PONTUS WALLIN

AUTHORITARIAN COLLABORATION

Unexpected effects of open government initiatives in China
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Abstract

There is a recent emergence of open government initiatives for citizen participation in policy making in China. Open government initiatives seek to increase the level of participation, deliberation and transparency in government affairs, sometimes by use of Internet fora. In contemporary political science the introduction of these initiatives in authoritarian contexts has been described as a paradox of authoritarian deliberation. This thesis uses cybernetic theory, perspectives of information steering in all systems, to resolve the paradox and present a new view on authoritarianism and autocracy. A cybernetic definition of autocracy allows for an analysis of different types of autocracy in different models of governance. The theoretical tools developed are used to define and assess the potential for democratic autocracy, representative autocracy, deliberative autocracy and collaborative autocracy in online open government initiatives in China.

The argument of the thesis is that these initiatives must be understood within the environment in which they are introduced. In the case of the Chinese online environment, individuals often have limited possibilities of acting anonymously. To explore how online identity registration affects citizens, a lab-in-the-field experiment was set up. Chinese university students were invited to engage with a government sponsored online forum under conditions of both anonymity and identity registration. Previous research suggests that anonymity would lead users of online fora to be more active and produce more content. This hypothesis was partly proven false by the experiment. This study shows that users who have their identities registered, sometimes even produce more content. The study also shows that registered users tend to act against their own preferences and participate more in nationalistic debates. The concluding discussion is focused on the wider implications of these effects. If citizens are incentivized to channel their dissatisfaction as loyalty, rather than voice or exit, they might become complicit in sustaining authoritarianism. Interviews with experiment participants show that open government initiatives primarily enable deliberative and collaborative autocracy when introduced in the Chinese online environment. This has the potential of increasing the amount of dissatisfaction that citizens channel as loyalty via mechanisms of authoritarian collaboration.

Keywords

Autocracy, authoritarian deliberation, cybernetics, open government initiatives, lab-in-the-field experiment, online anonymity, China
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1. OPEN CHINA?

1.1. Introduction

In 1978 Deng Xiaoping initiated a general policy recommendation for the reform and opening\(^1\) of China, which since then has become somewhat of a political mantra for the Chinese government (Saich 2004). So far the policies of reform and opening have mostly been directed at the economy (Lai 2010, Li and Fang 2013), but in recent years there have also been some interesting developments in political reform.

Recently there are those in China, like in the United States and other places, who argue that the popular mobilization of citizens on the Internet can be utilized for the benefit of better governance.\(^3\) In 2008 the Chinese government adopted a new piece of administrative legislation that translates into *Regulations of the People's Republic of China on Open Government Information*.\(^4\) This legislation states that all parts of the Chinese government, from the central to the local level, have to answer to inquiries from citizens. The new government

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1 Chinese language content will be presented in footnotes throughout this thesis. I will exclusively use simplified Chinese characters.
2 改革开放
3 In a report to the Standing Committee of the National People's Congress, Mr. Wang Chen, director of the State Council Information Office made the following statement: "Internet has provided a convenient and quick channel for the Party and the government to understand social conditions and the popular will, and to stay closely connected with the people. It has played an important role in helping the Party and the government to fulfill people's wishes, meet their needs, and protect their interests. It has raised the standard of our efforts to rule in accordance with the law, to rule scientifically, and to rule democratically, and has advanced the construction of our country's socialist democracy." (Wang 2010)
4 中华人民共和国政府信息公开条例
regulation specifically prescribes that government bodies should set up online fora to facilitate citizens' easy access to government information (Horsley 2007).

Of course there can be doubts about how genuine the intentions behind this new law is. It has been suggested that it is simply an attempt by the Chinese government to live up to transparency requirements set by the WTO (Chen 2012, Yu 2011). Yet there are indications that parts of the Chinese government have genuine interests in enforcing this legislation for a variety of other reasons (Hubbard 2008). Whether the Chinese government has the capacity to implement this policy is another question. So far there have been a wide array of impediments to effective implementation (Piotrowski et al. 2009, Zhou 2003). What is interesting to note is the way in which Chinese citizens have reacted to this initiative. The introduction of the law has stirred up a renewed debate about transparency and public participation in government (Horsley 2007).

In the most far-reaching efforts to open up to citizen participation, citizens are not only allowed access to government information but are also given the possibilities to comment and give their views on policy proposals. This has led some researchers to argue that we are witnessing something of an anomaly or even paradox of authoritarian deliberation in China (He and Warren 2011, Jiang 2010). They suggest that the emerging Chinese model of governance is different from other mixed forms of contemporary authoritarianism such as electoral authoritarianism (Schedler 2010), competitive authoritarianism (Levitsky and Way 2010) and illiberal democracy (Zakaria 1997). The suggested difference is that China should not be regarded as a transitional regime of some dynamic form of authoritarianism (He and Warren 2011). Instead China has launched reforms that, in line with the analysis of Andrew Nathan (Nathan 2003), might increase the resilience of authoritarian rule (see also Gandhi and Przeworski 2007).

Over the last decades experiments in public participation and deliberation in China have been carried out in many ways. The inclusion of a variety of interests outside of the communist party into the policy debate has sometimes also been described as consultative authoritarianism (He and Thögersen 2010). The inclusion of these interests has taken place at everything from physical local public fora (He 2007, Leib and He 2006, Ergenc 2014) to

---

5 Resilience as defined by Samuel Huntington as “consisting of the adaptability, complexity, autonomy, and coherence of state organizations.” (Huntington 1968).

6 There are also those who argue that resilience through strategies of public participation is not necessarily a new phenomenon in China (Shi 1997).
online government portals and fora (Schlæger 2013, Jiang 2007, Komreich, Vertinsky, and Potter 2012). As the Internet is in itself sometimes regarded as a type of democratizing and liberalizing technology (Groshek 2009, Diamond and Plattner 2012), the recent introduction of online government fora has deepened the debate about an alleged paradox of democratic innovation under authoritarian conditions (Xiao 2003). Observers of Chinese politics have reformulated and further discussed the paradox in terms of networked authoritarianism (MacKinnon 2011) and authoritarian informationalism (Jiang 2012).

Of late, the paradox of authoritarian initiatives of online public participation and deliberation has been lifted to the analysis of global comparative politics. Recent studies have shown that authoritarian states are sometimes rather active in introducing online fora for engaging citizens (Åström et al. 2012, Linde and Karlsson 2012). Suggested explanations have been that such fora provide important tools for authoritarian regimes to control citizens’ Internet use (Karlsson 2013). There are also those who suggest that authoritarian regimes open up for public deliberation to disorganize citizens and appease opposition (Chen and Xu 2013). If such explanations are valid, they serve to add to existing knowledge that authoritarian governments may sometimes use online fora for internal control of government organizations and employees (Kluver 2005). This strengthens the notion that a tendency of contemporary authoritarianism seems to be the promotion of participation but the demotion of contestation (McMann 2006, 180), and that open government initiatives can be a practical way to do this (Jayasuriya and Rodan 2007).

The aim of this thesis is to add to the debate about possible workings of fora for online public participation in authoritarian states in general and in China in particular. The ambition is to help nuance the somewhat heated popular debate about whether the Internet is mainly good (Shirky 2009) or evil (Morozov 2011), and to add empirically and theoretically to the more critical debate about open government initiatives in general and how they play out in non-democratic environments in particular (see Kalathil and Boas 2003, Wright 2012, Dahlgren 2005). Research is slowly emerging about the effects and side effects of open government initiatives (Malesky, Schuler, and Tran 2012, Lord 2006, Tan 2014, Lorentzen, Landry, and Yasuda 2014). I hope to add much needed knowledge about how open government initiatives fall out in online environments where Internet users cannot rely on the possibility of acting anonymously, such as in China (Deibert 2012, Herold and Marolt 2011). In light of recent revelations about online surveillance, the issue of integrity of personal data in online communication has become a very important topic for research.
1.1.1. What is open government?

At the end of the last century there were high hopes for what the Internet might do for business and politics. In business the bursting of the dot-com bubble proved that these hopes were perhaps somewhat inflated. Just like the dream of e-commerce would have to be reconsidered by the turn of the century, so would the dream of e-democracy (Lugo 2005). At the time it seemed as if there were not to be any profound changes in the way business and politics were organized. Many early IT companies filed for bankruptcy and proponents of e-democracy had to consider that they might be fighting for a lost cause. But beneath the surface things were starting to change. Maybe changes did not occur in the way that people had imagined at the height of the so-called Internet revolution of the nineties. As is sometimes the case with innovation, changes happen in a way that might be difficult to comprehend and predict at the time.

Just as with e-commerce, one of the main misconceptions about e-democracy was probably that things would change within existing structures of representative institutions (Norris 2001). Another mistake was for believers in e-democracy to have an over-belief in technological solutions that were simply not good enough at the time. Finally, perhaps like in business, proponents of e-democracy were perhaps pushing for solutions that did not have popular support among citizens unaccustomed to such solutions. Many early experiments with e-democracy subsequently failed (Chadwick 2008). But perhaps we are now beginning to see some delayed political effects of the introduction of the Internet.

In business it is now sometimes irrelevant to talk about participants simply as consumers. In some markets the so-called consumers no longer only consume, but invent, produce and market goods and services all at once. An example of this can be taken from the infotainment market where television might represent the old and online video sites the new. In the twentieth century people adapted to a technology where they could choose between a limited number of shows distributed by television networks. If consumers were dissatisfied they could switch to another channel or switch off the television set. If consumers of television felt inclined to do so, they could make the effort to write a letter of complaint to some central authority and hope that such suggestions would be taken into account. With substantial personal sacrifice individuals could participate in the production of the shows on TV only by devoting their professional careers to this line of work.

Nowadays there are those who argue that the consumer has also become the producer in some markets (Hesmondhalgh 2010, Ritzer, Dean, and Jurgenson
There is an infinite number of shows to watch and participants of these markets can rate shows and write comments that will be of importance for the wider distribution of the content material. In addition to this the whole structure of some markets is based on collaboration. The consumers are also expected to produce content and thus the neologism prosumer\(^7\) has emerged to describe the market function of the combination of consumers and producers (Ritzer and Jurgenson 2010). This notion has traveled into politics and some argue that citizens nowadays engage as consumers to produce political outcomes (Micheletti 2003, Micheletti, Føllesdal, and Stolle 2003).

The recent interest in collaborative governance and open politics arguably stems from the above way of reasoning. In his 2006 book *The wealth of networks* (Benkler 2006), Yochai Benkler uses the example of television versus the Internet to illustrate how individuals are changing their behavior from passive consumers to active co-producers of information, knowledge and culture. Benkler goes on to conclude that the phenomenon of Wikipedia serves as a good example of the untapped potential of collaborative self-governing social structures on the Internet (Benkler 2006). These arguments have later been used for innovations in government in the United states under the Obama administration’s ‘Open government initiative’ (Noveck 2009, Coglianese 2009). The general term of open government has been used to discuss how to increase the level of government transparency and citizen participation (Gascó-Hernández 2014, Bowles 2014, McDermott 2010). Some of these works have moved the discussion away from how the Internet can be used in government, to how the Internet enables new models of governance. As such the Internet is merely seen as a facilitator of more fundamental social and political changes of more inclusive government and increased possibilities for citizen participation, deliberation and collaboration (Lathrop and Ruma 2010, Harrison et al. 2012). Open government is in this way seen as the information revolution for government and politics by use of information and communication technologies. I will define open government initiatives as the attempt to improve the flow of three types of information: on the input side of government, increasing the possibilities for citizen production of information; on the throughput side of government, increasing the possibilities for citizens to engage in the legislative process; and finally on the output side of government, making information available for citizen consumption (Papadopoulos and Warin 2007). In sum, open government initiatives can be said to constitute the experimentation with increasing government participation, deliberation and transparency.

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\(^7\) First coined in 1981 by Alvin Toffler (Toffler 1981).
The contribution of these works on open government might have been inspiring for some, thought provoking for some, or simply disregarded as nonsense by others. Regardless of such sentiment it is interesting to note that some of these ideas have now, in a rather short period of time, become a reality for initiatives in institutional innovation in many places, not least in China (Qiang 2007, Zhang and Zheng 2009).

1.1.2. The case of China

Accepting the most fundamental observation that the Internet has somehow changed the dynamics of politics, would also have to imply an acceptance that any such changes are dependent on the spread and popularity of Internet use. The number of users globally has virtually exploded from sixteen million in 1995 to almost three billion in 2014. In recent years one area in the world where the increase has been especially astonishing is China where the total number of Internet users now exceeds six hundred million. This means that China nowadays not only hosts a fifth of the world’s population but also a fifth of the world’s population of Internet users.8

The rapid proliferation of the Internet in China has given rise to a vast literature about possible social and political effects. In some cases old words seem inadequate to describe what is happening, which is why new concepts have emerged. One such concept is the neologism netizen, which has been used to describe a perceived new form of citizenship in online public space. The observation is that Chinese people seem to have a big appetite for interaction in online fora (Yang 2009, Lagerkvist 2006, 2010). Sites like Tianya,9 and Sina weibo10 have become enormously popular as fora for individuals to voice their opinions in public (Qiang 2011). Although limited in their use as tools for collective action, these fora are powerful platforms for single individuals on which to voice their opinions (King, Pan, and Roberts 2013). Phenomena such as 'Human flesh search engines'11 have shown that passive citizens might turn active once mobilized on the Internet, and that they sometimes even find ways to act collectively in the offline world (Yang 2009). In these fora people collaborate to single out individuals who are thought to have behaved immoral, expose them, and make them suffer public humiliation both online and offline.

8 Statistics from http://www.internetworldstats.com/
9 天涯
10 新浪微博
11 人肉搜索
Bulletin board system (BBS) models of public fora seem to be especially popular in China, in comparison to other places (Jin 2008). The design of these fora makes it easy to structure content according to subject matter. Utilizing basic statistics about participation it is also possible to get an overview of hot topics and lengthy debates in these fora. This might be one of the reasons why Chinese government officials have been known to use online fora to find information about specific issues and get insight into popular opinion (King, Pan, and Roberts 2013). There have even been cases where officials have made themselves known on social media platforms, asking for policy advice or feedback (Chase and Mulvenon 2002, Florini, Lai, and Tan 2012). In recent developments many municipal governments have even set up microblogs\textsuperscript{12} to provide platforms to engage directly with citizens (Schlæger and Jiang 2014).

In China there is a tradition of petitioning - *xinfang*\textsuperscript{13}, which means that anyone who feels wronged by government, can complain at local, regional or even central levels of government by traveling to where the responsible officials are based to express their grievances (Minzner 2006). Because of popular mobilization on the Internet and easy access to government sites this phenomenon might grow in importance. It is however difficult for Chinese citizens to determine whether they have been wronged in any legal sense. The inconsistencies and obscurities in the Chinese legal code can sometimes make Chinese law somewhat unintelligible (Pan 2008). This might however also change if more legal resources are published online so that the information is made available to the general public.\textsuperscript{14} The combination of access to legal sources and government information (transparency), a tradition of voicing grievances and an increasingly strong tradition of doing so online (participation), and the growing number and size of public online fora where citizens and government officials engage and interact (deliberation), might well prove an explosive situation in the world's biggest polity.\textsuperscript{15}

China is not the most extreme case of open government in authoritarian contexts. A hot contender for the prize might be Bahrain that received a UN reward for outstanding e-government development in 2010 and soon after used brute military force to quench popular demonstrations in the streets (Karlsson 2013). China is however a very important case for both empirical and theoretical reasons. The empirical importance of China stems from the fact that it is the largest one-party state in the world with more than one

\textsuperscript{12} Posting of very short entries or updates on a blog or social networking site (OED 2000).

\textsuperscript{13} 信访 Literally meaning 'letters and calls'.

\textsuperscript{14} See for example Peking University’s site (www.pkulaw.cn) or government sites (www.court.gov.cn).

\textsuperscript{15} Although some early research shows that the government is able to manage this development (Stockmann and Gallagher 2011).
billion people living under authoritarian rule. Any developments of governance innovation in China would thus be of great importance for the global development of democratization or authoritarian resilience (Diamond 2000). The developments in China are theoretically important because the debates about authoritarian resilience and authoritarian deliberation have been sparked by phenomena arising in China (Nathan 2003, He and Warren 2011). To some extent these theoretical concepts have been devised to explain Chinese realities. Thus to better understand and define any mechanisms related to these concepts one should begin in China.

The study of the case of China has intensified recently as it highlights a number of interesting tensions between the development of information technologies and autocracy. The notion of the ‘dictator’s dilemma’ has been widely discussed in relation to China (Best and Wade 2007, Stockmann and Gallagher 2011, Göbel 2013). Originally formulated by the former U.S. secretary of state George Shultz, the dictator’s dilemma has been described as authoritarian regimes’ struggle to grow economically through the development of information technology, while at the same time keeping public contestation and revolt, through these means, at bay (Allison 2002, 105). In a reformulation of the dictator’s dilemma Ronald Wintrobe suggests that authoritarian leaders work in an information vacuum as they have to repress citizens’ opinions to avoid opposition and contestation. Because of this repression those leaders miss out on valuable information about popular opinion about the legitimacy of their leadership and the effectiveness of their policies (Rowley and Schneider 2008, 346, Wintrobe 1998). As China is becoming increasingly developed economically this dilemma is likely to become increasingly pressing (Pei 2008).

Some researchers argue that the Chinese government is responding to this dilemma by developing new means of attaining information about public opinion (Göbel 2013). By utilizing social media and other online public fora the government can gain access to valuable information while at the same time being able to stifle contestation and revolt (King, Pan, and Roberts 2013). The interesting question is if this will work and if citizens can be expected to communicate their genuine opinions and preferences in online fora where they might face a risk of being identified and faced with reprisals by authoritarian government agencies?
1.2. Research proposition

I have now presented a body of academic literature and an empirical context to which it applies. What follows is an examination of this presentation and is to be seen as the first stage of a more scientifically minded research process. In the spirit of Charles Sanders Peirce I will use an abductive process to begin to define the research problem. This entails starting with the most elementary questions. A problem is not very easy to isolate from the solution in any given proposition. The best example of this is probably that of a riddle in which the problem is usually carefully crafted to enable the sensation of clarity and resolution when the solution is presented. When researchers find it difficult to come up with well-defined research problems, I believe it is often due to a negligence to consider the complete proposition that they attempt to put forth.

