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What Motivates and Restricts Chinese Wikipedians to Contribute to English Wikipedia?

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Abstract

Wikipedia, world's biggest and most popular online encyclopedia, contains more than 26 million articles in over 280 languages, behind which are contributors voluntarily dedicating their time and effort. Hence, the Wikipedia contributors' motivations have been a popular topic in academic researches. According to the prior studies, people contribute to Wikipedia entries are motivated by altruism, reputation and enjoyment. However, researches on the motivation and restrictions of Chinese Wikipedia users contributing to Wikipedia articles in English still remains blank. To bridge this gap, this study aims to explore and address the motivations and restrictions of Chinese Wikipedians contributing to the English version of Wikipedia articles. This study was an explorative case study with the data and interviews contributed by four Chinese Wikipedians. The main findings were divided into two domains: motivations and restrictions. To be more detailed, Chinese Wikipedians are motivated by altruism, reputation, self-development and improvement of content quality. Meanwhile, they are driven by restrictions such as the blockage of access to Wikipedia in Chinese language from the mainland of China, and the limited source of articles in Chinese. The findings of this study contribute to the research on cross-linguistic participation: people contributing to Wikipedia in a language other than their mother language. In addition, the findings could be helpful for future researches on the Internet blockage in China.

Keywords: Chinese Wikipedian, English Wikipedia, Motivation, Restriction

Supervisor: Arto Lanamäki

Foreword

I would like to thank my supervisor Arto Lanamäki for his excellent guidance and suggestions to this Master thesis. He suggested this interesting and meaningful research topic for me and provided me with great help and guidance during the whole Master thesis process.

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1 Introduction

Wikipedia is the most popular online encyclopedia in the world, as well as being the largest Wiki system currently. Multiple language, completely open editing and collaborative editing context allowed Wikipedia to become a platform of recording the information and knowledge (Lih, 2004). Bryant, Forte, & Bruckman (2005) argued that rapid growth of Wikipedia can be attributed to its publicly editable contents. According to Alexa's (2016a) Internet traffic data, for example the amount of visits and page views, Wikipedia got the 7th place at the Global Top 500 websites in March 2016. Moreover, Wikipedia was ranked the 8th in the ranking of encyclopedia reference site (Alexa, 2016b).

Until November of 2015, the English language version of Wikipedia contains more than 5,000,000 articles (Wikimedia, 2015). Moreover, currently there are 281 language version of Wikipedia all together (Wikimedia, 2015). Pew Research Center analysis of statistics of the Wikistats showed that English version Wikipedia had become the most used Wikipedia among all of the current Wikipedias, with page views six times larger than the second largest version (Anderson, Hitlin, & Atkinson, 2016). To compare the versions of Wikipedia in different languages, Pew Research Center analysis provided a figure (see Figure 1) showed the numbers of page views of the most visited articles in each of top 10 language used in Wikipedia (Anderson et al., 2016). This figure shows Wikipedia is used as an encyclopedia reference site in different cultures and societies (Anderson et al., 2016).

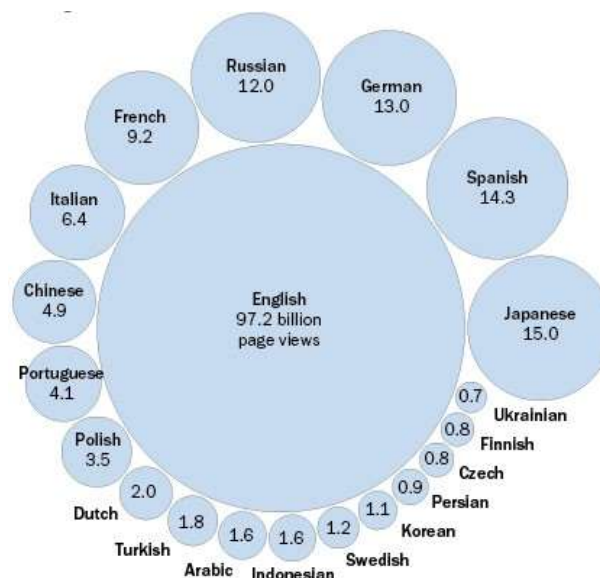


Figure 1. Leading language versions of Wikipedia by billions of page views in 2015 (Anderson et al., 2016).

Compared with the number of English Wikipedia articles, the number of Chinese Wikipedia articles is much smaller. In total, there are 843,090 articles in Chinese language, excluding articles in traditional Chinese (Wikimedia, 2015). Here in this study, Chinese Wikipedia users or Chinese Wikipedians refer to people who speak

Chinese and live in the mainland of China, Hong Kong, Macau, Taiwan and other regions of the world (Ho, Ting, Bau, & Wei, 2011). The following Table 1 contains the top 10 languages by estimated number of native speakers in the 2016 edition of Ethnologue (2016). Table 1 shows that Chinese is the most spoken language in the world. And English gets the third place following Chinese and Spanish. The number of Chinese speakers is almost four times bigger than that of English speakers according to the ranking. However, the number of page views in English Wikipedia is bigger than those in Chinese (Anderson et al., 2016). The number of viewers of English Wikipedia is also high, but this can be due to the possibility that some of the viewers use English as a second language.

Table 1. Top 10 language ranking in 2016 (Ethnologue, 2016).

Rank	Language	Primary Country	Total Countries	Speakers (millions)
1	Chinese	China	35	1302
2	Spanish	Spain	31	427
3	English	United Kingdom	106	339
4	Arabic	Saudi Arabia	58	267
5	Hindi	India	4	260
6	Portuguese	Portugal	12	202
7	Bengali	Bangladesh	4	189
8	Russian	Russian Federation	17	171
9	Japanese	Japan	2	128
10	Lahada	Pakistan	8	117

Kuznetsov (2006) indicated that Wikipedia articles were created, edited and improved by Wikipedians who contribute to Wikipedia voluntarily. Wikipedians perceive that their contributions in Wikipedia are great actions because they are sharing their knowledge to the rest of the world. It is significant that the editing rights of Wikipedia is public, and each Wikipedian's contributions are available to all internet users (Bryant et al., 2005). By public, it means that theoretically, anyone who have access to the Internet and Wikipedia can edit Wikipedia articles without any restrictions.

Usually, Chinese Wikipedians are the main group of frequent contributors behind Chinese Wikipedia (Zhang & Zhu, 2010). According to the data from the Meta-Wiki page of Wikimedia, the total number of existing Chinese Wikipedia users reached up to 2,209,680, whereby, 6,049 users have been operating in the last 30 days, counting 0.2738% of all Chinese users. Other than them, 74 users were the administrators. The Wikipedia statistic showed that from January 2014 to March 2014, the Chinese editors were from the mainland of China (43.4%), followed by Taiwan (31.4%) and Hong Kong (15.3%). In addition, the most visitors of Chinese Wikipedia are from the mainland of China (36.6%), followed by Taiwan (33.1%) and Hong Kong (12.9%). Until October 2015, there were 2,527 active Chinese Wikipedians which included 326

extremely active Chinese Wikipedians. Moreover, the number of Chinese Wikipedians who edited at least 10 times reached 43,379. (Wikipedia, 2015a.)

Similar with the fact that open source software cannot develop without participants, Wikipedia would not become the most popular encyclopedia without Wikipedians and visitors. The relationship between participation and Wikipedia is illustrated in Figure 2. According to Figure 2, there is a circle representing the relationship between Wikipedia and Wikipedians. In Figure 2, Wikipedia is understood as a platform. Firstly, a sufficient quality of contents in Wikipedia can attract some audiences because the contents can be beneficial to them. Some of the audiences may become Wikipedians, creating and improving the contents in return, which means then the quality of Wikipedia can be improved. Therefore, the relationship forms a running circle: Wikipedia attracts some audiences, whom then become Wikipedians, improving quality of Wikipedia and thus more audiences can be attracted. (Lanamäki, 2013.)

Though however practical the circle of relationships is in theory, in real-life situations, it is not always so ideal. In fact, some participants of Wikipedia may not improve the quality, they could even harm the quality of Wikipedia. However, the participation of Wikipedians is closely related to the quality of Wikipedia. Consequently, it supports the assumption that participation is the most important element in the circle. In other words, the participation of both audiences and Wikipedia contributors is important for the development of Wikipedia. Based on the research aim of this study, this study was focused on the participants of Wikipedians especially the Chinese Wikipedians. (Lanamäki, 2013.)

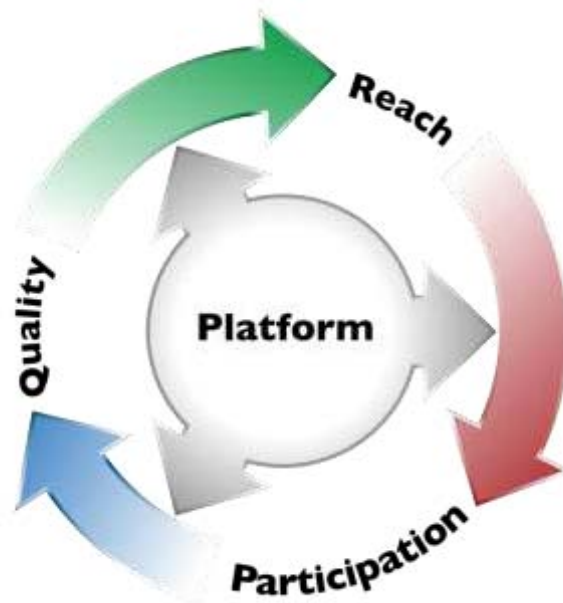


Figure 2. The circle of quality, reach, and participation of Wikipedia (adopted from Lanamäki, 2013, p. 11).

In previous studies, most Wikipedia-related researches focused on the Wikipedia contributor's motivations. Although contributors' motivation has been long studied and researched over that past several years, almost all previous studies were focused on the Wikipedians' contribution by using their own native language, and English Wikipedia was the most researched objective. There was not yet any research aimed to explore the motivations or restrictions that make Chinese Wikipedians to contribute to English

Wikipedia. Hence, the reason of Chinese Wikipedians' attempt to contribute to English Wikipedia was my research point. The goal of this study was to explore the factors which motivate or restrict Chinese Wikipedians to contribute to English Wikipedia. There were two research questions which were assisted to explore the research problem: what are the motivations of Chinese Wikipedians contribute to English Wikipedia? And what kind of restrictions lead Chinese Wikipedians to contribute to English Wikipedia?

