business models other than advertising for children's products. Innovation is needed from not only the product development perspective, but also the business creation perspective.

Design thinking is regarded as the engine of creativity under the environment of extreme ambiguity. This thesis uses design thinking as the methodology to develop a business model for a digital product. Human centred, prototyping driven and positive towards ambiguity mindset goes throughout the case study.

The monetization model developed from this thesis can be used as a tool for companies that focus on children's user experience as well as parent's willingness to pay. It takes into consideration of parenting style and children's usage behaviours. By clustering different types of users, companies can identify their key customers easily, meanwhile tailoring their strategies for different customer clusters.

In addition, the business creation journey is generalised in the end of the thesis as "the innovative business design process". It starts from the human-centric angle, takes into account of the contemporary technology development process, and integrates practices from different domains.

Keywords business model, monetization, children, parents, digital, video, design thinking

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1 Introduction

When a company tries to develop a new service concept, one of their most concerned issues is the market adoption, in modern language, the user experience. In Information System research, theories and models of technology acceptance have been extended to different variations according to the industries that the models use to explain. Very often, technology adoption was put together with human psychology in order to predict the interactions between humans and information system, but the market acceptance of the business value of the technology was hardly covered. In digital era, innovative companies have to take into account not only the technology acceptance of the new product/service, but also how well the market will respond to their business model. With the booming of the millennium generation, more and more young children make their first contacts with digital products in an extremely early age. Companies that create digital products for children all have two groups as their customers – under-aged children and their parents. The most common way of monetization is through advertisements. However, regulations, laws and even parents themselves set strict boundaries for ads content for children. How to design a business model that not only satisfies children’s excellent user experience but also get parents’ approval?

Design thinking, a methodology to apply design practices in other domains, is regarded as the engine of creativity under the environment of extreme ambiguity. The trigger behind design thinking hype is the more and more complex challenges attached to communication and technology revolution, and the booming of startups bringing in more disruptive solutions. In addition, innovation has become a survival strategy while the center of economic activity is evolving from industrial manufacturing to knowledge creation and service delivery (Brown, p.7). It has been proven that companies such as Apple, IDEO, TOYOTA, IBM, etc. which took a design thinking approach have created innovative products that changed the future of mankind (Liedtka et al. p.196). “A purely technocentric view of innovation is less sustainable now than ever, and a management philosophy based only on selecting from existing strategies is likely to be overwhelmed by new developments at home or broad.” (Brown, p.3) Therefore, design thinking was brought to the mainstream, stretched itself to adapt multiple disciplines in various innovation processes.

Although design thinking is a popular topic in Finnish education, it is still an untouched ground in many Finnish companies. Many still think design thinking only matters within a design silo, which does not touch other parts of the organization. The fall of the giant

phone maker Nokia boomed the rise of Finnish startups. It has taught everyone that companies should never stop innovating. It is the right time for Finnish companies to take human-centered, collaborate, and creative design thinking as a management approach. In this thesis, I will combine design thinking with business management thinking, using the mentality and tools to assist my result development and analysis.

The case company, Rovio Entertainment Ltd, has transformed from a successful gaming startup to a middle-sized company. Now they are striving to produce not only games but also consumer products, video distribution and animation, and game related services. Since the majority of its customers are young-aged audience, the company faces interesting challenges in customer monetization. This thesis uses design thinking in both design and business discourses as a process methodology to develop a monetization model for a children's digital product.

2 The Structure of the Thesis

The aim of this thesis is to answer three research questions: Chapter 4 and Chapter 5 go along the development path of design thinking and find out what it means from its source to different modern interpretation of design thinking models. In addition, given the practices and mentalities of design thinking, the business and management adaptation of design thinking will be discussed. In Chapter 6, the case company's background and problem are analyzed. Chapter 7 and 8 are processes I used to develop the monetization model. The findings, learning and future implications will be concluded in the end. To summarize, the research questions of this study are:

- 1) How to monetize children facing digital products?
- 2) How does design thinking assist in the business design process?
- 3) What deliverables can be generated from business innovation process that benefits the new business model adoption?

3 Research Methods and Data Collection

In this thesis, the chosen research method is literature reviews on the development of design thinking, modern interpretations, design thinking in business, and study on its related field such as entrepreneurship and lean startup. A case study is conducted following the design thinking practice and mentality to develop the monetization model. In the case study, design thinking is used as an experiment to define a sustainable business concept for a new product. The explicit process of searching, testing, and validating will be recorded. In the end, the result of both business and the business creation process will be examined. Related implications will be made.

The company data about user composition, site traffic information, product performance metrics, etc. come from internal reporting tools. In addition, one semi-structured interview was conducted with 6 users, and two face-to-face prototype-testing sessions were carried out with a total of 18 users. In user interview and testing, participants were invited through emails indicating a rough theme of the topic. All interviews were done face-to-face. In the interview, users were asked to give examples of something they had done that they can freely expand the conversation or comment. My role was to guide them with open-ended questions and to ask follow-up questions based on their answers. There were interactions, but most of the time I was the listener and observer. In the user testing, users were first familiarized with the testing intention and the product's background information. Then I laid out the paper prototypes and gave them certain tasks to perform, during which I observe their behaviors. In the end, I got their opinion about the prototypes and followed up with "why" questions, in order to understand their intention behind and look for surprising explanation. On average the interview and user testing were half an hour per person. (See Appendix for user interview notes)

4 Interpretations Of Design Thinking

4.1 The Origin of Design Thinking

The earliest design thinking can be traced back to 60's, during which pioneers like Herbert A. Simon presented design concept, as “a process to improve artificial environments into preferred ones”. He proposed the methods to produce satisfying solutions were behavior observation and simulations. This approach can be translated in today's corporate context as “understanding stakeholders' needs” and “prototyping”.

Later, Horst Rittel identified another type of design problem in a more complicated form. There is no consensus on what the problem is and how to resolve it. He referred them to as “wicked problems”. These ambiguous and uncertain problems afterwards got popularized by Richard Buchanan and became something modern design thinking aims to tackle.

Around the same time, another design guru Victor Papanek tried to challenge the world by stating in his book *Design for the Real World*: “The only important thing about design is how it relates to people.” Instead of designing for evanescent desires, Papanek believed designers should focus on sustainable and human-centric design.

The past design researches were largely from a design-as-a-science point of view, less focused on applying design tools and methodology to other fields of domains outside of design. However, design thinking started to become a phenomenon in the 20th century. Tim Brown -- the CEO of a world famous design consultancy firm IDEO, and Roger Martin -- the Dean of Rotman School of Management, led the trend. Their idea was that whatever you do, you should and can think like a designer to create innovation.

4.2 What Is Modern Design Thinking?

In Tim Brown's book *Change by Design: How Design Thinking Transforms Organizations and Inspires Innovation*, he created the Design Thinking Model (Figure 1).

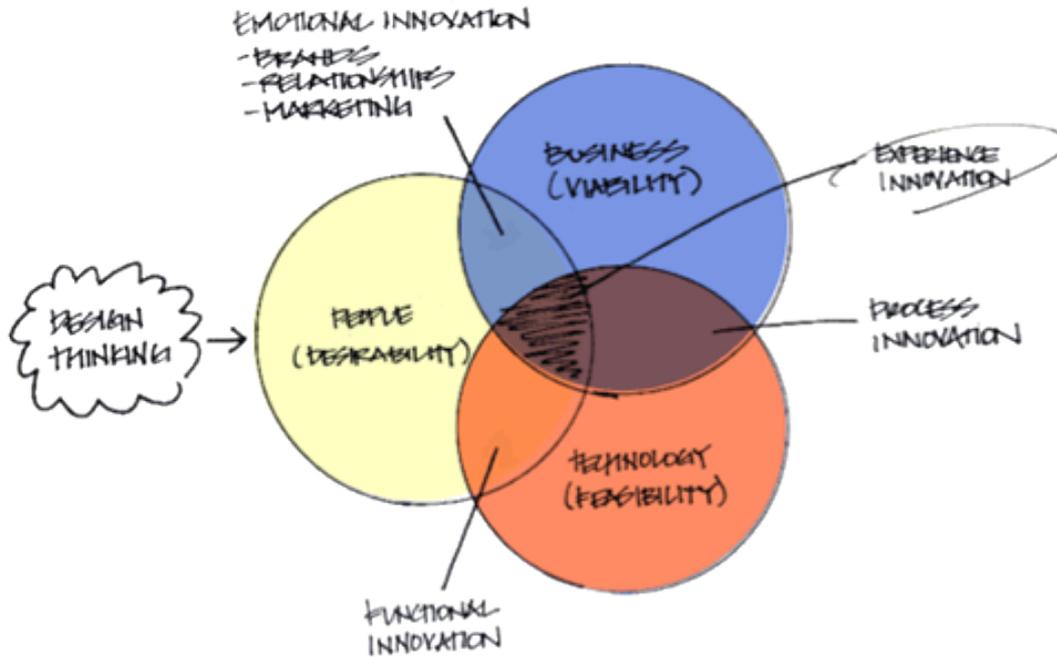


Figure 4 Design Thinking Model by Tim Brown

Different from design thinking in the past, modern design thinking is heavily applied to management and multi-disciplinary product development. There is no unified definition for this term, but design thinking is regarded as a way to solve problems.

Following the IDEO design thinking methodology, Stanford Design School developed an innovation process for producing novel and refined design concepts backed with key user insights: understand, observe, define, ideate, prototype, and test. The process starts from understanding the background and industry knowledge. Then user empathy is developed from user observation. Problem will be defined and numerous ideas about solving the problem are generated based on user understanding. Quick and rough prototypes are used to test with real users to gather feedback. This is a circulating process, because new problems will come up through user testing, which requires problem redefinition and repetition of other steps as well. The more recent study described design thinking as a set of certain practices, a complex cognitive process, and mindset (Hassi & Laakso, 2011).

4.3 Comparing Different Design Thinking Processes

4.3.1 The Stanford D-School 's innovation process

Stanford was the earliest adopter of IDEO's design thinking approach. In order to innovate, one should understand the needs of the user and the context surrounding the design. The innovation process is focused on human values and involves multi-disciplinary expertise. Design, social science, business, and engineering point-of-views are applied simultaneously in problem forming. It discovers customer needs through iterative learning process driven by rapid prototyping (Leifer & Steinert, 2011).

The design process is cyclical and depicted as a combination of divergent and convergent approaches (Figure 2). The process usually starts from a divergent phase (Hassi & Laakso, 2011), when developers are focusing on the problem instead of solution,

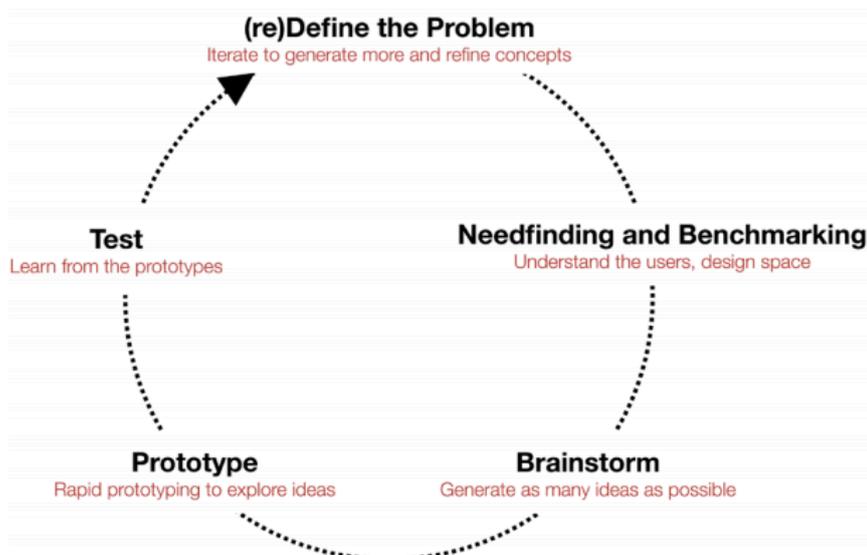


Figure 5 The Stanford Innovation Process

investigating user needs, collecting elements, coming up with alternatives. The result of a series of divergent activities is a number of generated concepts that will be made into prototypes and put into testing in the next stage (Leifer & Steinert, 2011).

In the early stage of design process, an intimate understanding of users needs to take place. Designers have to find out who use the product, what they need, and what they can achieve with the solution. Need finding is a process for discovering people's explicit and implicit needs so that people can create appropriate solutions. Explicit needs are directly expressed by the needer and can be easily perceived by the need finder. Implicit needs however are not directly expressed and require active, creative interpretation by the need finder. The essential activity to start need finding is observation. One should pay attention to activities at many levels: 1) Environment, interactions, objects, and users; 2) look for interesting and unexpected things; 3) look for "workarounds" in what people do; 4) look for emotionally charged moments or reactions. These things will tell something about human nature that people didn't realize applied in a situation before. At the same time, one should ask "why?" these should happen.

One essential part of the Stanford design thinking process is creating rapid and tangible prototypes. The purpose of rapid prototyping is to validate hypothesis and accelerate learning speed (Leifer & Steinert, 2011). Therefore the prototypes should be in a low resolution but tangible. "Show me, don't tell me"(Meinel & Leifer, 2013) describes the exact spirit of a design thinker.

Stanford Design Thinking Methodology encourages design thinker to go to the users and get their direct feedback on possible solutions. Fast prototyping is encouraged to take place immediately during or after user testing (2011). In this way, "user testing, learning and iteration are combined seamlessly into fast cycles of change" (Leifer, 2011).

4.3.2 Roger Martin's interpretation of Design Thinking in Business: boldly use intuition in business decision

Roger Martin considers design thinking to be a productive mix of analytical and intuitive thinking (RM interview 2012). Analytical thinking has been dominating the business world and helped big companies to reinforce existing ideas. However, while big old companies are refining their current offerings, small companies come to the market and challenge what exist. Martin thinks that old companies fail due to the overdose of analytical thinking.

Analytical thinking alone cannot trigger innovation, but intuitive thinking helps create future. A future assumption purely based on analytics will look a lot like the past.

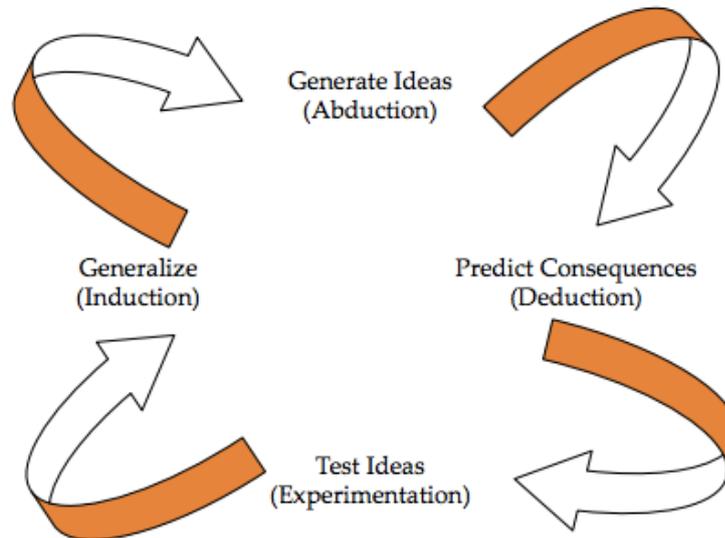


Figure 6 Roger Martin's Design Thinking Model

Martin encourages business leaders to become designers, integrating intuition explicitly in their decision-making. He mentioned three aspects of design thinking: cognitive, affective, and interpersonal (Dunne & Martin, 2006). In cognitive aspect, ideas come from abductive thinking process; they are analyzed through deduction on possible outcomes. Then ideas are tested in the form of prototypes and learning is generalized through induction. The whole process works as a cycle (Figure 3) helping generate new ideas. In an affective aspect, Martin views constraints as positive incentives to inspiration, unlike in traditional management thinking where constraints are treated as obstacles to overcome. In interpersonal aspect, Martin suggests that a designer should empathize with two groups of people: users and work peers. User insights can be gained from observation and reflection. Mutual understanding among peers is also important in the design process. It is natural to have a disagreement between individuals due to different resources or a different understanding of the same resource, but individuals should appreciate each other's mental model. Martin especially suggests for people to work with a different background of people to expand perspectives.

4.3.3 Liedtka and Oglivie’s design thinking model for business managers

Liedtka and Oglivie (Figure 4) found out that business people are often confronted by four key questions: what is? (describes the process of problem framing and results in a design brief with design criteria.) what if? (requires one to step away from traditional critical thinking and to be creative.) what wows? (is the step to showcase the strong elements of a concept meanwhile keep iterating to improve the weaker ones.) what works? (is the process of assessing concepts in an economical way. The goal is to co-create with customers a

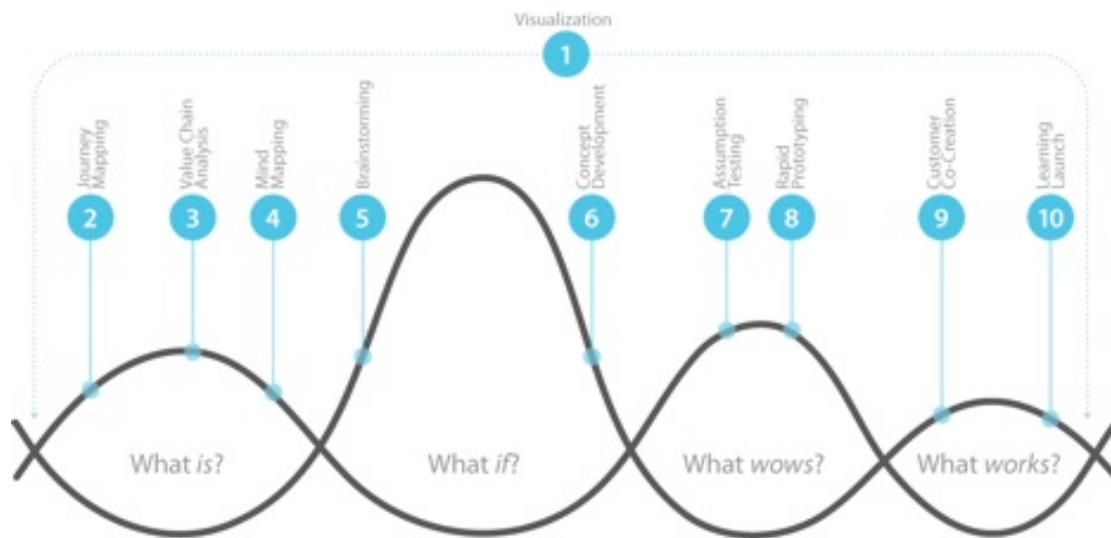


Figure 7 Liedtka & Oglivie’s Design Thinking Model for Business Managers

solution that really meets the need.)

They suggest to use these tools to answer these questions: visualization, journey-mapping, value chain analysis, mind-mapping, brainstorming, concept development, assumption testing, rapid prototyping, customer co-creation, and learning launch.

Four Key Questions	Tools			
What is?	Visualization: simple sketches of personas, story telling photos, etc.	Journey-mapping: paying attention to user emotion changes in different steps of product usage.	Value chain analysis: matching business realities with real customer needs	Mind-mapping: organizing insights and clustering ideas

What if?	Brainstorming: laying out new options and possibilities. Quantity over quality. Then find the gems among the idea sea.	Concept development: assembling different creatives into different solutions, which can be later, validated.
What wows?	Assumption testing: identifying and testing key assumptions that determine the success or failure of a concept.	Rapid prototyping: demonstrating a tangible proof-of-concept to a potential customer. Iterate further based on the feedback.
What works?	Customer co-creation: Involving customer in early design stage to create a product best meets their needs.	Learning launches: Measuring customer experience towards a new solution over a testing period to validate assumptions.