From a critical perspective, any researcher should view a proposition in its entirety, like a critic of film or literature would relate to any movie or book (Rorty 1989). Unlike movies or books, the content matter of scientific research is not fictional. The world is out there in all its dimensions and researchers have the ability to make representations of it and communicate these representations to others. The faculties of one individual’s perception, cognition and communication are however arguably relatively limited in relation to the complexity of the world. This is why one should be very critical of the way a researcher would collect, arrange and present representations to others.

The way I have thus far put forward the topic for the proposed research on open government in China is to the sharp-eyed reader not in the form of problems and solutions, but rather as a series of perceived empirical changes in the world and vague arguments about the effects of these changes. Unfortunately this depiction of change cannot and should not yet be recognized as real by the scientifically minded reader, if applying some widely accepted criteria for the appreciation of the validity of scientific propositions.

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16 Peirce suggests that researchers should work abductively. This can be resembled to playing the game Twenty questions. After having asked the most basic question the inquirer can make an assessment of the answers to figure out the second question, and in this fashion continue the search down to the minute details (Peirce, Hartshorne, and Weiss 1935).

17 Etymologically the word problem is closely related to the word proposition in that the origin is from late middle English and originally denotes a riddle or a question for academic discussion: from Old French probleme, via Latin from Greek problēma, from proballein, ‘put forth,’ from pro ‘before’ and ballein ‘to throw (OED 2000).
1.2.1. Proposition level 1 - Description

The observant reader has probably already discovered that there are several separate arguments about change in the introduction above. There are proposed changes in how the Chinese government has initiated regulations of open government. There are also proposed changes in the economic and political behavior of individuals in their roles as consumers and citizens. Thirdly I describe an intellectual change as exemplified in the works of open government theorists. Last but not least I suggest important changes because of the introduction of new technology. All of these changes are described as new phenomena and not as reversals back to some previous stage.

The most basic formulation of a problem from this backdrop would be to question whether one or all of these changes have actually taken place at all. This would bring about a research project in which I would try to apply some form of inductive reasoning to prove the existence of these changes and thus that this description of the world is indeed correct. Any solution to this problem would however be highly questionable. As long as the world is turning it will be very easy to argue that changes occur. An infinite number of alternative changes can be proved most prominent purely by the efforts that are put into finding confirmation (see Popper 1963 for a more extensive discussion on the problem of induction). The standard way of challenging such a proposition would be to question the accuracy of my perception and the tools used for investigation. Flaws could be found in how I would choose, gather, measure, sort, weight and present data.

1.2.2. Proposition level 2 - Explanation

In the introduction to the proposed research, not only do I imply that changes have taken place, but I also vaguely suggest that they are interrelated or correlated. For example I suggest that the Chinese government is adapting to changing behavior among Chinese citizens. In making propositions about any such relationship I would have to use some theoretical guidance in my deductive reasoning to explain any such correlation.

In this case my proposition might well be challenged because of the theoretically explained correlations. One could argue that anything the Chinese government does is independent of citizens’ behavior. One could also argue that it is instead actions by the Chinese government that influence citizens’ behavior and not the other way around. The most probable assumption however, is that no clear one-way correlation or causality can be found. This is
because one might expect that most societal phenomena are interrelated in numerous ways. It might therefore be appropriate to take a somewhat more holistic view where a wide variety of causes and effects are acknowledged for their possible validity in a mesh of correlations and interferences (see Quine 1951 for a more elaborate discussion on different types of propositions and holism).

1.2.3. Proposition level 3 - Prediction

An even deeper exploration of the introduction to the proposed research above reveals a vague ambition to predict. Ambitions to predict give rise to yet another level of problems. In several instances I mention possible effects of the perceived changes and their interrelations. Most notably I state that the combined effect of online legal resources, a tradition of voicing grievances and the development of public fora, could become an explosive situation. In making this statement I imply that all these changes are somehow adding up to a development in some direction, and thus this implies that the direction can be known and anticipated.

Surely it is impossible to know a future that is in constant flux due to interrelated events. It is arguably extremely difficult to predict events like the massacre at Tiananmen Square or the potential outcomes of such events. It does indeed seem vain to try to predict events that have not yet taken place. However if adopting a more critical perspective, it is possible to rephrase the problem of perceived future effects of described changes. One way of doing this is to utilize the passing of time for testing hypotheses. If there are hypotheses that predict that changes will happen, it is possible to wait for the future to prove these hypotheses wrong or right. It is also possible to use theory to deduce what would be early signs of the effects proposed by the given hypotheses. In this testing of different hypotheses a form of abductive reasoning is applied in sketching different alternative outcomes of current events that can later be tested for validity against events as they occur (see Peirce, Hartshorne, and Weiss 1935 for a more elaborate discussion of the use of hypotheses in abductive reasoning).

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18 天安门 ‘Gate of Heavenly Peace’ in the center of Beijing.
1.2.4. Proposition level 4 - Prescription

In the introduction above I make use of some value judgments. I mention that there are those who think that the principles of open government might be useful in politics and that the Internet can be utilized to promote better governance. Without explicitly positioning myself in relation to these normative judgments, I believe that they must be discussed somehow in the course of this chosen field of research. This is an aspect of scientific research that can sometimes be controversial but that I believe has to be mentioned, especially in dealing with the social sciences in general and political science in particular.

As long as a proposition is communicated to others, it is more than private contemplation. Just like in the case of a riddle, a research proposition can come prepared with a prescribed solution. In putting forward my research proposition I also seek to spark your interest. In this way I might influence your perception of the world, either by convincing you about the validity of the prescribed solution, or by forcing you to disregard, challenge or adjust some part of the proposition. This means that there will always be consequences of propositions put forth, consequences that you and I have to be aware of. If I should reach a conclusion that the argumentation for the introduction of open government is questionable, I might contribute to an incremental development toward the retraction of such initiatives (see Rorty 1998 on the ills of presenting no alternatives).

1.2.5. Assessment of the research proposition

Influenced by pragmatist debates within twentieth century philosophy of science, I believe that it is only possible to make approximations of reality (Peirce, Hartshorne, and Weiss 1935). These approximations will to differing degrees offer verisimilitude in conjectural knowledge about the world (Popper 1963). Thus I find it needless to exaggerate the meticulousness with which I could investigate the validity of propositions on levels one, two, three or four. For the sake of intersubjectivity and reflexivity, the proposition should be presented in its entirety, by including all of the levels of problems above. Thus instead of asking if there is a noticeable trend recently by Chinese government officials to refer to the concept of open government in formal statements, I believe one should dare to ask:

Is the Chinese government actively working toward implementing open government initiatives? What could be the reasons for this? What does open
government initiatives mean in the Chinese context? How do Chinese citizens react to these initiatives? What are the potential effects of these initiatives? Does this development promote good governance in China? What does good governance mean for Chinese citizens? Is this a development that is preferable given the interests of the Chinese citizenry and the Chinese government?

I believe that most of these questions are imagined even if I should only present the level one problem. By spelling them all out I might open up for harsher critique of my claims of accuracy in what I present to you, the reader. But I believe that I should invite and encourage such critique. What is perfectly clear at this point is that clarity and stringency will be lost if I seek to answer these questions all at once. It is therefore better to focus on a specific part of the proposition that is especially important for the validity of the entire proposition, or that might even be a foundation on which the whole proposition rests. The act of putting one aspect or sub-proposition in focus to test the validity of the whole proposition is the literal definition of working with a hypothesis.¹⁹

In the theoretical and empirical research for this thesis, one contextual factor has been found to be very important. This is the level of individuation²⁰ in computer-mediated communication. In the Chinese online environment, anonymity can be hard to come by. How Chinese citizens react to open government initiatives must thus be considered within a context of restricted possibilities for anonymity in online communication. Any wider effects of open government initiatives should therefore be seen in light of this important contextual factor. For this reason, a substantial part of the thesis will be devoted to the assessment of how identity registration affects Chinese citizens' participation in open government initiatives. By focusing on citizens' reactions, we hope to uncover possible aggregate sociopolitical effects and ultimately the autocratic potential of open government initiatives. This thesis will thus revolve around the following research questions:

- How are Chinese citizens' influenced by online identity registration in their interaction with open government initiatives?
- What is the autocratic potential of open government initiatives, under conditions of online identity registration?

¹⁹ Etymologically the word hypothesis derives from the Greek word ἡποτήσις, ‘foundation’ from ἦποσ ‘under’ and thesis ‘placing’ (OED 2000).
²⁰ The level of anonymity or identity registration of individuals.
1.3. Outline of the thesis

As mentioned earlier, abduction is the method of reasoning in this thesis. This opens up for a heuristic research process of trial and error where decisions are made continuously along with the theoretical and empirical investigation. This means that more specific questions, and more clearly defined hypotheses, will be raised further along the way. In particular this will become evident in chapter six where deductive and inductive methods will be combined. As the method is abductive, the preferred research method is experimental. Those readers who cannot wait for a deeper level of specificity should move directly to chapters six and seven where the main empirical data gathered for this thesis is reported and discussed. In chapter six the data consists of computer screen recordings from a lab-in-the-field experiment of Chinese citizens’ interactions with a central government sponsored online forum called E-gov forum. The main purpose of the experiment is to investigate the role of anonymity on citizens’ interaction with the specific forum. In chapter seven the data consists of post-experiment interviews with experiment participants. The purpose of this chapter is to explore the mechanisms behind any treatment effect of anonymity and to explore how participants respond to open government initiatives such as that of E-gov forum.

Before reaching the empirical discussion, the theoretical tools of this thesis will be presented and adjusted. Chapter two will be devoted to an overview of relevant theory in an attempt to debunk the notion of a paradox of authoritarian deliberation. In this chapter, new definitions of autocracy and authoritarianism are proposed to help facilitate the study of the autocratic potential within any type of governance model. Chapter three builds further on some core theoretical definitions and concepts to enable an evaluation of the autocratic potential of different models of governance that are popular within contemporary governance debates. The purpose of this chapter is to further specify the notion of open government and to explore its novelty as a model of governance. The main aim of the chapter is to examine the autocratic potential of this particular model. In chapter four the main analytical tools are operationalized for the empirical study. This chapter seeks to elucidate how to understand and measure the effects of autocracy. This is done by operationalizing the cybernetic concept of entropy. In chapter five the case is presented in more detail after which the research design is discussed. Within the methodological discussion, a special focus is put on experimental methods and Internet research. After presenting and discussing the results in chapters six and seven, the research proposition is once again discussed in its

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21 My translation of E-政广场.
entirety in the concluding chapter eight. The thesis ends on a personal note in an epilogue about one personal experience that was especially important for instigating this research.

All people who have been involved in the experiments, and who have assisted me in the data collection process, have been anonymized throughout this thesis. This has been done for ethical reasons and to allow those individuals the right not to be associated with this study in any way. Ethical considerations have been an essential part of working with this research. There are two reasons for this. The first reason is that the work with data collection was set in China where some topics are considered politically sensitive and might lead to unexpected consequences (Stern and Hassid 2012). Because the research topic could be considered politically sensitive, people affiliated with the research could therefore also risk suffering unexpected consequences. The second reason is that the applied research method was experimental. Experimental research entails a number of ethical issues. In chapter five I will discuss these issues in greater detail.

Attention to language and linguistics is an important part of this thesis. For enhanced accuracy in the use of theoretical tools, I will often seek to expose the etymological origin and semantic evolution of some of the key English concepts used. In the empirical part of this thesis I will do the same for some important concepts in Chinese, although not to the same extent. The main language resources used will be the Oxford English Dictionary OED and the Contemporary Chinese Dictionary. All Chinese language content in this thesis will be presented in simplified Chinese. For convenience I will very rarely provide any phonetic transcriptions into pinyin. I have personally done all translations.

The style of writing in this thesis has been affected by the way the research proposition was stated. I will in the remaining text try to include you, the reader, at every step of the way to maximize the transparency of argumentation. Due to this ambition, I will address you and me as ‘we’ whenever we are venturing onto a new path of argumentation. I will also try to seek out as widely shared models of logic whenever possible. Typically this will imply the use of metaphors (see Lakoff and Johnson 1980). The use of metaphors, rather than mathematical formulae, also follows a tradition of academic writing promoted by Albert Hirschman (Adelman 2013) whose writings will be used extensively later in this thesis. In line with Hirschman’s arguments presented later in this thesis, I expect any dissatisfaction that you might

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22 现代汉语词典
23 This is also because I am often referring to collective research efforts.
experience, because of this style of writing, to result in you putting down the thesis (exit), contacting me to disagree (voice), or continuing reading in discontent (loyalty). I expect the first, I welcome the second, but I reluctantly hope for the third. It might seem to be a small detail at this point, but within the context of the arguments of this thesis, it is not unimportant that I wish not to be considered the author. I am but an experimenter in thought and action and I cannot wait to hear your feedback on the experiments that we are about to embark on.
2. TOWARD A CYBERNETIC THEORY OF AUTOCRACY

2.1. Government, governance and governmentality

When I asked a Chinese friend of mine about her dreams for the future of China, she said that she first dreamed about democracy and then possibly human rights. When asked about how this would come about, my friend just told me the following idiom:

水能载舟，亦能覆舟24
Water can carry boat, also can overflow boat

She told me that the boat symbolizes the Chinese government and the Chinese Communist Party (CCP), and that the water symbolizes the Chinese people. Her reasoning was that the CCP will be able to continue its voyage only if it manages to stay clear of troubled waters and that as long as the Chinese people are at ease they will not mind carrying the CCP forward. Since the events at Tiananmen Square in 1989 many observers of Chinese politics have been trying to predict when and under what circumstances the next storm will stir that might create waves big enough to overflow the vessel of the CCP. Even if the seas might seem stormy at times we should perhaps spend a bit more effort trying to understand how the CCP manages to drift with the currents and steer clear of troubled waters.

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24 A Tang dynasty proverb recently made famous by Chen Guidi and Wu Chuntao in their book about the situation for the Chinese rural population, (Chen, Chun, and Hong 2006).
The metaphor above invites us to a definition of government where our analytical focus shifts from specific individuals and institutions to something else. In contemporary political analysis this reframing of government has often led to reformulations of the word government itself into modified concepts such as governance (see Bevir 2010 for an overview) and governmentality (see Dean 2010 for an overview).

It is clear that the concept of government is sometimes not sufficient for a proper analysis of steering forces within democratic societies. When large groups of people act collectively to change the direction of their societies, most notably through elections, but also through consumer behavior and other kinds of civil actions (Micheletti, Føllesdal, and Stolle 2003), we must come to accept that any correct analysis of steering requires considerations about how popular opinion takes shape and plays out in thought and action, individually and collectively.

Not only has this development of political analysis had implications for the way we think about democratic societies, but it has also changed the way we understand steering in non-democratic societies. In recent empirical research on Chinese politics we see a much stronger emphasis on both governmentality (Jeffreys 2009) and governance (Heilmann and Perry 2011, Howell 2004), as conceptual tools for analysis. The aim of these studies is to go beyond single individuals, groups of elites, the institutional arrangements and the organizational settings of government to shed light on broader and deeper steering forces within society.

Not only does this move toward using governmentality and governance as analytical tools imply a move away from the analysis of agency. It also implies a move away from the analysis of structure. Agency and structure are still important analytical categories but with this shift of focus they are secondary to a system level analysis. In an abstract sense the key change of perspective is a shift from an analysis of state into an analysis of flow. If we apply this very abstract way of reasoning to the task of analyzing steering in political systems we will hopefully see how it might alter our perception more concretely.

2.2. Cybernetics

The words government, governance and governmentality all derive from the Greek word kubernan, meaning 'to steer'. The same is true for cyber or cybernetics. Cybernetics is the study of regulatory or steering systems where
the general emphasis is on the steering of flows in all kinds of systems. Cybernetics as a discipline also has strong ties to systems theory and the study of complex systems (Heylighen and Joslyn 2001).

Ever since the inception of cybernetic theory, it has been thought of as a potential theory for the social sciences as well as for engineering and other fields (see Wiener 1948). Political scientist David Easton first made cybernetic theory popular as a theoretical perspective of politics in 1953. In his book *The political system: The state of political science* (Easton 1953), he put much emphasis on the concept of a 'political system'. This concept has later facilitated notions of politics as flows of different kinds of information going in and out of political systems. Ten years later, Karl Deutsch, in his famous book *The nerves of government* (Deutsch 1963), proposed a view of societies, social organizations and government institutions as made up entirely of flows of information. Because of his remarkable foresight, Deutsch can be regarded as one of the most important innovators of social science in envisioning the network society discussed extensively later on by writers such as Manuel Castells (Castells 1996, 1998, 1997). Ironically the analysis of government proposed by Deutsch, is heavily biased toward the flows of information within the specific political systems of representative democracy of states. There are however important lessons that we can learn from Deutsch if we overlook his limited empirical analysis of government institutions in the 1960's and focus on his more abstract theoretical reasoning about information, communication, power and control.

2.2.1. Systems of information flows

Deutsch argues for an understanding of societies as complex information processing machines. This analogy to the machine has been somewhat unfortunate as it has caused some commentators to disregard the proposed theoretical perspective as an attempt to explain societal phenomena by applying coherent but fundamentally unrelated theoretical models borrowed from engineering and physics (Schubert, Alker, and Zinnes 1983, 102). However, if we detach the proposed theoretical arguments from any implicit notion of physics or mechanics, we can begin to comprehend some of Deutsch's profound insights into social phenomena of complex societies rich in information flows (Schmitter 2009, 44).