In this introductory section, the general information of Wikipedia and Chinese Wikipedians were described. In the next section, Wikipedia-related researches along with five perspectives on Wikipedia contributors' motivation will be presented. Then, the methodology of this study, for example, designing of the interview questions, data collection and data analysis will be introduced in the third section. The fourth section presents the findings of this study which were based on the analysis of data collected from four Chinese Wikipedians. Compared with the previous studies, the difference in this study will be discussed in the fifth chapter. Finally, the implications of this study as well as the limitations and possibilities for future work will be summarised in the discussion section.

2 Background

The motivations of people contributing to Wikipedia have been studied for many years. In prior studies, the huge number of the contributors' motivations were indicated which encourage contributors to Wikipedia. The factors included the extrinsic motivations such as reputation building (Anthony, Smith, & Williamson, 2009; Kuznetsov, 2006; Oreg & Nov, 2008), knowledge learning (Prasarnphanich & Wagner, 2008; Baytiyeh & Pfaffman, 2010), self-development (Oreg & Nov, 2008; Prasarnphanich & Wagner, 2008) and Wikipedia contents or non-contents quality improving (Chesney, 2006; Zhu, 2008; Bryant et al., 2005), the intrinsic factors such as altruism (Cho, Chen & Chung, 2010; Kuznetsov, 2006), enjoyment (Nov, 2007; Prasarnphanich & Wagner, 2008).

Some Wikipedia contributor's motivations are consistent with open source software (OSS), such as gaining reputation, self-development, altruism and enjoyment. Osterloh and Rota (2007) argued that contributors can easier to get others' trust if they had a good reputation in OSS projects development. They also indicated having fun and learning motive the contributors to participate in OSS community as well as contribute to OSS projects. Furthermore, OSS contributors like to help others that motivated them to participate the OSS projects. (Osterloh & Rota, 2007.)

In this chapter, the prior findings about Wikipedian's motivation would be presented summarily. In addition, this chapter would also introduce two popular encyclopedias in China as well as the blockage history and current situation of Chinese Wikipedia.

2.1 Motivation of Contributors

Recently, Wikipedians' motivation has become a very popular study topic in academic researches. Many studies assume that the key motivation of contributors was that contributors would have the possibility to obtain various kind of benefits or rewards in the future (Yang & Lai, 2010). In Prasarnphanich and Wagner's (2008) research, the results showed that Wikipedia contributors had various motives and benefit expectations, for instance, personal or collaborative motives (Prasarnphanich & Wagner, 2008).

People's motivation can be divided into intrinsic motivation and extrinsic motivation, based on benefits, awards property and personal characteristic (Ryan & Deci, 2000). Intrinsic motivation is "doing of an activity for its inherent satisfactions rather than for some separable consequence" as defined by Ryan and Deci (2000). In other words, intrinsic motivation of a person is for fun or challenge rather than rewards, pressures or reputations. Yang and Lai (2010) suggested that intrinsically motivated people engage in an act for enjoyment, not for gaining an extrinsic outcome such as rewards or statues. In Wikipedia-related studies, contributors' intrinsic motivations include altruism, enjoyment and the ideology of free knowledge (Xu & Li, 2015).

Extrinsic motivation means "a construct that pertains whenever an activity is done in order to attain some separable outcome" (Ryan & Deci, 2000). To compare extrinsic motivation with intrinsic motivation, extrinsically motivated people engage in a behaviour for separable outcome such as rewards (Ryan & Deci, 2000). In the research

on Wikipedians' motivation, extrinsic motivation generally were reputation building, knowledge learning and self-development (Xu & Li, 2015). Not considering the classifications of motivations, no matter if they are intrinsic or extrinsic, personal or collaborative, altogether hundreds kinds of motivations have been identified from previous researches. However, the most significant factors which impact people contribute to Wikipedia were altruism, reputation, and enjoyment.

2.1.1 Altruism

Altruism is the most commonly discussed motivation concept in a mass of Wikipedians' motivations studies (Lanamäki, Okoli, Mehdi, Mesgari, & Nielsen). Altruism refers to behaviours such as helping others without external benefits. Altruism motivates people to bring good deeds to others without expecting any rewards. Kuznetsov's (2006) summary of altruistic behaviour highlighted the wish to benefit others over the personal external welfare. Altruistic people are helping others without considering their own efforts and other loss (Kuznetsov, 2006).

Stacey Kuznetsov (2006) identified Wikipedia contributor's motivations by analysing the data of two published surveys and a pilot survey, and he concluded that many Wikipedians' contributions can be defined as an altruistic behaviour. These altruistic behaviours may cost huge amount of time and effort, but the contributors never desire for compensation such as rewards or reputation (Kuznetsov, 2006). Information sharing or knowledge sharing were the most essential factor that motivates contributors, according to Kuznetsov's (2006) results of surveys, in which the knowledge sharing is seen as an altruistic act.

Cho et al. (2010) presented that altruism was one of intrinsic motivational factors in their study. They argued that altruism was positively related to personal attitudes toward information sharing or knowledge sharing on Wikipedia (Cho et al., 2010). The contribution behaviours in Wikipedia would generally become an act that motivates people who wish to enrich knowledge without any compensation, because Wikipedia would not offer any monetary welfare or reward to Wikipedians. According to the research of knowledge sharing intentions, Cho et al. (2010) explored the relationship between motivations and intrinsic cognitive senses which was altruism. They suggested that "a mentality that one is able to help answer other people's questions leads to a positive attitude toward the act of knowledge sharing in the context of Wikipedia" (Cho et al., 2010).

Nov (2007) investigated the contributors' motivations for developing Wikipedia, in which altruism was represented by sharing knowledge of contributors to others. Wikipedians have a great passion for sharing their knowledge to every people (Baytiyeh & Pfaffman, 2010). Wikipedia became a platform for Wikipedians sharing their knowledge by contributing to the creating, and editing of articles. Meanwhile, Wikipedians' altruism behaviours were presented by their information or knowledge sharing in Wikipedia. Baytiyeh and Pfaffman (2010) indicated the contribution behaviours of Wikipedians associated with altruism could provide a sense of fulfilment, and inherent gratification.

2.1.2 Reputation

In researches related to open source software development, the reputation is one of the key factors to participants. Oreg and Nov (2008) argued that building up personal reputation is the most significant motivational factors for individual and is higher than other factors effective to participation. Building up personal reputation in the domain of open source was related to personal achievement, which is the participants' expectation (Oreg & Nov, 2008). Because contributing to the open source project is for free, almost motives induce users to contribute to open source projects voluntarily. Lakhani and Von Hippel (2003) indicated enhanced reputation might attract users to make acceptable quality contributions to open source projects.

Similarly, contributors may gain reputation for contributing to Wikipedia. Some registered contributors develop their identities in Wikipedia to win the respect, trust and appreciation from other Wikipedia users in Wikipedia community (Kuznetsov, 2006). Wikipedia also encourages users to be registered users by providing benefits such as building permutation in the community of Wikipedia (Anthony et al., 2009). According to observations, the online profiles of registered user can be developed elaborately in the own user page. Part of Wikipedians would like to add links in their personal profiles of articles they have edited before so that others can see their contributions.

Besides, Wikipedians are usually recognized by other users formally in Wikipedia so that they can recognise each other according to their contributions. Another way to improve the reputation of Wikipedians' identities is to contribute to the featured articles. Feature articles are articles that meet a quality standard of Wikipedia article and they should be selected from outstanding articles only (Gasser & Smith, 2005). Usually, featured articles will be presented on the front page of Wikipedia. Users who contribute to featured articles gain a huge reputation as a reward to his contribution by Wikipedia (Kuznetsov, 2006). A reputable identity could be indicated as a symbol of success and accomplishment in Wikipedia community. Wikipedians who had reputation for editing many articles are appreciated by other Wikipedians (Kuznetsov, 2006). Thus, in order to obtain reputation, Wikipedians would contribute significant content to Wikipedia.

In fact, contributing to Wikipedia is a relatively low-costs act for contributors. Anthony et al. (2009) pointed out the technology of Wikipedia can reduce the costs of modifying the article contents due to Wikipedia users being able to freely view every edits or restore the previous version of the articles and even add their own edits. According to the lower costs of contributing, Wikipedians would like to gain their reputation in Wikipedia which is well-known in the world. Therefore, the extrinsic incentive, reputation, motivate Wikipedians to do more contributions (Anthony et al., 2009).

2.1.3 Enjoyment

Except for altruism and reputation, another motivation of contributors: enjoyment (fun and entertainment) was discussed a lot in Wikipedia related studies (Lanamäki et al.). Enjoyment is one of intrinsic contribution motivations which is a positive or pleasant emotion regard to gratification and joy. According to the study of Nov (2007), fun and enjoyment were the top contribution motivations according to a web-based survey participated by 370 randomly picked Wikipedians. He voiced that personal enjoyment was the key motivation of knowledge sharing acts (Nov, 2007). Prasarnphanich and Wagner (2008) found that enjoyment represented mixed motives. Many Wikipedians contributed to Wikipedia just for the enjoyment of sharing knowledge and helping

others. Moreover, enjoyment was the secondary contributors' interests in Prasarnphanich and Wagner's (2008) study followed by feeling of self-satisfaction or self-worth (Prasarnphanich & Wagner, 2008). In addition, Lakhani and Von Hippel (2003) presented that the enjoyment was a major motive to explain the voluntarily contributing behaviours of users. They also believed that enjoyment may improve the quality of Wikipedians' contributions (Lakhani & Von Hippel, 2003).

However, it is worth mentioning that enjoyment involves not only fun and entertainment, but also includes vandalism and trolls. The purpose of Wikipedia is to build up an online encyclopedia which can be shared and copied freely for all the users (Lih, 2004). In other words, all users can edit or modify the article's contents easily in Wikipedia. Because of the free edit context, users may harm the quality contents by their pleasures, revenge, attention seeking and other reasons (Shachaf & Hara, 2010). Wikipedia vandalism and trolls have been identified that are related to Wikipedia as an entertainment venue, users can cause damage to community and others to find pleasure (Shachaf & Hara, 2010).

2.1.4 Self-development

In the open source software development, the contributor's professional skills would be gained and improved by getting feedback from faulty programming, regulations and logic (Lakhani & Wolf, 2003). Similarly, to contribute to Wikipedia would promote contributors to enhance their professional skills by creating, editing and modifying Wikipedia articles. Hence, skill and learning development become an obvious reason for contributing to an open source project (Lakhani & Wolf, 2003). Improving the contributors' own skills and learning or knowledge through contributing to Wikipedia was one Wikipedians' contributing motivation.

