

## Technology Update-Mobile Social Games: Honor of kings

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### Part 1 Introduction:

The Honor of Kings is a popular mobile social game in China which has 200 million registered users. This report would study the acceptance and usage of social system technology in the Honor of Kings.

According to Grant's analytical model, the **enabling factors** in the hardware level are the widespread smartphone and the improvement of the telecommunication networks. Advanced mobile application technology brings social mobile games to people's life. The voice recognition and voice interaction system make people easily connect. Internet giants like Tencent with a large social network and equal technical capability make efforts to push the development of social mobile games.

Secondly, there are some **limiting factors** for social mobile games as well. The capability of the smartphone is growing fast, but some smartphones cannot run games like Honor of Kings smoothly due to poor capability. The operation of some social mobile games is easy for young people, but still hard for the older generation. For protecting teenagers from addicting to games, the Chinese government sets strict rules to limit the gaming time of people under 18 years old, and this policy is also applied to social mobile games.

Thirdly, there are strong **motivating factors** for the adoption of social mobile games. Under the high pressure of society, many people choose to play games for relief. The game type of

Honor of Kings is Multiplayer Online Battle Arena, which is a highly competitive game type, so the achievement and timely feedback are equally high enough for individual users. People can experience much pleasure during a short time of 15-25 minutes. The easy operation is another motivating factor, users can use 2 fingers to operate, instead of two hands operating keyboard and mouse at the same time in the PC end. Under the large network of Tencent, people can play with their faraway friends in Honor of Kings to maintain their friendship.

Lastly, the inhibiting factor that provides a disincentive for the adoption of social mobile games is that some people have other ways to socialize, especially for older people, they have established social ways, so they are less likely to adopt the social mobile games.

## **Part 2 Comparison**

Compared with traditional online social games such as Happy farm, Parking wars, and online poker games, what is new about the popular mobile game Honor of Kings?

### **1. More teamwork- focused**

Unlike other mobile social games in which users usually play as an individual, Honor of Kings is based on the team fair play with five players in different roles. WARRIOR, MAGE, TANK, ASSASSIN, SNIPER, and SUPPORT. Each type of hero has a different set of equipment and runes to improve combat effectiveness and help team members. Share the load, work together and fight strategically. The regimental warfare of Honor of Kings pays more attention to teamwork, build the perfect team to crush your opponents in combat!

**2. Virtual intimate relationship in the game promotes interpersonal communication and enhance user stickiness.**

The Honor of Kings has an intimacy system when friends play games together, the intimacy points would add up. Several types of relationships can be chosen by users such as a best friend, lover, and girlfriend, and different relationships are represented by different logos.

A business model is developed from users' virtual relationship-building. Players can buy 'skins', cosmetics and props and give them as presents to other players. Lovers skins and cosmetics are sold in a bundle, which needs players and improve profits at the same time.

Teamwork, virtual relationship and various interactive methods in the game would reduce the loneliness of users so that they are more willing to play the game or call up their real-life friends to play the game together, increasing user stickiness.

### **3. Unique game characters**

It builds every 'hero' on Chinese traditional culture and makes them a special IP, endowing heroes with a more distinctive character.

### **4. Easier operation system and more accessible carrier.**

The Honor of Kings is embedded in mobile devices that are more accessible than PC so that users can play the game anytime, anywhere. One of the most popular occasions to play the game is in parties where friends are gathering together. Playing mobile games has become a new way of socializing among young people nowadays.

Mobile social games are easier to learn and play. To play Honor of Kings, all you need to do is moving your fingers on the screen of mobile phones; however, playing traditional PC games requires more complex operation based on mouse and keyboard.

### **5. In-game communication system**

In-game communication system, especially the in-game voice chat system makes sure the high efficiency and smoothness of cooperation between players regardless of their physical distance. The communication during the match is designed so well that users can easily share information by signals, short default messages or voice talk directly. Voice communication is equipped in the application and runs very smoothly due to the advanced technology of Tencent.

## **6. The multi-leveled use of AI also makes Honor of Kings relatively NEW**

### **a) Use of AI in penalty system:**

Data crawling: the system will collect data on the player's actions, such as the duration of immobility, the number of invalid attacks, and the distance of movement. Machine learning: machine learning technology is adopted to analyze the data of cheating, summarize corresponding characteristics, and take these characteristics as the standard to judge cheating behaviors. AI makes decisions: according to the comparison results of machine learning functions, players' cheating behaviors are evaluated. In case of serious cheating or violation, the AI system rather than humans will directly make the judgment and punish players.