Deutsch wrote his book at a time in history when machines had become omnipresent in some societies, performing a variety of tasks. What he and fellow cyberneticists noticed was a paradigmatic shift in how machines at the time were being designed and used. Suddenly machines were being updated
with self-referential steering systems that controlled their operations by internal endogenous information processing mechanisms. To Deutsch this was of pivotal importance and it would make him seek to alter our perception of intelligence, both in machines and humans. In fact one might even conjecture that Deutsch when seeing intelligence in machines suddenly became aware of what constitutes intelligence in human individuals and societies. Knowledge of the other, the intelligent machine, seems to have provoked self-referentiality in Deutsch and enabled him to take a critical view of his own cognitive faculties and processes. This could explain why Deutsch spends a substantial part of his book discussing epistemology and describing how limited we are in our logical reasoning because of our tendency to resort to mechanical, organic and historical models of thinking. He claims that these models serve as theoretical schemes from which we have great difficulties to distance ourselves (Deutsch 1963, 3-47).

When Deutsch uses the word machine it is in lack of a better word. What he really is explaining is the technological shift in machines that has enabled self-referential, autonomous or automatic systems. The shift in paradigm, that this technological development has produced, is the reason why Deutsch feels compelled to discuss societies as analogous to machines. In quoting his colleague, friend and fellow cyberneticist Norbert Wiener, he explains to the reader that the emergence of simple self-referential machines has unraveled the grammar of steering previously concealed to us but existing in biological organisms, human minds and societies (Deutsch 1963, 77). Finding this grammar of steering becomes the main goal for Deutsch. He expects that this grammar of steering is present in both individual machines and organisms, but also in collectives or clusters of machines and organisms. Because of this, he starts envisioning a learning net of self-referential and self-modifying steering systems (Deutsch 1963, 80-81).

As already noted, Deutsch’s empirical analysis is adjusted to a world of states subject to some sort of system of representative government. In this context, information has to be processed and acted upon by closed institutions at the aggregate level of some hierarchical political order, be it democratic or non-democratic. There is however no rigid ontology of actors or structures serving as the prerequisite for his theoretical discussion. Instead, it is the grammar of steering that should be viewed as stable across different and changing system configurations. One exception where Deutsch’s perspective is however less suitable or even non-applicable would be in cases where there is no apparent system in place, in situations of utter disorganization and chaos not guided by any steering grammar.
Deutsch worked with the foundations for his book *The Nerves of Government* at the same time and place as the inception of the Internet. Although his theory of social cybernetics came to be very influential during the twentieth century, maybe it is in the twenty-first century that it will really rise to maturity. Along with the proliferation of information technologies across economic, social and political systems it is possible that Deutsch’s general theory might supply us with some powerful theoretical tools for social scientific research (see Fuchs 2008).

2.2.2. Communication

Deutsch relies heavily on the communication theory of Claude Shannon who defines communication as messages produced by an information source, formed into signals by a transmitter, sent via some channel to a receiver where the signals are transformed back into messages for final delivery at a specific destination (Shannon 1948). Along the way messages might be subjected to noise as in the model depicted below.

![Communication Model](Shannon 1948, 2)

Where the pre-cybernetic model of communication would combine the information source, the message, the transmitter and the signal to define agency, the cybernetic model provides a more complex perspective. In its literary sense, agency means something or someone who manages to produce an effect. In a simple model of communication, it would be reasonable to

25 MIT in the 1950’s (Moschovitis 1999)
analyze one agent’s effect on another agent by the communication of a given message. In the more complex model of communication depicted above, we must realize that we should also expect to find some kind of agency in how information is: collected into information packets, transformed into messages, transmitted as signals, subjected to noise, received and unpacked. Furthermore any effect caused by this chain of communication in the receiving side must be evaluated by the transmitting side, thus demanding feedback that would be communicated in a similar fashion as the initial message. Therefore from a cybernetic perspective, it is counterintuitive to view agency on the transmitting side only, as agency must be understood as flows across the communication system.

2.2.3. Power and control

One of the most cited parts of Deutsch’s book is his definition of power as “the ability to afford not to learn” (Deutsch 1963, 111). With this definition Deutsch manages to change what might be a common perception of power as an asset into a definition where it is treated as some sort of cost. The motivation for this redefinition of power can be understood from the following excerpt:

A society or community that is to steer itself must continue to receive a full flow of three kinds of information: first, information about the world outside; second, information from the past, with a wide range of recall and recombination; and third, information about itself and its own parts. Let any of these three streams be long interrupted, such as oppression or secrecy, and the society becomes an automaton, a walking corpse. It loses control over its own behavior, not only for some of its parts, but also eventually at its very top (Deutsch 1963, 129).

What Deutsch here proposes, is a possible tension between power and control. Where control would be the efficient steering of learning systems of full and unhindered information, power would be the inefficient or costly steering of a system incapable of learning due to the obstruction of information. If this is indeed a correct understanding of Deutsch’s argument, we should expect power to manifest itself in systems that are losing or have already lost some part of its capacity for learning and control. As power in the form of oppres-
sion and secrecy further limits efficient flows of information, we would expect power to cause entropy\textsuperscript{26} within a system.

From a social science perspective, power and control are tricky concepts as they are both normatively charged and saturated with implicit meanings. In recent decades Gilles Deleuze has been very influential in giving the word control a specific normative charge. In his influential article \textit{Postscript on the societies of control} (Deleuze 1992) he argues that societies of control have replaced disciplinary societies as the new monster. We will come back to Deleuze’s arguments, but for now it will suffice to say that we do not subscribe to this normative use of the word control.

2.2.4. Autonomy

In relation to his definition of control, Deutsch discusses the concept of autonomy. He sees autonomy as synonymous with self-steering or self-control (Alker and Biersteker 2011, 12). Systems can be governed by autonomy where negentropy\textsuperscript{27} of information is assured by self-controlling processes in which all relevant information is picked up and fed into a system. This notion about the importance of complete negentropy of information is something that reminds us of a central tenet in many attempted definitions of democracy. Robert Dahl talks about democracy as a political system that is “completely or almost completely responsive to all its citizens” and notes that in such a system, citizens would have to be able to formulate and signify their preferences via complete freedom of expression (Dahl 1971, 2). Even if citizens feel completely free to express themselves, Dahl suggests that the political system must also have the capacity to pick up on that communication. The problem, according to Dahl, is to find a system that manages to do this in an efficient way (Dahl 1971, 91).

When working on his original model of communication, Claude Shannon sought to create models of information systems that would be perfectly efficient. His work was mainly concerned with ways to limit the amount of corruption of original messages, especially from the corrosive impact of noise. This prompted him to work on a common language for all kinds of discrete

\textsuperscript{26} Etymologically from the Greek word \textit{entropia}, meaning ‘turning toward’ or ‘transforming toward’ (OED 2000). The word is usually associated with thermodynamics where it represents degeneration, increasing disorder or chaos. In information theory it was first introduced by Claude Shannon to signify missing information (Lesne 2011). In the writings of Karl Deutsch the word denotes the more general sociopolitical effects of missing information.

\textsuperscript{27} Norbert Wiener’s concept for the reduction of entropy corresponding to increasing order.
messages. The result of his work was the invention of the digital messaging language of ones and zeroes that can serve as a carrier for all other discrete symbols of meaning. However, in the case of a situation where some information might go missing, he had to build a more complex model. If the intended meaning of a message was to be guaranteed to stay uncorrupted even though chunks of its information content was lost in transmission, an observer unit had to be introduced into the system as in the model depicted below. If the intended meaning of a message was to be guaranteed to stay uncorrupted even though chunks of its information content was lost in transmission, an observer unit had to be introduced into the system as in the model depicted below. In some system configurations an observer unit thus enables a control function to guarantee the undistorted communication of information. This might help to explain Deutsch's normative use of the word control as associated with unhindered flows of information.

28 Shannon also developed a theory about the most efficient way of sending secret information known as Shannon's maxim and a theory about the maximum amount of error free messages that could possibly be sent through any medium, known as Shannon's law.

29 Etymologically the word control derives from the Latin word contrarotulus, meaning 'copy of a roll', from contra 'against', and rotulus 'a roll' (OED 2000).
2.2.5. Autocracy

Interestingly enough, Deutsch at no point in his book mentions autocracy, and it is here that we hope to add to his analysis. If autonomy is synonymous with the permeation of self-control within a system, then the lack of self-control, or the presence of self-power, must be defined as autocracy.\(^{30}\) According to this definition and following previous arguments, an autocratic system is thus a walking corpse under the costly burden of not learning. An autocratic system is a system where entropy of information is ever increasing because of sustain effects of power. This will lead to the system level permeation of power as learning processes are inhibited by the systematic distortion of information. The mechanisms by which this might come about will be discussed in depth in chapter four.

In view of our findings thus far we are beginning to see a cybernetic theory of autocracy form into shape. This would have to be a theory where autocracy is not in agents nor in structure but in systemic configurations that corrupt and limit the full flow of information. It would also have to be a theory where micro-, meso- and macro-level instances of autocracy are acknowledged all at once to facilitate a kind of kinetic theory of autocracy.\(^ {31}\) According to our understanding of Deutsch we expect information to be obstructed by power under conditions of autocracy. This will result in entropy of information that could come to permeate the system because of sustain effects. Of course this is still only a theory about information, but because information is the stuff of all human interaction, it could possibly also be a theory of autocracy in every sphere of social and political life.

There are those who have sought to utilize this perspective in analyzing autocracy before. Most notably David Apter did so only a couple of years after the publication of Deutsch’s book.\(^ {32}\) In his seminal work from 1965 *The Politics of Modernization* (Apter 1965), Apter draws on Deutsch’s perspective to hypothesize that: “(...) different polities employ different mixtures of coercion and information in trying to maintain authority, achieve stability and increase efficiency.” (Apter 1965, 40). Apter works with ideal types to find a continuum between a perfect information system which he calls the secular-libertarian model, and a perfect coercion system which he calls the sacred-collectivity model (Apter 1965). He then proceeds to try to use these models

\(^{30}\) Etymologically the word autocracy derives from the Greek word *autokrateia*, from auto ‘self’ and kratein ‘power’ (OED 2000).

\(^{31}\) Kinetic as referring to motion or flows.

\(^{32}\) A clear reference to Karl Deutsch’s influence on Apter can be found on page 25 in the footnote (Apter 1965).
empirically in the classification and positioning of states along his continuum. Unfortunately, Apter makes the same mistake as Deutsch in trying to move too swiftly from theoretical models to empirical realities. If we read Apter as inspired by cybernetics, we should view his models as tools for analyzing autocracy on a systemic level in terms of processes or flows. They should not be used to simply analyze the agency or structure of states. As an example it is possible to imagine highly autocratic processes within states that otherwise fit into the secular-libertarian model. For this reason, there have been calls for better conceptual tools for making assessments of autocracy in multi-level systems (Harbers and Ingram 2014, Giraudy 2013, O’Donnell 1993, Snyder 2001).

2.3. Autocracy redefined

In 1973, Harry Eckstein would challenge the validity of the democracy/autocracy continuum for the empirical categorization of states. He argued that there can be many kinds of power asymmetries between or within units. In an effort to accurately analyze power asymmetries in all kinds of contexts he suggests a notion of ‘authority’ patterns (Eckstein 1973, 1149-1153). Eckstein’s analysis is different from ours in that he does not make a distinction between power and control and that he does not focus specifically on information. In addition to this, he is primarily focusing on interpersonal asymmetries, which we are not as we are indifferent to whatever is causing any obstructions of information. But in essence, he uses the concept of authority in the same way that we would, as a single instance of autocracy at any level of a sociopolitical system.

Eckstein’s work has been instrumental in moving research about autocracy away from the modernization narrative of David Apter. Focusing on single instances of authority allows for more complex analyses of mixed models of

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33 The recent debate about subnational authoritarianism is but one example of such issues (Gibson 2012).

34 The origin of the concept of authority is somewhat complicated as it stems from the Latin word augere, meaning to ‘increase’ or ‘promote’, from which also augment originates. However, judging from its spelling with ‘th’, the English word authority has possibly been influenced by the word authentic that stems from the Greek word authentikos, meaning ‘principal’ or ‘genuine’ (OED 2000). Authority in the sense of augment should be considered related to autocracy according to our way of reasoning. Authority in the sense of authentic should however not be considered related to autocracy. Because of this ambiguity we will try to avoid using the word authority going forward. Whenever we do use the word, it is in the first sense and in line with Eckstein’s definition.
steering that need not be stable in their position in any part of a democracy/autocracy continuum (Gurr, Jaggers, and Moore 1990). This enables a more complex analysis of autocracy in different parts and at different levels of a system. This shift in perspective could possibly cause some problems for contemporary researchers who persist in attempting to categorize territorially bound polities along a continuum between democracy and autocracy.

2.3.1. Autocracy vs. authoritarianism

In many studies the concept of autocracy is only loosely defined and there is often a lack of distinction between concepts such as autocracy, authority and authoritarianism (see Tullock 1987, Linz 2000, Hadenius and Teorell 2007, Diamond 2002, Levitsky and Way 2010). Sometimes autocracy and authoritarianism are used interchangeably where the lowest common denominator is that they both are used to describe non-democracy. It often happens that such a minimalistic definition is consequentially put in opposition to an equally minimalistic Schumpeterian definition of democracy, where the focus is on the existence of elections (Diamond 1999, 8, Alvarez et al. 1996, O’Donnell and Schmitter 1986, 8). As we have seen from chapter one, such simple definitions sometimes fail to explain complex situations of electoral authoritarianism (Schedler 2010), competitive authoritarianism (Levitsky and Way 2010), illiberal democracy (Zakaria 1997), and other forms of proposed mixed or hybrid regimes (Diamond 2002). In addition such definitions of autocracy fail to explain elements of inclusive citizen participation in polities where elections are nonexistent, such as under conditions of authoritarian deliberation (He and Warren 2011), consultative authoritarianism (He and Thögersen 2010) or fragmented (Mertha 2009) and soft authoritarianism (Oksenberg 2001).

Because of the emerging plethora of new definitions and conceptualizations of autocracy or non-democracy, some scholars have started to call for moderation (Collier and Levitsky 1997, Snyder 2006). Other scholars argue that all these new concepts only cloud the important and necessary distinction between democracy and autocracy (Armony and Schamis 2005). Perhaps cybernetic theory can help us revive a well-defined use of the concept of autocracy. According to what we have found so far, the concept of autocracy can be used as a theoretical tool to analyze system level mechanisms of power in all systems. As such it is applicable to all kinds of political systems including established systems of representative democrac. In accordance with

35 Although not applicable in situations of non-systematized political life and complete disorder i.e. cases of complete entropy and chaos.
Eckstein's analysis, authoritarianism on the other hand, should be viewed as a concept denoting the empirical evidence of single instances of autocracy in any system. Thus authoritarianism is not to be viewed as a theoretically derived concept but as a diagnose made from empirical findings of autocracy in specific situations and contexts. In this way, and in line with the writings of Karl Deutsch, any system that limits the full flow of information about the world outside, about the past and about itself and its own parts is at risk of being deemed authoritarian.36

2.3.2. The utility of the concept of autocracy

Depending on how we define a system, its parts and its environment, we can adopt different definitions of authoritarianism while sticking to one definition of autocracy. Typically every evaluation of 'democratic' systems has necessitated delimitations of the 'demos', meaning the people. Once the system in terms of its human constituents has been defined, it has also been deemed possible to evaluate whether the opinions of those constituents are effectively processed. However, if non-humans such as animals (Singer 1975) or future humans such as unborn babies (Kavka and Warren 1983), or humans outside of the demos or outside of the territory in which the demos resides, are also defined as constituents (Eckersley 2000), then the evaluation of democracy becomes more difficult. The key argument for the utility of a focus on autocracy is that no matter the delimitations of the system or its parts, it is always possible to evaluate instances of information distortion. If for example information about animal suffering is subject to systematic distortion, then the assessment of authoritarianism would still be relevant using the proposed definition of autocracy.

Another utility of focusing on autocracy is how the concept might help us alter our perception of participation. A common assumption in the literature on political participation is that citizen participation is always good (Gustafsson 2013, 27). One way of understanding this is that more information from more citizens will induce a better informed and democratic system of government (Pateman 1970, Verba and Nie 1987). Up front this seems to be in accordance with the general perspective of Deutsch and Dahl. But according to our definition of autocracy, more participation does not equate efficient flows of information if information emanating from those participants is somehow

36 Similarly, what is usually referred to as 'democracy' could be viewed as an attempt to define the systemic negentropy of information. In our terminology, 'democracy' should however be substituted with the more comprehensive and general term autonomy.
flawed or distorted. For this reason it is important to explore the mechanisms and effects of authoritarian participation, which is an area of research that has possibly lacked in attention (Uhlaner 2001). In the case of China such authoritarian participation has been described in terms of authoritarian communitarianism (Heberer 2009).

In her pioneering work *The origins of totalitarianism* (Arendt 1951), Hannah Arendt discusses the mechanisms by which citizens can partake in authoritarianism. Using examples from Nazi Germany and the Soviet Union, she points out that totalitarian regimes develop with the popular support of citizens (Arendt 1951, 305-388). According to her analysis, the notion of loyalty is key to understand authoritarian participation (Arendt 1951, 323). Some researchers even make the distinction between totalitarianism, where citizens are thought to be actively engaged in social tasks, and authoritarianism, where citizens are thought of as the passive subjects of political leaders (Linz 2000, 70). This is why a focus on authoritarianism might limit the study of autocracy to the actions of political leaders.

Some researchers focus almost exclusively on authoritarian leaders and their motivations, objectives and techniques (Geddes 1999, Wintrobe 1998). Although such studies add valuable knowledge to our understanding of autocracy, it might be a mistake to underestimate how autocracy could also arise from citizens' everyday actions, be it active or passive (Solnick 1998, 16). Whatever the motivations and objectives of authoritarian leaders, it is likely the everyday response of citizens to the techniques of governance, that will determine the total sociopolitical outcomes in terms of autocracy. This aspect of citizen complicity is emphasized to a higher degree in the literature on totalitarianism.

2.3.3. Autocracy and totalitarianism

The concept of totalitarianism derives from the word *totalitario* originating in Mussolini’s Italy (Wintrobe 1998). In the book *Totalitarian dictatorship and autocracy* (Friedrich and Brzezinski 1956), Carl Friedrich and Zbigniew Brzezinski define totalitarianism as a syndrome or end state of authoritarianism using the same kind of medical analogy of life, sickness and death as does Deutsch. But they also define totalitarianism as a modern phenomenon distinct from autocracy. They state that:

> What is really the specific difference, the innovation of totalitarian regimes, is the organization and methods developed with the aid of modern technical devices in an effort to resuscitate such total control in the service of an ideo-
logically motivated movement, dedicated to the total destruction and recon-
struction of a mass society (Friedrich and Brzezinski 1956, 17).