Prasarnphanich and Wagner (2008) concerned the heterogeneity of interests of Wikipedians, the reasons of why Wikipedians do the contribution, and are the contribution motives self were expressed in their study. A wide range of interests or benefits were investigated by 39 individual email-based surveys of Wikipedians. One of the predominantly personal interests was promoting their own learning and insights in their research results (Prasarnphanich & Wagner, 2008). The participants in Prasarnphanich and Wagner's (2008) study mentioned that they wanted to improve their language skills or repeat and consolidate knowledge they already knew by contributing to Wikipedia. In this regard, enhancing contributors' skills or knowledge motivates people to edit Wikipedia contents.

2.1.5 Improving content and non-content quality

Wikipedia provides a prominent source for many people who want to get information and knowledges in different fields and domains. The popularity of Wikipedia has attracted many researchers to investigate the different aspects of Wikipedia like the quality of Wikipedia's contents. The dimensions of content quality of Wikipedia include coverage, currency, accuracy and readability (Mesgari, Okoli, Mehdi, Nielsen & Lanamäki, 2015). Chesney (2006) presented the goals of editing and improving the existing articles of Wikipedia users were to assure Wikipedia's quality. Accordingly, Wikipedia contributors improved the accuracy of existing articles because they wanted to increase the professionalism and quality of Wikipedia articles.

The quality of Wikipedia involves article's content quality, but also non-content quality. Content quality can be categorized to growth, depth, range and reliability of contents in Wikipedia. Content quality emphasizes the encyclopedic of articles and the accuracy of contents presented in Wikipedia. The content quality of Wikipedia can be divided into six sub-streams, quality examining antecedences, comprehensiveness, currency, readability, reliability and featured articles (Mesgari et al., 2015). High quality of articles is one of the features that have made Wikipedia to become the most popular encyclopedia in the world.

The non-content quality of Wikipedia article refers to easiness of understanding, accessibility, authority as well as believability. Empirical findings from Chinese Wikipedia studies suggested that quality was important for market competitiveness, especially in the initial stage of establishing Wikipedia (Zhu, 2008). In Wikipedia, contributors establish new articles and develop existing articles to improve the non-content quality.

Wikipedia readers regard the quality of the contents to be the most important. However, readers of Wikipedia are always uncertain about content because they cannot determine the content quality by editors or publishers. (Anthony et al., 2009). The registered accounts of Wikipedia provides the contribution histories, readers can access to contributors' account information to check the contribution histories. In addition, readers may consider that the Wikipedia is a strong identity so that only Wikipedians who contribute many times can improve the quality of content (Anthony et al., 2009).

Not only readers expect high quality contents of Wikipedia, contributors also prefer to contribute to a high quality content. Because of the contributors, the perceived contents quality of Wikipedia can be higher. Generally speaking, the first edits tend to be concentrated to modify the individual articles, while normal users become Wikipedians (Bryant et al., 2005). Then their goals may expand to modify other articles. Wikipedia contributors' incentives may be transferred to the care of all quality of Wikipedia although they still improve the individual articles' content quality at beginning. Moreover, they also gradually turn to pay attention to improve the community (Bryant et al., 2005). Hence, to improve the Wikipedia quality was one of the factors encouraging users contribute to Wikipedia.

2.2 Restriction

There is no doubt that some existing restriction may lead Chinese encyclopedia contributors chose Wikipedia as their encyclopedia platform in English instead of Chinese context. Due to the same restrictions, some Chinese people would turn to contribute to a Chinese online encyclopedia platforms instead of Wikipedia, in the following sections, the encyclopedia platform most used and popular in China as well as the article content review system of the Chinese encyclopedia would be presented. The review system was one restriction factor that explained why Chinese people do not contribute to Chinese encyclopedia, but to contribute to Wikipedia. The history of blocking Chinese version of Wikipedia in China mainland was also involved in this section. The blockage of Chinese Wikipedia reduced the Wikipedia users in China mainland. Meanwhile, the development of Wikipedia was also influenced.

2.2.1 Online encyclopedia in China

While Wiki system has been developing in global environment, the Chinese online encyclopedia also came into being. The knowledge and services of Chinese online encyclopedia are also completely open to all internet users. Usually, Chinese online encyclopedia are running for-profit like Hudong Baike and Baidu Baike. Hudong Baike, of which the English name is baike.com, is an encyclopedia using Wiki system which includes the largest Chinese online encyclopedia and a for-profit social network (Hudong, 2016). Hudong Baike is known for the fact that it can be edited and maintained by all visitors, everyone can write an entry and discuss any topics there. If people find an entry which need to be improved, she or he can personally involve in the editing of the entry.

Baidu Baike is the most popular online encyclopedia in China. It is also the most popular Wiki system in China, using paid advertising. Baidu Baike is a collaborative web-based encyclopedia in Chinese language owned by Baidu, a Chinese search engine (Baidu, 2016). It has open content and aims to create a platform with knowledge covering all areas. In order to carry out various operations to Baidu Baike, users need to register a Baidu account and log in. Otherwise, unregistered users only have searching and viewing permissions.

The online encyclopedias in China all have review systems. The purpose of review system is to check if the entries contains forbidden words or topics. All Chinese online encyclopedia censors work in accordance with the requirements of the government of People's Republic of China. On the other hand, Wikipedia review mechanism focuses more on copyright protection and articles' originality, while Baidu Baike's review mechanism pays more attention to sensitive political issues. There was not any review mechanism in Wikipedia during the beginning period. In order to improve the accuracy and quality of articles and ton create a professional information environment, Wikipedia administrators implemented the rules and requirements such as the verification and peer review rules. Administrators of Wikipedia do not only check users' edited content, they can delete contents which violate copyright, and can also clearly mark out unneutral articles and contents or articles with unknown sources. (Wikipedia, 2015c.)

Some sensitive issues would be checked by the arbitration committee in Wikipedia. From this perspective, Wikipedia is a democratic and free encyclopedia platform. By contrast, the review mechanism has stricter requirements in Baidu Baike. All editorial content need to go through Baidu's internal staff manual review, if passed the internal manual review, all the submissions of edits would be acceptable. If the editing process or contents involves some sensitive issues or terms which would normally be marked. The review mechanism intends to avoid some intentional damage, but stems this kind of system mechanism is the probability that Baidu Baike, to some extent, lacks neutrality and comprehensiveness of content quality. Compared with Wikipedia, Baidu Baike is also different in organizational model and business environment which determine the review mechanism.

2.2.2 Blockage of Chinese Wikipedia in the mainland of China

Chinese Wikipedia is started in October 2002 and it is the Standard Chinese language version of Wikipedia. Chinese Wikipedia has about 848,000 articles and 481,000 registered users approximately at present (Wikimedia, 2015). In fact, the Chinese Wikipedia cannot be visited in the mainland of China, because the government

of People's Republic of China and internet service providers have applied a practice to block some contentious internet websites, and Chinese Wikipedia have been blocked many times in its history (Zhang & Wang, 2012).

The usefulness and limitations of this blocking practice for open collaboration websites undermined the development of the online encyclopedia in the mainland of China (Liao, 2013). There were three times blockage period of Chinese Wikipedia. The first block of Wikipedia in the mainland of China was June, 2004, from the second day of that month until the 21th. This blockage caused a sharp reduce of users' activeness, for example the amount of new users, articles and edits. It took Chinese Wikipedia about 6 months to recover the stats before May 2004. The second block occurred between September 23rd and 27th in 2004. Chinese Wikipedia could be visited unstably during this blockage. This blockage did not completely cut off the contacts between Chinese users and Wikipedia. The reasons of this blockage still remained unknown. The third block started on October 19th in 2005. Similarly, Chinese users also did not know whether this blockage was temporary or permanent. In addition, the reason of this block also remains mystery. On May 19, 2015, Chinese government blocked Chinese Wikipedia again in the mainland of China until now. (Wikipedia, 2015a.)

Zhu (2008) utilized the blockage of Chinese Wikipedia in the mainland of China to explore the effects between contributors' contribution motivations and many Chinese Wikipedia readers. Undeniably, the amount of Chinese Wikipedia users and their incentives of contribution to Wikipedia have been certainly influenced by the blockage of Wikipedia. Previous studies have shown that the Wikipedia users in the mainland of China has declined after the blockage. The Chinese Wikipedians' contribution interests decreased substantially when the Wikipedia was blocked (Zhu, 2008).

2.3 Summary

In this chapter, most frequently studied contributors' motivations are discussed. In addition to contributors' motivation, the history of the blockage of Chinese Wikipedia is also involved in this chapter. Based on the prior studies mentioned and explored, the motivations and restrictions can be classified into intrinsic and extrinsic ones. The method of categorizing motivation was that the contributors can be rewarded by intrinsic gratification or extrinsic awards by contributing to Wikipedia. And the restrictions were classified by factors from the contributors' own limitation and from the external contexts or conditions which the contributors could not control. Figure 3 shows the categories of motivations and restrictions.

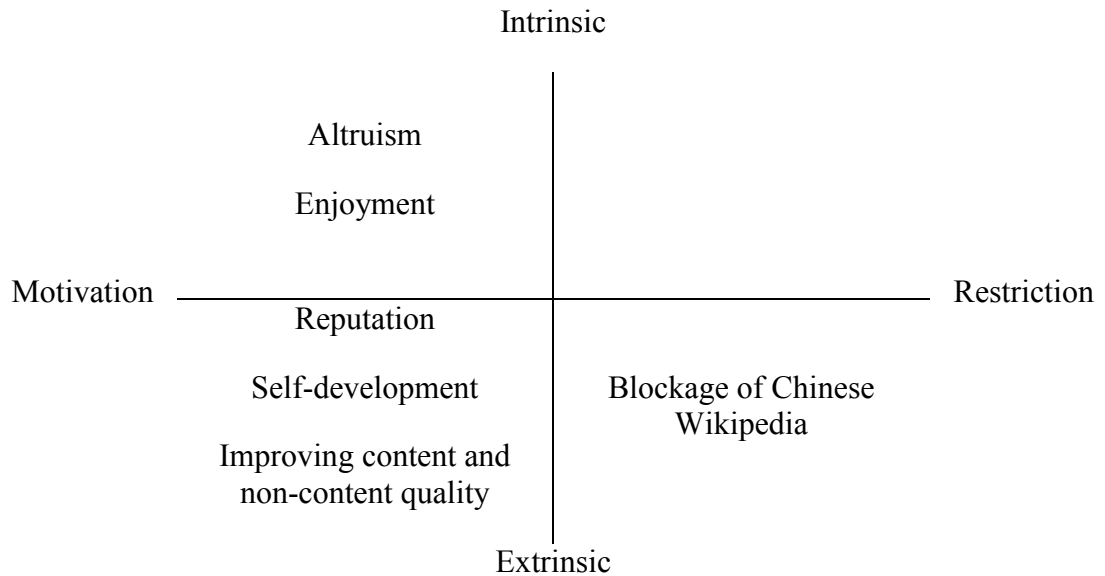


Figure 3. The category of contributor's motivation and restriction

In this study, the intrinsic motivations include altruism and enjoyment. Altruism is a personal attitude of people who are willing to help others without any rewards or benefits by contributing in Wikipedia. Enjoyment refer to people who consider that to contribute to Wikipedia and share the knowledge is fun and entertainment. As the definitions of intrinsic, altruism and enjoyment, the factors of altruism and enjoyment should be the intrinsic motivation.

