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Aspects of Digital Game Culture
The Cases of Eastern Europe and China

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Foreword

In 2006, a seminar on Aspects of Digital Game Culture was held at the TU Ilmenau, Department of Media Management (Sven Jöckel). This seminar acknowledged the fact that in recent years, Digital Games (Computer-, Video- and Mobile-Games) have become an interesting topic for academic research. Within the booming sector of Game Studies the focus is no longer solely on the usage of digital games by children and teenager, or the influence digital games have on aggressive behaviour. Economic and cultural aspects of digital gaming play a significant role in the academic discourse on digital games.

The aim of this seminar was to focus on these economic and cultural aspects of digital gaming. Gaming is seen as an activity that is embedded in the broader cultural and economic contexts of the users – the gamers – and the societies they live in. Few research approaches have focused on the contexts of digital game playing. Therefore the students were required to carry out some indigenous empirical research, choosing freely from available methods. Among the list of possible research topics, two topics are presented in this publication.

The first study took advantage of the fact, that as part of the international program of the Institute of Media and Communication Studies several exchange students with an Eastern European background participated in the seminar. Together with their German partners, an overview of the market for digital games in Bulgaria and Romania was carried out. After the end of the cold war, digital games have become a popular leisure activity in Eastern European states. Eastern Europeans readily adopted games, imported from the West. Within recent years, game development in Eastern Europe has increased. Many publishers nowadays use the cheap and skilled labour force in countries such as Czechia Hungary or Russia. Eastern European games such as *IL-2 Stormovik* (1C, 2001) were rather successful in the West. Games such as the Action-Adventure/Shooter *Stalker* are highly anticipated in the West. The game market in these Eastern European countries seems to be in transition. The market structure is still in movement. Study 1 thus gives a detailed overview for two of these Eastern European Countries. An online survey completed the study, describing attitudes towards digital games in Eastern Europe.

The second study pushed the intercultural context farther to the east and focused on the emerging gaming culture in China. The first part of the study focused on the offer side (companies). How can the Chinese Market be described? What is its potential? What games do people prefer? What companies dominate the market? Methodologically the study focused on secondary analysis. Data

on the Chinese market was gathered and analysed and used for an in-depth analysis of individual companies.

As a lively Asian student community has developed in Ilmenau and many of these students play digital games, some of them online in student apartments or on the net, these students bring a piece of Asian game culture to Germany. However, little is known on the way these students play games. Do they play with their friends at home? Do they stick to Asian games or has their way to play games changed during their stay in Germany? The second part of the study on the Chinese game market focused on these "gamers in diaspora" and looked at their gaming preferences.

Both studies are rather explorative in their research design. However, they explore topics that have not been in the centre of academic research yet. Both areas of research, Eastern Europe and China are markets with a high potential for the future of digital games. Gaming cultures in both regions are different to what researchers from a Western background are familiar with. These two studies will help to broaden the horizon of game studies scholars on intercultural aspects with respect to these two regions and will open the ground for future research.

Sven Jöckel

Study 1

Eastern European Gaming Cultures

A quantitative survey among digital game players from Eastern Europe.
Case studies: Bulgaria and Romania

Elena Policov, Alexander Kempf, Adriana Taurus, Lyuba Yordanova

1. Introduction

The days of skipping ropes and children playing hide-and-seek seem to be over. Nowadays kids grow up with digital games. Gaming consoles as the ***Sony Playstation2*** are long ago lifestyle products. Beside consoles, kids own mobile phones with integrated games and are well skilled in gaming at personal computers. Proverbial digital games are everywhere.

At least this is how the gaming environment appears in Western Europe. But do we really find digital games everywhere? What about the gaming scene of our Eastern European neighbors? Are expensive devices even available for them? Do they play different games than Western Europeans do, due to their different cultural characteristics? What options do game distributing campanies have on a market on which more than 95% of the products that they distribute are pirated1? Our motivation for this paper was to point out the specifics of the Eastern European gaming markets. In order to be as accurate as possible, we concentrated on two countries – Bulgaria and Romania. As only little information can be found in English, we made a quantitative research on these two countries. The paper examines also available existing studies as well as the composition of the current Bulgarian and Romanian markets (games, studios, game developers etc.).

In analizing the data obtained through our online survey, we will externalize the received data. We believe digital games are extremely complex social and technological phenomena that are situated in cultures and societies. Therefore we did not only ask the respondents for their habits and preferences in what concerns digital games, but also wanted to collect information about their social background and general attitudes.

This survey does not claim completeness as the context of digital games begins before the games are marketed, circulated and finally reach the hands of players. Playing digital games implies a wide range of habits and preferences and digital games themselves have many different types and genres. We hope our report draws a helpful picture of the Eastern European market for digital games, delivers new insight about local peculiarities and serve as a fundament for further studies.

1 Birzoi, Vali (2006): *Jocuri de strategie pe distributie*. In the online version of the Romanian „Capital“ magazine. Accessible online at URL: http://www.capital.ro/arhiva [10.06.2006]

2. Digital games market in Eastern Europe

2.1 General Facts

According to Pavel Mezihorak2, the view of a Eastern Europe as a space for innovative initiative and technological competitiveness is a recent perspective, gaining strength due to the changes and developments of the last few years. If some years ago it would have been difficult to think of a competitive game that has been developed in Czech Republic, for example, now we have many Czech games on the global market, as the widely sold *Operation Flashpoint* developed by the Prague based Bohemia Interactive Studio.

These countries of the Eastern bloc did not have any digital games markets before the collapse of communism, while having state-funded film and music industries. The situation reversed after the fall of communism: lacking governmental subsidies, film and music industries declined while games developed in Eastern Europe emerged on the global entertainment market.

Mezihorak3 estimates the current number of professional game developers in Eastern Europe at around one hundred. However, only few of them created competitive games or have a large number of employees. The majority of films developed in Eastern Europe at the moment are “hardcore” PC military action or FPS games.

There are no exact figures in what concerns the global market share of Eastern European Developers, because publicly available statistics, as the ones carried out by Screen Digest, only show the share of major players (USA, Japan, UK, Germany, France and Canada)4.

Konrad Lischka, a German journalist reporting on digital games, notices that the majority of developers in Eastern Europe struggle because of piracy on the home-markets5. Bootlegs bear the blame that producing games for the home-market is often not profitable for local studios. For the small developers and studios commercial success on foreign markets is therefore a necessity. This leads to the trend that developers often take no risk with individual games but produce directly for the Western market. The result is a bunch of challenging but nevertheless unified digital games without references to their own culture and society.

2 cf. Pavel Mezihorak, *The State of Game Development in Eastern Europe*.
3 *idem*
4 *idem*
5 cf. Lischka, Konrad (2003): *Neue Heimatkultur*.

In Eastern Europe, where wages are low, a lot of projects are obviously straightened towards the Western European and North American market. The tactic-shooter „Vietcong" of the Czech firm ***Illusion Softworks***, „Battle Isle 4" -- a remittance work of the Slovakian studios ***Cauldron*** or „Imperium Glactica II" of the Hungarian developer ***Digital Reality*** are just a few examples. Even if there are cultural references in games produced by Eastern European studios, the games come up with a typical Western game design.

A good example is „Stalker Oblivion Lost", a traditional ego-shooter developed by the Ukrainian firm ***GSC***. The game takes place in the contaminated area around Chernobyl and has strong references to Tarkovsky's 1979 movie „Stalker". The dependence on Western markets is clearly illustrated by the game "Knights of the cross", produced by the Polish ***IM Group***. The game is based on the Polish novel "Knights of the cross" written by the poet Henryk Sienkiewicz. Central point is the Battle of Grunwald around the year 1410, an important event of Polish history, which led to commercial success on the home-market. Nevertheless lots of money are earned on the Western markets, where the game flopped. As refreshing the background has been, the game play was demand-oriented once again and brought nothing new.

That digital games developed in Eastern Europe and having a specific note can be a commercial success is proved by "Tetris", which probably couldn't be distinguished by an inexperienced gamer as being a Russian game. A second "Tetris", however, is not in sight, unless the national markets and specificities will grow and proper budgets for digital games will be available. Lischka believes that as soon as the Eastern European game markets are big enough to guarantee survival of the local studios, digital games from Eastern Europe might provide the other international markets with local specificities. In the last few years, many Eastern European game producing companies entered the international market. Their activity concentrated around some successful games such as "Operation flashpoint" of the Czech company ***Bohemia Interactive*** or "Rage of mages" from ***Buka Entertainment***.

2.2 Digital games market in Romania

Regarding Romania, only two companies succeeded to launch a game in its final form. The first one was ***Active Pub*** with the game "Rival Realms", a RTS with RPG elements, which was a big success in Great Britain. ***Fun Labs*** produced another two successful titles: "Secret Service: In Harm´s Way" and "Shadow Force: Razor Unit". However, ***Active Pub*** disappeared after this, but ***Fun Labs*** have another project. It is called "Revolution", and it is a FPS which takes place in the near future and has as main character Jack Plummer. You can see this is not a Romanian name. Many other

projects were not put into practice because of financial problems.In 2005, 45% of all the games that reached the consumer were bought from the shopping chain “Diverta”. This holding undertook a research to find some characteristics about the Romanian digital games market.

The research showed that the consumers prefer games with an interesting story, with a good gameplay and high-quality graphics. The high difficulty of each level, the actual duration of the game and the price are important factors which have influence on the choice of the games. For example, “Sims 2” or “Medal of Honor: Pacific Assault” can be found in online shops for 36€. “FIFA 2005” was the most expensive game that could be found on the market, with the price of 50€, and “Heroes III” - the cheapest game, costing only 7€. Most players prefer games that can be played in groups (in Internet, for example) and the ones which offer rewards. The best sold platforms for the year 2005 were PCs with 80% of all the purchases, followed by PS2 with only 15%. Other types of consoles register a stagnation, but a growth of sales is expected as Microsoft will officially launch in Romania Xbox and Xbox2. In 2004 the best sold games were FPS games (“Alien vs. Predator”, “Battlefield 1942”, “Bet on soldier”). In the first months of 2005, 20% of the entire car racing games and 20% of the sports games were already sold out. Meanwhile, the sales for RTS and RPG are dropping (with the exception of “WOW” and “Diablo2”). They represent only 10% of the digital games sales.

In Romania there are two different categories of consumers: the ones who buy in shops and the ones who buy on-line. These categories are not complementary. The customers who buy in real shops prefer in general the genres “Virtual Life” and “Sports” and they mostly choose famous, notorious games as “FIFA”, “FIFA Manager”, “The Sims”, “Need for Speed”, “World of Warcraft”. In opposition with this tendency, the customers who buy on-line prefer obscure games, with names which do not resonate: “Worms World Party”, “Tom Clancy’s Sprinter Cell” and “The Devil Inside”. This public category also seems to show a tendency for products with a more active gameplay, as they prefer genres such as “Action/Adventure” and “MMORPG”. The fact that they buy on-line and that they are familiar with unpopular games, shows that these are people who spend much time on the internet and are interested in this area. The fact that “Barbie as Rapunzel” is among the first five positions in the real shop top sales, could be an indication that these customers are young parents, who buy games for their little children. This demonstrates two cultural aspects: the first one is that these families have certain welfare, as they own a computer, and the second one is that the parents encourage the children to work with the computer starting with an early age.

Price doesn't seem to be a very important factor in influencing the sales, as there can be found a wide range of prices starting from 6€ and ending with 63€. Among the top positions of the most popular games in Romania, we can find 3 games which cost 40€ or above and two which cost around 30€. These prices are high, when we take into consideration that the average loan in Romania is around 200€/month. The conclusion which can be drawn from here is that both types of customers have incomes above the average.

One outstanding fact is that almost all games are designed for only one kind of platform: the PC. This is probably the most important characteristic of the Romanian market. This fact has economical reasons: most people can't afford to buy a device strictly for entertainment as PS2, PSP or X-Box. In plus, our supposition would be that many gamers are teenagers between 13-18 years who still live with their parents and who do not have their own incomes. Maybe they can convince their parents to invest in a PC, which can also be used in a "constructive" way, and not only for playing games.

One famous Romanian game producing company is ***2 BAD DESIGN***, which in 2002 started a well known project: "The Hospital" (Spitalul). This project could not be brought in a final form not even until today, because of technical and financial problems. Other active projects are the "Zamolxe Graphic Engine", the multiplayer action game "Cotropitorii" and the 3D space simulator "Romanii In Spatiu".

ExoSyphen Studios focuses primarily on game development. They also develop software and games for mobile platforms as well as other portable platforms and software components for 3rd party companies. They produced the most appreciated hacking simulators in the world, according to BestGames.ro. This game is called "BS Hacker" and it is also available for Pocket PC. The first game produced by this company is called "Blue Sky: Acceptable Casualties" and was launched in November 2002. They also produced the first "Quake" port for a mobile telephone.

Another company is ***Gameloft***, which was founded in 1999 and had as main activity the production of games for mobile phones and for PDAs (Palm, Pocket PC). In 2005 they registered a huge success with the launching of "Prince of Persia: Warrior Within" for Nokia NGage QD.
Games produced 100% in Romania were: "Prince Of Persia: Harem Adventure", "Prince Of Persia: Warrior Within", "Splinter Cell: Extended Ops", "Chessmaster" and an internal brand, "Block Breaker".

In what concerns the Romanian academic research on digital games, to our knowledge came a study conducted in 2006 by the Department of Psychology and Educational Sciences from the Bucharest University. The paper was titled "Correlative study on the relation between the type of preferred digital game and the learning style"6 and tested the hypothesis that there is a correlation between the preferences in what concerns digital games and the style of learning of children and adolescents. The study was made on a sample of students from Bucharest (gamers for at least 6 years) and confirms the correlation for the reflexive and the pragmatic learning styles but invalidates it for the activist and theoretic styles of learning. The paper presented at the National Conference for Psychology and Educational Sciences (Bucharest, 2006).

2.3 Digital games market in Bulgaria

The Bulgarian digital games landscape could be characterised as having a variety of foreign products and a smaller amount of national games developers. Despite this fact, there are some companies which managed to establish themselves on the market and create products that came in competition with other games over the borders of Bulgaria.

The first Bulgarian digital game that entered the international market is "Tzar: The Burden of the Crown". This medieval fantasy combines elements of both RTS and RPG games and lets the player devise and adopt multiple strategies during game play. The game was released by ***Haemimont Games*** – probably the most famous digital games' developer in Bulgaria. The company creates all aspects of their games, from concept to graphics and programming and associates with partners like ***Atari***, ***CDV Software Entertainment***, ***Enlight Software*** and ***Octagon Entertainment***. Another product of ***Haemimont Games*** is the adventure in the Celtic world "Celtic Kings: Rage of War", also a real-time strategy. The game was released in many European countries and was the best selling title in Spain in November 2002. Other popular games of the company are "Glory of the Roman Empire" and "Rising Kingdoms".

Another leading Bulgarian game developer is ***Black Sea Studios***. The company, established by some of the programmers who worked in ***Haemimont***, aims to become a centre of the gaming industry in whole South-Eastern Europe and became famous with its contract with the German distributor ***Sunflowers***. The most popular game created by ***Black Sea Studios*** is "Knights of Honour" – a simulation in real time that deals with empire conquering.

6 Claudia Preotesiu; Andrei-Gabriel Stancu and Simona-Alina Vasilescu (2006): *Studiu corelativ privind relatia dintre tipul de joc digital preferat si stilul de invatare* (Correlative study on the relation between the type of preferred digital game and the learning style).

Other types of games, created by Bulgarian companies, weren't that successful on the market. There is a great variety of Bulgarian browser games that aren't at least popular among the players though. As for online games, the mostly played one is the online poker. Bulgaria's biggest distribution firm for digital games is ***Pulsar Games***. The company is official distributor for ***Electronic Arts***, ***Vivendi Universal***, ***Lucas Arts***, ***Dreamcatcher*** and many others as well as sponsor of the first Bulgarian digital game "Tzar". Although ***Pulsar Games*** offer a wide range of digital games, the game clubs remain their main buyers. The Bulgarian game players prefer to pay between 2 and 4 euro for unlicensed versions of the games. Despite, the leader among the games played in Bulgaria – "Warcraft" by ***Blizzard Entertainment*** – stimulates its clients to buy the original disc by offering the special CD key for playing online only in the licensed version. Another method against the piracy on Bulgarian market are the translated versions of the games, which could be obtained only in official shops.

"World of WarCraft" is the game that dominates on the Bulgarian digital game scene. It was on the first place among the mostly played games for the period March'06 – May'06. Other often played games in Bulgaria are "Lineage II", "NFS: Most Wanted" and "FIFA 06", according to a survey made by "PC Mania" Magazine (PC Mania online).

Further results of the same survey show that most of the Bulgarian players play at home and only 17% of them – in computer clubs. The most favoured game genres are real time strategy, action and role-playing games and the most favoured scenarios - science fiction, fantasy as well as World War II. Interesting to know is that Bulgaria was the first European country to recognise eSports as official kind of sport. The country managed to get a license for the probably most successful eSports league, ESL (Electronic Sports League).

3. Method of research

3.1 Explorative online survey

Through our research we sought to reach as many Eastern European gamers as possible, and the only way to do that was to open an online survey. Because of the personal contacts of the team with Bulgaria and Romania, we expected to have most respondents from these countries.

Period: The survey was opened for respondents in the period between the 17.06.2006 and 31.08.2006

Language: As our target – Eastern European gamers - was very likely to speak English, we chose

this language for the survey and eliminated the option of having Romanian and Bulgarian versions of the questionnaire, because of the different alphabets (not supported by the program we used), and possibly different variables caused by the translation bias.

3.2 Structure of the questionnaire

To attract respondents' attention, we searched for an ice-breaking question and went for "Do you consider yourself to be a gamer?". Further on, we structured our questionnaire in categories. The first logical category was *Utilized Equipment*, containing 2 questions concerning the games-playing devices and the internet connection. The second category was *Gaming Practice*, in which we tried to find out the places, times and rituals of the game players, through a number of 10 questions. In the third category, *Gaming Preferences*, we tried to find out what genres and types of games Eastern European gamers favour. This category contains 8 questions. The fourth category encloses questions about the opinions of our respondents, concerning game playing and reasons for it. In this category we inserted also some questions regarding the numbers of games they buy, because we considered this as a quite neutral category that could make participants respond such type of inconvenient and avoided questions. In the fifth category, we have 2 questions concerning *Games acquaintance*: how familiar the players are with different games and games producing companies from Eastern Europe. The last category concerns the personal background of the respondents (age, gender, urban/rural distribution, occupation, country, etc.).

4. Results

4.1 Sample of the survey

We cumulated a number of 125 persons that completed the questionnaire till the last page, from the total sample of 326 that entered the link. The net participation number is 240 persons (100%) from which 125 (52.08%) persons completed the questionnaire. The sample is not a representative but an explorative one.

Countries: As expected, most of the respondents were from Romania (44.80%) and Bulgaria (39.20%). The presence of other countries in the sample was irrelevant, having percentages less than 2: Croatia, Lithuania, Poland, Russia and Ukraine. There weren't respondents from other East-European countries. Because of the very low presence of other Eastern-European respondents than Romanian and Bulgarian, we cannot generalize the obtained data for the whole Eastern Europe. More appropriate, we will consider this study as a research on the Romanian and the Bulgarian markets on digital games.

Gender: As expected, the gender gap is deeply present: 72.13% are men and only 27.87% are females.

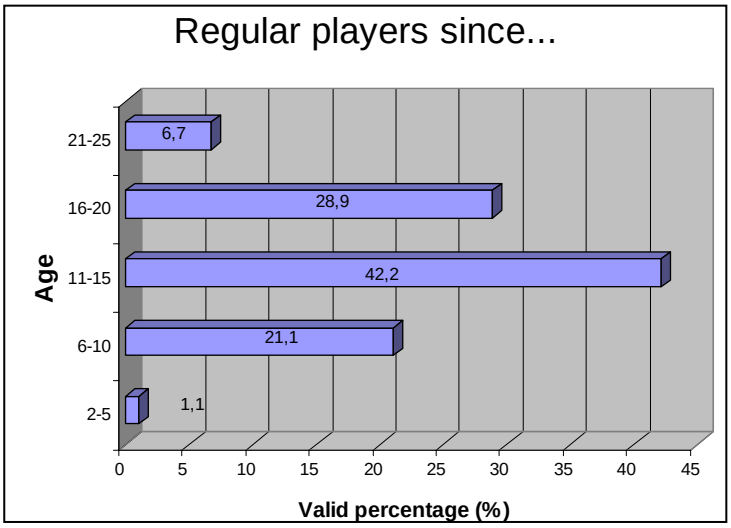
Occupation: Nearly half of the respondents are university students, 24.17% high-school students and an equal percentage of 24.17% are working/employed. We assume that the higher percentage of university students is generated not by the fact that most players are university students, but because the members of the research team have most contacts with university students.

Rural-urban distribution: Most survey participants (73.33% of 120) live in big cities of more than 100.000 inhabitants and 21.67% live in cities of 25.000 up to 100.000 inhabitants. There are no respondents that live in rural areas.

Age: Contrary to our guess, most respondents (45,8%) are young people of age between 21 and 25. From the total of 125 respondents, teenagers come on the second scale, with 23,3%. Young people older than 26 but younger than 30 have answered our questionnaire in proportion of 15,8%, teenagers from 10 to 15 years old in proportion of 10,8%, and 8% had 36 years old or more. We cannot assume that the greater number of people of age between 21 and 25 is caused by the fact that, especially at this age people use to play digital games. More probably, we have to consider the fact that all the members of our team had contacts with individuals of this age.

The first encounter with digital games occurred in most cases (47,9%) between the ages of 11 and 15. A percent of 35 of the participants played their first digital games even earlier, between 6 and 10 years old. The tendency to start playing digital games earlier than some decades ago can be noticed in the results of this survey: only 11,2 percents of the respondents discovered digital games at ages over 16, while 6% encountered digital games before they reached 6 years old.

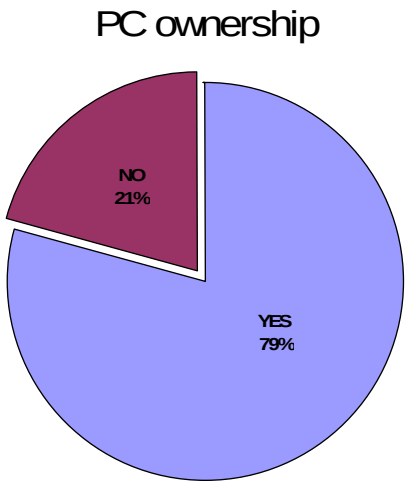
We considered that real gamers have to play digital games regularly. In order to avoid subjective appreciations of the term “regularly”, we mentioned below our question what our understanding of this term is: at least 4 hours a week. The ages of the fist encounter of digital games with the ages of regular playing correspond:



42,2% of the respondents began to play digital games on a regularly basis at the ages of 11-15. Another 28,9% of the surveyed persons became regular gamers later, as they were 16-20 years old. In conclusion, although the biggest part of our respondents were not teenagers but university students or employed persons over 20, our respondents do play digital games since they were teenagers of 11-15 or 16-20 years old. The idea that teenage is the time to discover digital games is confirmed. Gamers start playing at early ages but do not stop after they finish high school, but continue playing, buying and enjoying them.

4.2 Equipment and gaming practice of Eastern Europeans

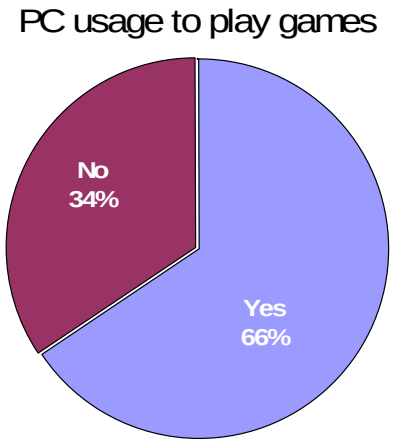
One essential question was what kind of devices the respondents own respectively use. We distinguished in "own" and use" because some participants might play digital games in public buildings or internet cafés. As expected the PC is the most widespread device for playing digital games in Eastern Europe. Nearly 80 % of the respondents dated that they own a PC for personal use. We nevertheless need to take into account that the survey was made online, so virtually all our respondents had access to a computer in a way or another.



N = 125
Question: *Do you actually own a PC which allows you to play digital games?*

Other gaming devices are not widespread in Eastern Europe. Only around 2 % of the respondents own consoles as Xbox or Gamecube. The most popular console is Playstation2 by Sony, which is at least owned by 6,4 % of the random sample. Consoles of the first generation as Playstation1, Gamecube or Dreamcast do own over 8 %. These data show that beside the PC no other gaming device does preponderate. Even handheld devices are not common, only 7,2 % of the respondents do own Gameboy, Nitendo PS or Playstation Portable.

What does surprise is that only 65,6 % of the participants state they use a PC for gaming, while 79,2 % own one. We reason that many people took part in the survey, who rarely play digital games.



N = 125
Question: *Do you use a PC to play digital games?*

The results for utilisation of consoles and handheld devices just underlines that they are not widespread in Eastern Europe. On an average less than 10 % of the respondents use consoles or handheld devices. Once again only Playstation2 approves by 12 % that it is the most common gaming device in Eastern Europe after the PC.

For our research it was necessary to know whether the participants have access to the internet or not and additional what kind of connection they use. In a nutshell only a minority of 4 % stated to have no access to internet at home. The distinct majority with over 50 % even got a DSL internet access at home, which allows them to play online games. Of course these results have to be taken with a pinch of salt and can not be generalized, as only someone who regularly uses internet was able to take part in the survey.

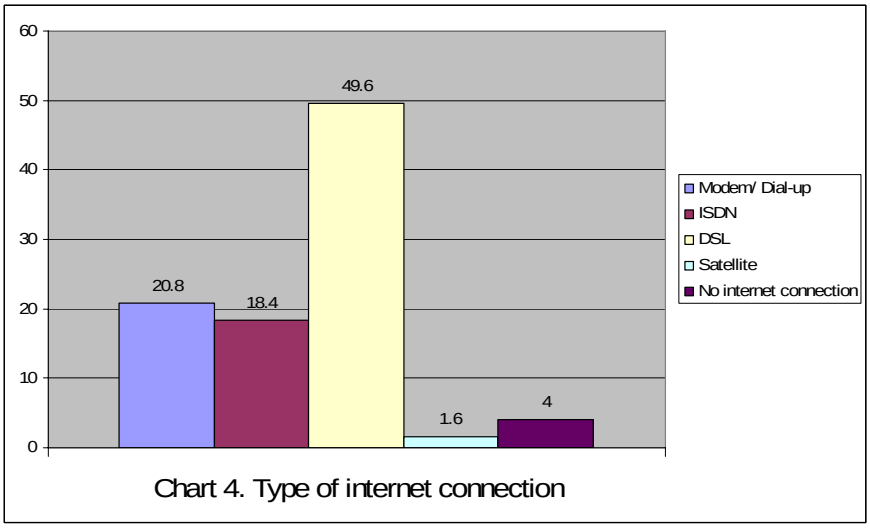
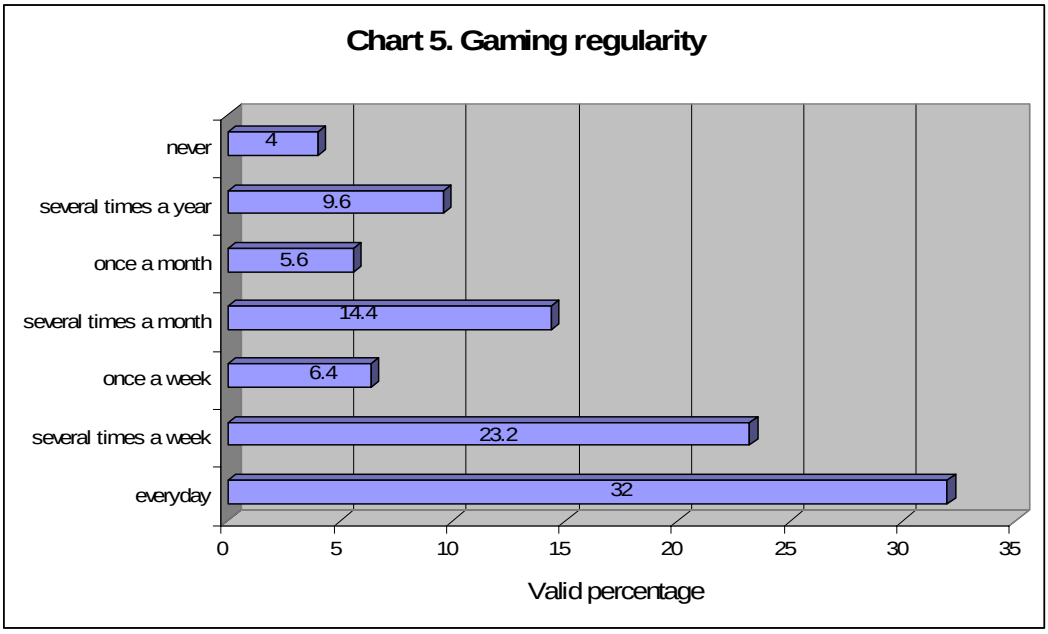


Chart 4. Type of internet connection

N = 125
Question: *What kind of internet connection do you have at home?*

Furthermore we focused on the gamers gaming practice and asked the respondents where they play and how often they do. At home about a third plays digital games daily and over the half of the respondents play at least several times a week.



N = 125

Question: *How often do you play digital games at home?*

Playing digital games at internet cafés and clubs does not seem to be very attractive to the respondents, as a majority of 58 % states they never play at such localisations. Playing digital games at friends seems to be quite unpopular too. Nearly a third of the respondents state they never do so. The second third plays only several times a year at their friends. Only at work the respondents play less digital games, 70 % of the respondents negated that they play during their job. Probably social desirability had a strong impact on this question.