The statement above was made in a time that was arguably a very turbulent
period in political history, a decade after the fall of Nazi Germany and in the
midst of Soviet aggression in Eastern Europe, all of which might have affected
the tone of the argument. Still, if we disregard the comments about ideologi-
cally motivated movements and mass society, there is a very interesting
remaining notion about the use of modern technical devices to resuscitate total
control (or rather power according to our discussion so far). This slightly
Orwellian narrative has been echoed in recent warnings against the use of new
information and communication technologies as instruments for governance
(Morozov 2011). Even though technological tools may have been invented or
intended for more efficient communication and control, their practical use
could result in power and distorted information. Not only is this a perspective
in which authoritarianism would depend on popular support, but it is also a
scenario in which authoritarianism might depend on technological support
(Foucault, Senellart, and Davidson 2007).

Totalitarianism represents a notion of a type of authoritarianism that
somehow facilitates both high levels of centralized political power and high
levels of social organization, possibly aided by technological means. From our
cybernetic perspective this might seem like an anomaly. According to the
writings of Karl Deutsch we would expect high levels of power to lead to
entropy and possible system disintegration and decay. It is however possible
that this is only the very long-term effect of autocracy. It would be plausible to
consider both high levels of social organization in the short run and detri-
mental effects of power, in terms of non-learning, in the long run. One way
that this could come about would be if entropy could somehow be stored for
future release. This is something that we will discuss at length in chapter four.

2.3.4. Critical theory of technology

The words technique and technology both derive from the Greek word \textit{techne},
meaning 'craftsmanship' or 'art'. In critical theory there is a strong tradition of
discussing the systematization of power in terms of technology (see Heidegger
1954). In a book from 1964, Herbert Marcuse suggests that: "Technology
serves to institute new, more effective, and more pleasant forms of social
control\footnote{According to our definitions, Marcuse is really talking about power and not control.} and social cohesion” (Marcuse 1964, 11). Marcuse goes on to discuss
how individuals lose control over their own lives and are made complicit in systematic repression as they adapt to and participate in repressive technologies (Marcuse 1964, 175-182). It is important to note that technology, according to Marcuse, is not simply machines as physical artifacts. Rather, technology is discussed in a similar way to how Deutsch discusses systems as information processes. Influenced by Marcuse, Jürgen Habermas has further developed ideas about technological repression. In *Theory of communicative action* (Habermas 1984) he suggests that society, or lifeworld as he calls it, has been colonized by systems of steering media. Following in the footsteps of Marcuse, he suggests that these systems of steering media are instrumental in somehow disrupting citizens' ability to shape and share opinions (Habermas 1987, 325).

Both Marcuse and later theorists inspired by Marcuse have been accused of essentialism in relation to technology because of how they suggest that technology works instrumentally in society (Veak 2006, 73). In contemporary critical theory of technology, Andrew Feenberg has sought to loosen up this essentialist notion. Feenberg suggests that if technology is instrumental in shaping sociopolitical outcomes, this would have to be dependent on how technology is designed and applied in every specific context. Because technology can be applied in a variety of different contexts we must also have in mind that technology can be both consisting of physical artifacts, but that it can also consist of a set of rules for information processing. Feenberg suggests that it is possible to control how technology is applied and used by engaging in technological politics, in whichever context we find it (Feenberg 1995, 35).

We propose that a good way to start engaging in technological politics is to apply cybernetic theory to enable an updated understanding of power and control in all systems. From a cybernetic perspective there is no reason to expect systems to automatically repress or colonize individuals or collectives of individuals. Nor is there any reason to repeat earlier mistakes of seeking to categorize technologies in a continuum between perfect information and perfect coercion. One early example of such a tendency in relation to technology is Lewis Mumford’s suggestion that technology, or *technics* in his terms, should be considered either democratic or autocratic (Mumford 1964). Instead we should appreciate technologies as being contextually situated with the potential for both control and power (Winner 1980). If we do this, we could possibly help realize the potential for increasing the level of control in any system (Haraway 2006), thus facilitating system autonomy. In addition it

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38 Habermas use of words are revealing of how he has been influenced by cybernetics and systems theory.
would also help us to make accurate evaluations of power, and thus enable the assessment of the potential for autocracy in any system.

2.3.5. A more comprehensive definition of autocracy

Although seldom outspoken, there is often an ambition of system-wide classification within the research on non-democracy, autocracy, authoritarianism, totalitarianism and repression. This is often evident by the aspirations of researchers to classify systems as if they were homogenous entities. This has possibly resulted in conflicting ideas about the proper definition by which to classify systems. In response to this issue, a more outspoken systems approach could help to provide a more comprehensive and general definition of autocracy. A cybernetic definition of autocracy does not have to be established as an anti-thesis or residual to any definition of democracy. Neither does it have to relate to any specific empirical reality of states or technologies. A cybernetic definition of autocracy is simply – the systemic sustain of information distortion. This definition is applicable in the study of nearly all kinds of systems and it is the definition that we will be using going forward.

2.4. Cybernetic epistemology

We have already mentioned how Deutsch spends much effort discussing epistemology. Because cybernetics is the study of steering in all systems, it can also be applied to the mind itself which is why the question of epistemology is inevitable (see Bateson 1972). Not only can the mind be viewed as a system in itself but it can also be viewed as intertwined with the world it seeks to represent, its environment (Maturana and Varela 1980). This is why we must be aware of how our attempts to model a worldly system depend on available models in the mind. This move toward self-critical or self-referential reasoning is sometimes labeled second-order cybernetics (Heylighen and Joslyn 2001). When Deutsch engages in self-critique of how he is limited to mechanical, organic and historical models he is engaging in second-order cybernetic reasoning. We will try to do the same in relation to our discussion of the concept of autocracy.
2.4.1. Alternatives to dichotomies

So far we have argued that it can be misleading to try to position units of states in a continuum between any idealized notions of democracy and autocracy. There are several potential ways to move past this continuum of democracy/autocracy to arrive at a better ground from which to question these concepts. First we must conclude that both concepts are of Indo-European origin. One way to think differently about what these concepts represent would thus be to seek out other concepts, even in other languages. But as we do not subscribe to linguistic determinism\textsuperscript{39} we will seek other ways to add complexity to how we can represent political realities. To explore possible tools we will first need a slight detour of Greek semantics.

There is a distinct logic in Greek that also we have to relate to as it has traveled into English and other Indo-European languages. This is the logic of ana-, dia-, cata-, as exemplified in the concepts below.

\begin{tabular}{ccc}
\textbf{Anastrophe} & \textbf{Diastrophe} & \textbf{Catastrophe} \\
\textbf{Anagram} & \textbf{Diagram} & \textbf{Catagram} \\
\textbf{Analysis} & \textbf{Dialysis} & \textbf{Catalysis} \\
\end{tabular}

These are all concepts that we can use for sorting information around us. They all follow some logic that we have inherited down through generations. However, not all of these words are in use in our contemporary language. A quick search online suggests that the words diastrophe and catagram are rarely utilized as cognitive tools.\textsuperscript{40} Maybe this is because people have found these words to be difficult to pronounce, maybe there were other words expressing the same thing but in a better sounding way, or maybe the grammatical system of logic was not applicable to the world in a specific empirical area. Thus there might sometimes be a mismatch between the logic of cognitive tools and that of the realities of everyday life (Wallin 1980).

In simple terms: the ana- prefix denotes something whole, unitary or single; the dia- prefix denotes something conflicting, binary or dual; and the cata-prefix denotes something ordered, heterogeneous or diverse. The distinction between the three is sometimes needed to structure thought, but there are also

\textsuperscript{39} An example of linguistic determinism is the linguistic relativity of the Sapir-Whorf hypothesis that languages structure thought and that different languages thus enable fundamentally different ways of thinking (Whorf, Carroll, and Chase 1956).

\textsuperscript{40} Both of these words are found when searched on Google and are used for very specific phenomena as they were not already claimed for more general phenomena. Diastrophe is used to describe the geological phenomena of twisting of tectonic plates. Catagram has been used as the name for a brand of software.
limitations caused by this logic. As an example, the term ‘analysis’ might limit the potential for seeing duality or heterogeneity as it is mainly used to describe the clarification or disentanglement of one unit. According to our findings so far, it is possible that the research on autocracy has been unnecessarily limited to the analysis of units of states. Furthermore, we suggest that there might have been a somewhat unintentional tendency by political scientists to ‘dialyze’ state units into either democracy or autocracy. As dialysis is mainly used to describe the separation of units into two classes, it too might limit the possibilities for an accurate account of heterogeneity. The only tool left in our cognitive toolbox would then be that of ‘catalysis’. The meaning of catalysis is somewhat tainted by how it has predominantly been used within the field of chemistry, where it is used to describe a process of applying a catalyst to cause a reaction. In applied chemistry, processes of catalysis are often used to achieve transformations and produce a wide range of materials. In this sense, we can say that catalysis is a method used to unravel variety and heterogeneity.

What we have argued for is to leave the distinction between democracy and autocracy to find a more varied taxonomy of sociopolitical information systems. As we have seen, contemporary research on authoritarianism also indicates that such varied taxonomies are needed. This can be compared to how our view of nature, as divided into animals and plants, was renegotiated upon the discovery of the unique characteristics of fungi by Ernst Haeckel in the nineteenth century (Scamardella 2010). Today we have a far more elaborate classification of the living world than the three kingdoms suggested by Ernst Haeckel. His transgression of the division of animals and plants into a more complex notion of the three kingdoms has however been a crucial contribution to our proper understanding of living organisms in that it opened up for more potential categories.

2.4.2. Beyond the dichotomy of democracy/autocracy

What we propose is to update our study of politics as information systems. The update implies a move away from viewing sociopolitical information systems as divided into two empirical categories as proposed by David Apter. Instead we propose to apply the cybernetic logic of Karl Deutsch where autonomy and autocracy are more like life and death in all types of systems. This would constitute a break with any notion of societies as moving in a continuum between autocracy and democracy. From this perspective autocracy can never be used to define a system as such, but can only be used to describe a set of processes within a system. To use a metaphor from nature, autocracy cannot be used to define an organism, but can only be used to describe the symptoms of disease in that organism. Furthermore, autonomy cannot be used
to define the organism but must be limited to the description of healthy communication processes within that specific organism. From this perspective, autonomy becomes less interesting as a conceptual tool applied in empirical investigation. This is because health is not as easily defined as illness. This would thus also be a break with more recent notions about modernization and democratization where political systems are thought to move from being dysfunctional autocracies to become efficient democracies (Fukuyama 1992). Instead we must be open to investigate possible instances of information distortion in all systems. According to second-order cybernetic reasoning we must first seek out more complex conceptual tools to be able to study a complex empirical reality.

As we have seen, there are other writers who have criticized the modernization/democratization perspective in order to create improved theoretical tools. Postmodern and critical theorists, too many to mention, have questioned the health-status of representative democracies (for an early example, see Talmon 1952). There are also theorists who have questioned the status of chronic illness ascribed to some autocracies (Fishkin et al. 2010, He 2014). Furthermore, there are some theorists who have questioned the proposed cures that are usually prescribed for autocracies. As an example, John Dryzek has directed critique at the focus on competitive elections for democratization. Dryzek has suggested that there are crucial steps to be made to increase the level of deliberative capacity. He argues that this could make up for a democratic deficit caused by the absence of elections (Dryzek 2009).

This is part of a more general trend of seeking to evaluate the deliberative quality of democracy. Over the last few decades there has been an increasing interest among political theorists to evaluate the quality of communication in any analysis of democracy (Habermas 1984, Bessette 1997, Dryzek 2000, Habermas 1989). This has resulted in a number of studies that seek to elucidate how politics is debated and negotiated in all kinds of public fora in all kinds of political systems. With the rise of the Internet, this interest in deliberation has also come to include online fora (Kies 2010, Davies and Gangadharan 2009).

2.4.3. Consequences for the study of open government in China

From a cybernetic perspective we argue that there is nothing inherently ‘democratic’ about open government initiatives. Experiments with open government might well have been initiated with the ambition of increasing information flows. It must however be studied empirically whether or not information flows are actually increased or improved. From this perspective
there is no reason to be surprised by the emergence of open government initiatives in China. It must be up to empirical investigation to assess whether such initiatives promote autonomy or autocracy. There would be no reason to consider such initiatives to be inherently autocratic just because they are situated within a traditionally non-democratic context. Neither should we consider such initiatives to be inherently 'democratic'. From a cybernetic perspective, online fora are only information systems that can be infused with either control or power. By taking such a point of departure we can move on to assess the type and intensity of autocracy within these fora. In this way, cybernetic theory helps us to move beyond the notion of a paradox of authoritarian deliberation.

In the introduction to this chapter we referred to a metaphor in which the CCP was described as a boat on a sea of Chinese citizens. In calling on this metaphor, it was assumed that the CCP tries to maneuver the waters and that it tries to adapt to any changes. When we apply our cybernetic perspective to this narrative we might come to see such adaptation as a sign of control and autonomy. We could be witnessing what theorists of deliberative democracy would call efficient transmission between the civil society and the state, or ‘lifeworld’ and ‘system’ in the words of Jürgen Habermas (Habermas 1987, Dryzek 2000). Such adaptive steering would indicate responsiveness and a capacity for learning by the CCP. Some researchers argue that recent initiatives are indeed signs of an increasing degree of government responsiveness to citizens’ preferences (He 2014, Noesselt 2013).

Power on the other hand would be for the CCP to try to manage the sea for its own purposes of staying afloat. This can be done in two ways. The first would be to try to prevent any movement of currents or winds at all. The second would be to seek to direct any such movement in a way manageable for the CCP. Some researchers suggest that the Chinese government is using open government initiatives for these purposes (Chen and Xu 2013, Teets 2013). As of our previous argumentation we are primarily interested in looking for signs of autocracy. This implies that even though recent initiatives of online deliberation in China could be a sign of an ambition to increase the learning capacity of the CCP, we should still focus on how it might just be another power technique that will enhance the level of autocracy.

During the rule of the CCP there has likely often been a mix of the mentioned power techniques. One can argue that the intensive campaigning and propaganda under the leadership of Mao Zedong was an attempt to direct the popular will in a direction that would be manageable for the CCP, often including techniques to ensure high levels of citizen participation (Whyte 1974, Townsend 1967). Under the leadership of Hu Jintao and Wen Jiabao, on the other hand, there has been a deliberate focus on achieving a ‘harmoni-
ous society”, which in effect has meant avoiding any eruptions of popular will and public opinion in any direction (Zhao and Lim 2010). There are now tendencies that the techniques applied under the leadership of Xi Jinping and Li Keqiang are once again pivoting toward the mobilization of citizens in achieving the ‘Chinese dream’ (Mahoney 2014).

2.5. Conclusion

In this chapter we have utilized the cybernetic theory of Karl Deutsch to resolve the paradox of authoritarian deliberation. We have argued that an important and underestimated contribution of Deutsch is his implicit understanding of autocracy. Drawing on his definition of power, as the ability to afford not to learn, we have presented our own definition of autocracy as the systemic sustain of information distortion. This definition of autocracy helps to resolve the paradox of authoritarian deliberation as it allows for the assessment of autocracy in any system. According to our findings in this chapter, authoritarianism is contingent on autocracy and should be defined as the empirical evidence of autocracy. These definitions will be our key conceptual tools going forward. They allow us to look at governance innovations without making any ex ante judgments about them as being either inherently democratic or autocratic. All systems can be evaluated in terms of their capacity for autonomy in facilitating information flows. It is however easier to evaluate systems according to their potential for autocracy. The potential for autocracy can be assessed theoretically in any information system model. It is however up to empirical investigations to determine the level of information distortion in real world cases. By engaging in empirical research we can thus evaluate the type and level of authoritarianism.

41 和谐社会
42 中国梦
3. AUTOCRACY IN DIFFERENT MODELS OF STEERING

3.1. Applied cybernetics

From the previous chapter we know that there has been a tendency within the social sciences in general, and political science in particular, to order the empirical world of sociopolitical systems into two main categories of democracy and autocracy, with a wide variety of suggested subcategories. This division has also often been subject to normative assessments and moral sentiment, possibly diverging attention from strictly empirical investigations. Furthermore, the units subject to categorization have often been clusters of actors typically delimited by geographical space or organizational boundaries.

Informed by cybernetic theory we have come to understand that all steering systems or models of governance can be subject to different levels of power and control in how information flows are managed. From this perspective, empirical investigations should perhaps be guided by the most likely source of autocracy in any model of governance. This puts theories of good or effective governance, what is usually thought of as normative political theory, right back into our empirical analysis of autocracy. For research purposes we can use any ideal type design of governance as the point of departure in guiding our empirical analysis. The sheer notion of using normative theoretical models as the point of departure for empirical research may at first seem a daunting task, but not necessarily so if we are dealing with complex steering systems in which we view governance models as applied technologies of innovations in governance. Whenever innovations appear, we can assume that they can be utilized by anyone. A brief review of Chinese history can be quite compelling in showing the diffusion of political innovations, from political ideologies to models of governance. The current models of governance applied in China clearly allude to innovations in democracy and representative governance that
were standard solutions of governance at the time of inception of the modern Chinese state.\footnote{With ceremonial democratic and representative institutions such as formal elections to representative and consultative assemblies.} It is not impossible to imagine that contemporary initiatives in government innovation in China have been influenced by contemporary governance innovations elsewhere.

Open government initiatives in China might thus be inspired by, or borrowed from, recent developments within normative political theory or practices from around the world. It is possible to argue that states that are democratic on paper might not be so in reality.\footnote{There are abundant examples of such states in the twentieth century, such as the German Democratic Republic (East Germany) and the Democratic People’s Republic of North Korea (North Korea).} It is however plausible that different models of governance can degenerate in different ways and that the effects of degeneration are endogenous to the model applied. In this chapter we will engage in a theoretical exercise to investigate the autocratic potential of four different models of governance. For convenience we will mainly use the more neutral concept of 'steering' in this chapter, as opposed to the sometimes politically charged and normatively tainted concept of governance (Stoker 1998).

