Business Plan of Starting Up A Viral Web Service  
Bridging Online Video With E-commerce In Chinese Market

By

Zhenning Zhang

Master of Science in Engineering  
Shanghai Jiao Tong University, 2005

SUBMITTED TO THE MIT SLOAN SCHOOL OF MANAGEMENT  
IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE  
DEGREE OF

MASTER OF SCIENCE IN MANAGEMENT STUDIES  
AT THE  
MASSACHUSETTS INSTITUTE OF TECHNOLOGY

JUNE 2015

© 2015 Zhenning Zhang. All Rights Reserved.

The author hereby grants to MIT permission to reproduce and to  
distribute publicly paper and electronic copies of this thesis document in  
whole or in part in any medium now known or hereafter created.

Signature redacted

Signature of Author ................................................................. MIT Sloan School of Management  
May 8, 2015

Signature redacted

Certified by ................................................................. Joost Paul Bonsen  
Lecturer, Program in Media Arts and Sciences  
Thesis Supervisor

Signature redacted

Accepted by ................................................................. Michael A. Cusumano  
SMR Distinguished Professor of Management  
Faculty Director, M.S. in Management Studies Program  
MIT Sloan School of Management
Business Plan of Starting Up A Viral Mobile Application

Bridging Network Video With E-commerce For Chinese Market

By

Zhenning Zhang

Submitted to the MIT Sloan School of Management on May 8, 2015 in partial fulfillment of the requirements for the degree of Master of Science in Management Studies

ABSTRACT

The proliferation of broadband network and smart portable devices dramatically change the video service consumption behavior of Chinese millennials who are quite different from elder generation. This thesis presents a business plan for launching a new web service VideoTag for them. Based on tablets and smart phones, VideoTag integrates network video playback, social network features for users to share their watching experiences with their friends and e-commerce function for users to access the commodities and services shown in the video. The business plan is composed of the following parts: service introduction, market opportunity, competitor analysis, marketing strategy, operation plan, financial projection and management team.

The service introduction chapter delivers a detail description of the service and its business model. The market opportunity chapter introduces social context including demographics, macroeconomics, policies and technical context and key popular technology used in the industry. The competitor analysis chapter introduces several key competitors and analyzes VideoTag’s competitive advantage. The marketing strategy chapter introduces how to achieve network effect in this typical multi-sided network scenario through various marketing measures. Operation plan and financial projection for the first three years is also presented.

Thesis Supervisor: Joost Paul Bonsen

Title: Lecturer, Program in Media Arts and Sciences
ACKNOWLEDGEMENT

Hereby I would like to express my gratitude for all kindly assistance I’ve received during the preparation of this thesis.

This business idea about VideoTag was inspired by Mr. Joost Paul Bonsen who taught me two courses and guided me to participate MIT $100K entrepreneurship competition during my program in MIT Sloan. He introduced me to several key professors both in Sloan and Media Lab to discuss about this idea and learn the current technology and business status. I sincerely appreciate Joost for his mentorship through this academic journey.

I would also like to thank Prof. Wei Lu, my mentor at Antai College of Economics & Management, Shanghai Jiao Tong University. He coached my research about VideoTag’s business model from China by constant email exchange. I also appreciate the assistance and suggestion from my former colleagues at China National Engineering Research Center of DTV and Institute of Image Communication and Network Engineering, Shanghai Jiao Tong University.

I would like to appreciate my VideoTag project team mate Mr. Daniel Chen, who is a Computer Science PhD candidate at MIT CSAIL. We spent lot of time together on this project to implement the mobile application prototype and optimize the original business and technology design.

Last but not least, I would like to appreciate the support from my family during my study program here in MIT. I am deeply grateful to my wife Min Zhou’s understanding and endurance since she takes care of my daughter Aoran Zhang and the whole big family in Shanghai, China while I’m pursuing my degree at Boston, USA.
## List of Tables

The list of tables in this thesis is as following:

<table>
<thead>
<tr>
<th>Table</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Table 1 VideoTag Crowdfunding Reward Plan</td>
<td>39</td>
</tr>
<tr>
<td>Table 2 VideoTag DAU/MAU Growth Plan</td>
<td>42</td>
</tr>
<tr>
<td>Table 3 VideoTag Staff Growth Plan</td>
<td>47</td>
</tr>
<tr>
<td>Table 4 VideoTag Cloud Computing Resource Forecast (unit: unit/Mon)</td>
<td>48</td>
</tr>
<tr>
<td>Table 5 VideoTag Monthly Payroll Plan</td>
<td>50</td>
</tr>
<tr>
<td>Table 6 VideoTag Cloud Computing Resource Rental Plan</td>
<td>50</td>
</tr>
<tr>
<td>Table 7 VideoTag Income Statement Forecast For First Three Years</td>
<td>52</td>
</tr>
<tr>
<td>Table 8 VideoTag Cash Flow Statement For First Three Years</td>
<td>53</td>
</tr>
</tbody>
</table>
List of Figures

The list of figures in this thesis is as following:

<table>
<thead>
<tr>
<th>Figure</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Figure 1 VideoTag’s Function Positioning</td>
<td>12</td>
</tr>
<tr>
<td>Figure 2 VideoTag’s Home Screen VS Other Video Application’s Home Screen</td>
<td>13</td>
</tr>
<tr>
<td>Figure 3 VideoTag’s Multimedia Chatting: Graphic and Voice</td>
<td>15</td>
</tr>
<tr>
<td>Figure 4 VideoTag’s Audience Oriented E-commerce Function</td>
<td>15</td>
</tr>
<tr>
<td>Figure 5 Business Model With Viewers</td>
<td>16</td>
</tr>
<tr>
<td>Figure 6 Business Model With Advertisers</td>
<td>17</td>
</tr>
<tr>
<td>Figure 7 Business Model With Video Content Producers</td>
<td>18</td>
</tr>
<tr>
<td>Figure 8 Bullet Screen</td>
<td>21</td>
</tr>
<tr>
<td>Figure 9 VideoTag Personas</td>
<td>23</td>
</tr>
<tr>
<td>Figure 10 China Online Video Market Growth Trend</td>
<td>24</td>
</tr>
<tr>
<td>Figure 11 China Quickly Expanding Mobile Audience Cohort</td>
<td>25</td>
</tr>
<tr>
<td>Figure 12 Current Online Video Industry Value Chain in China</td>
<td>26</td>
</tr>
<tr>
<td>Figure 13 &quot;View and Buy&quot; function from Youku</td>
<td>29</td>
</tr>
<tr>
<td>Figure 14 Tudou’s Bullet Screen</td>
<td>30</td>
</tr>
<tr>
<td>Figure 15 Tencent Video’s New Bullet Screen Features</td>
<td>31</td>
</tr>
<tr>
<td>Figure 16 iQIYI’s “Video In”</td>
<td>32</td>
</tr>
<tr>
<td>Figure 17 iQIYI’s “Video Out”</td>
<td>33</td>
</tr>
<tr>
<td>Figure 18 Venvy’s New HTML5 Bullet Screen</td>
<td>34</td>
</tr>
<tr>
<td>Figure 19 VideoTag’s Graphic Tool for Kuso</td>
<td>35</td>
</tr>
<tr>
<td>Figure 20 VideoTag’s Unique Shopping Experiences</td>
<td>36</td>
</tr>
<tr>
<td>Figure 21 VideoTag’s Target Retention Rate</td>
<td>41</td>
</tr>
<tr>
<td>Figure 22 VideoTag’s Organization Chart By Jun 2018</td>
<td>45</td>
</tr>
</tbody>
</table>
Table of Contents

1. Executive Summary ........................................................................................................ 10
2. The Service Offering ........................................................................................................ 12
   2.1 Service Details ........................................................................................................... 13
   2.2 Business Model ......................................................................................................... 16
3. Market Opportunity ........................................................................................................ 19
   3.1 Target Market Segment ............................................................................................ 19
   3.2 Total Market Valuation ............................................................................................. 24
   3.3 Market Trend ............................................................................................................ 24
4. Competitor Analysis ....................................................................................................... 29
   4.1 Profile of Competitors ............................................................................................... 29
   4.2 Competitive Advantage ............................................................................................ 34
5. Marketing Strategy .......................................................................................................... 38
   5.1 Reward Crowdfunding ............................................................................................. 38
   5.2 Viral Marketing .......................................................................................................... 39
   5.3 Premium Conversion .................................................................................................. 42
6. Operation Plan ................................................................................................................ 45
   6.1 Objectives For Next 3 Years .................................................................................... 45
   6.2 Organization Chart .................................................................................................... 45
   6.3 Cloud Computing Resource Plan ............................................................................. 47
6. Financial Projection ......................................................................................................... 49
   6.1 Assumptions ............................................................................................................... 49
   6.2 Income Statement Forecast ....................................................................................... 52
   6.3 Cash Flow Forecast ................................................................................................... 53
7. Management Team ........................................................................................................... 54
   7.1 Zhenning Zhang (CEO) ............................................................................................ 54
   7.2 Daniel Chen (CTO) ................................................................................................... 55
Appendix 1  Primary Market Research Report ...................................................................... 56
Bibliography .......................................................................................................................... 59
1. Executive Summary

Designed for Chinese millennials, VideoTag innovates their video watching experiences by integrating social network and e-commerce features. We provide corresponding mobile apps to facilitate this new entertainment experiences anytime anywhere. VideoTag will become a new platform gathering young video viewers, interactive content producers and aggressive advertisers. The success of VideoTag is based on the following aspects:

The overall business environment is mature now. The way young people consume video contents is changing dramatically with the fast development of Internet technology. By 2014, 59.5% TV drama fans choose network as their major media consumption channel. Meanwhile, Chinese local smart phone providers quickly commoditize and penetrate the market. Now 71.9% viewers choose to watch video on their mobile phone which is the No.1 platform compared to tablets or PC. Chinese millennials heavily rely on cyber social network to stay connected with friends. Mobile shopping has also become a new trend. By 2014, there are 236 million mobile shoppers in China, a 63.5% growth rate compared to 2013.