In addition, we asked the participants how often they play on each device, while we categorized into the following groups: PC, consoles, handheld and others. The data approves our given conclusions. About a third of the participants play digital games on their PC every day and about half of them at least several times a week. If you delete the non valid data 67,8 % of the participants do never play digital games on a console, 67,5 % never play digital games on handheld devices and 70,4 % never play digital games on alternative devices. This underlines one more time that except the PC all devices for playing digital games are not established in Eastern Europe.

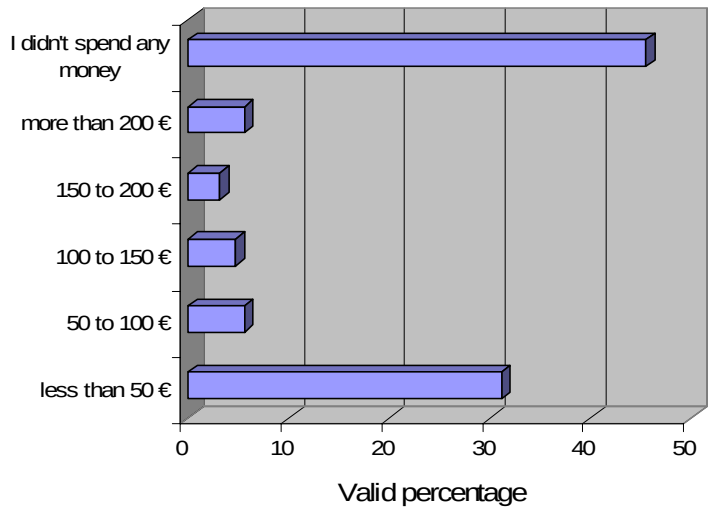
Not to lose track of our questions and to consider the social environment of our respondents we asked them with whom they play digital games most of the time. As a result we can secure that playing digital games is a rather individual experience. Nearly two-thirds state that they mainly play digital games alone. Beside that 21,7 % do regularly play with their friends and 8,3 % with people,

who they do not know.

As we were also interested in the market structures of the Eastern European countries we asked the people where they draw their games from. The given options were: computer shops, online shops, borrowing from friends and downloading from the internet. The results show that people always or at leas sometimes receive their games from downloading it online by 75,2 %, borrowing it from friends by 73 %, buying it from computer shops by 33,4 % and buying it from online stores by only 12 %. Alarming is the fact, that 43,4 % of the respondents state they always download their games from the internet. Continuative, the participants should state how many games they own themselves. This question might be helpful to check afterwards whether the respondents own illegal games or strictly pay for software. A significant majority by nearly 48 % declares to own between one and five digital games.

Another important issue is obviously financing, so we asked the respondents to estimate how much money they spend on digital games as well as on fees for playing play online games possibly at an internet café. The results acknowledge our assumptions the East Europeans are not able to spend much money for digital games. In fact 47,5 % declare that they do not spend any money on digital games. It marks the majority. These who spend money on digital games rarely disburse more than 50€.

Chart 6. Games expenditure



N = 125
Question: *How much money did you spend on digital games in the last 6 months?*

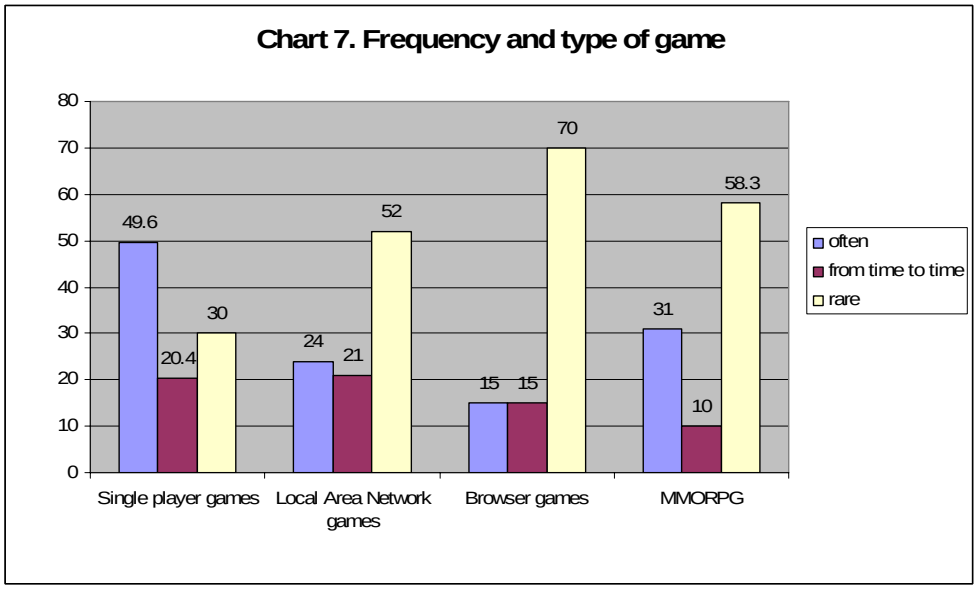
The results for the average time participants spend playing digital games throughout the week and the weekend were harmed by many incorrect entries. Some fill in letters instead of the claimed

numbers, others set commas, although they were asked to neglect that. Out of the remaining valid data we know that the average time for playing digital games during the week is about 4,61 hours. Among the 97 participants who fill in the data correctly were extreme examples playing up to 35 hours a week.

Dubious entries as playing digital games for 80 hours a week were not included. A majority of 30,93 % answered to play ordinary one hour during the week. These respondents can hardly be categorized as gamers. The average time for playing digital games during the weekend was 4,05 hours as 116 people who fill in the data correctly. Once again dubious values as 56 or 48 hours had to be deleted, accounted that the weekend only last 48 hours. As in the case of playing during the week, the biggest group states to play digital games in weekends for one hour with a percentage of 17,24.

4.3 Gaming preferences of Eastern Europeans

This part of the questionnaire deals with the participants' own preferences in playing digital games, such as favourite game types, genres and devices, images of the ideal game and platform and mostly played digital games. The type of game which is played the most among the East European gamers are the Single Player games. This answer was given by nearly the half of the respondents and followed by the Massively Multiplayer Online Role Playing games with 30%. The least played type of game is Browser games.

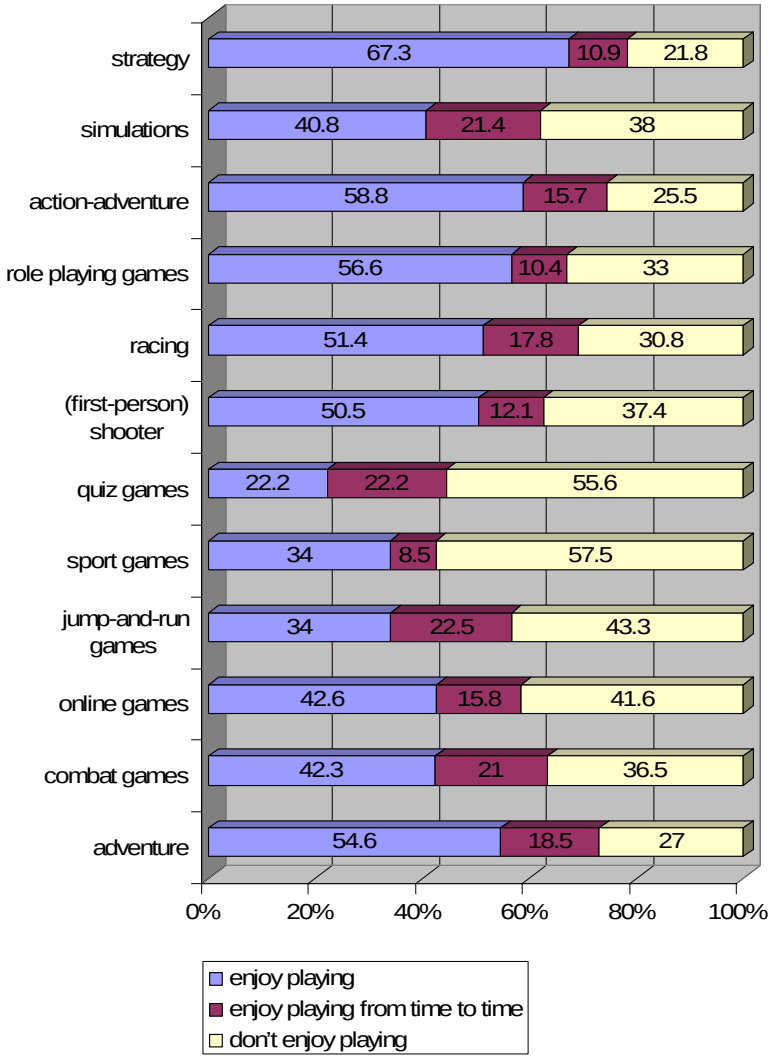


N = 125
Question: *How often do you play the following types of games?*

As for the preferred mostly played digital game genres, the dominating answer, given by nearly three-fourths of the respondents, was the strategy genre. On second place comes the action-

adventure and on the third - the role playing games. The least favoured genres are the quiz and sport, as well as the skill games.

Chart 8. Preferred game genres



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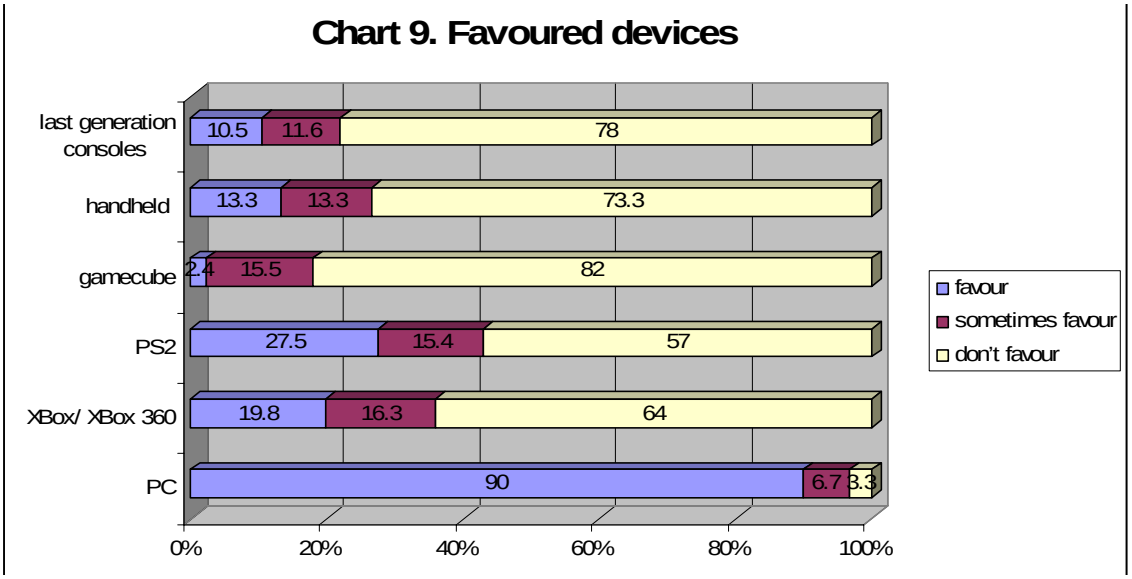
Question: *Which of the following game genres do you enjoy playing?*

Interesting is that although the mostly played game type is the single player game, the game which was given as most played recently, is a MMORPG type of game, namely "World of Warcraft".

Most played game recently:	Most played game ever:
1. "World of Warcraft"	1. "Warcraft III: The Frozen Throne"
2. "Warcraft III: The Frozen Throne"	2. "Heroes"
3. "Counter-Strike"	3. "Counter-Strike"
4. "Need for Speed Most Wanted"	4. "Need for Speed"
5. "Solitaire"	5. "Warcraft / World of Warcraft"

Other digital games played recently by east Europeans are the "Heroes" series as well as the "Half Life" episodes. "Diablo 2" and "Solitaire" are also among the games ever played most. It has to be noted that over 50 different games were given as answers to each of these two questions. The "Warcraft" series dominated with only 10 entries out of 125. This result points out the variety of digital games played at the east European market.

As expected, the game device which east Europeans favour the most is the personal computer. It was given as an answer by 90% of the participants. This result could be also certified by the fact that the market for personal computers in East Europe is the most growing one among all game devices.



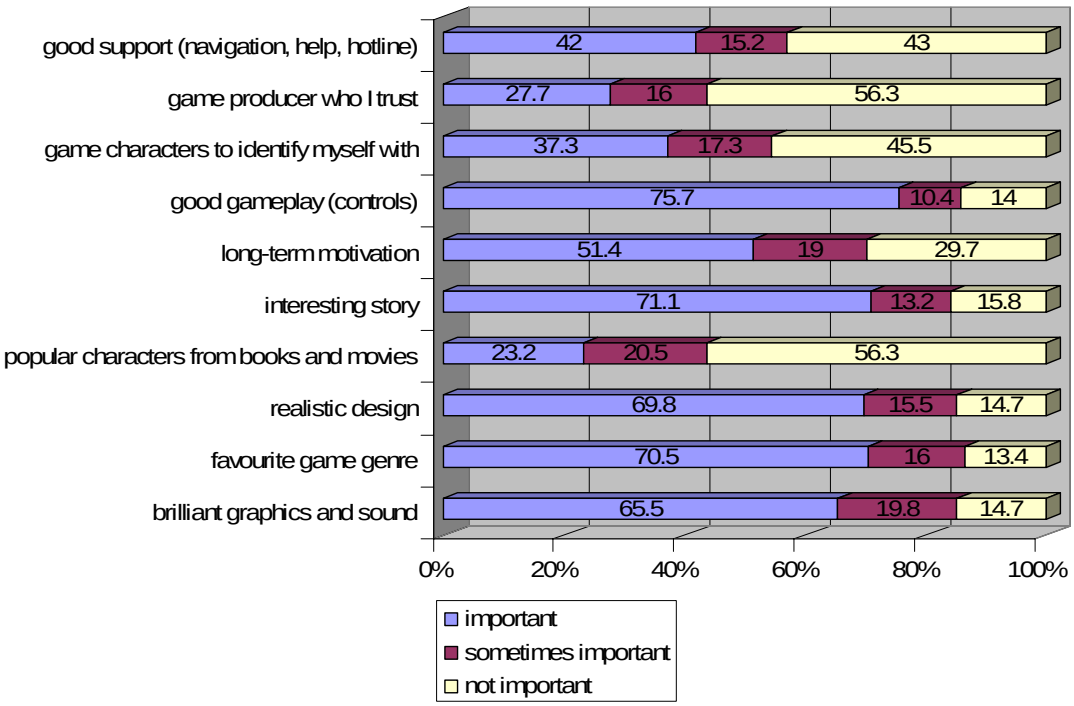
N = 125
Question: *Which device for playing digital games do you favour most?*

In another part of the questionnaire the respondents had to describe their own ideal digital game by evaluating the importance of different game elements. A good gameplay as well as a favourite game genre are the elements that come on first place, both given by more than three fourths of the East Europeans. These results are interesting through the fact that they confirm the commonly accepted opinion that "the all important quality factor of a game is its gameplay, the pure interactivity of the game"7. However, the opinion is revised by Jesper Juul in his book "Half-Real"; in his attempt to answer the question: "Why are video games fun?", Juul premises that "there is ultimately no one-sentence description of what makes all games fun; different games emphasise different types of enjoyment and different players may even enjoy the same game for entirely different reasons."8 Meier, designer of "Civilization", considers that high-quality games are the ones whose choice

7 cf. Jesper Juul (2005): *Half-Real. Video Games between Real Rules and Fictional Worlds*. The MIT Press, Cambridge, p.19

provide high-quality mental challenges for players9. The realistic design of the game plays also an important role in the judgement. By contrast, popular characters from books and movies and game producers are being disregarded in the game choice.

Chart 10. What makes a good digital game



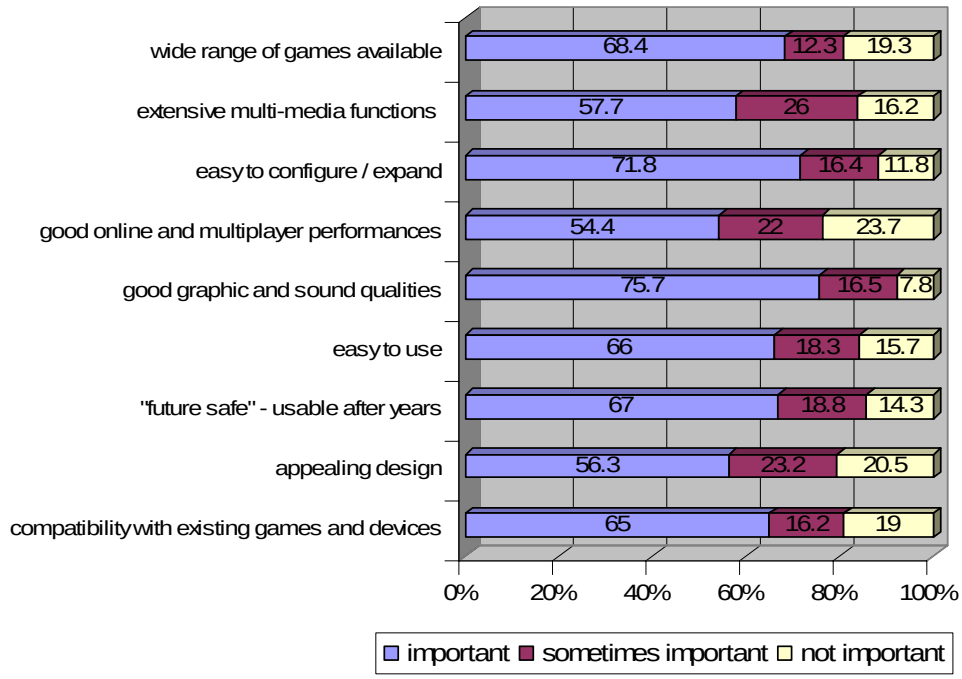
N = 125

Question: How important are each of the following elements of a digital game for you?

Analogue to the previous question the respondents were also asked about their ideal digital game platform. It's interesting that all given elements were marked as important by over half of the respondents. The dominated ones were "good graphic and sound qualities" and "easy to configure", and the least important characteristics was "good online and multiplayer performances", contrary to the fact that World of Warcraft leads among the mostly played digital games recently.

8 *idem*
9 *apud* Jesper Juul, p.19.

Chart 11. Desired qualities of a gaming platform



N = 125

Question: How important are the following characteristics for you for a gaming platform?

As for the question about the different price models on the hardware-software market, no strict tendency in the answers of the East European could be noticed. Though, nearly half of them prefer to spend money on expensive software and to get the hardware cheaper.

4.4 Gamer's opinion

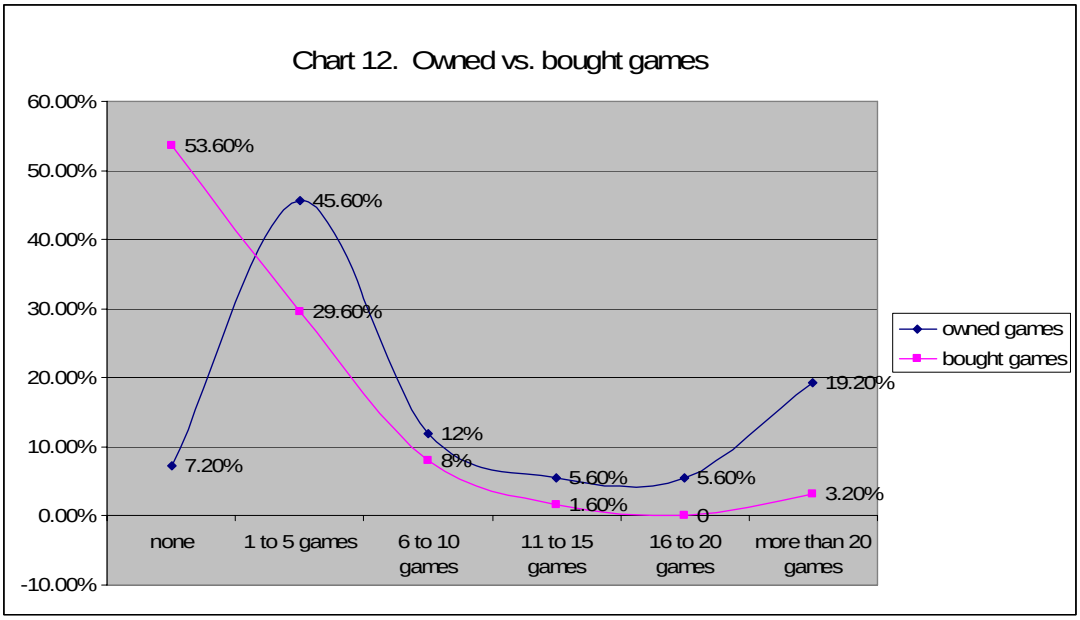
In this part of the questionnaire the respondents were asked to give their opinion on different statements about digital games that could be marked as typical in research studies about playing digital games. The statements deal with some characteristics of digital games and their influence on the gamers. Interesting result could be observed concerning the statement that some games are intellectually challenging – 84 out of 116 East European agree with it.

As for the assuming that digital games help people to get together, nearly half of the respondents don't confirm this opinion. This could be confirmed also by the result that the statement "I play digital games so that I can chat about them with my friends" does not refer to over three fourths of the gamers. Nevertheless the bigger part of them agree that digital games help to escape from everyday problems which is a very interesting result, that indicates some particular influence, digital games could have. On the contrary, over the half of the respondents gives the opinion that they don't play digital games only to kill time and don't feel they are neglecting other preoccupations because of their passion for games.

In terms of the often discussed role of internet cafés, 97 out of 125 East Europeans wouldn't spend more time there even if they had the money and don't refer themselves to the opinion that some play games in internet cafés because they meet people there. These results accord with the fact that nearly half of the respondents don't play games in internet cafés.

The results on the statement " I enjoy playing digital games by myself more, than playing with other people." don't give any strict tendency of the answers. The difference between those respondents who don't distinguish themselves with this opinion and those who agree with it isn't significant. Nearly half of the East European gamers suppose games are too expensive and even more strongly disagree with the statement their parents won't agree with them playing games.

East Europeans were also asked about the emotions gaming awakes in them. The most of them are challenged, excited and involved when playing digital games. Over three fourths of the respondents say they also feel happy. On the contrary, stress, boredom and frustration are emotions gaming does not awake in them. One of the most interesting results concerns the proportion of the bought and owned digital games. The fact that nearly 93% of the East Europeans have at least one game of their own but only 46% of them have also actually bought one, speaks for itself.



N = 125

Issue: Owned vs. bought games in the last 6 months

4.5 Games acquaintance

This category contains questions regarding Eastern European games and game producing companies. How familiar are Eastern European gamers with games produced in their home country? Have they even heard about them? To find the answers to these questions, we created a table with 4 games for each of the 2 countries we expected to have more respondents, Romania and Bulgaria and also 4 games produced in Poland ("Terrorist Takedown", "Xpand Rally", "GTI

Racing", and "Battlestrike"). For Romania, we included "BS-Hacker", "Shadow Force: Razor Unit", "Rival Realms" and "Secret Service: In Harm's Way". For Bulgaria, the respondents had to choose between "Tsar: The Burden of the Crown", "Knights of Honor", "Celtic Kings: Rage of War*"* and "Glory of the Roman Empire".

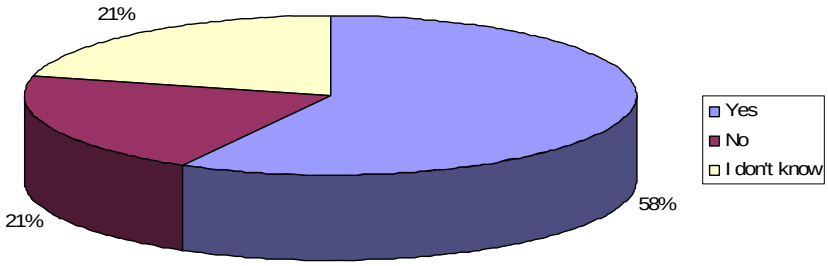
From the Bulgarian list, the most popular between Bulgarian players seems to be "Tzar: The Burden of the Crown*"*: 41% of the Bulgarian respondents have heard of the game. A first general remark is that from the three countries, Bulgaria has the greatest positive percentages, meaning that Bulgarian game-players are more acquainted with national games than are Romanian or Polish players. But Bulgarian games have been voted as being heard of by non-Bulgarians as well. For the Eastern-European gamers as a whole, the most popular is not "Tzar: The Burden of the Crown*"* but "Knights of Honour", with 50% of the total number of respondent having heard of it.

For Romania, the percentages are insignificant. However, the most popular national games, both between Romanian players (6%) and in general (18%), is "Shadow Force: Razor Unit". "BS-Hacker" seems to be totally unknown by the Romanian public, while "Rival Realms" and "Secret Service: in Harm's Way" cumulate only 4%, respectively 3% of the national public acquaintance rate.

The question that followed (*Which of the following digital games' producing companies have you heard of?*) meant to find out if Eastern European game-players can recognize local game-producing companies. We introduced in the table 2 Bulgarian companies (***Haemimont Games*** and ***Black Sea Studios***), 4 Romanian companies (***2 Bad Design, ExoSyphen Studios, Fun Lab*** and ***Active Pub***), 3 Polish companies (***City Interactive, IM Group*** and ***Techland***) and 3 fake companies. We can assume that the name of the producing company is not of great interest for players. Even for players, the names of the game-producing companies can be hard to remember. However, most respondents (34%) have answered to have heard of the Bulgarian company *Black Sea Studios*, but the next best rated company is a fake one: ***ProGames Studio***, with 29% of the respondent. The most recognizable games-producing company from Romania appeared to be ***Fun Lab***, while the most rated Polish company was ***City Interactive***. The possibility to induce in error the respondents with fake names of companies confirms that the answers are not really trustable. The formulation of the question "have you heard of" appeals to the memory of the respondents, but the answers can easily be completed from the imagination of the players, especially when the names are likely to be real (***ProGames Studio, DigiGames*** etc.).

The next two questions were interconnected and queried gamers' level of satisfaction with the offer of the home-market on digital games. The biggest part of respondents (37,6%) rated that the market for digital games in their home country doesn't provide them with all the games they want. An equal percent of 28,8% respondents either consider the home market satisfactory in terms of digital games offer, or they do not have an opinion (*I don't know*). The big percentage of non-response data (*I don't know*, almost 30%) makes the results at this question hardly relevant. As for the equipment for playing digital games available on their home market, 52,2% of the respondents consider it satisfactory and sufficient, while 20% don't know and other 20% believe it is insufficient.

Chart 13:
Satisfied with the range of equipment on the home market



N = 125

Question: Does the market for digital games in your home country provide you all the equipment you want?

5. Conclusions

In our research project we used an explorative online survey in order to analyze the preferences, the habits, the motivations and the behavior of digital game-players from Eastern Europe. Due to personal contacts, we reached a significant number of Bulgarian and Romanian gamers.
The results of the survey suggest that Romanian and Bulgarian players are mostly men, live in metropolis (over 100.000 of inhabitants) and are young people in the age of 21 to 25 or teenagers. They first started to play digital games as they were 11-15 and most of them became regular players at the same age.

If they do play games produced in their home country, Bulgarians play mostly *Tzar: The Burden of the Crown.* Romanians play national games in a very low proportion, and the game that enjoys the greatest popularity is *Shadow Force: Razor Unit.* Although few Polish gamers answered our query, many of our respondents have answered to have heard of games produced in Poland, the most votes having *GTI Racing.*

Bulgarian, Polish and Romanian game producing companies are heavily recognized by the participants and easily jumbled with names of fake companies. Eastern European gamers, in the case of Romania and Bulgaria, do not consider the offer of digital games available on their home markets satisfying, but are content with the offer of playing equipment.