### 3.2. Steering systems of increasing complexity

In political theory there are those who have argued that democratic steering in its original form is somehow impossible in larger communities. When societies started organizing in larger entities such as nation states, political steering systems had to change to accommodate this development (Dahl 1989, 16-17). One such steering model within nation states has typically been branded representative government. Similarly there are now those who argue that representative steering within nation states is being challenged by other developments in how communities organize (Zolo 1992, 10-14). As we have seen, not least in the case of the open government literature, this has led some writers to discuss possible updates to political steering systems in terms of innovations in deliberative (Parkinson and Mansbridge 2012) and collaborative (Sirianni 2009) steering. The argumentation for these updates is usually based on a mix between empirical and normative arguments about how the world is ordered and how to make it better. The updates that are being discussed can be normative proposals not yet realized, but they can also be
results of empirical investigations about how the world is in fact currently being reinvented to accommodate for sociopolitical change. Once invented, these ideas and proposed solutions are there to be utilized by anyone. This implies that such technologies of steering might easily spread. As we have seen, sometimes even to unlikely places like China (Qiang 2007, Zhang and Zheng 2009, Teets 2013). It is likely that it is the practical application of these models that will be more prone to travel, and not their normative underpinnings and expected or proposed effects. In this chapter we will focus on the proposed practical applications of these models and leave the effects open for empirical investigation.

To explore how we might view this evolution of technologies of steering in systems of increasing complexity we here propose yet another metaphor. The metaphor that first comes to mind as an example of a stable but evolving sociopolitical system is that of a road. If we imagine a road, it is quite clear to see how there has been an evolution of the way that units may possibly steer their way. The analogy is by no means perfect, but it can be helpful for our upcoming discussion of autocracy in steering systems of different complexity. Informed by political theory we can begin to make a very simple categorization of steering models.

**Democratic steering:** No speed limit. Rules are set by travelers. The majority decides how to travel, in which direction and at what speed.

**Representative steering:** Speed limits. Rules have been decided by a chosen few. Correct behavior is taught and signaled along the road. Deviant behavior is handled by policing authority.

**Deliberative steering:** Speed limits and policing have proven illegitimate or inefficient. Panels have instead been set up to deliberate on problems and solutions. Roads are designed to promote best practices and efficient solutions that are legitimate if functional, for example by means of speed bumps in areas prone to accidents.

**Collaborative steering:** Systemic data collection to adjust speed limits temporarily depending on weather and traffic conditions. Possibility for feedback via information channels such as radio and GPS, channels that partially operate on user feedback. Self-regulating system upheld by participant contributors.\(^{45}\)

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\(^{45}\) There are many examples of technological solutions allowing participants to contribute data about their geo-location and speed, for example by means of map applications in mobile phones. Similar data
From a cybernetic perspective the types of steering models above show a progression toward facilitating an increasing level of system complexity. From the rather simple model of democratic steering we extend our models of steering to represent more complex configurations in which we need to take into account more and different types of actors, different structural settings and interaction effects that all lead to different types of information flows. This increase in complexity is symbolized by the road metaphor where the simplest and most essential model of a road is extended and made more complex until the road itself is just part of a larger system of infrastructure. In the same way, we might expect something that was once a simple democratic process, to have changed into a small piece of a far more complex system of government infrastructure (Zolo 1992).

It is now that we can begin to see the utility of our cybernetic perspective in studying steering systems. From the previous chapter we know that it might be limiting to settle for an ontology of autocracy and democracy as entirely different models of steering. Instead we gain clarity from a perspective that allows for the study of autocracy in different models of steering, of varying degrees of complexity. The key use of dialysis is not to enable the classification of polities into states of either democracy or autocracy. Rather it is to enable the detection of instances of control and power regulating flows that can be specific to a certain model. In the following we will move on to further define models of democratic, representative, deliberative and collaborative steering. We will also use our cybernetic theoretical tools to discuss what might constitute instances of control and power within these models of steering. The goal of the chapter is to define and clarify what would constitute the main autocratic potential within each of these steering models.

Once more we should remind ourselves that one prerequisite for our study is the existence of some basic systematization of information processes. In recent scholarship there is a debate about the complete absence of order and governance (Taylor 2013). The non-existence of any type of system for information handling could even be described as a natural state of chaos, as famously argued by early political philosophers (Hobbes and Macpherson 1968). This might well be the final state of an autocratic process but it is not something that we will explore further. The focus for us is on the potential for autocracy in models with some degree of systematized steering, from basic to more complex models.

collection techniques have been initiated by government agencies to improve traffic governance in some areas, not least in China (Herrera et al. 2010).
3.3. Democratic steering

The concept of democracy originates in ancient Athens and means power of the people.\textsuperscript{46} It has often been argued that there are two main themes in the original concept of democracy, as a form of political steering. The first is citizens’ equality of speech at the legislative assembly of the forum, \textit{isegoria}. The second is equality before the law emanating from that assembly, \textit{isonomia} (Dahl 1989, 14, Hansen 1987, 83). There is however doubt as to the importance of isonomia in Athenian democracy (Hansen 1987, 84). Today many scholars agree that ancient Athens had a predominantly oral legal tradition (Robertson 1990, 43, Thomas 1989, 40). This would suggest that there was little need to establish any relationship between citizens and an independent and textual legal framework. Jurors of the courts could be selected by lot as all citizens had participated in the formulation of policy at the forum. Therefore consultation with written sources was unnecessary. Isonomia simply meant equality in the natural right of being a citizen which was closely tied to the concept of \textit{isogonia} meaning equality of birth (Thomas 1989, 219).

For isegoria to work efficiently, every citizen had to devote oneself to the virtue of \textit{parrhesia}, literally meaning to speak all (Saxonhouse 2006, 149). This meant that each and every individual was expected to speak freely and truthfully no matter the consequences. If they failed to do so, the assembly and the courts would not be able to function. The problem with the combination of isegoria and parrhesia in Athens was that occasionally there would be some individuals who would make use of the open platform of the forum to shout out opinions that were thought to be too disruptive by the general public. To enable the removal of such individuals from the forum there would be an annual vote to cast out any individual for ten years (Forsdyke 2005, 147-152). This was a special kind of voting procedure in which citizens used pieces of broken pottery known as \textit{ostracon} to carve in the name of the individual that they wished to expel from the city in a ceremony that we now refer to as ostracism (Sinclair 1988, 169).

Judging from these early ideas about the importance of parrhesia, isegoria, isonomia and isogonia, it is clear that a central aspect of Athenian perceptions of democratic steering was individual autonomy.\textsuperscript{47} For the system to work, it

\textsuperscript{46} Etymologically the word democracy derives from the Greek word \textit{demokratia}, from demos ‘the people’ and kratia ‘power’ (OED 2000).

\textsuperscript{47} Of course this was probably not unproblematic nor undisputed in ancient Athens. Complete autonomy would have been associated with the risk of ostracism, or worse. It is possible to think that individual autonomy must have collided with the will of the collective at times. This is perhaps best
had to be comprised of autonomous individuals who would speak all and give equal weight to everyone’s opinion. In later political theory this importance of individual autonomy for the functionality of any wider sociopolitical system has sometimes been discussed in terms of private and public. Hannah Arendt suggests that individual autonomy in the private sphere is vital for individuals acting out democratic virtues in the public sphere (Arendt 1958). Leaving out normative critique of Arendt’s claim, the ontological distinction between private and public has received criticism for being overly universalist and not necessarily applicable to the empirical study of Chinese society and political culture (Schwartz 1970).

Prior and separate to postcolonial debates within English language scholarship, Chinese sociologist Fei Xiaotong made a theoretical claim implicitly challenging the distinction between private and public applied to the study of Chinese society. In his book From the soil from 1948 (费孝通 2006), Fei argues that Chinese society and political culture must be understood as fundamentally domestic while western culture is mainly nomadic. The key difference, according to Fei, is that individuals in a domestic culture can never be completely autonomous, as other people living in the vicinity will always have intimate knowledge about the opinions and preferences of others. Over time any autonomy provided by the private sphere of individual homes will be eroded. Fei does however point out that individual autonomy can be achieved by proxy if individuals walk off to interact on distant platforms where anonymity is assured by everyone acting as strangers to one another.48

Here Fei is helping us to interpret the fundamental logic of the Indo-European concepts of freedom and liberty, which are often associated with democracy. The word free, shares the same root as the word friend and has its etymological origin in the Indo-European concept of ‘to love’ (OED 2000). In this way, we could understand the concept of freedom to be logically contingent on the existence of a household of loved ones. An individual is only free, in the contemporary meaning of the word, if that person can leave a household of assured love from friends residing in that household. A possible reading of Arendt is that, in the context of ancient Athens, free citizens could interact at the forum because they were protected by the sanctity of their homes and their loved ones - they were autonomous.

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48 Having worked with anthropological methods in China he describes how he has seen people travel for miles to achieve anonymity in order to sell agricultural products at premium price without suffering the potential social consequences of charging overprice (Fei, Hamilton, and Wang 1992, 127).
The logic of the concept of liberty is somewhat different from that of freedom. The word liberty is of Latin origin (OED 2000). Although the conceptual foundation of the concept of liberty is disputed (Hellquist 1948), it can be linked to the early mechanisms of scales used for fair measurement of weight at Roman markets, where the weights used were named *libra*. Because of this possible etymological origin, liberty might denote the type of individual autonomy enabled by proxy and discussed by Fei. We can conjecture that in the context of ancient Rome, individual autonomy was guaranteed by the technical innovation of fair measurement by scales that would prevent any social consequences of attempting to cheat. In this case social consequences would be avoided because cheating would be eradicated by technological means.

### 3.3.1. Power within systems of democratic steering

The basic configuration of democratic steering, is that the number of actors are limited, that they are active on an open platform where they are all autonomous. Individuals are autonomous as they are equal and all abide by the virtue of parrhesia. In a democratic system of steering, information is closely tied to individuals. One individual equals one information source. All individuals are free to send audiovisual information on a platform that is open to everyone. Because all information sources are also equipped with devices for information reception they simultaneously function as senders and receivers. This means that all information sources are able to detect the way that information flows around them. As all transmitters and receivers are on the same open platform there are no impediments to the efficient feedback of information. Thus the feedback effect of a sent message can be accurately measured by any response caused in any receiver.

This is a fairly simple model of communication where the most crucial form of power would be at the threshold to the open platform. The classic example being women and slaves who were not granted information source status in Athenian democracy, and those expelled in a vote of ostracism. However if the platform is truly open then all information sources are granted equal access, not only to produce but also to consume information for possible feedback. The model only gets more complicated if we consider the environment outside of the forum to be part of the system as Arendt tries to avoid but Fei says is unavoidable. We will return to this discussion of how to delimit the system in chapter four.\(^{49}\) For now we will stick to the contextually neutral concept of

\(^{49}\) Note that this discussion is not about how to delimit the demos but how to delimit the system.
'platform' to discuss systems without taking account of any specific empirical context.

3.3.2. Democratic autocracy

Democratic autocracy is probably the concept in this text that is the most challenging to define and explain. Up front it sounds like a paradox or intellectual mutant. As we are so accustomed to think of democracy and autocracy as opposites, any notion of democratic autocracy instinctively feels like an incomprehensible mix-up. The rationale for our attempt to present this as a conceptual tool is that there are some forms of power that are distinctive of democratic steering. If these forms of power are sustained at a systemic level, then we should be able to speak of democratic autocracy. There are those who have discussed how the democratic model has some issues that are endogenous to it. For example, there is an issue with the possibility for the majority to eliminate minorities of information sources. This can be epitomized in the notion of a 'tyranny of the majority' (Tocqueville 1956) and would serve as one indication of the autocratic potential of democratic steering.

Democratic steering requires individuals’ access to an open platform for communication where the possibilities of information transmission and reception are equally distributed, under the assumption of parrhesia. The central form of autocracy within such a system is the obstruction of some information sources to go onto the communication platform and the forceful removal of some information sources by ostracism. Individuals’ reluctance to transmit or receive information once allowed onto the platform cannot be considered an instance of power in itself, as we have to assume parrhesia. Such reluctance by individuals to transmit or receive information must thus be attributed only to the risk of ostracism. We can thereby conclude that democratic autocracy comes from the all or nothing exclusion of individuals from the forum. The possible sustain effects of democratic autocracy would be an ever decreasing body politic because of the potential for ostracism and putting limits on entry.
3.4. Representative steering

At first glance it seems that isegoria would be very problematic to uphold when a polity grows bigger and more complex. When the polity increases in size it might become so dispersed and clamorous that it proves unfeasible to let every single citizen transmit and receive information on any open platform. The invention of representation solves this problem in that citizens are asked to act as voters to elect representatives that can represent their opinions in their place (Dahl 1989). What this ultimately does is to potentially disable parrhesia. No longer are citizens sure that their opinions are presented freely and truthfully as they are represented by someone else. It is in fact very unlikely that their opinions will be presented exactly as they were uttered originally without being distorted or modified along the way. Furthermore it has been argued that citizens grow so unaccustomed to speak that they lose interest and ability to do so even if given the opportunity, thus permanently inhibiting parrhesia (Habermas 1989, Sennett 1977).

In a bigger polity it might also be difficult to keep everyone informed about policy decisions taken and law created by the representative assembly. This is why the meaning of isonomia might change from what it meant in democratic steering. Under representative steering not only will there be representation in the formulation of opinions and policy intentions, but there will also be representation in the execution and explanation of those opinions and intentions. This has arguably led to the emergence of the bureaucratic state and its institutions. Citizens’ views and opinions have to be represented through the electoral system to arrive at the legislative assembly, but the actions taken by that assembly must then be represented via government institutions back to each and every citizen. It is therefore quite likely that there will be room for a variety of interpretations of the intentions of the assembly in such a system (see Dworkin 1986 for a general discussion of the problems of interpreting law). No longer can jurors be selected by lot, as they cannot be fully informed about actions taken at the assembly where they were not present. Any interpreter of such decisions must be informed by hearsay or via some other medium, typically written text. This presents us with a puzzle that people in ancient Athens probably never had to consider. The necessary virtue for isegoria to function was parrhesia ‘to speak all’, but because the assembly was open to everyone there was never any question that one would ‘hear all’. That is arguably why the issue of transparency in government and the control function of a correcting device in Shannon’s model (figure 2), such as the free press, only becomes really important within systems of representative steering.
3.4.1. Power within systems of representative steering

In systems of representative steering we have far more complicated flows of information to consider. When flows of information travel horizontally and vertically between closed institutions it might easily get interrupted or distorted along the way. In a sociopolitical system of representative institutions, individuals can no longer oversee the whole flow of information from source to receiver, nor possible feedback signals. Instead information is collected, transformed and transmitted within a variety of closed organizational bodies. No longer is information sent and received as purely audiovisual messages but it can often take the shape of text and other forms of discrete symbols and imagery. Furthermore, information can be stored and represented at different points in time leading to considerable time lapses and corrupted messages due to missing information, in addition to long chains of information transmission. A message can therefore be transmitted without any immediate feedback response. What all this boils down to is the possibility within this type of steering system to mass-produce information to be received and given feedback to by unknown recipients in another place and in another point in time.

We can conclude that the possible instances of power in representative steering systems seem to be multiple. This has been made evident in recent empirical research on authoritarianism in representative systems (Snyder 2006, Schedler 2010). There are many examples of institutional arrangements set up to deal with distortion of information within representative steering systems. Observer units of checks and balances might be able to complete corrupt information. In the long run these devices may be incapable of dealing with inefficient and uncontrollable flows of information in closed circuits.

3.4.2. Representative autocracy

From a cybernetic perspective, representative steering constitutes a steering system that has fundamental problems of bottlenecks. Information originally rich in audiovisual information content must be repacked and compressed to be sent further for transmission. This packaging and compression of information is arguably the main obstacle to efficient information flows within the representative steering system. The crucial difference to the democratic steering system is that information sources can be allowed entrance to, and participation in the system, but that their interactions in the system might be subject to power that is not immediately obvious. This might create a situation in which individuals start sensing that they are being misrepresented, that they
start to anticipate this, and begin to alter their messaging to make up for the perceived misrepresentation. Needless to say, such a situation could potentially create great imbalances and threaten the aggregate levels of parrhesia. It is reasonable to believe that feelings of misrepresentation could make individuals leave a platform at which they are feeling misrepresented and experience distrust (Hetherington 1998). This might create a similar effect to that of democratic autocracy in that such exit constitutes a kind of self-chosen ostracism or exclusion. In representative systems this self chosen ostracism could be in relation to elections (Abramson and Aldrich 1982), party organizations (Wattenberg 2009), or possibly social organizations at large (Putnam 2000). Another possible way for individuals to deal with perceived misrepresentations is that they start to alter their information transmission to try to make up for any perceived misrepresentations and even turn against the system (Canovan 1999). In this way the sustain effects of representative autocracy might be related to distortion of individuals’ messages at information platforms and the flight to alternative platforms.

3.5. Deliberative steering

Proponents of deliberative steering suggest that it should be possible to somehow capture the essence of citizens’ views and opinions without running the risk of distorting them through the process of representation. They argue that aggregative political processes limit the level of authenticity in the political debate (Dryzek 2000, 1-5), something that in the terminology of democratic steering could be seen as insufficient aggregate parrhesia.

One version of proposed models of deliberative steering is to have a random sample selection of citizens enter decision-making platforms, but to leave out the isegoria quality, that all citizens have equal access. Instead, panels of randomly selected citizens will debate and decide on policy without listening to thousands of possible opinions held by fellow citizens. These panels of citizens are still expected to be able to weigh and value most relevant arguments before making policy decisions and creating new law (Fishkin and Laslett 2003, 221-222). How this solves problems of inefficiency on the input side to the forum might at this point seem reasonable. Because not every citizen will have the opportunity to access the forum there is no isegoria. However those few citizens who are selected by lot to access the forum can be expected to abide by the virtue of parrhesia. They do not have to consider that

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50 Compare with the term stochocracy as governance by lot (Michels 1968).
they are representing someone else’s views. Instead they can speak their individual minds freely and truthfully and thus act autonomously.