VideoTag offers unique user experiences with integrated business model. VideoTag offers a socialized video content portal to facilitate viewers’ mobility among video websites. VideoTag presents the videos in an Instagram-like style instead of traditional categories. Thanks to machine learning technology and social network architecture, the priority of listed video items are dynamically adjusted based on users’ watch history and friends’ reference. VideoTag also brings significant improvement to current “bullet screen”, an video interactive technology very popular among our target user group. With VideoTag, multimedia tags (including avatars, art text, emotion icons, sound clips or even comics) can be uploaded and overlaid at selected position of the video scene and synchronized to specific playback time. VideoTag enables such kind of comments sharing across all major video websites,
which is unique compared to other competitors. Users may also know new friends with similar background and same program preference, which turns out to be a big requirement from our market research. When users get familiar with tags, VideoTag offers shopping info presentation for the product placed in video. As a multi-sided platform, VideoTag designs different business model for users at each side. For viewers, VideoTag offers “freemium + premium” model and try to get revenue based on value added services. For advertisers, VideoTag will charge advertising fee and affiliation fee for e-commerce deals. For content producers, VideoTag can offer consulting service based on our understanding of viewers preferences.

**VideoTag uses various marketing strategies at different stages.** To successfully launch the service, VideoTag will use crowdfunding to accumulate first batch of active users. Then we will depend on our designed in viral feature to accumulate active users quickly with low acquisition cost. We expect to win 3 million DAU and 10 million MAU by 2018. As soon as we’ve got remarkable active user group, we will try to convert them to become our premium members.

**VideoTag has a promising operation plan.** We plan to set up our office in Shanghai in order to have quick response to Chinese users. The operation cost is also lower compared to US. We will organize a small but lean team to implement our dream. We expect to achieve positive cash flow within 30 months.

**VideoTag has a strong execution team.** Zhenning Zhang and Daniel Chen are the two co-founder of VideoTag. Zhenning is an MIT Sloanie with 10 years TV & Media technology industry experiences. Daniel is an MIT CS PhD candidate with outstanding architecture and coding capability. Under the guidance of advisor from MIT Media Lab, we are confident to successfully launch this brand new web service in competitive Chinese market.
2. The Service Offering

We offer our customers an innovative auxiliary information service consumed together with online video watching. We provide corresponding apps on mobile devices to facilitate this new entertainment experiences anytime anywhere. Based on our observation and market research, we find that viewers usually have some emotional needs that have not been catered during their video watching process, for example, finding video websites' home pages disorderly and boring, sharing their feelings at specific moments with friends, making fun of specific plots or scenes, sourcing the provider for the fancy product or services shown in the program, etc. These information are usually not contained within the video stream. VideoTag is designed to fill this gap in the market and become a new platform bridging video watching, social network and e-commerce. There are already some business forms existing in the crossover of any two of the three industries. But our function positioning is unique as shown in the following figure:

![VideoTag’s Function Positioning](image)

Figure 1 VideoTag’s Function Positioning
2.1 Service Details

Instead of delivering online video streaming service by ourselves, VideoTag enable users to exchange information on our platform and see the information overlaid on streamed video from major video websites. We integrate three major function in our web service and mobile apps: socialized video portal, immersive multimedia social tool and interactive shopping experiences.

1. Socialized Video Portal

Current mainstream video websites’ APP usually classifies video according to their categories on their home screen. But VideoTag offers an Instagram-like home screen as follows:

![Figure 2 VideoTag's Home Screen VS Other Video Application's Home Screen](image)

Users can scroll up and down on home screen to see various video items. A touch on a specific video icon will bring users to the video playing interface. We believe this home screen design can be widely accepted since Chinese millennials are quite familiar with the interface of WeChat Moments (微信朋友圈), where users will scroll deeply down to see posts from their friends. With VideoTag, all the video items displayed on home screen are dynamically arranged based on our unique machine learning algorithm. Previous video content recommendation usually use algorithms
like collaborative filtering. But these algorithms still fail to consider the influence from user’s friends who might have quite different video selection taste that the user wants to follow. Based on our user survey, we find that audience rate the recommendation from their friends (real human being instead of a machine) almost as important as their own taste when choosing video contents. With machine learning technology, we can detect how each user is influenced by their friends. If the user has a high click through rate of the video his friends recommend, we will know that the user is easily influenced by others and prioritize such kind of videos on home screen accordingly. On the contrary, if the user seldom click through friends recommended videos, we will sort the video on home screen mainly based on his previous watch history or other mature recommendation algorithm. Of course, users are allowed to put certain video items on top manually. We believe this will bring the quickest reference to the contents users love and break the previous shackles of categories.

2. Immersive Multimedia Social Tool

With VideoTag, viewers may feel as if their friends are watching shows together on the same sofa. Couples may share their opinion towards a soapie if even they cannot watch it together. Compared to bullet screen (introduced in following chapter), VideoTag make comments pop up at specific position as tags on the screen and remain there for some time before disappearing. This design integrates comments with both temporal and spatial information, offering much more comment possibilities for both normal users and implanted commodity digital marketing team.

We also find that it’s not enough to express our feeling only with words. A graphic or voice message could be much more interesting and vivid. Just imagine your friends may generate very private and funny dubbing with dialect. This function is presented in Figure3. We also allow viewers to know new friends with similar personal background and video program preferences, which is appreciated amazingly based on our primary market research.
3. Interactive Shopping Experiences

VideoTag enables audience to purchase the commodity or services shown in videos. When viewers pause the video playback, items available for purchase at that specific scene will be presented for viewers to browse and choose. Besides all the items already listed available, VideoTag allows users to put a "WANTED" sign on any object within a paused video scene and ask our customer service for detail shopping information.

Figure 3 VideoTag's Multimedia Chatting: Graphic and Voice

Figure 4 VideoTag's Audience Oriented E-commerce Function
Once such shopping requirement is put in the system, it will appear in user’s “wish list” until this requirement could be met or the question could be answered by our customer service team. This might be a big challenge to our customer service team. But we believe this will truly make us different from other competitors.

2.2 Business Model

We plan to build VideoTag as a new platform for people to exchange their opinions and extra information about the video they are watching. The major users of this platform include online video viewers, video content producers and advertisers. Thus the core business model of VideoTag is a multisided market (Hagiu, 2014). The platform’s value is implemented by different but highly interdependent user groups’ continuous appearance and interactions.

According to the operation principle of entertainment business, VideoTag need to attract as many viewers as possible, which is the first step to achieve “network effect”. Platform with huge amount of viewers will naturally attract parties at other sides to join. Therefore we mainly will give allowance to viewers to attract them. With viewers, we decide to use “Freemium + Premium” business model. The business model canvas is shown as follows:

![Business Model With Viewers](image)

Figure 5 Business Model With Viewers
With this “ Freemium + Premium” business model, VideoTag are free to use for most of the viewers. One part of the revenue from viewers will come from value added services with the social network, for example, selling special designed emotion icon package or providing date matching. The other part will come premium membership with which viewers can get access to restricted videos at multiple major video websites in China. In order to have a sustainable business environment, VideoTag will cooperate with these websites on legitimate video contents. Our servers will be deployed in Ali Cloud for scalability.

Once we’ve accumulated enough viewers on our platform, we will try to sell our services to platform users at other sides. Based on our survey, about 30% of the viewers had the impulse to buy some interesting stuff from the video. Triggered by vivid product/service application scenario in movie or TV drama, viewers are encouraged to initiate the product/service information acquisition or even purchase/book the item right away with electronic payment. Instead of delivering online-shopping function by ourselves, we will refer viewers to leading e-commerce platforms and the official website of brands and earn affiliation fee from our e-commerce partners. Viewers’ interaction behavior summarized by big data technology could provide valuable reference for product placement.

<table>
<thead>
<tr>
<th>Key Partners</th>
<th>Key Activities</th>
<th>Value Proposition</th>
<th>Customer Relationships</th>
<th>Customer Segments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alibaba Group</td>
<td>Offer Product Information Insert Platform</td>
<td>New Marketing Channel</td>
<td>Customer Self-Service</td>
<td>Advertisers</td>
</tr>
<tr>
<td>JD.com</td>
<td>Provide Audience Behavior Data</td>
<td>Understand Audience’s Behavior</td>
<td>Technical Docs</td>
<td>Coca-Cola, Pepsi</td>
</tr>
<tr>
<td>groupm</td>
<td>Audience Interactive Data Market Channel</td>
<td>Tracking Ads Feedback</td>
<td>Technical Support to IT Division</td>
<td>Adidas, Nike</td>
</tr>
<tr>
<td>Nielsen</td>
<td></td>
<td>New E-Comm Channel</td>
<td>Channels</td>
<td>H&amp;M, ZARA</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cost Structure</th>
<th>Revenue Streams</th>
</tr>
</thead>
<tbody>
<tr>
<td>R&amp;D Cost</td>
<td>SaaS</td>
</tr>
<tr>
<td>Cloud Computing Resource Rent</td>
<td>Video Overlaid Advertisements</td>
</tr>
<tr>
<td></td>
<td>E-commerce Affiliation Fee</td>
</tr>
</tbody>
</table>

Figure 6 Business Model With Advertisers
Netflix’s success of investing on House of Cards reveals that viewer’s feedback collected by big data technology could be invaluable to video content producers (Carr, 2013). We will also deliver consulting service to leading video producers in China by monetizing the information we’ve collected with our advanced machine learning algorithm.