6. Sources

1. Pavel Mezihorak, *The State of Game Development in Eastern Europe*. Accessible online at URL: http://www.gamasutra.com/features/20041124/mezihorak_01.shtml [15.12.2006]
2. Lischka, Konrad (2003): *Neue Heimatkultur*. Accessible online at URL: http://www.konradlischka.de/nhproben447.htm [28.06.06]
3. Juul, Jesper (2005): *Half-Real. Video Games between Real Rules and Fictional Worlds*. The MIT Press, Cambridge.
4. Preotesiu, Claudia; Stancu, Andrei-Gabriel and Vasilescu, Simona-Alina (2006): *Studiu corelativ privind relatia dintre tipul de joc digital preferat si stilul de invatare* (Correlative study on the relation between the type of preferred digital game and the learning style). Paper presented at the National Conference for Psychology and Educational Sciences (Bucharest, 2006). Available online at: http://www.aspse.ro/index.php?module=pagemaster&PAGE_user_op=view_page&PAGE_id=34 [15.12.2006]
5. Birzoi, Vali (2006): *Jocuri de strategie pe distributie*. In the online version of the Romanian „Capital“ magazine. Accessible online at URL: http://www.capital.ro/arhiva [10.06.2006]
6. Vaschi, Maria (2006-01-10): *Calculatorul isi adjudeca piata jocurilor de strategie.* Accessible online at URL: http://www.capital.ro/index.php?section=articole&screen=index&id=22586&cauta=jocuri
7. Official website of the Romanian biggest media chain-store, Diverta. Statistics of the best sold games. Accessible online at URL: http://www.diverta.ro/statistici [10.06.2006]
8. Official website of the Bulgarian game producing company, Haemimont Games. Accessible online at URL: http://www.haemimontgames.com/ [7.09.2006]
9. Official website of the Bulgarian game producing company, Black Sea Studios. Accessible online at URL: http://www.blackseastudios.com/ [7.09.2006]
10. Official website of the Bulgarian computer and video games's distributor, Pulsar Games. Accessible online at URL: http://www.pulsar-games.com/index.phtml [10.06.2006]
11. Official website of the Bulgarian computer games magazine PC Mania. Article name: *Предишни гласувания.* Accessible online at URL: http://www.pcmania.bg/pollBooth.php [10.06.2006]

Study 2

Gaming Culture in China

An Overview of the Market and Empirical Results of a Survey on Chinese Gamers in the Diaspora

Gabi Ludwig, Denise Anders, Anne Gudurat, Janine Hahmann, Nancy Witzel

1. Introduction

"The word 'game' brings to mind a variety of notions, including recreation, competition, sportsmanship, and strategic choice. For game theory, however, the key idea of a game is that the players make decisions that affect each other." (Hamburger 1979: 1 et seq.). For facts in general this might the right sort of definition which Hamburger gave already in 1979. To specify the meaning of games in this paper the research project will have a closer look at the Chinese game market. Taking a population of 1.3 billions of Chinese people it sets about 20 percent of worldwide population (cp. Census 2006). With a huge percentage like that and the success of China in the last decades on technical and economical sectors and with the story of a huge increasing economic power it is understandable and fundamental to concern about the formation of the country. To give the possibility to understand basic facts easily this assignment is divided in four main parts: initially, this paper will give a short introduction to the history of China including some cultural influences on the game market, going on with further market analysis. According to Hartley games are “the newest ‘mass medium’ of technological-recreational fantasy entertainment.” (Hartley 2002: 92). Here, it shall be the effort of this paper to give an intense overview of the Chinese game market and the gaming culture including facts of users, suppliers and general conditions and differences in comparison to western game markets. The notion “user” is described by Castronova as “a community of interests who are affected by the decisions of a coding authority, usually the developers” (Castronova 2005: 151) which could be seen as a conclusion to the given definition by Hamburger. These main facts will not represent the Chinese game market en bloc. It is necessary to understand differences and conditions with an example. Therefore, the research team decided at the beginning to combine an *Overview of the Chinese Market* with a survey regarding *Gamers in Diaspora*. “Diasporic communities are groups of people that are distanced from their homeland” (Hartley 2002: 65 et seq.). It is the aim to combine the detected data with the reality at Technical University of Ilmenau and the behavior of Chinese students while playing games.

Furthermore, it is indispensable to connect the data from the mentioned aspects to give a secluding report of the problems, results, and perspective. In fact, it is not possible to give facts and data of the Chinese market in detail. Reason for this is the lack of research papers on this topic at this time, which makes it difficult to deal with the irregularity of data. While working on totally new topics like the research of digital game culture investigators will always face the problem of insecurity of sources as it happened to this research project.

2. Summary of the Chinese History

> "In primitive times, as heaven and earth still did not exist there were only appearances, no bodies at all. It was a huge abyss – deep, dark, wide and inapprehensible, immobile and quiet, dire and ambiguous. Nobody knows where he came from. Out of it became – in an aggregation two deities to plan heaven and earth. An opening! Nobody knows, in which depth she was reaching in. A flood! Nobody knows where it started to stand still. Thereon, they tore apart and became shadow and light (Yin and Yang). While parting into the eight extreme they became suddenly the hard and the soft, and ten thousands (=all) of creatures (things) got their corporal compositions" (Fiedeler 2003: 10 et seq.).

There are loads of facts known about the Chinese culture, history or behavior in the western world. Most of this is transmitted via media, as books, pictures, movies or – especially for this research – in games. Though, it is astonishing that it was never testified if the movie industry was influenced by the digital games industry or vice versa. Both often include scenes and topics out of Chinese culture and history. Immediately, everybody can realize the huge range of similarities which can be recognised in movies and games. For example, watching the movie *Hero* (cp. Constantin Film 2003) the viewer will be introduced to a world of massive beautiful places, where raindrops are falling down in slow motion and fighters in gorgeous robes are moving in an unnatural and unrealistic way. Similar themes can be seen by a gamer in Chinese digital games. "[Chinese] Players are more fascinated by the Xia, or Chinese knights, than monsters and soldiers often seen in overseas games (1/3 has a similar story line with *Legend of Knights online*) (Xinhua 2004 [1]). At this juncture, the influence of the speciality of the Chinese culture is given as clearly as it can be. In order to better understand the history it is described in the following chapter.

Traditionally, China was divided in two different groups of people: the upper class which was a sort of elite and the commonality. As member of the upper class the official way of living was with a Confucian education system where just the rich and well-known people were educated. The upper class held the political power and used to be the landowners. The second group was affected by the folk's culture which repeated all stories, fairies and narratives while using a colloquial language. The history of China has been embossed by 26 dynasties – full of myths, legends and fairy tales, especially in the folk´s culture and now reflected in movies and digital games, as mentioned. However, not only these dynasties make up China as a republic, it is build up by a history of economy and development.

After the occupation caused by the western colonial powers and Japan, the People's Republic of China was founded on 01 October 1949. All the power of the state was from now on the Communist Party of China (CPC). Mao Zedong was the chairman of the CPC as well as the head of state. Even if the People's Republic of China still mentions the multi-party-system in its constitution, in reality there are about four other parties but the CPC agglomerates all the power in itself.

In 1958 one of the most meaningful political trials of the Communist party of China happened with the „great leap forwards“, announced by Mao Zedong. In this time the governmental concentration should be paid in all the directions of supporting local projects. With this mismanagement and the dramatic failure in economy the so called “three bitter years (1959-1961) just started and about 20 to 30 million people died. After recovering, a policy of reformation started with Deng Xiaopin in 1978. The Xiaoping-government decided to give farmers the chance to sell parts of grob which was produced more than written in the planned figures, on the free market. In 1984 this principle was transferred on industry issues. The problem right here were now two different prices for similar products. On the one hand, the prices of the planned economy and the other hand the prices of the free market. The consequences were high inflation rates in 1989 which applied to protests in May 1989 at Tianamen Square. However, above all the prosperities China is a country which is ruled with an iron hand of the CPC. Within all the historical events the citizens of China had been under a harsh pressure of the government.

With the access of China in WTO on 11 December 2001 commitments of liberalization of the external trade, opening of additional branches (esp. in service-sector), the adaptation of standards and principles for external trade legislation, and last but not least the improvement of custody of intellectual and literary property were made. In China the determined support of special “columned branches” (in engineering, car fabrication, electronically industry) as well as development of industries based of knowledge (media, information technology, biotechnology) is subsidised. Therefore, the structure of the economy of China changed in the years between 1990 and 2004. As the figure shows, the level of industry improved. But the percentages of Services and agriculture declined. This seems to certify the success of the policy of the last years.

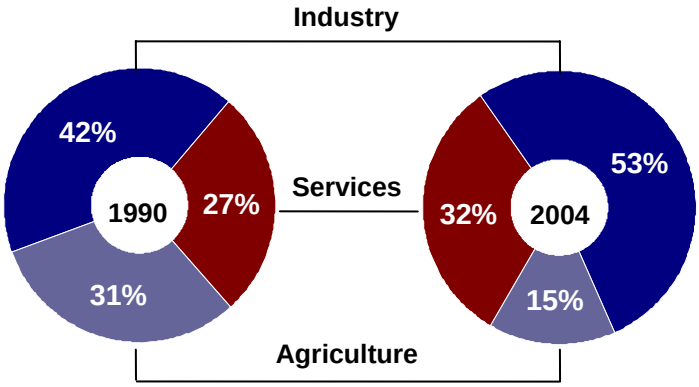


Figure 1: Structural Changing of the GDP, in percent (Bundesamt für politische Bildung 2005: 12)

All the occurrences which can not be described in detail in this paper can be associated with the fact that digital games in China:

- Are influenced by the ancient history of legend, myths and fairy tales,
- Influencing different media types of Chinese industries and

- Are influenced by different media types itself,
- Often do have a totally different characteristic then overseas products,
- Are influenced by the political premises (directly or indirectly).

3. Market Analysis

In the worlds most populous country the economy is booming, especially the branch of games. The fact of 25 million games playing Chinese makes it clear that games are big business in the Middle Kingdom and became a very important new source of revenue (cp. Chinaventures 2006). Analysts of DFC Intelligence, a strategic market research and consulting firm, presented a comprehensive analysis of the online game market, in a report released in June 2006. They predict a huge and global increase of distribution channels via Internet. Over the next few years the market of digital games in China is likely to be one of the fastest growing ones in the world. Considering this process the competition between Chinese local makers and foreign giants is intensifying (cp. 4players 2006; DFC Intelligence 2006). But western game publishers often have to stay out because China also has its own rules and political barriers in matters of games. It's not easy to conquer the Chinese market but it's worth the effort because people are playing a lot in China.

It is impossible to cover all the aspects of this industry because there are hundreds of players in different product categories. So the following chapter gives a general view over users, suppliers and market conditions. It is especially dealing with topical data about the development of the Internet and game usage, about gaming culture and furthermore about the game market with its history, companies, games and political restrictions and support. Because of the fact that the game industry in China is a very new one our remarks are mostly based on Internet literature. In this case the problem was that many sites are written in Chinese so that we could not consider all.

User

Internet development and its users

Since the beginning of the 1990s the Internet becomes more important. China has one of the largest Internet user groups in the world, with fast increase and big potentials. The population of Internet users grew up keenly since 2000 (cp. e-Sport 2005: 3).

The *China Online Gaming Report* from 2004 is one of the most comprehensive studies ever undertaken of Internet usage and Online Gaming in China, published by Game Trust and The Diffusion Group. According to this report Chinese Internet users even spent 12.3 hours on an average each week online. Most of them use e-mail, 15.9 percent play online games and approximately 38 percent of wired households have an Internet connection. Adeo Ressi, CEO of Game Trust, even thinks that "80 percent of Internet's content will be in Chinese in ten years" (Game Trust 2004). With an annual increase of 20 percent it totals Chinese 103 million users in June 2005 as you can see in figure 2. There was a big growth from roughly two percent increase in 2000 (cp. e-Sport 2005: 3).

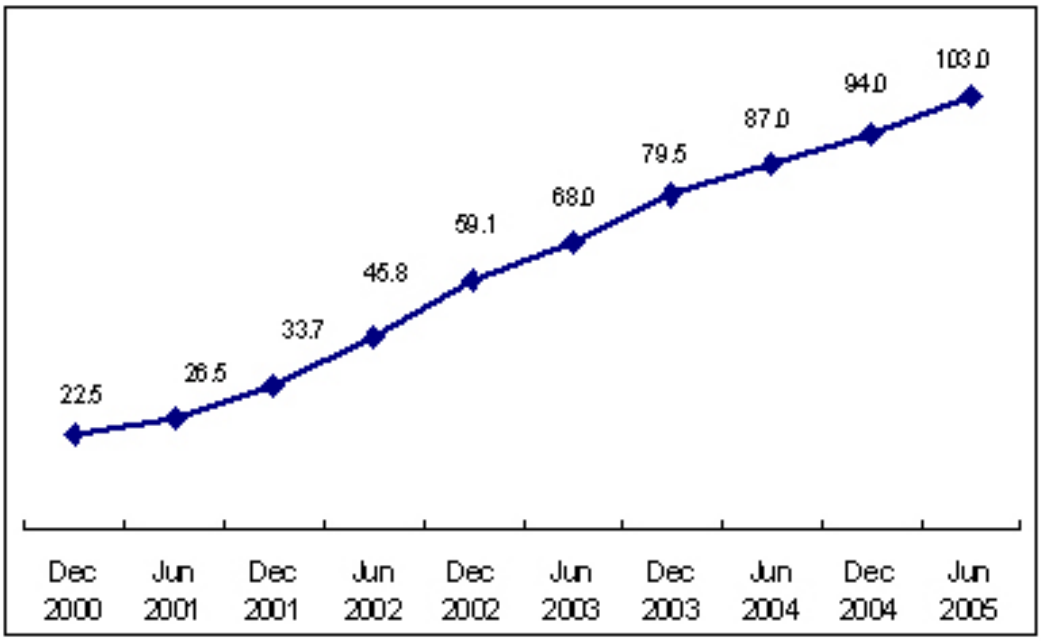


Figure 2: Internet users in China, in million (e-Sport 2005: 3)

Another organisation, the China Internet Network Information Center (CNNIC), makes an analysis about the development of the Chinese Internet twice a year. So in July 2006 the CNNIC has released its *18th Statistical Survey Report on the Internet Development in China*. According to this report almost 123 million people use the Internet, up from 111 million users only six months ago since the release of the *17th Statistical Survey Report* (cp. CNNIC 2006 [2]: 3; CNNIC 2006 [1]: 4). The majority of the net users are male (58.8%) and not married (55.1%) (Appendix 1). Relating to Game Trust both, the number of male and female Internet users increased but on an average more female users are capturing the market. According to Game Trust content and services become more diversified, tuning in specific local cultures. Withal the market will focus more on the development of online games fitted to women (cp. Game Trust 2004; e-Sport 2005: 3).

Wangbas: The Chinese Internet cafés

Game Trust also found out that traditional stand-alone PC games will lose attention. Especially public cyber cafés are a "battlefield for network game operators" (Game Trust 2004) because more than one fourth (cp. Figure 3) of Chinas population visits Internet cafés, in China called *wangbas*, with an average gaming time of four hours per day (cp. Game Trust 2004). Game quality, content and services become more diversified and new 3D products will soon become the dominant form of online games (Appendix 5). Therefore a net café is a very popular place, large in number and tight controlled by the government. It is a very important place for online games and online communities. Nevertheless, most of the online gamers play at home (68.20 %) (Figure 3). In July 2006 it accounts 72.2 percent (Appendix 6).

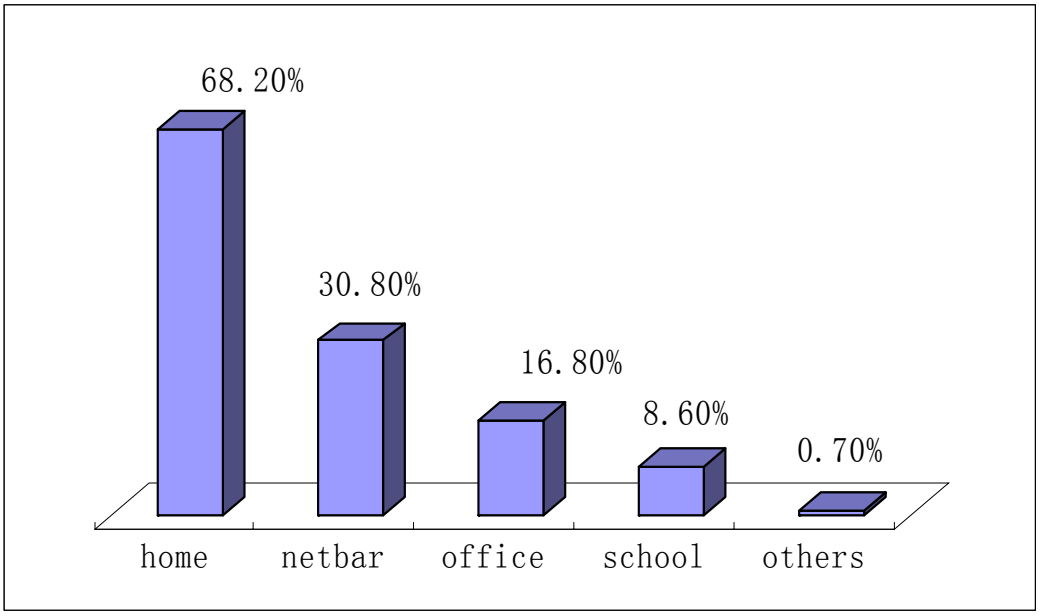


Figure 3: Main locations for playing online games (e-Sport 2005: 6)

But strict constraints and administrative effort let the playing hall submerge in the underground. After a big fire in an Internet café in Peking in summer of 2002 when 24 peopled died, the regulations of driving an Internet café were aggravated. Cycle raids and close-downs of more than 3,000 cafés followed (cp. Ermert 2003; Heise Online 2002). To reach an official authorisation to run an Internet bar the licensees have to install a cleaning-software which blocks about 500,000 foreign Websites and sends the selection of "forbidden" sites to the police (cp. Gedlicka 2002). The search engine Yahoo has underlined a statement to keep their Website free from content that is classified by the Chinese

governance as "subversively" content (cp. Schotzger 2002). The government also controls the Internet business by disposing licenses for Internet café chains usually running by state owned companies, such as China Unicom, China Telecom or China Netcom (cp. http://www.china.org.cn 2003 [2]). Large-scale and Internet café chains should become a dominant form to operate in this market to curb illegal operations and create a clear Internet environment for people. The chains facilitate the control of the Internet usage by administrative agencies (cp. http://de.clearharmony.net 2003 [2]). The government fears that Internet content contains „improper" content for young people, including material that is violent, pornographic, gambling or superstitious (cp. Ermert 2001). China initiated a lot of closures of Internet cafés, the censorship of foreign news services and the imprisonment of unpopular journalists. The compulsory measures against the Web and its users in the last years let human rights organizations such as *Human Rights Watch* or *Reporters Without Borders* wake up (cp. Domeyer 2006; http://de.clearharmony.net 2003 [1]).

General information of the Internet and online Game users

A report made by the *Chinese Academy of Social Sciences* in 2006 predicts that the market value of online games in China will reach US$ 1 billion this year. Great changes will take place in the global entertainment sector within the next years (cp. China daily 2006). The number of registered paying users of online games is

growing daily. Shanda for example has exceeded 20 million users. The rise of other Internet industries results from the growth in game consumption as well (cp. 3sat 2005). In opposite to relative high costs of hardware and own Internet connection People's Republic of China has a large online game player population. In 2005 more than 24 million people played online games, up from 19.76 million in 2004. In 2007 the figures are even estimated to 37.31 million people. The growing middle-class and the increase of purchasing power will make the hardware and Internet affordable. E-Sport, a developer and operator of browser games, estimates that the number of paying users will reach up to 22.55 million in 2007. Almost half of the gamers are playing daily. They spend about US$ 22.25 for peripherals on an average within six months, for Chinese circumstances a relatively high price (cp. e-Sport 2005: 2). The online game revenue is a continuously growing part of the game market as it is explained more detailed in 3.2.1.

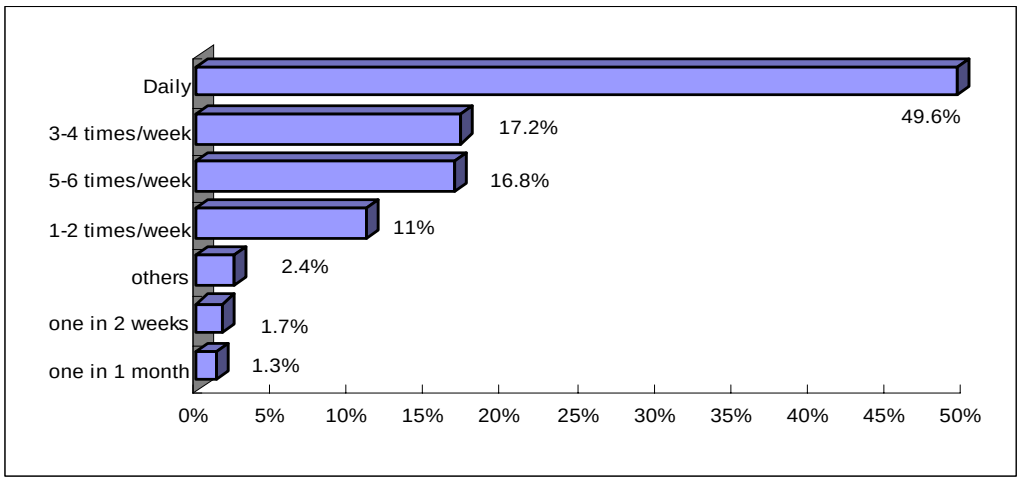


Figure 4: How often to play games (e-Sport 2005: 2)

The China Game Publisher Association (CGPA) is the first association for Chinese game developers and operators, launched in Beijing in 2003. More than 80 businesses from the industry are participating in this game working committee. In former times there was the opinion that games have a "bad influence on youth and being waste of time and money" (http://www.china.org.cn 2003 [3]). As the first government-backed organization the CGPA avoids these clichés by leading a series of international exchanges of game industry experience in other countries and regions (cp. http://www.china.org.cn 2003 [3]).

But both, excessively game play and excessively Web-usage as it is described in 3.2.1, could cause addiction-like symptoms so that 13 percent of young people are addicted to be online (cp. Gibson 2005). Few of them show withdrawal symptoms. They feel aimless, downhearted and even depressed, if they could not get access to the Internet. According to Beijing Morning Post approximately a third of Beijing's middle-school students, surveyed in 2002, said they surfed to escape from reality (cp. http://www.china.org.cn 2002). That is why the Chinese government is trying to control the addiction of gaming among the youth. So the Chinese manufacturers are liable for including a limitation of playing time in games (cp. BBC 2005).

The Infrastructure

"Deregulation and liberalisation of the telecoms industry in early 2000 is driving the Internet and broadband development […]" (Ovum Search 2006 [1]). Already in 2002 the number of people with broadband connections surged to 6.6 million, compared with two million six months ago (cp. http://www.china.org.cn 2003 [1]). In the last few years the access infrastructure improved very fast. Both, India and China are the fastest developing countries in the world and undergo significant upturn in broadband deployment (cp. Ovum Search 2006 [2]). Ovum, a market research company, expects 139 million broadband users in 2010 (cp. Horn 2006).

Broadband coverage in China is conventional and as you can see in figure 5 with 53 percent the most largely used access in 2005 (Appendix 4). Dial-up is still present (49.5%), but it also shows a slower increase. ISDN with its recently negative growth and the slow cable's increase plays a secondary role in the market of coverage. The faster adoption of broadband causes the high rate of home connections so that most of the Internet users go online at home (72.2%). It also enabled more gamers to play online games in a private atmosphere. Nevertheless, a lot of the Chinese Internet users still go online in Internet bars, school or work place (Appendix 6) (cp. CNNIC 2006 [2]: 11 et seq.).

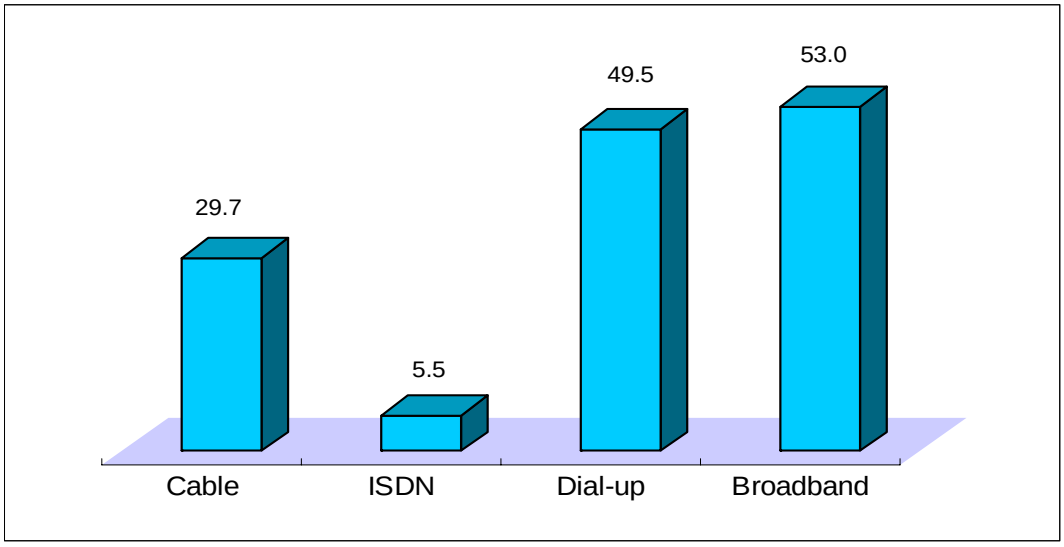


Figure 5: Internet users by accessing methods, in million (CNNIC 2005: 5; chart made by e-Sport: 2005: 4)

Referring to access standards China goes its own way: Since 2004 China plans its own LAN, a unique wireless technology standard nationwide in order to protect information security, including only wireless modems supporting. US firms are threatened to stop supplying. This standard is designed by the Broadband Wireless IP Standard Group which is authorized by the Ministry of Information Industry (cp. http://www.china.org.cn 2004 [1]). In this regard since 2004 China built up an own IP technique. The People's Republic of China wants to introduce an own Internet Protocol called IPv9. The compatibility and the address conversion with IPv4, the current standard of the Internet, and with IPv6, the next generation Protocol, should be provided. Suitable routers are used for the conversion of the different standards. So a logical separation and control of those nets is possible. Detailed information about the introduction of this

standard is rare. The Ten-Digit Network Technology Standard Team developed the protocol in ten-years research under the contribution of the college for Computer Science at university of Zhejiang China and requires own copyrights for this new technique (cp. Ermert 2004).

Detailed information of Internet users: age, education and income

The younger generation is the biggest group of net users. 38.9 percent are between 18 and 24 years old. The statistic shows that more than 80 percent of Internet and also online game players are under the age of 35 (Appendix 2). In terms of education the majority are High School kids (31.6%), have a Bachelor's Degree or a College Diploma (Appendix 7). They have a lower income. 48.0 percent of college students earn less than US$ 62.5 (500 Yuan) monthly, including awards and internship job income. More than a half of university students belong to this group. Less than 10 percent of the university students have an income over US$ 312.5 (2,500 Yuan) per month (Appendix 8).

Game market and supplier

Game market size

With the rapid development of broadband penetration and Internet usage and the management of Internet cafés, China's online game industry enjoyed a galloping development in the last years. According to the "*Pacific Epoch 2006 Online Game Report"* the Chinese game industry will hit US$ 900 million (7.3 billion Yuan) in revenues in 2006 (cp. Koo 2006). This is an enormous increase compared with the revenue of only 1.3 billion Yuan in 2003 (cp. Schotzger 2004 [1]). The report also forecasts the market to hit 10.1 billion Yuan in 2010 due to the continued success of the game sector (cp. Koo 2006). Already in 2004 *The China Online Gaming Report*, published by *Game Trust* and *The Diffusion Group*, estimated that China will become the primary online gaming market in 2007 (cp. Game Trust 2004; Schotzger 2004 [2]). The biggest parts of these revenues are concentrated on the 3 biggest online game companies in the Middle Kingdom: Internet portal Netease.com Inc, Shanda Interactive Entertainment Ltd. and The9 Ltd (cp. Koo 2006) which are introduced in 3.2.2. The most popular games in China are online games. According to a study by the market research firm Niko Partners 84 percent of the Chinese game market was comprised of online games in 2005 (cp. Niko Partners 2006). You can also buy different consoles and console games but because of the software piracy and the low income in China, a lot of console-companies stayed away from the market or developed different strategies as it is explained in 4.3.3. Niko Partners also predicts that by 2009 91 percent of the console games will be online games (cp. Niko Partners 2006, cited after Hanson 2006). (Hanson 2005). According to the *Pacific Epoch 2006 Online Game Report* there have been 83 online game operators in China in 2005, which operated at least 153 games (cp. Koo 2006).

Companies on the Chinese game market

On the Chinese game market are three big companies situated. Netease, Shanda and The9 Limited are the biggest online game provider. If you compare the total revenue in the year 2005 Shanda is still a bit in advance to Netease. In the meantime Netease got ahead of Shanda comparing the total revenue of the second quarter of 2006.

Sohu and Sina are two companies that mostly offer website services and do not mainly participate on the Chinese game market. Figure 6 shows a comparison of the total revenues of all these big game companies in China in 2005 displayed.

There is still a great future market for online games in China. The number of gamers is expected to increase from 25.5 million in 2005 to 61 million in 2010, according to predictions from US research firm In-Stat. However, due to tough competition, only about 15 percent of the country's online gaming companies are profitable, In-Stat reported last month (cp. Burn 2006 [3]).

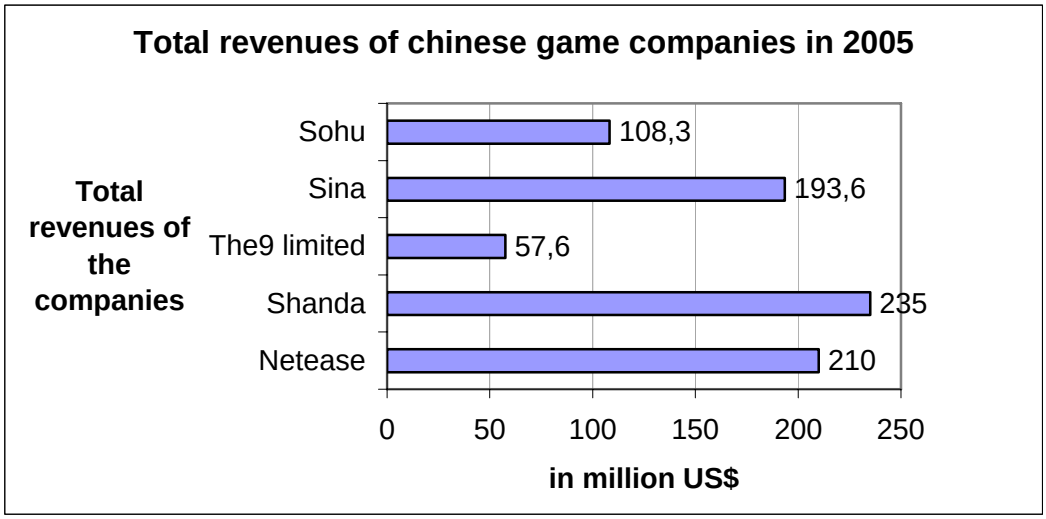


Figure 6: Total revenues from the company's websites

NetEase Inc.