Extrinsic motivation involved the reputation, self-development and improving Wikipedia and content quality in this study. Wikipedians contribute to Wikipedia can gain the reputation which can be seen as a reward for Wikipedians. In addition, Wikipedians can enhance not only their own skills or knowledge but can also improve the content and non-content related quality of Wikipedia during their contributions. For the purpose of gaining reputation, enhancing contributors themselves and improving the quality of Wikipedia, Wikipedians would like to contribute to Wikipedia.

Intrinsic restriction may relate to the Chinese Wikipedians who are not English users. However, this intrinsic restriction does not go alone with the research aim of this study due to the fact only Chinese Wikipedians who speaks English can have a motivation to contribute to English Wikipedia. Therefore, the intrinsic restriction was not considered in this study.

Extrinsic restriction is the factor that Wikipedia has been blocked in the mainland of China. There may be a number of Chinese Wikipedians intended to contribute to Wikipedia. However, the Chinese Internet block the access to Wikipedia of visitors from the mainland of China. This reason restricts Chinese Wikipedians' contribution motivations to Wikipedia.

3 Methodology

Based on the research questions, the exploratory case study was adopted to investigate the elements that influence Chinese Wikipedians' contribute to English Wikipedia. The explorative case study provides answers to research questions. The explorative research is adopted when the research questions or problems are unstructured or in early stage (Shields & Rangarajan, 2013, p.148). The findings of explorative case study should not be definite due to its statistical weakness. Whereas, the explorative research could help people to investigate why and how actions happen. In this study, the data was gathered from four Chinese Wikipedia contributors by two rounds of semi-structured interviews. The advantage of semi-structured interviews is closely related to the research topic but the more flexible, and open-ended questions can avoid the questions lead the interviewees or influence the flow of interview conversation (Antin, 2010). Both two rounds of interviews produced the data which included the asking of questions, and recordings of answers from every interviewees. During the interview, interviewer also would avoid the mistake using leading language to the interviewees (RAP, 2000).

3.1 Interview question design

For the interview design, deciding effective research questions suitable for interview implementation is the most significant step. Accordingly, interview questions should be designed carefully and accurately so that each question could allow the interviewers to get more experience or knowledge from the interviewees in order to obtain maximum and useful data from the interviews (Turner III, 2010). Open-end questions are suitable for interview and are adopted in this study which allowed the interviewees to answer the questions without confused or implied choices. For example, what kinds of articles do you edit or create in English Wikipedia? The benefit of open questions was that interviewees answered without limit so that they could present their own terms, views, values and experiences. Thus, the leading questions should be avoided because interviewees may imply different meaning in the answer.

In this study, there were several interview questions which all were open questions. According to the research area, research questions and previous studies, the interview questions were related to the motivations and the restrictions of Chinese Wikipedians' contribution in English articles. However, the interview questions cannot directly contain some leading questions like: what kind of reasons motivate or restrict you to contribute to English Wikipedia? The main research problem of this study was to explore the reasons of Chinese Wikipedians contributing to English Wikipedia which not only include the restriction aspect but also the motivation aspect. Hence, if the interview questions contain words like restrict or motivate could lead the interviewee to answer the questions.

In order to ensure the interview questions' validity in the context of Wikipedia, the quality of the questions, such as the logicity of questions and understandable wording, question design deserves extra attention during designing. Moreover, the correct and proper translation of interview questions also need to be ensured.

There were around 12 interview questions, which were divided in smaller parts. The first part is related to participants' personal background information, for instance, participants would introduce themselves at the beginning. The second part was associated with the participants' contribution experiences in Wikipedia which includes not only English Wikipedia but also Chinese Wikipedia. In this part, the questions were also connected to the years of visits and contribution to Wikipedia. In addition, questions related to participants' editing preferences were also included. The next part was the most important part which was directly connected to my research questions. Participants were asked about the motivations of contributing to Wikipedia. Additionally, as Chinese Wikipedian, the participants were also asked why they selected English Wikipedia to contribute to. The final interview questions list are attached in Appendix A.

The language used in the interviews was Chinese, because all the interviewed participants of this study were native Chinese speakers, compared with English, Chinese would be a better option. The Chinese version of interview questions were translated from English. Using native language as a communication language is better than using second languages during interview, participants were more relaxed to talk about their point of view, and thus provide this research more reliable data.

Except for designing the first round of interview questions, the second round of interview questions were partly personalized for each participants. The second round of interview questions were designed based on participants' answers in the first round. The second round of interview questions were based on the first-round questions, and were to supplement the first-round interview questions. For example, question number 3 (see Appendix A) was to ask about the reason why participants contribute to English Wikipedia. The answers of question number 3 had a large range of feedback but this study need more specific answers. Based on first round of interview questions and answers, the supplement questions were based on participants' replies in the first round. The main purpose of the second round of questions was to ask participants about some of the details in the first interview they did not explain or describe sufficiently.

3.2 Data collection

For data collection, one of the significant elements for interviews is the selection of appropriate candidates, because the suitable participants are believed to contribute more reliable and valuable information to this study. The participants were selected from Wikipedians who labelled themselves with "This user lives in the People's Republic of China" showed on their own user pages. In Wikipedia, there is a category of Wikipedians in the People's Republic of China (see Figure 4). Registered user who label themselves with living in the People's Republic of China were listed by English alphabetical order in this page (see Figure 5). The candidates of this study were selected from the list of these labeled Wikipedians. The first step was to check the whether the candidates' contact information is available. Some candidates have contact information in their user page like email address, Skype contact information or Tencent QQ account number. Tencent QQ is a Chinese instant messaging software which is widely used in the mainland of China.



Figure 4. Category of Wikipedians lives in the People's Republic of China (Wikipedia, 2015b).



Figure 5. List of Wikipedians lives in the People's Republic of China (Wikipedia, 2015b).

Afterwards, the Wikipedia search function was used to confirm if the users' contributions has reached the candidate selecting requirements of this study. The requirements of the candidates' contribution were that candidates must have contributions to English Wikipedia articles. Most of the candidates only had contributions to Chinese Wikipedia even with only few contributions to Wikipedia. After a huge amount of filtering work, the candidates were selected. The next step was to send interview invitations to the candidates.

Inviting candidates to join in the interviews was a challenge. Although some candidates had their personal contact information in their user pages and also allowed Wikipedia registered users to send the Wikipedia mails to them, the percentage of response of the interview invitation was quite low. Thirty two invitations were sent via personal emails, Wikipedia mails, Skype and QQ messages, which briefly described the research purpose. Once, there was a participant suspected my purpose when he received my interview invitation, after I provided to him my study place and my personal information, he agreed to participate in my interview. Finally, there were six candidates who replied the invitations but only four candidates agreed to participate in the interview. All of the four participants have been contributing to English Wikipedia for over two years, also, they have experiences in contributing to Chinese Wikipedia.

Though the process of selecting and inviting suitable participants was difficult and the replies to the interview invitations were few. There were four Chinese Wikipedians who like to participate in the interview without any rewards. After making interview appointments with each participant, the next step was to run the interviews.

3.2.1 First round of interviews

When all the preparation was finished, the first round of interviews were scheduled and finished. The interviews were conducted via QQ or Skype instant messenger, each interview cost about 30 minutes. During the first round, more attention was paid to the reasonability of the interview questions and the communication skills with interviewee was necessary. However, the inexperienced interviewer and interviewees might have some influences to the whole interview process. Firstly, the participants were asked some general questions, such as personal information and Wikipedia contribution experience. Then participants were asked the designed questions (see Appendix A) which were related to the motivations of contribute to English Wikipedia. These questions were open-ended, the participants were allowed to express their viewpoints without any limit. Moreover, the translation of the interview transcripts were finished after each interview.

When the first interview of the first round was finished, the order of the interview questions and logical consistencies of interview questions can be implemented in the rest of interviews. So, the rest first-round interviews was carried out with the schedule. When all interview questions had been asked, the interview transcripts were reviewed and translated.

3.2.2 Second round of interview

When some of the answers from participants in the first round of interviews were unclear, the second round interview were arranged to enable participants to explain some unclear answers in the first round of interviews, also some questions were asked to promote participants to provide deeper or more detailed answers.

The process of the second-round interviews were relatively simpler than that of the first round, especially the process of selecting suitable participants, thanks to the experiences of doing the first-round interviews. The second-round interviews were only implemented with the participants who attended in the first round. The re-contacting method of participants who need to participate in second round interview was the same as that of the first round. Participants were easily agreed to participate in the second round. Like in the first round interview, the second round interview still used Tencent QQ or Skype as communication tools. Compared with the first round of interviews, the time of second round interview was relatively shorter, each interview only took 10-15 minutes. The answers of the second-round questions were designed to be more particular, because the second round interview was meant to be the complement data collection of the first round interview. Moreover, the interviewees were required to add some explanations to their answer in the first round interviews.

3.4 Data analysis

Data analysis is the most complicated but important of all phases of an academic research, and is also the one that receives the least considerate discussions in the research (Thorne, 2000). Most data analysis methods like grounded theory, case-method and taxonomic analysis concentrate on the categorizing the different fractions of conservation by presenting answered ideas, meanings and symbols from interview recordings (Antin, 2011). This study intended to explore the factors why Chinese Wikipedians contribute to English Wikipedia. So, the collected data from all individual interviews would be related to participants' own opinions and their behaviours in Wikipedia context. In addition, the participants' answers must be related to the reasons why they contribute to English Wikipedia. According to participants' behaviours and the analysis of their behaviours, as well as their contribution purpose to English Wikipedia, I mainly explored the motivations and restrictions of contributing to English Wikipedia.