Table 1 Liedtka & Oglive's Design Thinking Questions and Tools

4.4 The common “thinking” in Design Thinking models

One thing in common among above-mentioned design thinking models is that they share similar mindset.

4.4.1 More emphasis on qualitative research

Both Tim Brown and Roger Martin think that quantitative data tells us what we already have and know, but unlikely to reveal anything new or surprising (Brown, Change by Design). Companies often make decisions based on putting out a survey and choose an idea that is verified on a large scale, only taking into account the center part of the bell curve. This can be useful in achieving incremental improvements, but it does not lead to breakthroughs (TB, DT for social innovation). Instead designers should go out into the real world, observe the actual user experiences, and interact with users. Tim suggested that the most valuable user group is the one at the edges of the bell curve companies used to miss -- extreme users, who are either hardcore users of the service or completely unfamiliar with the service. Tim thinks insight from extreme users who use the product differently and think differently is more inspiring because their needs are amplified and work-around is more notable (Brown, Change by Design). Fraser (2011) recommends to “use ‘hybrid’ studies (both qualitative and quantitative)...in finding the true signals amid the noise. We take the hypotheses that we form from qualitative research and ask quantitative follow-up questions”

4.4.2 Human-centric

All design thinking models put user understanding at the first and foremost step. The purpose is to focus on the needs of people, learners and other stakeholders (Eury, 2012). One of the key design thinking sources is user insight, and it comes from empathy (Tim Brown, *Change by Design*). Empathy is used in analyzing from users' point of view on how they do things, why they do certain things, and what is meaningful to them (Shannon, 2013). Tim suggested that in order to empathize on consumers, design thinkers should blur the boundaries in between and transform the relationship from “us-on-behalf-of-them” to “us-*with*-them”. Liedtka also thinks it is important to involve all stakeholders in product co-creation and she ties user emotions closely to product life cycle, using their direct insights to inspire new ideas. Leifer emphasizes that users should be “included at all times and in all phases”.

Meanwhile human-centricity also applies to peer collaboration. All design activity is social in nature (Meinel and Leifer, 2013), and one should “never go hunting alone.” Instead of working solo, one should “understand in depth what is the mind of somebody who is not me”. Instead of working with people who are like-minded, design thinkers are encouraged to work with people who have varied academic background and viewpoints. A team of interdisciplinary is seen as good at tackling complex problem (Hassi & Laakso, 2011) and achieve divergent thinking (Tim Brown, *Design thinking for social innovation*) by coming up with a large number of diversified ideas from many fields and disciplines. Meanwhile, each team member representing different field of expertise can absorb knowledge from each other. Stanford D-School sees collaborative teamwork as a great opportunity to foster “t-shaped people,” referring to those who have depth of knowledge in one domain and have breadth of knowledge for interdisciplinary collaboration.

4.4.3 Tolerance for ambiguity

The necessary mentality behind each generation of new product and system solutions is to allow change to happen (Leifer & Steinert, 2011). Usually in the field of design, the development path and outcomes are uncertain, and it is natural to accept ambiguity as part of the process (Hassi & Laakso, 2012). Since a designer never has complete information about a project and because rapid prototyping is low cost, it permits early failure (Tschimmel, 2012). Tolerance for ambiguity also shows in the understanding and acceptance of failure and mistakes.

Roger Martin interpretes “tolerance for ambiguity” as “*not needing to have all the answers before making a decision or taking action*”. Courting ambiguity is to “foster an acceptance of and a comfort with a problem-solving process that remains liquid and open, celebrating new alternatives as it strives to develop a best design solution.” (Boland & Collopy, 2004) and enable people to find joy in conquering wicked problems (Fraser, 2011).

4.4.4 Learning through prototyping

All design thinking models mentioned the importance of tangible prototypes. They help to “get ideas and explorations from conceptual world to the physical world” (Connell, 2013). In design process hypothesis is tested in the form of prototype. Prototypes should be created as fast as possible to accelerate learning (Leifer & Steinert, 2011). It is encouraged to make rapid and continuous prototyping starting from an early design phase (Leifer & Martin, 2011). Learning comes from the mistakes drawn from experimentations. With the mentality of “Failing fast”, prototypes are seen as a preferred strategy enabling exploration with reasonable level of risk (Hassi & Laakso, 2012) and guidance for the possible solution. A failed prototype might “generate the winning insights for either an extreme solution or a new way that allows circumventing the existing limitations” (Leifer & Martin, 2011).

In addition, there should be different prototypes in different design stages. Early prototypes test a concept level idea or a critical function of a system, so the form can be quick and dirty, enabling solution optimization. After a few design iterations, later stage prototypes are more sophisticated, showcasing the complete design solution.

Some said designers are thinking by doing, meaning designers like to use iterative and highly tangible approach in their knowledge creation (Hassi & Laakso, 2012). It is proven that “prototypes are communication media” (Meinel & Leifer, 2013). By demonstrating tangible prototypes that users can see it, feel it, use it, one can get more constructive feedback and even inspire users to participate in generating more ideas. Prototypes are useful in facilitating thinking, knowledge creation, and simulating idea formulation (Hassi & Laakso, 2012).

4.4.5 Optimistic towards constraints

There are two things making design thinkers tick -- the desire to make things better (Connell 2013) and the “can-do” spirit towards constraints (Martin, 2007). Instead of viewing

constraints as obstacles or limitations, design thinkers are highly motivated by the challenge. They have faith that “at least one potential solution is better than the existing alternatives” (Brown 2008). The optimism also gives design thinkers determination to take risks and bear pressure. Usually a design process is “filled with twists and turns in the quest to iterate through to a breakthrough solution” (Fraser 2011). Optimism can drive people towards productive and creative resolutions.

5 Design Thinking In Business Innovation

The application of design thinking in business was originated by IDEO. Tim Brown described it as “a discipline that uses the designer’s sensibility and methods to match people’s needs with what is technologically feasible and what a viable business strategy can convert into customer value and market opportunity.” Later on, Martin and Dunne introduced the concept to management and education. It is believed that design thinking can “produce new and better ways of creatively solving a host of organizational problems” (Liedtka et al, book p2).

Traditional business managers are confronted with the need to evolve their managerial style (Table 2). Different from traditional managers who are facts driven, heavily reliant on planning, analytical with customer data, quick in situation interpretation, and solo in decision making, design thinking managers prefer visual demonstration of their thinking, are comfortable with uncertainty, make decisions collaboratively with people from different domain based on both facts and intuition from observation, and naturally accept failure. Design thinking in business means to expand the boundary of both definition of problems and solutions, engage stakeholders in co-creation, and conduct real-world experiments with user empathy instead of purely analyzing historical data (Liedtka et al, book p2).

Characteristics of a Design Thinking Manager	Characteristics of a Traditional Manager
mainly visual, use of sketching and prototyping tools	mainly verbal, use of diagrams and tables
intensive observation and wondering, challenging stereotypical perception	immediate perception and quick interpretation of a situation
emotional and rational at the same time, subjective	mainly rational and objective
failure is a part of the process	looking for ‘correct’ answers
comfortable with ambiguity and uncertainty	led by organizing and planning

Characteristics of a Design Thinking Manager	Characteristics of a Traditional Manager
empathic and human-driven, deep understanding of peoples' needs and dreams	customer-driven, deep understanding about what clients would like to have for their social status
principally collaborative	principally individual

Table 2 Difference between a Design Thinking Manager and a Traditional Manager edited from Tschimmel 2012

5.1 Design Thinking and Entrepreneurship

Many find that design thinking cultivates a spirit of entrepreneurship. It helps in building sustainable concepts that not only is tech-driven but also use real life problems as impulses for development (Kortzfleisch et al, 2013). The environment of design thinking is under high uncertainty, which coincides with the environment that entrepreneurs are dealing with. Design thinking gives entrepreneurs a positive attitude towards uncertainty by “offering a way to discover the right problem and overcome the obstacles to adoption before the solution is final” (Sarah Soule, 2013). Entrepreneurs can use design thinking techniques such as empathy and creativity to identify “the latent needs that enable the creation of new market” and “opportunities that lead to new ventures” (Kortzfleisch et al, 2013).

5.1.1 Lean startup and Design thinking

There are some common mentalities between design thinking and the lean startup spirit. Similar to the design thinking learning loop, lean startup also has a feedback loop, called Build-Measure-Learn (Figure 5).

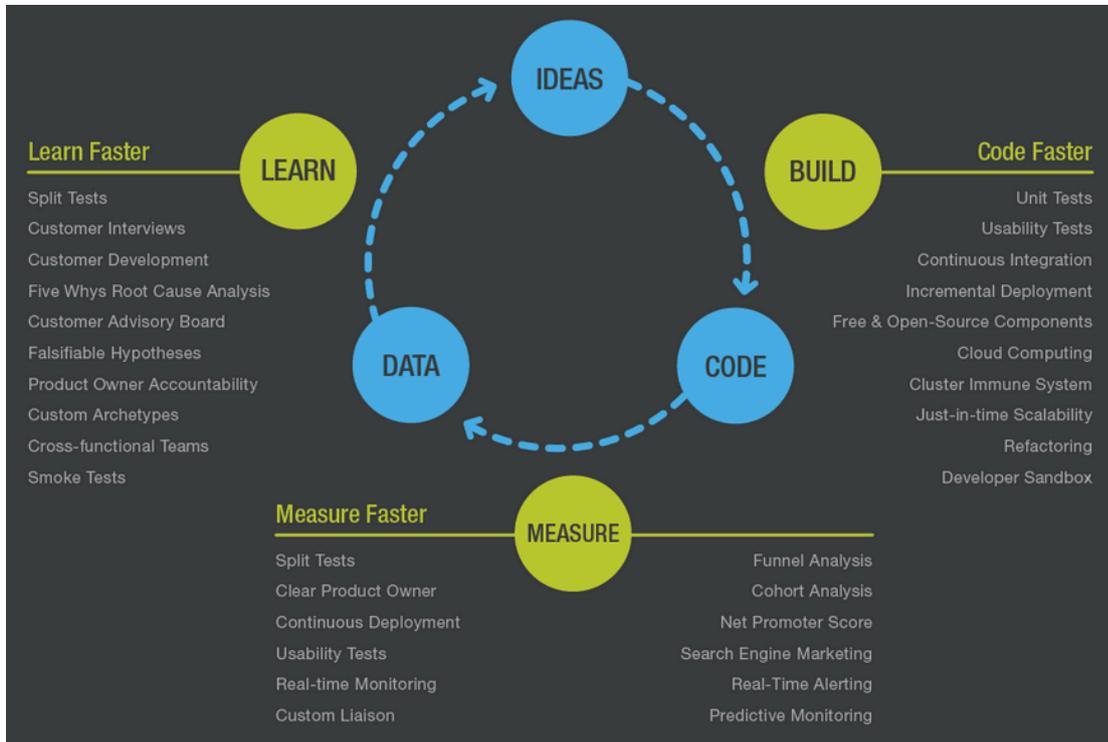


Figure 8 Eric Ries Lean Startup Loop

Eric Ries, the father of the lean startup model mentioned that the common mistake startups make when they come up with an idea for a product is that they assume customers want. Startups spend a significant amount of time and effort developing the idea without showing the customers until the product is out in the market. Very often in this case the product is not even interesting in the customer’s perspective, and the startup fails miserably not only for the wasted product but also for the time and resource wasted in the process. Therefore, (similar like needfinding in design thinking,) Eric encourages entrepreneurs to get out of the building, set up early conversations with customers, and identify if certain customer problems are valid before developing anything concrete.

In the build-measure-learn feedback loop, the first step is to find out the customer’s number one problem to be solved. This is same as the beginning of the design thinking process. After a problem is identified, startups need to develop a minimum viable product (MVP) and use it as a learning tool. According to Eric, an MVP is designed to test a business hypothesis. It is the “fastest way to get through the build-measure-learn feedback loop with

the minimum amount of work” (Ries, P93). Steve Blank interprets MVP as a way to develop the core features of the product first - “the goal of the MVP is to build the smallest possible feature set” (Startup Manual P61). He suggests to also use MVP to test a startup’s understanding of the customer’s problem and see if the proposed solution will prompt the customer to use or buy the product based on the product’s most important features alone. Similar to MVP in lean startup, design thinking has a critical function prototype (a prototype of key features of a system or a product) playing the same role in customer validation, but with less monetization requirements tied to it. This is because the design thinking sometimes solves a problem 20 years ahead of its time, unlike the lean startup model, which creates solutions for present problems, seeking a current business opportunity.

Once MVPs are launched to the market, startups can get real baseline data in its growth model (such as conversion rates, sign-ups and so on). This data serves as the foundation for learning about customers and is used to verify business assumptions (Ries, 119). The second most important data in the measurement phase is that every startup should be tied up with improving one of the drivers of its growth model. On the other hand, it also requires startups to avoid using vanity metrics, which are from off-the-shelf analytics packages, but do not offer clear guidance for the startup (Eric Ries, VM VS AM blog post). Instead, startups should focus on actionable metrics that can help the startup realize the problem and provide support in decision making.

As Eric suggested, everything a startup produces should be an experiment meant to validate learning. Every product, every feature is an experiment that tests which part is perceived well and which is a failure. Unlike the design thinking model where testing a specific idea or system interaction (Leifer & Steinert, 2011) is to answer a product design or technical question, lean startup model uses experiments to guide the way towards a sustainable business.

To conclude the similarities between lean startup and design thinking, both try to create solutions under conditions of extreme uncertainty. Both start from unknowns and have to go through scientific iterative processes of discovery to define what the right things are to proceed with. Both believe customers are the source of inspiration and learning. Both highly value running quick and tangible experiments with real users. They share the same “failing fast” mentality.

The difference between the two is the emphasis. Lean startup values more about the efficiency and the business value of a product. It requires the imperfect but real (MVP) product to meet the market as quickly as one can. The company then needs to get feedback, measure the market behavior and iterate the loop until the company hones in on exactly what the customers want. The ultimate result of lean startup is to create a sustainable business. All customer validations are made to test the business assumption. Lean startup is not only experiment-driven, but data-driven. Design thinking puts more emphasis on a user's needs. The goal is to create things that meet the needs of people the most through the understanding of people. It is a willingness to think about the future in a big and open-minded way, the ability to have confidence that a unknown outcome is feasible and the willingness to strive for an unknown outcome. Instead of digging into metrics, design thinking prefers to interview extreme users who have used the service completely wrong.

Eric Ries in his interview “Lean Startup Meets Design Thinking” suggested that instead of picking a choice from either lean or design thinking in each (design/engineering) operation unit, companies should take the common elements from these theories at a system-wide company level. That way, they have a common framework for understanding what are the common problems. Most importantly, they can speak the language of business. The question is how to take an idea from concept and a prototype to a hyper growth commercially viable breakthrough idea. Design thinking is valuable to provide a tool to take the hypothesis and turn it into an experiment. The key is “try not to constrain the scale of hypothesis just because that is the only experiment you can run, (which will lead to a situation) that we don't go for some ideas as big as they might be. The trick is when you have an idea, (you should think) how can I possibly find a way to prototype that rather than changing my idea because that's all I know about prototype.” (Tim Brown, interview 2014).

5.1.2 Lean Business Model -- Lean Canvas

Lean canvas is a business model canvas created by Ash Maurya (the author of *Running Lean*) in 2009. It was edited from the classic Alex Osterwalder's business model canvas and tailored for startups (Figure 6)

As Eric Ries suggested, metrics in startup should be actionable. The purpose of the lean canvas is to help startups make actionable plans under conditions of extreme uncertainty. In addition, it is focused on the early-stage of a startup where the key is to integrate problem/solution fields (Maurya, 2011).

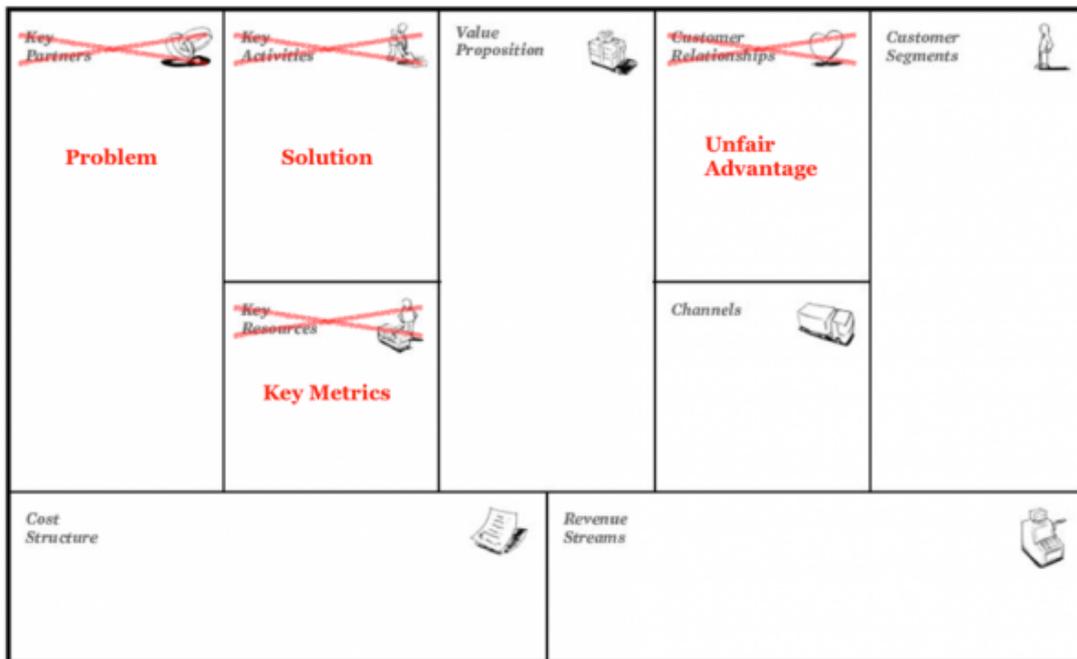


Figure 9 Lean Startup Canvas

Instead of using the traditional business model canvas, Ash Maurya replaced certain fields on the original canvas with more risky items from a startup's perspective. These fields with high risks often determine the failure or success of a startup. The first mistake a startup makes is that the problem they are set out to build for is not valid. Maurya put "Problem" as the first box on the canvas in order to encourage entrepreneurs to understand the problem first. Second, the "Solution" box is closely attached to the problem, meaning that a solution should come after a problem has been properly identified. In addition, the solution should be simple and fast to build, aligning with the concept of the MVP (Maurya, 2011). Another important item is "Key Metrics". Again, a startup should only focus on a few metrics that matter and ignore the vanity metrics. Last but not least, "Unfair Advantage" is something that cannot easily be copied by the competitors. It is different from Unique Value Proposition metrics, which is from a customer's perspective summarizing why they choose a company.

Different from Osterwalder's business model canvas, lean canvas is meant to guide startups through the chaos and achieve product and market fit. It helps to "solve the system of simultaneous equations that a startup team must solve to find a viable location in a market space"(Sean Murphy).

6 The Case Company

6.1 Rovio Toons.tv -- the team and the product

Rovio Digital Department is a platform solution providing services for Rovio games. While Game Department develops games, the Digital Department takes care of game monetization, providing a personalized gaming experience, and engaging customers with recreational contents. Both Rovio games and Rovio Star games enjoy the full-package Rovio digital service.

Rovio Animation Studio consists of talented artists and story creators, who specialize in all areas of producing animated content for global audience. Through the entertaining cartoons, they want to evoke emotions in Angry Birds fans and to create the backstory of the Angry Birds world. Their productions are distributed on all possible screens through Rovio Cartoon Channel Team.