Other suggestions have been to extract citizens’ views and opinions by other means. Recently it has been suggested that the most effective way to access and assess the information needed to achieve deliberation in decision making in big polities would be to utilize information technologies such as communication platforms facilitated by the Internet (Kies 2010, 65, Witschge 2004). This would work in such a way that the platform will not be at a specific physical place that might become crowded and noisy. Internet platforms could grant all citizens access to speak their minds freely and truthfully, thus upholding both isegoria and parrhesia (Albrecht 2006). Using both computational processing power and crowd sourcing techniques it might be possible to sort and arrange arguments according to originality and popularity and then occasionally decide on issues using votes (Coleman and Gotze 2001). This manner of using voting simply as a complement to practices of deliberation at a platform would be quite similar to what was the customary procedure at the forum in the democratic steering system of ancient Athens.

So far the proposed models of deliberative steering cannot be self-organizing. A necessary prerequisite for these models to work is that there is some organizing or administering instrument in the configuration of the system. This administrator would do everything from, selecting and summoning citizens, to constructing the platform for citizens to interact on, and presenting topics for deliberation. Furthermore it is still unclear how this system of steering would solve problems of inefficiency in the implementation of policy. Models of deliberative steering do not prescribe many solutions for how to organize the executive powers of government and how to inform citizens about government actions and law (Chambers 2003, Bohman and Rehg 1997, Thompson 2008). Only recently have there been attempts to discuss whole systems of deliberative steering including aspects such as the organization of executive powers (Parkinson and Mansbridge 2012), but deliberative steering is still often discussed as a complement to representative steering (Goodin 2008, Bohman 1998).

3.5.1. Power within systems of deliberative steering

Systems of deliberative steering might present even more complex flows of information. As has already been noted this is a proposed system of steering that seeks to solve some of the issues of long chains of information transmission in systems of representative steering. Deliberative steering has also been proposed to handle inefficiencies thought to arise when many individual
sources of information must be coordinated into a collected message (Barabas 2004, Wright and Street 2007). However, from our cybernetic perspective, deliberative steering systems are almost by definition infused with power. If randomly selecting some sources of information over others there might be innumerable sources of information that will be interrupted at the source. These information sources will never be permitted to form messages and send signals and so no feedback effects will take place. This is a rather harsh form of extinguishing information into oblivion.

If we instead would create an Internet-enabled communication platform for all interested individuals to participate in, we would have a statistical problem at our hands. When all individuals are given the means to produce content as information sources on a shared platform at the same time, we might expect a form of information overload. One way of dealing with such an overload of information is to apply statistical methods to interpret the large amounts of information being produced. In order to achieve a representative sample selection it is only reasonable to use random selection. We can for example imagine a situation where a popular topic of deliberation can be identified by analyzing the overall activity on a platform. However, to single out a smaller number of individual sources to personify and explain the topic for deliberation, would require a randomized procedure. Such intentional reduction of information, and thus extreme amplification of some sources, could have adverse consequences for the possibilities of achieving the kind of full flow of information that Deutsch speaks of.

This type of steering is only possible if there is a single administering power to select the random sample and interpret the emanating information. The administrator in the configuration of the deliberative steering system would be trying to interpret individual sources of information as belonging to generalized clusters of sources. Furthermore the administrator would be attempting to view individual messages as belonging to generalized clusters of information content. In political terms one could say that individuals might be intentionally generalized into groups such as nationality, class, ethnicity, status, gender, age, etc., and information content might be intentionally generalized into opinions, arguments, ideas, preferences, etc. This is of course a way of treating information that will inevitably be insufficiently receptive of heterogeneity and plurality.

3.5.2. Deliberative autocracy

From a cybernetic perspective, deliberative steering is a system of steering that can potentially include all individuals as information sources and let them
transmit messages autonomously. This is only true if we are talking about Internet enabled deliberation. If talking about the analogue version of suggested deliberative steering, then potentially only a very limited number of all possible information sources can be included to set up citizen panels. It is still unclear how information from such panels would be coordinated on any macro level (Goodin and Dryzek 2006). The crucial point of power in deliberative steering is, both in the analogue and digital versions, arguably at the administering function.

The administrator tries to overview all relevant information sources and structure information in a way that makes it manageable and intelligible. This is potentially autocratic as individual information sources might not be able to self-include themselves onto what they perceive to be the relevant information platform. In addition, individual information sources cannot accurately relate to all possible feedback flows, as it is only the administrator that is given the right to order and in effect absorb information. This means that the administrator can be set to monitor some types of messages, whereas it might be other messages that are given the highest priority by the individual information sources themselves. Information about such preferences might never reach the administrator. Because of this risk, that the administrator will miscategorize both information sources and information messages, there is also a risk that individuals will not want to enter the platform (Ryfe 2005). For these reasons individuals might exit from the information platform in a sort of self chosen exclusion with possible sustain effects for the entire system, just as was the case in democratic and representative autocracy (Thompson 2008). Individuals might also try to handle the situation by compensating for being categorized into a certain identity or a certain group (Stokes 1998). In short, deliberative autocracy might entail the erratic inclusion of individuals and erratic promotion of certain messages at the forum. It is reasonable to think that there could be considerable sustain effects as individuals' attempts to compensate for these effects would potentially increase the level of erraticism in the system.

3.6. Collaborative steering

Lately there has been a move within political theory toward something that is sometimes labeled collaborative governance, but that is also related to discussions about networked governance and multi-level governance (Ansell and Gash 2008, Newman et al. 2004). The central theme in this line of thought is the ambition to solve the problem of inefficiencies of other models.
of governance, both in the formulation and execution of policy, by championing openness to all affected interests (Stoker 2006). This implies that citizens are potentially assumed to take an active part in the full range of formulation, deliberation, decision, interpretation and execution of policy in concert and collaboration with millions of peers (see Sirianni 2009 for a general discussion).51

As discussed in chapter one, open government initiatives are often discussed in terms of collaborative governance (Lih 2009, Noveck 2009). In collaborative steering, agents abide by existing rules but modify details in constant collaboration with millions of other users. Changes can be made as long as they are approved by the adoption of users. According to this model of steering there is no exclusive administrator as all actions, including any construction or modification of basic infrastructure, are constantly generated and approved by the entire community. The difference compared to deliberative steering is that there is no need for an administrator. In models of collaborative steering, information does not have to be extracted but will be ubiquitous and processed by all kinds of processors within the system at all times (Gossas and Lundqvist 2010, Allen et al. 2005). The basic configuration that facilitates collaborative steering is one of openness in which participants are free to include or exclude themselves thus fulfilling some form of isegoria. Furthermore parrhesia is expected to be high as anyone can say or do anything albeit under constant pressure of moderation from all other peers.

Proponents of collaborative steering often describe it as coming very close to democratic ideals (Sirianni 2009). But when we take a closer look at the way the system works, it is clear that we are dealing with a very different type of steering model. In collaborative steering the purpose and communication tools of the system are typically predetermined. This also means that the possible types of communication open to the participants are limited within the framework of the infrastructure. In the case of the example of Wikipedia, discussed in chapter one, this would mean that anyone can modify any content or even the rules by which content is generated. It is however very unlikely that any individual participant would be able to modify the general purpose that is foundational to the system, or the basic communication tools used for interacting at the forum. In this way both isegoria and parrhesia are limited within the general framework of the system.

Although Wikipedia is often used as an example of a typical system of collaborative steering it was only launched in 2001 and it is therefore still very

51 This has also been argued as a possible way to improve deliberative democracy (Rosenberg 2007, 130-158, Thompson 2008, 499).
early to make any assessment of its coherence with any theoretical model. Recent studies of the social dynamics within the Wikipedia community of users and editors show that it is perhaps not such an open platform as some scholars have suggested (Karpf 2010, 27). In theory the general configuration of Wikipedia allows for highly flexible and efficient flows of information from self-included information sources. In reality there is evidence that there are tendencies of coercion that might prevent isegoria (Konieczny 2010, 277). Sticking with the example of Wikipedia it is interesting to note that parrhesia is a virtue that is promoted within the Wikipedia community but that it is complemented by another practice similar to one of ancient Athens, namely ostracism. If someone is speaking or acting disruptively, they might be outcast from the community as has happened a number of times (Singel 2009).

An important aspect of collaborative steering is that it lacks a central administrator. The key argument for the superior efficiency of the collaborative steering model is arguably that any central administrator function, although initially a good organizer, can never persist in achieving efficient systemic feedback flows. To achieve such flows, all constituents of the system have to be both transmitters and receivers. This can be understood as the central logic behind the arguments of collaborative steering model theorists, from Alvin Toffler’s argument about the rise of the prosumer (Toffler 1981), via early ideas about crowd sourcing and open source democracy (Raymond 2001, Rushkoff 2003), to recent discussions about collaborative governance (Ansell and Gash 2008, Sirianni 2009), and finally the contemporary hype of open government (Noveck 2009, Lathrop and Ruma 2010). But how are we to understand power in these often idealized models of collaborative steering?

3.6.1. Power within systems of collaborative steering

To understand power within systems of collaborative steering, it is appropriate to return to the road metaphor of steering systems that we introduced at the beginning of this chapter. At first glance it seems as if the lack of administrator in systems of collaborative steering makes these systems work similarly to systems of democratic steering. It seems as if individuals may decide for themselves whether or not to enter the platform, what to say, and how to act. But there might be a fundamental difference. In the democratic model, the platform is there to facilitate any type of action. In the collaborative model however, the platform comes predetermined to facilitate a particular type of action. In the democratic steering model the participants on the open road can use whichever means of travel they choose, in fact they could choose not to travel at all and instead have a picnic in the middle of the road. Their actions will determine the overall functioning of the system. In the collaborative
steering model, participants have already adopted the general systemic set up of vehicles and travel flows. This is to say that there is already some sort of infrastructure or architecture in place. This means that when individuals participate in the collaborative steering system by adopting it, they are really opting for it.

This is a type of steering where many possible instances of power over information are preset in the configuration. From our earlier discussion we know that collaborative steering systems on the surface seem to accommodate both isegoria and parrhesia. This means that all information sources are free to join and participate on equal terms, as well as communicate any type of information they choose. But if we acknowledge that individuals must situate themselves within a specific architecture, we must realize that isogonia might suddenly become of real significance. As we remember from our previous discussion on democratic steering, isogonia was the concept denoting equality of birth in ancient Athens. This might seem a strange concept as we generally view our existence through birth as a fait accompli. But to understand the status of the information source in collaborative steering systems, we cannot take birth into the system as a naturally occurring process of absolute equality.

To be able to become an information source in this more complex type of steering system, the individual has to act in accordance with a specific role. In addition, depending on the capacity of that role, the individual might not be given the necessary instruments to send and receive information. Once the role is determined, the instruments of communication can be acquired so that the individual can be born into the system. When we are born into the physical world we are all equipped with information receiving, processing and sending instruments that are very similar and more or less equally distributed across individuals. When individuals are born into complex collaborative steering systems however, it is possible that they will be equipped with information receiving, processing and sending instruments that differ in their functioning and calibration. This might have implications for individuals' participation in systems in terms of contributing with information (input), processing information (throughput) and accessing information (output).

3.6.2. Collaborative autocracy

The potential for autocracy in collaborative steering systems is related to the discussion about Internet-enabled deliberative steering. We discussed how the use of online platforms could increase the capacity of deliberative systems. The conclusion was that such platforms could create sufficient conditions to uphold individual autonomy in communication by facilitating both isegoria
and parrhesia. That conclusion is perhaps not completely accurate as the language and means of communication would be preset in the configuration, to the possible dismay of some individuals. We concluded that the main potential for autocracy in deliberative steering would be in connection to the administrator’s capacity to order information at communication platforms. The administrator decides which information sources are allowed access to which spaces. In collaborative steering no administrator is necessary as the general community of peers ubiquitously decide on everything in concert. This is something that at first seems to be part of the solution for ending the autocratic role of the administrator in deliberative steering, but it might be the very thing that creates another form of autocracy in collaborative steering. For all constituents to coordinate their actions, they have to adopt some general means of communication.

In collaborative steering, especially if facilitated by online platforms, users are quite literally left to their own devices to structure information flows. This means that a community of peers that build their interactions on textual messages that are computer mediated over the Internet, have to stay on a platform based on textual messages that are computer mediated over the Internet. This situation comes with risks that the tools used can be tampered with. It is not unlikely that someone using computer-mediated means of communication could suddenly encounter problems with their computer and therefore fall off the platform. This would be as if individuals at the agora of ancient Athens would suddenly lose their voice for unexpected reasons, or suddenly vanish into thin air without a preceding vote of ostracism. Collaborative steering could also give rise to a more general risk that the available tools for communication have built-in limitations that cannot be overcome. Thus collaborative autocracy entails the risk that self included actors will have full equal and open access to send and receive any kind of information on an irrelevant platform with insufficient communication tools that are unreliable. In a way this can be a more subtle form of autocracy if individuals can be made to identify with the capacity and tools that they are given when being born into the system. Individuals might potentially sense that they cannot rely on the communication tools given. This might thus lead to dissatisfaction with the available means of communication, the sustain effects of which remain to be explored.
3.7. Conclusion

We have now discussed four theoretically derived types of autocracy from our proposed models of steering. These types are: democratic autocracy, representative autocracy, deliberative autocracy and collaborative autocracy. It is important to stress that these concepts are to be used as research tools and not as descriptions of how the political world is ordered geographically or organizationally. What we mean by this is that we do not try to sort communities as belonging to one or the other type of steering system, but that we use these models to explore political behavior among individuals in their contemporary system settings. There is nothing to suggest that all forms of autocracy cannot be present at the same time in affecting individuals in their communication behavior. As we open up for the possibility of steering systems of increasing complexity, it is in fact likely that we will find traces of different forms of autocracy in contemporary steering systems, depending on how far they have evolved and how complex they have become. It is however important to note that we expect an evolution of complexity. Thus we do not expect more complex forms of autocracy to be present in less complex systems.

One aspect that we have found to be central to our discussion is to what extent individuals can be expected to experience autonomy in relation to steering systems. We have conjectured that when individuals have reason to expect interruption and distortion of information, they are also likely to respond by altering their messages in anticipation of any disturbances. They could also seek to leave information platforms altogether in an act of self-chosen ostracism or exclusion. Sticking with our cybernetic terminology such dispersal of information is best described as entropy. We would have to engage in empirical investigation to find out how autocracy would produce entropy in specific real world cases. In the following chapter we will operationalize our theoretical tools so that they can be used for empirical research.
4. MEASURING AUTOCRACY BY LEVEL OF ENTROPY

4.1. Effects of autocracy

Up to this point our method has been analytical, dialytical and catalytical. We started out by analyzing some key concepts such as information, communication, autonomy and autocracy, dissolving them to explore their inherent meaning within the theoretical framework of cybernetics. We then continued with a theoretical exercise in which we sought to dialyze core processes within information systems into either control or power. After this we turned to another theoretical exercise in which we have tried to determine different categories of steering systems, with the help of concepts from political theory. It is only at this last stage that we begin to see the utility of our theoretical perspective for empirical research and it is in this chapter that we will discuss how to operationalize our theory for the study of specific empirical cases.

In chapter three we have proposed four main categories of autocracy that we have labeled democratic autocracy, representative autocracy, deliberative autocracy and collaborative autocracy. It is important to note that these categories are not to be treated as mutually exclusive ideal types, but that they can coexist in any system. As we are working with a notion of increasing complexity of steering system designs, we expect all categories of autocracy to be possible in collaborative systems, the most complex type of system, but only democratic autocracy to be possible in democratic systems.

Moving on we hope to use the categories of autocracy as a schema in the empirical examination of contemporary steering systems. The epistemological reasoning is that we first need to know what to look for before we can expect to find it. This is much like the reasoning behind the periodic table where matter could only truly be understood as elements once the proper theory of
matter as made up of atoms had been established, and a likely categorization of molecules had been presented. But what kind of empirical subject matter is it then that we are looking for, and how does it relate to our categorization of autocracy?

4.1.1. Entropy as the product of autocracy

Building further on the arguments of Karl Deutsch we can conjecture that the product of autocracy is entropy. Thus if we are interested in understanding to what extent a system is autocratic we should seek to measure the level of entropy. It is important to clarify that autocracy and entropy are not to be considered independent and dependent variables. Instead we treat autocracy and entropy as different aspects of the same phenomenon. We make the assumption that autocracy is the mechanism of information distortion and entropy the product of that mechanism in terms of sociopolitical effects. Unfortunately Deutsch never really addresses the issue of exactly how to detect and measure entropy. There are however other theorists who have explored this issue.

The most notable effort to explore the concept of entropy for the social sciences has been made by sociologist Kenneth D. Bailey in his attempt to devise a ‘Social Entropy Theory’ (Bailey 1990). For our purposes Bailey’s theory is however of little utility as we do not share his broad focus on social systems in general, nor his fundamental epistemological premises. Bailey builds his theory on previous work by James Miller, and in particular his ‘Living Systems Theory’ (Bailey 2006, Miller 1978). The problem is that Miller sought to sketch a theoretical replica of all of society, a model that could depict and predict all kinds of concrete empirical realities (Parsons 1979, 698). According to our cybernetic reasoning, the only way to do this is to construct a theory that is as complex as reality (Rasch 1991). This leaves both Miller and Bailey with a very complex and rich definition of entropy that is unpractical and difficult to operationalize when it comes to empirical studies.

In line with previous arguments, entropy should be viewed as the aggregate sociopolitical effects of autocracy. In the previous chapter we discussed these effects as individual frustration or dissatisfaction due to information distortion. We conjectured that and dissatisfaction caused by autocratic processes would lead to entropic reactions in terms of self-exclusion and compensation. Exactly

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52 When Dmitri Mendeleev put forth his first correct version of the periodic table it became evident that there were missing elements represented by gaps in the table.
how dissatisfaction might manifest itself individually and lead to entropy via psychological mechanisms at a micro-level is however still to be explored.