**Figure 7 Business Model With Video Content Producers**
3. Market Opportunity

3.1 Target Market Segment

VideoTag is designed for Chinese millennials, a truly unique generation covering 30.5% of country's total population. The Chinese millennials could be divided into two distinct, though related, groups. One is “80 后” (After 1980) cohort born in 1980s and the other is “90 后” (After 1990) born in the 1990s. Due to the fast economic growth brought by “Reform and Opening-up” policy in 1978 and “One-Child” policy in 1979, the Chinese millennials (Fong, 2004) “were born into a world that is vastly different from the world their parents grew up in.” China experienced a massive and abrupt change of direction in the last 30 years, shifting from a planned economy to a market economy, from high fertility to very low fertility, from autarky to globalization. The urbanization rate grew from 26% in 1990 to 53.7% in 2013 (National Bureau of Statistics of China, 2014). After the recovery of national college entrance examination in 1978, Chinese citizens’ educational level has been steadily rising. By 2009, new labor force receive on average 12.4 years of schooling. About a quarter have attended a university or another institution of higher education. The Chinese millennials have the following unique characteristics:

They are bullish about their personal finance. As the first generation in the history of the People’s Republic of China to be raised amid relative prosperity and social stability, Chinese millennials are definitely more affluent than their elders. Elder generations keep being frugal while young people have quite opposite shopping habits. These young consumers barely save and spend most of their income on entertainment like online games, advanced electronics like iPhones, and other trendy products. They often shop online and look for products that help distinguish their personalities. China’s consumption on entertainment and media is growing at 10.9% (CAGR) will surpass Japan to become No.2 worldwide biggest market by 2016 (PricewaterhouseCoopers LLP, 2014).
**Their higher education brings few guarantees.** By 2013, the unemployment rate in China was 4.05% (National Bureau of Statistics of China, 2014). But there is obvious structural unemployment in China. China has been relying on export and infrastructure investment to drive its economic growth for last decades. But the aim of its education mismatches the "world’s factory" industry requirement, which leads to a strange phenomenon: more a youngster is educated, more likely he/she will become unemployed. Therefore, all the career development offices in Chinese universities are facing huge pressure. In 2013, only about 35% of 7 million university graduating students found jobs (MyCOS Data, 2013). This means that lots of well-educated youngsters may spend quite some time hanging around on the Internet to find jobs, entertain themselves or just kill time.

**They face more pressure of marriage.** China’s gender disparity among youngsters has been “most serious and prolonged” in the world, a direct ramification of one child policy, traditional bias for sons and abnormal daughter abortion rate induced by advanced medical technology. By the end of 2013, the sex ratio (M:F) at born was 117.9. Together with the population statistic data, we can infer there are 26.85 million men need to remain unmarried later. In China, there is a tradition that groom should resolve the problem of house property. Due to the real estate bubble after millennium, more single young men and women will have to stay longer with their parents.

**They are thumb tribes.** Concurrent with China’s rapid economic growth has been a worldwide proliferation of new technology, bringing novel forms of communication and increased exposure to foreign culture and ideas. 649 million Chinese people have access to Internet by Dec 2014, 85.8% of whom are using their mobile phone to get web services (CNNIC, 2015). Thanks to the quick development of 3G/4G network and expanded Wi-Fi coverage, many people living in less developed regions can read news, chat with friends, enjoy recreation and shop online with their relatively cheap 山寨 (“Shanzhai”) smart phones. Costing around $160, a typical new Android Shanzhai phone has a 5.5 inch Full HD touch panel, 4G LTE network, 8-core
processor and 16GB data storage, supporting almost all available fancy mobile applications. Advanced telecommunication and consumer electronics industry have allowed Chinese Millennials to communicate with each other on a scale that would have been impossible in previous decades. Almost everyone uses QQ or Wechat (instant messaging tool from Tencent) to stay connected with their social network.

Their video watching habits are different. With the convenience of video on demand, more and more Chinese millennials chose to watch their favorite video programs on video websites. According to CNNIC, millennials cover more than 60% of the online video audience. Movies, TV series and variety shows have gradually become their most favorite program types. Of course a cohort of them, usually called “2D elements (二次元)”, still love to watch animation from time to time. They also love to use “bullet screen(弹幕)” which originated Japanese video website Niconico.com. Bullet screen technology enable audience to upload their text comments instantly. These comments are overlaid directly onto the video and synced to a specific playback time. This allows comments to respond directly to events occurring in the video, in sync with viewer – creating a sense of shared watching experiences. "Bullet screen" function was introduced to China mainland in 2008 and soon became very popular among teenagers and young comic fans. According to our market research survey result, about 90% of millennials are familiar with “bullet screen”.

Figure 8 Bullet Screen
VideoTag is designed for millennials who are keen on video watching with bullet screen, online chatting and online shopping. Here are some of our target user personas:

**Sunny**
“Leftover Goddess”
- Age: 27
- Location: Wenzhou, Zhejiang
- Occupation: Designer
- Monthly Income: 6000 RMB
- Status: Single

- Preference: anything that cheers me up
- Bullet Screen: usually turn on and comment on ridiculous scene
- Viewing Companion: Bestie
- Shopping: Imported snack food, apparels, luxury bags

**Polaris**
“Nerdy Indoorsman”
- Age: 28
- Location: Shanghai
- Occupation: Software Engineer
- Monthly Income: 8000 RMB
- Status: In stable relationship

- Preference: TV drama with strong cast, variety shows, comedy
- Bullet Screen: Turn on occasionally to see if there are interesting comments
- Viewing companion: girlfriend, university alumni
- Shopping: Something my girlfriend tagged, to give her romantic surprise
Fangfang  "Paycheck To Paycheck"
Age: 24
Location: Zhengzhou, Henan
Occupation: shop assistant
Monthly Income: 3000 RMB
Status: Single
Preference: variety shows, domestic ancient costume drama
Bullet Screen: usually turn off due to the disturbance and negative comments from strangers on loved programs.
Viewing Companion: siblings, former colleague in other cities and friends
Shopping: check brand and price of beautiful clothing on Taobao.com

Yunpeng  "Urban Petty Bourgeois"
Age: 27
Location: Beijing
Occupation: Engineer
Monthly Income: 6500 RMB
Status: Married
Preference: anything rated high by friends or professional reviewers
Bullet Screen: usually turn off due to the disturbance
Viewing Companion: family members and close friends
Shopping: high-tech product in science fiction

Figure 9 VideoTag Personas
3.2 Total Market Valuation

By 2014, Chinese online video audience have grown to 433 million. On average, Chinese netizens spend 25.9 hours online every week. Based on the latest research data, 21.4% of the audience choose to watch TV series only online and another 26.8% choose to watch mainly online. Total online video market size of China was 23.97 billion RMB (3.84 billion USD) in 2014 (Xu, 2015). Advertisement is still the major revenue source, occupying 63.4% of the total industry revenue. But the percentage of other business will expand quickly. Film or TV related consumer goods online shopping could become an important driver of this segment.

China's filmed entertainment sector will be worth 7.03 billion USD by 2018, up from 3.81 billion USD in 2013, a CAGR of 13%. Internet giants, private equities and even common people want to share financial returns from this industry boom. Therefore huge amount of capitals pour into film and TV industry within the last years. At the moment there are more than 10 billion USD private capitals actively investing in film and TV industry, forming a promising market for corresponding consulting services.

3.3 Market Trend

Rich content, smooth playback, easy content access and short ads time are the key factors of video website's user retention rate. In order to meet these requirements,
video websites need to invest heavily on video content copyright, content distribution network (CDN) bandwidth, and try to cut video ads short. By the end of 2013, biggest Chinese video websites are Youku/Tudou (backed by Alibaba, covering 70.4% audience), iQiyi/PPS (controlled by Baidu, covering 63.8% audience), Tencent Video (owned by Tencent, covering 43.9% audience), Sohu Video (covering 39.8% audience) and LeTV (covering 36.3%). Barriers to entry into online video industry are higher than ever. Successful video website operation requires sufficient capitals, smooth content channels, good government relationship and strong technical supports. Generally speaking, Chinese online video industry shows the following trend:

**Mobile video market grows very fast.** More than 300 million audience use their mobile phone to access the video service. This cohort is also growing very fast. PCs and mobile devices are complimentarily used platforms for online video. However, compared to elder generation, young people prefer watching video on mobile devices.

The acceleration of industrial integration is obvious. As the biggest video website at that time, Youku merged with Tudou, the second biggest in August 2012. In April 2014, Youku/Tudou received 1.22 billion USD investment from a joint investment vehicle led by Alibaba group and Yunfeng Capital. After this round of new investment, Alibaba group (the No.1 Chinese e-commerce website that achieved
historical IPO at NYSE in Sep, 2014) indirectly holds 16.5% of the total issued and outstanding shares of Youku. In Nov 2014, Youku/Tudou announced strategic capital and business cooperation with Xiaomi. Both sides will work together on content production and product R&D. In May 2013, iQiyi merged with PPS to become the No.2 biggest video website in China. In Oct 2013, Suning (leading commercial retail enterprise in China) invested 250M USD to acquire 44% share of PPTV (ranked No.7 in China). They announced to invest 500M USD to buy contents in 2015. Thus we can see that the online video industry has already become a billionaire club.