Rovio Cartoon Channel, branded as *Toons.tv*, is part of the Rovio Digital Service Department. The team was formed in late 2012, building channels that mainly distribute in-house produced animations. In order to provide the audience with continuously updated and rich video content, the team decided to bring in special episodes from 3rd party partners such as Aardman Studios and Hasbro. The in-house produced animations are on average 3 minutes in length. Other animations are among 3 - 22 minutes in length.

In March 16, 2013, the earliest cartoon channel - Angry Birds Toons Season 1 was aired on more than 20 TV networks around the world. One day later, Toons.tv was integrated into 11 Angry Birds games. When players launch Angry Birds games, they can either watch cartoons or enter the game play. In the end of 2013, the team launched the website www.toons.tv, showing the same contents but giving the audience a more direct and desktop-friendly viewing experience. Besides, the in-game channel and web channel, the audience can also enjoy Angry Birds Toons from consumer electronics such as Roku and Samsung Smart TV. (Figure 7)

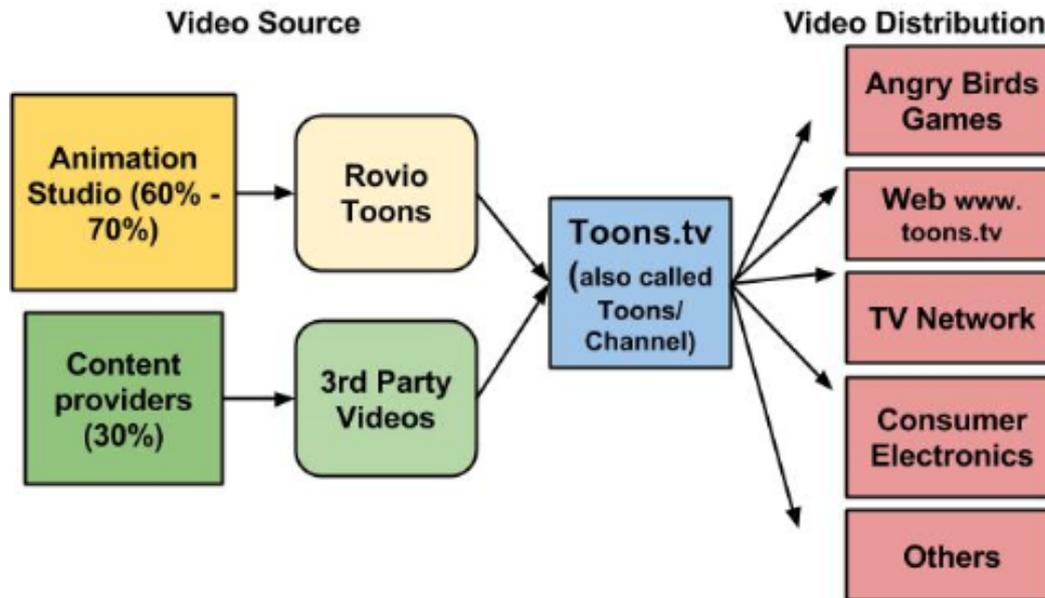


Figure 10 Toons.tv content composition and delivery channel

6.2 Business Model of Toons.tv

All content on Toons.tv is currently free of charge for the end users. Toons.tv monetization is heavily dependent on ad sales revenue. The majority of videos have pre-roll ads running. Content partners get industry standard ads revenue share based on the content they provide. Campaign partners pay to get their movie trailers published on Toons.tv. (Table 3: Business Model Canvas of Toons.tv)

Toons.tv Business Model				
<p>Problems</p> <p>Kids in boredom looking for entertaining content and emotional support. Busy parents need to have some alone moment but want to keep their kids attended. Young kids who can't yet speak or read don't understand what the language used in animations.</p>	<p>Solutions</p> <p>Premium family entertainment video channel with high quality original Rovio animation and 3rd party content.</p>	<p>Unique Value Proposition</p> <p>Premium curated video content exclusively for kids.</p> <p>Compared with other video service providers like Netflix and Youtube, Toons.tv is only targeting on kids audience. Toons.tv provides safe and premium content that is trusted by parents. Parents can let their children use the service on their own.</p>	<p>Unfair advantage</p> <p>Angry Birds brand recognition -- trusted by parents. The ability to do cross promotion in multiple famous Angry Birds games. Strong Angry Birds fan base that significantly contribute to Toons.tv traffic. Easy to get early adopters.</p>	<p>Customer Segment</p> <p>End users: Kids 2 - 12 yrs Teens 13 - 15 yrs Their parents</p> <p>External content partners: Hasbro Disney Etc.</p> <p>Early adopters: Angry Birds super fans</p>
	<p>Key Metrics</p> <p>Video views & ads impression & ads completion rate Daily active users Retention & Churn Daily new users</p>		<p>Channels</p> <p>In-game channel: All Angry Birds titled games have Toons.tv integrated. Toons.tv Website TV Networks Consumer electronics: Samsung Smart TV, Roku box, etc DVD: part of Angry Birds Series are made into DVDs Others</p>	
<p>Cost structure</p> <p>Product development cost Customer acquisition cost Content delivery cost Operational cost</p>			<p>Revenue Stream</p> <p>Ads revenue Video content publishing for branded campaigns</p>	

Table 3 Toons.tv Lean Canvas

The cost component comes from video hosting and R&D. Rovio is charged for content delivery and video streaming.

6.3 Current Toons.tv Users

Since March 2014, Rovio Toons.tv has received 2 billion views. 60% of the audience is kids and teens, and adults account for the rest 40%. (Figure 8)

Toons.tv Audience Composition

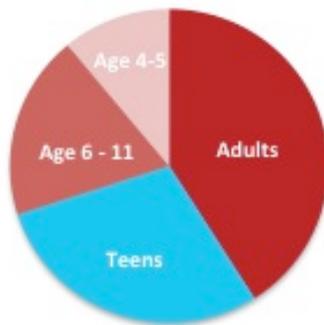


Figure 11 Toons.tv Audience Composition

6.3.1 Market constraints

The young age of the main audience set a lot of barrier in user acquisition and monetization. First of all, in many countries, social network forbids children under 13 from registering the service. Because of this, the product can't rely on the viral effect of social networks with attracting new users. In the US, where the majority of users are, Children's Online Privacy Protection Act (COPPA) limits web service operators from freely collecting personal information from children under 13. The American App stores under COPPA compliance has regulated that Facebook is the only social network that can be put in the 4+ apps. This again limits the appearance of Toons.tv content on social networks.

6.3.2 Web channel users and In-game channel users

The Toons.tv website traffic grows by 52% in 4 months. There was no advertising or public announcement about its launch, yet it receives a steady amount of user increase on daily basis. On average, viewers watch 2 videos during each visit. 60% of the users come from mobile & tablet.

Game players will face two options when they launch Angry Birds games, either straight into the game play, or to Toons.tv (Figure 9). The reason behind this setup is that Rovio wants to provide players with a holistic entertainment experience, expecting Toons.tv to be a positive incentive for game retention. Half a year has passed since Games' cartoon integration, and we see that a decent percentage of players watched Toons. Because the

quantity of game players is huge, a few percentage of that still brings Toons millions of active viewers on a weekly basis. However, most people come to the games just to play the game.



Figure 12 Toons.tv button in Angry Birds Star Wars Front Page

Despite the conversion from games to Toons.tv is fairly good, Toons.tv turns out to be a pleasant additional experience rather than a strong retention driver for Rovio games. After all, the fundamental driver for game retention is the engagement level of the game itself.

From the company's point of view, Toons.tv is still one of the strong revenue sources for the games. From customers' point of view, the combination of games and animation is unique in the market, and they enjoy the complete entertaining experience brought by Angry Birds Games.

Comparing both the Toons.tv distribution channels, the in-game channel has the largest traffic and is the strongest revenue source of them two. The advantage of the in-game channel is that user acquisition is almost effortless thanks to the attachment to the games, which receive millions of players daily. However, the in-game channel faces a challenge that games do not capture the whole user base of Toons. The web channel has not spent any money on user acquisition since it was launched, so the traffic on the site is mostly organic. Therefore, people active on the site are actually core fans who got to know Toons.tv from the games and prefer a more direct access to Toons.tv.

Toons.tv Channels	Date Launched	Monthly active users	Customer segment	Advantage	Challenge
In-game	Mar 2013	99% of all	Mostly game players.	The ability of being exposed to vast audience through multiple games.	Games don't capture the exact same users base with Toons users.
Web	Dec 2013	1% of all	Core fans. Angry Birds cartoon lovers.	More direct access to Angry Birds Toons.	Lack of traffic due to time in the market and less marketing effort.

Table 4 Comparison of web channel and in-game channel (Feb – May 2014)

6.3.3 User feedback about the content

The audience appreciates cartoons on Toons.tv. Parents like the lack of words in the animations since their kids cannot catch inappropriate language. The length of the videos was regarded as suitable for small children. The Angry Birds brand is very well trusted. Many think they could leave their kids to watch the videos without supervision or having to preview them before viewing.

6.4 The Emerge of Toons.tv Standalone App

The relationship with games also indicates a new product direction -- if games do not share the exact user base with Toons.tv, there should be a more direct channel for the Toons.tv audience, especially for the core fans. In addition, the team found out it is very difficult to optimize certain features with the in-game channel due to the technical dependency and complexity when games are involved. Based on these issues, the team decided to build an optimized platform for mobile users that can also be used as a test bed for new features.

7 Introducing Design Thinking As The Product Development Methodology

7.1 Old Process V.S. New Process

In the early days, the Toon.tv team was adopted a traditional product development cycle: designers first spent time working on a concept wireframe alone and sent it to management for approval, then the development work began. After several iterations of development sprints, the product was soft launched to certain areas and received market feedback. The product could live and continue being developed if the data showed customers liked it; otherwise the product would be rolled back completely. This process involves a long thoughtful incubation period and strives for product perfection. The issue with this approach is that user input comes in so late that it cannot immediately be taken into development in a timely manner. Even if further development is carried out upon user feedback, the product will again be late to the market after the long development cycle. In addition, the risk factor is tremendously high if the product meets the customer for the first time in real market. If the market does not want the product, the entire expensive input for the product development is a waste.

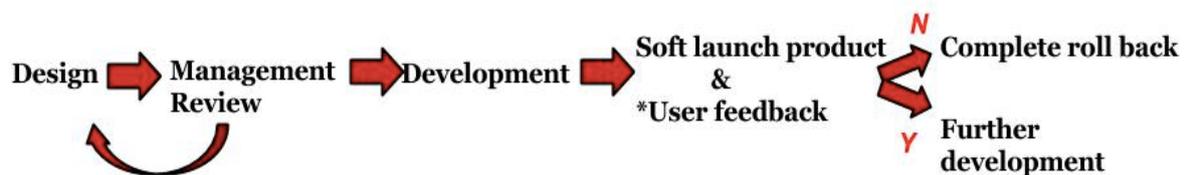


Figure 13 Old Product Development Process

The team wanted to quickly find out whether this new product Toons.tv app could be a sustainable business with minimum cost and effort. Therefore, a revolution in product and business development process needed to take place. Not only did the team need to develop something really quickly, but also the product needed to reach the market quick enough to get a market response and to guarantee a better place amongst the competition.

Here came the suggestion of taking design thinking into product management. The new process would start from an explicit user study, which resulted in the number one customer problem the product solves. Then rapid prototyping created proof-of-concept

mockups within the minimum effort and tested with a group of actual users. During this process the optimal outcome would be that one prototype is chosen by users and can be later brought into real production. However it might also end up that none of the solutions is favored. If that is the case, one has to go back to the original, redefine the problem, and create new solutions.

The new process starts from a design sprint. The idea is that the team, not just designers only, takes one week of time to create and validate a concept, and if the concept is valid, it will be passed to the development phase. Different from the old business creation process (Figure 10) in which real users come in almost at the last stage (marked with *), the new process (Figure 11) involved user feedback in a much early stage, letting users join the concept co-creation. Potential users testing prototypes can validate the product/feature and thus gives the up coming product development clearer and more accurate guidance. Although the design period in the new process will take longer than in the old process, the success rate of the product in the market is improved. Since making changes in the design stage is cheaper than in the development stage, keeping the design phase flexible to changes will ultimately reduce the development waste.

The lean methodology comes in when a concept is confirmed. The next question is to find out if customers are willing to continuously use and even pay for the service. The scope of the minimum viable product needs to be defined. The MVP makes sure engineering is fast enough to launch the product with just core features. Different from testing the prototype with a group of real users in the design phase, MVP is going to be taken to the market and tested with a much larger group of real users for a longer period of time. The goal of MVP is

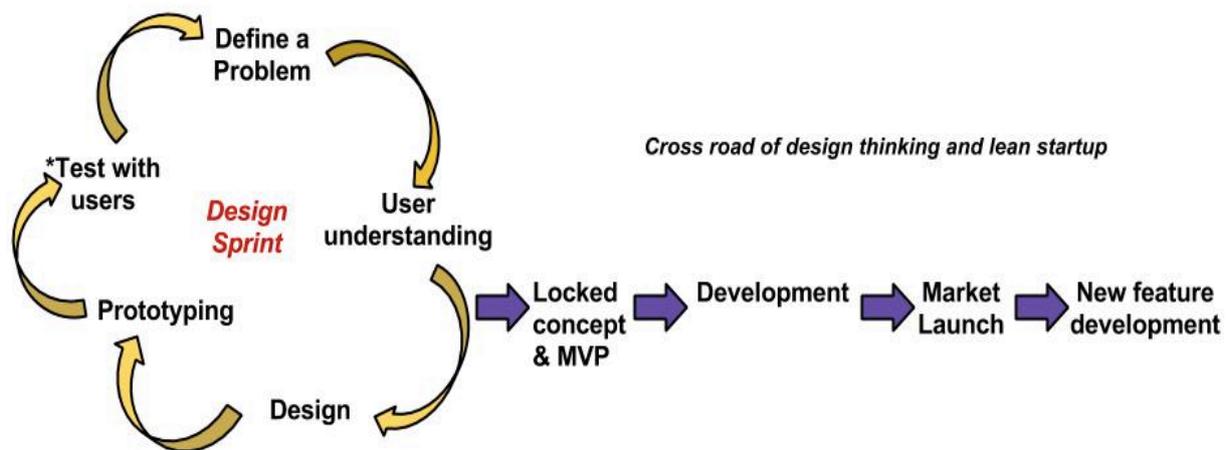


Figure 14 New Process led by Design Thinking to validate the business hypothesis of the product.

7.2 Launch the MVP

So the team has this hypothesis that making Toons.tv into a standalone app will benefit the product's core fans. First of all, we started from understanding user stories through making personas of the end users. Since there are three end user groups, three personas of active users are chosen. After observing the active users usage and getting to know them about their personal lives, we found out that the product might be able to solve one parents' problem.

7.2.1 Phase 1: Using Persona to Understand the User Need

Persona is a user archetype used in making decisions about product features, navigation, interaction, visual design, etc (Kim Goodwin). It is the combination of a person and a story, a composite character profile that is semi-fictional but an ideal user of the product. In addition, the profile might include basic demographics, quotes, hopes and fears, feelings and emotions, to make the story more closed to real life. As the product development is progressing, the

persona should be updated along the way, based on new findings and better user understanding.

The reason personas are needed, already in an early stage, is that “the average” user does not exist. Personas serve the purpose of speaking out the common characteristics of an entire audience. However, personas are not made up. They are discovered and represent real people.

Toons.tv persona

Kids (Figure 12)

Toons.tv tend to be enjoyed mostly by kids age 3 - 8 years old. They usually watch toons on tablets. Parents give them restricted “screen time” to watch cartoons, in which kids usually watch more than 3 episodes at a time. Sometimes, kids watch toons with their parents. They

	<p>Mia, a girl who loves Barbie, pony and animal raising game.</p> <p><i>“She always watches Toons.tv from Angry Birds Go! Watching Toons together is how we spend our Sunday quality time.” -- Mia’s Mother</i></p>
<p>Kindergarten - Elementary Student</p> <p>Age: 6 Language: Finnish, English Lives in Finland</p>	<p>Free time: watching cartoons and music videos, playing a large number of mobile games on her mother’s iphone</p> <p>Toons usage:</p> <ul style="list-style-type: none"> • 15 - 30 mins regular basis. 5 - 6 videos at once. • She likes to repeatedly watching the same video many times right after the video ends and repeat watching old videos if new episodes have not yet come. • She likes the content on Toons.tv, wishing the content can update more often.

Figure 15 Kid’s Persona

are likely to return to Toons.tv and watch them over and over again.

Teens (Figure 13)

Tweens between 10 - 14 years old also make a large percentage of Toons audience. They watch cartoons on mobile devices and desktops. They are more willing to devote their energy in game play instead of watching Toons. Teens are more eager to share video episodes with

	<p>Aiden, teenage boy who loves gaming and sports.</p> <p><i>“My favorite games are Clash of Clans, Minecraft, Angry Birds Epic, etc.. I love games can be played together with my sister or school friends. I also make my own gaming video channel on Youtube.”</i></p>
<p>9th Grade Student</p> <p>Age: 13 Language: English Lives in Los Angeles</p>	<p>Free time: piano, swimming, playing games, video record his game play, watching game related videos</p> <p>Toons usage:</p> <ul style="list-style-type: none"> • Sometimes when playing Angry Birds games. 5mins each time. 2 to 3 episodes. • He loves playing games more than watching videos. • He watches also Lego movies and Simon's Cat on Youtube and Netflix. In addition, he spends a lot of time watching gaming videos and making own game reviews.

Figure 16 Teen's persona

friends.

Parents (Figure 14)

Parents choose which product their children use. They are the purchasing decision makers and account holders. They get to choose what content to be presented to their kids and what services to pay for. The biggest concern for parents is that the content is age-appropriate for their children. If there were in-app-purchase, parents would like to prevent their children from getting direct access to the credit card. Many parents do not watch Toons.tv together with their kids, but rather use Toons.tv to babysit their kids for a while.



Rich-Media Graphic Designer

Age: 37
Education: Master of Art
Languages: Greek, English, German
Industry: Gaming, Advertising
Lives in Finland

Ero, mother of 2 kids (3 yro son and 7 yro daughter)

“ I give my kids half an hour every day to watch Toons.tv, while I’m preparing for dinner.”

Free time: cooking, drawing, photography, quality time with kids

Toons usage:

- Pick up her kids at 5pm every day → Open Toons.tv from Angry Birds Star Wars on the bus → Give her iPhone to her son → Arrive home → Kids are watching Toons.tv together while she’s busy with housework.
- She trusts the content on Toons.tv, but she doesn’t want her son to watch Transformers yet.
- She prefers to let her kids use Toons.tv than tv and Youtube, because the content on TV and Youtube are not filtered for kids.
- Both of her kids love Angry Birds Toons and PigTales.

Figure 17 Parents’ persona

7.2.2 Phase 2: Understand the #1 customer problem the product is solving

Based on the personas, the team found out that parents tend to give their devices to their kid and let the kid spend certain amount of time watching cartoons, so that the parents can focus on doing stuff without interruption and distraction. The problem is that many video content providers in the market provide too wide a range of content, therefore requires tedious setup for age gating. For those who provide kids-only video content, the content itself lacks variety. In addition, many parents tend to hand over their mobile device to the kids during commute. Some parents like to get quicker access to the Toons. Therefore, the goal of Toons.tv is to create an animation service that is rich in content, easy to access on the go, and trustworthy in content selection.

7.2.3 Phase 3: Use MVP to determine the market potential

The minimum viable product should help the team to find out how important the solution is to their customers using minimal time and minimal cost. It seems that the team already has an MVP at hand. By modifying the existing in-game Toons and doing some technical twist (to be more detail, wrapping the existing in-game Toons channel into a native app), the team can launch a standalone app that looks exactly like in-game Toons immediately. It does not require much development or cost, and is able to reach the market fast.