4.1.2. Entropy as exit, voice and loyalty

One scholar who has presented an interesting perspective on how dissatisfaction might manifest itself in individual behavior is Albert O. Hirschman. In Hirschman’s book Exit, Voice and Loyalty: responses to decline in firms, organizations and states (Hirschman 1970), he describes three general ways in which individuals could behave as a consequence of dissatisfaction. To present his argument he uses a metaphor of customers of competing firms. He suggests that if customers are dissatisfied they can either leave firm A and go to firm B. Alternatively customers could voice their grievances with the owner of firm A. The only remaining option is to stay with firm A, and in effect stay loyal despite such grievances (Hirschman 1970). We suggest that Hirschman’s metaphor could be generalized to provide us with a good working definition of entropy in any type of sociopolitical information system.53

From a cybernetic perspective, exit is the most obvious form of entropy if firm A is seen as a system. The exit of customers represents energy disseminating from the system and not going to productive use in firm A. This is entropic to firm A, but because it would at the same time imply an injection of energy to an imagined firm B, there would be no sum effect of entropy, if both firms are considered to be part of the same system. In Deutsch’s terms firm A would have the ability to afford not to learn for a while, but the loss of customers might eventually force the management of firm A to learn and apply a better business model in order to keep existing customers and possibly attract new ones.

Voice is not as intuitively easy to picture as a form of entropy. The easiest way is probably to use the analogy of heat. If energy in an engine does not go into the intended processes such as creating movement, and if it cannot leave the system, then it might show up as entropy in the form of heat. In the same way customers in a firm will not trade in goods and services if all their attention is spent on voicing grievances. Just as an overheated engine will not be very efficient in producing movement, it is likely that a firm suffering from loud

53 Hirschman does not work explicitly within a framework of cybernetic theory but he still mentions entropy on a number of occasions (Hirschman 1970) on pages 1, 15, 124. What is especially interesting for us is that the inspiration for his proposed perspective is his experiences with traffic system inefficiencies within the Nigerian railway system, explained on pages 44-45.
objections from disgruntled customers will not be very efficient in providing those customers with goods and services.

The third form of entropy in Hirschman’s model would be that of loyalty.54 One way is to think of loyalty as deposits of stored entropy. If customers in firm A decide to refrain from both exit and voice, then the only option left available is to somehow quench their disgruntlement and hope for a change for the better in the future. This is entropic to firm A because customers are kept from being active at their full potential. It is also a problem for firm A that such deposits might pose an even bigger problem if they should build up over time and turn out as voice or exit in the future.

It is possible to imagine a number of interaction effects between exit, voice and loyalty. Hirschman suggests that voice might have a positive correlation to loyalty. He also suggests that loyalty could hold exit at bay and activate voice (Hirschman 1970, 77-79). One of the most striking possibilities is to imagine what would happen if one of the three alternatives would be excluded. Say that the possibility of voice would be cancelled. How would this affect exit and loyalty? Or what would happen if the possibilities of loyalty were limited? Another scenario that we will move on to discuss in more detail is what might happen if the possibilities of exit are cancelled.

4.1.3. Entropy in open and closed systems

One problem with Hirschman’s discussion is that he fails to fully account for the difference between open and closed systems.55 This is an issue that has been widely discussed within cybernetic theory and that we have put on hold from chapter two. The general definition of open systems is that they are open to interactions with the environment (Bertalanffy 1973, 1950). We have already hinted to the logic that if firm A and B are seen as one system then exit from firm A does not necessarily result in entropy within the system as long as energy is added to firm B that is also part of the system. Thus firm A can be seen as an open system but firms A and B put together should be

54 Etymologically the word loyalty derives from the Latin word legalis, from lex ‘law’ (OED 2000). Loyalty can thus denote obedience to law that an individual perceives as functional and legitimate. It can however also denote obedience to law that is illegitimate or that an individual feels dissatisfied with. Our use of the term loyalty gravitates toward the latter.

55 This is understandable as Hirschman himself does not present his perspective as part of a wider cybernetic debate.
viewed as a closed system as long as there are no other firms and customers have no other way to go.\textsuperscript{56}

From its original conception, as part of the ‘General System Theory’, the issue of whether systems are to be considered open or closed has often been thought of as an ontological question (Lilienfeld 1975, 20). Systems within physics are closed and systems within biology are open according to Ludwig von Bertalanffy, the founder of the General Systems Theory and the inventor of the distinction between open and closed systems (Bertalanffy 1973, 39). This tendency of ontological determinism has later on spread to social cybernetics with theorists such as Niklas Luhmann suggesting that social systems are primarily open (Luhmann 1995, 177) and Jürgen Habermas arguing that social systems are fundamentally closed. Habermas argues that the boundaries between system and environment have broken down, thus creating one massive integrated but closed system (Habermas 1987, 153-155). This notion of an integrated and closed system network has been echoed in writings by other theorists such as Gilles Deleuze (Deleuze 1992).

As we do not accept the deterministic ontological premises of these theories, we cannot use them as intended by their inventors. This points to a more general problem regarding the contemporary use of cybernetic theory. In some cases cybernetic concepts are used without making explicit references to their cybernetic origins. This is understandable as cybernetic theory has been heavily criticized in academic debates (Lilienfeld 1975, Alker and Biersteker 2011), in popular culture (Curtis 2007) and when used for institutional design (Medina 2006). But when distinctions such as that between open and closed systems are made, basic cybernetic theory should perhaps be consulted.

In our version of cybernetic theory, the distinction between open and closed systems should be left open for empirical investigation. Thus a language A can be considered an open system if people can exit to a competing language B where the level of satisfaction is greater. Similarly a monetary currency A can be considered an open system if people can exit to another currency B if they are dissatisfied. But currency A should not be considered an open system to the same extent, if the alternative currency B cannot be used to buy goods or services in the relevant market of users who left currency A. In addition we must consider currency A and B as belonging to the same system if the exit of users from currency A affects currency B in a way that would significantly increase the level of entropy in currency B, thus perhaps pushing users back to open systems.

\textsuperscript{56} In a later article Hirschman uses the logic of exit, voice and loyalty to analyze nation states. He concludes that there are several incentives for states to close their borders and in practice become closed systems (Hirschman 1978).
currency A. Our focus is however neither on languages nor currencies but on politics.

4.2. Entropy in political systems

Politics often revolves around empirical definitions of power whereas cybernetics provides a strictly theoretical definition of power. In this sense the study of politics comes with some empirical limitations whereas cybernetics only has theoretical limitations. For this reason cybernetics can be used in the study of power in any type of system, for example in the case of languages and currencies as exemplified above. The study of politics however, is usually limited to traditional notions of the empirical locations of political power such as parliaments, political parties, national state institutions or international institutions. Unfortunately this empirically determined research agenda has possibly discouraged political scientists from venturing into other empirical areas of society that are also subject to power. David Easton has struggled with this issue and has tried to solve it by stating that not all systems in society are political systems. Easton tries to define a political system as ‘the most inclusive system of behavior in a society for the authoritative allocation of values’ (Easton 1953, 129) - a definition that arguably does little to make the conundrum less obscure. Easton also tries to determine that political systems must have boundaries, although not necessarily territorial boundaries. This vague statement about the nature of politics can be interpreted as a suggestion that political systems are to be considered closed systems (Lilienfeld 1988, 217).

If unchallenged, this assumption that political systems are by default closed will have deep implications for the study of politics. It will lead to the necessity to delimit any political system that is being studied so that its borders and components can be defined. The merit of the theoretical definition of power, as given by cybernetics, is that it allows for the study of power in open systems where it can be more difficult to define or delimit systems in terms of closed entities and defined sets of components. What we can do, is to use the theoretically defined concepts of power in studying parts of the empirical world known by custom as politics, but with a clear focus on information flows. We do not share Easton’s view that political systems are by definition closed off by boundaries.

Another theory-based ontological postulation that has affected much of contemporary discussions about politics and political systems is the distinction
between public space and empowered space (Habermas 1996, 307, Fraser 1990, Habermas 1989). We will refrain from using this distinction as it also implies assumptions about system configuration ex ante of empirical evaluations of the specific empirical context. In line with Fei Xiaotong’s arguments discussed in chapter three, we know that any separation between private and public must at least be tested empirically.

4.2.1. Open systems, complexity and entropy

As we have seen in chapter one there is an emerging debate about open government that is often idealizing openness as associated with transparency and democracy. There are however also those who warn against a general trend toward transparency (Brin 1998, Birchall 2011b) and openness (see Canetti 1962, Birchall 2011a) in social or political systems. Gilles Deleuze in particular, has made warnings about open systems. His argument is that if power and coercion used to play out in closed systems of disciplinary institutions (Foucault and Sheridan 1979), it now increasingly does so in open systems. If individuals were once enslaved by enclosed institutions such as prisons, hospitals and factories, they are increasingly enslaved by networked systems of enforced engagement (Deleuze 1992, 7). One way to understand Deleuze is that he is arguing that although sociopolitical systems are formally open, they are increasingly connected to environmental contexts. This would mean that although individuals are free to exit, such behavior would imply existential termination to some degree. This notion is partially echoed by Habermas' warnings of the integration of steering system and lifeworld (Habermas 1987, 153-156). We will discuss the concept of environment in more detail further on.

Deleuze's line of argumentation has been very influential for later critical studies of the perceived risks of surveillance associated with the proliferation of the Internet (Fuchs 2012, 2010). Although we do not subscribe to Deleuze’s use of the word control, we accept his conclusion that power might play out differently in open systems. With the help of the theoretical tools of cybernetics we can study to what extent specific systems have become more open and the effects of such opening up. It is however an empirical question if openness means less entropy in a specific system and thus if we are to expect autocracy or not.

57 The general notion of openness has a tradition of being associated with normative liberal ideas (see Popper 1945).
Whenever openness is discussed normatively as a value of democracy, typically in terms of transparency, it is often viewed as the possibility of individuals to enter into something. Open government initiatives have by all practical definitions come to signify the possibility for citizens to enter into some area of politics that they were not allowed access to before. Even if they were allowed access it might have been practically unfeasible to enter. Everything from the availability of government information to the possibilities of deliberation on policy proposals or even the co-production of public services can be seen as increased ways of entry into something. The problem is that if people decide not to enter, it would have a similar effect as entropy through exit. One way to understand this is that the system has gained in complexity, adding more areas for individuals to get engaged. However, if individuals choose not to get engaged these open platforms will not be serving any productive purpose. In this way the opening up of new areas within a system might automatically create high levels of entropy as exit in that system.

We are beginning to see that there is nothing that suggests that open systems are inherently less entropic. In fact open systems increase the possibilities of exit, the most immediate form of entropy. In addition open systems increase the possibilities of non-entry as we have seen in the discussion above. Hirschman states that exit is often the easiest strategy as a response to feelings of dissatisfaction and that it is primarily in cases when exit is ruled out that voice becomes an option (Hirschman 1970, 76). This is interesting as it suggests that open systems would primarily be at risk of entropy in the form of exit whereas closed systems would be at risk of entropy as voice.

Recent scholarship points out that political scientists have perhaps been focusing too much on voice as a mechanism of showing discontent, and that exit based mechanisms have gone largely untheorized (Warren 2011). Perhaps this is precisely because politics has often been perceived of as closed systems. In nation states (macro), organizations (meso) and even identities (micro), exit is sometimes not an option. But maybe increasingly, exit is becoming a viable political course of action. Not participating in elections, markets or social customs might be an individual’s defining political act of dealing with dissatisfaction in open systems. John Ackerman notes that exit based citizen action represents a type of marketization of politics (Ackerman 2004). In experiments with New Public Management citizens are allowed to use exit-based strategies to punish public service providers that do not perform well. He puts this in contrast to traditional co-production models of public management where citizens are given opportunities to voice their opinions. Ackerman suggests that a third way would be for citizens to co-govern public services. He sees this as a solution to involve citizens in a deeper way, a notion that reminds us of the ideas behind open government. Ackerman’s use of Hirschman's trichotomy is interesting for us, especially as he fails to recognize
that this third type of citizen action could also be viewed as loyalty. As such it represents the only viable option left to channel entropy if both exit and voice have been ruled out.

Hirschman notes that there are situations when voice can be an option even though exit is possible. This is when individuals are (1) prepared to trade off the certainties of exit against the uncertainties of improvements in the deteriorated situation and (2) the estimate individuals have on their ability to influence the situation (Hirschman 1970, 77). The general inclination to stay even though exit is possible is described by Hirschman as due mainly to loyalty. Thus loyalty could increase the level of voice. As Hirschman does not work explicitly with the distinction of open and closed systems it is hard to know how he would define the abstention from voice in closed systems where voice is possible. We only know that Hirschman describes anything less than loyalty in organizations that do not allow for either voice or exit, as treason or mutiny (Hirschman 1970, 121). Thus loyalty in deteriorating situations with limited possibilities of voice and exit should be qualified as allegiance, duty or perseverance. Loyalty in these situations must however still be considered deposits of stored entropy.

4.2.2. Loyalty as stored entropy

Hirschman has been pushing for perspectives on individual behavior that goes beyond assumptions of full individual autonomy and rationality. A central objection of his is that we tend to underestimate how individuals can act against their preferences at certain times and in certain contexts (Hirschman 1984). The temporal aspect of fluctuating disaccord between preferences and behavior is explored further in his book *Shifting involvements* (Hirschman 1982). In this book, Hirschman discusses how individuals, as consumers and citizens, shift their involvements between private and public life to try to handle dissatisfaction in both spheres. He describes how individuals sometimes endure situations of dissatisfaction, but only up to a certain point.

One scholar, who has tried to bridge Hirschman’s two mentioned books in thinking more concretely about extreme situations of autocracy and its effects, is Guillermo O’Donnell. After personal experiences with life under authoritarian circumstances, he sets out to try to come to terms with citizens’ responses to autocracy. Based on some scarce interviews conducted in Argentina in the period 1976-1982, O’Donnell explores Hirschman’s theoretical tools to understand citizen behavior. O’Donnell proposes a refinement of Hirschman’s theory and a division of voice into ‘horizontal voice’, ‘vertical voice’ and ‘oblique voice’ (O’Donnell 1986). O’Donnell suggests that the prime tool of
power over citizens in Argentina during these years was the elimination of horizontal voice. He defines horizontal voice as political communication between citizens, and ultimately as their possibility to engage in collective action. In contrast he suggests that vertical voice, defined as citizens’ communication directed at political leaders or state institutions, was not suppressed to the same extent. He conjectures that the reason for this acceptance of some vertical voice was because the voicing of grievances from some scarce individuals did not pose any real threat to the regime. To compensate for the lack of horizontal voice, O’Donnell suggests that citizens would engage in oblique voice, defined as apolitical speech with subversive potential (O’Donnell 1986, 8).

According to our previous line of argumentation, it is unnecessary or even misleading to divide voice into three categories. It seems quite clear that O’Donnell is insufficiently recognizing how exit, voice and loyalty could play out in this case. The abstention from a specific form of communication (horizontal voice) can simply be understood as exit. Similarly, the distorted communication of apolitical but subversive messages (oblique voice) can be understood as a mixture of voice and loyalty. Individuals are leaving some fora to voice grievances at other fora, but at the same time being loyal and holding back opinions to some extent. Seeing it in this light opens up for a slightly different understanding of the effects of autocracy.

O’Donnell describes how the people he interviewed engaged in a strange type of behavior. Escalating at the time of the Falklands wars, many were fervently supporting the war and were deeply engaged in the nationalist belligerence of the regime. After the regime had fallen and Argentina had lost the war, those same individuals completely switched positions and denied that they had ever supported the war or the regime in general. His conclusion is that the support shown for the regime during these years was due to the deprivation of horizontal communication. When citizens were only allowed vertical communication they were forced to engage in ‘good citizen’-behavior (O’Donnell 1986). Although O’Donnell himself does not recognize this as loyalty, it is likely that his observations point to the potential of entropy stored as loyalty.

Hirschman’s concept of loyalty is what other scholars have struggled with the most. Some even suggest that loyalty should not be considered a behavioral outcome (form of entropy) but rather a psychological variable which impacts

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58 It is interesting to note that similar tendencies have been shown recently in relation to online communication in China (King, Pan, and Roberts 2013).

59 A phenomenon that has been widely observed at Chinese online fora (Qiang 2011, Meng 2011).
upon the exit/voice calculus (Dowding et al. 2000). There are others who have followed this line of argumentation to suggest that loyalty depends on personality traits, that it as such is only a temporary buffer to either voice or exit, and that it should not be given any independent theoretical role (Laver 1976). However, according to our cybernetic perspective we must give loyalty an independent theoretical role. If loyalty is understood as disaccord between preferences and behavior, it is the clearest form of distortion of information in Hirschman’s model. In plain language, loyalty can be understood as a situation in which an individual would like to do something but ends up doing something else. As such, loyalty must be understood as a type of non-autonomous behavior and should be viewed as one of the most pertinent reasons to suspect autocracy in any system.

4.2.3. Entropy as the lack of individual behavioral control

When discussing individual autonomy it is commonplace to talk about self-efficacy and empowerment. But if we look at research made in the field of psychology we find good support for the utility of the concept of control as opposed to that of power. Many researchers find power and empowerment to be ambiguous and sometimes misleading (Cattaneo and Chapman 2010, Chamberlin 1997, Rowlands 1995). When digging deep into the psychology of ‘empowerment’ we usually find cognitive processes that are better described by the concepts of efficacy and control (Tengland 2008).

Although there have been a general acceptance of the link between efficacy and control (Bandura 1997), recent scholarship points out that we need to differentiate between the two (Ajzen 2006). One suggestion is that we should adopt a general measure of perceived behavioral control as a combination of two components that are: self-efficacy, dealing largely with the ease or difficulty of performing a behavior; and controllability, the extent to which performance is up to the actor (Ajzen 2006, 680). This perspective of perceived behavioral control differs from the more general theory of planned behavior that stems from the notion that a person can be either empowered or disempowered, in control or not in control, on any aggregate level and as part of some personality trait (see Rotter 1954). Instead, perceived behavioral control is considered to be dependent on the level of controllability in the specific situation and context (Ajzen 1991, 181, 2005).