**There are high homogeneity among leading video websites.** For contents, some popular TV series can be found on every website. Therefore viewers are not loyal to any specific video website. 56.5% mobile video viewers would install a new mobile app for a video program they want to see. Most video website depend largely on advertisement as their income source. However, the latest released annual report from Youku/Tudou illustrates that this single business model might not be enough (Youku, 2015). The current industry value chain is displayed as follows:

![Current Online Video Industry Value Chain in China (iResearch Inc, 2014)](image)

**Mainstream video websites share lots of technical commonness.** Adobe Flash is commonly used to display the video content on PC and Android smart phones. Since Adobe Flash is not supported under iOS, all these websites offers iOS APP for Apple
users. They also have HTML5 versions already in trial operation. H.264 has become the mainstream video codec format while HEVC is already on the horizon. The most common container formats include flv, mp4 and m3u8. By 2014, almost every major video website has integrated “bullet screen” function. Based on our survey result, more than 40% of the audience turn off “bullet screen” function while watching video even though they know this service is available. The main reason is that many meaningless comments from strangers fly over the screen and form interference. About 30% of the audience turn on this function to see those flying texts. Only about 5% of the audience are keen users of “bullet screen” who not only watch others comments but also comment actively.

The concept of social TV has been around for years. However, lots of startups working on this idea are not that successful (Lawler, 2014). Only Twitter (Adashek, 2014) and Shazam (Hockenson, 2012) still operate well in this round of social TV movement in US. The interaction between mobile phone and traditional TV (also called multi-screen experiences) is troublesome. Either QR scan or sound recognition needs users to look both the TV screen and the mobile phone screen, which is distracting. In China the most popular interactive method between TV and mobile phone is Wechat Shake which was used on CCTV Spring Festival Gala 2015 (like Super Bowl in US) and collected more than 11 billion shakes during 4 hours by distributing 500 million RMB "red envelop" (Yin, 2015).

Therefore all the leading video websites are working hard to differentiate with each other. Some are offering "over-the-top" boxes at around 50USD to occupy the hardware platform in users living room. Some are investing heavily on copyright purchase. We will see white-hot competition in this industry in coming years, which will also expedite users habits change from traditional TV to online video.

**Government policies and regulations have sustained impacts.** Because of the “Great Firewall”, Chinese netizens are blocked from Youtube and lots of other international video websites. Local video websites need to import foreign TV
programs according to annual quota set by State Administration of Press, Publication, Radio, Film and Television. The imported contents should also go through strict censorship from SARFT before they can be put online. There is an overlap on the supervision of online video industry between SARFT and Ministry of Industry and Information Technology (MII). Due to their different interests and perspectives, there are often contradictory regulations released. MII aim at boosting the development of Internet industry. So they are in general favor of the quick growth of online video industry. SARFT also need to overlook the interest of traditional TV industry, which makes them to release restriction policy from time to time. In order to set up a legal video website with business operation in China, the following registration or licenses are needed:

- Business License For Enterprise Legal Person issued by local Administration for Industry & Commerce (AIC).
- Operating Site Record issued by local AIC (needed to provide paid information service, for example, monthly subscription of video content)
- Online Audio/Video Program Transmission License issued by SARFT (about 190 websites in China have this license)
- Network Culture Operation License issued by local Administration of Culture
- Internet Publishing License issued by local bureau of Press, Publication, Radio, Film and Television (needed to produce and publish video contents)
- ICP Record Number issued from local MII
4. Competitor Analysis

4.1 Profile of Competitors

Based on our observation, we find there are both experienced powerful players and innovative new comers in Chinese online video markets. After analyzing all potential competitors, we believe the following companies are strong competitors:

1. Youku / Tudou

**Company Size:** 2,000+ employees, 13 offices in 5 cities

**Turnover:** 500M USD in 2013

**Audience Coverage:** 70.4% by 2013

**Latest Trend:** On Oct 29th 2014, Youku and Alibaba group announced that “Alibaba Group's online marketing technology platform, Alimama, will use its data and technology to support innovative online video marketing techniques, i.e. View and Buy (边看边买) developed by Youku, and Merchants' Video Channel developed by Tudou; and help small companies to improve their operations with data and make online video marketing services more accessible to them.” (Youku, 2014) The “View and Buy” screenshot is shown in Figure 13.

![Figure 13 "View and Buy" function from Youku](image-url)
Bullet screen is supported on Tudou but not no Youku. Tudou’s bullet screen has the basic text input functions, offering users to comment with different colors. It also supports emotion icon by symbol characters. The screenshot is shown as follows:

![Figure 14 Tudou’s Bullet Screen](image)

**Advantage:**
- Leading market position
- Alliance with No.1 e-commerce platform in China
- Strong content acquisition and delivery

**Disadvantage:**
- Continuous financial losses in 5 years. 143.2 M USD net loss in 2014 compared to 93.6M USD net loss in 2013
- “View and Buy” is newly launched. No scalable supporting technology and network effect yet.

2. **Tencent Video**

**Company Size:** 20,000+ employees, 10+ subsidiary companies

**Turnover:** 10B USD in 2013, 12.9B USD in 2014.

**Audience Coverage:** 43.9% by 2013

**Latest Trend:** Besides its QQ (more than 800 million active users) and Wechat (more than 400 million active users), Tencent is actively exploring its frontier in China’s massive online video industry by its Online Media Group. Now Tencent Video is
spending big to secure the exclusive broadcast rights to what people want to see. For example, Tencent has won The Voice of China (both 2014 and 2015) and live streams for 2014 World Cup and 2015 NBA.

Tencent is also actively improving its bullet screen features. Emotion icons, “Like” count numbers, hottest comment ranking and avatars besides comments have already been integrated into its version for PC platform. However, these new features have not been added into its mobile version yet. But mobile version implements a new video watching companion concept called “Film & TV Community” (影视圈) where users may share their recently watched contents with friends. We can infer that Tencent Video would like to integrate more social media or viral marketing elements into its mobile version. This function is hidden deep with the current UI design. Most updates in this community are maintained automatically by a robot account. This probably means that this concept is still under trial.

![Figure 15 Tencent Video's New Bullet Screen Features](image)

**Figure 15 Tencent Video's New Bullet Screen Features**

**Advantage:**
- Strong social network platforms and huge amount of MAU on them
- Strategic e-commerce with JD.com
- Healthy financial operation. 8.3B RMB online advertising revenue primarily driven by video advertising

**Disadvantage:**
• No e-commerce function integrated yet

3. iQIYI / PPS

Company Size: No detail data available.

Turnover: Unknown

Audience Coverage: 63.8% by 2013. Self claimed 345 million MAU by July 2014.

Latest Trend: In Nov 2014, Xiaomi Corp. (quick emerging electronics brand) and Shunwei Capital invested 300 million USD for about 10% to 15% of this site, pushing the site’s value from 2 billion USD to 3 billion USD. In Jan 2015, iQIYI announced strategic cooperation with Intel on server platform and building joint lab with NVIDIA for video deep learning technology R&D. In Dec 2014, iQIYI announced a brand new dynamic advertisement video implantation technology called “Video In” which enable users to add objects into the video with natural look (iQIYI, 2014). In Feb 2015, iQIYI announced the launch of their new video link technology named “Video Out”, which adopts smart algorithm to quickly identify the objects in the video and offer the web link to redirect audience to its own e-commerce portal (iQIYI, 2015). CTO Mr. Tang claims that automatic commodity labelling is ready thanks to deep learning and video pattern recognition technology. With these technologies and big data analysis result from Baidu.com, sellers can dynamically embed promoted commodities into the video according to viewer profile and enable viewers to finish purchase easily. iQIYI has already launched a new e-commerce subsidiary website to support the new business.

![Figure 16 iQIYI’s “Video In”](image)

32
By far, bullet screen function is supported on iQIYI website but not integrated into its mobile app yet. The bullet screen integrates simple graphic icons.

**Advantage:**
- User behavior data from search engine for precise content recommendation
- Advanced video processing technology

**Disadvantage:**
- Weak e-commerce operation experiences

4. **Venvy Interactive Video**

**Company Size:** 40+ employees, operation in Boston, Shanghai and India

**Turnover:** Unknown

**Audience Coverage:** New in China markets, launched in Dec 2014.

**Latest Trend:** Venvy Interactive Video is a new startup founded by Harvard senior student William Joy and LSE graduate Daniel Meng. The project started in Harvard Innovation Lab since May 2013. Venvy is trying to integrating shopping, entertainment and education - three independent industries - into the boarder of a video. Venvy has received financial assistance from Harvard and two rounds of investment worth millions USD. Venvy uses HTML5 as the technology platform. It pushed its latest web version and iOS version online in Mar 2015. In the latest version, a new bulletin screen function is integrated.
Advantage:

- New HTML5 features and brand new video interactive concept

Disadvantage:

- Recently published, no network-effect yet
- Video contents are acquired through illegal web services

4.2 Competitive Advantage

As a new startup without mature customer base, abundant cash and first mover advantage, VideoTag needs to choose differentiate strategy to win audience and customers from these strong competitors. **VideoTag's core competitiveness is special user experiences and low operation cost.**

1. Special User Experiences

VideoTag's user experiences are made up of three parts:

- No more lonely feeling while watching video
- Scene-based fun co-creation
- Complete social shopping experiences

With social network function integrated, VideoTag offers a unique group video watching experiences, which will be highly appreciated to Chinese millennials. Most of them are the only child in the family. Compared to the distracting bullet screen,
VideoTag automatically screens out boring or irrelevant bullet screen generated by strangers will be seen. What’s more, VideoTag offers comments sharing across all video websites. Currently bullet screen uploaded on a specific video program at a certain website cannot been seen on the same program at any other website. This is because all the comments are stored on that video website’s server. With VideoTag, users’ comments will be available across all websites. The final video presentation is a precisely synchronized combination of video streamed from video websites and comments streamed from our server.