After all transcripts had been collected, the data analysis were proceeded by identifying conceptual categories. The data analysis methods were in following part. During the first phase of analysis, the themes such as motivation or reason of contributing to English Wikipedia were extracted from participants' own descriptions. In the second phase of analysis, the data collected from participants, related to the reasons of Chinese Wikipedians contributing to English Wikipedia have been categorized into motivation and restriction based on participants' descriptions. At each step, my purpose was to sort and identify different themes.

In general, all interview participants were active in Wikipedia for at least 2 years, the duration of participants using Wikipedia ranged from 1 year to more than 4 years (See Table 2 and Table 3). Table 1 and 2 shows the distribution of the interviewers' personal background and the years of contributing to Wikipedia which not only include Chinese Wikipedia, but also Wikipedia in other languages. Wikipedia has been established for over 14 years before the interview's implementation.

Table 2. Personal background information

Education background	Number	Age	Number
High school or lower	0	Under 20	1
Bachelor's degree	3	20-29	2
Master's degree	1	30-39	1
Doctoral degree or above	0	Over 40	0

Table 3. Experience of contributing to Wikipedia

Years of Experience	Number
Less than 1 year	0
1-2 years	1
3-4 years	1
More than 4 years	2

Moreover, all the participants' personal information is showed in Table 4.

Table 4. Participant information

Participants	Gender	Education background	Age	Years of experience
Participant 1	Male	Bachelor's degree	20	2
Participant 2	Male	Bachelor's degree	26	5
Participant 3	Male	Bachelor's degree	24	3
Participant 4	Male	Master's degree	30	6

In this study, the reasons of the participants contributing to English Wikipedia were provided in each interview. The data collected in this study was categorized. According to the background chapter of this study, the interview transcripts related to the reasons of Chinese Wikipedia users contributing to English Wikipedia were mainly categorized into two parts: motivations and restrictions (See Table 4 and Table 5).

Table 5. Contributors' motivations

Contributors' Motivations	Sample Comments
Altruism	"The purpose of improving the quality of Wikipedia articles is to help others to get right information or knowledge."
Build up reputation in large social community	"The English Wikipedia has large number of audiences which is more than Chinese Wikipedia, if I have some contribution in English Wikipedia, more people would know me."
Self-development	"I want to practise my English by reading and contributing to English Wikipedia."
Improving content quality	"I want to improve the quality of English Wikipedia's articles." "I want to improve the accuracy of English Wikipedia's articles."

Based on the participants' opinions, the motivation-related aspects were classified into four types. Altruism, build-up reputation in large social community, self-development and improving content quality, which were identified by participants' interview transcripts. Actually, the motivation categories were classified by some key words from interview transcripts. For example, one of the participants mentioned that contributing to English Wikipedia is to help others. According to the definition of altruism,

contributing to Wikipedia for helping others should be classified into altruism. The same methods were used to classify other three types of contributors' motivations.

Table 6. Restrictions

Restrictions	Sample Comments
Blockage of Chinese Wikipedia	“The simple reason is that the Chinese version Wikipedia is blocked.”
Source limitation	“When I edited some fields’ articles, it was really hard to find a Chinese source to support.”

The restriction-related aspects were divided into two categories: the blockage of access to Chinese Wikipedia of visitors from the mainland of China, and the limitation of Chinese article sources. The method of defining these two restrictions was the same as the method used in deciding the categories of motivations. However, the answers related to restriction aspects were more direct. For example, the participants pointed out the blockage of Chinese Wikipedia restricted them to contribute to English Wikipedia. The detailed explanations of each motivation and restriction categories would be presented in next chapter.

4 Findings

This study was an explorative case study. In this section, the results of data analysis based on two rounds of interviews would be presented. The motivations and restricting factors of Chinese Wikipedians contributing to English Wikipedia would be indicated in following parts.

According to the motivation and restriction classification in background section, the findings also can be categorized into intrinsic motivation and extrinsic motivation and restriction in this study. In total there were six findings which were classified into three categories. There was not any findings related to intrinsic restrictions in this study. The intrinsic motivation was altruism, while extrinsic motivations include building reputation in large community, self-development, improving content quality, and the extrinsic restrictions were the blockage of Chinese Wikipedia and source limitation.

4.1 Motivations

This study explored how Chinese Wikipedia contributors' motivations impact their contributions to English Wikipedia. For instance, users may contribute to Wikipedia due to extrinsic and intrinsic benefits or rewards. Participants in this study with various incentives tended to contribute in different ways. The different motivations may present differential effects on contributions of Chinese Wikipedians to English Wikipedia. My participants had much to say about their experience in Wikipedia and their purposes of contributing to English Wikipedia. There were four main motivations which participants identified to describe their incentives of contributing to English Wikipedia.

4.1.1 Altruism

Altruism, in this study, has positive effects on Chinese Wikipedians' contribution to English Wikipedia. Some Chinese Wikipedians do not expect any rewards from contributing to Wikipedia because they wish to help and give. According to the definition of altruism, Chinese Wikipedian's altruism had the following features in this study: Chinese Wikipedians were voluntarily contributing to English Wikipedia without any expecting of rewards, such as honours or prizes. The pure altruistic sense of Chinese Wikipedians motivated them to contribute to Wikipedia and to thus deliver benefits to the readers or other contributors. Usually, they did not consider if any loss can be caused by helping others.

One of the participants mentioned that to improve the accuracy of Wikipedia articles would help readers to get more reliable information or knowledge. And because the number of users of English Wikipedia is bigger than that of Chinese Wikipedia users, more people would get information from a large community, if the Chinese Wikipedians contribute to English Wikipedia. For participant 2, the most important purpose of contributing to English Wikipedia was

Participant 2: "Everything in the world is not perfect whatever it is. Anything probably has some errors. Wikipedia is the same. The purpose of improving the

quality of Wikipedia articles is to help others to get right information or knowledge. My goal is to make Wikipedia articles more accurate, so that people who read Wikipedia articles will not get the wrong information or knowledge. In fact, Wikipedia has a large number of active every-day users. I hope Wikipedia articles are without any inaccurate information.”

In addition to help Wikipedia readers by improving the accuracy of Wikipedia articles, another participant narrated that some Chinese Wikipedians intended to do more contributions and preferred to share knowledge in a large social community. Therefore, users of Wikipedia could obtain more knowledge from Chinese Wikipedians’ contributions in English Wikipedia.

For participant 1 and 3, the purposes of contributing to English Wikipedia were

Participant 3: “Chinese Wikipedia has fewer readers than English Wikipedia. If I contribute to an English article which has more readers, thus more people would get information than if I contribute to a Chinese article which has fewer readers.”

Interviewer: “Would you talk about why you do not contribute to Chinese encyclopedia and Chinese Wikipedia?”

Participant 1: “Actually, compared with Baidu Baike, Wikipedia is more powerful in the domain of encyclopedia. I also contribute to Chinese Wikipedia, but English Wikipedia has more visitors and users than Chinese Wikipedia, if I contribute to the articles related to Chinese culture or current news in English Wikipedia, more people all over the world would know more about Chinese culture. That help others to get to know Chinese culture.”

Commonly, all public project participants like Wikipedia editors are with most non-utilitarian mentality. Altruism is more likely to be the rewards of spiritual satisfaction, Chinese Wikipedians do not want to get any material benefits through contributing to English Wikipedia. Moreover, Chinese Wikipedians agree with Wikipedia as a free editing and knowledge-sharing platform, so they are willing to spend their time or efforts in contributing to English Wikipedia without rewards in return. Altruism, in this study, belongs to intrinsic motivation. When Chinese Wikipedians contributing to English Wikipedia, they are following their internal pure altruistic sense.

4.1.2 Building reputation in large social community

Chinese Wikipedians can benefit from contributing to English Wikipedia by gaining reputation in the community. Reputation in Wikipedia can be displayed by the Wikipedians’ contribution history, for example, edited the featured articles means the gaining of vast reputation. Editing history of every article in Wikipedia could be viewed by every user. Meanwhile, users could see the identities of Wikipedians who had contributed in each article. Unless the contributors were not logged in or registered, the name would be replaced by the IP address in the contribution history. To reward prominent contributors, Wikipedia even presented a list that showed the top 1000 Wikipedians with their contributions. Thus, Wikipedians can build up their reputation according to their contributions in Wikipedia articles. The contributors’ motivation that drives Chinese Wikipedians contribute to English Wikipedia is to gain the reputation

because English Wikipedia has more audiences than Chinese Wikipedia. Many contributors will become registered users because they intend to build up reputation. Moreover, registered users can build up their reputation by their contribution records displayed in their own user page.

In this study, Chinese Wikipedians' motivations such as building reputation by contributing to English Wikipedia was a main element. The benefits of gaining reputation could bring Chinese Wikipedians to contribute to English Wikipedia. English Wikipedia is a larger social community than Chinese Wikipedia, gaining reputation in a larger social community was better than in a smaller one.

Participant 3's presentation also supports that some Chinese Wikipedians intend to do more contribution in a large social community for the building of reputation. The main purpose of Chinese Wikipedians contributing to English Wikipedia was

Participant 3: "The English Wikipedia has large number of audiences which is more than Chinese Wikipedia, if I have some contribution in English Wikipedia, more people would know me and my contributions."

Compared with English and Chinese Wikipedia, the number of registered users and page views of English Wikipedia is bigger than those of Chinese Wikipedia, which means that English Wikipedia has a larger number of audiences. Under this circumstance, Chinese Wikipedians would like to pick English Wikipedia to contribute. Furthermore, building reputation in a larger social community was related the extrinsic motivation in this study. Because reputation is an external reward for Chinese Wikipedians.

4.1.3 Self-development

Chinese Wikipedians could practice and develop their own skills via contributing to English Wikipedia. Indeed, building up one's own skills can be sorted to the self-development factors in this study. Contributing to English Wikipedia can bring benefits, such as skill development, to a part of Chinese Wikipedians. Thus some of Chinese Wikipedians are motivated to contribute to English Wikipedia. Particularly, some Chinese wikipedians intend to practice their English skill through contributing to English Wikipedia. One of the participants presented that his motivation was to improve his English skill by contributing to English Wikipedia.

Participant 1: "I want to practice my English by reading and contributing to English Wikipedia."

In addition to improve participants' own English skills, Chinese Wikipedians also want to enhance their own learning or skills by contributing to English Wikipedia. To participant 4, his contribution could improve his skill of language editing while contributing to English Wikipedia. His motivation also was related to self-development.

Participant 4: "Personally, I think creating a new article is a good start for editing. Contributors can naturally learn the structure of the articles and almost editing language which would be used. At the beginning it may need more patience than contributing to other existing articles, but when I think others would view the content which I edited, I feel my editing work is worth the toil."