To minimize the risk, the team locked Finland as the soft launch market. Finland is not on Toons.tv top-10 market list, but has a steady amount of angry birds fans. On May 14, 2014, Toons.tv App was released in the Finnish App Store. The app is free.

The business hypothesis is to validate with the app is that it will get a steady amount of daily active users. Due to the fact that the soft launch country is not the main target market, the team will not expect huge amount of downloads. However, we look forward to an increased user retention compared with the in-game channel. At the same time, the team is able to familiarize themselves with the technical and legal risks to be faced when publishing an app. The team had limited experience of making and publishing an app. In the organization even a complete feature build can take months to pass QA and final adjustments, so it is good for the team to learn the whole process from publishing the MVP and obtain the ability to give more accurate time estimation of future global launch.

7.2.4 Phase 4: Lessons learnt

In the first three weeks, Toons.tv app got more than 2000 downloads, majority of which were iPad users. The app got 5 stars with all positive reviews. Compared with in-game channel, Toons.tv app has 5% better weekly retention. Compared with the web channel, Toons.tv app got 15 times more views in Finland.

The team thinks Toons.tv app has a good market potential. Meanwhile, another question lies in front of them: are the customers willing to pay for this product? In addition, without losing the current customers across all the platforms, what is the right way to monetize the app?

8 Design Thinking In Business Concept Creation

There are various ways to monetize a mobile application. Some applications cost certain amount of money to download, such as Minecraft costs 5.99€ in the App Store. Some applications start as a free trial and take a subscription fee every month, such as Netflix. Some game applications are free to download but contain in-app-purchase. The in-app-purchase items are either priced with virtual currency or priced with real money. The forms of in-app-purchase are more gamified in recent years. For example, Candy Crush sells tools to solve the puzzle in an easy way and Clash of Clans sells time to accelerate the building speed. One-fits-for-all kind of business model does not exist in mobile application industry. A tailored business model for Toons.tv app needs to be designed.

8.1 Background of App Monetization

8.1.1 F2P and IAP

“Free-to-Play” is the new trend in the gaming industry. With the exponentially increasing rate of games in both iOS and Android market, free apps get more downloads. App store is a consumer dominant market where consumers have a substantial amount of choices. Consumers rely heavily on price, ranking, and reviews to find games, while game publishers find out that giving their games away can actually generate more audience and increase word-of-mouth advertising (F2P by will culton).

The *Free-to-Play* business model doesn't mean to create a light version of a paid experience; the game should be fun at all times. Players can download the game for free, and are offered new deals inside the game, so called in-app-purchase. In fact, F2P players don't have to spend anything unless they want to. However, if players want access to additional services such as accelerators, exclusive content and so on, they must either buy or earn these services.

In general, there are four types of in-app-purchase drivers. The first one is content, meaning additional levels to a game or new characters available for selection. Content is often the least monetizable purchase driver due to its limited durable nature, which creates a finite cap on spending. The second driver is convenience. Usually this purchase can help the player save time to get something that would have been acquired through the game with time and dedication. Then the third driver is competitive advantage. This kind of purchase gives the player a winning edge against others, while creating equality is controversial since it

breaks the game balance. The last one is customization. It's a process of players' creation expression. A good example is that players purchase additional accessories to decorate an avatar. This kind of purchase is very often bond with a player's emotion and desire for self-expression.

IAP drivers	Player type
Content	Explorer
Convenience	Achiever
Competitive advantage	Hardcore gamer
Customization	Socializer

The ultimate goal of F2P is driving retention instead of direct monetization. Only when players continuously come back to the game, the chance of spending money grows. F2P removes not only the barrier by letting players play the game for free, but also the upper limit on how much a committed fan spends by removing the purchase price. By designing the game to allow users to spend different amounts of money, in-app-purchase unlocks the ability to let fans spend a lot of money in the game.

8.1.2 F2P and Toons

The team sat down together and started to brainstorm. Using exclusive content as IAP sounds feasible. Exclusive content can be premium videos that are longer and without commercials. Premium videos are locked and require digital currency or real money to unlock. Many video services are using the similar freemium versus premium model. One idea was that we could lock more content in countries having more expensive video serving costs (Figure 15). The team thinks users will get that the metaphor of using movie tickets as the digital currency. However we need to speak to the users to find out whether a) they are willing to unlock the premium content b) their are positive with some videos being locked.

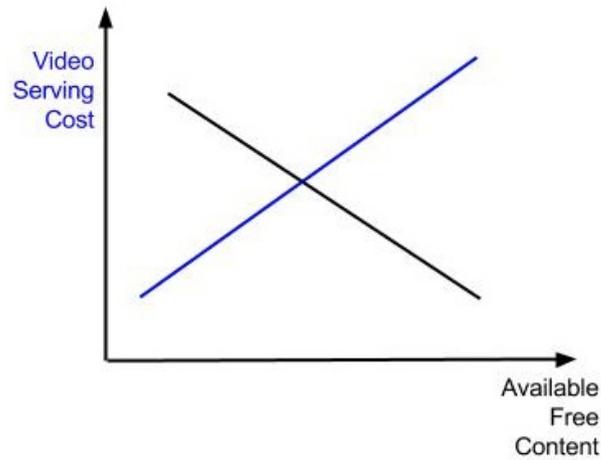


Figure 18 The relationship between video serving cost and content amount

8.2 The first iteration: prototype and test

The team quickly made an interactive prototype of the idea and tested with seven users. In this prototype, users are given certain amount of movie tickets. They can use the tickets to unlock premium channel or special episode. When the user has used up all the free tickets, he/she can purchase more movie tickets with real money (Figure 16 - 18).

The usability test was carried out with 7 test users aged from 12 to 36 -- 5 adults and 2 teens. All of them were Finnish Angry Birds fans and active users of Toons.tv. Participants were asked to perform several tasks on their own:

1. Watch a free video
2. Watch a premium video
3. Buy more movie tickets
4. Get access to the premium channel



Figure 19 Channel page with one locked premium channel and free channels

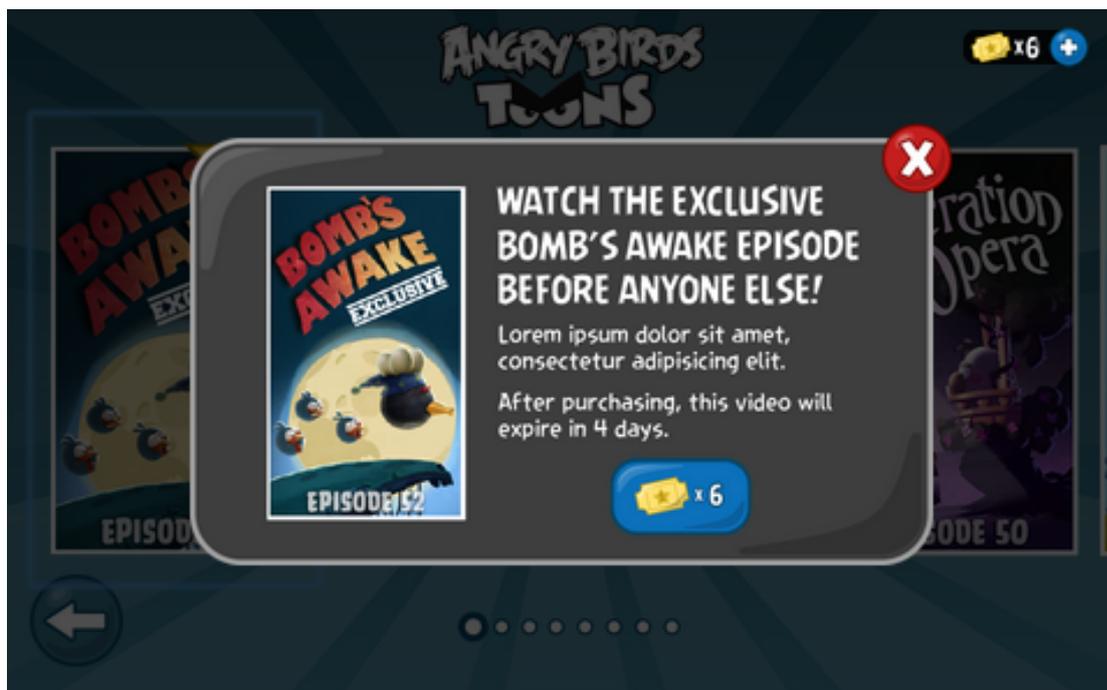


Figure 20 The price of an exclusive episode

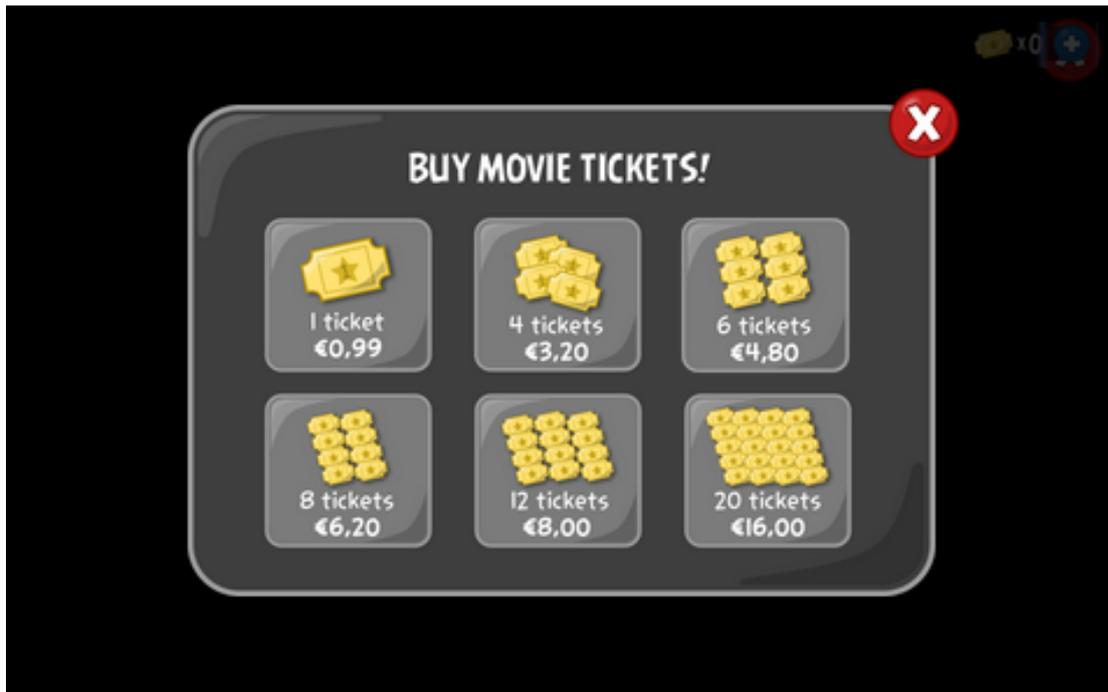


Figure 21 Buy tickets pop-up

The team got useful feedback from the interviewees. All of them were positive with the user interface and metaphors. However a couple of issues were raised up to the team. Many users did not understand whether they would be able to watch the purchased video for free forever. In addition, some users were not very comfortable having things that need to be bought on Toons.tv. They felt that everything should be free for kids to enjoy. However, they felt that the purchasing flow seemed quite secure. They considered the way system asking for password avoids accident purchase by a child. When these users were asked whether they will make a purchase after the free movie tickets have run out, all of them showed clear reluctance and indicated that they would be fine with just watching the free content. It is very difficult for them to make a purchase decision with limited information about the premium content. The only time they did such thing was watching a new movie, after seeing the trailer and checking IMDB score.

The following conclusions were drawn from the user testing:

- 1) Many people will not purchase the premium content with real money because: a) they are unaware of what the video is about; b) even if they read an intro about the premium video and know the video's general story, they simply do not want to spend real money on Toons.tv. Therefore we need to understand what their decision making factors are regarding video consumption.

2) If users can continue using the service free of charge, most of them will do that. However if most of the content is locked, they will abandon the service and look for alternatives. Therefore, locking different amount of content based on location will cause immediate user drop in some area.

8.3 Second iteration: need-finding & learn

The team decided to go back to needfinding through a user behavior study on video consumption behavior and motivations. We decided to conduct a user interview, and to bring the input from the real users into prototyping. To provide test participants with more alternatives, the team gathered up and had another brainstorming session. Four ideas dropped out of the session. The first one is subscription model where a customer has to pay a periodic subscription fee to get access to the service. The second one is virtual currency based early access where a customer is charged by certain amount of soft currency to get access to the service before regular customers. The third model is “time-bank”, meaning viewing time consumption. All users get limited amount of free viewing time every day. When the free of charge amount of viewing time has run out, users need to purchase extra time to watch more videos. The fourth model is “lump-sum”, meaning all first-time users will get a large amount of digital currency (movie tickets). Every video costs certain amount of movie tickets. Users will be granted with a small amount of free movie tickets every day. Only super active users will use up the tickets quicker than others, and in that case, they can purchase more movie tickets or wait for daily free tickets. Some of these models are commonly used in the video service industry, and some are more gamified. In addition to understand their opinions on other video streaming services, we would like to get their feedback on these ideas as well.

This interview used Rovio internal employees of families with international background as interviewees. Six families with 2-13 year olds children were chosen. All families actively consume entertainment media via mobile devices. The form of this interview is face-to-face and one-on-one. The targets of the interview were:

1. Family media usage & media purchase practices with mobile devices
2. What video services do families with kids use, and the frequency
3. Find out what the families are willing to pay and their opinion about the prices
4. Find out the families’ attitudes about digital currency
5. Get families’ opinions on several models of service charging

#	Nationality	# of kids	Kids Age	Video services/applications
1	Finnish	5	7 - 22	Youtube, Netflix, Katsomo, Yle Areena, Toons.tv, Lego video channel, HBO, Headweb
2	Portuguese/Finnish	1	7	Youtube, Toons.tv
3	Finnish	4	7 - 15	Katsomo, Ruutu, Viaplay, Netflix, PlusTV
4	Russian/Finnish	1	2	Youtube, Toons.tv
5	Chinese/Finnish	2	2 - 4	Youtube, Netflix, Apple TV, Youku
6	Swiss/Finnish	1	2	Youtube, Netflix, Elisa Viihde

Table 5 Interviewees information

8.3.1 Learning 1: Things that are affecting video consumption

All interviewed parents preferred to have their kids watch on their own so that they can do something else in the meantime. The easier it is for the kids to find the videos themselves the better. All of the interviewed kids watch videos on mobile/tablet devices. All of the interviewed kids watch videos on daily basis.

In the interview, all parents think large selection of content is the most important thing in choosing video services. The next important thing parents value is kids-friendly usability, which includes video recommendation (especially younger kids choose videos based on image), age appropriate content (so that parents do not need to supervise), and easy to access the video (without password or payment request). In summary, parents are looking for a service that enables their kids to spend certain amount of time independently (Figure 19).

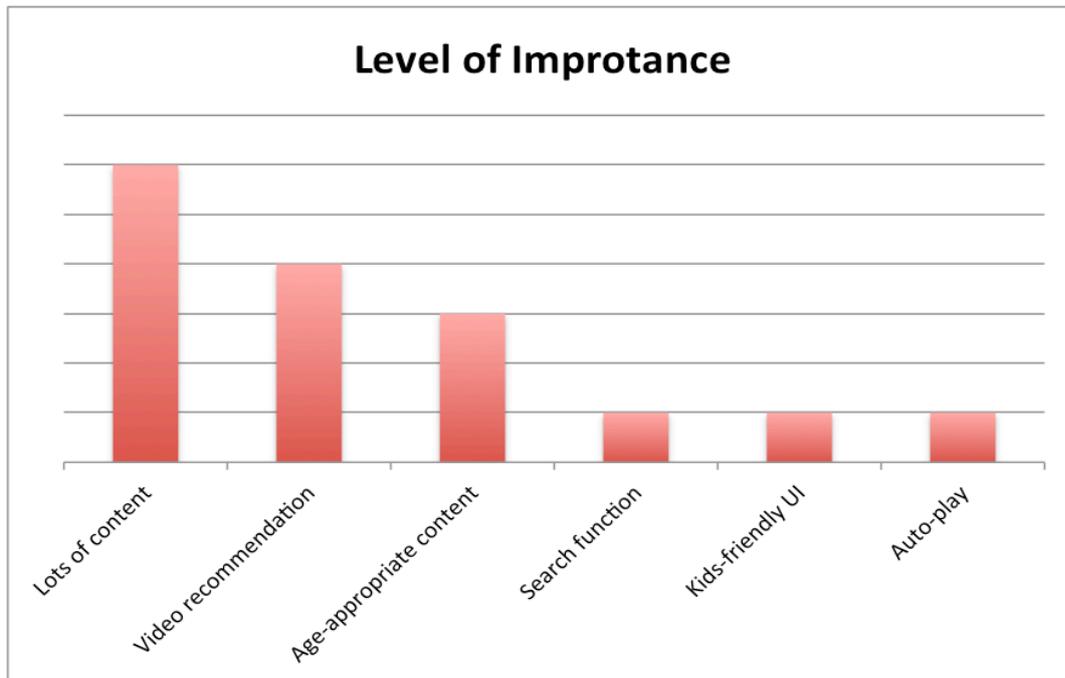


Figure 22 Importance of different video consumption decision factors

Parents also mentioned several things that stopped them from using the following services.

Youtube	Netflix	HBO	Viaplay
No way to limit the content to child-friendly	Content update is too slow; Regional limitation is annoying	Finding videos is slow and tedious	Not enough content for children; Foreign language without dubbing

Table 6 Interviewee perceptions of 4 video service providers

8.3.2 Learning 2: Preference over different pricing models

In the interview, family opinion was gathered towards four different pricing models.

Monthly subscription model is regarded as the most preferred choice for most of the interviewed families, because it feels easy and allows watching all videos freely. However the content has to be large and versatile, in good quality, and updates often enough. One family considers to end Netflix subscription soon because the content does not update as frequently as they expected. Most of the family would like to pay maximum 10 euros/month for the subscription service.

The idea of getting early access did not seem interesting to any of the families. If the content in Toons.tv remains the same, they are not willing to spend anything, unless there are longer videos and some special episode that is truly interesting.

Time bank model might also work if a) there is enough content so that users will hardly watch all videos at once; b) there's good indication on how much is already spent and how much remains so that it's not over complicated to understand.

The interviewed families did not favor the lump sum concept, because they thought it is difficult for kids to budget their watching. They might start watching some videos and then realize it is not interesting after all, still they have spent the ticket. In addition, it is unfair to charge them every time if the kids watch the same video over and over again. However, most families do not mind watching ads. They think it is normal to combine ads with videos, and they are used to this type of business model.

	Subscription	Early Access	Time Bank	Lump Sum
User Perception	Mostly preferred	Not interested	Half acceptable half not	Less acceptable
Reasons	Easy and freely to watch all videos	All new content should be available for everyone at the same time	Can choose what is important and only watch that	Hard for kids to budget their watching; Spend (soft) money on something uninteresting; Unfair to charge twice for watching the same video
Prerequisites to Accept This Model	Large variety of content; Good quality; Longer videos; Update frequently	Longer videos preferably movie length; Better quality Disney-like videos; Special content; More non-Rovio content	Good indication and explanation; Enough content; Frequently adding new content	Clear communication; Enough free movie tickets for first time users.

	Subscription	Early Access	Time Bank	Lump Sum
Willingness to Pay	Less than 7-10e/month; With current content max. 1-2e/month	Not willing to spend any hard currency in Toons unless there're movie-length videos.	Max. 1e/extra hour	Don't mind watching ads especially pre-rolls

Table 7 Interviewee opinions on 4 different business models

8.3.3 Conclusions from Needfinding

When deciding which video service to use for their children, parents value three key things: great variety and amount of content to select from, easy for children to use without assistance, and age-appropriate content for children.