Based on our observation and survey, Chinese millennials have their unique video consumption preference. As a more independent generation, they have their own perspective towards social media (GroupM China and CIC, 2011). Besides the bullet screen as an opinion expression or a chatting tool, some of them love to re-edit and tease the mainstream video program and share their work on Internet. This “kuso” (恶搞) becomes quite popular among young people. Therefore, VideoTag use multimedia comment input to facilitate every user to generate their own kuso. Just imagine your friends may generate very private and funny dubbing with dialect. This fun co-creation function could be one of the retention rate drivers.

Current video websites manually or even automatically (like iQIYI) embed product information into the video. We think it’s still a “Push” concept aiming to sell. However, we find that it’s never possible to tell what kind of objects or service in the video may trigger audience’s purchase impulse. Therefore, VideoTag choose a “Pull” concept. We believe it should be the viewers who can initiate the purchase process by asking for quotation, just like what we do during window-shopping. We also
understand that shopping during video watching is a kind of impulsive buying. Therefore VideoTag will integrate mobile payment to make the transaction easy and quick. Besides traditional physical goods, VideoTag also provides opportunities to bid for unique experiences like rock star concert backstage tour. Last but not least, customers can show what they've bought in the community to spread the word-of-mouth (Simonson & Rosen, 2014). All in all, we will provide a complete and enjoyable social shopping experiences based on video.

![VideoTag's Unique Shopping Experiences](image)

2. Low Operation Cost

**VideoTag does not offer video streaming service.** Providing online video streaming service could be very expensive, which requires huge investment on network bandwidth and CDN servers. Instead of holding all the video files stored on our server, VideoTag is referring audience to other video websites to get the video stream. VideoTag is the “browser” or “player” to the video world on user’s PC or mobile devices. Video streams from other websites will be decoded and displayed within VideoTag’s UI frame.

**VideoTag cooperates with other video websites legally.** We find that Venvy Video get all the video resources through an illegal web service which could not be sustainable. Recently there are have been quite some legal proceedings about video copy right infringement in China (Carsten, 2013). Any cost saving with illegal measures will turn out to be unbearable at last. VideoTag will cooperate with major
video websites and video studios for legitimate sources of contents. Meanwhile we will still try to minimize our content acquisition cost through negotiation and thus help customers save their entertainment cost as much as possible

**VideoTag minimizes user acquisition cost.** As introduced in next chapter, VideoTag mainly depends on users' social network to expand its user group. Viral marketing helps to reduce our user acquisition cost and enables us to offer more competitive prices compared to our competitors.
5. Marketing Strategy

Since VideoTag is designed to be a multisided platform to facilitate the information flow among video audience, video content producers and product/service providers, achieving network effect is vital and essential for successful business operation. Company’s key value drivers also includes the amount of active users and ARPU (average revenue per user). During the ramp up process, we will choose three different marketing measures according to corresponding growth stages.

5.1 Reward Crowdfunding

When VideoTag finishes pre alpha version internal release, trial by first batch of target users and improvement feedback collection, it needs to push first round of digital marketing while launch iterative product development. VideoTag choose reward crowdfunding to as the first step marketing measure.

Crowdfunding has become a very popular financial measures for high tech start-ups or teams first in US and then all over the world (Dredge, 2014). Crowdfunding has four major forms: reward based, equity based, lending based and donate based. The reward based crowdfunding has been widely practiced on platforms like Kickstarter. Equity based crowdfunding still needs more successful exit cases and still has legal risks in China (Glader, 2014). The most popular reward based crowdfunding platform in China is hi.taobao.com by Alibaba Group and z.jd.com by JD.com. Based our observation, the money gathered through crowdfunding usually cannot support all the product development cost. Therefore we take it as a marketing tool to accumulate first batch of active users rather than a financing tool.

VideoTag’s reward based crowdfunding plan is as follows:

**Platform:** hi.taobao.com

**Backers needed:** 3,000

**Money To Be Pledged:** 35,000 RMB (around 5,600 USD)
**Raise Time:** 30 days

**Delivery Time:** 3 Months

**Backer Rewards:**

<table>
<thead>
<tr>
<th>Package Name</th>
<th>Money</th>
<th>Backers</th>
<th>Reward</th>
</tr>
</thead>
</table>
| Early Bird         | 5 RMB | 2000    | ● First access to formal Beta release  
                     |       |         | ● First to choose favorite nick names  
                     |       |         | ● Enjoy special designed emotion icon package  
                     |       |         | ● Higher virtual coin reward for inviting friends  
                     |       |         | ● 100 lottery winner of Original Aristocracy Pack |
| Original Aristocracy | 30 RMB | 800    | Besides reward above, backers will have  
                     |       |         | ● 1 month membership to all China video websites  
                     |       |         | ● Special “elite” logo on avatar |
| Grassroots Celebrity | 180 RMB | 150 | Beside reward above, backers will have  
                     |       |         | ● Comments seen by everyone for 6 months  
                     |       |         | ● 1 MIT souvenirs |
| All-Star           | 680 RMB | 50   | Beside reward above, backers will have  
                     |       |         | ● Access to internal Alpha release  
                     |       |         | ● Proposed function possibly designed in  
                     |       |         | ● Company tour  
                     |       |         | ● Photo with founders with signature |

Table 1 VideoTag Crowdfunding Reward Plan

In order to run a successful crowdfunding, VideoTag will need to prepare the following items:

- Project Introduction Demo Video
- Pre alpha version download on VideoTag’s own website
- Monthly update of project progress (probably include UI Design, emotion icon package draft design, short video clips of the project team)

### 5.2 Viral Marketing

Once the formal beta version is released and 3,000 initial users are online, VideoTag will need to expand its user group as fast as possible. Our target is to achieve around
100,000 monthly active users within a year so we can win Round A venture capital investment for further business development. As a startup running on angel fund, VideoTag cannot afford huge marketing cost and need to control the user acquisition cost as low as possible for a healthy business operation in the long run. With chatting function embedded with video watching, VideoTag is born with social network gene and integrates many viral characteristics in its design. Therefore viral marketing (Aral, What Would Ashton Do - and Does It Matter?, 2013) will be the major marketing method during the product's life cycle. We will take the following measures to implement VideoTag's viral marketing strategy:

1. **Log In with User's Current Social Network Account**

This is the portal to user's social network. As mentioned in previous chapters, we find that users are willing to log in VideoTag with their QQ and Wechat account. This could be a very good starting point of viral marketing since Tencent Open Platform offers many open APIs for these two social network tools both on PC and mobile platform. These APIs have multiple categories, including “User Info”, “Relationship Chain”, “Application Promotion”, “Payment”, “Marketing” and etc.

2. **Allow users to easily post their video tags in their current social network**

Based on previous experiment (Aral & Walker, Creating Social Contagion Through Viral Product Design: A Randomized Trial of Peer Influence in Networks, 2011), personalized referral's conversion rate is higher than automated broadcast notifications. But the former's trigger rate is much lower than the latter. Automated broadcast notification could also be very annoying if the mechanism is not well designed. Just imagine that your video watching log is constantly posted in your Facebook. VideoTag offers a balanced solution: Users can upload their edited multimedia comments within VideoTag and then share the specific video scene (15 seconds video plus user generated comments) in their QQ Zone (QQ 空间) or Wechat Moments (微信朋友圈).
3. **Reward successful friend invitation with virtual coins**

Personalized referrals are usually more effective. But users need to put extra effort to choose who to invite in their friend lists. Users will be more sticky to the platform if their friends are also there. We will reward users with virtual coins for their continuous usage of their platform, just like how those web games do. A friend’s app installation, first interaction, continuous interaction within a week and a month will all bring the reference virtual coins which could be used for access to special video contents, emotion icon packages and souvenirs.

4. **Viral Growth Target**

According to the latest report from Tencent Research Institute (Meng & Li, 2015), the minimum average Wechat friend list length is 86 for the 1980s and 71 for the 1990s. In order to achieve viral growth, we need to maintain the K-factor above 1, which means that both the invitation rate and conversion rate should be above 12%. For retention rate, we take the chart from Flurry (Farago, 2012) as a reference and set the target for VideoTag according to its function category.

![Figure 21 VideoTag’s Target Retention Rate](image-url)
VideoTag’s DAU and MAU number growth plan is as follows:

<table>
<thead>
<tr>
<th></th>
<th>Q1</th>
<th>Q2</th>
<th>Q3</th>
<th>Q4</th>
<th>Q5</th>
<th>Q6</th>
<th>Q7</th>
<th>Q8</th>
<th>Q9</th>
<th>Q10</th>
<th>Q11</th>
<th>Q12</th>
</tr>
</thead>
<tbody>
<tr>
<td>DAU</td>
<td>100</td>
<td>5K</td>
<td>9K</td>
<td>16K</td>
<td>30K</td>
<td>50K</td>
<td>100K</td>
<td>200K</td>
<td>400K</td>
<td>800K</td>
<td>1.5M</td>
<td>3M</td>
</tr>
<tr>
<td>MAU</td>
<td>500</td>
<td>8K</td>
<td>20K</td>
<td>30K</td>
<td>50K</td>
<td>100K</td>
<td>200K</td>
<td>500K</td>
<td>1M</td>
<td>2M</td>
<td>4M</td>
<td>10M</td>
</tr>
</tbody>
</table>

|   | Q1 | Q2 | Q3 | Q4 | Q5 | Q6 | Q7 | Q8 | Q9 | Q10 | Q11 | Q12 |

Table 2 VideoTag DAU/MAU Growth Plan

5.3 Premium Conversion

In order to have enough revenue from relatively small premium member group, VideoTag has the following service design for the key questions about how to make freemium business model work (Kumar, 2014).