When people discussing some things together, usually, there are some different opinions. Similar situation can be experienced and observed in the discussion and editing between Wikipedia users. English Wikipedia has large amount of audiences and contributors. More users would like to communicate in talk page, which is a discussion page. Wikipedians normally use talk pages as their main communication channel. In addition to talk pages related to articles, Wikipedia also provides discussion pages which are connected to the registered user pages and zone of community. These discussion pages are built for Wikipedians to discuss the policies, user help and general Wikipedia issues. (Bryant et al., 2005.)

When Wikipedians communicate and discuss with others, their communication skill would be improved. Some Chinese Wikipedians intend to improve their communication skill by contributing to English Wikipedia and communicating with other contributors and readers. In this study, one participant's most important reason of contributing to English Wikipedia was

Participant 3: "Moreover, I can communicate with others which means I can improve my skills of how to communicate with others."

Chinese Wikipedians contribute to English Wikipedia not only to improve their English writing skills, but also the editing ability and communication skill. To improve one's own skills, some Chinese wikipedians would contribute to English Wikipedia. In other words, self-development is the motivation of some Chinese Wikipedians' contribution to English Wikipedia. Furthermore, self-development is an extrinsic motivation in this study. Because improving one's own skills and knowledge were the external rewards.

4.1.4 Improving content quality

The content quality of Wikipedia articles are important to article audiences. Chesney (2006) voiced that the high quality of information usually has all or part of the following features: relevant, up-to-date, economic and accurate, and the high quality information should be convenient, understandable and on time to audiences on Wikipedia. The information characteristics above are also connected with Wikipedia context, especially information accuracy. In fact, Wikipedia articles' contents cannot be absolutely correct, although Wikipedia is an authoritative and academic information platform. Therefore, improving content quality has become a motivation to Chinese Wikipedians to contribute to English Wikipedia.

In this study, one of the participants pointed out that his purpose was to make Wikipedia articles more credible and reliable. When contributors review an article they may realize that there were incorrect contents or other issues. Fortunately, contributors were familiar with this uncorrected part of contents, they would naturally have a desire to improve the article by modifying the faulty parts. Increasing the accuracy and reliability of articles motivated interview participant 2 to contribute to English Wikipedia. Wikipedia is the most widely used online encyclopedia in the world, the correctness of the articles is significant to readers. Inaccuracies of the articles would reduce the reliability of articles. For participant 2, the purpose of contributing to English Wikipedia was

Participant 2: "I want to improve the quality of English Wikipedia's articles. I also want to improve the accuracy of English Wikipedia's articles."

Participant 2: “For me, it is a very natural thing to use Wikipedia. Using Wikipedia to search for professional terms in foreign languages was my initial intention. After using Wikipedia, I was used to Wikipedia as the information platform. Wikipedia is not perfect, though. When there was something not perfect, I clicked the “Edit” button to make the article better than before.”

Alternatively, some readers probably consider that accuracy is an essential requirement for each Wikipedia article. So those readers expect that more high quality content contributions can be contributed by Wikipedians. Hence, making highly reliable contributions were the purpose of Chinese Wikipedians contributing to English Wikipedia. At the same time, Chinese Wikipedians also hope English Wikipedia readers to read high quality contents.

Participant 2: “My goal is to make Wikipedia article more accurate, so that people who read Wikipedia articles do not get the wrong information or knowledge.”

To improve English Wikipedia articles’ contents quality motivate Chinese Wikipedians to have contributions in English Wikipedia. This contributors’ motivation brings benefits to Wikipedia and other users thus this is an extrinsic motivation.

4.2 Restrictions

In prior studies, there were no large number of studies about restrictions of people contributing to Wikipedia. Through the interviews of this study, two main restrictions that cause Chinese contributors to turn to English Wikipedia were hypothesized and tested. Furthermore, these two restrictions presented the factors effecting Chinese Wikipedians contribute to English Wikipedia. Meanwhile, the reasons why Chinese Wikipedians do not contribute to Chinese Wikipedia was also involved. Both of the two restriction elements will be explored in the following parts.

4.2.1 Blockage of Chinese Wikipedia

Chinese Wikipedia is blocked to users and contributors in the mainland of China due to the Great Firewall of China (GFW) issue. GFW refers to the multiple internet censorship systems established in the Chinese jurisdiction internet by the People's Republic of China government. Generally, the main functionalities of GFW include automatic internet content filtering, censoring and monitoring in China. The GFW system consists of computer hardware, software and network equipment. GFW is well-known by blocking famous non-Chinese websites including Facebook, YouTube and Chinese Wikipedia. If people living in the mainland of China try to visit the Chinese Wikipedia, they are suggested to use Virtual Personal Network (VPN), Secure Shell (SSH), Shadowsocks (SS) or other network tools and servers. People need more efforts and time to visit Chinese Wikipedia than English Wikipedia due to GFW. Therefore, people with advanced English language abilities and skills would chose to view or contribute to English Wikipedia articles. (Bu, 2014.)

About the GFW in China, participants talked about their opinions

Participant 1: “...as all we know, Wikipedia is blocked by GFW. So, every time, when people want to visit Wikipedia or other international website they need to

use some tools. For people who are living in the mainland of China, to visit Wikipedia is more complex than people from other part of the world.”

Participant 2: “Chinese Wikipedia has been blocked, that is too bad. People living in the mainland of China cannot visit Wikipedia.”

Participant 4: “Actually, Wikipedia is a good place for people to know things like some contentious articles. It is really unfair to Chinese internet users that Chinese government blocked Wikipedia.”

Since Chinese Wikipedia has been blocked, the numbers of visitors and users of Chinese Wikipedia relatively reduced, comparing with when people had free access to Wikipedia (Zhu, 2008). When a large number of potential readers cannot access Wikipedia, such as Chinese users restricted to visit the Chinese Wikipedia, some users will discontinue to contribute to Chinese Wikipedia due to the decrease or loss of interest. Meanwhile, the most sociable Chinese Wikipedians who were the most active users would feel discouraged by the blocking of Chinese Wikipedia. Therefore, part of disappointed Chinese Wikipedians would turn to contribute to English Wikipedia. After all, there was not any restriction to access to English Wikipedia which has more visitors and users, including Chinese Wikipedians.

In this study, one participant talked about why he contributed to English Wikipedia

Participant 4: “When Chinese Wikipedia was blocked, I started to contribute to English Wikipedia. So, the simple reason for me to contribute to English Wikipedia is that the Chinese version of Wikipedia is blocked. ...Another reason is that users of English Wikipedia are from different countries, the viewpoints of these users are more diverse and wider than that of people in China.”

Compared with English Wikipedia, Chinese Wikipedia is lower in article’s quality and number. Based on this reason and the blockage of Chinese Wikipedia, some Chinese Wikipedians would like to contribute to and visit English Wikipedia. On the other hand, some Chinese encyclopedia contributors would be more inclined to write popular science instead of contents with controversial politics opinions due to the Chinese government policy, which is also a reason that causes the lower quality of articles in Chinese encyclopedia. In addition, because of the neutrality of Wikipedia, audiences and contributors can learn a lot from the sensitive articles about people or organizations. In the political and historical topics, Wikipedia contributors are without prejudice when they edit those articles.

Indeed, a major reason of the impeding of Chinese Wikipedia development is the government of People’s Republic of China blocked Chinese Wikipedia. The blockage of Chinese Wikipedia is long-term, consistent, self-contacting by Chinese internet services provider. Although Https encryption can still be used in the browser which is a technique to help people to visit some blocked website, access of visitors from the mainland of China to Chinese Wikipedia is totally blocked. However, methods like Https encryption are unstable, probably Https encryption could not be able to function in future. Additionally, it seems like only few articles in other languages version of Wikipedias have been blocked. The blocked part only has small influence to Wikipedia users. But, all the articles of Chinese Wikipedia have been blocked and this blockage brought a certain influence to Chinese Wikipedia users.

4.2.2 Source limitation

Wikipedia articles should have reliable and published sources, if a topic has no reliable sources, the topic cannot be published as an article in Wikipedia (Wikipedia, 2016b). According to this norm of Wikipedia, the contributors should verify their contributions to each article. Normally, contributors would use some site sources or journal articles to support their contributions. In the instruction of Chinese Wikipedia, there is a very detailed guideline which indicate the requirements of qualified sources.

Using non-Chinese sources in Chinese Wikipedia is allowed. But most Chinese Wikipedia audiences are Chinese or people who can understand Chinese, Chinese sources are more convenient and understandable to the readers. A better choice is to use Chinese references which are given more priority as an option than non-Chinese references. When Wikipedians contribute to Chinese articles, if the quality and reliability of sources of the article in Chinese and other languages are the same, the Chinese sources would be preferentially adopted. For example, non-Chinese newspaper news are not recommended as a source unless contributors cannot find any related sources in Chinese. However, the non-Chinese source are also expected to follow the conformance requirements of Wikipedia's verifiability principle, which must be followed by Chinese source as well. (Wikipedia, 2016c.)

In this study, participant followed the source principles of Wikipedia which cause the main reason of contributing to English Wikipedia

Interviewer: "Could you tell me the reason why do you contribute to English Wikipedia?"

Participant 4: "...And people who edit Wikipedia are suggested that it would be better to use sources to support their contribution, except for original contents. When I edited articles in some certain fields, it was really hard to find a Chinese source to support my edits. Then I selected English Wikipedia to contribute to, after all, in some fields, there are more sources in English than in Chinese."

In addition, Wikipedia is a multilingual encyclopedia program, most of the same topic articles have multiple versions in various languages, which can be found through cross-language links. Articles with the same topic in different languages have respective contributors. It is not necessary for all languages version should be remained the same words or style although the articles should substantially have the same content finally. In addition, the expansion of new ideas and content through the multi-language translation of articles with the same topic will benefit Wikipedia. In different versions of Wikipedia in diverse languages, some of the Wikipedians have efforts on the translation work, which is to expand the number of articles or produce the same articles in different languages. Thus, translating articles was one type of Wikipedians' contributions in Chinese Wikipedia, but there has some source requirements when Wikipedians doing translation contribution.

In this study, one participant talked about his opinion when he translated some other languages articles to Chinese Wikipedia.

Participant 2: "Although, the translated articles can use the original source to be the reference. For Chinese audiences who do not understand English or other languages, the original sources of translated article are not helpful."