Regarding different pricing models, monthly subscription, although was mostly favored, has a high requirement for content. Early access had the highest requirement for content among these four, and apparently users are not satisfied with the current amount of content offered on Toons.tv at the moment. The company cannot produce or license large amount of content immediately, but enriching content selection is continuously ongoing work. The time bank model also requires enough content inventory and faster updating, so that users will not easily run out of content and have incentives to pay to watch longer. However the lump sum model has least requirement on content and better monetization potential if first-time users can get a lot of movie tickets in the beginning. Therefore, the team decided to investigate more on the subscription and lump sum models.

8.4 The second iteration continued: prototype, test, and learn

The team found out that they could not expect an answer from targeted customers directly regarding what they want, because in most cases customers do not know what they need, and often have a hard time understanding imaginary concepts mentioned in the previous interview. In this case, the team believed that interactive prototypes enable test users to really use and feel the product and help the team to make better decisions. Two different monetization concepts were made into paper prototypes (Figure 20 – 23) and put into hands of certain users.

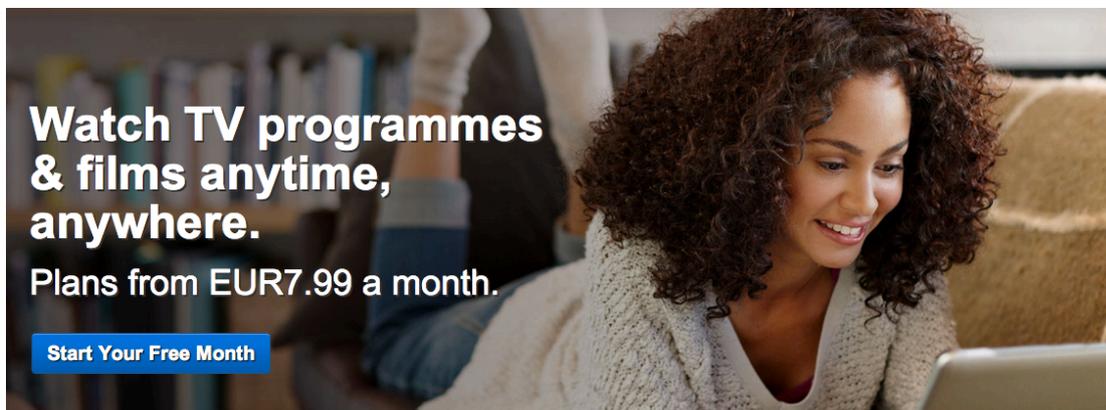
8.4.1 Prototypes

Test participants are told “*The video app for kids has around 400 videos on the platform, which contain both Angry Birds cartoons and also other famous branded cartoons. About half of the videos are less than 5 minutes, and half are 20 minutes long.*” Based on the given information, test participants will compare two different concepts of IAP and pick the one they accept (meaning that they will continue use the service under this IAP model and possibly spend money in the service).

In the prototype for lump sum, first time users are assigned with a significant amount (Figure 21-23) of movie tickets. Each time watching a video consumes one or more movie tickets depends on the content length. When they have consumed all the movie tickets, they can “grind” by watching ads to get a free movie ticket.

A. Subscription model

You can start from a free period and then pay certain amount of monthly fee after the trial ends. Example like below:



Oletko valmis aloittamaan ilmaisen kuukauden?

Suojattu palvelin Kertokaa lisää

Luo tili:

Sähköpostiosoite

Valitse salasana (4 - 60 merkkiä)

Rekisteröidy

Suojattu palvelin

Luo tili kirjautumalla Facebookin kautta:

Kirjautu sisään Facebookilla

Netflixi ei julkaise mitään Facebookissa.

tai

Figure 23 Subscription model paper prototype

B. Lump sum model

1. First time users will be given 500 – 1000 free movie tickets. Each time you watch a video you spend certain amount of tickets (one to three tickets depends on the video length).

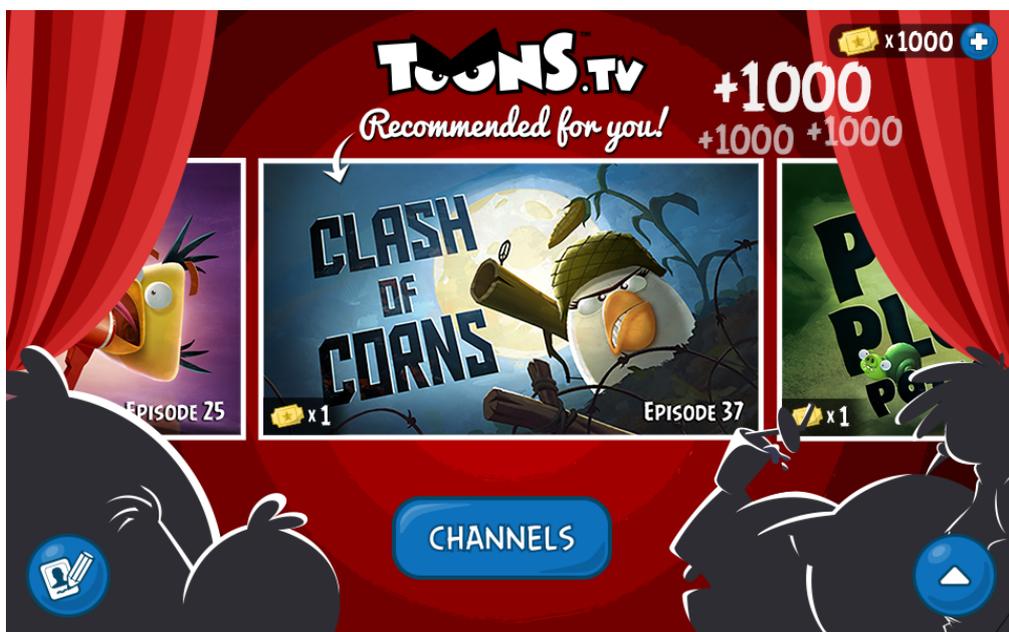


Figure 24 Lump sum model first timers get free tickets

2. Users will get free tickets every day.

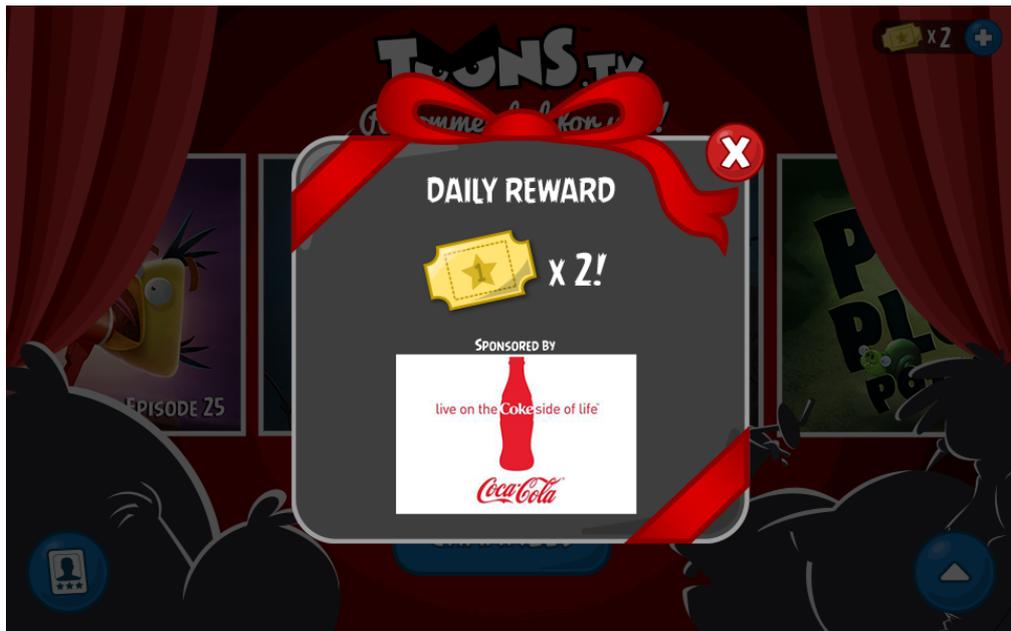


Figure 25 Lump sum model users get daily reward

3. When your kids have used all tickets, you can either get free ticket from watching ads or purchase a set of tickets with real money.

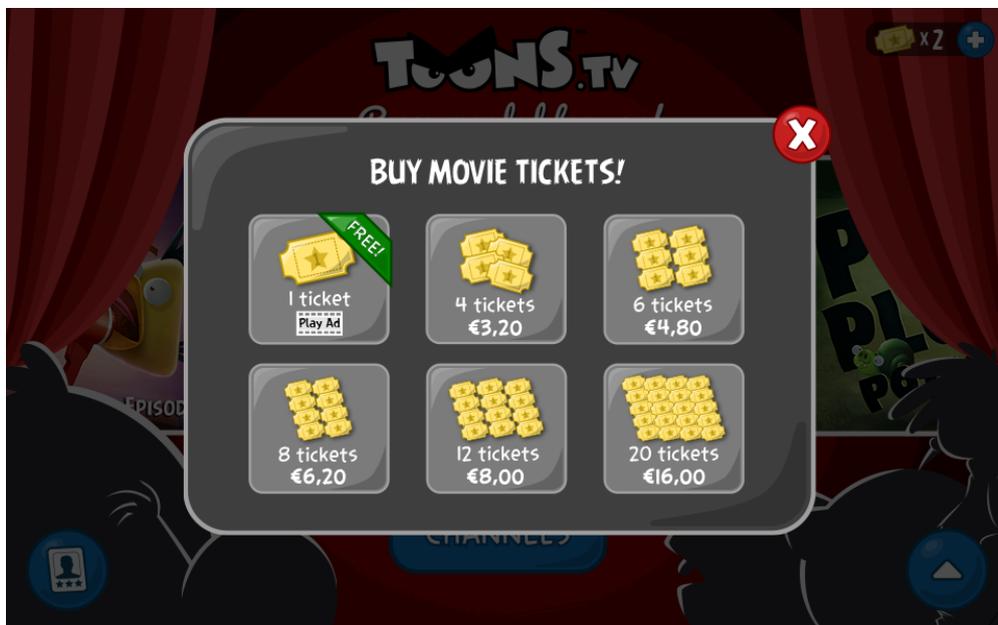


Figure 26 Lump sum model buy more tickets pop up

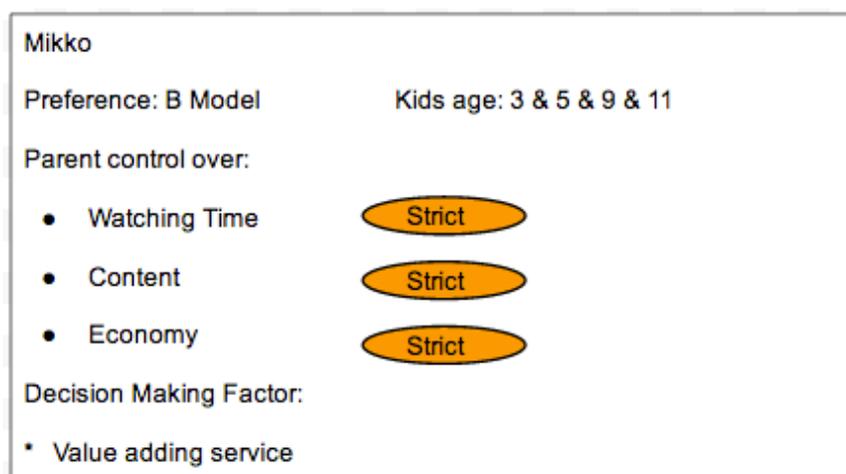
8.4.2 User testing

Three types of users are chosen in this user testing: extremely active users (users who use the service every day), active users (users who use the service at least twice a week), and extreme non-users (people who haven't heard of the service but do not use it or people who used the service but abandoned it after a while). Each user testing session takes 30 - 40 minutes.

1. Mikko 38 years old. Kids: 3,5,9,11 yrs. Finnish. Extreme non-user.

Mikko's kids watch cartoons once/twice per week, mostly DVDs, sometimes watched on Pikku Kakkonen. On the weekends kids watch videos alone because parents are busy with chores. Usually they watch one movie length animation. Mikko doesn't easily let his children stay in front of digital devices for long. He actively pushes them to do outdoor activities. Mikko's children haven't played any mobile games and thus have no idea about in app purchases.

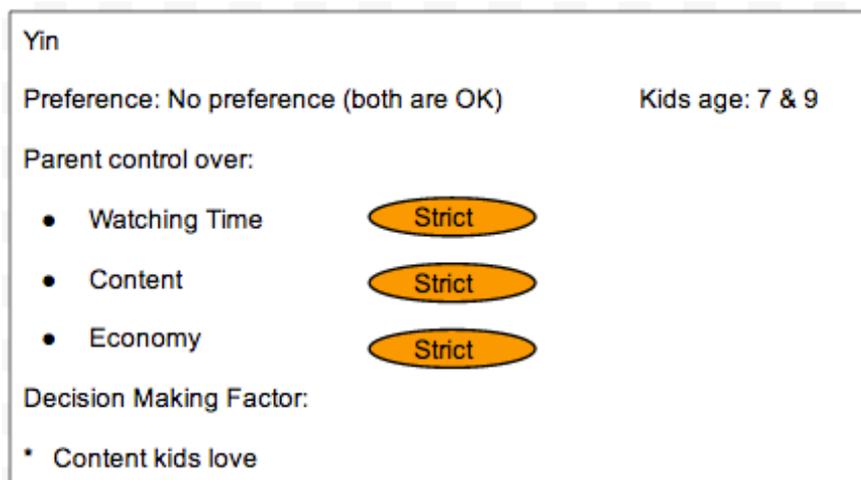
He won't pay for subscription because he thinks that the content length is not worth the money. He needs more motivation to watch Angry Birds cartoons, for example if the subscription fee includes the access to Angry Birds amusement park, he'll be happy to pay. He likes the first-time free movie tickets lump sum model. He thinks that since it's free he can let the kids try the service. When his kids use up all free movie tickets, he will watch ads to get free tickets instead of buying the ticket batch.



2. Yin 43 years old. Kids: 7, 9 yrs. Chi/Fin. Active users.

Yin's kids get 2 "mobile phone hours" in the weekends that they can play games or watch videos. From Monday to Thursday they can watch Pikku Kakkonen for language studying. In the weekends they watch Minecraft videos and some animations. Both of them use Youtube, Pikku Kakkonen, and Toons.tv. The mother likes the search function in Youtube, for they can always find what they wanted to watch. However she is concerned about the language used by the video game commentator. Many times she interrupted the video play because of this. The oldest son found Toons.tv from Angry Birds game. They like the content and downloaded the Toons.tv app. Both boys are familiar with digital currency concept in games. They once used 50€ buying in-game gadget, which alerted their parents to set password for all in-app-purchases.

Yin makes her buying decision based on her kids' opinion. If her sons likes the content collection and insists on watching it, she will make the purchase. She doesn't mind the application will charge them, since it only depends on the quality of the content and how often the kids will use the application. However she cares how much the service costs them. Based on the current usage (2 hours per week), she thinks the subscription price should be less than 5 euros and the ticket bundle price in the second model should be less than a euro.

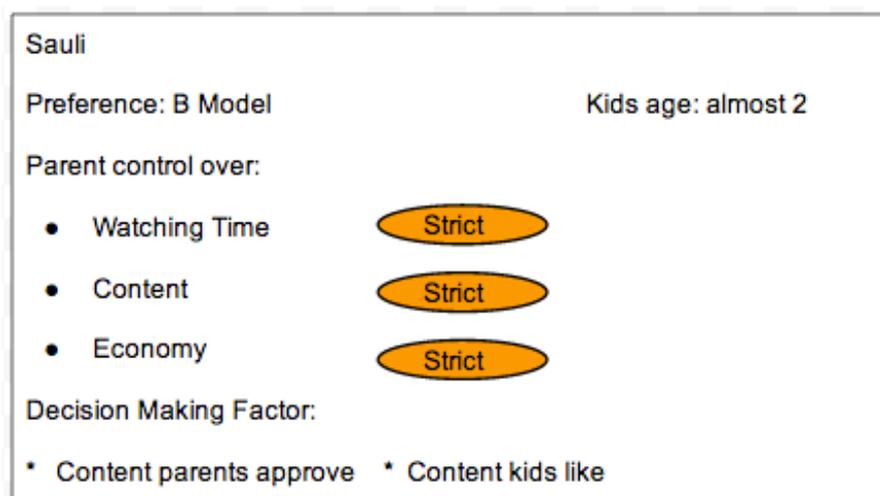


3. Sauli. One kid 1.8 yro. Fin. Extreme non-user.

The kid had been watching videos on mobile devices for 4 months. The parents use animation as incentives to get the child to eat. On average, the kid watches videos half a hour every day. The services the family has been using to animation are Youtube and Yle arena. They are both easy for the child to use. However Sauli is not happy about Youtube commercials and YLE's limited selection. Both services are free. The kid is playing educational mobile games that are not free to download, but he was not exposed to IAP or digital currency.

Sauli mentioned that they are not subscribed to any video services because they don't have time to watch. However he likes the subscription model since it gives the freedom of choices. He said based on the current situation he would like to pay smaller amount of price for more limited amount of videos. He will not pay more than 3€/month for Toons.tv.

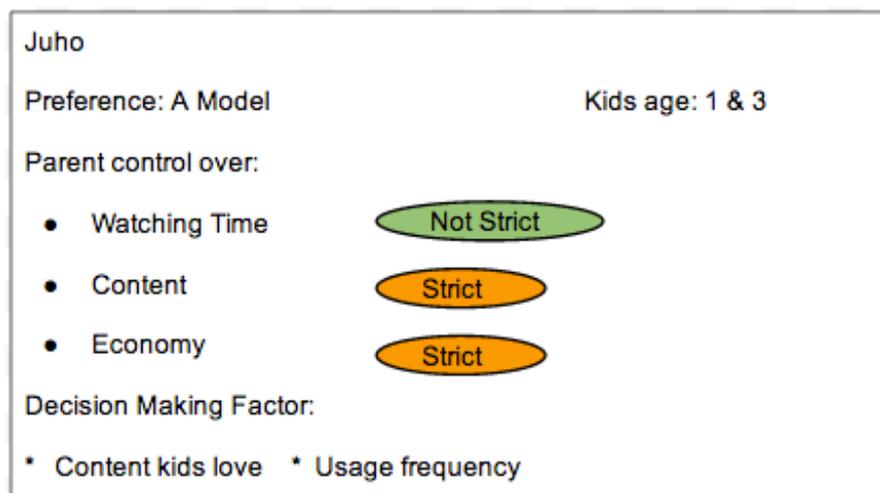
Sauli prefers the second model because he thinks the service is free for them, meaning they will not use up free given tickets for a long time. He thinks that the ticket price should depend on the content length. Based on the current usage, he thinks spending 20mins/day on the application is normal. He feels positive about the application's user interface and thinks his 1-year-old son can easily navigate inside the app. He would buy more tickets if his son used up all free tickets if his son insists on watching Angry Birds animation and there is no free alternative elsewhere. His decision-making is heavily determined by his child's preference and the quality of the content. In addition, he mentioned that he likes the ability to control the amount of tickets spent every day.



4. Juho. 2 kids. 1 & 3 yrs. Fin & Chi. Extreme non-users.

Juho's children watch cartoons every second day for around one hour. They use Pikku Kakkonen, YLE Arena, and Netflix. Juho prefers content that is educational and not violent. He would rather choose free video services for his kids. The reason he subscribes to Netflix is because Netflix has content suitable for the whole family. His children have watched Angry Birds Toons on TV, but they don't seem to be interested. Juho said he found himself really confused about the story. "It lacks background story," he said, "and there was no continuation between episodes." The older girl plays some mobile games, where however IAP does not apply.