What is free with VideoTag?

For normal VideoTag users, they can enjoy the following functions for free:

- Enjoy all the free videos with ads from major video websites with our personalized portal.
- Invite friends from previous social network into VideoTag community and get virtual coins.
- Enjoy all the commenting functions. All generated comments will be seen within own social network.
- Know new friends from watching behavior similarity
- Can buy all the items shown in the video. But have low priority when bidding for limited version of commodity.

For premium members, they can enjoy the following extra member rights:

- “Crown” logo on avatar
- Enjoy all the membership videos without ads from major video websites.
- Get extra virtual coins for introducing friends to join VideoTag community.
- Know new friends with extra optimized recommendation algorithm to find Mr. or Mrs. Right.
- Enjoy all the newly released emotion icon package
• Generated comments could be visible beyond own social network. For example, these comments are visible to movie stars or celebrities in VideoTag community.
• Comments could be “burned after reading”
• Enjoy priority when purchasing limited commodities or services.

How can customers fully understand the premium offer?

There are several ways to notify normal users about the premium offer:
• For those users having high 7 day retention rate, VideoTag will give a free 2-week premium trial.
• Normal users may constantly see comments from premium members with crown on their avatars.
• Feel the pain of “standing last in line” when bidding something with premium members.

What is the target conversion rate?

Based on our previous survey, we know that 5% of the bullet screen users are extremely active users. Therefore, our target conversion rate is set to 5%.

How long the conversion life cycle could be?

VideoTag will launch marketing campaign once a week or once every two weeks. We believe targeted customer group may finish the conversion within 1 to 6 weeks.

How can users become evangelist?

VideoTag will always try to facilitate premium users to show off their “prestige” within and beyond VideoTag community. Besides the special function designed in the software, we will also arrange the following marketing campaigns for the premium users and let them become the “grass root celebrity”:
• Arrange tours to visit a film/TV drama making scene and meet their idols.
• Invite them to participate the audition and take minor roles in loved TV drama
• Design a total influence loop for the shopping experiences. Encourage premium members to show the limited staff they’ve bought. For example, a T-shirt with celebrity’s signature.

**What’s the ongoing innovation?**

Facilitating people to share video watching emotions among their social network function and beyond is the VideoTag’s mission. We will pursue for this goal with continuous innovation. We find that key drivers for users to use current bullet screen is to see interesting comments from strangers. We will try to raise the visibility of interesting comments according to their generator’s influence in their own social network (Aral & Walker, Identifying Influential and Susceptible Members of Social Networks, 2012). Deep learning of social network relationship, new web technologies for multimedia interaction, and smart object recognition algorithm will be VideoTag’s major technology innovation directions.
6. Operation Plan

6.1 Objectives For Next 3 Years

By Jun 2018, VideoTag will try to achieve the following goals:

- Daily Active Users: 3+ million
- Monthly Active Users: 10+ million
- Staff Number: around 40
- Quarter Revenue: 20+ million RMB
- Positive cash flow from operation
- Successful cases with advertisers and content producers

6.2 Organization Chart

By Jun 2018, VideoTag will grow into a company of around 40 people. To support millions of viewers and key accounts, the organization chart is designed as follows:

![VideoTag's Organization Chart](image)

Figure 22 VideoTag’s Organization Chart By Jun 2018
The Tech Group takes care of all R&D jobs, including web-paged version, Android & IOS Apps, back-end supporting systems, IT system deployment/support and algorithm research. We will choose the following technology to build our system:

- Front-end Technology: HTML5 + JavaScript + React.JS
- Back-end Technology: Python + Redis + Spark + Docker
- Cloud Computing Platform: Ali Cloud

The Operation Group is in charge of content generation and customer service. This team helps to guarantee our first tier user experiences in the industry. Video editors will generate interesting tags to entertain viewers. E-artist will design and release new emotion icon packages and virtual props from time to time. Community service staff helps to arrange offline marketing campaigns. E-commerce support team helps to source unique shopping items and resolve customers problem during their online shopping process.

The Marketing and Sales Group is divided into two teams: B2C and B2B. B2C team is mainly to drive the revenue from viewers and collect user requirement for product development. B2B team is to drive revenue from our key accounts (advertisers, e-commerce platforms and content producers). Team members in M&S group will also be the product owner in our SCRUM agile development process. They take care of the software product backlog.

Our Chief Financial Officer will also supervise daily administration job at this phase. To support a small high tech company running on VC, our administration group should be versatile and play multiple job roles.

Our staff number grows in three stages. 1st Stage: When VideoTag lives on self-owned capital, we will rely on our co-founders and part-time employees to develop the first software release. 2nd Stage: As soon as accumulate the first batch of active users through first round marketing campaign and reward based crowd sourcing, we will seek seed fund to expand our size. Then we will convert part-time
employees to full-time employees as the core team. 3rd Stage: When our active user number grows quickly, we will seek Round A VC to grow VideoTag into an emerging unicorn. We will hire more top management team members and expand our business development and operation team in increase revenue. The overall staff growth plan is as follows:

<table>
<thead>
<tr>
<th></th>
<th>Q1</th>
<th>Q2</th>
<th>Q3</th>
<th>Q4</th>
<th>Q5</th>
<th>Q6</th>
<th>Q7</th>
<th>Q8</th>
<th>Q9</th>
<th>Q10</th>
<th>Q11</th>
<th>Q12</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full-time CXO</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>4</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Full-time Manager/Team Lead</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>3</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Full-time Engineers</td>
<td>0</td>
<td>0</td>
<td>6</td>
<td>6</td>
<td>8</td>
<td>8</td>
<td>13</td>
<td>13</td>
<td>13</td>
<td>15</td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td>Full-time Editors</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>4</td>
<td>6</td>
<td>8</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Full-time Sales</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>3</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Full-time Admin</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Part-time Engineers</td>
<td>5</td>
<td>5</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Part-time Editors</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Part-time Sales</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Part-time Admin</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Full-time Staff Number</td>
<td>0</td>
<td>0</td>
<td>7</td>
<td>7</td>
<td>11</td>
<td>12</td>
<td>25</td>
<td>29</td>
<td>35</td>
<td>40</td>
<td>40</td>
<td>40</td>
</tr>
<tr>
<td>Total Staff Number</td>
<td>9</td>
<td>9</td>
<td>13</td>
<td>14</td>
<td>20</td>
<td>22</td>
<td>32</td>
<td>36</td>
<td>44</td>
<td>53</td>
<td>53</td>
<td>53</td>
</tr>
</tbody>
</table>

Table 3 VideoTag Staff Growth Plan

6.3 Cloud Computing Resource Plan

VideoTag choose to deploy our server in the cloud. Considering network connection speed and availability, we decide to use AliCloud, the cloud computing service from Alibaba Group. Like Amazon Web Service, AliCloud also provides virtual servers (ECS, counterpart of EC2), load balance (SLB, counterpart of Elastic Load Balancing), cloud database (RDS, counterpart of RDS), open storage service (OSS, counterpart of S3), content delivery network (CDN, counterpart of CloudFront), open cache service (OCS, counterpart of ElastiCache), open data processing service (ODPS, counterpart of EMR/Kinesis) and open table service (OTS, counterpart of DynamoDB).

Based on Instagram’s engineering experiences (Instagram, 2012), we will choose the following services from AliCloud: ECS, SLB, OSS, CDN, OCS and ODPS. At the
beginning stage, multiple ECS with Linux OS deployed with our system will be enough. Other services will be adopted with the ramp up of user number. Our cloud resource usage forecast for the coming three years is shown as follows:

<table>
<thead>
<tr>
<th></th>
<th>Q1</th>
<th>Q2</th>
<th>Q3</th>
<th>Q4</th>
<th>Q5</th>
<th>Q6</th>
<th>Q7</th>
<th>Q8</th>
<th>Q9</th>
<th>Q10</th>
<th>Q11</th>
<th>Q12</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECS</td>
<td>0</td>
<td>2</td>
<td>2</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>10</td>
<td>20</td>
<td>30</td>
<td>50</td>
<td>80</td>
</tr>
<tr>
<td>SLB</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>4</td>
<td>10</td>
<td>15</td>
<td>20</td>
<td>30</td>
</tr>
<tr>
<td>CDN+OCS</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>8</td>
<td>12</td>
<td>20</td>
</tr>
<tr>
<td>ODPS</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>4</td>
<td>8</td>
<td>10</td>
<td>20</td>
<td>30</td>
<td>40</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td>R&amp;D ECS</td>
<td>5</td>
<td>5</td>
<td>10</td>
<td>10</td>
<td>20</td>
<td>20</td>
<td>30</td>
<td>30</td>
<td>30</td>
<td>40</td>
<td>40</td>
<td>40</td>
</tr>
</tbody>
</table>

Table 4 VideoTag Cloud Computing Resource Forecast (unit: unit/Mon)
6. Financial Projection

6.1 Assumptions

VideoTag's operation is based in Shanghai, China. We will use PRC GAAP as the accounting rule. We assume that the inflation rate and house rent will stay stable in the coming three years. We assume our DAU/DMU number will grow according to the Table 2. Our revenue and cost plans are all based on this assumed user growth.