Netease was founded in 1997 by William Lei Ding and is one of the leading Internet Portals in China with more than 300 million registered users. IT-Times.de quotes an average daily page view of 480 million (cp. IT-Times 2006). The financial statement of the second quarter 2006 by Netease is even talking about an average of more than 702 million daily page views on the Netease website for the month of June 2006 (cp. IT-Times 2006). This makes this website to one of the most popular Internet destinations in China.

There are eighteen different subject areas to provide a widespread overview of information and news for the users. The website also offers value-added services such as matchmaking services, music and photos from the Web sent over SMS, MMS or other mobile services. There are also community services for example instant messaging, online personal ads, alumni clubs, personal home pages and community forums. But it also has to be interesting for advertisers because Netease is partly self-financed by advertising. Aside Netease has paid listings on its search engine and web directory and classified ads service on its website. But most of the financing is done by chargeable services like online games for example. Nowadays the online games segment produces 85 percent of the Netease total revenue. The online game branch is focusing on offering massively multi-player online role-playing games to the Chinese market. The company both

develops and licences online games. Especially because of the Online games *Westward Journey Online II*, *Fantasy Westward Journey*, the licensed title *Fly for Fun* and the new proprietary development *Datang* Netease is really popular in China. With this success Netease just replaced Shanda Entertainment on the top of the games provider in China (cp. IT-Times 2006; Netease 2006 [2]; [3]).

The total online games revenue of Netease grew year-over-year to US$ 60.8 million. This growth is primarily contributed by the constant popularity of *Fantasy Westward Journey*. This in-house developed game achieved a record peak of 1.313.000 users during the second quarter of 2006 (cp. Netease 2006 [1]).

But all the Online Role Play Games by Netease are not up to the standard of 3D-Games and this may result in lost turnovers in the Chinese Game market in the next years. But still there is a forecast for the Netease total revenue of US$ 281.6 million for the year of 2006. For 2007 the total revenue of US$ 343.9 million is predicted (cp. IT-Times 2006).

Shanda Interactive Entertainment Ltd.

Shanda was co-founded by Ten Quao and his younger brother Chen Da Nian in December of 1999. Since then Ten Quao is the president of Shanda Entertainment. Since entering the Chinese online game market with the Korean game *Legend of Mir* in 2001 the company experienced a rapid growth of the company. Because of licensing as well the sequel, the Korean *Legend of Mir 2*, to the Chinese market, Shanda became the largest online game company in China (cp. Burn 2006 [3], cited after Games Issue Report 2006).

But now the game has aged and in the recent years it began to lose market share to newer online games like *World of Warcraft*. The company admitted that " *Mir II* has now entered the later stages of its life cycle" (Burn 2006 [2]). So Shanda had to switch from a subscription-based service to a free-to-play business model late last year. This strategy has helped Shanda attract new players, but it also meant declining profits for the company. The average concurrent users for Shanda's massively multiplayer online games increased from 548,000 in the fourth quarter of 2005 to 706,000 in the first quarter of 2006 but Shanda’s net revenues for 2005 fell 16.3 percent to US$ 44.7 million (cp. Burn 2006 [1]; Shanda Corporation 2006).

The company is now trying to build up a new stream with the EZ series, a range of new hardware products in long-term. These are supposed to include a mini gaming console, a PC home theatre adapter kit and a TV set-top box.
"Our strategy is to become an Internet-based content aggregator and provider", chief executive Tianqiao Chen said in May of 2006 (cp. Burn 2006 [3], cited after Chen 2006).

Shanda is also trying to generate more revenues in the casual gaming market of China. "We are confident that our growing portfolio of new casual games will generate consistent revenue streams over time", said Chen (cp. Burn 2006 [3], cited after Chen 2006).

The9 Limited

The9 was co-founded by Jun Zhu and Jie Qin in 1999 under the name GameNow.net Limited and changed its name to The9 Limited in 2004. The company is one of the leading online game operators in China. The main focus lies on operating massively multiplayer online role playing games. The9 also obtains exclusive licenses to operate successful MMORPGs in China, including *MU*, *World of Warcraft*, *Mystina Online*, *Granado Espada*, *Soul of the Ultimate Nation™* and *Hellgate: London*.

But The9 is also expanding their product development capabilities to develop their own online games, including MMORPGs. This started with *Joyful Journey West* which is a 2D side-scrolling MMORPG and the first in-house developed game by The9. The company's products and services include game operating support, Website solutions and advertisement services, and game-related SMS services (cp. The9 Limited 2006 [1]).

The net revenues of The9 for the year of 2005 grew year-over-year to US$ 57.6 million. The online game services gross revenues were US$ 57.8 million in 2005, compared with US$ 0.04 million in the fiscal year of 2004 (cp. The9 Limited 2006 [2]). So this is the most growing company on the Chinese online game market.

Sina

Sina is the leading online media company and value-added information service provider for China and for Chinese communities in the whole world. It has a network of localized websites targeting on Greater China and Chinese oversea. So Sina can provide services through five major business lines including SINA.com (online news and content), SINA Mobile (mobile value-added services), SINA Online (community-based services and games), SINA.net (search and enterprise services) and SINA E-Commerce (online shopping). With these different lines Sina is capable of providing an array of services, for example regional focused online portals, mobile value-added services, search and directory, interest-based and community-building channels, email and online games. Sina has 230 million registered users worldwide and 450 million page views every day (cp. Sina 2006 [2]; [3]).

From the Chinese Academy of Social Sciences Sina was ranked the "most preferred website" in China for 2003 and 2005. South China Weekend honored Sina in 2003 and 2004 with the *Chinese Language Medium of the Year award* (cp. Sina 2006 [3]).

For the year of 2005, Sina reported net revenues of US$ 193.6 million, compared to US$ 200.0 million in 2004. The biggest part of the company's revenue produced the Advertising branch (US$ 85.0 million), which grew 30 percent compared to the year before. The non-advertising revenues including online games produced US$ 108.6 million but decreased 19 percent year-over-year (cp. Sina 2006 [1]).

Sohu

Sohu, which means "Search Fox" in Chinese, is established by Dr. Charles Zhang under the name Internet Technologies China Incorporated in August of 1996 (cp. Sohu 2006 [1]). Now Sohu.com Inc. provides a

network of web properties which offer the user community a broad array of choices for information. Sohu.com is a mass portal and leading online media website.
Sohu has pioneered online searching in China. Starting as the country's first online search company in 1997 Sohu has continuously developed its in-house search technology. Nowadays it provides a search database of over one billion indexed web pages and has the world's largest online search database in the Chinese language.
Sohu also offers services of brand advertising as well as paid listing and bid listing on its in-house developed search directory and engines. Sohu also provides wireless value-added services and operates two massively multi-player online role-playing games as well as a casual game platform. The Online games business currently only receives a small part of Sohu's total revenues but the company will continue on the game market to maintain a smooth user experience and be prepared for future market potentials (cp. Sohu 2006 [1]).

In 2005 the total revenues of Sohu were US$ 108.3 million which is 5 percent up year-over-year. The Advertising revenues increased 27 percent year-over-year to US$ 70.9 million from US$ 55.7 million in the fiscal year of 2004. The non-advertising revenues in 2005 totaled US$ 37.5 million but decreased 21 percent from US$ 47.5 million in fiscal 2004. Sohu's non-advertising revenues are mainly derived from wireless value-added services, online games and e-commerce (cp. Sohu 2006 [1]).

International companies

In the last years also many international companies were trying to get a foot in Chinas gaming industry because it offers huge prospects for growth. But the most popular and influential games continue to be imported from Korea, not for example from the USA. According to the *Korea Game Development and Promotion Institute* 70 percent of the Chinese game market was controlled by Korean companies in 2003. China is the biggest foreign market for the Korean gaming industry. 30 percent of the whole export and more than 53 percent of the online game export went there in 2003 (cp. KOREAheute 2004). But with the rising number of gamers the Chinese government started to protect its game industry to improve the quality of locally developed games through regulations, which are explained more detailed in 4.4 Because of this regulations and the competition with local players like Shanda Interactive Entertainment who started to produce their own products and other foreign competitors like the US publisher *Blizzard Entertainment*, the market share of South Korean online games decreased to 51.9 percent in 2004 and 45 percent in 2005. The number of Chinese online games on the market reached 37 in 2004 and already 70 in 2005, while there were 80 Korean games in 2004 and just 5 more in 2005 (cp. Asia Times 2006 [1]). But games like *MU* and *Legend of Mir* were real top-sellers. The 3d-role-game was produced by the Korean company Webzen and achieved a revenue of US$ 7.8 million in 2003, one year after it entered the Chinese market. Koreans biggest online game company NCsoft also had great success with its Lineage-series (cp. KOREAheute 2004). In 2003 it established the joint venture NC Sina with Sina to work as a local operator (cp. Koo 2006). Actoz Soft was the first Korean software-developer that went to China. It sold its role-game “1000 years” to the Chinese website AsiaGame.com and earned almost US §900.000 license and patent fees. Nowadays China is

the biggest source of income for Actoz Soft. All these explanations make it clear that international concurrence mainly exist on Korean companies. There has only been one successful Taiwanese online game called *Stone Age* which came out in 2001 (cp. KOREAheute 2004). The advantage of operating online games is the distribution, as already mentioned at the beginning of this chapter.
But also this kind of games is not protected against piracy. In 2001 Wemade Entertainment formed a partnership with Shanda to handle the online service of its game *Legend of Mir2* (cp. Asia Times 2006 [1]). In October 2003 Shanda commercially launched it's *The world of legend*. Two months later Wemade accuses Shanda of producing a pirated version of its *Legend of Mir2* with a different name on the market (cp. Koo 2006).

The focus attention of Korean companies always lied on producing multi-player role-playing products such as the Lineage series from the top game maker NCsoft Corp. But according to the Asian Times South Korean companies should more concentrate on casual games and games that refer to Chinese culture (cp. Asia Times 2006 [1]). So for example a Korean online game company called Nexon offers its games trough operators in China. One of them, *Crazy Arcade BnB* (for Bomb and Bubble) is very successful as it is explained in 4.3.2. The following chapter will give an overview of the games and their development.

Games in China
As already pointed out in chapter 4.2.1 84 percent of the games on the Chinese market were online games in 2005. And the number is increasing (cp. Niko Partners 2006). Online games seem to have a big advantage in distribution. They run on Servers and the users have to pay fees. So companies are protected against piracy. The success of online games is also explained by the immense increase of Internet users in the Middle Kingdom. According to CNNIC's (China Internet Network Information Centre) *14th Statistics Report on the Internet Development in China in 2004* gamers like to play traditional games. As figure 2 shows more than two-thirds of the online gamers play casual chess and card games. Almost 49 percent of the gamers prefer role playing games. Nevertheless 14 percent like to play real-time strategy and 7 percent play simulation games. The remaining 3 percent are other kind of games (cp. CNNIC 2004).

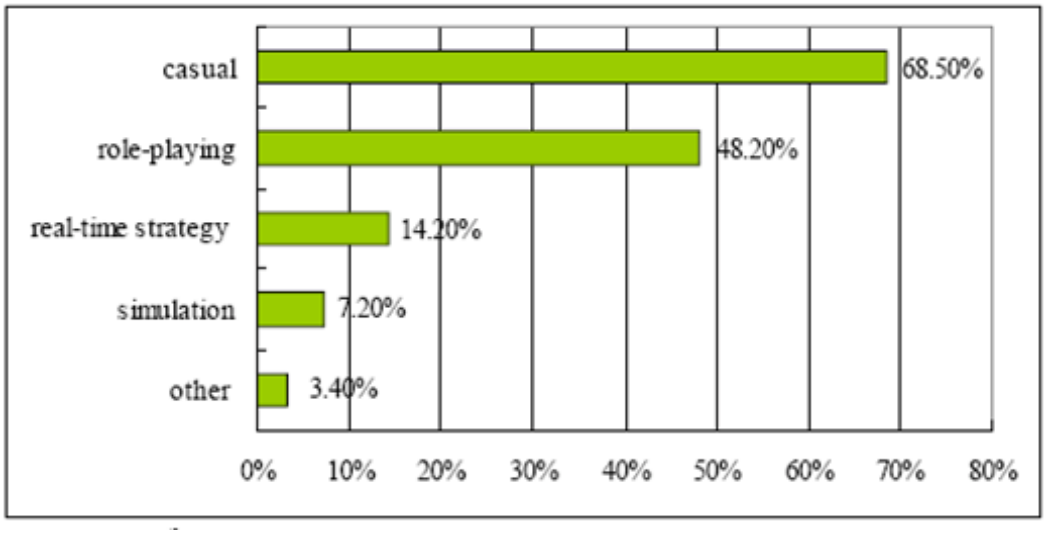


Figure 7: Game types preferred by online game players (CNNIC 2004)

This chapter gives an overview of Chinas online game history and describes the most popular and influential MMOGs and MMORPGs. MMOG is short for "Massively Multiplayer Online Game […] MMOGs are characterized by their complexity and game persistence" (Koo 2006). MMORPGs are a subset of MMOGs and mean "Massively Multiplayer Online Role Playing Game" (Koo 2006). The chapter will show their domination on the Chinese game market. It also shows the importance of casual and mobile games and the development of consoles and console games on the market. PC games are not considered because they don't play a big role on the Chinese game market.

Chinas online gaming history

1990s

Online games came to China in the beginning of the 1990s in form of Multiple User Dimension, so called MUDs (cp. China daily 2004 [2]). A MUD is a computer program that allows Internet users from all over the world to connect simultaneous to it and play the game. So users are able to interact real-time with others, either by exchanging text messages or by having their graphical representation act and speak for them. Each user takes control of a computerized person/character with what you can explore the MUD-world. You can fight against other persons and monsters to improve your skills and to gain experience points (cp. Shay 1999). The 1990s were also the time of birth of important Chinese online game companies. In August 1999 The9 was founded as the online community www.gamenow.net. Three months later Shanda Interactive Entertainment Ltd. started its work on the Chinese market as an online community (cp. Koo 2006).

2000

In 2000 smash hits like *King of Kings*, *SG (The three Kingdoms) Online* and *Xiao Ao Jiang Hu`s Jing Zhong Bao Guo* appeared and led into a golden decade of cyber games in the Middle Kingdom (cp. China daily 2004 [2]).

King of Kings

King of Kings is the first graphic online game of Lager Interactive Inc., a Taiwanese company and also the very first MMORPG ever published in China. It makes it possible that every character is unique and enables players to express themselves immediately through the games interface (cp. Lager Interactive 1999-2003).

2001

2001 was the year of the first Q-style online game in China, called *Stone Age* (cp. Koo 2006).

Stone Age

Stone Age was launched by the Taiwanese online gaming company Beijing Wayi (cp. Pacific Epoch 2003-2006) in January. A Q-style game is a game in cartoon style, that means cute figures with big eyes and small bodies, that tend to target younger people and females.

In May 2001 the casual game platform Ourgame reached a peak of 170.000 simultaneous gamers and had 20 million registered user accounts. In November *Westward Journey Online*, developed by Netease, began charging. In the same month the South Korean MMORPG *The Legend of Mir 2* was commercially launched (cp. Koo 2006).

Legend of Mir2

The Legend of Mir2 is a MMORPG from the South Korean Developer Wemade (cp. Shanda Corporation 2004 [1]). It was operated by Shanda Interactive Entertainment Ltd. (cp. Nystedt 2005) and became the most popular online game in China in 2002, 2003 and 2004 (cp. Shanda Corporation 2004 [1]), attracting 500.000 simultaneous users in July 2002 (cp. Koo 2006). *The Legend of Mir* is a legend of the land called Mir, where humans, beasts and monsters once lived together. Humans have always been the weakest ones, until a mysterious race came to Mir and taught humans important skills to fight against the monsters. So they were able to build up a new civilisation. Unfortunately a big explosion destroyed everything. But some humans survived and are now trying to rebuild their great civilisation. Players can choose a character and act like a warrior, a wizard or a Taoist for example. There are many levels with different dungeons and cities to explore and you can create guilds and conquer legions. The game is also updated constantly with new maps, monsters and quests (cp. Shanda Corporation 2004 [1]). But in 2005 Shanda had to switch *Legend of Mir2* to free play because of a decreasing user number (cp. Koo 2006).

2002

In 2002 the online game market experienced an increase of 213.8 percent. Role Playing Games (RPGs) became the most favourite ones in China, accounting 75.5 percent of all online games played there. Korean games were market-leading, followed by those from China mainland, Taiwan and Japan (cp. China daily 2004 [2]). Besides that 2 new smash hits were launched in this year, *Westward Journey 2* by Netease in

August and MU by The9 in November (cp. Koo 2006).

Westward Journey Online 2

The game was developed by Netease and is based on the Chinese classical fiction *Journey to the West* and a popular movie by Stephen Chow. It is designed with traditional Chinese painting style with a touching story. In 2003 it was the favourite Chinese developed online game and by May 2005 it was ranked as one of the top ten of all MMORPGs in China with over 56 million users (cp. Netease 1997). Although the game is not very up-to-date anymore Netease will update it in the beginning of 2007 to stop a decreasing user number (cp. IT-Times 2006).

MU

MU is a 2.5-dimensional quarter-view MMORPG developed by the Korean online game developer and operator Webzen. The joint venture 9Webzen, in which The9 owns 30 percent has the license to operate *MU* in China (cp. Reuters Online 2006). The game recorded 310.000 concurrent players in December 2003.

2003

In January 2003 Sina and NCsoft established the joint venture NC-Sina. Therefore Sina invested US$ 5 million to get a 51 percent. This year was also the year of a great development and growing of Shanda Interactive Entertainment Ltd. It acquired a 51 percent ownership in the mobile game developer Shenzen Fenglin Huoshan Computer Technology Co. and 90 percent in Shanghai Shulong Technology, a short messaging provider. It also set up Shanghai Shepin Network Development, an online game development company and acquires 51 percent ownership in the online game developer Shanghai Shengjin Software Development. Shanda also launched an online payment system in April 2003 and acquires 90 percent ownership in a company called Chengdu Jisheng Technology, which develops software for Internet cafés. With a look on this development it is not surprising that Shanda became the biggest Chinese online game company. Simultaneous players of all Shanda games reached a peak of 1 million in September 2003. In August 2001 Tencent launched the casual platform QQgame. New games that were launched in this year are for example *EverQuest* by Shanghai Ubisoft., *Legend of Mir3* by Optisp, the casual game *BnB* and *The World of Legend* by Shanda. As already mentioned Wemade accuses Shanda that its *World of Legend* is a pirated copy of Wemades *Legend of Mir2* (cp. Koo 2006).

The World of Legend

The World of Legend is a fantasy-2d-MMORPG, developed and operated by Shanda. It is the first game of the in-house-trilogy *The Genesis of the Century* and was followed by *The Age* in 2004 and *Magical Land* in 2005. The player's characters exist in a virtual land where mankind is divided into three races, called *Dream Tiger*, *Valley* and *Flood*. They all have spiritual power and fought each other a long time. But one day the devil came out from the underground and regained its strength and threatened the humans. Because of that

the three races established an alliance to fight against the devil. Players are able to create unique characters such as guild-members, masters or apprentices and husbands or wives (cp. Shanda Corporation 2004 [1]).

2004

In 2004 the casual gaming sector took pleasure in an upward trend. In July the casual game platform Ourgame reached a peak of 600.000 concurrent players, QQ Game recorded 700.000 and in December already 1 million. In this year two main companies were listed on Nasdaq, Shanda and The9. In February The9 won the rights to operate *World of Warcraft* in China from Vivendi Universal and committed US$ 74.1 million to the game. Four popular games have also been published in 2004: *Fantasy Westward Journey* by NetEase, *The Sign* and *The Age* by Shanda and *Lineage 2* by NC-Sina (cp. Koo 2006). Based an online game survey by the China Game Publishing Association (CGPA) and IDC announced the top 10 online games and the top five domestic online games in China in 2004:

Top 10 online games in China 2004:

	Name of the online game	Operator	Developer
1	Legend of Mir 2	Shanda (SNDA US, Hold)	Wemade
2	Mir 3	Optisp	Wemade
3	World of Legend	Shanda	Shanda
4	Fantasy Westward Journey	NetEase (NTES US, Hold)	NetEase
5	MU	The9 (NCTY US, NR)	Webzen
6	JX Online	Kingsoft	Kingsoft
7	Crossgate	Joypark	Suare / Enix
8	Westward Journey Online 2	NetEase	NetEase
9	Lineage 2	Sina-NCSoft	NCSoft
10	Ragnarok Online	Softworld	Gravity

Top 5 domestic online games:

	Name of the online game	Operator	Developer
1	World of Legend	Shanda	Shanda
2	Fantasy Westward Journey	NetEase	NetEase
3	JX Online	Kingsoft	Kingsoft
4	Westward Online Journey 2	NetEase	NetEase
5	Feng Shen Online	Kingsoft	Kingsoft

Source: (DBS Vickers Limited 2005)

2005

In June 2005 the MMORPG *World of Warcraft* was launched in China. Developer and publisher was Blizzard Entertainment who has partnered with the Chinese publisher The9 who acted as local operator. As a secure service an authorization key system helps to protect the game from hack programs. Only Players with

an authorized CD key are able to enter the game (cp. Blizzard Online 2005). Just 1 month after it was published the game had about 1.5 million users in China and 3.5 worldwide (cp. Stein 2005). In 2005 Shanda switched *Legend of Mir2*, *Magical Land* and *The World of Legend* to free play. In December the company started to sell its EZ Pod.

Casual games

According to Pacific Epoch casual games are "online versions of classic games" (Koo 2006) such as card games, board games poker and other contest games like shooter variants for example. While the popularity of online games has increased in China, the user number of casual games expanded as well. According to surveys of Computer World Information (CWI), a Chinese IT consultant, the casual game market will reach US$ 225 million this year (cp. Asia Times 2006 [2]). This number shows the enormous demand in this sector that will gain further market share. The last CNNIC surveys showed that two reasons for the popularity of casual games are the promotion of the QQ casual game portal by Tencent, the largest casual game operator in China, and Shanda's promotion of *BnB* (cp. DBS Vickers Limited 2005). *BnB* is the short version of *Bomb and Bubble* or *Paopaotang* in Chinese. It is a casual game by the South Korean company Nexon and was introduced to China in August 2003 by Shanda (cp. Bremner 2006). Already in January 2004 it was awarded as one of the top 10 popular online games in 2003 by IDC. In August 2004 the number of concurrent users reached a peak of 700.000. In July 2005 *BnB* was recommended by the Ministry of culture for teenagers. Two users can play the game simultaneously on a single computer (cp. Shanda Corporation 2004 [2]). It has eight characters and two hidden players. The aim is to block the opponent with a water bomb within the labyrinth. You loose the game when your avatar is hit by the bubbles of the bomb (cp. Bremner 2006). Bomb and Bubble is not the only casual game that became popular in China. Other ones such as *Pop Kart*, *Audition* and *Street Basketball* have taken top 10 positions for online downloaded software. In 2006 casual games have overtaken MMORPGs for the first time, regarding to the download volume. One reason for this is that 60 percent of the network gamers just want to be entertained. It is a fact that MMORPGs take a lot of time, especially to create and establish your character. People who cannot or do not want to spend much time on playing – for example elderly people – often prefer casual games to satisfy their demand for entertainment. And also female users are more and more attracted to this kind of online games (cp. Asia Times 2006 [2]). Because of this growing audience online game operators will maintain a rich portfolio of online games.

Console games

China is well known as a breeding ground of software piracy and pirating tools, a fact that console manufactures are familiar with. This is one of the reasons why video-gaming on a console is not so popular in China and online gaming has achieved such a success. Another reason is the low income of the Chinese people who often cannot afford a console, especially those who live in the inland (cp. Golem 2006). But nevertheless there are international console producing companies like the big three competitors Sony, Nintendo and Microsoft who entered the Chinese market as sellers and / or producers with different strategies.

Nintendo – iQue line

Japanese console giant Nintendo was the first of the concurrent platform holders to sell a video-game-system in China (cp. Bloomberg 2003). Since November 2003 Nintendo is selling a controller-style console called iQue Player for US$ 60 (cp. PlayAsia.com 2002-2006). It is co-developed by Nintento and iQue Ltd., a joint-venture between Nintendo and Chinese-American scientist Dr. Wei Yen. The console was specially designed for the Chinese market and contains Nintendo 64 technology (cp. Bloomberg 2003). There are 10 games available, including Mario 64, Zelda 64 and Star Fox 64 which are stored on a 64 MB Flash Memory Card (cp. China daily 2003 [1]; Play-Asia.com 2002-2006). But how can Nintendo and iQue make a profit with such a low price? The simple answer is that the iQue Player features games originally made for SNES and N64 that can be downloaded to the consoles memory card for about US$ 5. This download ability is offered by terminals in special shops throughout China. The memory card only works with the very same console with which it was sold and games can't be copied between two cards. This technology prevents illegal copying and distribution of its games (cp. Fahley 2003).

In June 2004, almost one year after the iQue Player came out, Nintendo launched the Game Boy Advance in Shanghai and other parts of the Canton Province. The handheld was sold with one localised game by WarioWare Inc. at US$ 84.33 (cp. Feldmann 2004). Again one year later, in July 2005, Nintendo continued its iQue line with the release of the handheld Nintendo DS under the trade name of iQue DS. The "DS" stands for both *Dual Screen* and *Developer's System*. The console costs about US$ 169 and was launched along with Chinese-language versions of *Polarium* and *WarioWare Touched*. But it's compatible with every game independent of the language (cp. All experts 2006). According to the president Satoru Iwata, Nintendo wants to enter the Chinese market completely within the next three or four years (cp. Fahley 2004).

Sony – Playstation 2

While Nintendo's market strategy is based on the development of its iQue line, Sony was launching an existing product, the Playstation2. It entered the market in January 2004 at US$ 240, quite expensive compared to US$ 179 in the USA and the fact that it is a quarter of the average annual wage of an urban worker (cp. Fahley 2004; BBC 2003). This was one of the reasons why the Playstation2 had got a rocky start in China. The other one is that the government didn't want to give the permission for the launch. Sony planned to release the console in December 2003 in five big Chinese cities. But the government was unwilling to permit a console that consists of foreign-manufactured parts. While Nintendo's iQue is completely produced in China, some components of the Playstation2 are fabricated in Japan. It's not known what arrangement Sony made with the Chinese government to get the permission. But in January 2004 Sony launched the console, accompanied with the software title *ICO*. Sony decided to start in Shanghai and Guangzhou, only two of the five originally planned cities. Sony's pricing policy in the region is interesting, with the hardware being sold at a high price and very cheap software at US$ 17 for each game (cp. Fahley 2004). But that's probably still more than a pirated disc. According to the news agency ChinaByte the sale

was very slow to start, the demand not very high. Reasons are the high price and the low supply of games on the one hand side and the black market and software piracy on the other side (cp. GameFront 2004).

Microsoft – Xbox

In contrast to Nintendo and Sony, Microsoft didn't enter the Chinese console market as a seller yet. But nevertheless the Xbox 360 is completely produced by three different companies in South China. Flextronics, Wistron and Celestica are manufacturing the console simultaneously to avoid a bigger loss of production (cp. Heise Online 2005). At present Microsoft sells the Xbox on an average loss of US$ 125 worldwide. The strategy is to balance this loss through the selling of games, which bring profits. This strategy is not really possible in China, because software piracy has reached such a great extent (cp. Chip Online 2001). That's the major reason why the latest version of the Xbox is not available in China for the moment and Microsoft is still evaluating the market. According to a Microsoft official for Asia Pacific and Greater China the company is working hard to reach an agreement with the Chinese government and to develop the right content (cp. Brightman 2006). The near future will show what kind of strategy Microsoft has developed.

Mobile phone games

Not quite different to the online game industry, Chinas mobile phone game market is expanding rapidly. According to the Chinese newspaper China daily there have been 250.000 to 300.000 users downloading mobile phone games every month in 2005, generating about 20 million Yuan in business revenue (cp. China daily 2005). While mobile games based on SMS had the dominant share in the mobile game market in 2003 with US$ 36 million (300 million Yuan) of revenues, new games on 2.5-generation platforms like WAP, Java and BREW have entirely success since 2004 (cp. China daily 2004 [1]). The download market is shared by the two big Chinese mobile operators China Mobile and China Unicom who set up platforms on which players can download and pay for games. The prices per game are rising, with an average price of 8 Yuan in 2005 compared to 5 Yuan in 2004. Also the number of players is expanding. According to the Pacific Epoch Study 2005 China will have 27 million mobile gamers in 2008, compared to approximately 9 million in 2005. Pacific Epoch also estimates that Chinas mobile games downloaded market will rise from 50 million in 2004 to 875 million Yuan in 2008

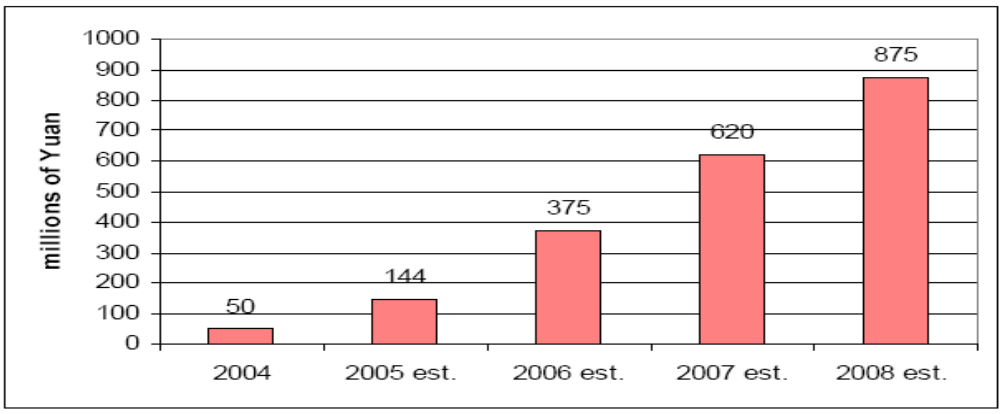


Figure 8: Downloaded java mobile game market size (Glenn 2005)

Legal framework of the market

The following chapter deals with the legal framework of the Chinese digital game market which is an important aspect when analyzing the development and the state of the art, the economical success of games and the gaming culture. First a brief overview of media politics in China is given, presenting the most important regulatory authorities and the legal basis they work on. In a second part special restrictions affecting the digital game market are introduced.