Juho doesn't easily subscribe to any service unless the whole family can use the service. If someone recommends the Toons app to him and the subscription is less than 4 euros, he will consider it. Comparing these two models, he prefers subscription because he doesn't want his kids to watch ads. In addition, he suggested that in lump sum model the transition from using free movie tickets to purchasing tickets should be less steep.

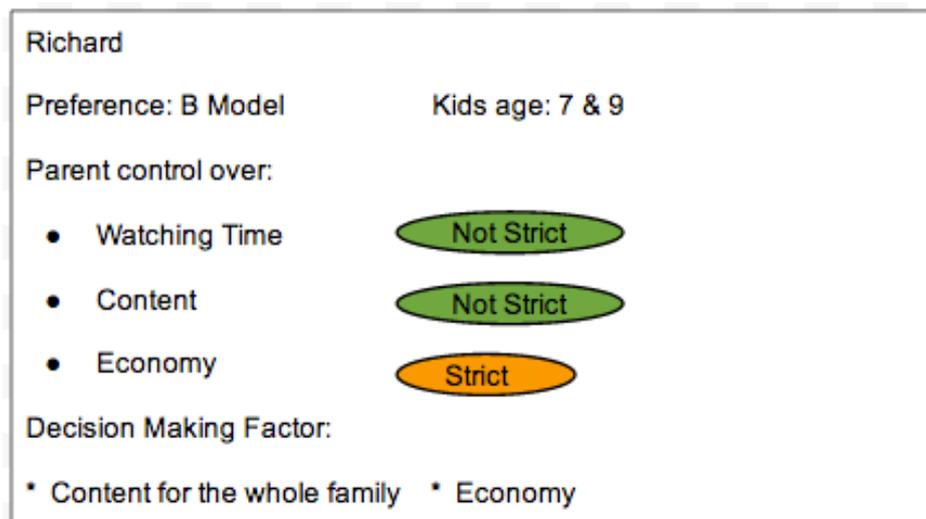


5. Richard. 2 kids. 7 & 9 yrs. Fin/UK. Extreme users.

The youngest girl is really into cartoons about Barbie and Ponies. The older boy loves gaming and movies. They both spend one hour watching videos every day. The family uses Netflix, Katsomo, and YLE arena. They love the good selections on these services, but are

disappointed that the latest content is not in the service. They are willing to subscribe to Netflix because they can watch different videos at the same time on different devices. The kids have watched Toons from Angry Birds Go. They like the design, but the content doesn't really stand out in the market. Both of them play mobile games. They have more than 80 games on the iPad. They understand what digital currency is, but their parents are really strict with the money spending. They haven't been able to buy anything in those games.

Richard is not a big fan of subscribing Toons.tv. First of all, given the amount of videos available on the platform, he refuses to pay anything. Secondly, he prefers to pay for a service that the whole family can enjoy. Besides, there are so many free animations in the market, he thinks his children will never run out of things to watch. Richard prefers lump sum model because he thinks the kids are using the service for free. He will not control their speed of using free tickets. He doesn't mind about the commercials, so if the free tickets are used up he'll choose watching ads to get free tickets.



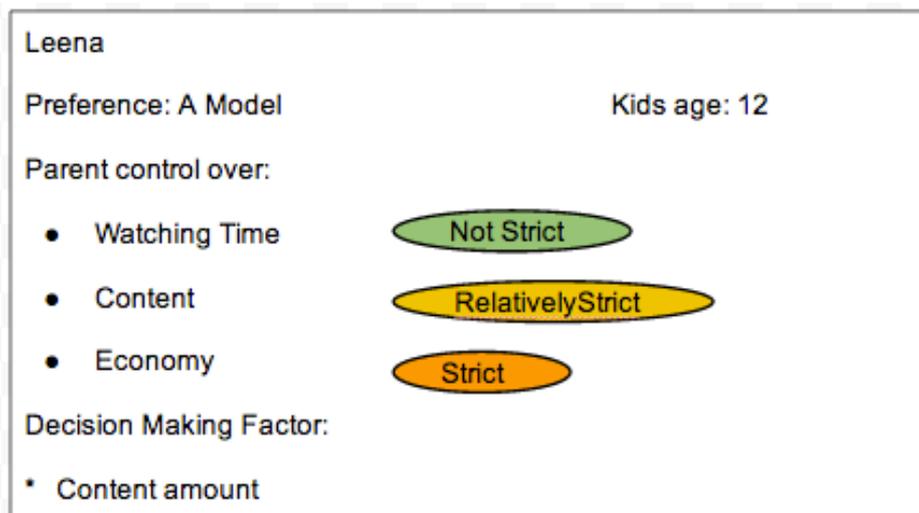
6. Leena. 1 kid 12 years old. Fin. Active user.

Leena's son watches cartoons almost every day after school. He likes to surf Youtube and also watch Lego videos on Netflix. As he grows older, he tends to play games more than watching videos. Leena likes Netflix because it's convenient to get access to rich content and to "stalk" what her son had watched. Youtube is great in finding information, but Leena thinks it has too much inappropriate content for his age.

Leena’s son watches Toons.tv from Angry Birds games. Usually he watches 2-3 episodes each time. They love the content, but they hope the update can be more frequent. Her son plays mobile games every day on his own smart phone. He understands digital currency. Once he attempted to buy something to speed up the game, but his mother refused to pay. Leena explained that she doesn’t feel comfortable with buying anything non-physical.

Leena prefers the subscription model if the content update is more often in Toons.tv. She thinks this is the hassle-free option. She can accept 5 – 10 euros monthly charge.

Leena doesn’t want to control the amount of movie tickets her son will consume each day. She will not pay for extra tickets if the free tickets haven run out. The lump sum model requires a lot of thinking and calculation, which is too much hassle for her.

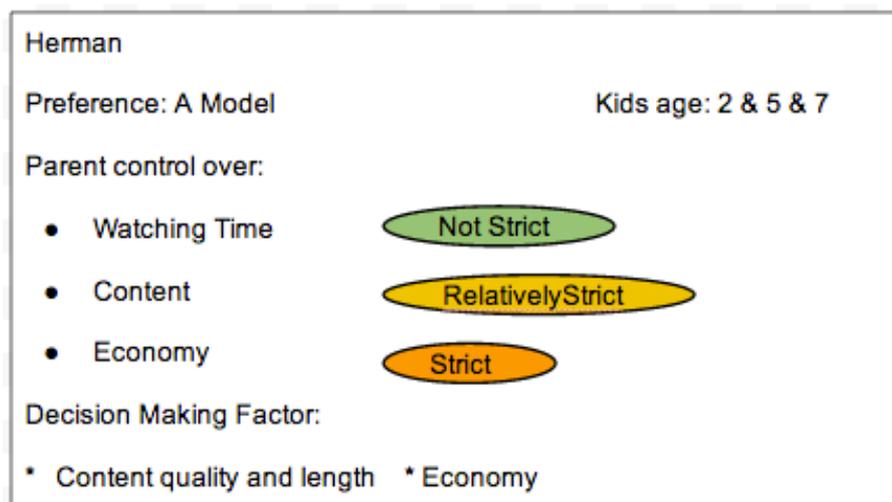


7. Herman. 3 kids. 2, 5, 7 yros. Fin/Brazil. Active users.

On average Herman’s kids watch videos 4 times/week. He tends to save the iPad for parents’ busy moment so that they can concentrate on housework while the kids are watching cartoons or playing games. His three boys love to go on Youtube for gaming videos, Toons.tv for Piggy Tales, and Netflix for Lego movies. Herman mentioned both pros and cons of these three services. Toons.tv content is guaranteed kids safe, but the content portfolio is limited. Youtube has the largest amount of videos, but many are not children friendly. They have been subscribing to Netflix for 8 months because of high quality movies, but the age setting is limited – his kids can easily go to the parent’s account and watch everything there.

Herman’s boys use Toons.tv on regular basis, watching 3 to 4 videos each time. They play mobile games too. Herman has a strict money control. Once his oldest son asked to buy a character in one game, and unfortunately Herman refused his request.

Herman prefers the subscription model only if the price is good, in his words, “1 to 2 euros per month.” He thinks it is simple and straightforward way to unlimited usage in the giving time. The movie ticket concept is acceptable too, but the ticket bundle price has to be cheap. If his sons use Toons.tv occasionally, he will consider this model.

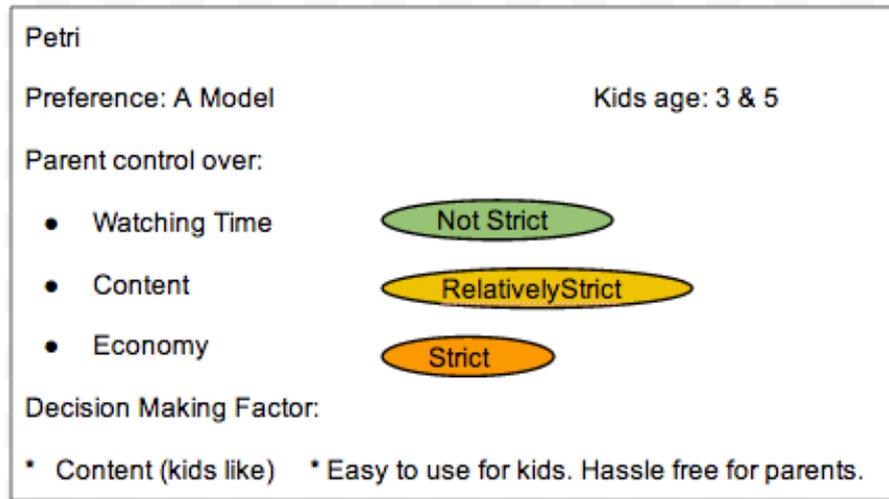


8. Petri. 2 kids. 3 & 5 yrs. Fin. Active users.

Petri’s boys watch cartoons every day after dinner around 15 to 90 minutes. His boys like to check out game walkthrough videos on Youtube and watch Lego movies on Netflix. Petri set up a kids’ profile on Netflix so that his kids are only exposed to age appropriate movies. But when the boys are on Youtube, Petri has to keep an eye on what they are browsing. Petri thinks the current Netflix subscription is a good deal, since Netflix has excellent content for both adults and children. Both boys watched Angry Birds Toons. Petri feels very safe to let them watch that. They have been playing mobile games also, but they have not come across in app purchase.

Petri thinks subscription makes more sense in Toons.tv case. But since the content is only for children, he would like to pay 3-4 euros per month. Petri is naturally against IAP for

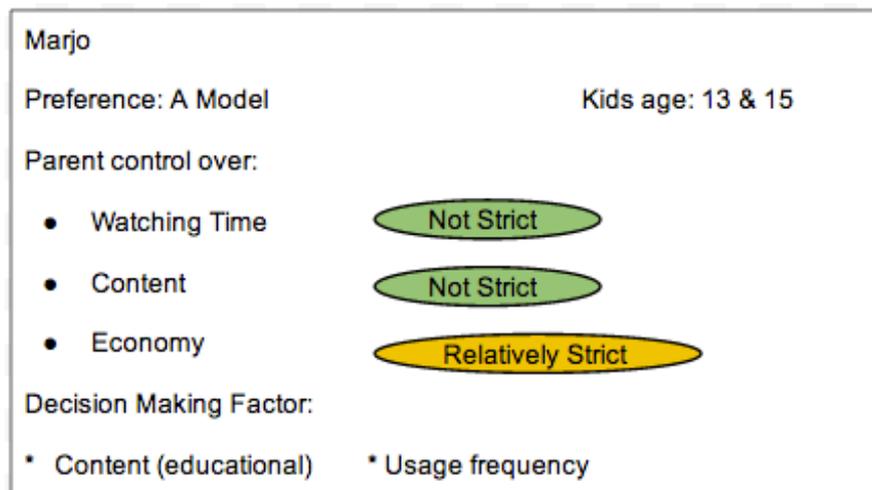
his children, and he doesn't want to control the daily ticket consumption of his boys. Therefore the lump sum model is out of the Figure for him.



9. Juha-Pekka. 2 kids. 9 & 11 yrs. Fin. Active users.

Juha-Pekka (Juhis) doesn't like to monitor what videos his daughters watch. He trusts them completely and thinks control doesn't work well when both of them have their own iPhones. The girls spend 2 hours daily after school watching videos. They like to watch My Little Ponies on Netflix, music videos, Minecraft videos on Youtube, and movies on Dailymotion. He thinks Netflix is convenient because his daughters can watch at the same time with different devices. The only disadvantage is that there's limited Finnish speaking content for his girls. Although his girls are running out of things to watch on Netflix, Juhis is still paying for the subscription because he has something to watch every now and then. Youtube is great with the amount and variety of videos, but is bad at age control. Juhis' older daughter once bumped into some bloody scene on Youtube and spent a while to recover from it. The girls can find on Dailymotion some cartoons that are not available elsewhere. However the quality of the user interface is lacking behind because there was no watch history.

Juhis' daughters watch Toons.tv from Angry Birds games. They seem to like the content so far. They have played a great amount of mobile games. Sometimes they feel like buying some in-game items, Juhis normally buys it for them after a short discussion.

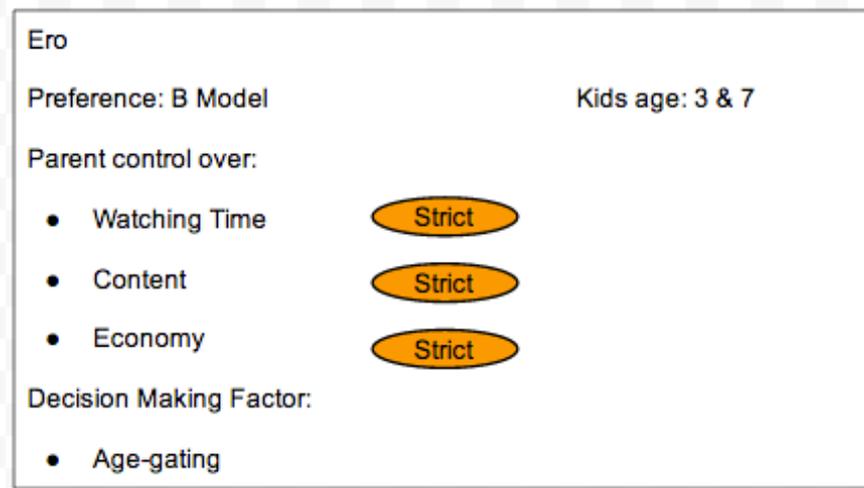


11. Ero. 2 kids. 3 & 7 yrs. Greek. Extreme users.

Ero’s kids are big fan of Angry Birds. They watch Toons.tv every day during bus ride and at home after school. Ero likes to have them watch Toons.tv while she’s cooking or doing housework. Kids are also watching cartoons on Youtube, and Ero has to always keep an eye on what they are browsing there. “Sometimes I have to bookmark some links on Youtube and tell them to only watch videos on that link. There’s a lot of supervising work to do for Youtube.” Ero said.

Ero’s kids play many Angry Birds games. However they haven’t bought anything from the game and they don’t understand in app purchase or digital currency.

Ero doesn’t the subscription model. She has never paid for any video service so far and doesn’t like the change from a free Toons.tv to a paid version. She might stop using the service if Toons.tv is no longer free. “It’s going to ruin the brand image in my perspective” she criticized. However Ero can accept the lump sum model. She likes the ability to control the amount of tickets being used every day. If the free movie tickets have been used up, she would pay for the ticket pack. “It’s a great opportunity to teach my children a lesson about the consequence of overspending tickets!” she said.



8.4.3 Learning and Conclusion

Among the eleven interviewees, six people showed preference in subscription model and four chose lump sum model. A pattern had already shown among these people. It seems that parenting style strongly affects their pricing model preference. Parents who strictly control their children’s video watching time and content are likely to choose the lump sum model. Parents who are less likely to monitor what videos their children are watching and how long their kids can use the mobile devices tend to prefer the subscription model.

Although parenting style can strongly relate to the age of the child, these interviewees’ parenting style does not necessarily depend on their children’s age. Culture and background of the parents are also determining factors. For example, a divorced parent buys their children their own mobile devices earlier ahead of other kids in the same age and gives more freedom in their video selection. A Chinese parent, however, strictly manages the child’s time in doing certain things even when the child becomes a teen. A parent who works as a developer in the IT industry likes to expose his children to the Internet in an early stage and let them judge what is right or wrong. But among all these different parents, there is one thing they all have in common – they control the economy of their children. While some parents give what their children ask for more easily than other parents, they are ultimately the masters of the credit cards and thus decide whether or not to spend the money on certain things. Because of that, the control of the economy is not a determinant in parents’ buying decision in this case.

It seems that all interviewees who chose the lump sum model are either extreme users or extreme non-users. All the interviewed active users and part of extreme non-users chose the subscription model. Based on both parameters: the parenting style and user type, I

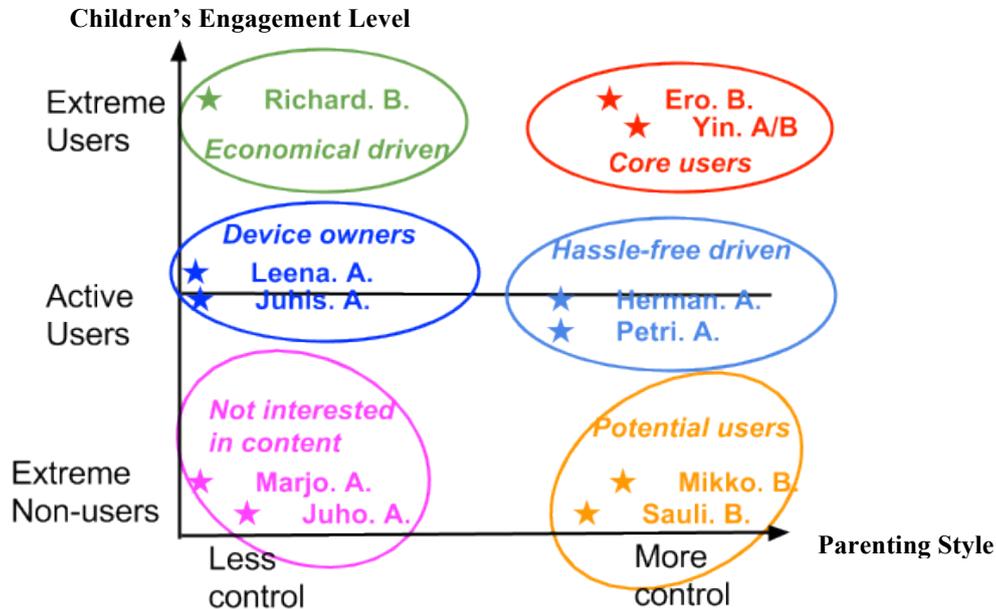


Figure 27 Interviewee clusters

clustered the interviewees into six groups (Figure 24).

People who chose the subscription model:

The pink circle - Not interested in the service content

This group had used Toons.tv before or do not use the product for some reason. They are in general not interested in the Toons.tv content. Some of them have older kids who have passed the age of watching cartoons. Some of them are simply not Angry Birds fans. They chose the subscription model because that is the consumption method they are using currently with other services such as Netflix or Yle Arena. They do not control what content or how long their children will be watching, so they do not bother to choose a video service that is simply designed for children. Instead, they would like services having content for both adults and children. Unless Toons.tv reaches the level where the amount of videos and variety of videos are similar like Netflix, these people will not become Toons.tv users.

The dark blue circle - Device Owners

Parents in this group have given their children own mobile devices. These children are actively watching Toons.tv, but their parents do not pay attention to their watching time. These parents have granted their kids the freedom to choose their own content, so parents do not want to interfere too much with what they do with their devices. Therefore, once in a month paying model reduces the supervision work and is more preferred by this group.