### **b) Strongest PVC**

With the improvement of AI technology, officials have improved the algorithm and attribute addition of computer AI, and the emergence of the strongest PVC (Player Vs Computer). PVC game is no longer an easy exercise. The man-machine mode of different levels represents the corresponding level of computer AI, making the game more similar to the real PVP (Player vs Player) game. There's also a special 5v5 game mode where all players are computers except you.

### **c) Algorithm matching technology**

In this teamwork-focused game, algorithm matching technology provides players with the right to choose. Players can preset the style of their teammates before starting the game. Different players need to have a different tactical style of teammates to assist to achieve the best performance, which in turn stimulates users' desire to further play the game. Without the assistance of the AI algorithm, it is difficult for players to find the desired teammates in the shortest time.

## **7. Use of cloud database**

The Honor of Kings stores the data of users' matches, achievement system, game recording and other data in the cloud database, and packages the complicated data respectively through big data operation. Users can log in from the official website to view their data, self-recorded game highlights, comprehensive data analysis, and radar charts. The most intuitive is the Honor of Kings' s achievement system, which allows users to accumulate game data, integrate and reward.

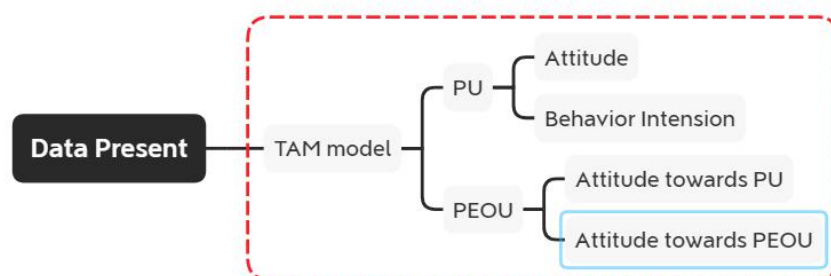
## **Part 3 Data collection and Analysis**

By comparing with traditional social games, we figure out the new social platforms, the models, and the technology update support of the Honor of Kings. shortly, we can use the seven concepts that a good new media product may have to increase the interpersonal relationship from our Week 9 reading. The honor of the king provides people with more social context rather than only texting; specifically, as the manipulation of the heroes can show the gamers' inner personality and the real-time voicing feeds the Synchronous communication function that people can talk instantly. Most importantly, it is a mobile game which means it can be reached everywhere.

These updates improve the user's comfort while playing the game and also improve the sociality of this mobile game itself. But how these patterns of the honor of King have an impact on users' social behavior?

Gender	Female: 66%	Male:34%	
Your rank	low rank: 19.2%	high rank: 80.8%	
Age	under18:17.6%	18-25:73.2%	26-35:9.2%
How long you play	<1 year:12.8%	1-4 year:71.2%	>4 year:16%
Time you spend every day	<1 hour:28%	1-4 hour:65.6%	>4 hour:6.4%

Based on the four measurement items, Perceived Usefulness (PU), Concentration, Content, and Intention, we set up a questionnaire with 12 small questions. The survey was published in the WeChat moments for 24 hours, and the data was collected on March 12, 2020. and get 250 feedback. Participation is mostly young people under 35 years old. Most of them have played Honor of Kings for more than a year and play it every day. More than 80% of the participants have a higher rank in the Honor of Kings, they have a more comprehensive understanding of the social system and technical support of this game.



Due to the topic of our presentation should not only discuss the interpersonal communication and intermedia communication but also we need the communication between people and media,

now what I'm gonna present is to explain the perspective of the interaction between people and the honor of king that based on our questionnaire result.

One best theory to measure the communication between people and media is TAM, the technology acceptance model as we've learned in lecture 4, TAM has two adoption factors that are perceived usefulness (PU) and Perceived ease-of-use (PEOU). PU is the how useful that people think of a certain technical media, PEOU is how easy to use. PU has two-measure items, attitude, and behavioral intention. From now I will combine the result of the questionnaire to analyze.

For the attitude, we designed questions like "do you think the honor of King can improve your social efficiency?" and we got the outcome data that 46%, nearly half of the participants have the positive attitude toward the honor of King, as that it can improve their social efficiency. Similarly, another question that measures the attitude is "to what extent you think that Honor of Kings help you get new friendship?" and we get data that 87% of the people admit that it helps them make friends to a certain extent.