Structure of the Chinese Media Right

Basic Laws

The People's Republic of China has no consistent media right. The legal basis represents the current constitution from 1982. In article 22 it commits the state to promote the development of art and culture – included literature and art, the press, broadcasting, and television undertakings, publishing and distribution services, libraries and museums – which serves the people and socialism (cp. International Constitutional Law 2004). The freedom of the press is anchored in the constitution in the article no. 35:

> *"Citizens of the People's Republic of China enjoy freedom of speech, of the press, of assembly, of association, of procession, and of demonstration."* (International Constitutional Law 2004).

But beyond these rights in the constitution's preamble a claim to politically and ideologically leadership is anchored and finally enables regulatory authorities to affect and intervene in the Chinese media at any time (cp. Kupfer 2004: 11). This leads to a circumstance of media control which has been captured in the term 'cultural despotism' (cp. Donald/ Keane 2002: 12). For this reason institutional bodies still dominate the media system. Even in recent years which appeared to be characterized by an opening and liberalization of the media sector – last but not least due to the advance of the Internet and new media in China – the State Press and Publication Administration leaves no doubt that "[…] the Party's control over the media, the cadres who manage the media, the ideological direction of the media, and the properties of media organizations will not change" (Pan 2005: 99).

Regulatory Institutions

While the Chinese media sector is characterized by a relatively small number of vague laws an "increasing complexity in institutional policy-making" (Donald/ Keane 2002: 12) is oberservable. The huge network of regulatory institutions realise a strict policy based on numerous regulations. These are on top-level the State Council, below 67 directly underlying central ministries and commissions, organisations, administrative offices and institutions. Supervisory bodies reach up to local level in terms of party committees in companies or propaganda departments (cp. Kupfer 2004: 11). After a reorganization to downsize the number of institutions in 1998, the main advisory authorities for mass media are the Ministry of Information Industry (MII) consisting of the former Ministry of Post and Telecommunications (MPT), the Ministry of the Electronics Industry (MEI) and parts of the Ministry of Radio, Film and Television (MRFT) and the new

State Administration of Radio, Film and Television (SARFT). Furthermore, the Ministry of Culture and the State Press and Publication Administration (SPPA) as well as propaganda departments at all levels are in charge of editorial issues (cp. Redl/ Simons 2002: 18 et seq.).

Likewise, digital games are assigned the Ministry of Information Industry (MII) which controls the manufacture of electronic and information products, the communications and software industry (cp. Chinese Government's Official Web Portal 2006). Since a lot of games are played on the Internet they can be considered affected by the Ministry of Public Security (MPS) and the Ministry of State Security (MSS) that are in charge of public information networks and responsible for safeguarding computer information systems (cp. Lynch 2000: 199).

Regulations affecting the digital games market

Regulations with impact on the Chinese digital games market affect three different perspectives - the Chinese game users, the vendors of electronic games and the domestic industry. First, from the Chinese state's point of view computer games imply a threat for the state's security as well as for the people. According to Tuo Zuhai of the Ministry of Culture "contents of these games are always related to sex, violence, gambling and superstition" and thus have a bad influence on the player's mental health (cp. Xinhua 2004 [2], cited after Zuhai 2004).

Another decisive problem especially from the foreign industry's point of view is the piracy in China. To give an example, according to an article of the *China Daily* Chinese Internet game players use e.g. private servers running pirated games or special software to cheat on the games. In 2003 these methods were practiced by more than 60 percent of the players and resulted in a daily loss of about US$ 12,000 for the affected companies (cp. China daily 2003 [2]). But not only online games are deceived also PC games software suffers from illegal copying and lost turnover in consequence.

The third point worth mentioning when analysing the legal framework of the Chinese digital game market is the market-entry-barriers for foreign enterprises in order to save the domestic software industry from being adopted by foreign investors. Following, these aspects shall be briefly explained.

Protection of the People

According to Chinese regulatory authorities numerous foreign games distort historical facts and divulge state secrets which may threaten the nation's unity, disturb the social order or damage the nation's glory. Furthermore, the games' sex, violence, gambling and superstition related content may affect young people's psychological health and lead to violence and crime.

The constitutional freedom of the press is – as mentioned above – bound to the claim of politically and ideologically leadership as well as the protection of national, societal and collective interests and the freedom of the other and to special laws (cp. Gui 2004: 29). Hence, publications of all kinds are prohibited if they:

- contradict constitutional principles,
- endanger the unity, sovereignty of the state as well as the territorial integrity,
- instigate the split of the nation, affect morals and customs of national minorities or destroy the solidarity of the tribes,
- betray state secrets,
- are pornographic, spread superstition and violence and affect social virtues and cultural traditions of the nations,
- consult other citizens,
- contradict other laws (cp. Gui 2004: 29).

These points to protect the Chinese people and ideology establish the basis for many regulations in the media and telecommunication sector and judgements are often based on them. Also the limitations also refer to Internet content on portals and web pages and digital games as the PRC Regulations for the Safety Protection of Computer Information Systems from 1994 proclaim that "no organisation or individual may use computer information systems to engage in activities that endanger national or collective interests, as well as the legitimate interests of citizens" (Lynch 2000: 199).

As per Kupfer's descriptions these variably interpretable directives often result in detentions, especially referring to information on the Internet because here regulations for the protection of website operators still lack (cp. Kupfer 2004: 12). On the Internet the rule counts 'responsible is, who is online' (cp. Gui 2004: 73). According to the latest 'Human Rights Watch' report about Internet censorship from August 2006, each Internet content provider is liable for the content displayed on the sites, whether created by the company or organisation itself or by users and visitors of the sites (cp. Human Rights Watch 2006: 12). "The decision to censor certain material is often unreviewable, just as the decision to punish certain online speakers" (Human Rights Watch 2006: 21).

Licensing

In order to better control the publication processes in China the accordant bodies commit anyone who wants to publish something – digital games included – to apply for a license first (cp. Gui 2004: 29). Furthermore, a license is required when operating Internet service providers (ISP) or Internet content providers (ICP) which eases the control of content and information exchange because of controllable network nods (cp. Fries/ Yi 2000: 52).

Internet cafés need permission for operating, too. For the protection of minors and the control of content consumed cyber cafés are obliged to obey a set of strict rules whose fulfillment is regularly controlled by local authorities (cp. Peng 2006). Among others cyber cafés have to register the identity of every customer, give report about the sites loaded by the users, install surveillance systems or deny the access to minors (cp. Peng 2006; RSF 2003).

Prohibition of games

After bans on particular digital games for the offends described above since 2004 a censorship committee established by the Ministry of Culture monitors imported games according to the requirements of the Chinese constitution and releases harmless and prohibits games "threatening state security, damaging the nation's glory, disturbing social order and infringing on other's legitimate rights" respectively (cp. BBC 2004). At the beginning of 2005 the Chinese General Administration of Press and Publication and anti-porn and illegal publication offices listed 50 digital games which were prohibited in order to save the youth from pornographic and violent contents. Among them: *Age of Mythology: The Titans, The Sims 2, Manhunt, FIFA 2005, Battlefield Vietnam and Painkiller: Battle out of Hell, Conflict Vietnam, Vietcong: Fist Alpha* and *Devastation* (cp. Xinhua 2005). The reason behind is that most of these games are accused of damaging China's nation's reputation and integrity and blackening the image of the Chinese army. To give an example the game *Hearts of Iron* deals with a story during the 2nd World War and presents Tibet as a sovereign country which can be chosen to play for by the player. The People's Republic of China, considering Tibet as one part of the country, regards this as distortion of historical facts and an offence against its national integrity (cp. Breeden n.d.). Another case is the computer game *FIFA 2005* which has been prohibited in 2004 for the reason of harming the nation's sovereignty and territorial integrity. In the game the regions Taipei of Taiwan, Hong Kong-Macao and Tibet are represented as independent countries (cp. http://www.china.org.cn 2004 [2]).

Limited use of games

For the reason that great impact on the mental stage and behavior is attached to computer games the Chinese government tries to protect especially young people from getting gaming addicted by limiting their duration of playing. Since 2005 online role-playing games are limited in time. After three hours the player has to stop playing otherwise his online character suffers more and more losses regarding his capabilities until, after five hours he is absolutely incapable of action (cp. Wang 2005 [1]). Minors under the age of 18 years must not play violent games that enables so called Player Kills (PK), the ability of players to kill other characters (cp. Wang 2005 [2]).

With reference to the use of Internet each access to the Internet has to be approved by the Ministry of Information Industry. This way content of e-mail and external Web sites people can access were controllable and accounts could be denied to suspected persons (cp. Lynch 2000: 197 et seq.). With the enormous increase of subscriptions to the Internet already during the first years in early 1996 the State Council declared new regulations that limited the number of the service providers. Today there exist nine state-licensed Internet Access Providers which enable the physical access to the Internet (cp. Human Rights Watch 2006: 9). They are easily controllable by the government which blocks websites displaying inappropriate content (cp. Lynch 2000: 200).

Especially in the public space of cyber cafés Chinese Internet users and game player are surveiled. In order to ensure control over the Internet activities of their customers Internet cafés are obliged to register every user and install software filtering the loaded sites (cp. RSF 2003). Minors are not allowed to enter at all.

Protection of Intellectual Property Rights

Especially with regard to software products the Chinese government has to struggle against piracy. The existing laws protecting trademarks, patents, copyrights and computer software have not been effectively enforced, even that the US Administration has already threatened with tariffs on Chinese imports. Since 1997 the Chinese property rights laws were tightened by including a provision against infringement in the Chinese criminal code. There are now visible first tendencies of more actively and successfully chasing and condemning copyright delicts (cp. Fries/ Yi 2000: 60 et seqq.). The Internet control means described above also serve the fight against piracy on games.

Protection of the Domestic Industry

In order to save the Chinese market from strong competitors from abroad and to secure the Center's political and ideological leadership of its people, the Chinese government bars foreign companies from owning or operating any unit of the telecommunication system or mass media. The intention behind is to prevent the people from pornography, news and 'spiritually polluting' contents that could threaten the national security (cp. Lynch 2000: 198). In order to enter the Chinese market "it is a must for foreign software vendors to form joint ventures with mainland Chinese companies" (Fries/ Yi 2000: 115). And even in this case they need a license from the Ministry of Information Industry (MII). By contrast it is widely believed that in the course of the peaceful evolution and the privatization of the Chinese market it will open for foreign investors, too (cp. Lynch 2000: 198).

Evaluation and summary

As already mentioned our remarks are mostly based on Internet literature. We obtained a wide range of more or less new market research data. So we had to compare our material with each other and selected it according to topicality and pertinence. In this case the main problem was that many sites are written in Chinese so that we could not use all the material. Furthermore we had to beware of disposing unsure and shady facts. Avoiding this we asked acquainted Chinese students from Ilmenau for translation. We also seized the chance to request game developers like e-Sport, the German Embassy Peking or the Department of Asia Science Hamburg for example for useful information. But the given information were rare and most of the material and topical reports we asked for were too expensive such as the 12 paged research of "Wireline Strategy regional overview: Asia-Pacific" made by Ovum Search and published in March 2006. The costs amounted to EUR 1573.91 (cp. Ovum Search 2006 [1]). So we had to handle with the disposable data from the Internet.

The analysis about the development of the Chinese online game industry gave an overview about the

supplier side and potential demand which shows the huge development space of the market. As aforementioned the digital game market is influenced by political premises. Of course, the Chinese government also wants to promote economic growth. However, the Chinese government does not necessarily believe that free markets and trade are the best way to grow China's economy. When it comes to games, it means that the Chinese government can be tended to use regulations to favour domestic products and discourage foreign products. Nevertheless, the game industry comes to China. Foreign companies looking to enter the Chinese market, continue to be confronted with numerous risks and uncertainties.

Online games rose as a pioneer in the Chinese Internet industry over recent years with the fast growth of information and telecommunication technology. The computer gaming industry is developing rapidly. Its revenues are expected to reach more than six billion Yuan by 2007 (cp. http://www.3sat.de 2005). But there are chances and risks as well, so you can see winners and losers in the Chinese game market. Just trying to figure out how to react gainfully on the Chinese market is not enough. A company looking to release a product in China needs to be aware of the overriding goal of governmental regulations. Chinese consumers may be receptive to Western content, but the Chinese government is very reluctant to allow content that deviates from Chinese cultural norms or seems to have too much of a Western influence. Considering this digital games in China are influenced by the ancient history, its traditional life and values.

It is important to realise that online games are not products but digital services. They are characterised by its dynamic versatility, individual usage and its convertibility. They are attractive because of its one-time registration, its relative low costs and modifiable content. Referring to this, the online game player population grows daily and countless online communities developed in the last recent years and let the team spirit of the user communities grow. Therefore Internet cafés enjoy large popularity although they are under governmental control. China is „champion" of copy. But the development of online games makes the fight of the Chinese government against piracy possible. The increase of other Internet industries results from the growth in game consumption as well, so there are huge opportunities for providers, computer producers and broadband suppliers. Finally the fast market growth provides jobs and promotes possibilities of education.

Since the beginning of the 90's the Internet gets more and more importance. But the spread of illegal content harasses the governance. Therefore China's government wants to bring the online game market under its control in an effort to protect the health and welfare of children from violent and pornographic content. But you can not simply say gaming is good or bad. It depends on how you play. Especially role playing games can be an integration of wisdom, inspiration, team spirit and emotional exchange for young Chinese. Online games could promote intelligence and lead the youth to technology.

After all, China is in discrepancy between the chance of economic growth and losing of the information monopoly. But not only People's Republic of China enforces a censorship but also other countries all over the world. This concerns primarily these countries with dictatorship and authoritarian states but also western

countries. At the World Summit on the Information Society (WSIS) in November of 2005 Reporters Without Borders presented 15 countries that are “enemies of the Internet” and a dozen others “whose attitude to it is worrying […] and crack down hardest on the Internet” (Domeyer 2006). This often contains the censorship of independent news sites and oppositional disclosures, the control of the Web and even the imprisonment political dissidents, Internet users and bloggers “who deviate from the regime’s official line” (Domeyer 2006). Their targets are to fight terrorism, paedophilia and Internet-based crime. But the measures sometimes threaten freedom of expression. These are countries like Egypt, Burma, China, Iran, Libya, Nepal, Korea, Syria, Thailand, Vietnam and even the United States of America. China is one of the few countries that “has managed to ‘sanitise’ the Internet by blocking access to all criticism of the regime while at the same time expanding it” (Domeyer 2006). This combination of filter technology, suppression and diplomacy helps China to frighten Internet users while censoring their own material. More than 60 persons are already arrested for what they posted online (cp. Domeyer 2006). But for economic reasons a few states can not forgo the Internet, China as well. The free flow of information or the sources of alternative information getting via Internet can not just stopped by closing Internet bars. The structure of the Internet and the plenty of information make a censorship or even a total control nearly viewless (cp. Fang 2003).

4. The Survey

Methodology, research design, hypotheses

"An important characteristic of 'media' research around 2000 has been a renewed emphasis on the practices of 'communication'. Information and communication technologies support multiple forms of interaction at many levels of the social structure. Neither theoretically nor empirically can the media be understood as separate entities - add-ons or plug-ins. Instead, the technological media are necessary infrastructural resources in maintaining and structuring modern societies.” (Jensen 2002: 171).

To build up a theoretical basis for a discussion of the survey, it is meaningful to have a deeper look at the illustration of the general process of research which was invented by Schnell, Hill, and Esser (cp. Schnell/ Hill/ Esser 1999: 8).

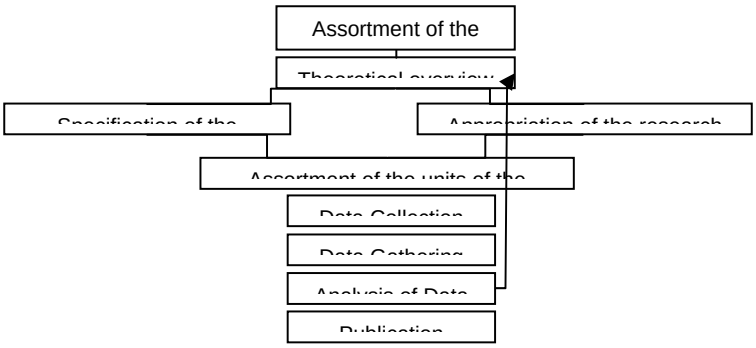


Figure 9: General process of research (Schnell/ Hill/ Esser 1999: 8)

Therefore, the first step is to get a theoretical overview of the main topic, which we already got in last passages. The whole theory shall be transmitted into a survey of Chinese students at Technical University of

Ilmenau. The whole interest of the research is to get an idea how the behavior regarding to playing digital games of Chinese Students is. To deepen this research question it is beneficial and necessary to compose hypothesis. "Quantitative research is primarily concerned with demonstrating cause-effect relationships, and any research project begins by setting up a hypothesis. A hypothesis is a proposition to be tested, or a tentative statement of a relationship between two variables." (Gunter 2003: 211).

In the following step the first versions of hypothesis are these ones the research team invented in first order. After a presentation and as a result of hints given by the audience, a development and improvement of some Hypotheses was necessary. These Hypotheses are invented in step two and will be lightened in Chapter 5.3.4.

Hypothesis 1:

If users are playing digital games they prefer playing online-games.

Considering the fact that gamers in China do have a different behavior of playing games it is conceivable that they use the new media technology of the Internet for playing their games. As already explained, Internet cafés are a huge business in China. It is approved that about 29.5percent of Chinese Internet users do have their main location for Internet accessing in Internet cafés (Appendix 6). Also, the service of Internet Games is according to CNNIC 18th annual report one of the most frequented once (Appendix 3). Therefore, it is interesting if Chinese users are affected by the Internet so that they prefer playing online-games.

Hypothesis 2.1:

If users are playing online-games, then MMORPGs in general.

There is a big popularity of Massive Multi Online Role Playing Games (MMORPGs) in Europe. For this research, it is interesting to analyze if there is a similar vogue at the Chinese market. The importance shall be seen in the cultural influence different game markets are faced with. Is there a similarity in western and eastern cultures while playing digital games? Do Chinese students prefer MMORPGs?

Hypothesis 2.2:

Men are gaming more on their own than women and women likely meet with friends for playing.

Even if the CNNIC 18th annual report seems to clarify that men and women do use the Internet in a similar way (Appendix 1 – just irreducible differences). In common sense everybody knows that most men and women are different in their behavior. And this difference might be more interesting for the given paper than having a look at the preferred games they play.

Hypothesis 3.1:

If users are playing online-games, then they precedent meet with Chinese friends, whom they know from China.

Gamers in Diaspora do have one thing that creates speciality: They are separated from their homeland, their family and their friends. The interesting part at this hypothesis is to find out if they fetch up with friends while playing. It could be possible that Chinese gamers do date friends from their homeland to keep in touch or they play with Chinese friends they got to know in Germany.

Hypothesis 3.2:

If users prefer to play with friends, then they meet online with Chinese friends whom they know from China.

This hypothesis may seem as similar as the first one. But it is rather stronger in sentence. The basis is totally different. While having the basis on playing online-games in the first version, it might be more interesting while having a basis in preferring playing with friends. Not everybody who is playing online-games does like playing with friends. So it was necessary to develop this hypothesis with changing the basic requirement. Therefore, the sentence and therewith the research might get stronger.

Hypothesis 4:

If users prefer MMORPGs then they play the same games in Germany as they did in China.

Within this research project it shall be revealed if Chinese Gamers play different games in comparison of the countries they are in. In exchange, the main predication was to find out that there are forbidden games in China. These games are seen as harassment so that the Chinese government set them on a black list. If Chinese students are coming to Germany their behavior in playing could change, influenced by the western

culture and the chance to obtain all games.

Hypothesis 5:

If users are playing the same games as in China then they preferred meet up with friends they know from China.

Obviously, there could be a coherency between the games Chinese player play and fetching up with Chinese friends. It is understandable that a connection is just possible when the game-partners – e.g. Chinese friends – do have the chance to play the same game, though. So it must be an admissible game to play. In turn, this would give a sign that the behavior of the Chinese students could not change too much and the influence of the Chinese culture would still be there.

However, for investigation on this topic a constitution of a population of Chinese students at Technical University of Ilmenau was made. Having a deeper look at the impracticality of this accomplishment it is necessary to build up a sample. This was realized on the basis of Chinese students with the possibility to reach them via Internet, especially email. It was possible to write 306 Chinese students an email to explain them the given research project. Also, they got a hyperlink for an online-questionnaire. Here the possibility was given to choose between a German and an English version. In total, 56 Chinese answered – thereof 45 filled it out in German and 11 in English.

According to Gunter the advantages of mail questionnaires are that these are cheap to run while having the possibility to reach the respondents with a wide geographical area and they can decide on their own where they want to fill the forms. So, there is a guarantee and a security for the respondents that the place offers anonymity which avoids interviewer bias. The disadvantages are logical as well when he admits that questionnaires will not always return and so it may suffer delays in responses. Also, the ‘interviewer’ will not have any control over how respondents complete questionnaires (cp. Gunter 2003: 216). Anyway, for this research project it was the only way to realise this census, caused by the fact that especially Asian students seldom group with other nationalities. To reach them it would be necessary to talk to every Asian student asking them which nationality they have got. While acting this way, the problem is that the possibility to shock them with a starting question like this could enclosure their behavior in answering. So, the best way was the e-mail questionnaire.

Developing of the questionnaire

According to Scheuch questionnaires are instruments of research while leading the respondent through a row of directed questions. Consciously, while developing a survey it must be identified that there are loads of possibilities to ask (cp. Scheuch 1973: 70 et seq.). Gunter states four different types of questions: setting, conviction, behavior, and social statistical data. To analyse the settings of the respondent, comments will be given and the respondent shall rate these while using a rating scale. Convictions will be asked in subjective statements of facts which is often realised in an opened question. The behavior can be asked while having a deeper look on frequencies, constancies and ways of acting in the past. Furthermore, social statistical data are criteria in the broader sense (cp. Gunter 2003: 216).

To find out the most interesting states of Chinese gaming behavior it was required to combine all four categories. So, there are questions in the survey concerning settings (like "How often do you play?"), behavior (e.g. "How did you prefer playing digital games in China?"), convictions (e.g. "Could you tell us the names of some games you played in China as well as in Germany, please?") and social statistical data (e.g. "How old are you?").

To ease the survey it was also necessary to shorten the questionnaire. The reason is rather simple: Most of the Chinese people do have a language barrier even if they are studying at a German University. Furthermore, long questionnaires cause spending time which respondents do not want to spend. In total, there are 20 questions concerning in social statistical data (4 questions), gaming behavior and settings in general (3 questions), a comparison of gaming behavior in Germany and China (9 questions), the behavior of fetching up with friends (3 questions), and one question concerning the high profile of Chinese game producers. For this reason, respondents just needed about five minutes to fill the form which should be feasible. Relieving the questionnaire for Chinese students there was the decision to hand out the survey in two languages: German and English. Though, it can be seen that Chinese students preferred German with 45 filled forms and 11 English completed surveys.

Gaming behavior and settings in general

To have a short introduction and to filter Chinese students attending the survey but not playing any games it is necessary to find out if they are playing digital games.

Comparison of gaming behavior in Germany and China

The comparison of the gaming behavior in Germany and in China is with 9 questions the most capacious part of the survey. The given facts of the Chinese market research and the differences between eastern and

western behavior is the basis for these questions. Concerning facts like where Chinese people preferred play, with whom they play and which sorts of games they play, it is possible to evaluate. Most of these questions are doubled: One version for asking the gaming behavior of China and one for Germany. Furthermore, there are questions asking why there are differences in gaming behavior. The given possibilities range from "forbidden in China" to "not to buy in Germany", so that there is a feasible comparison basis.

Behavior of fetching up with friends

According to CNNIC 18th annual report the biggest group of Internet users are people by the age of 18 to 24 years (Appendix 2) which correspond to the target group of the present research report. Also, it is a matter of fact that a group of Internet users of about 29.5 percent is given in China. In combination with the fact that often Chinese students are sitting in the computer lab of Technical University of Ilmenau to gamble together, it is interesting to find out if they fetch up with Chinese friends they know from their home country and still want to keep in touch with them. Or actually, if they do not care with whom they play.

High profile of Chinese game producers

To verify or falsify the located facts of the research of the Chinese game market it was useful to ask the Chinese students if they know any of the companies which are producing the most popular games.

Social statistical data

Finally, there are some questions about social data of the respondents. The most important questions are these from where they are coming from. According to the CNNIC 18th annual report there are differences of using the Internet depending on where the people are coming from. "In terms of domestic Internet development, there are significant differences between cities and countryside, and among east, middle and west part of China." (CNNIC 2006 [2]: 18). The effort of the survey should face this problem and tries to find out if this fits on the audience group of students of Technical University of Ilmenau too.

Data Evaluation

Data Cleansing

The survey was organized with an online questionnaire. So there was the need of exporting the data from the server of Unipark to a local computer and make it suitable for the analysing program SPSS. The values for missing data already had to be defined during the exportation. The definition means the number 66 is a missing text data which wasn't seen by the user because of a filter question or the cancellation of the questionnaire. The number 99 means a missing text data in general and the number 77 is a missing numerical

data.

The decision of using all started questionnaires for the analysis ended up using some cancelled questionnaires. But since there was the ambition of only researching tendencies and mostly looking for new information it did not seem so much as a statistical problem. There was the explorative want to use all the data and information from the questionnaire. Especially in the open questions the users had the opportunity of writing down new knowledge about the Chinese game market and that was really important for the research of that topic. Additionally, there was not the demand of doing a representative survey. It was just the aim to find new aspects that could be continued to research on.

In order to the research, the data of the respondents which cancelled the questionnaire without answering the first question was deleted. This was the case with two datasets. So in the end there were 36 to analyse. But these 36 datasets needed to be cleaned. So the continuous playing time needed to be converted from different variables for hours and minutes into one variable in minutes. On the text variables with a string layout there was a neglect of the missing data definition because these variables just give new ideas and are not enumerated.

The Sample

24 of the 36 questionnaires that were filtered in the first part (data correction) had been brought to a termination – that is a proportion of two-third. The remaining 12 persons broke up at a question number higher than one. But having a closer look at the datasets it shall be noticed that although a questionnaire has been completed. it still shows several un-answered questions. For this reason it makes sense to include the 'incomplete' questionnaires for basically most of the questionnaires can be considered 'incomplete'. Examining the dataset one cannot discern a specific question at which the abort rate is significantly high.

Before analysing the data of the sample one has to be conscious of the fact that they are predefined by the chosen population. The following survey has been carried out among persons of Chinese origin who have been students of the Technical University of Ilmenau during summer term 2006. This precondition limits – and to a high extent determines – the results of the survey and cannot provide general information about Chinese gaming habits. Since the demographic data, such as age and probably income of the parents are very similar and not representative for the Chinese gamers in general, the behavior concerning digital games may also be highly influenced. For instance it is assumed that the respondents probably have an above-average income in China and therefore may have better access to technologies required for playing digital games.

As mentioned above, the sample's age spectrum is relatively narrow lying between 22 and 32 years. The average age of the respondents is 25 years. According to their sex the sample is asymmetrically distributed: the rate of male respondents is almost double (65.2%) the rate of female (34.8%). In order to possibly find a connection between the gaming habits in China and the technological infrastructure provided which may determine duration, type of games played, hardware used etc. the questionnaire asked about the origin of the

participants. Accordingly, 68.2 percent of the respondents state that they stem from cities of a population higher than one million. The remaining 32 percent prorates relatively equal, each with 9.1 percent on the population figures 'under 20,000', ’20,000-100,000’, ‘100,000-500,000’ and '500,000-1 million'. Most Chinese students who answered have lived in the metropolis Beijing and Shanghai before they came to Germany. Hence, it may be assumed that most of the consulted students possessed a high-standard telecommunication infrastructure and thus at least access to modern Internet cafés and hardware as well as a fast Internet connection. According to Fries/ Yi the increase of private computer purchase on the Chinese market at the end of the 1990s occurred mainly in big cities like Shenzhen, Guangzhou, Beijing and Shanghai while “on a national scale however, a computer is still unaffordable for the majority of the Chinese population” (Fries/ Yi 2000: 101).

Frequencies

The questionnaire starts with the filter question whether the respondent uses digital games or not. Here, 32 out of 36 persons affirmed, which is about 89 percent. Only four people negated the question and, hence, left out the main part of the questionnaire to continue with the socio-demographic part at the end. This way all of the following figures only refer to students who stated that they do play digital games.