The light blue circle - Hassle-free driven

These parents care about age gating, and their children are active Toons.tv users. However, these parents do not want to invest in too much time supervising the kids every time they watch something. They tend to choose a trust worthy brand that has age appropriate content without worrying about the spending. The services chosen are either free or subscription based. The lump sum model, which requires control of videos being watched each time, is regarded as hassle.

People who chose B model:

The yellow circle - Potential users

These people have never used Toons.tv product, but would like to give it a try if the service is free. They don't like to subscribe to any service because they have very limited time to use the service. They put significant effort in controlling their children's screen time and content, so usually they would not let their children watch videos alone. They think lump sum model will incites them to use the service because it gives them the flexibility to use it without committing certain amount of money attached to the usage time. Therefore free tickets might turn this group of people to actual users of Toons.tv.

The green circle - Economical driven

This group represents parents whose children use Toons.tv every day, but they give their children the freedom of selecting the content and viewing time. Since they use the service quite much, they prefer the service to be free. They have been used to the pre-roll ads in the videos, and thus easily accept the approach to get free movie tickets through watching ads.

However the extreme user group can use up the free tickets quicker than active user group. As they are economical driven, they will possibly drop the service or reduce the frequency of usage if they can no longer use it for free.

The red circle - Core users

This group represents parents having younger children who like Angry Birds and need guidance in choosing the video content. These parents trust Angry Birds in providing age-appropriate animations and their kids are entertained by Toons.tv. They will stay loyal to the Angry Birds brand even if the service is no longer free. Many of them have already been using the service for free for a year, so they do appreciate to have a soft transition to the paid model. Therefore, the lump sum model is more suitable for them.

Another important thing from the interviews is that although parents picked their more acceptable business model concept for Toons.tv, they all have pre-requisites for their choices. In other words, unless the service meets their expectation first, they would not pay for it no matter what pricing model it has. The mostly mentioned pre-requisite is the quality of Toons.tv content. Parents have high expectations to services using subscription model, and the most frequently used benchmark is Netflix or Spotify. They both have a large inventory and different kinds variety (genres) suitable for both old and young. These qualities are what Toons.tv is missing.

Comparing the first time experience of these two IAP models, they both create equally pleasant free-to-explore feeling. However after the first month, many people will churn down from subscription model due to under-expectation content. Users in the lump sum model might stay longer if they can still use the service for free.

9 Implications On The Business Model Acceptance For A Children Facing Product Under Parents Controlled Economy

The implication is based on the findings from previously mentioned design thinking iterations. It does not represent the company's final decision. The company's decision making might also take into account many various factors such as available resources, development priority, work dependencies etc.

Figure 25 is the "Monetize Children's Play Model" based on the previous chapter. The X-axis represents the parents' opinion (or control) on their children's *screen time*, *screen content*, and *money spent on the content*. Strict parenting means that the parent is strict (or relatively strict) with at least two of the pre-mentioned items. For example, a parent who is strict with screen time would set the maximum hours the child can consume the product daily/weekly. A parent who is strict with screen content is very sensitive to age gating and will choose the content for the child or monitor actively what the children is watching/playing. A parent who is strict with children's economy will monitor and give/not give approval to every digital transaction the child attempts to make. The Y-axis in this model represents the children's, aka the product users', engagement level of the product. Usually different companies have their own definition of user's activeness.

In Figure 24, users were in six clusters each representing a specific type. I generated four business suggestions based on these clusters (Figure 25). Firstly, the more appropriate business concept for the current Toons.tv app users is the lump sum model. The current Toons.tv app users are composed of extreme users and part of active users (marked as pink zone in the Figure). Although some of them prefer the subscription model, I would suggest that the lump sum model is more suitable for the existing users. For extreme users who already favor the current Toons.tv content, their main concern is the service transition from free to a money-charging one. The lump sum model still gives them an opportunity to use the app for free. Some extreme users do not even mind to pay for occasional use of Toons.tv, so the lump sum model is a win-win strategy for both the users and the company. For the existing active users who would rather have a carefree user experience than calculating the daily dosage of toons.tv videos and managing the digital currency, the subscription model suits them better on the condition that the content reaches their expectation. Right now they are active on Toons.tv largely because that the app is free. They are not yet satisfied enough

with the Toons.tv content (amount and update rate) to pay for a monthly fee. Based on their current use frequency -- approximately 3 to 4 videos each time and twice a week, they can

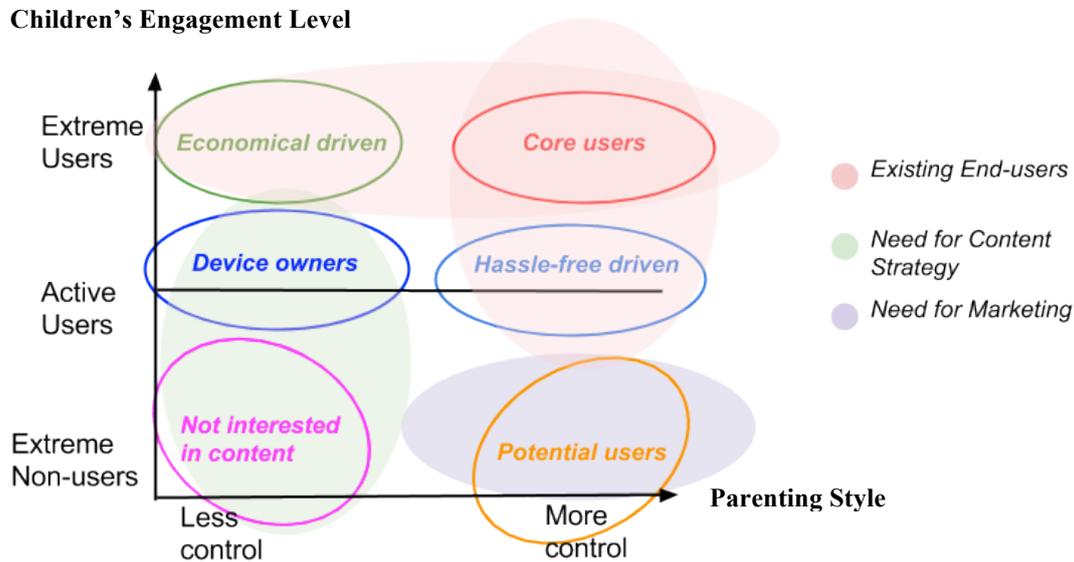


Figure 28 Monetize Children's Play Model

basically use the app for free with the lump sum model.

Secondly, there is a great chance to convert part of extreme non-users to Toons.tv consumers. This part of users (marked as the purple zone in the Figure) has never heard of Toons.tv but is willing to give it a shot. Apparently some marketing effort needs to be made to acquire these people. They are looking for a video service that is dedicated for children and releasing new videos regularly. Another important factor to get these people on board is the price of the app. They are attracted by the marketing words like “free” or “gift”, so the lump sum model offering a big chunk of free tickets fits well in this context.

Thirdly, a new content strategy is needed to keep the service sustainable. Part of the extreme non-users does not use Toons.tv because they are not interested in the content. They are expecting a better value of the service, for instance, longer videos, and more videos from other brands, more educational content. I did not put the device owners group in existing users because this group of people will soon churn down from the service. As they grow older, they get their own mobile devices and they are no longer interested in cartoons without dialogs. Instead they are more into games, sports, music videos, or cartoons with more

complicated plots. These people (marked as the green zone in the Figure) will leave the service soon if the content strategy remains the same.

Finally, monetization should come later. After all these communications with users, I understood that the most important aspect of the service for them was the quality of the content. Many people are not willing to pay anything for the status quo. This does not imply that Toons.tv has to become the next Netflix or to provide videos for both parents and children. Many customers choose Toons.tv because of the brand focus on the younger generation. However, the service needs to work on increasing the amount of videos on the platform and expanding the variety of the videos. Key performance indicator should be more aggressive with setting up goals on partnerships with video providers. Meanwhile the team should look for opportunities in content expansion in sports, gaming, and education categories. In addition, the team should also be more aggressive in user acquisition. There are a large group of potential users who have not been reached.

To summarize, I have found out these factors (Figure 26) are important for customers: the easiness of purchasing, the perceived value of the service, and their engagement level of the service. The perceived value of the service determines whether or not the customer will make a purchase. The easiness of payment process determines how quickly an active user can convert to a paying user. The engagement level determines when the customer will pay for the service.

If the target customers are located in the pink zone in Figure 25, the company's perceived value is high, and they can invest more in improving the usability and easiness of purchasing to accelerate user conversion to paying customers. If the company's key customers are located in the green area in Figure 25, the company should improve the core function of their service to increase the perceived value. If the company is trying to acquire customers in the purple area in Figure 25, they should increase the marketing spending.

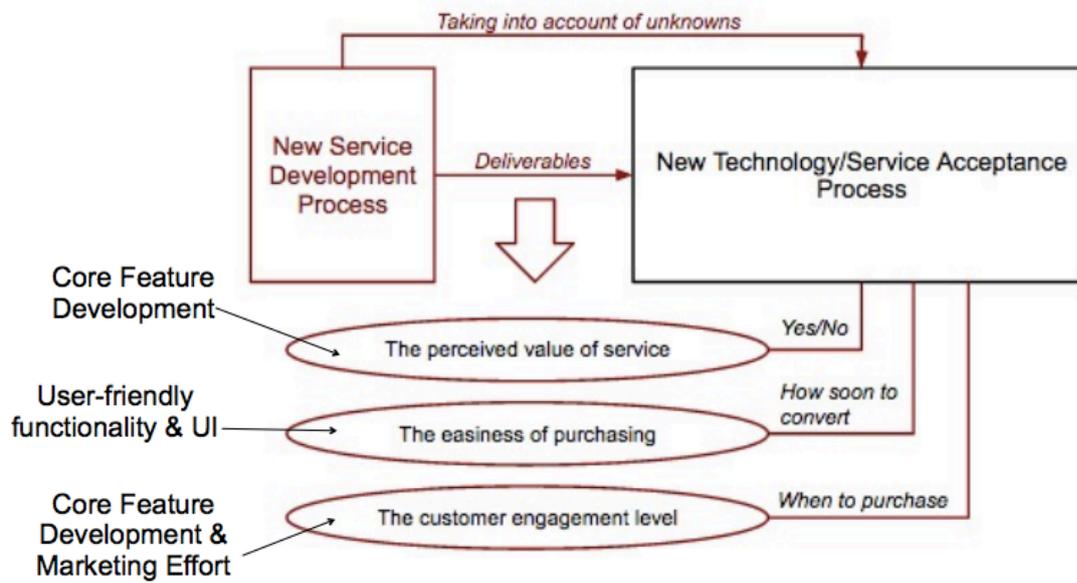


Figure 29 Customer Acceptance Factors

When analyzing a children-facing product, this model (Figure 25) is a great tool to help the service provider to think from many perspectives: the parental factors, children’s behaviors, and different types of users. Companies often make mistakes in identifying whom the business model is targeted for by taking into account only one side of user stories – ignoring either the paying customers’ side or the actual users’ side. However this model cannot be applied to all products. Depends on the products’ target age, circles in this model might locate in different locations. For example, if the target audience group is teenagers, “Device owners” group might overlap with the “Core users” group. Companies should first find their “circles” based on the parenting style and the children’s engagement level, and then locate their existing customers. For user groups that they haven’t reached and in need of either better quality service or more marketing effort, companies should reflect when is the service really created for, and then make further strategies.

10 Implications On Business Design Process

The whole design thinking process was user-driven. The journey started from understanding the user's needs and ended in co-creation with users. A holistic coverage on different types of users rather than focusing only active users has provided insight of various user experiences and guidance in product line expansion and new business models. However the case study tends to give more importance to users than to the stakeholders. In the future practices, design thinking should also take people who may affect and be affected by the solution into account.

Design thinking enhances team-based learning in multi-professional team environment where the problem and its potential solutions can be mutually understood (Lindberg et al., 2010). In the case study, the design sprint team was composed of designers, product owners, business stakeholders, and project managers. Therefore, both business and design perspectives were taken into the solution creation. However, there was a lack of engineering input. Very often, developers are instructed certain need and the use case of a feature by the product owners. Most of their time is invested in development and bug fixes. However, engineers who have great knowledge of technical implementation are extremely valuable in early concepting stage. By being involved in brainstorming sessions, software engineers can contribute complementary information and different angles of thinking to the problem understanding and coming up with potential solutions. It also helps all team members to come out from their “silos”, extend their mono-disciplinary rationales, disregard the academic boundaries, and finally develop a common ground of knowledge and agreement between different disciplines. In addition, the early-stage engineering involvement can not only reduce the time spent by an engineer figuring out the reason behind a feature request, but also avoid attempts of sacrificing design over technical simplicity.

Communications are improved through visualization in design thinking approach. Sketches and quick prototypes were used as communication tools to share, evaluate, revise, and develop ideas in complex environments. They helped to reveal relationships that were not accessible in verbal presentations. Especially in multi-cultural environment, Figures and mockups made up to the part that was lost in the translation.

There is a lot of work to do to spread the new mindset to other functions and drive the design-thinking awareness across the company. One suggestion is to organize a two-day

customer-experience immersion event for the entire digital service department. Each team sits down with their stakeholders and delivers either an explicit need understanding or a co-designed solution for a customer pain point. The goal is to push the organization to do innovation, by leveraging design to be a process, a business variable, and an intrinsic characteristic of the product. Eventually each of the individuals needs to be a design thinker.

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characteristic of the product. Eventually each of the individuals needs to be a design thinker.

Based on the empirical study, an innovative business design process is a user centric learning progress that contains the following elements: entities, ideation stage, prototyping stage, validation stage, and learning stage (Figure 27).

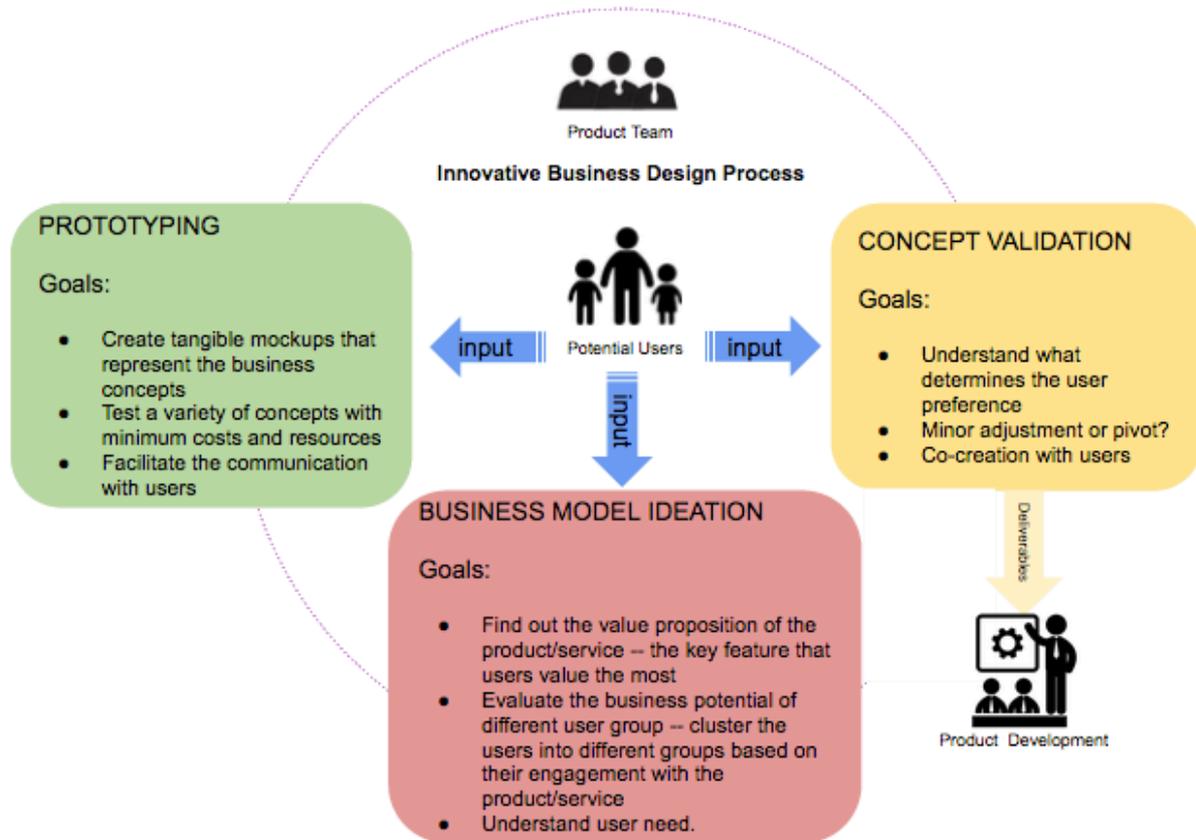


Figure 27 Business Model Design Process

Entities include the design team, a combined force of stakeholders from diverse disciplines, and the potential user group. To begin with, the potential user group can be largely scaled, from the current active users to the unreached users and even the churned users. As the business design process gets further, the scale of user group involved in will be narrowed. Because at the later stage of the process, companies will understand which user group is their main focus that brings the most expected values.

The design thinking and business thinking together kick off the business design ideation stage. The business model canvas or lean canvas can be a good tool to help the

company understand the current business situation. It is important to make sure that the stakeholders are on the same page regarding the product/service's unique value proposition and the goal of the concept design. The design team involves the user opinions for the first time to get general information of their user journey, personal lives, and feedbacks. The purpose is to find out the key problem the product/service solves and how users use the product/service. Design tools like personas, observation and interviews are useful in user needfinding.

After the concepts are generated in the ideation stage, the next stage is prototyping. The purpose of prototyping is to build something tangible that can be used as a communication facilitator in user testing. There is no recommended format of the prototypes as long as they represent clear business ideas. The prototypes should be made in a timely manner and do not need to work as perfectly as the real product. The differences between prototypes and a minimum viable product are that prototypes do not physically function as well as the minimum viable product, and that one can test a variety of ideas with prototypes whereas minimum viable product represents one strong idea the company believes in. Depending on the products and business strategies, companies can choose either to prototype or to build the minimum viable product for validation purpose. Prototypes are ideal for testing innovative ideas that might be expensive to build in real production or have high risk and market uncertainty.

Concept validation is the purpose of the business design process. With the facilitation of the prototypes, the design team can easily communicate their ideas to the potential users. During this process, the design team can find out which business concept users prefer and dislike, the reason behind their decisions, and interesting interactions users make with the prototypes. In addition, they can also observe whether users have issues while interacting with the prototypes, which triggers the team to make certain usability adjustment or pivot the business concept.

Building upon the traditional business model development, the innovative business design process starts from the human-centric angle, takes into account of the contemporary technology development process, and integrates practices from different domains. It is a useful facilitator for agile organizations to solve complicated problems.

11 Limitation Of The Study

The whole design thinking process was user-driven. The journey started from understanding the user’s needs and ended in co-creation with users. A holistic coverage on different types of users rather than focusing only active users has provided insight of various user experiences and guidance in product line expansion and new business models. However the case study tends to give more importance to users than to the company stakeholders. In the future practices, design thinking should also take people who may affect and be affected by the solution into account. The in-depth case study is used to develop and practice the user-driven innovative business design process. However the results presented in the thesis are significantly dependent on the case study and therefore miss the generalization aspect.

The business model development process is mainly for designing a new business concept for a B2C product/service. In addition, there is no guideline on how many interactions with customers should be made. Companies may find it difficult to find what is the “enough information” to gather in the customer need discovery stage. During my user interview, only adults were interviewed and children’s data was gathered based on their parents’ observation. Therefore the result might still be parents-oriented. Direct observation of children’s behavior is recommended from a company’s perspective.