As a high-tech start-up, we won't have any revenue from investment. All the revenue will be from our sale of service. As introduced in chapter 2.2, VideoTag plans to get revenue from value added service, premium membership, affiliation fee, advertising and consulting service. For value added service, we suppose that on average each of our monthly active user will spend 1 RMB/month to buy our value added service (for example, special designed emotion icon package). We find the typical emotion icon package on Tencent wechat or QQ cost 1 RMB. From Tencent’s annual report (Tencent Holdings Limited, 2015), we can see that Tencent earns about 3 RMB/month from their MAU. Therefore we believe 1 RMB/month could be a good target for us as a start-up.

For premium membership, we suppose 5% of our MAU will become our premium members to enjoy unlimited video access to various video websites. The membership will be quoted at 20 RMB/month. This is a reasonable price since Chinese major video websites charge from 10 to 24 RMB/month. But VideoTag also have to pay to get copyright from these websites. We suppose we will have 20% channel margin rate on copyright distribution.

For affiliation fee from e-commerce, we are conservative about this business. Based on shared business operation experiences from iQIYI, we know that click through rate of shopping items in video is much higher compared to traditional web page ads. However, the percentage of deals closed is still not that high. Therefore we suppose
that 2% of the monthly active users will close a deal every month. The average deal will be 100 RMB and affiliation rate will be 3%, which means we can get 3 RMB on each deal.

As for the advertising and consulting income, the number is a pure guess. We assume that we won't have remarkable advertising income in the first year. However we will use unsold advertising inventory available to promote ourselves. Our consulting service won't be valuable when we only have few active users and user behavior data. That's why we will start this business 18 months after launch and assume that this business will grow relatively slowly.

VideoTag’s major expenses include payroll, cloud computing resources rent and office rent. The payroll (total package) plan is as follows:

<table>
<thead>
<tr>
<th>Position</th>
<th>Salary (RMB/Month)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full-time CXO</td>
<td>60,000 RMB/Mon</td>
</tr>
<tr>
<td>Full-time Manager/Team Lead</td>
<td>40,000 RMB/Mon</td>
</tr>
<tr>
<td>Full-time Engineer</td>
<td>20,000 RMB/Mon</td>
</tr>
<tr>
<td>Full-time Editor</td>
<td>10,000 RMB/Mon</td>
</tr>
<tr>
<td>Full-time Sales</td>
<td>10,000 RMB/Mon</td>
</tr>
<tr>
<td>Full-time Admin</td>
<td>6,000 RMB/Mon</td>
</tr>
<tr>
<td>Part-time Engineer</td>
<td>6,000 RMB/Mon</td>
</tr>
<tr>
<td>Part-time Editor</td>
<td>3,000 RMB/Mon</td>
</tr>
<tr>
<td>Part-time Sales</td>
<td>3,000 RMB/Mon</td>
</tr>
<tr>
<td>Part-time Admin</td>
<td>3,000 RMB/Mon</td>
</tr>
</tbody>
</table>

Table 5 VideoTag Monthly Payroll Plan

Cloud computing resource is another important operation cost. The estimated rentals of the Ali cloud service is listed as follows:

<table>
<thead>
<tr>
<th>Service</th>
<th>Spec</th>
<th>Predicted Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECS</td>
<td>8-core CPU, 16GB RAM</td>
<td>2000 RMB/unit/Mon</td>
</tr>
<tr>
<td>SLB</td>
<td>Dual 50Mbps bandwidth per unit</td>
<td>5000 RMB/unit/Mon</td>
</tr>
<tr>
<td>CDN+OCS</td>
<td>Beijing, Hangzhou, Shenzhen</td>
<td>5000 RMB/unit/Mon</td>
</tr>
<tr>
<td>R&amp;D ECS</td>
<td>2-core CPU, 2GB RAM</td>
<td>200 RMB/unit/Mon</td>
</tr>
</tbody>
</table>

Table 6 VideoTag Cloud Computing Resource Rental Plan
For office rental, we have the following plan. At the beginning stage, VideoTag will start as a SOHO since only founders are working full time and all other team members are working part-time. As soon as we’ve finished angel/seed fund, we will rent a small office accommodating less than 15 people to work. The overall size is about 150m². The monthly rent is projected as 15,000 RMB. We will also invest 90,000 on office furniture and decoration. If the business grows very well and we successfully win the series A VC, we will move into a bigger office accommodating no more than 45 people. The overall size is about 500m². The monthly rent is projected as 75,000 RMB. We will invest 400,000 RMB on to make the new office fully operational.
### 6.2 Income Statement Forecast

<table>
<thead>
<tr>
<th></th>
<th>Q1</th>
<th>Q2</th>
<th>Q3</th>
<th>Q4</th>
<th>Q5</th>
<th>Q6</th>
<th>Q7</th>
<th>Q8</th>
<th>Q9</th>
<th>Q10</th>
<th>Q11</th>
<th>Q12</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value Added Service</td>
<td>900</td>
<td>65,000</td>
<td>81,000</td>
<td>144,000</td>
<td>270,000</td>
<td>450,000</td>
<td>900,000</td>
<td>1,800,000</td>
<td>3,600,000</td>
<td>7,200,000</td>
<td>13,500,000</td>
<td>27,000,000</td>
</tr>
<tr>
<td>Premium Membership</td>
<td>300</td>
<td>15,000</td>
<td>27,000</td>
<td>48,000</td>
<td>90,000</td>
<td>150,000</td>
<td>300,000</td>
<td>600,000</td>
<td>1,200,000</td>
<td>2,400,000</td>
<td>4,500,000</td>
<td>9,000,000</td>
</tr>
<tr>
<td>Affiliation Fee</td>
<td>18</td>
<td>900</td>
<td>1,620</td>
<td>2,880</td>
<td>5,400</td>
<td>9,000</td>
<td>18,000</td>
<td>36,000</td>
<td>72,000</td>
<td>144,000</td>
<td>270,000</td>
<td>540,000</td>
</tr>
<tr>
<td>Advertising</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>10,000</td>
<td>20,000</td>
<td>40,000</td>
<td>70,000</td>
<td>100,000</td>
<td>150,000</td>
<td>250,000</td>
<td>400,000</td>
</tr>
<tr>
<td>Consulting</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>10,000</td>
<td>10,000</td>
<td>50,000</td>
<td>50,000</td>
<td>100,000</td>
<td>100,000</td>
</tr>
<tr>
<td>Total Revenue</td>
<td>1,218</td>
<td>80,900</td>
<td>109,620</td>
<td>194,880</td>
<td>375,400</td>
<td>629,000</td>
<td>1,268,000</td>
<td>2,516,000</td>
<td>5,022,000</td>
<td>9,944,000</td>
<td>18,620,000</td>
<td>37,040,000</td>
</tr>
<tr>
<td>(Business Cost)</td>
<td>18,240</td>
<td>57,000</td>
<td>75,600</td>
<td>119,400</td>
<td>213,000</td>
<td>321,000</td>
<td>567,000</td>
<td>948,000</td>
<td>1,812,000</td>
<td>3,180,000</td>
<td>5,265,000</td>
<td>9,465,000</td>
</tr>
<tr>
<td>(Sales Tax)</td>
<td>73</td>
<td>4,854</td>
<td>6,577</td>
<td>11,693</td>
<td>22,524</td>
<td>37,740</td>
<td>76,080</td>
<td>150,960</td>
<td>301,320</td>
<td>596,640</td>
<td>1,117,200</td>
<td>2,222,400</td>
</tr>
<tr>
<td>(Sales Cost)</td>
<td>9,000</td>
<td>19,000</td>
<td>48,000</td>
<td>68,000</td>
<td>68,000</td>
<td>97,000</td>
<td>1,117,000</td>
<td>1,617,000</td>
<td>2,177,000</td>
<td>3,177,000</td>
<td>4,177,000</td>
<td>5,177,000</td>
</tr>
<tr>
<td>(Administration Cost)</td>
<td>156,000</td>
<td>156,000</td>
<td>606,000</td>
<td>531,000</td>
<td>909,000</td>
<td>948,000</td>
<td>2,185,000</td>
<td>2,229,000</td>
<td>2,535,000</td>
<td>2,931,000</td>
<td>2,931,000</td>
<td>2,931,000</td>
</tr>
<tr>
<td>Profit Before Tax</td>
<td>(181,095)</td>
<td>(155,954)</td>
<td>(626,557)</td>
<td>(535,213)</td>
<td>(837,124)</td>
<td>(774,740)</td>
<td>(2,677,080)</td>
<td>(2,428,960)</td>
<td>(1,803,320)</td>
<td>(59,360)</td>
<td>5,129,800</td>
<td>17,244,600</td>
</tr>
<tr>
<td>Corporate Income Tax</td>
<td>45,524</td>
<td>38,989</td>
<td>156,639</td>
<td>133,803</td>
<td>209,281</td>
<td>193,685</td>
<td>669,270</td>
<td>607,240</td>
<td>450,830</td>
<td>(14,840)</td>
<td>(1,282,450)</td>
<td>(4,311,150)</td>
</tr>
<tr>
<td>Net Profit</td>
<td>(136,571)</td>
<td>(116,966)</td>
<td>(469,918)</td>
<td>(401,410)</td>
<td>(627,843)</td>
<td>(581,055)</td>
<td>(2,007,810)</td>
<td>(1,821,720)</td>
<td>(1,352,490)</td>
<td>44,520</td>
<td>3,847,350</td>
<td>12,933,450</td>
</tr>
</tbody>
</table>

Table 7 VideoTag Income Statement Forecast For First Three Years

Note: currency unit is RMB.