Important information regarding the gaming culture is the fact when the students started to play digital games as it shows since when their gaming behavior could develop. Generally spoken, most of the students who participated in the survey (65.4%) started playing digital games between the years 1995 and 2001. While the distribution of the starters from 1986 – the earliest year quoted – until 1991 is even on 3.4 percent, a first accumulation of data occurs in the year 1995 when 13.8 percent of the respondents started gaming. This year seems to be the main starting point for gaming in China as the next slightly shorter peaks follow in 1997 and 1999 (10.3%). These data align with the development of the Chinese computer market which has been enormously grown since 1992 and become the third largest market in Asia – after Japan and South Korea – in 1996 (cp. Fries/ Yi 2000: 101). Also in late 1994 the Chinese Internet became open for the public which may relate to the respondent’s year of starting to play digital games (cp. Lynch 2000: 181). In 2000 the highest introduction rate of 20.7 percent can be annotated. After the year 2000 the proportions decrease again.

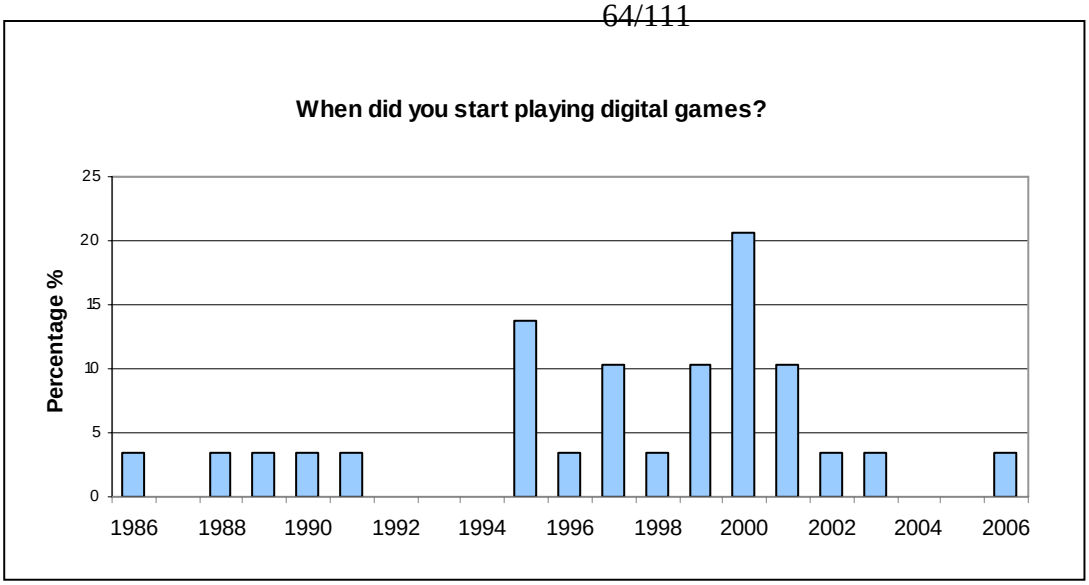


Figure 10: When did you start playing digital games? (N=29)

After a basic overview of the proportions of players and non-players and the main starting time the questionnaire focused on the gaming behavior more specifically relating to the frequency, the average duration per session, the places and modalities, the types of digital games and the differences in gaming between China and Germany.

Relating to the frequency of playing digital games, 28.6 percent quoted that they played daily (Figure 4). A slightly higher percentage (32.1%) stated that they have been gaming several times a week and only 14 percent play once a week. One quarter of the respondents said they played less than that. Anyway, over 60 percent of the students practise gaming at least several times a week.

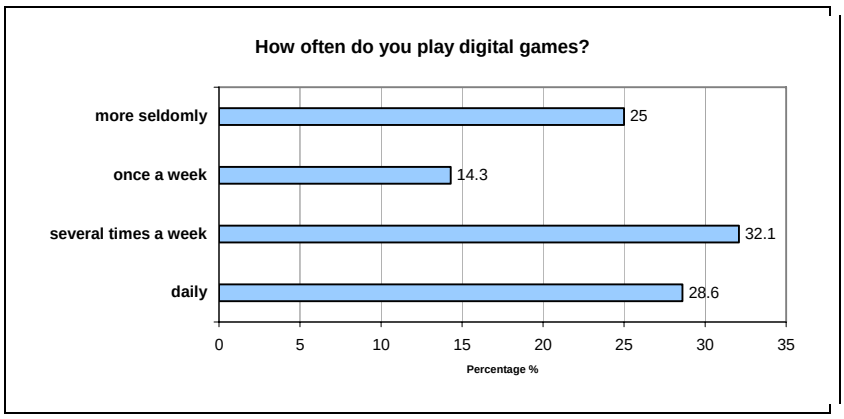


Figure 11: How often do you play digital games? (N=28)

As a measure of the gaming intensity serves the average duration of each session the respondents play digital games. The average duration of all answers is about 317 minutes, equivalent 5 hours and 17 minutes. But disregarding the extreme maverick of 4,320 minutes for the purpose of a more representing value the playing duration averages out 2 hours and 43 minutes.

The following questions aim at the favourite locations to play digital games and the social factor of whether

they play alone or together with friends. The questions refer respectively to the gaming behavior in China and in Germany. Accordingly, over 70 percent of the Chinese students being asked prefer playing at home while about 15 percent use Internet cafés or game centres. Only 7.4 percent of the players are gaming at their friend's places. Living in Germany the playing habits seem to differ. More than 96 percent play digital games at home. No one stated to play in Internet cafés – which would be the university's data processing centre – and only 3.7 percent play at their friends'. This result traced back on the very fast Internet connection on the campus, where most of the Chinese students live (Figure 3). On the contrary, in Germany Chinese prefer even more gaming with friends instead of gaming on their own. 64 percent approved of playing with friends while in China about 61 percent of the respondents preferred playing with their friends.

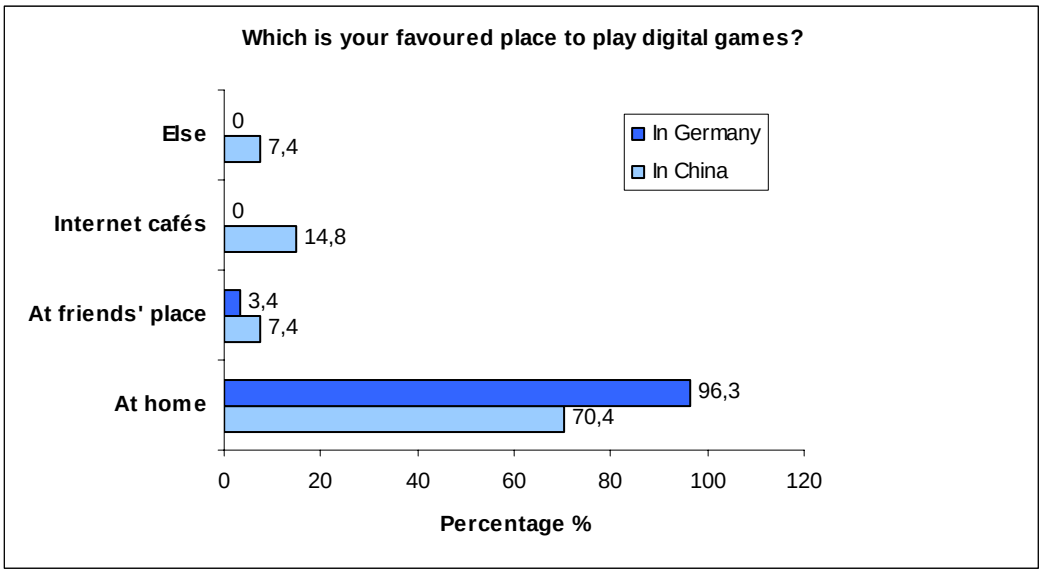


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Figure 12: Which is your favoured place to play digital games? (N=28)

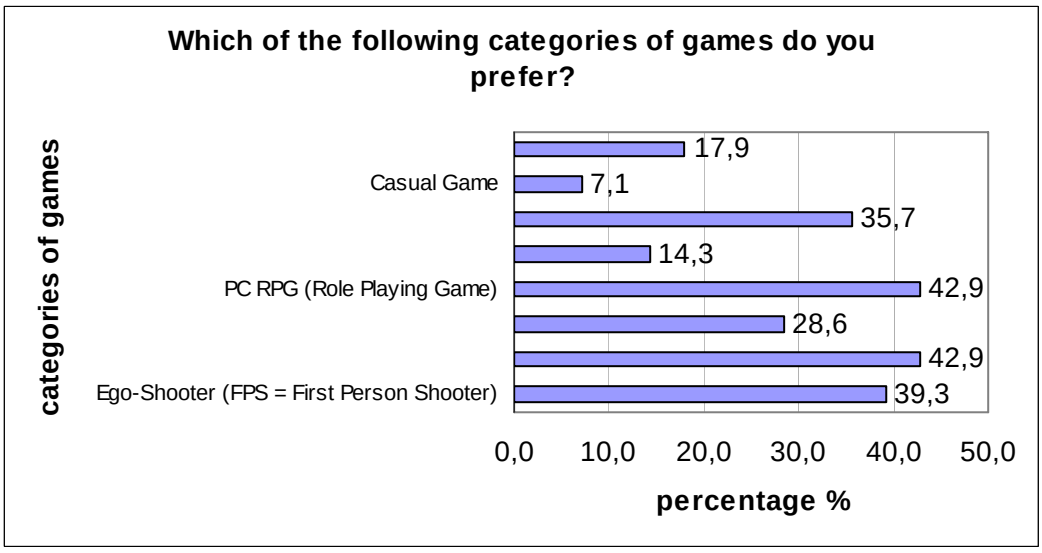

Figure 13: Which of the following categories of games do you prefer? (N=28)

The variable of the different categories of games tries to find out which kind of games the gamers prefer. The respondents had the possibility to give multiple answers. Figure 13 presents that both Real Time Strategy and

PC based Role Playing Games show the most frequent mentioning, both categories have been named by 42.9 percent of the respondents. For the theme and way of playing can be characterized strategic in both categories it can be stated that strategy is the most liked aspect in game playing. Ego-Shooters so called First Person Shooter Games are very popular as well. 39.3 percent of the gamers in the survey prefer these kinds of games. Considering the popularity of Massive Multi Online Role Playing Games it is surprising that just 28.8 percent prefer these games. Even more of the respondents like to play sport games (35.7 percent). At the end of the figure Jump & Run Games and Casual Games are placed. In the research before the questionnaire we found out that especially Casual Games are very favored in China so it is astonishing that in the survey it is the least preferred category of games. But maybe the results are a bit affected by not giving any examples of games belonging to the particular category.

The questionnaire also asked about the knowledge and the use of certain games. For giving proposals for possible responses games from a top ten list of the most preferred games in China were listed. Unfortunately this list was in Chinese. So it had to be translated, but finally five international known games could be selected from the list for the questionnaire. The questionnaire asked the respondents if they know these games and if they play these games.

Games	Know in %	Play in %
World of Warcraft (WoW)	92,0	25,0
Legend	35,0	19,0
Mu	40,9	13,6
Starcraft	83,3	40,9
Counterstrike (CS)	84,0	60,0
others	76,9	66,7

Figure 14: Games: Known or Played (N=25)

In figure 14 there are the percentages shown in detail. *World of Warcraft* is the most known one with 92.0 percent but just a quarter plays it. So this game seems to be very popular but not so much played by our respondents. The Korean game *Legend* is known by 35.0 percent and played by 19.0 percent. *Mu* is a Chinese game which is a little bit more known (40.9%) than *Legend* but not so much played (13.6%). *Starcraft* and *Counterstrike* are two international marketed games. These are well known in the Chinese community with more than 80 percent of the respondents. Anyhow, *Counterstrike*, which is a First Person Shooter Game, is the most played of the listed games with 60.0 percent. Resuming the Chinese game community are international market games very popular to play but Chinese and Korean games are also liked to play as well.

In the questionnaire an open question considering the games our respondents play was placed. There was the possibility to write up to five different games they like to play. The most named games are *Age of Empires I* or *II* with six entries. This is a Real Time Strategy Game and this category of games was also the most

preferred one in the variable of the categories of games. The sport games from *Need for Speed* were mentioned five times and football games like *Fifa* or *Football Manager* were named four times. *Diablo* as a role playing game and *Warcraft* as a strategy game achieved three entries each.

Our following interest consists of the question if the respondents play other games in Germany as they did in China. Two-thirds (66.7%) answered that they do. So the questionnaire continued asking to tell the names of some games they played in China as well as in Germany. In response *Counterstrike* was mentioned the most with seven entries. *Diablo* is played in China and Germany by three of the respondents. *Age of Empires*, *Starcraft* and *Mu* got mentioned as well. So there could be retrieved some of the games from the list of the most played games in China.

To find out more about the differences of gaming in China and Germany we asked for some games that the respondents played in China as an open question. The only game mentioned was *Diablo* or *Diablo II*. *Diablo* is a popular role playing game which is apparently played a lot in China. In Germany there is maybe *World of Warcraft* as a role playing game more common.

There was also a question in the other direction and to find out games which the respondents now play in Germany. *Age of Empires*, *The first emperor*, *Need for Speed*, *World of Warcraft* and *Sudoku* was mentioned. So this strengthens the assumption that *World of Warcraft* is more often played in Germany.

During the research phase we found out facts about the severe regulations of games in China. So there was a question for the reasons of the respondents to play different games in Germany than they did in China. There was the possibility to give multiple answers. Only 14.3 percent of the respondents said that the game is not released in China. For 85.7 percent this fact was not problematic. Even more remarkably is the result that 7.1 percent are playing different games now because they are forbidden in China. But there are also 21.4 percent that play different games now caused by the fact that the games they used to play are not released in Europe. The same percentage said the reason is that they did not know the game before. Asking in an open question about other reasons it was possible to find out that it is also a matter of the fact that some games were not released at the time they left China. That may also be a reason for not so many respondents having problems with the heavy-handed regulations for games in China because they became severer in the last years.

There was also an interest in the time difference of playing in China and Germany. So the questionnaire asked if the respondents spend more or less time gaming in Germany than in China. In figure 15 is imaged that 18.2 percent play more in Germany but 40.9 percent play the same or even less. That is quite interesting regarding the fact that playing in Internet cafés is very common in China.

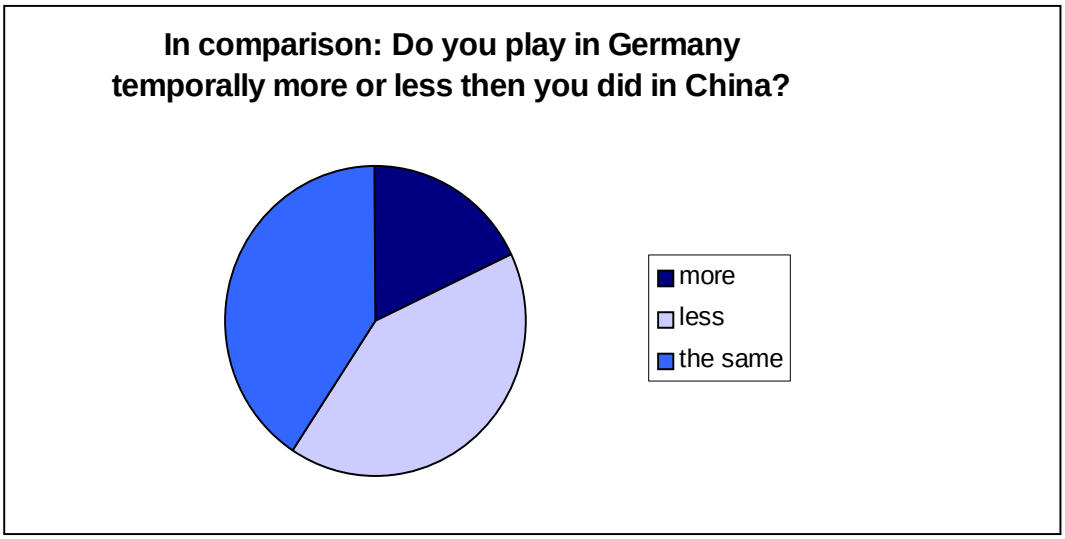

Figure 15: Do you play in Germany temporally more or less then you did in China? (N=22)

To find out more about the preferences of the sort of games there was a question with the opportunity of multiple answers on the survey. In the following figure 16 is shown that most respondents (77.3%) like to play Computer Games. Almost 15 percent less like to play Online Games. Only 63.6 percent of the respondents do prefer these sorts of games. Mobile Games are the least sort of games but still quite successful with 18.2 percent playing. Console games are not very popular in the Chinese gaming community. Only 9.1 percent prefers this sort of game.

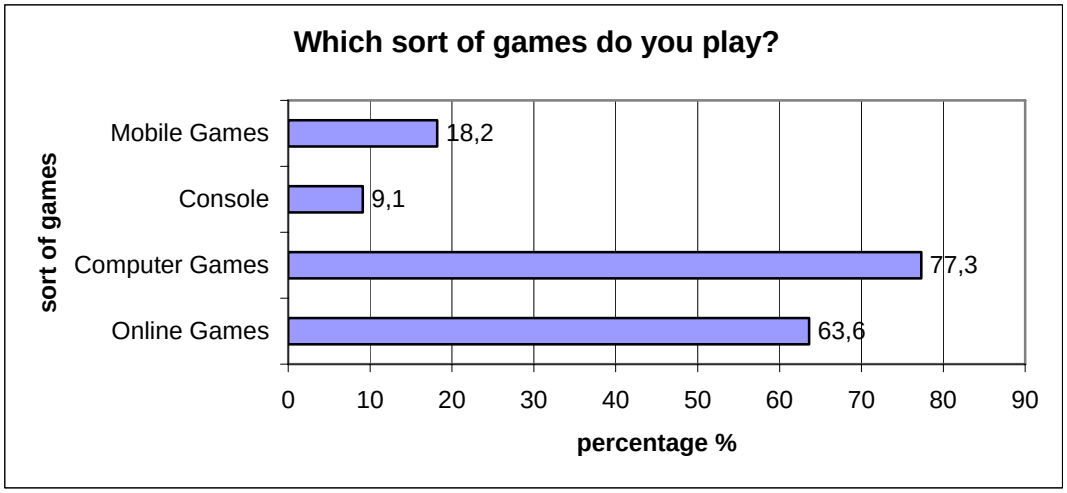

Figure 16: Which sort of games do you play? (N=22)

Specialising on Online gamers it was useful for this research trying to find out more about their gaming behavior. The respondents were asked if they meet friends when they are playing online games. 85.7 percent approved that. If they affirmed they were asked what sort of friends these are. 58.3 percent catch up with Chinese friends from China to play online games. Even 75.0 percent get together with Chinese friends from Germany to game on the Internet. And 58.3 percent meet friends who they got to know in the Internet. The

reason why three-fourths of the respondents catch up with Chinese friends from Germany is that there is the opportunity to meet in real life and to sit together in front of the computer and play online games.

The last question of the survey tried to find out more about the knowledge of Chinese game companies. Ten different companies were given and the respondents should tick if they had already heard of the company. The result is shown in figure 5. The most known company with a percentage of more than 90 percent is Sohu. The next ones are Tencent and Sina with 77.3 percent of all respondents already heard of them. But there has to be considered that Sohu and Sina are mostly Internet portals. Tencent mainly is the operator of the leading Internet community in China with its instant messaging service platform. Kingsoft with 40.9 percent of knowledge is a big online games developer and distributor in China. The biggest online game producing companies are Netease and Shanda but they achieved only a publicity of 27.3 percent (Netease) and 22.7 percent (Shanda). The least heard of company is the Korean company Actoz Soft. These results were not expected because the companies with the highest revenues on the Chinese game market like Netease and Shanda are not the most heard of ones in our survey.

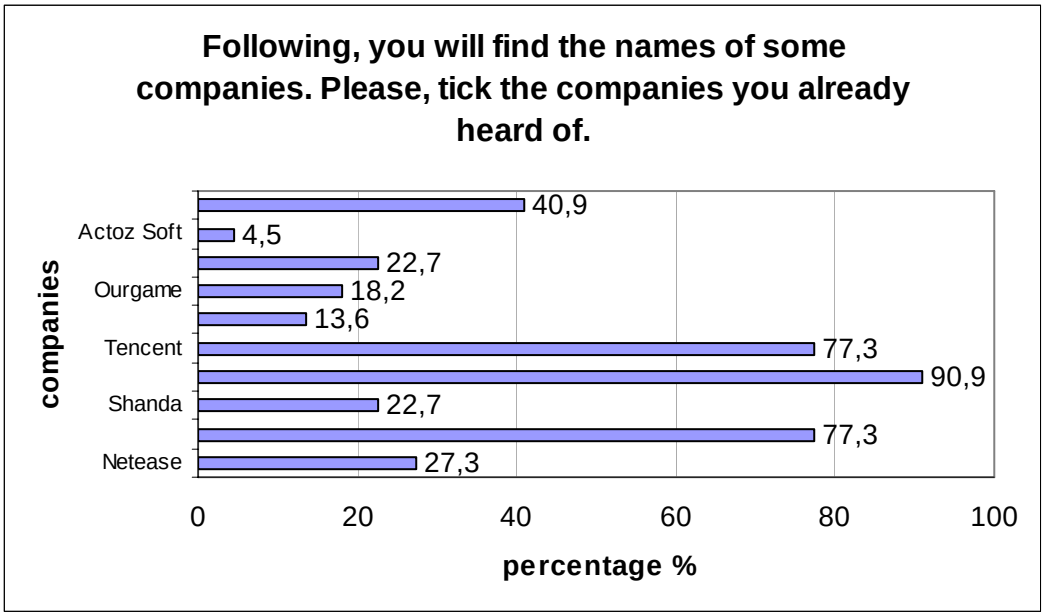

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Figure 17: Name recognition of companies (N=22)

Hypotheses

The following hypotheses mainly result from the conclusions drawn of the market analysis. Hence, the hypotheses emphasise the role of online gaming as most of the tables and figures above are showing that to play online is the most popular way of gaming. Testing these facts it gives another picture of gaming habits. Most respondents of the sample stated to rather play at home instead of visiting public Internet cafés and centres. Thus, the hypotheses first seemed to miss the point. But in the later analysis they were adopted a bit. Here, the role of the sample's size has to be pointed out again. As mentioned before, this questionnaire does not assert one's claims to neither completeness nor representativeness. First, facing the small numbers of respondents – especially in the case of the hypotheses – it is difficult to make general statements. Regarding the hypotheses testing it is even vaguer for even less persons gave answer to both affected variables.

Secondly, the investigated sample cannot be consulted to describe the Chinese game market as it represents only a small group of the Chinese population, rich enough to study and go abroad.

Concluding, the following statements may be correct regarding the methodology of hypotheses testing. They may also give new hints, maybe tendencies but it is not appropriate to adjudge them any logical value.

Hypothesis 1:

If users are playing digital games they prefer playing online-games.

Analysing the Chinese game market an eye-catching fact is the widespread Internet café and gaming centres culture. Also the worldwide development MMORPGs – massive multiplayer online role-playing games – such as *World of Warcraft* increased keenly. The first hypotheses aim at testing if also Chinese play mainly MMORPGs when they play on the Internet. The survey indicates while almost two thirds (63.6%) of the respondents play online games only 27.3 percent use MMORPGs (see crosstabulation hypothesis 1.1 in Appendix). Consequently only about 43 percent of the students who play on the Internet also ticked MMORPGs.

Because the questionnaire leaves the option to state more than one alternative referring to both variables the conclusion cannot be drawn more precisely. But having a look at the number of persons who play online and strategy games, online and ego shooter, online and jump & run, sports and casual games, a valuation on the basis of the comparison can be made. Here, the PC role-playing games (PC RPG) can be left out as this type excludes the possibility to be played online per se.

According to the answers of the sample, real time strategy (RTS) games are – together with PC role-playing games (RPG) – the most popular type of game. About 43 percent of the respondents declared to use RTS games. They can be played both online and offline. 35.7 percent of the students playing online games also use real time strategy games (see crosstabulation hypothesis 1.2 in Appendix). This is less than MMORPGs (see crosstabulation hypothesis 1.1 in Appendix)

Looking at the use of first person shooters, which are played by nearly 43 percent of the online gamers (see crosstabulation hypothesis 1.3 in Appendix), we can draw the conclusion that also ego shooters are likely to be played on the Internet. Especially considering the fact that 60 percent of the shooter-gamers stated that they also played online.

Jump & Run games show a different picture. Only two out of 22 respondents (9.1%) stated to play online games as well as jump & run games (see crosstabulation hypothesis 1.4 in Appendix). Similar results show the casual games. None of the persons who play online use casual games (see crosstabulation hypothesis 1.5

in Appendix). This suggests the presumption that jump & run as well as casual games are played uncommonly on the Internet but rather offline.

As the last type sport games are to be investigated. Sport games show a higher response because about 29 percent of the online players use this type of games (see crosstabulation hypothesis 1.6 in Appendix).

Thus, it can be concluded that there is no clear preference on MMORPGs as assumed in the hypothesis. According to the data most of the games used by online players are MMORPG and ego shooter, each with a rate of 43 percent (see Figure 18).

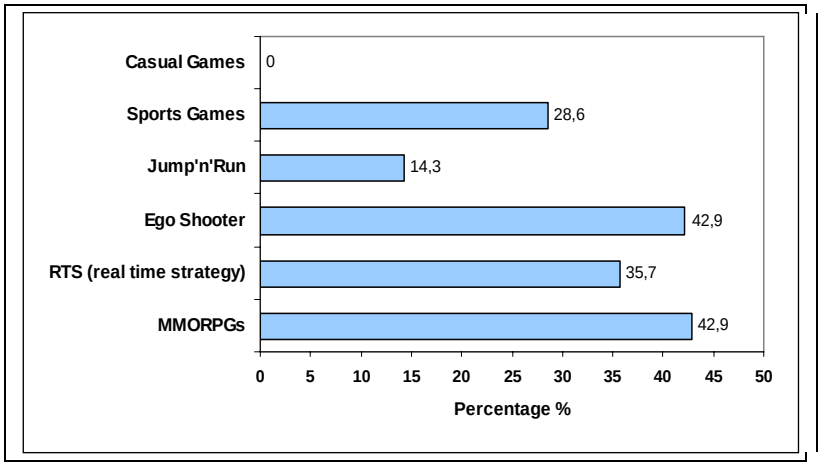


Figure 18: Type of games in comparison (N=28)

Hypothesis 2:
Men are more gaming alone than women and women more like to meet with friends for playing.

There is the need for a crosstabulation between the gender and the variable if the respondents like to game on their own to test the first part of the hypothesis. It is displayed in figure hypothesis 2.1. The first part of the hypothesis can be approved because of the fact that the respondents who like to play alone are at two-thirds male and only at one-third female. So the conclusion tends to result is men like to game alone more than.

For testing the second part of the hypothesis there is also a need for a crosstabulation between the gender and the variable if the respondents like to meet with friends for gaming. In figure hypothesis 2.2 the result is shown. 47.6 percent of the respondents who like to play with friends are male – only 19 percent are female. These are a good deal more males than females. Having a deeper look at the allocation of male and female, considering only the respondents who like to play with friends, it is a similar result. 71.4 percent of these are male and only 28.6 percent are female. So the second part of the hypothesis needs to be disapproved. Maybe the reason for this tendency can be found in the sort of games male and female gamers prefer to play. So it should be tried to expand the hypothesis that maybe male gamers like to play online games, which mostly have to be played with others, more and woman prefer to play computer games.

To test if online games are mostly played by males, the crosstabulation shown in figure hypothesis 2.3 is needed. It displays that 53.8 percent of the respondents that are playing online games are male and 46.2 percent are female. So it is almost equal and the result does not tend to more males playing online games. The hypothesis that males like to play online games more than has to be rejected. For finding out if females like it more to play more computer games than male a crosstabulation is required as shown in figure hypothesis 2.4. From the survey arises that from all the respondents playing computer games there are 68.8 percent male and 31.3 percent are female. So this hypothesis has to be rejected as well. It does not seem to depend on the sort of games that males like more to meet with friends to game.

Hypothesis 3
If users prefer to play with friends, they meet online with Chinese friends, whom they know from China.

Supposing a kind of connectivity to their people and their country in the Chinese gaming behavior this hypothesis aims to find out whether they use the opportunities of the Internet to meet up with their Chinese friends to play online games. The first data evaluation has yet indicated a tendency to community in the result that a great majority prefers playing with friends. Taking into consideration that Internet gaming enables anyone to meet up with people no matter where they are, it can be assumed that Chinese students arrange to meet their Chinese friends online.

About 55 percent of the users who prefer to play digital games together with friends also state that they play with friends from China (see crosstabulation hypothesis 3.1 in Appendix). This is in contrast to friends they know from Germany or from the Internet. Even a higher percentage, about 67 percent, of the respondents who like to play with friends stated to play with friends from Germany or friends they know from the Internet (see crosstabulation hypothesis 3.2 & 3.3 in Appendix). Hence, there is no verifiable liability of the sample to friends from home, but rather a tendency to reorientate oneself in a new surrounding. Therefore, the hypothesis is not confirmed.

Hypothesis 4
If users prefer MMORPGs, they play the same games in Germany as they did in China.

A great percentage (71.4%) of the students who prefer playing MMORPGs negated the question whether they play different games in Germany than in China. crosstabulation hypothesis 4.1 in Appendix). This fact can be explained by the special characteristics of online role playing games. Firstly, the fact that they are exclusively used on the Internet makes it possible for any player to keep on playing the same game independently from the place, provided that he or she has access to the Internet. Secondly, the high addiction factor of role playing games usually holds the player long term. A look at the duration of their playing sessions shows that nobody plays less to one hour, half of them play 1 up to two hours and in some cases 25

percent spend up to 3 hours and over four hours gaming (see crosstabulation hypothesis 4.2 in Appendix). The result that most of the MMORPGs-players did not change the game in Germany also allows the presumption that this type of game is well available and accessible.

Hypothesis 5
If users are playing the same games as in China, they preferred meeting up with friends they know from China.