The original sources of translated articles in Chinese Wikipedia are not helpful to audiences who do not understand the original language. From this representative, Chinese Wikipedians expect the language of source should be consistent with the article's language. In addition, it is hard to avoid that the translated articles from other languages to Chinese probably contain some mistakes or errors, no matter if they are translated by Wikipedia's professional translators or other professional or unprofessional translators. Generally, the readers of Wikipedia should be given the access to confirm the source information of articles. The information should be compliance with the original context of the article or be issued by a trusted agency and translated correctly from other languages. Wikipedia audiences or contributors should be able to confirm the accuracy of the articles' contents.

According to the Wikipedia norms, some rules should be followed when the documents were cited as a source was not published in Chinese. Wikipedians are suggested to use translated references with direct links to the original sources, otherwise only translation editions released and published in official sources, rather than translations done by editors themselves. If the contributors of Wikipedia want to cite the reference translated by themselves, the original contents of their translated reference should also be clearly stated, so that readers can confirm the meaning of original contents and check the accuracy of translation. Based on those reasons and to reduce the check work of audiences, when the sources in Chinese were in shortage or if they are not good enough to support Chinese Wikipedians to contribute to Chinese articles, Chinese Wikipedians who have advanced level of English language would choose English articles to contribute to.

5 Discussion

Chinese Wikipedians' contributions to English Wikipedia are related to various motivations and restrictions. This study aims to explore the motivations and restrictions that lead Chinese Wikipedians to contribute to English Wikipedia. Working with the collected data, there were six findings addressed to the research questions: what are the motivations that Chinese Wikipedians contribute to English Wikipedia? And what kind of restrictions lead the Chinese Wikipedians to contribute English Wikipedia?

The findings are based on four semi-structured interviews and can be summarized as below: (a) **altruism**, which especially means helping others to know more information or knowledge without any rewards or benefits; (b) **building reputation**, especially in a larger social community such as English Wikipedia, which has a larger number of audiences. Chinese Wikipedians turn to English Wikipedia to build more reputation; (c) **self-development**, Chinese Wikipedians intend to enhance their own learning and skills by contributing to English Wikipedia; (d) **improving content quality**, Chinese Wikipedians intended to improve content quality of English articles by fixing inaccurate information; (e) **blockage of Chinese Wikipedia**, Chinese government blocked Chinese Wikipedia but not English Wikipedia; (f) **source limitation**, when sources in Chinese are insufficient or not strong enough to support Chinese Wikipedians to contribute Chinese Wikipedia articles, Chinese Wikipedians who have advanced level of English language will choose English articles to contribute to.

Figure 4 shows the categories of all findings of this study by the intrinsic and extrinsic framework. In Figure 4, findings already been explored in other researches are in bold fonts. Altruism, self-development, blockage of Chinese Wikipedia were consistent with the previous findings. Parts in normal font are the different concept between this study and previous studies. There was not any findings related to enjoyment in this study. In prior Wikipedia-related studies, reputation is identified frequently as a contributor concept. Whereas, these studies only proved people gain their reputation in a community whether is large or small. This study support this argument that building up reputation is one of the motivations of Chinese Wikipedians, but it is also emphasized that Chinese Wikipedians are motivated to contribute to English Wikipedia because they may intend to build up reputation in a larger community. The italics part displayed a new contributor restriction concept which haven't been found out in any prior studies.

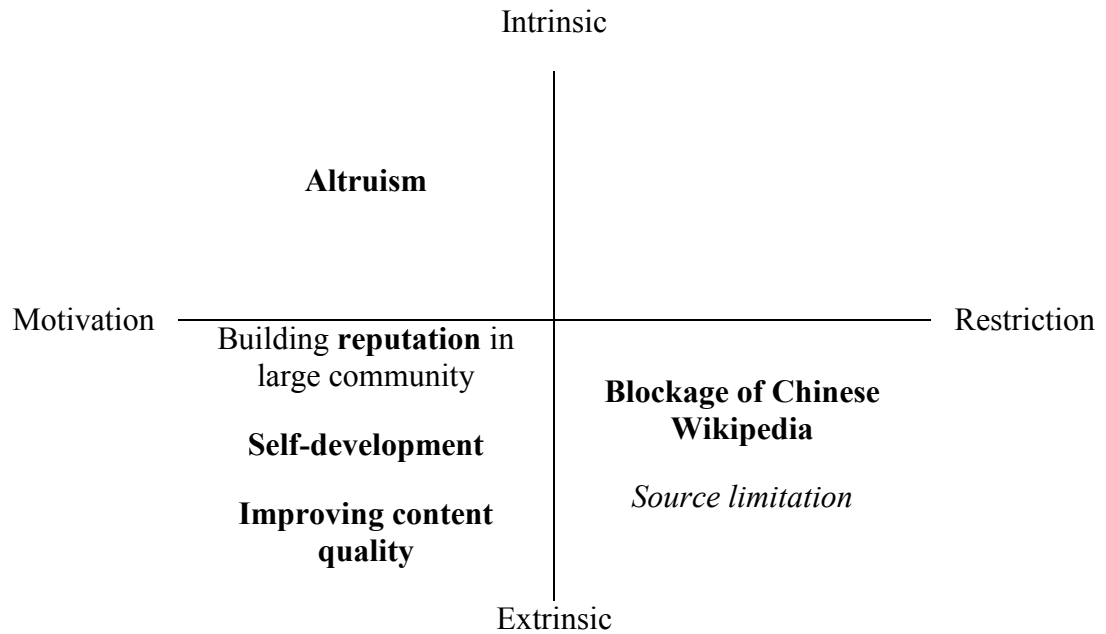


Figure 4. The category of findings

The findings of this study support and extend the findings of prior researches on Wikipedians' motivations. Although hundreds of Wikipedia contributors' motivations were classified, this study only explored a small number of contributors' motivations. In this study, it is found that some Chinese Wikipedians do not expect any external outcome such as rewards from their contribution in Wikipedia because it is their only wish to help or bring some knowledge to others. Indeed, Chinese Wikipedians voluntarily contribute to English Wikipedia without expecting any material rewards. The pure altruistic sense of Chinese Wikipedians motivate them to contribute to Wikipedia and thus bring benefits to the readers or other contributors. This finding was consistent with Kuznetsov's (2006) result about altruism, altruistic behaviours may cost huge time and effort into Wikipedians' contributing work but they never desire for compensation such as rewards.

Compare with Cho et al.'s research (2010), which presented altruism as one of the intrinsic motivational factors in the studies, and identified altruism to be importantly relevant to attitudes toward information sharing or knowledge sharing on Wikipedia (Cho et al., 2010). The contribution behaviours in Wikipedia would generally become an act that help others who need to obtain knowledge and information without any compensation because Wikipedia would not offer any momentary reward or benefit to Wikipedians (Cho et al., 2010). Similarly, this study also suggests that Chinese Wikipedians contribute to English Wikipedia without obtaining any monetary benefits.

Nov (2007) also surveyed the Wikipedians' contribution motivations, and supported the belief that altruism was represented by sharing knowledge of contributors to others. Though these two studies considering contributors' altruism presented by sharing knowledge in Wikipedia, Chinese Wikipedians who participated in this study did not indicate that their purpose is to share knowledge simply by contributing to English Wikipedia. Their goal was to improve more accurate contents of Wikipedia articles to help others, therefore people do not get the wrong or confusing information from Wikipedia. Consequently, although there were little differences with previous studies,

Chinese Wikipedians' altruistic behaviours in English Wikipedia were almost the same with previous studies.

On the other hand, the benefits of gaining reputation could motivate Chinese Wikipedians to contribute to English Wikipedia. From Chinese Wikipedians' point of view, English Wikipedia is a larger social community compared with Chinese Wikipedia. To build up reputation in a larger social community was an extrinsic motivation for Chinese Wikipedians. This finding goes in line with Anthony et al. (2009) study that Wikipedians can benefit from their contributions through gaining the reputation in the community.

Ciffolilli (2003) indicated that Wikipedians' reputation is building up by the number of edits. Reputation is developed according to the participation and contribution each times, even the potential participations in Wikipedia can also build up reputation (Ciffolilli, 2003). In the researches related to open source software development, the reputation is one key factor to participants. Oreg and Nov (2008) argued that building up the personal reputation is the most significant motivational factors for individual and higher than other factors effected to participation. Building up the personal reputation in open source area was related to personal achievement which was the expectation of participants (Oreg & Nov, 2008). In this study, extrinsic motivation positive effect Chinese Wikipedians to gain their reputation in a large social community. Although both Chinese and English Wikipedia were open source software, English Wikipedia is larger than Chinese Wikipedia on number of users and page views.

Chinese Wikipedians are found out to have been contributing to English Wikipedia with their own purposes. However, they did not contributed to English Wikipedia out of fun and entertainment. Although prior studies on Wikipedian's contribution motivation investigated enjoyment was a huge motivation, no evidence of findings related to enjoyment was found in this study. Nov's (2007) research also indicated personal enjoyment as the main motivation for knowledge sharing. Prasarnphanich and Wagner (2008) found that enjoyment represented mixed motives, many Wikipedians contributed to Wikipedia, shared knowledge and helped other just for enjoyment. However, Chinese Wikipedians also try to help others in Wikipedia but their motivations were not involved with enjoyment of contributing to English Wikipedia. Shachaf and Hara (2010) identified that Wikipedia users may harm the quality contents by their pleasures, revenge, attention seeking, and other reasons. Wikipedia vandalism and trolls have been identified to relate to Wikipedia as an entertainment venue, in which users can cause damage to community and others to find pleasure (Shachaf & Hara, 2010). About vandalism and trolls, Chinese Wikipedians did not present any intentions in their contributions to vandalize Wikipedia.

Chinese Wikipedians are developing their own skills during the process of contributing to English Wikipedia. Particularly, some Chinese Wikipedians intend to practice their English skills through contributing to English Wikipedia. Additionally, Chinese Wikipedians also would like to enhance their own learning or skills in their fields by contributing to English Wikipedia. In this study, participants' contributions could help themselves to improve their skills as well as language editing while contributing to English Wikipedia. These extrinsic contribution motivations were related to self-development. Consistent with Kuznetsov's study (2006), the motivations of the majority of contributors to participate in online projects can be funneled down to learn new skills. Prasarnphanich & Wagner (2008) indicated that one of the personal interests of Wikipedians was to improve their own learning and insights. The findings of this

study which are related to self-development can provide support to these previous researches.

In order to improve the accuracy and reliability of the articles, Chinese Wikipedians contributed to English Wikipedia when they found the contents quality of Wikipedia articles were not sufficiently accurate or correct. Prior studies on Wikipedians' motivations related to the improvement of the quality of Wikipedia concerned both content quality and non-content quality. In this study, I only found out that to improve the articles' contents quality motivates Chinese Wikipedians to contribute to English Wikipedia.