Next, for the behavior intention, we designed questions as "how likely you are will continue using the social system of the Honor of Kings in the future?" the outcome is 75% will likely continue and 14% among them said they definitely will. Meanwhile, For how easy it is to use, we find two typical functions that designed in the game, the real-time voice function and the automatic AI hosting function, and the data shows that both over half of the participants agree that these two are good functions that make this game easier to use.

Finally, for the actual use of this game, we set questions as "How much time do you spend on Honor of Kings every day?" and the result is, over 72% of the gamers spend more than one hour in

such a virtual Kingdom. That is to say, the Honor of King has a good effect on technology acceptance for people to use.

选项	小计	比例
一小时以下 (Less than 1 hour)	70	28%
1-2小时 (1-2 hours)	102	40.8%
3-4小时 (3-4 hours)	62	24.8%
5-6小时 (5-6 hours)	9	3.6%
6小时以上 (More than 6 hours)	7	2.8%

Instead of TAM, the question "what social skills do you think can be developed by using the honor of Kings", people pick coordination skills most, then communication skills, commanding skills, and team-working. this result shows that the Honor of King does improve people's interpersonal skills.

第9题： 您认为使用王者荣耀，能够锻炼哪方面的社交能力？  
What social skills do you think can be developed by using Honor of Kings?  
[多选题]

选项	小计	比例
协调能力 (Coordination skill)	159	63.6%
指挥能力 (Command ability)	121	48.4%
表达能力 (Oral expression skill)	94	37.6%
沟通能力 (Communication skill)	121	48.4%
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In conclusion, The Honor of King has a rapid growth that matches people's demands in the current social environment. Typically, the interpersonal communication functions such as real-time voice, mobility, group match, do support the users' social networking. Also, from the TAM perspective, people have a good attitude, good behavior intention, and frequent actual use. In this game, players frequently use the social system in the glory of the king but do not pay special attention to it. The social system is more useful to help them focus on the game itself. Although players do not start playing Honor of Kings for social purposes, it's powerful social



system meets people's needs for certain functions and content. At the same time, many people have changed their views on game socialization and are willing to continue to use its social network system in the future.

## **Part 4 Trend and Prediction**

### **1. 5G Network Transmission**

The faster transmission speed and throughput of 5G can make our existing games have better network experience, and other aspects will be significantly improved, which mainly works in the following three aspects: First, at the same time, the number of players in online sports increased due to the faster speed. Second, games and voice communication would be less jammed. Third, 5G technologies would provide a better social gaming experience for game users.

### **2. Artificial Intelligence**

Artificial intelligence will help to enhance the quality of Player Vs Computer experience. With the improvement of AI technology, officials have improved the algorithm and attribute addition of computer AI, and the emergence of the strongest PVC (Player Vs Computer). PVC game is no longer an easy exercise. The man-machine mode of different levels represents the corresponding level of computer AI, making the game closer to the real PVP (Player vs Player) game. There's also a special 5v5 game mode where all players are computers except you.

The new AI hosting feature was released on August 10, 2019, on the Honour of King's official website. This function combined with the system of penalty system improved the fairness of the game. To a certain extent, it solves the problem of teammates hanging up and reduces the discomfort and failure rate of serious players and the team. The advantage is that AI hosting will not dominate the outcome of the game, the outcome is always in the hands of the players.

### **3. Virtual Reality and Augmented Reality**

Players with VR glasses will enter the game with a strong sense of reality, interacting with friends and other players like in the real world, even using body gestures or movement to control the characters, which is likely to lead the interpersonal communication in mobile social games to a new stage.

Besides, formal matches have begun to use augmented reality technologies for the audience. In the future, AR is likely to get involved with more areas such as team training.

### **4. Self-Defined Heroism with Easy Access**

The Honour of Kings, as a virtual community, people can connect much easier than in physical life, and this connection bases on mutual hobbies, which made the communication more meaningful. The game makes the phone not only a device, but people also treat it as a utopian world, specifically, people can realize their heroism by manipulating the devices. This mobile game not only increases interpersonal communication but also extend the intermedia communication. For example, people use the WeChat account to register the game and then they automatically will play with WeChat friends. Also, there are some derived forms of media, such as cartoon movies and live broadcasts, those media generates the contents based on the setting of the mobile game, but they may feed more people that from different social groups, such as short movies may feed the children, life broadcast may feed beginning players.