To proof this hypothesis we developed a crosstabulation between the variable about the question if the respondents played in China other games in Germany as they did in China and the question if they meet with friends to play these are Chinese friends they know from China. In figure hypothesis 5.1 (see crosstabulation hypothesis 5.1 in Appendix) the crosstabulation is shown. 25.0 percent of the respondents play the same games in Germany as they did in China and meet with Chinese friends they know from China. And from all respondents that play the same games in Germany as they did in China there are 75.0 percent meeting with Chinese friends they know from China to play online games. So this hypothesis could be approved. A tendency can be observed that the users that are playing the same games in Germany as they did in China do prefer meeting up with Chinese friends from China.

5. Conclusion

China as a rising market for technology products, such as the researched digital game products, should not be underestimated. It's fact that this huge global power is growing faster than any other country. And that's why the Middle Kingdom has a big influence worldwide, referring the industry, the companies and also in cultural aspects. Therefore, it is necessary to initiate research projects to understand and to handle the differences as we tried it in a smaller context. Combining the research of information of the Chinese Game market and the project of the inquiry of the Chinese students of Technical University of Ilmenau was chosen to cover different aspects of the research such as the global and the regional ones.

A very interesting fact and probably the biggest difference in comparison to western lifestyle is the culture, which is influenced by the historical development and the governmental admission of the PRC. Initially, we expected to find out huge differences in gaming behavior, especially with the accomplishment of the survey. But within the term we found out that this is not as much as we expected. There are differences, for example while thinking of the usage of Internet cafés asked in the survey. But, caused by the fact of the minority of Internet cafés in Ilmenau, these distinctions are understandable. Chinese students did not really change their gaming behavior in the explicit way we estimated. They do play digital games and they like to fetch up with friend. However, these friends must not be from China, solely. Another fact we thought we will find out is the enjoyment of the new freedom, the Chinese students are having far away from home. We expected that they will confirm that there are games they did not know caused by the governmental restrictions. These expectations are highly unincisive in result. But we also found out that the Chinese students know the ropes

of the market agitation. They know the companies and the can associate these data.

Therefore, the research of the Chinese Game market with a specialisation of the market facts was necessary and effective. As already mentioned, it was difficult to find out reliable literature of this topic. But we tried to grade the information for giving a good overview. There is loads of information, but caused by the governmental restriction we will never find out all the important ones. To find out more about the mysterious world power of China it is necessary to research more on this area. This paper realised the aim of giving an overview and combining it with the real life at Technical University of Ilmenau.

Sources

Bundesamt für politische Bildung (2005): Informationen zur politischen Bildung. Volksrepublik China. Nr. 289. 4. Quartal 2005. München.

Castronova, E. (2005): Synthetic Worlds. The Business and Culture of Online Games. The University of Chicago Press: Chicago, London.

Donald, Stephanie Hemelryk / Keane, Michael (2002): Media in China. New Convergences, New Approaches. In: Donald, S. H. / Keane, M. / Hong, Y.: Media in China. Consumption, Content and Crisis. RoutledgeCurzon: New York. pp. 3-17.

Fiedeler, Frank (2003): Yin und Yang. Das kosmische Grundmuster in der Kultur Chinas. DuMont Buchverlag: Köln.

Fries, Manuel / Yi, Song (Ed.) (2000): China and Cyberspace. The development of the Chinese National Information Infrastructure. University Press: Bochum.
Gui, Hao (2004): Massenmedien in der Volksrepublik China. In: Gui, Hao / Kopper, Gerd (Hrsg.) / Kupfer, Kristin: Massenmedien in der Volksrepublik China. Arbeitshefte Internationaler Journalismus. Working Papers in International Journalism. 2/2004.

Gunter, Barrie (2003): The quantitative research process. In: Jensen: A Handbook of Media and Communication Research. Qualitative and Quantitative methodologies. Routledge: London, New York.

Hamburger, Henry (1979): Games as Models of Social Phenomena. W.H. Freeman and Company: New York.

Hartley, John (2002): Communication, Cultural and Media Studies. The Key Concepts. Routledge: London.

Jensen, K. B. (2002): Contexts, cultures and computers. The cultural contexts of mediated communication. In: Jensen, K. B.: A Handbook of Media and Communication Research. Qualitative and Quantitative methodologies. Routledge: London, New York.

Kupfer, Kristin (2004): Zwischen Parteilogik und Marktgesetz. Entwicklungstendenzen des chinesischen Mediensektors. In: Gui, Hao / Kopper, Gerd (Hrsg.) / Kupfer, Kristin: Massenmedien in der Volksrepublik China. Arbeitshefte Internationaler Journalismus/ Working Papers in International Journalism. 2/2004.

Lynch, Daniel C. (2000): The Nature and Consequences on China's Unique Pattern of Telecommunications Development. In: Lee, Chin-Chuan (Ed.): Power, Money, and Media. Communication Patterns and Bureaucratic Control in Cultural China, Evanston/ Illinois, Northwestern University Press, 2000, pp.179-207.

Pan, Zhongdang (2005): Media Change through Bounded Innovations. Journalism in China's Media Reforms. In: Romano, A. / Bromley, M. (Eds.): Journalism and Democracy in China. Routledge: New York. pp. 96-107.

Redl, Anke / Simons, Rowan (2002): Chinese Media. One Channel, Two Systems. In: Donald, S. H. / Keane, M. / Hong, Y.: Media in China. Consumption, Content and Crisis, New RoutledgeCurzon: York. pp. 18-27.

Scheuch, E. K. (1973): Das Interview in der Sozialforschung, Handbuch der empirischen Sozialforschung, Grundlegende Methoden und Techniken, 3. Aufl. Ferdinand Enke Verlag (dtv Wissenschaftliche Reihe, Bd. 2, 1. Teil): Stuttgart. pp. 66-190.

Schnell, R. / Hill, P.B. / Esser, E. (1999): Methoden der empirischen Sozialforschung. Oldenbourg Verlag: München, Wien. p. 8.

Online Sources

All experts (2006): Nintendo DS. [Online-Document] URL http://experts.about.com/e/n/ni/Nintendo_DS.htm, [27.09.2006].

Asia Times (2006) [1]: China Business. S Korean game firms want to play in China, August 12, 2006. [Online-Document] URL http://www.atimes.com/atimes/China_Business/HH12Cb01.html, [27.09.2006].

Asia Times (2006) [2]: China Business. Casual game market valued at US$ 225 million, June 17, 2006. [Online-Document] URL http://www.atimes.com/atimes/China_Business/HF17Cb04.html, [27.09.2006].

BBC (2003): PlayStation braves Chinese waters, November 28, 2003. [Online-Document] URL http://news.bbc.co.uk/1/hi/technology/3247628.stm, [27.09.2006].

BBC (2004): China censors online video games, June 01, 2004. [Online-Document] URL http://news.bbc.co.uk/2/hi/technology/3766023.stm, [19.09.2006].

BBC (2005): China imposes online gaming curbs, August 25, 2005. [Online-Document] URL http://news.bbc.co.uk/1/hi/technology/4183340.stm, [22.05.2006].

Blizzard Online (2005): [Online-Document] URL http://www.blizzard.com/press/chinapatch.shtml, [20.05.2005].

Bloomberg (2003): Nintendo to Enter China's Video-Game Market with a new Console, September 24, 2003. [Online-Document] URL http://quote.bloomberg.com/apps/news?pid=10000080&sid=a1xe1_OtjGFA, [27.09.2006].

Breeden, John, GameIndustryNews.com (n.d.): Readying for War, (n.d.). [Online-Document] URL http://www.gameindustry.com/interview/item.asp?id=37, [20.09.2006].

Bremner, Brian (2006): China's Online Gaming Craze (Business Week Online), July 24, 2006. [Online-Document] URL http://www.businessweek.com/globalbiz/content/jul2006/gb20060721_313064.htm?chan=innovation_game+room_top+stories, [27.09.2006].

Brightman, James (2006): MS Considering China for Xbox 360 (GameDaily BIZ), February 23, 2006. [Online-Document] URL http://biz.gamedaily.com/industry/feature/?id=11934, [27.09.2006].

Burn, Simon (2006) [1]: China's games market suffers as competition bites, March 02, 2006. [Online-Document] URL http://www.computing.co.uk/articles/print/2151229, [21.05.2006].

Burn, Simon (2006) [2]: Love and money lure Chinese to online games, April 27, 2006. [Online-Document] URL http://www.computing.co.uk/vnunet/news/2154888/china-online-games-forecast, [21.05.2006].

Burn, Simon (2006) [3]: Winners and losers in China games market, May 18, 2006. (2006): [Online-Document] URL http://china-netinvestor.blogspot.com/2006/05/winners-and-losers-in-china-games.html, [21.05.2006].

Census (2006): IDB Summary Demographic Data for China (U.S. Census Bureau), August 24, 2006.

[Online-Document] URL http://www.census.gov/cgi-bin/ipc/idbsum.pl?cty=CH, [03.09.2006]

China daily (2003) [1]: Nintendo to enter China's home-use video game market, September 25, 2003. [Online-Document] URL http://www.chinadaily.com.cn/en/doc/2003-09/25/content_267486.htm, [27.09.2006].

China daily (2003) [2]: Illegal online games rampant, December 24, 2003. [Online-Document] URL http://www.chinadaily.com.cn/en/doc/2003-12/24/content_292964.htm, [09.09.2006].

China daily (2004) [1]: Mobile phone games thrive in China, June 06, 2004. [Online-Document] URL http://www2.chinadaily.com.cn/english/doc/2004-06/06/content_336993.htm, [27.09.2006].

China daily (2004) [2]: What have online games done to us?, June 07, 2004. [Online-Document] URL http://www.chinadaily.com.cn/english/doc/2004-06/07/content_337200.htm, [27.09.2006].

China daily (2005): China's mobile phone games market booms, November 22, 2005. [Online-Document] URL http://www2.chinadaily.com.cn/english/doc/2005-11/22/content_496980.htm, [27.09.2006].

China daily (2006): Market value of online games reach US$ 1b (Xinhua), January 12, 2006. [Online-Document] URL http://www2.chinadaily.com.cn/english/doc/2006-01/12/content_511698.htm, [03.06.2006].

china.org.cn (2002): On-line Psycho Chat Rooms Help Children (Xinhua News Agency), December 5, 2002. [Online-Document] URL http://www.china.org.cn/english/China/50539.htm, [26.09.2006].

china.org.cn (2003) [2]: Groups Licensed to Run Internet Café Chains, (China Daily), June 10, 2003. [Online-Document] URL http://www.china.org.cn/english/China/66639.htm, [22.05.2006].

china.org.cn (2003) [3]: Game Makers' Alliance Set Up (China Daily), July 23, 2003. [Online-Document] URL http://www.china.org.cn/english/NBA/70694.htm, [15.05.2006].

china.org.cn (2004) [1]: China Plans Its Own LAN (Shanghai Daily), February 4, 2004. [Online-Document] URL http://www.china.org.cn/english/scitech/86178.htm, [03.06.2006].

china.org.cn (2004) [2]: China Bans On-line Game 'Football Manager', December 08, 2004. [Online-Document] URL http://www.china.org.cn/english/culture/114381.htm, [18.09.2006].

Chinaventures (2006): Online Gaming Conference Targets VCs, June 22, 2006. [Online-Document] URL

http://www.chinaventurenews.com/50226711/online_gaming_conference_targets_vcs.php, [27.09.2006].

Chinese Government's Official Web Portal (2006): Chinese Government's Official Web Portal, Ministry of Information Industry. [Online-Document] URL http://english.gov.cn//2005-10/02/content_74175.htm, [10.09.2006].

Chip Online (2001): Microsoft: Keine Xbox in China wegen Raubkopien, 16. November 2001. [Online-Document] URL http://archiv.chip.de/news/c1_archiv_news_stories_17507897.html, [27.09.2006].

clearharmony.net (2003) [1]: Bericht über die Menschenrechte in China 2002 (Reuters), 14. Januar 2003. [Online-Document] URL http://de.clearharmony.net/articles/200301/6486.html, [23.05.2006].

clearharmony.net (2003) [2]: Internet-Cafés in China (N-TV), 11. Juni 2003. [Online-Document] URL http://de.clearharmony.net/articles/200306/9815.html, [23.05.2006].

CNNIC (2004): 14th Statistical Survey Report on the Internet Development in China, July 2004. [Online-Document] URL http://www.cnnic.net.cn/download/2004/2004072003.pdf#search=%22CNNIC%2014%20statistics%20report%22, [11.09.2006].

CNNIC (2005): 16th Statistical Survey Report on the Internet Development in China, July 2005. [Online-Document] URL http://www.cnnic.net.cn/en/index/0O/index.htm, [11.09.2006],

CNNIC (2006) [1]: 17th Statistical Survey Report on the Internet Development in China, January 2006. [Online-Document] URL http://www.cnnic.net.cn/en/index/0O/index.htm, [11.09.2006].

CNNIC (2006) [2]: 18th Statistical Survey Report on the Internet Development in China, July 2006. [Online-Document] URL http://www.cnnic.net.cn/en/index/0O/index.htm, [11.09.2006].

Constantin Film (2003): Hero. [Online-Document] URL http://www.hero-film.de [24.07.2006].

DBS Vickers Limited (2005): Hong Kong Equity Research, Internet: The year of casual games, January 25, 2005. [Online-Document] URL http://bbb.typepad.com/billsdue/files/internet_20050125_dbsv_2004_survey.pdf#search=%22dbs%20vickers%20%22the%20year%20of%20casual%20games%22%22, [27.08.2006].

DFC Intelligence (2006): The Online Game Market (DFC Intelligence). [Online-Document] URL http://www.dfcint.com/game_report/Online_Game_toc.html, [22.06.2006].

Domeyer, Sonja (2006): Die 15 Feinde des Internet und zu beobachtende Länder, Reporter ohne Grenzen, 16. Januar 2006. [Online-Document] URL http://www.gipfelthemen.de/weltweitetrends/beteiligung_spielregeln/ex_ROG15Feinde051124.shtml, [06.06.2006].

3sat (2005): China: Spielen auf Chinesisch, Teil 2: China und der Games-Markt, 08. April 2005. [Online-Document] URL http://www.3sat.de/3sat.php?http://www.3sat.de/neues/sendungen/magazin/78045/index.html, [22.09.2006].

Ermert, Monika (2001): Zwangsschließung: Viele Internet-Cafés in China "zu unsicher", 21. Juli 2001. [Online-Document] URL http://www.heise.de/newsticker/meldung/19503, [21.05.2006].

Ermert, Monika (2003): Besser im Griff: Chinas große Netzbetreiber starten Internet-Cafés, 30. Mai 2003. [Online-Document] URL http://www.heise.de/newsticker/meldung/37239 [22.05.2006].

Ermert, Monika (2004): China bastelt an eigener IP-Technik, 05. Juli 2004. [Online-Document] URL http://www.heise.de/newsticker/meldung/48859, [22.05.2006].

e-Sport (2005): The Online Game Market in China. [PowerPoint-Document] The Online Game Market in China.ppt (charts adapted from CNNIC and iResearch), [30.06.2006].
Additional information: e-Sport is a German browser-game publisher who has made a short analysis of the online game market in China in the pipeline for a co-operation with a Chinese online game company in 2005.

Fahley, Rob (2003): Nintendo to launch new console in China, September 25, 2003. [Online-Document] URL http://www.gamesindustry.biz/content_page.php?section_name=pub&aid=2305, [27.08.2006].

Fahley, Rob (2004): Game Boy Advance launches in key Chinese markets, June 11, 2004. [Online-Document] URL http://www.gamesindustry.biz/content_page.php?aid=3596, [27.08.2006].

Fang, Weigui (2003): Mauern im Kopf, 28. Mai 2003. [Online-Document] URL http://www.politik-digital.de/edemocracy/wissensgesellschaft/china1.shtml, [03.06.2006].

Feldmann, Curt (2004): Game Boy Advance debuts in China, June 09, 2004. [Online-Document] URL http://www.gamespot.com/gba/puzzle/warioware/news.html?sid=6100313, [27.08.2006].

4players (2006): Experten sehen Online-Markt im Wachsen, 07. Juni 2006. [Online-Document] URL

http://www.4players.de/4players.php/spielinfonews/PSP/3933/54224/Allgemein.html, [20.06.2006].

GameFront (2004): 18. Neue Wertungen der Game Informer (GameFront), 18. Januar 2004. [Online-Document] URL http://www.gfdata.de/archiv01-2004/januar02.html, [27.08.2006].

Game Trust (2004): China to Become World's #1 Online Gaming Market by 2007, September 29, 2004. [Online-Document] URL http://www.gametrust.com/news15.php, [03.06.2006].

Gedlicka, Karl (2002): Rasante Steigerung der Internet-Nutzung in China (pte.online), 23. Juli 2002. [Online-Document] URL http://www.innovations-report.de/html/berichte/kommunikation_medien/bericht-11527.html, [26.09.2006].

Gibson, Ellie (2005): Chinese Government backs survey on Internet addiction, November 24, 2005. [Online-Document] URL http://www.gamesindustry.biz/content_page.php?aid=13211, [22.09.2006].

Glenn (2005): [Online-Document] URL http://www.pacificepoch.com/products/41241_0_11_0_M/, [27.08.2006].

Golem (2006): Xbox 360 auch für China?, 24. Februar 2006. [Online-Document] URL http://www.golem.de/0602/43600.html, [27.08.2006].

Hanson, Lisa Cosmas (2006): Niko Partners' Chinese Videogame Market Forecast, Niko Press Release, April 2006. [Online-Document] URL http://www.nikopartners.com/Niko_China_Release_042006.pdf, [27.08.2006].

Heise Online (2002): 3.300 Internet-Cafés in China geschlossen, 27. Dezember 2002. [Online-Document] URL http://www.heise.de/newsticker/meldung/33316, [22.05.2006].

Heise Online (2005): Xbox 360 made in China, 16. August 2005. [Online-Document] URL http://heise.de/newsticker/meldung/62864, [27.08.2006].

Horn, Christian (2006): Breitband: 2007 überholt China die USA, 10. September 2006. [Online-Document] URL http://www.teltarif.de/arch/2006/kw36/s23059.html, [26.09.2006].

Human Rights Watch (2006): Race to the Bottom, Corporate Complicity in Chinese Internet Censorship, August 2006. [Online-Document] URL http://www.hrw.org/reports/2006/china0806/china0806web.pdf, [21.09.2006].

International Constitutional Law (ICL) (2004): China Constitution, March 14, 2004. [Online-Document] URL http://www.oefre.unibe.ch/law/icl/ch00000_.html, [10.09.2006].

IT-Times (2006): Netease - wie gewonnen, so zerronnen?, 16. August 2006. [Online-Document] URL http://www.it-times.de/enews/80202.html, [20.08.2006].

Jöckel, Sven (2006): Paper Research Projects Aspects of Digital Games.pdf [24.04.2006].

Koo, Waide (2006): Pacific Epoch 2006 Online Game Report, January 24, 2006. [Online-Document] URL http://www.pacificepoch.com/uploads/docs/20060124_Sample_-_Pacific_Epoch_Online_Game_Report_PreRelease.pdf, [27.08.2006].

KOREAheute (2004): Online-Spielhersteller kämpfen um den chinesischen Markt, Juni 2004. [Online-Document] URL http://www.koreaheute.de/wirtschaft/0604/wirt11-05.htm, [27.08.2006].

Lager Interactive (1999-2003) : Vrious Titles, 1999-2003. [Online-Document] URL http://www.lager.com.tw/english/product/product.shtml, [27.08.2006].

Netease (1997): Westward Journey Online II [Online-Document] URL http://corp.163.com/eng/games/westward_journey.html, [27.08.2006].

Netease (2006) [1]: Financial Releases, NetEase Announces Second Quarter 2006 Results, August 15, 2006. [Online-Document] URL http://corp.163.com/news_eng/060815/060815_2817.html, [20.08.2006].

Netease (2006) [2]: Online Games. [Online-Document] URL http://corp.163.com/eng/games/overview.html, [20.08.2006].

Netease (2006) [3]: Financial Releases, NetEase.com Reports Fourth Quarter and Fiscal Year 2005, February 24, 2006. [Online-Document] URL http://corp.163.com/news_eng/060224/060224_2753.html, [27.08.2006].

Niko Partners (2006): Niko Partners' Chinese Videogame Market Forecast, Niko Press Release, April 2006. [Online-Document] URL http://www.nikopartners.com/Niko_China_Release_042006.pdf, [27.08.2006].

Nystedt, Dan (2005): Online gaming growing fast in China, April 04, 2005. [Online-Document] URL http://www.macworld.com/news/2005/04/04/chinagaming, [27.08.2006].

Ovum Search (2006) [1]: Wireline Strategy regional overview: Asia-Pacific (Nathan Burley, Ovum Search),

March 2006. [Online-Document] URL http://store.ovum.com/Product.asp?tnpid=&tnid=&pid=27513&cid=0, [11.09.2006].

Ovum Search (2006) [2]: Broadband overview: China, India, Hong Kong and Taiwan (Ovum Search), May 2006. [Online-Document] URL http://store.ovum.com/Product.asp?tnpid=&tnid=&pid=38291&cid=0, [11.09.2006].

Pacific Epoch (2003-2006): [Online-Document] URL http://www.pacificepoch.com/members/profile_view_ind.php?id=353, [27.08.2006].

Peng, Nie (Ed.) (2006): Beijing starts new campaign to check Internet cafés, May 12, 2006. [Online-Document] URL http://news3.xinhuanet.com/english/2006-05/12/content_4537259.htm, [12.09.2006].

PlayAsia.com (2002-2006): [Online-Document] URL http://www.play-asia.com/paOS-13-71-8y-49-de-70-2sw.html, [27.08.2006].

Reuters Online (2006): [Online-Document] URL http://today.reuters.com/stocks/CompanyProfile.aspx?Type=Full&symbol=NCTY.0, [27.08.2006].

RSF (2003): RSF (Reporters Sans Frontières = Reporters Without Borders): Authorities step up control of Internet cafés, October 29, 2003. [Online-Document] URL http://www.rsf.org/article.php3?id_article=8377, [12.09.2006].

Schotzger, Erwin (2002): Yahoo & Co: Gelöbnis gegen "subversive Inhalte" (pte.online), 15. Juli 2002. [Online-Document] URL http://www.pte.at/pte.mc?pte=020715026, [26.09.2006].

Schotzger, Erwin (2004) [1]: Online-Gaming in China angesagt, 16. Januar 2004. [Online-Document] URL http://www.pressetext.de/pte.mc?pte=040116019, [27.09.2006].

Schotzger, Erwin (2004) [2]: EA will bei Chinas Online-Games mitspielen, 06. Oktober 2004. [Online-Document] URL http://www.pressetext.de/pte.mc?pte=041006016, [27.09.2006].

Shanda Corporation (2004) [1]: MMORPG, Service and Products. [Online-Document] URL http://www.shanda.com.cn/en/products/mmorpgs.htm, [27.09.2006].

Shanda Corporation (2004) [2]: Casual Games, Service and Products. [Online-Document] URL http://www.shanda.com.cn/en/products/casual.htm, [27.09.2006].

Shanda Corporation (2006): Shanda Reports Unaudited Fourth Quarter and Full Year 2005 Financial

Results, February 27, 2006. [Online-Document] URL http://www.snda.com/en/news/news.jsp?id=334, [27.09.2006].

Shay, Dave (1999): Definition of a MUD, October 16, 1999. [Online-Document] URL http://www.coremud.org/mud.html, [27.09.2006].

Sina (2006) [1]: SINA Reports Fourth Quarter and Fiscal Year 2005 Financial Results, February 22, 2006. [Online-Document] URL http://www.corporate-ir.net/ireye/ir_site.zhtml?ticker=SINA&script=410&layout=6&item_id=820688, [25.08.2006].

Sina (2006) [2]: Sina, You are the one (Company Overview). [Online-Document] URL http://corp.sina.com.cn/eng/sina_rela_eng.htm, [25.08.2006].

Sina (2006) [3]: About Sina. [Online-Document] URL http://corp.sina.com.cn/eng/sina_intr_eng.htm, [25.08.2006].

Sohu (2006) [1]: Sohu (Company Overview). [Online-Document] URL http://corp.sohu.com/companymilestones-en.shtml; http://corp.sohu.com/companyprofile-en.shtml, [25.08.2006].

Sohu (2006) [2]: Press Room, SOHU.COM Reports Fourth Quarter 2005 and Fiscal Year 2005 Unaudited Financial Results [Online-Document] URL http://corp.sohu.com/20060207/n241695422.shtml, [27.09.2006].

Stein, Bastian (2005): World of Warcraft 1,5 Millionen Abonnenten in China, 21. Juli 2005. [Online-Document] URL http://www.gamezone.de/news_detail.asp?nid=33931, [27.09.2006].

The9 Limited (2006) [1]: Company Overview. [Online-Document] URL http://www.corp.the9.com/IR/sub.htm, [20.08.2006].

The9 Limited (2006) [2]: Press Release, The9 Reports Fourth Quarter and Fiscal Year 2005 Unaudited Financial Results. [Online-Document] URL http://www.corp.the9.com/news/2006/news_060222.htm, [20.08.2006].

Wang, Faye (2005) [1]: China blocks online gamers from playing for more than 3 consecutive hours, August 23, 2005. [Online-Document] URL http://www.interfax.cn/showfeature.asp?aid=4913, [21.09.2006].

Wang, Faye (2005) [2]: China bans minors under 18 from playing online games that allow players to kill other players, August 03, 2005. [Online-Document] URL http://www.interfax.cn/showfeature.asp?aid=4211, [21.09.2006].

Xinhua (2004) [1]: Articles from Xinhua News Agency [Online-Document] URL http://www.china.org.cn/english/2004/Jan/85084.htm, [17.09.2006].

Xinhua (2004) [2]: Censorship on imported online games strengthened, May 31, 2004. [Online-Document] URL http://news.xinhuanet.com/english/2004-05/31/content_1499498.htm, [12.09.2006].

Xinhua (2005): 50 illegal electronic games banned, January 01, 2005. [Online-Document] URL http://news.xinhuanet.com/english/2005-01/26/content_2511068.htm, [09.09.2006].

Appendix

Appendix No. 1

*1• By gender: Male 58.8%, Female 41.2%

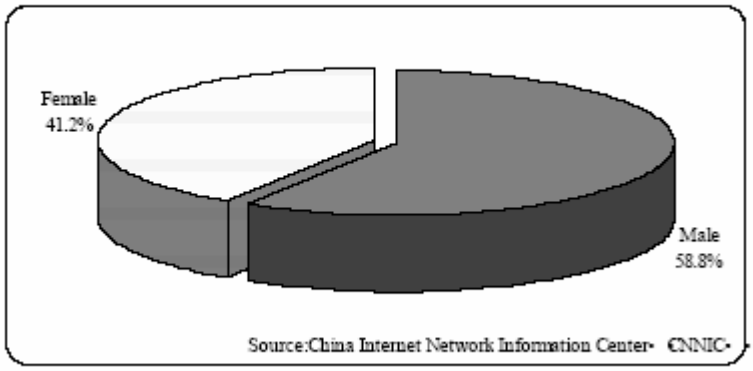


Figure 2.1 Internet users by gender

*3• By marital status: Single 55.1%, Married 44.9%

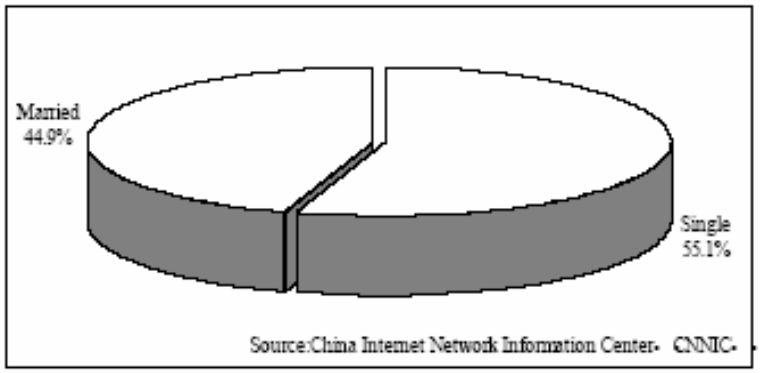


Figure 2.3 Internet users by marital status

Appendix 1: General information of the Internet users by gender and marital status

Source:

CNNIC (2006) [2]: 18th Statistical Survey Report on the Internet Development in China, July 2006. [Online-Document] URL http://www.cnnic.net.cn/en/index/0O/index.htm, [11.09.2006], pp. 9 et seq.

Appendix No. 2

*2• By age:

Table 2.10 Internet users by age

Under 18	18• 24	25• 30	31• 35	36• 40	41• 50	51• 60	Above 60
14.9%	38.9%	18.4%	10.1%	7.5%	7.0%	2.4%	0.8%

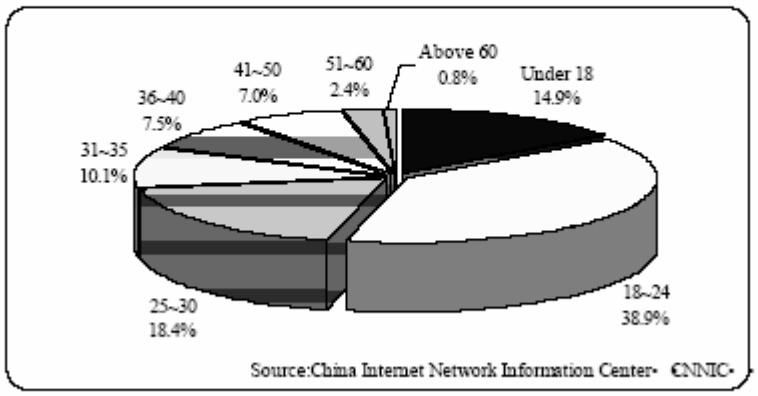


Figure 2.2 Internet users by age

Appendix 2: Internet users by age

Source:

CNNIC (2006) [2]: 18th Statistical Survey Report on the Internet Development in China, July 2006. [Online-Document] URL http://www.cnnic.net.cn/en/index/0O/index.htm, [11.09.2006], p. 9.