This thesis only does not offer a general template to fill in when designing a business model for any children’s product. Instead the model generated from this thesis is based on specific user groups and industry, relatively small data collection, and product specific scenarios, and thus its application lacks generalization. Future studies can borrow the developing process of this thesis, but take a larger sample size in terms of users and content categories, such as music, video, books, etc.. Future studies should also include parents’ religion and education background in order to get a more complete understanding of the intentions behind their decision-making.

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13 Appendix

Toons.TV Interview Questions

Recruitment criteria:

- 6 families with kids (2 – 13 years old)
- As many as possible with international
- All families actively consume entertainment media via mobile devices.

Background questions:

- Number and ages of the kids
- Nationality
- What mobile devices family has?

Video service questions:

- Do your kids watch videos on mobile devices?
- What do you watch, when, and how often? What do parents do meanwhile?
- What services / apps you use?
- What is best about them?
- What is worst?
- Are they free or do you need to pay something? How (monthly fee, etc.) and how much?
- How do you feel about it? (If doesn't mention spontaneously, ask **why** they are willing to pay for the service.)

- Have you or your kids ever watched Toons? How (via a game, from Internet with computer) and how often?
- What do you think about Toons?
- Have you been satisfied with the amount of Toons available?

Digital currency questions:

- Do your kids play mobile games? What and how often?
- Have your kids ever bought something / spent money (digital currency) in a game? What? How often? How much? (Why not?)
- Do you control how kids use digital currency in a game? How? (Why not?)
- Do you control how kids use hard currency in a game? How? (Why not?)
- Do kids understand what digital currency is?

User Interview Notes

Sauli

Background questions:

- Number and ages of the kids: 1. 20 months.
- Nationality: Fin.
- What mobile devices family has? Windows phone, iPhone

Video service questions:

- Do your kids watch videos on mobile devices?
have been 3-4 months
- What do they watch, when, how often, and how long? What parents do meanwhile?
Watch "Kieppö", a way to get him eating, every day, half an hour.
Mummit, Shaun the Sheep
What services/apps they use? YouTube, YLE ARENA. He doesn't watch alone.
- What is best about them? Easy for child to use, YouTube commercials. YLE doesn't have kääpö and limited time to watch, fewer selection.
- What is worst?
- Are they free or do you need to pay something? How (monthly fee, etc.) and how much? Free.
- How do you feel about it? (If doesn't mention spontaneously, ask why they are willing to pay for the service.)
- Have you or your kids ever watched Toons? How (via a game, from Internet with computer) and how often?
No
- What do you think about Toons?
- Have you been satisfied with the amount of Toons available?

Digital currency questions:

- Do kids play mobile games? What and how often?
Yes - Kieppö nolla.
- Have you or your kids ever bought something / spent money (digital currency) in a game? What? How often? How much? (Why not?)
2€ for download the game.

Sauli

(A) Compare to Netflix, don't have time to watch Netflix like this model. like the freedom of choice. would like to pay smaller amount of price for more limited amount of videos. wouldn't pay more than 3€/month.

(B) Prefer this model "Free" to watch, depends on how much movies watch/day. 20 tickets/day 0.60€/day sounds reasonable. 20 mins/day usually. ticket depends on length. should. Would pay if kids insist on watching. nowadays it's easy to find free content. quality of the app (easy to use,) like the current design. Parents have to like the contents. like the feeling to controlling the "price spent" every day.

Petri

Background questions:

- Number and ages of the kids: 2 kid, 5 & 3 boys.
- Nationality: Fin.

Video service questions:

- Do your kids watch videos on mobile devices?
Yes.
- What do they watch, when, how often, and how long? What parents do meanwhile?
Cartoons, Legos. Daily after dinner (5min-90 mins). prepare food, work. Kids are free to use devices.
- What services/apps they use?
YLE Arena, Netflix, Youtube (family videos, nannon, AB).
- What is best about them? Kids profile (they won't accidentally go adults). in Finnish also.
- What is worst?
- Are they free or do you need to pay something? How (monthly fee, etc.) and how much? SE.
- How do you feel about it? (If doesn't mention spontaneously, ask why they are willing to pay for the service.)
cheap, anything below 10€, (Ruutu, katsomo, Veplay)
- Have you or your kids ever watched Toons? How (via a game, from Internet with computer) and how often?
Yes. MTV kattoo, ~~...~~
- What do you think about Toons?
Quite OK. Less violent.
- Have you been satisfied with the amount of Toons available?

Digital currency questions:

- Do kids play mobile games? What and how often?
Yes, a little. mostly watching videos. AB, reaktor made time tools.
- Have you or your kids ever bought something / spent money (digital currency) in a game? What? How often? How much? (Why not?)
No. never bought sth for them..
- Do you control how kids use digital currency in a game? How? (Why not?)
No. They aren't aware..

1. First time users will be given 500 - 1000 free movie tickets. Each time you watch a video you spend certain amount of tickets (one to three tickets depends on the video length).



2. Users will get free tickets every day.



3. When your kids have used all tickets, you can either get free ticket from watching ads or purchase a set of tickets with real money.



Petri:

could be easier to manage the way.
In line with current games, try to avoid IAP.
Kids have so many other free alternative broad alternative. not gonna buy more tickets.
OK with ads. Premium / paid video should have ads.
Want control daily tickets consumption.

"Depends on the content. Subscription would be easier for me. Easier to control prefer (A).

Leena

Background questions:

- Number and ages of the kids: 1, 12 yro.
- Nationality: Fin.
- What mobile devices family has? Android phone.

Video service questions:

- Do your kids watch videos on mobile devices? Yes.
- What do they watch, when, how often, and how long? What parents do meanwhile? No strict parents (control) -> buy they too. together. Sunday. Youtuber (Simon's cat), after school daily, newer more weekly, now playing, something you watch together, sometimes they have work & YouTube (original content), Netflix (Lego & movies).
- What services / apps they use? Go!, SW
- What is best about them? Toons (content), YouTube (all kind of information), Netflix (movies, easy selection, he has his own phone, age inappropriate esp. start, stalking, what has been watched).
- What is worst? Netfix half a year.
- Are they free or do you need to pay something? How (monthly fee, etc.) and how much? Netfix half a year.
- How do you feel about it? (If doesn't mention spontaneously, ask why they are willing to pay for the service.) So easy to watch movies. Not huge amount.
- Have you or your kids ever watched Toons? How (via a game, from Internet with computer) and how often? Go!, SW
- What do you think about Toons? 5 mins / time 2-3 episodes / time.
- Have you been satisfied with the amount of Toons available? Could be updated more frequent.

Digital currency questions:

- Do kids play mobile games? What and how often? Yes, every day. Slightly monster. AE games, clash of clans. Citylanders. Temple run.
- Have you or your kids ever bought something / spent money (digital currency) in a game? What? How often? How much? (Why not?) No.

Leena:

(A) Subscription. more often. If there's more content, sure. "Not FB login" nice. "5 ~ 6 €" for current. Don't like the transition from free to not free. Might quit w/ it. prefer (A) hassle free.

(B) needs to know. One ticket = what? Price for ticket bundle needs to be cheap. She will control the amount of tickets he uses daily, however she doesn't like to commit. he needs to wait for "daily tickets" and watch ads. he needs to learn what many means. "25€ game" = birthday gift.

Juho

Background questions:

- Number and ages of the kids: 1 & 3 yro.
- Nationality: Fin/Chi
- What mobile devices family has? Apple (iPhone & iPad)

Video service questions:

- Do your kids watch videos on mobile devices? Yes. Mostly games: simple games, color & number learning, Apple TV to meanwhile? Rotten Tomatoes (both games & videos) watched, story based.
- What do they watch, when, how often, and how long? What parents do meanwhile? 1h ~ 1.5h, more work days, every second day. Cooking, or watch together. Cartoons.
- What services / apps they use? PK, YLE Arena, Netflix (toons -), Chinese apps.
- What is best about them? start fast, easy to start, little bit educating, no violence.
- What is worst? Netfix.
- Are they free or do you need to pay something? How (monthly fee, etc.) and how much? YLE ARENA PK.
- How do you feel about it? (If doesn't mention spontaneously, ask why they are willing to pay for the service.) Prefer free, used to attach to services, free service don't create sad feelings. Subscription should be family owned.
- Have you or your kids ever watched Toons? How (via a game, from Internet with computer) and how often? Sometimes TV.
- What do you think about Toons? Not interested too much. Don't understand the story, no story continuation, lacks background story.
- Have you been satisfied with the amount of Toons available? N/A.

Digital currency questions:

- Do kids play mobile games? What and how often? Free games, often, several times.
- Have you or your kids ever bought something / spent money (digital currency) in a game? What? How often? How much? (Why not?) No.

Juho

(A) Unless someone recommends. will try one month trial. Prefer whole family can use it. Avoid creating account. password hassle.

(B) Will pay it: Use it a lot. several times a week. Kids like it. <= 4€ / month. half adults. Prefer subscription without creating account. Movie kind of. Like it. if there's pro-roll. Password system. Prefer Ads-free. Too much ads - (reduce willness to pay). 500 is a lot. (cheaper tickets & less free ticket) transition too much, no good. steep ticket price.

Juhis.

Background questions:

- Number and ages of the kids *2. ~~3 & 4~~ 9 & 11 girls.*
- Nationality *Fin*
- What mobile devices family has? *has iPhone*

Video service questions:

- Do your kids watch videos on mobile devices? *Yes. iPhone, iPad, Nexus. free to use the devices.*
- What do they watch, when, how often, and how long? What parents do meanwhile? *Dailymotion (occasionally), YouTube (music videos, Microsoft videos), Daily, 2 hrs. after school (either play or watch)*
- What services / apps they use? *Netflix & YouTube*
- What is best about them? *Netflix: easy to use, organize in order; Not so much content; not enough Finnish content*
- What is worst? *Netflix: 12 under kids profile; Dailymotion: user interface not suitable for watching*
- Are they free or do you need to pay something? How (monthly fee, etc) and how much? *Netflix, 3 years ago 8€ / month.*
- How do you feel about it? (If doesn't mention spontaneously, ask why they are willing to pay for the service.) *Nice. Happy to pay. Although kids run out of content, he can still watch.*
- Have you or your kids ever watched Toons? How (via a game, from Internet with computer) and how often? *Yes. TV ads (MTVs). Watch on TV. They know in-game, but they stopped playing AB games (Epic is now playing)*
- What do you think about Toons? *Looks nice. suitable for children.*
- Have you been satisfied with the amount of Toons available? *No idea.*

Digital currency questions:

- Do kids play mobile games? What and how often? *Yes. Minecraft. Kids will play long enough.*
- Have you or your kids ever bought something / spent money (digital currency) in a game? What? How often? How much? (Why not?) *Yes. Purchased a level.*

Juhis

(A) Subscriptions (could use it) *No ads!*

free trial period is important *uses*

Depends on } Content *☆*

 } Technical Quality. (Does it remember what I have watched).

All device Sync.

5€ less than

(B) Lump sum. *gets me*

At least install the app.

Then ask daughter (if she wants. Sure.)

Waste a ticket if someone interrupts for video watch.

4 tickets = 1€

} perform
} Don't worry about technicality.
} would rather pay for time than content.

Ero

Background questions:

- Number and ages of the kids *2. 3 & 7 yrs.*
- Nationality *Greek*
- What mobile devices family has? *iPad, iPhone*

Video service questions:

- Do your kids watch videos on mobile devices? *Yes.*
- What do they watch, when, how often, and how long? What parents do meanwhile? *Toons.tv. daily, bus ride and at home (safety)*
- What services / apps they use? *YouTube, Toons.tv.*
- What is best about them? *(bookmarked link) YouTube. always surprising what they watch on YouTube.*
- What is worst?
- Are they free or do you need to pay something? How (monthly fee, etc) and how much? *No.*
- How do you feel about it? (If doesn't mention spontaneously, ask why they are willing to pay for the service.)
- Have you or your kids ever watched Toons? How (via a game, from Internet with computer) and how often? *Yes, often. daily.*
- What do you think about Toons?
- Have you been satisfied with the amount of Toons available?

Digital currency questions:

- Do kids play mobile games? What and how often? *Yes. Angry Birds. Classic, SWI, Juice cubes*
- Have you or your kids ever bought something / spent money (digital currency) in a game? What? How often? How much? (Why not?) *No. They don't understand digital currency.*

Ero

(A) Subscriptions. *No!*

Right now Toons is free. Not a subscription person, never paid anything. *want to have*

Some free content, and some really nice content that she might pay.

Don't really need subscription services.

"Dislike the pay" "Ruin the brand image"

"wasty money because it's not used much"

(B) Lump sum. *Yes!*

"It's up to me". She controls the amount of tickets being used.

"I can increase the ticket for him!"

"I can pick 8. 10 tickets to buy. Teach them lesson about the consequence of overspending tickets"

4 tickets = 1€ acceptable.

Don't mind about the ads.

Marjo

Background questions:

- Number and ages of the kids *2. 13 & 15.*
- Nationality *Fin.*

Video service questions:

- Do your kids watch videos on mobile devices?
Yes.
- What do they watch, when, how often, and how long? What parents do meanwhile?
daily every few hr ~ 3hrs. separated.
- What services / apps they use?
smaller, cartoons TV series (ARENA/arena), sports related stuff, music videos, Aff, football. homework. media when smaller (short hours on mobile devices) 2 years they have smart phones no control since then. games also.
- What is best about them? *Youtube (age issue, porn related about it).*
- What is worst?
- Are they free or do you need to pay something? How (monthly fee, etc.) and how much?
Free.
- How do you feel about it? (If doesn't mention spontaneously, ask why they are willing to pay for the service.)
No.
- Have you or your kids ever watched Toons? How (via a game, from internet with computer) and how often?
Maybe.
- What do you think about Toons?
No idea.
- Have you been satisfied with the amount of Toons available?
No.

Digital currency questions:

- Do kids play mobile games? What and how often?
AB birds. stopped playing when are old.
- Have you or your kids ever bought something / spent money (digital currency) in a game? What? How often? How much? (Why not?)
No. They asked Mom to buy sth. (can't save progress, have to pay)
- Do you control how kids use digital currency in a game? How? (Why not?)
Yes. have to discuss.

- Do you control how kids use hard currency in a game? How? (Why not?)
- Do kids understand what digital currency is?

Business Model questions for Toons.tv app

- Toons.tv app has around 300 videos. There's once / twice weekly new content update. Both Angry Birds cartoons (Piggy Tales, Angry Birds Toons) and third-party brands (Transformers, Chakra the invincible) are on the platform. The video length is from 2 mins to 2.5 mins. Currently the service is free of charge, but sometimes there are ads in front of videos.
- Compare the following two pricing models for Toons.tv app, how do you feel about them? From a parent point of view, will you stop using Toons.tv app if one model is applied to the service?
Had Netflix. 3 months. Didn't continue. Content was good enough. As wide range should be as Spotify. Didn't buy CD ever since. Movies are old. not much content. Kids loved it, but parents refused to pay.

A. Subscription Model

You can start from a free period and then pay certain amount of monthly fee after the trial ends. Example like below:



Oletko valmis aloittamaan ilmaisen kuukauden?

Luo tili kirjautumalla Facebookin kautta:

Kirjaudu sisään Facebookilla

B. Lump Sum Model

Have to have a point

For toons, wouldn't pay at all. Different content like educational, learning language for example. Enough stuff coming from TV. online free.

Marjo

1. First time users will be given 500 - 1000 free movie tickets. Each time you watch a video you spend certain amount of tickets (one to three tickets depends on the video length). *1 ticket.*



2. Users will get free tickets every day.



3. When your kids have used all tickets, you can either get free ticket from watching ads or purchase a set of tickets with real money.



movie ticket would have fixed price, so it's easy to control. If price varies, make him watch ads. would prefer the first model if the usage increase, would prefer the fixed price.

Richard

Background questions:

- Number and ages of the kids *2, 9, 7 yro.*
- Nationality *Fin, UK.*
- What mobile devices family has? *iphone, samsung galaxy s3*

Video service questions:

- Do your kids watch videos on mobile devices? *on ipad.*
- What do they watch, when, how often, and how long? What parents do meanwhile? *Barbies, My little pony, Disney, 1 an hour/day, daily. parents work, housework, children want to.*
- What services / apps they use? *Netflix (TV), DVD, Katsuno (on PC), YLE Arna (PC)*
- What is best about them? *Good selection.*
- What is worst? *Not the latest season. (Not in kids situation).*
- Are they free or do you need to pay something? How (monthly fee, etc.) and how much? *a year / half.*
- How do you feel about it? (If doesn't mention spontaneously, ask why they are willing to pay for the service.) *fine. All devices at the same time, good option.*
- Have you or your kids ever watched Toons? How (via a game, from Internet with computer) and how often? *from Go*
- What do you think about Toons? *well designed. Not stand out good/bad*
- Have you been satisfied with the amount of Toons available?

Digital currency questions:

- Do kids play mobile games? What and how often? *Yes. Mom's phone / she knows the password.*
- Have you or your kids ever bought something / spent money (digital currency) in a game? What? How often? How much? (Why not?) *No. parents keep the passwords, control.*

Richard:

A Subscription.
 Don't want to pay for this price.
 give the amount of free content.
 Alternative

Mom prefers free
 Netflix better collection. } adapts to kids, have to be better than Netflix.
 both kids

feel not enough videos, don't feel like paying subscription for content.

B
 resist to pay money when tickets are used up. } Prefer
 so much free alternatives. }
 don't want to control the speed of using tickets.
 No comment on ads, but trust AB ads.
 wait till tickets go
 they have too many videos, even in AB.
 still tough luck.

Herman

Background questions:

- Number and ages of the kids *3 kids, 2, 5, 7 yro.*
- Nationality *Fin / Brazil*
- What mobile devices family has? *ipad (primary), samsung tab, smart phone*

Video service questions:

- Do your kids watch videos on mobile devices? *Yes.*
- What do they watch, when, how often, and how long? What parents do meanwhile? *Youtube, Netflix, Toons. Avg. 4 times/week. 45 mins. Household stuff. Save the ipad for the parents' busy moment.*
- What services / apps they use? *Watch other youth playing games, animation. Youtube. Pig tales -> Toons. Lego movies. -> Netflix*
- What is best about them? *Netflix: professional content, real animation. Youtube: large content, social content, child-friendly.*
- What is worst? *Netflix: professional content, real animation. Youtube: large content, social content, child-friendly.*
- Are they free or do you need to pay something? How (monthly fee, etc.) and how much? *Netflix: 8 months. Youtube: poor safety locks.*
- How do you feel about it? (If doesn't mention spontaneously, ask why they are willing to pay for the service.) *price is ok. content for both kids & adult. no device limit (multiple devices watch at same time)*
- Have you or your kids ever watched Toons? How (via a game, from Internet with computer) and how often? *Herman installed Toons-tv.*
- What do you think about Toons? *User-friendly for kids. Effortless for 3 yr to navigate.*
- Have you been satisfied with the amount of Toons available? *but use it on regular basis. 3-4 videos once.*

Digital currency questions:

- Do kids play mobile games? What and how often? *Yes. Minecraft, Epic, open-day game. 3 times/week.*
- Have you or your kids ever bought something / spent money (digital currency) in a game? What? How often? How much? (Why not?) *bought one character in game SW, said no. Liked more freedom. kids They ask.*

Herman:

A Subscription.
 If the price is good, then yes.
 Benchmark with Netflix, 1€ & 2€ / month
 Toons is very limited.
 content
 Some content is less funny and looks cheap.

B Tickets. ticket bundle price need to be cheap.
 "keep it simple, just want to"
 Depend on content. If it's not regular
 Not often that worth a month's subscription.
 Will use ads to get free ticket.

Prefer. simple, straightforward for regular.
 OK "can be good if I want the kids to use it, for occasional use."