Ciffolilli (2003) indicated the content quality of Wikipedians' contribution was influenced by the sense of responsibility. In Wikipedia, many Wikipedians' personal user page showed the quality of their contributions. Generally speaking, the first edits tend to be concentrated to modify the individual articles, while normal users become Wikipedians (Bryant et al., 2005). Then their goals may be extended to modify other articles. They continue to improve individual articles content quality at the beginning, but their motivations may be linked to the regard of the quality of Wikipedia in general. They may also pay their attention to improve the community (Bryant et al., 2005). Bryant et al. (2005) also presented the contributors' motivation was to improve the content quality of Wikipedia. They also introduced why the Wikipedians try to improving the quality. Therefore, Wikipedians not only create the contents of Wikipedia, but also enrich, modify, develop and discuss the contents which are relevant to the improving of quality of Wikipedia (Stvilia, Twidale, Smith & Gasser, 2008).

As prior researchers found that altruism, reputation, enjoyment, self-development and improving content or non-content quality were the most significant factors which motivate people to contribute to Wikipedia, I extended the findings to find out the restrictions of Chinese Wikipedians contributing to English Wikipedia. The restrictions included the fact that Chinese government blocked Chinese Wikipedia, and the source limitations of some Chinese articles. There was no prior study that consider about any restrictions which lead Chinese Wikipedians contribute to English Wikipedia. Therefore, my research results fill the knowledge gap in the domain of Wikipedia contributor research.

Due to the nature of research design and theoretic framework of this study, no intrinsic restriction was taken into consideration in this study. From the perspectives of Chinese Wikipedians, the intrinsic restriction is the internal or personal factor which restrict them to contribute to English Wikipedia. The participants of this study did not state that their contributions to English Wikipedia were according to their own lacking or limitations. Consistent with previous studies, the intrinsic restriction is not a factor that effect people to contribute to Wikipedia.

Although Chinese Wikipedia has been blocked in the mainland of China, Chinese Wikipedians still contribute to Wikipedia by their own will. They choose to edit English Wikipedia instead of Chinese Wikipedia. The Chinese contributors' motivations were decreased obviously after the Wikipedia was blocked (Zhu, 2008). In this study, some of Chinese Wikipedia presented that they turned to contribute to English Wikipedia instead of Chinese Wikipedia because of the blockage. Although the contributors cannot visit Chinese Wikipedia due to the blockage, people who intend to contribute to Wikipedia still can choose Wikipedias in other languages as an option to continue their editing.

Previous Wikipedia-related studies utilized the source as a measurement for the quality of Wikipedia. Yet no researches considered that the source limitation would be a restriction that drives people to contribute to Wikipedia, but in a better-sourced version. In this study, when the Chinese site sources were lacking or not good enough to support Chinese Wikipedians to contribute to Chinese articles, they would turn to contribute to English Wikipedia. The source limitation was an extrinsic restriction factor. When Chinese Wikipedians found that English Wikipedia can be easily contributed due to the fact that sources in English can be easily found. About source limitation, not any literatures has evidences showing that source limitation would restrict people to contribute to Wikipedia.

5.1 Implications

People have different motivations to contribute to Wikipedia. Meanwhile, some restrictions also would affect people to contribute to Wikipedia. Chinese Wikipedians' motivations and restrictions to English Wikipedia of this study have implications for practice. Understanding that motivations and restrictions can help the research of cross-linguistic participation: people contributing to Wikipedia in a language other than their mother language. For instance, the research of why Japanese Wikipedians contribute to English Wikipedia.

The restrictions found in this study can provide the several insights to support the research on the negative impacts of Chinese internet blockage. For instance, the impacts for Chinese internet users are visiting the some famous international website which are blocked as well as the development of open source software in China, which may hinder the development of open source software industry.

In addition, source limitation was an extrinsic restriction which drives Chinese Wikipedians to contribute to English Wikipedia. This kind of situation may also happen when people try to contribute to a Wikipedia article, but he or she can only find the source in one language. For example, when some Wikipedians want to edit a Japanese Wikipedia article, there was not sufficient source in Japanese to support their contributions, they only can contribute to English Wikipedia.

5.2 Limitations

There were some limitations of this study. Resource limitation and inexperienced interviewer would make the results of this study less reliable. The study results are limited by a small number of interviews too. However, this study was an explorative case study which aimed to investigate the motivations and restrictions of Chinese Wikipedians contributing to English Wikipedia. The findings of explorative case study should not be definite due to its statistical weakness. The small amount of the interviews conducted indicates that there might be some other factors related to Chinese Wikipedians contribute to English Wikipedia, but was not able to be covered by this study. Although I believe that the four interviewees in the two rounds of interviews were playing with the strengths, taking against the weaknesses; I can bravely assume that there could be other factors related to Chinese Wikipedians' motivations and restrictions to English Wikipedia.

Due to the fact that this was my first time adopting the method of interview as a source of data collection, another limitation of this study is the absence of pilot tests so that the

validity of interview questions might be affected. Furthermore, almost all of the interviews were implemented by using instant message applications. Thus the results of the interviews conducted in this study were not good as my pre-study expectations. The other limitation was the lack of the participant selection and inexperienced interview skills, which may cause some shortcoming of this study. Filtering suitable participants was ineffective before I found the right way. Once, I only checked the candidates' contact information was available or not, I did not consider about the contributors' practical contribution in English Wikipedia.

5.3 Future research

Both the findings and limitations of this study can contribute to future studies. Motivations of contributors of Wikipedia still is an interesting topic to be further studied, perhaps in some more specific contexts. Besides, as the number of interviewees were less than expectation in this study, future researched may want to consider about recruiting more participants to be interviewed. I believe there are possibilities that if more Chinese Wikipedians talk about their purposes or reasons to contribute to English Wikipedia, more motivations and restrictions will be identified and investigated, because the data collected can be of a wider range and a bigger size. Furthermore, instead of virtual interviews via messaging tools, face to face interview can be considered as another option in future researches.

This thesis can also introduce many interesting opportunities for future researches. More future researches could focus on the motivations of Chinese Wikipedians contributing to non-Chinese Wikipedia. Besides, researches comparing virtual interviews and face-to-face interviews can be conducted in the future. Also, researches on how a researcher can efficiently and effectively recruit interviewees through instant messaging can also be made.

6 Conclusion

The main goal of Wikipedia is to be an encyclopedia platform which is free, understandable and reliable. Users from different places not only can share and contribute human knowledge to others but can also benefit from others' contributions. Kuznetsov (2006) mentioned "The virtual realm of Wikipedia rewards its participants in ways that are unmatched by most establishments in the non-virtual world". Wikipedia contributors enjoy to contribute to Wikipedia and thus gain a sense of achievement from it. Wikipedia users benefit from Wikipedia thanks to the free and ease-to-use contexts. Wikipedia users represent reciprocity and collectivism in the encyclopedia community. Wikipedians also benefit from their knowledge sharing behaviours in Wikipedia such as self-gratification, reputation and self-development. (Kuznetsov, 2006.)

At the same time, voluntary participants are playing an essential role in the Wiki system. Indeed, Wikipedians are quite important for Wikipedia. The encyclopedia are developing rapidly through voluntary participation, especially encyclopedia contributors. Wikipedia is the free encyclopedia that everyone can contribute to, and is one of the most successful encyclopedia in the world. While Wikipedia has been the subject of this study, more attention has been given to investigating Wikipedia contributor's motivations. (Lanamäki, 2013.)

However, the Chinese Wikipedian's motivations or restrictions to contribute to English Wikipedia with little attention, especially restriction aspect. Hence, the purpose of this thesis was to explore the factors which motivate or restrict Chinese Wikipedians to contribute to English Wikipedia. Two research questions help me to realize Chinese Wikipedians' motivations and restrictions: what are the motivations of Chinese Wikipedians contribute to English Wikipedia? And what kind of restrictions lead Chinese Wikipedians to contribute to English Wikipedia? This study was an exploratory case study with two rounds interviews with four Chinese Wikipedians'. The interviews, including their recordings and transcripts were investigated to find out and identify motivation factors and restrictional elements which are associated with the reasons why Chinese Wikipedians contribute to English Wikipedia.

In this study, the four participants were expected to reflect what incentives them to contribute to English Wikipedia. Totally there were six findings which were classified into three categories: intrinsic motivation, extrinsic motivation and extrinsic restriction. No findings related to intrinsic restriction was found in my study. The intrinsic motivation was altruism, the extrinsic motivations were building reputation in large community, self-development, and improving content quality, and the extrinsic restrictions were the blockage of Chinese Wikipedia and source limitation.

Chinese Wikipedians who wish to help others without any rewards contributed to English Wikipedia based on their altruistic thoughts. Meanwhile, I found that Chinese contributors who are likely to gain reputation and improve own skill or content quality react to contribute to English Wikipedia. Moreover, gaining reputation in a large community also helps to explain why many Chinese contributors motivate to contribute to English Wikipedia. As Chinese Wikipedia has been blocked, some Chinese Wikipedians chose to contribute to English Wikipedia instead of Chinese Wikipedia. In addition, while the Chinese site sources were lacking or not strong enough to support

Chinese Wikipedians to contribute to Chinese articles, Chinese Wikipedians who has advanced level of English language would choose English articles to contribute to.

The motivations and restrictions of Chinese Wikipedians contributing to English Wikipedia explored in this master thesis provided a reference for the research on cross-linguistic participation in contribution motivation of Wikipedia. The restrictions of this study also can provide the several insights to the negative impacts of Chinese internet blockage.

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Appendix A. List of interview questions

1. Please introduce yourself. What is your name and how long have you been active in Wikipedia?
2. The reason why do you contribute to Wikipedia, have you ever contribute to other encyclopedia?
3. The reason why do you to contribute to English Wikipedia?
4. What kinds of articles do you write?
5. Do you also contribute to Chinese articles in Wikipedia, Why?
6. What are the benefits for you during editing the English Wikipedia articles?
7. Have you ever create a new English article which only has Chinese version before in Wikipedia?
8. Do you prefer to edit and contribute the existed articles or create new articles in Wikipedia, why?
9. What kind of reason makes you decide to be Wikipedian?
10. What is your opinion that Chinese Wikipedians contribute and edit English articles in Wikipedia?
11. What is your opinion that PRC block the Chinese Wikipedia, it will effect the Chinese to edit the English Article or not?
12. Do you know other Chinese users who contribute to English Wikipedia?