Appendix No. 3

6• Services that are most frequently used (result form multiple selections):

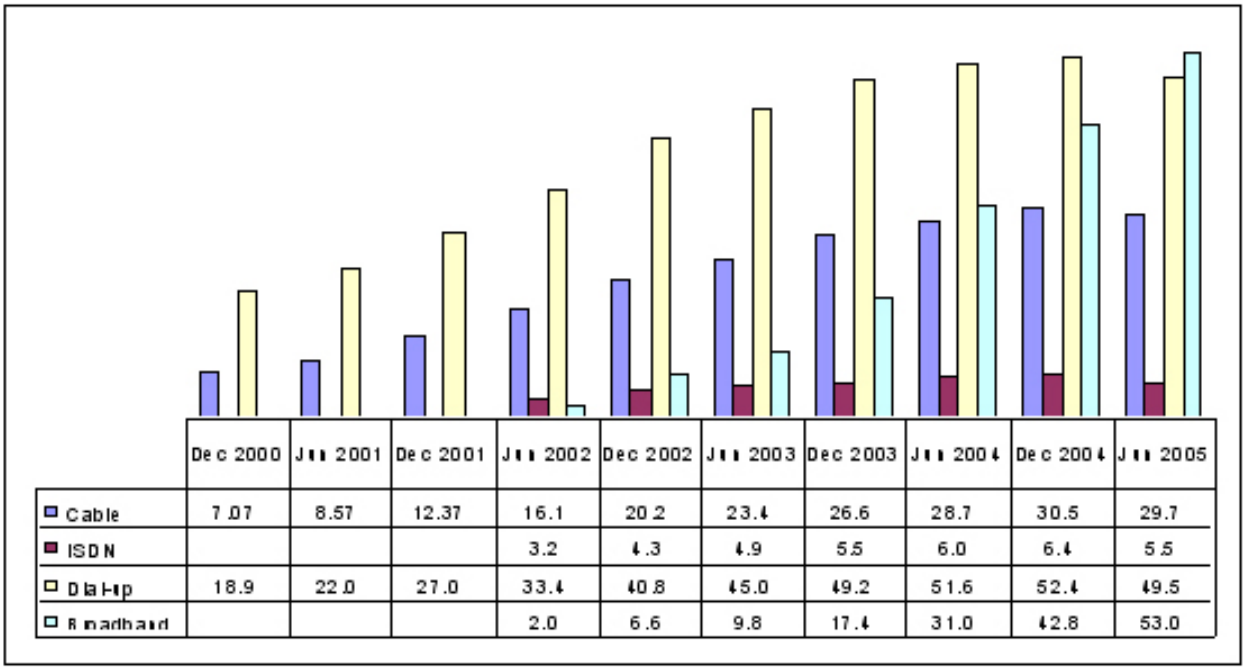
• • News	66.3%
• • Search engine	66.3%
• • Email	64.2%
• • BBS, Community, Forum	43.2%
• • instant message	42.7%
• • Obtaining Information (inquire about information of products, services, jobs, healthcare, government, etc)	39.5%
• • Watching/downloading video (Online TV)	37.3%
• • Listening/downloading music (Online radio)	35.1%
• • Downloading/uploading files (excluding music and video)	33.9%
• • Internet games	31.8%
• • School/class mates' BBS	26.0%
• • Online shopping	26.0%
• • Personal homepage service	24.3%
• • Blog	23.7%
• • Online recruiting	20.6%
• • Online chatting room	19.9%
• • Online financing (Banking and Stock trading)	16.5%
• • E-magazine	16.5%
• • Online education	12.4%
• • Online sales (including online promotion and auction)	11.3%
• • SMS and MSM (Multimedia Short Message)	9.7%
• • Online telephone• including IP• PC to Phone• •	7.9%
• • Online reservation (hotel, ticket, registration)	5.4%
• • E-governance (Online complain, overview/approval, supervise, etc.)	5.4%
• • Friends/ match making, community club	4.6%
• • Others	4.3%

Appendix 3: Services that are most frequently used in the Internet

Source:

CNNIC (2006) [2]: 18th Statistical Survey Report on the Internet Development in China, July 2006. [Online-Document] URL http://www.cnnic.net.cn/en/index/0O/index.htm, [11.09.2006], p. 13.

Appendix No. 4



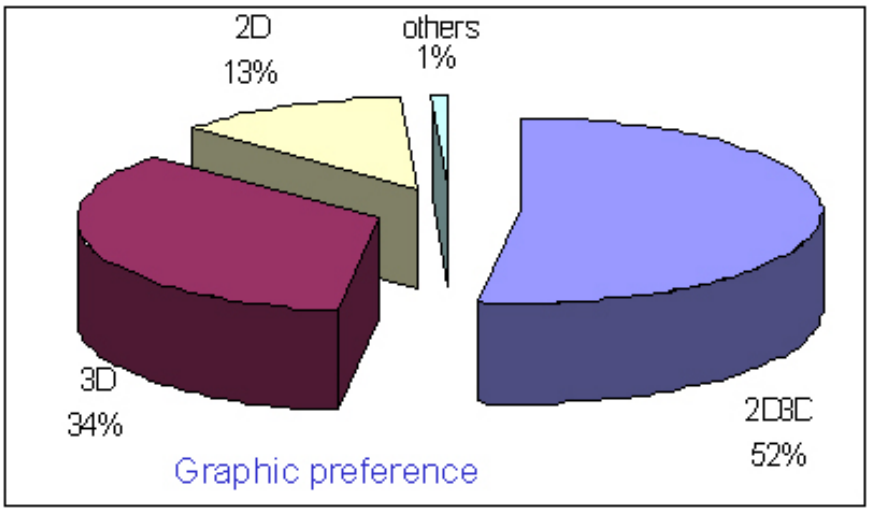
	Dec 2000	Jun 2001	Dec 2001	Jun 2002	Dec 2002	Jun 2003	Dec 2003	Jun 2004	Dec 2004	Jun 2005
Cable	7.07	8.57	12.37	16.1	20.2	23.4	26.6	28.7	30.5	29.7
ISDN				3.2	4.3	4.9	5.5	6.0	6.4	5.5
Dial-up	18.9	22.0	27.0	33.4	40.8	45.0	49.2	51.6	52.4	49.5
Broadband				2.0	6.6	9.8	17.4	31.0	42.8	53.0

Appendix 4: Coverage of access

Source:

CNNIC (2005): 16th Statistical Survey Report on the Internet Development in China, July 2005. [Online-Document] URL http://www.cnnic.net.cn/en/index/0O/index.htm, [11.09.2006], p. 5, (chart made by e-Sport 2005: 4).

Appendix No. 5



Appendix 5: Graphic preference

Source:
CNNIC (2005): 16th Statistical Survey Report on the Internet Development in China, July 2005. [Online-Document] URL http://www.cnnic.net.cn/en/index/0O/index.htm, [11.09.2006], (chart made by e-Sport 2005: 7).

Appendix No. 6

B. The usage situation and users' satisfactory degrees

*1• Main locations for accessing the Internet: (result of multiple selections):

Table 2. 15 Main locations for accessing the Internet

Home	Work place	Internet Café	School	Public places	Others
72.2%	35.1%	29.5%	18.9%	0.5%	0.5%

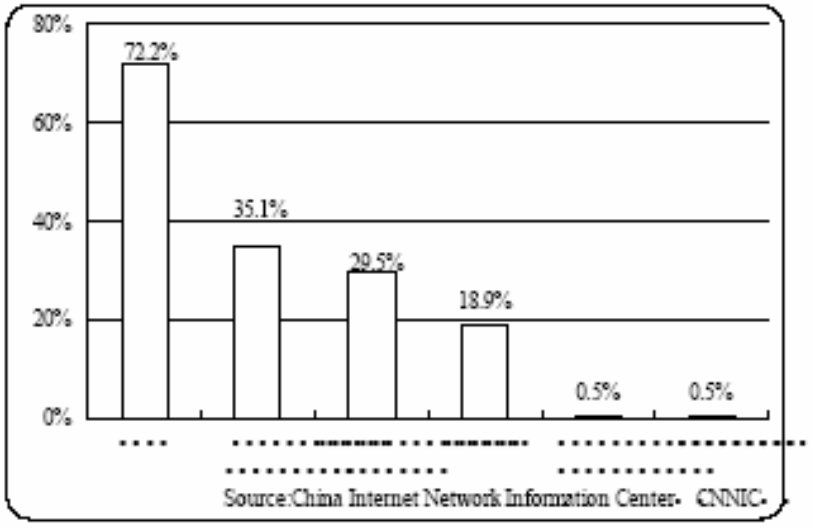


Figure2.5 Main locations for accessing the Internet

Appendix 6: Main locations for accessing the Internet

Source:

CNNIC (2006) [2]: 18th Statistical Survey Report on the Internet Development in China, July 2006. [Online-Document] URL http://www.cnnic.net.cn/en/index/0O/index.htm, [11.09.2006], pp. 11 et seq.

Appendix No. 7

Table 2.11 Internet users by educational degree

Below High School	High School	College Diploma	Bachelor's Degree	Master's Degree	Doctorial Degree
17.8%	31.6%	23.0%	24.7%	2.3%	0.6%

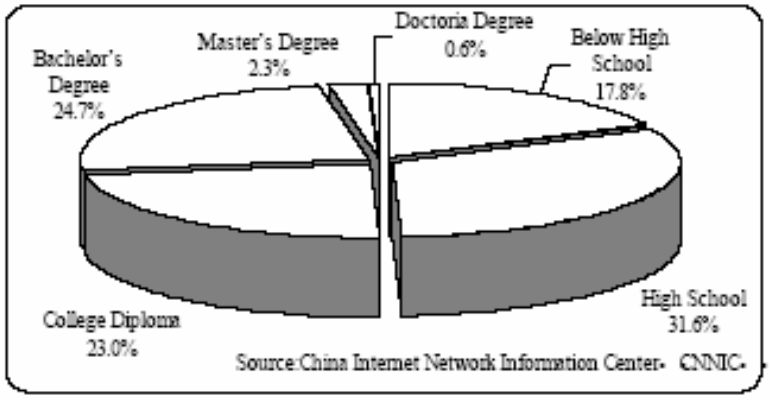


Figure 2.4 Internet users by educational degree

Appendix 7: Education background

Source:

CNNIC (2006) [2]: 18th Statistical Survey Report on the Internet Development in China, July 2006. [Online-Document] URL http://www.cnnic.net.cn/en/index/0O/index.htm, [11.09.2006], p. 10.

Appendix No. 8

*7. Monthly Income per Capita of *college on campus living students. (Including Awards, internship job income)*

Table 2.14 Monthly Income per Capita of *college on campus living students:* (RMB)

less than 500	501- 1000	1001- 1500	1501- 2000	2001- 2500	2501- 3000
48.0%	44.6%	4.3%	1.4%	0.6%	0.3%
3001- 4000	**4001- 6000**	**5001- 6000**	**Over 6001**	**No Income**	
0.2%	0.0%	0.1%	0.0%	0.5%	

Appendix 8: Monthly income

Source:

CNNIC (2006) [2]: 18th Statistical Survey Report on the Internet Development in China, July 2006. [Online-Document] URL http://www.cnnic.net.cn/en/index/0O/index.htm, [11.09.2006], p. 11.

Appendix No. 9

German questionnaire

Herzlich Willkommen zu unserer Befragung "Spielverhalten chinesischer Studenten an der Technischen Universität Ilmenau"!

Der Fragebogen wurde im Rahmen des Seminars "Aspects of Digital Game Culture" konzipiert und befasst sich intensiv mit Eurem Spielverhalten. Sein Ziel ist die genaue Untersuchung der Nutzung digitaler Spiele. Er ist sehr kurz gefasst, so dass es in maximal 5 Minuten möglich ist, den Fragebogen auszufüllen.

Wir möchten uns ganz herzlich für deine Unterstützung bedanken.

1. Spielst du digitale Spiele?

○	Ja
○	Nein

2. Seit wann spielst du digitale Spiele?

3. Wie oft spielst du?

○	Täglich
○	mehrmals die Woche
○	einmal in der Woche
○	einmal im Monat
○	Seltener

4. Es gibt ja viele Orte, an denen man digitale Spiele spielen kann. Bitte gib uns hier den Ort an, welchen du am meisten dazu IN CHINA genutzt hast.

○	zu Hause
○	bei Freunden
○	Internetcafés
○	Sonstiges

5. Bitte gib uns hier nun den Ort an, welchen du am meisten zum Spielen von digitalen Spielen IN DEUTSCHLAND nutzt.

○	zu Hause
○	bei Freunden
○	Internetcafés
○	Sonstiges

6. Wie hast du IN CHINA am liebsten digitale Spiele gespielt?

○	mit Freunden
○	allein
○	sonstiges

7. Wie nutzt du nun IN DEUTSCHLAND am liebsten digitale Spiele?

○	mit Freunden
○	allein
○	sonstiges

8. Welche der folgenden Spielekategorien bevorzugst du?

○	Ego-Shooter (FPS = First Person Shooter)
○	Strategy (RTS = Real Time Strategy)
○	MMORPG (Massive Multi Online Role Playing Game)
○	PC RPG (Role Playing Game)
○	Jump & Run
○	Sport Game
○	Casual Game
○	Sonstige

9. Spielst du in Deutschland andere Spiele, als du in China gespielt hast?

○	Ja
○	Nein

10. Bitte nenn uns hier Spiele, die du sowohl in China als auch Deutschland spielst bzw. gespielt hast?

11. Da du uns die Auskunft erteilt hast, dass du andere Spiele in Deutschland spielst, als du es in China getan hast, möchten wir dich hier bitten, uns über mögliche Gründe Auskunft zu geben.

○	nicht in China veröffentlicht
○	in China verboten
○	gibt es in Europa nicht
○	kannte ich vorher nicht
○	sonstige

12. Spielst du in Deutschland zeitlich mehr oder weniger, als du es in China getan hast?

○	Mehr
○	Weniger
○	Gleich viel

13. Welche Arten von Spielen spielst du?

○	Online
○	PC
○	Console
○	Mobile Spiele

14. Wenn du Online-Spiele spielst, triffst du dich dann beim Spielen mit Freunden?

○	Ja
○	Nein

15. Wenn du dich mit Freunden triffst, welche Freunde sind das?

○	Chinesische Freunde, die ich aus China kenne

○	Chinesische Freunde, die ich aus Deutschland kenne
○	Freunde, die ich nur über das Internet kenne

16. Wir nennen Dir nun nachfolgend einige Firmen. Bitte kreuze die Firmen an, die du kennst bzw. von denen du Näheres weißt.

○	Netease
○	Sina
○	Shanda
○	Sohu
○	Tencent
○	The9 Limited
○	Ourgame
○	17137
○	Actoz Soft
○	Kingsoft

17. Da du ursprünglich aus China kommst, würden wir dich bitten, den Ort, an welchem du zuletzt gewohnt hast, zu nennen.

○	> 20.000
○	20.000 - 100.000
○	100.000 - 500.000
○	500.000 - 1.000.000
○	< 1.000.000

18. Bitte gib uns nun noch dein Alter an!

19. Geschlecht

○	Männlich
○	Weiblich

Wir möchten dir ganz herzlich für Deine Unterstützung danken!

Crosstabulation Hypothesis 1.1

Crosstabulation: Online players * Massive Multiplayer Online Role-Playing Games (MMORPGs)

Online players / *MMORPGs*		*not stated*	*stated*	*total*
not stated	***% of MMORPGs***	***46.7 %***	***53.3 %***	***100 %***
	% of online players	***87.5 %***	***57.1 %***	***68.2 %***
	% of total number	***31.8 %***	***36.4 %***	***68.2 %***
stated	***% of MMORPGs***	***14.3 %***	***85.7 %***	***100 %***
	% of online players	***12.5 %***	*42.9 %*	***31.8 %***
	% of total number	***4.5 %***	*27.3 %*	***31.8 %***
total	***% of MMORPGs***	***36.4 %***	***63.6 %***	***100 %***
	% of online players	***100 %***	***100 %***	***100 %***
	% of total number	***36.4 %***	*63.6 %*	***100 %***

Crosstabulation Hypothesis 1. 1

Crosstabulation Hypothesis 1.2

Crosstabulation: Online players * Real Time Strategy games (RTS)

Online players / *RTS Games*		*not stated*	*stated*	*total*
not stated	***% of RTS Games***	***25.0 %***	***75.0 %***	***100 %***
	% of online players	***37.5 %***	***64.3 %***	***54.5 %***
	% of total number	***13.6 %***	***40.9 %***	***54.5 %***
stated	***% of RTS Games***	***50.0 %***	*50.0 %*	***100 %***
	% of online players	***62.5 %***	*35.7 %*	***45.5 %***
	% of total number	***22.7 %***	***22.7 %***	***45.5 %***
total	***% of RTS Games***	***36.4 %***	***63.6 %***	***100 %***
	% of online players	***100 %***	***100 %***	***100 %***
	% of total number	***36.4 %***	***63.6 %***	***100 %***

Crosstabulation Hypothesis 1. 2

Crosstabulation Hypothesis 1.3

Crosstabulation: Online players * Ego-Shooter

Online players / *Ego-Shooter*		*not stated*	*stated*	*total*
not stated	***% of Ego-Shooter***	***33.3 %***	***66.7 %***	***100 %***
	% of online players	***50.0 %***	***57.1 %***	***54.5 %***
	% of total number	***18.2 %***	***36.4 %***	***54.5 %***
stated	***% of Ego-Shooter***	***40.0 %***	*60.0 %*	***100 %***
	% of online players	***50.0 %***	*42.9 %*	***45.5 %***
	% of total number	***18.2 %***	***27.3 %***	***45.5 %***
total	***% of Ego-Shooter***	***36.4 %***	***63.6 %***	***100 %***
	% of online players	***100 %***	***100 %***	***100 %***
	% of total number	***36.4 %***	***63.6 %***	***100 %***

Crosstabulation Hypothesis 1. 3

Crosstabulation Hypothesis 1.4

Crosstabulation: Online players * Jump'n'Run Games

Online players / *Jump'n'Run*		*not stated*	*stated*	*total*
not stated	***% of Jump'n'Run***	***36.8 %***	***63.2 %***	***100 %***
	% of online players	***87.5 %***	***85.7 %***	***86.4 %***
	% of total number	***31.8 %***	***54.5 %***	***86.4 %***
stated	***% of Jump'n'Run***	***33.3 %***	***66.7 %***	***100 %***
	% of online players	***12.5 %***	***14.3 %***	***13.6 %***
	% of total number	***4.5 %***	*9.1 %*	***13.6 %***
total	***% of Jump'n'Run***	***36.4 %***	***63.6 %***	***100 %***
	% of online players	***100 %***	***100 %***	***100 %***
	% of total number	***36.4 %***	***63.6 %***	***100 %***

Crosstabulation Hypothesis 1. 4

Crosstabulation Hypothesis 1.5

Crosstabulation: Online players * Casual Games

Online players / *Casual Games*		*not stated*	*stated*	*total*
not stated	***% of Casual Games***	***33.3 %***	***66.7 %***	***100 %***
	% of online players	***87.5 %***	***100 %***	***95.5 %***
	% of total number	***31.8 %***	***63.6 %***	***95.5 %***
stated	***% of Casual Games***	***100 %***	***0 %***	***100 %***
	% of online players	***12.5 %***	*0 %*	***4.5 %***
	% of total number	***4.5 %***	***0 %***	***4.5 %***
total	***% of Casual Games***	***36.4 %***	***63.6 %***	***100 %***
	% of online players	***100 %***	***100 %***	***100 %***
	% of total number	***36.4 %***	***63.6 %***	***100 %***

Crosstabulation Hypothesis 1. 5

Crosstabulation Hypothesis 1.6

Crosstabulation: Online players * Sport Games

Online players / *Sport Games*		*not stated*	*stated*	*total*
not stated	***% of Sport Games***	***33.3 %***	***66.7 %***	***100 %***
	% of online players	***62.5 %***	***71.4 %***	***68.2 %***
	% of total number	***22.7 %***	***45.5 %***	***68.2 %***
stated	***% of Sport Games***	***42.9 %***	***57.1 %***	***100 %***
	% of online players	***37.5 %***	*28.6 %*	***31.8 %***
	% of total number	***13.6 %***	***18.2 %***	***31.8 %***
total	***% of Sport Games***	***36.4 %***	***63.6 %***	***100 %***
	% of online players	***100 %***	***100 %***	***100 %***
	% of total number	***36.4 %***	***63.6 %***	***100 %***

Crosstabulation Hypothesis 1. 6

Crosstabulation Hypothesis 2.1

Crosstabulation: ‘play alone’ * sex

			sex		total
			male	**female**	**total**
‘play alone’	**no**	quantity	8	4	12
		% of ‘play alone’	66,7%	33,3%	100,0%
		% of sex	57,1%	57,1%	57,1%
		% of total number	38,1%	19,0%	57,1%
	yes	Quantity	6	3	9
		% of ‘play alone’	**66,7%**	**33,3%**	100,0%
		% of sex	42,9%	42,9%	42,9%
		% of total number	28,6%	14,3%	42,9%
total		quantity	14	7	21
		% of ‘play alone’	66,7%	33,3%	100,0%
		% of sex	100,0%	100,0%	100,0%
		% of total number	66,7%	33,3%	100,0%

Crosstabulation Hypothesis 2. 1

Crosstabulation Hypothesis 2.2

Crosstabulation: ‘play with friends’ * sex

			sex		total
			male	**female**	**total**
‚play with friends’	**no**	quantity	4	3	7
		% of ‚play with friends’	57,1%	42,9%	100,0%
		% of sex	28,6%	42,9%	33,3%
		% of total number	19,0%	14,3%	33,3%
	yes	quantity	10	4	14
		% of ‚play with friends’	**71,4%**	**28,6%**	100,0%
		% of sex	71,4%	57,1%	66,7%
		% of total number	**47,6%**	**19,0%**	66,7%
total		quantity	14	7	21
		% of ‚play with friends’	66,7%	33,3%	100,0%
		% of sex	100,0%	100,0%	100,0%
		% of total number	66,7%	33,3%	100,0%

Crosstabulation Hypothesis 2. 2

Crosstabulation Hypothesis 2.3

Crosstabulation: Online Games * sex

			sex		total
			male	**female**	**total**
Online Games	**no**	quantity	7	1	8
		% of online games	87,5%	12,5%	100,0%
		% of sex	50,0%	14,3%	38,1%
		% of total number	33,3%	4,8%	38,1%
	yes	quantity	7	6	13
		% of online games	**53,8%**	**46,2%**	100,0%
		% of sex	50,0%	85,7%	61,9%
		% of total number	33,3%	28,6%	61,9%
total		quantity	14	7	21
		% of online games	66,7%	33,3%	100,0%
		% of sex	100,0%	100,0%	100,0%
		% of total number	66,7%	33,3%	100,0%

Crosstabulation Hypothesis 2. 3

Crosstabulation Hypothesis 2.4

Crosstabulation: Computer Games * sex

			sex		total
			male	**female**	
Computer Games	**no**	quantity	3	2	5
		% of computer games	60,0%	40,0%	100,0%
		% of sex	21,4%	28,6%	23,8%
		% of total number	14,3%	9,5%	23,8%
	yes	quantity	11	5	16
		% of computer games	68,8%	31,3%	100,0%
		% of sex	78,6%	71,4%	76,2%
		% of total number	52,4%	23,8%	76,2%
total		quantity	14	7	21
		% of computer games	66,7%	33,3%	100,0%
		% of sex	100,0%	100,0%	100,0%
		% of total number	66,7%	33,3%	100,0%

Crosstabulation Hypothesis 2. 4

Crosstabulation Hypothesis 3.1

Crosstabulation: ‘play with friends’ * ‘play with friends from China’

‘friends from China’ / **‘play** *with friends’*		*not stated*	*stated*	*total*
not stated	***% of ‚play with friends’***	***33.3 %***	***66.7 %***	***100 %***
	% of ‘friends from China’	***20.0 %***	***28.6 %***	***25.0 %***
	% of total number	***8.3 %***	***16.7 %***	***25.0 %***
stated	***% of ‘play with friends’***	***44.4 %***	*55.6 %*	***100 %***
	% of ‘friends from China’	***80.0 %***	***71.4 %***	***75.0 %***
	% of total number	***33.3 %***	***41.7 %***	***75.0 %***
total	***% of ‘play with friends’***	***41.7 %***	***58.3 %***	***100 %***
	% of ‘friends from China’	***100 %***	***100 %***	***100 %***
	% of total number	***41.7 %***	***58.3 %***	***100 %***

Crosstabulation Hypothesis 3. 1

Crosstabulation Hypothesis 3.2

Crosstabulation: ‘play with friends’ * ‘play with friends from Germany’

‘friends from Germany’ **‘play** *with friends’*		*not stated*	*stated*	*total*
not stated	***% of „play with friends“***	***0.0 %***	***100.0 %***	***100 %***
	% of “friends from Germany”	***0.0 %***	***33.3 %***	***25.0 %***
	% of total number	***0.0 %***	***25.0 %***	***25.0 %***
stated	***% of „play with friends“***	***33.3 %***	*66.7 %*	***100 %***
	% of “friends from Germany”	***100.0 %***	***66.7 %***	***75.0 %***
	% of total number	***25.0 %***	***50.0 %***	***75.0 %***
total	***% of „play with friends“***	***25.0 %***	***75.0 %***	***100 %***
	% of “friends from Germany”	***100 %***	***100 %***	***100 %***
	% of total number	***25.0 %***	***75.0 %***	***100 %***

Crosstabulation Hypothesis 3. 2

Crosstabulation Hypothesis 3.3

Crosstabulation: ‘play with friends’ * ‘play with friends from the Internet’

‘friends from the Internet’ / **‘play** *with friends’*		*not stated*	*stated*	*total*
not stated	***% of ‚play with friends’***	***66.7 %***	***33.3 %***	***100 %***
	% of ‘friends from the Internet’	***40.0 %***	***14.3 %***	***25.0 %***
	% of total number	***16.7 %***	***8.3 %***	***25.0 %***
stated	***% of ‘play with friends’***	***33.3 %***	*66.7 %*	***100 %***
	% of ‘friends from the Internet’	***60.0 %***	***85.7 %***	***75.0 %***
	% of total number	***25.0 %***	***50.0 %***	***75.0 %***
total	***% of ‘play with friends’***	***41.7 %***	***58.3 %***	***100 %***
	% of ‘friends from the Internet’	***100 %***	***100 %***	***100 %***
	% of total number	***41.7 %***	***58.3 %***	***100 %***

Crosstabulation Hypothesis 3. 3

Crosstabulation Hypothesis 4.1

Crosstabulation: ‘different games in Germany’ * Massive Multiplayer Online Role-Playing Games (MMORPGs)

‘different games in Germany’ \ *MMORPGs*		*not stated*	*stated*	*total*
yes	***% of ‚different games in Germany’***	***87.5 %***	***12.5 %***	***100 %***
	% of MMORPGs	***82.4 %***	***28.6 %***	***66.7 %***
	% of total number	***58.3 %***	***8.3 %***	***66.7 %***
no	***% of ‚different games in Germany’***	***37.5 %***	***62.5 %***	***100 %***
	% of MMORPGs	***17.6 %***	*71.4 %*	***33.3 %***
	% of total number	***12.5 %***	***20.8 %***	***33.3 %***
total	***% of ‚different games in Germany’***	***70.8 %***	***29.2 %***	***100 %***
	% of MMORPGs	***100 %***	***100 %***	***100 %***
	% of total number	***70.8 %***	***29.2 %***	***100 %***

Crosstabulation Hypothesis 4. 1

Crosstabulation Hypothesis 4.2

Crosstabulation: duration * Massive Multiplayer Online Role-Playing Games (MMORPGs)

MMORPGs / *duration*		*not stated*	*stated*	*total*
<= 1 hour	***% of MMORPGs***	***55.0 %***	*0.0 %*	***39.3 %***
1-2 hours	***% of MMORPGs***	***5.0***	*50.0 %*	***17.9 %***
2-3	***% of MMORPGs***	***20.0 %***	*25.0 %*	***21.4 %***
3-4 hours	***% of MMORPGs***	***5.0 %***	*0.0 %*	***3.6 %***
> 4 hours	***% of MMORPGs***	***15.0 %***	*25.0 %*	***17.9 %***

Crosstabulation Hypothesis 4. 2

Crosstabulation Hypothesis 5.1

Crosstabulation: 'Different Games in Germany' * 'play with friends from China'

			'play with friends from China'		
			no	**yes**	**total**
'different games in Germany'	**yes**	quantity	4	4	8
		% of 'different games in Germany'	50,0%	50,0%	100,0%
		% of 'play with friends from China'	80,0%	57,1%	66,7%
		% of total number	33,3%	33,3%	66,7%
	no	quantity	1	3	4
		% of 'different games in Germany'	25,0%	**75,0%**	100,0%
		% of 'play with friends from China'	20,0%	42,9%	33,3%
		% of total number	8,3%	**25,0%**	33,3%
total		quantity	5	7	12
		% of 'different games in Germany'	41,7%	58,3%	100,0%
		% of 'play with friends from China'	100,0%	100,0%	100,0%
		% of total number	41,7%	58,3%	100,0%

Crosstabulation Hypothesis 5. 1