6.3 Cash Flow Forecast

Cash flow for the coming three years is projected as follows:

<table>
<thead>
<tr>
<th></th>
<th>Q0</th>
<th>Q1</th>
<th>Q2</th>
<th>Q3</th>
<th>Q4</th>
<th>Q5</th>
<th>Q6</th>
<th>Q7</th>
<th>Q8</th>
<th>Q9</th>
<th>Q10</th>
<th>Q11</th>
<th>Q12</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cash flows from operations</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Collection from customers</td>
<td>0</td>
<td>1,816</td>
<td>39,900</td>
<td>88,620</td>
<td>140,880</td>
<td>255,400</td>
<td>479,000</td>
<td>968,000</td>
<td>2,216,000</td>
<td>4,422,000</td>
<td>8,744,000</td>
<td>17,120,000</td>
<td>40,040,000</td>
</tr>
<tr>
<td>Payment to suppliers</td>
<td>0</td>
<td>(240)</td>
<td>(39,000)</td>
<td>(48,600)</td>
<td>(92,400)</td>
<td>(156,000)</td>
<td>(264,000)</td>
<td>(459,000)</td>
<td>(810,000)</td>
<td>(1,605,000)</td>
<td>(2,895,000)</td>
<td>(4,980,000)</td>
<td>(9,180,000)</td>
</tr>
<tr>
<td>Employee Payroll</td>
<td>0</td>
<td>(126,000)</td>
<td>(126,000)</td>
<td>(432,000)</td>
<td>(441,000)</td>
<td>(807,000)</td>
<td>(843,000)</td>
<td>(1,575,000)</td>
<td>(2,025,000)</td>
<td>(2,412,000)</td>
<td>(2,826,000)</td>
<td>(2,826,000)</td>
<td>(2,826,000)</td>
</tr>
<tr>
<td>Rental, Advertising, Tax</td>
<td>0</td>
<td>(57,109)</td>
<td>(69,394)</td>
<td>(254,317)</td>
<td>(193,453)</td>
<td>(242,324)</td>
<td>(287,740)</td>
<td>(1,893,080)</td>
<td>(2,091,960)</td>
<td>(2,772,320)</td>
<td>(4,091,640)</td>
<td>(5,594,200)</td>
<td>(7,969,400)</td>
</tr>
<tr>
<td><strong>Net cash flow from operations</strong></td>
<td>0</td>
<td>(181,531)</td>
<td>(194,494)</td>
<td>(646,297)</td>
<td>(585,973)</td>
<td>(949,924)</td>
<td>(915,740)</td>
<td>(2,959,080)</td>
<td>(2,710,960)</td>
<td>(2,367,320)</td>
<td>(1,068,640)</td>
<td>3,719,800</td>
<td>20,064,600</td>
</tr>
<tr>
<td><strong>Cash flows from financing</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Capital from shareholders</td>
<td>500,000</td>
<td>0</td>
<td>0</td>
<td>3,000,000</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>20,000,000</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Beginning of the quarter</td>
<td>0</td>
<td>500,000</td>
<td>318,469</td>
<td>123,975</td>
<td>2,477,678</td>
<td>1,891,705</td>
<td>941,781</td>
<td>26,041</td>
<td>17,066,961</td>
<td>14,356,001</td>
<td>11,988,681</td>
<td>10,920,041</td>
<td>14,639,841</td>
</tr>
<tr>
<td>End of the quarter</td>
<td>500,000</td>
<td>318,469</td>
<td>123,975</td>
<td>2,477,678</td>
<td>1,891,705</td>
<td>941,781</td>
<td>26,041</td>
<td>17,066,961</td>
<td>14,356,001</td>
<td>11,988,681</td>
<td>10,920,041</td>
<td>14,639,841</td>
<td>34,704,441</td>
</tr>
</tbody>
</table>

Table 8 VideoTag Cash Flow Statement For First Three Years

Note: currency unit is RMB.
7. Management Team

7.1 Zhenning Zhang (CEO)

Born in 1980, Zhenning Zhang has more than 10 years technical background in digital TV and media industry. Holding B.S.E.E (2002) and M.S.E.E (2005) from Shanghai Jiao Tong University (SJTU), he recently finishes his dual degree management program at SJTU (International MBA) and MIT Sloan (M.Sc in Management Studies).

During his school days at SJTU, Zhenning joined the research team at Institute of Image Communication and Network Engineering and participated Chinese digital terrestrial TV transmission standard drafting. During this process, he has built connection to some key influencers in China digital TV and media industry. In 2005 Zhenning started to work at Micronas Semiconductor, which is a global IC company focusing on digital TV semiconductor. Zhenning led the application team to successfully launch company’s terrestrial STB solution in China market with a reference design turn-key solution. Then he became the product marketing manager at Micronas Shanghai office to define and promote the demodulator chips designed in local site. He led sales colleague in Hong Kong and Tokyo to win product design-in at key international accounts like Samsung, Sony and Toshiba. During his days at Micronas, Zhenning used his spare time to launch a small start-up focusing on producing professional DTV test equipment, which honed his entrepreneurial skills.

In 2009, Zhenning joined Shanghai High Definition Digital Technology Industrial Co. as the manager of system product development division. He led the team to design and implement a national electronic newspaper distribution and public interactive display system for China’s biggest newspaper People’s Daily. The system is made of nation-wide back-bone system and thousands of special designed hardware terminals. All these working and entrepreneurship experiences have brought him not only rich product/project management skills but also mature and pragmatic business style.
During his stay at MIT, Zhenning continued his passion and focus on media technology and corresponding business trend. He kept exploring the latest technology development at MIT Media Lab and actively explore his network among Sloan alumni. He knew Daniel Chen when participating MIT 100K entrepreneurship competition and thus decided to work together and start this entrepreneurial journey.

Experiencing all the technology transform for digital TV within the last decade, Zhenning believes that Internet will definitely disrupt the previous broadcast industry landscape. Designed for younger generation, VideoTag could be the lever to change the whole industry business model.

7.2 Daniel Chen (CTO)

Born in 1988, Daniel Chen is a computer genius. In 2007, Daniel entered Tsinghua University’s Yao Class, which is a special class gathering top computer science students in China. Yao Class is founded by Prof. Andrew Chi-Chih Yao, a world leading computer scientist who received Turing Award in 2000. Daniel’s special talent in computer was fully discovered during his days in Tsinghua. He won scholarship and graduated cum laude. Then he received full scholarship from MIT and is pursuing PhD degree at MIT CSAIL now.

Daniel is not only a black-belt coder + hacker but also a quick learner. He can pick up any coding language within a week and become an expert. Daniel can quickly hack into a present software system and figure out the core design, which enables us to observe our competitor’s every technical move. Daniel had his summer internship at MemSQL in 2013, where his coding talent was highly appreciated. He even received a full-time job offer during the internship.

Not only a nerd, Daniel fully understands the ACG culture popular among Chinese millennials too. He is keen on mobile phone games and loves those popular variety shows on TV. He is fully passionate about VideoTag since this would be something that he can contribute to his friends and community.
Appendix 1 Primary Market Research Report

We’ve surveyed 109 interviewees in China through Internet. Here is the statistics of survey result:

Interviewees’ Demographic:

Gender
- Male: 49.54%
- Female: 50.46%

Age
- 18-22: 50.46%
- 23-25: 20.18%
- 26-30: 20.18%
- 31-35: 33.03%
- 36-45: 17.17%
- 46-60: 18.33%

Education
- High School: 1.83%
- Bachelor: 44.04%
- Master: 50.46%
- PhD: 3.67%

Occupation
- Student: 28.44%
- Blue Collar: 6.42%
- White Collar: 53.21%
- Freelancer: 11.93%

Monthly Income
- <2K RMB: 22.02%
- 2K-4K RMB: 7.34%
- 4K-6K RMB: 11.93%
- 6K-10K RMB: 22.94%
- 10K-20K RMB: 22.20%
- >20K RMB: 13.76%

Which of the following websites do you visit often?

Youku/Tudou: 88
iQIYI/PPS: 72
Tencent Video: 55
Sohu Video: 45
LETV: 35
AcFun/Bilibili: 14
Others: 29
Which is your favorite programs’ origin country? (rate 1 to 5)

What are the key decision factors when choosing program? (rate 1 to 5)

Where do you usually exchange opinions over video programs with your friends?

Which program do you mostly like to comment on?
What Do You Think Of “Bullet Screen”?  
- Don’t know: 23.86%  
- Turn off, it’s annoying: 42.20%  
- Only watch, never comment: 29.36%  
- Gossip all the time: 4.59%  

Do you want to know new friends sharing same background and program preference? 
- Yes: 70.64%  
- No: 29.36%  

Have you ever had strong impulse to buy stuff shown in video? 
- Yes: 30.28%  
- No: 69.72%  

How much do you spend on online shopping every month?  
- <100 RMB: 12.84%  
- 100-500 RMB: 40.37%  
- 500-1K RMB: 23.85%  
- 1K-2K RMB: 11.01%  
- 2K-4K RMB: 8.26%  
- >4K RMB: 3.67%  

What do you think of video advertisements?  
- Hate them! Never in my video: 31.19%  
- If they are interesting, but not too long: 54.13%  
- Any amount as long as the service is free: 14.68%
Bibliography


http://techcrunch.com/2014/01/28/to-every-social-tv-app-turn-turn-turn-turn/


http://www.forbes.com/sites/davidyin/2015/02/19/tencents-wechat-sends-1-billion-virtual-red-envelopes-on-new-years-eve/

http://ir.youku.com/phoenix.zhtml?c=241246&p=irol-newsArticle&id=1983352