The general model for the theory of planned behavior is of very high potential utility in our study. According to the model, perceived behavioral control is the only factor that can influence any incommensurability between intention and action. But perceived behavioral control can also influence intentions to
begin with. In addition there are several interaction effects that can be imagined between perceived behavioral control, attitudes and subjective norms. According to the theory of planned behavior such effects will however be depending on the specific situation and context in which intentions translate into action. We should therefore be mindful not to over-generalize how a low level of perceived behavioral control over a specific means of action might permanently shift an individual’s set of attitudes, norms and eventually intentions.\(^{60}\) A person could have a low level of perceived behavioral control in relation to one specific means of converting intentions into actions, but this could change dramatically if other means were made available, as in the Argentinian case above. Thus we do not subscribe to the idea that the medium is the message (McLuhan 1964), but we do open up for an investigation into how the means of communication might affect how intentions translate into actions in specific situations.

In an interesting study from 1981, perceived behavioral control was tested in a context of political elections in a representative system (Fishbein and Ajzen 1981). The aim of the study was to find out if people’s intentions about choice of candidate, a short time prior to the election, would correspond to the actual voting behavior. This particular study showed that voting intentions and voting behavior had a very high correlation (Fishbein and Ajzen 1981). It was conjectured that participants in this election experienced a high level of perceived behavioral control.\(^{61}\)

Deduced from our theoretical discussion we make the assumption of a link between power, dissatisfaction and entropy, via mechanisms of perceived behavioral control or rather the lack thereof. If information systems are infused with power they will become autocratic. Individuals are expected to experience dissatisfaction in such systems as their perceived behavioral control will be low. In turn this will result in entropy because individuals will be more likely to exit, voice grievances or resort to loyalty. Just as this can be measured as the discrepancy between intentions and action, or preferences and behavior, in elections of representative systems, it should also be possible to measure and assess such discrepancy in deliberative and collaborative systems.

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\(^{60}\) Thus an individual’s perception of internal and external locus of control is expected to be mainly determined by the context and situation.

\(^{61}\) Unfortunately the importance of the level of anonymity granted was never specifically discussed in this study.
4.2.4. Tampering with entropy in complex systems

Toward the end of his book, Hirschman describes possible ways in which exit, voice and loyalty could be tampered with. He discusses a number of situations in which high levels of voice can be handled by facilitating increased levels of exit, but also how high levels of exit can be reversed by allowing for voice. Implicitly he is suggesting that disgruntlement must show up somehow as long as the fundamental problem causing such disgruntlement is not taken care of. He concludes that this must be studied empirically for each and every specific situation (Hirschman 1970, 123-126).

In a review of Hirschman’s book, Brian Barry argues that Hirschman fails to explain collective action and that individuals’ choices between exit, voice and loyalty depend on available possibilities for collective action. Barry argues that Hirschman does not fully take into account the logic of collective action and that each individual’s actions must be understood in relation to a collective of individuals who might also be considering exit, voice or loyalty (Barry 1974). On the whole, Barry argues that Hirschman should look more systematically at how exit and voice are interrelated in order to build a more explicit theoretical structure (Laver 1976).

The problem with Barry’s critique and much of later readings of Hirschman is that Hirschman’s theory is viewed as operationally applicable in specific empirical contexts. Hirschman is accused of everything from not considering the potential of collective action, to not discussing how exit is often a dichotomous variable whereas voice and loyalty are usually not (Dowding et al. 2000). From a cybernetic perspective such critique is invalid as we do not expect Hirschman to provide us with a theory that can explain and predict every specific context and situation. Hirschman is simply providing us with a comprehensive categorization of entropy.62 So far, no one has been able to present valid critique of Hirschman for missing some form of entropy as outcomes of dissatisfaction. This is why we can rest assured that Hirschman’s schema of exit, voice and loyalty can be used as an all-encompassing categorization of the possible outcomes of dissatisfaction.63

62 Compare with the discussion in chapter two about the fallacy of asking too much of cybernetic theory in providing explanations and predictions for temporally bound phenomena in specific empirical contexts.

63 As an example Barry’s critique of Hirschman’s failure to discuss the possibility of collective action can be dissoloved using elementary cybernetic reasoning. Should individuals form groups for collective action those groups are themselves subject to the logic of exit, voice and loyalty. The critique is thus invalid as it only serves to paint a picture of a more complex empirical case but says nothing about the theoretical validity of Hirschman’s argument of the comprehensiveness and applicability of the exit, voice and loyalty categorization.
One reason that Hirschman’s trichotomy has been so hotly debated is probably that he is somewhat ambiguous as to whether the categories are mutually exclusive or not and how they might correlate (Birch 1975). Barry has declared that, if anything, loyal individuals should have a higher propensity to care and thus elicit voice. In saying this he is suggesting that voice is positively correlated to loyalty (Barry 1974). In reaction to this, others have argued that loyal individuals would not risk to be disloyal by exerting voice, thus implying a negative correlation (Birch 1975). Whatever we think about possible correlations between voice and loyalty we must admit that if the possibility of exit is ruled out, then either loyalty or voice should be expected to increase. Another possibility is that both loyalty and voice will increase and that they are then at least negatively correlated to exit. Here it would be appropriate to apply the logic of a flowchart to conjecture that if one path of flow is inhibited then that flow would have to go elsewhere. An extreme situation would be if for example both exit and voice would be inhibited. Then we could possibly expect all entropy to take the path of loyalty.

When reading Hirschman it is quite clear that he does not make any general theoretical claims about correlations between exit, voice and loyalty. As we have seen he sometimes makes suggestions as to how exit, voice and loyalty could interact or possibly correlate. These suggestions are however not claimed to be generalizable to every specific empirical context and situation. Following Hirschman’s humble approach we will not make any assumptions about any fixed relations between exit, voice and loyalty or any internal correlations.

Cybernetics has led us to discuss entropy as the product of autocracy in a similar way as Hirschman discusses exit, voice and loyalty as the outcome of dissatisfaction. Implicit in the notion of entropy is that it is energy that does not come to productive use. Often we think of energy as a sustained activity that can take different forms. Further, the law of the conservation of energy states that the total energy of a system can increase or decrease only by transferring it in or out of the system. Thus exit is of key importance to understand the accumulation of entropy in a system. We can however assume that there are situations where individuals resort to different kinds of entropy all at once or in different parts of a system. Instead of individuals resorting to either one course of action, it is possible to imagine a mix of entropy at different system levels. Imagine for example a system that allows for entropy as exit at all levels except one. In such a system it is likely that the one level that does not allow for exit would become a critical point for the allocation of voice and loyalty. This is of course only one imaginable example of a complex system configuration.

Hirschman himself has engaged somewhat in this kind of reasoning. In his article *Exit, Voice and the State* from 1978 he notes that different states
(countries) seem to have different levels of complexity in their facilitation of voice and loyalty. He conjectures that this is because different states are more or less at risk of their citizens resorting to exit by leaving the country (Hirschman 1978). Applied to authoritarian contexts this type of analysis can be very helpful in answering questions, both about the potential for popular upheaval and revolutions (Skocpol 1979), but also about the conditions for sustained authoritarianism by means of inhibiting voice and promoting loyalty (Geddes and Zaller 1989, Edmond 2013, Rokkan 1974).

4.3. Entropy in political systems online

Until now we have used a variety of terms to distinguish the contextual settings of information flows and steering systems. We have referred to concepts such as environment, space, forum and platform. In relation to the discussions above it is important to define our use of these concepts in relation to sociopolitical systems. From a cybernetic perspective, environment is simply a context to which an individual is existentially constrained. Space is a context in which an individual can dwell without necessarily engaging in any communication. Finally, forum is a context in which individuals choose to engage in communication of some sort. Platform is in our terminology an important concept as it is neutral to the conceptual connotations of environment, space and forum. In chapter two we mainly used platform to discuss models of steering without stressing any contextual setting.

Now that we are moving closer to our empirical study we must consider systems as part of some contextual realities. This allows for an understanding that systems can operate in environmental contexts where individuals are depending on them for their survival and existence. Systems can also operate in spacial contexts where individuals can dwell but decide not to engage. Finally systems can operate in forum contexts where all individuals choose to engage somehow. All of these system settings can be considered either open or closed. The only difference between them is that the individual consequences of exit can be very different depending on the contextual setting.
4.3.1. Open government as online fora

The main empirical inspiration for this thesis is the seemingly paradoxical emergence of open government initiatives in China. One prominent way for these initiatives to come about is by means of establishing state sponsored online fora for citizen participation. We have now come a long way in theorizing ways of understanding possible responses by citizens to this empirical phenomenon. With the help of cybernetic theory we now know how to think of such fora purely as information systems. We know how to perceive of information flows as running the risk of being subject to autocratic processes of information distortion. We also know how citizens might respond to any dissatisfaction associated with such information distortion, and we have determined how citizen will likely respond by exhibiting entropy as exit, voice and loyalty. When applying this theoretical perspective onto a specific empirical case the first step is to determine how exit, voice and loyalty are likely to appear. Online fora do not correspond very well to Hirschman’s analogy of firms and customers. We do not expect netizens to walk out of a store (exit) or ask for the manager (voice). Instead we expect individual users of online fora to resort to different types of actions online.

Online fora typically accommodate the communication of some audiovisual two-dimensional content. This communication is made possible by the facilitation of some type of web space that is established under a web domain with additional sub domains. The existence of this type of online space is a precondition for any human interaction to take place online. It is however only when individuals find that space and start to interact within it that we can begin to perceive of it as a forum or sociopolitical information system. In our empirical study we have chosen to concentrate on fora that are situated in what Min Jiang has defined as central propaganda spaces in China. These are web spaces that have been established under government-owned web domains, or domains of state media under the direct oversight of the CCP (Jiang 2010, 12). The reason for choosing these spaces is that they facilitate some of the most explicit attempts by the Chinese government to provide spaces in which citizens are encouraged to participate in politics.

In view of Hirschman’s arguments it would be reasonable to suggest that the introduction of these initiatives is only a way for the Chinese government to try to tamper with the levels of exit and voice in the overall political system. These initiatives could be viewed as attempts to set up safety valves that allow citizens to blow off steam (Hirschman 1970, 124). Chinese blogger Michael Anti has become famous for arguing that the Chinese government would rather have discontent voiced in online fora than on the streets (Anti 2012). If this is the case, then these fora have been set up for the sole purpose of
facilitating entropy as voice. Therefore it becomes relevant to question if it is really worthwhile to investigate other types of entropy within these fora.

Toward the end of his book, Hirschman extends his argument in saying that: "(...) each recovery mechanism is itself subject to the forces of decay which have been evoked here all along" (Hirschman 1970, 124). In saying this, Hirschman is suggesting that even if a system has been set up for the specific purpose of channeling voice, its survival chances are determined by whether users are satisfied with it. If not, they will most likely exit, or voice their grievances with that system. This last argument might be somewhat challenging to comprehend. Hirschman is basically suggesting that a system can only succeed as long as it successfully fulfills the purpose for which it was set up. And thus if a forum has been set up for the purpose of channeling discontent it has to deliver on that purpose, otherwise it will not succeed nor survive. To begin making an assessment of the survival chances of these fora, or any unexpected effects caused by them, we must be able to measure entropy as manifested in acts of voice, exit and loyalty in the specific context in which they are introduced.

4.3.2. Individual action online

Internet users' interaction with online content is arguably mainly about consumption. Users typically access the Internet through 'browsers' that let them consume online content. Besides consumption there are some possibilities for producing content, depending on the type of online space. Production of online content is typically limited to two main distinct types of behavior that are clicks and text production. Beyond this, there are actions such as uploading images, audio, video and code. Such actions are excluded from our study as central propaganda spaces often only facilitate clicks and text entry. Depending on the type of forum, clicks and text entries can be used for a number of very different purposes. However, the basic limitation of online action of clicks and text production will always be determined by environmental factors such as the design of the devices used to access the Internet, typically computers or other devices equipped with typing and clicking instruments such as keyboards, track pads, mice, and touch screens. An individual that does not have access to these devices cannot exist in online environments, or will possibly exist to a lesser extent (Qiu 2009).

64 Besides this there are some ways for individual users to fake collective action such as via means of 'Distributed denial of service'-attacks (DDoS) in which coordinated attacks cause server overload (Sauter 2013).
The nature of online space is very different from physical space. In physical space an individual is either present or not present. In online space however, an individual’s presence is to a much stronger degree determined by actions. From an individual’s perspective, the computer or web browser can be shut down, representing the termination of one’s presence in online space. There is however a possibility that an individual is aware of digital trails and various tools for web analysis that might still pick up on one’s presence (Friedman, Khan Jr, and Howe 2000, 38). It is important for us as researchers of online phenomena to be aware of such differences, not least if attempting to measure entropy as exit.

4.3.3. The link between online and offline space

The interesting thing about having the central government of the CCP engage in discussion fora in online space is its relative dominance in many aspects of offline space in China. A whole range of aspects of Chinese citizens’ daily lives are contingent on policies and decisions by various government agencies, ultimately overseen by the CCP. Although both exit and voice might be possible in specific online spaces there is always a risk of retribution in the physical world of the education system, labor market, housing market or other spheres that are overseen and influenced by the CCP. If applying Hirschman’s metaphor one could say that the customer can always exit a firm but that the customer will only step out on a street that is owned by a conglomerate of stores including the store from which the customer has just exited. In the same way a Chinese citizen might never really be able to exit into something that is not subject to the environmental or infrastructural power of the CCP (Mann 1984). This would then support the Deleuzian narrative of power in open systems where individuals are thought to be coerced by feeling indebted rather than feeling enclosed (Deleuze 1992).

It is customary for commercial airlines or credit card-issuers to set up loyalty programs with special member cards to create incentives for individual customers to stay loyal and refrain from exit and possibly also voice. In the same way it is possible that the CCP have the means to incentivize citizens to stay loyal. One very simple strategy to accomplish this would be the introduction of a type of citizen bonuses for loyal behavior tied to personal identity numbers. There are those who argue that the famous hukou system is used

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65 For a discussion about possible mechanisms, see (Oi 1991).
66 Household registration regime in place since 1958.
to keep track of citizens in offline space, especially those engaging in political dissent (Yang 2007). The hukou program can easily be linked up to online programs such as the registration of IP numbers\textsuperscript{67} or ID numbers by use of big data techniques (Lyon 2009). In effect this could make up one of the largest loyalty programs in the world. Chinese citizens could increasingly see online identity registration programs be connected to offline identity registration programs. Thus existence in online environments could increasingly be connected to existence in offline environments. Drawing on Hirschman’s arguments such programs could replace voice and exit with loyalty in the short run. The long-term effects of increased levels of loyalty are however difficult to predict. The above-described situation poses a difficult problem for empirical research. As long as individuals are bound by loyalty programs they are not likely to exhibit much observable entropy in the form of exit and voice. Entropy in the form of loyalty could be quite difficult to measure as we expect it to be stored entropy for future release.

4.4. Anonymity as catalyst

We now return to the discussion from chapter two, about the potential for using catalysis as a tool for social science research. The way we usually think of a catalyst is that it is something that triggers reactions or processes that would otherwise be inhibited. Our theoretical perspective suggests that Chinese netizens could have large amounts of entropy stored as loyalty. If we could find a catalyst to offset entropy as loyalty, we might be able to measure increases in entropy as exit and voice. A suitable catalyst would be one that could deactivate any loyalty program in place. One way to do this would be to mix-up or disable any user registration numbers and identification schemes. Could it be that anonymity might serve as a catalyst for the release of entropy stored as loyalty?

4.4.1. The role of anonymity in online communication

There has been some interest in discussing the effects of anonymity on the possibility for reasoned deliberations in offline deliberative fora (Stokes 1998, Witschge 2004). But because anonymity can be quite difficult to achieve in

\textsuperscript{67} Internet Protocol number is the unique number that can be used to locate any device connected to the Internet.
panel discussions and similar offline fora, the issue has not been prioritized. This has not been the case when it comes to discussions about computer-mediated communication and online deliberation. In a classic experiment from 1990 a team of researchers were able to show that the level of anonymity is very important for influencing expressions of opinion in computer-mediated fora (Connolly, Jessup, and Valacich 1990). Connolly et al. showed that in computer-mediated group discussions, those individuals who were granted anonymity would express more ideas than those identified. They conjectured that this was due to a reduced level of social inhibition for anonymous individuals (Connolly, Jessup, and Valacich 1990, 699). Later on several researchers came to conclude that anonymity was crucial for any effective deliberation within computer-mediated discussion groups as it would limit fears of retribution, mitigate status differences and make it easier for individuals to resist group pressure (Flanagin et al. 2002, McLeod 2011, 1997, Pinsonneault and Heppel 1997, Postmes and Lea 2000, Rains 2007, Lampe et al. 2014). For a political scientist these arguments sound very similar to the arguments for the use of the secret ballot in elections. If voters are granted anonymity they are expected to be more likely to show up at elections and vote in accordance with their true preferences, even if these are controversial. In Habermas terms, anonymity would serve to disable any connection between the steering system and the lifeworld (Habermas 1987, 153-155, 2006). In a similar way, we could argue that anonymity could disable any link between online and offline space or even environments.

The understanding that anonymity triggers free and unhindered individual expression of opinion has later been questioned by those who argue that anonymity reduces the level of personal identification for the benefit of social identification (Reicher, Spears, and Postmes 1995, 177). When an anonymous individual is no longer acting under personal identity, that individual might try to categorize herself or himself into some form of social group identity. This might affect any expressions of opinion in a number of ways. There is ample evidence to suggest that such variations depend on the specific context and situation (Postmes and Spears 1998, Lea and Spears 1991, Postmes, Spears, and Lea 1998). This leaves the question open as to how anonymity is instrumental in affecting individual expression of opinion in every specific context and situation. With this in mind it is strange that there is a general notion within social science research that anonymity will always increase the rate of interaction, content production and enable free, and possibly controversial or anti-normative speech, in online fora (Rhee and Kim 2009, 225,

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68 The broader theoretical debate goes under the label of individuation/deindividuation-theory or SIDE-theory (Social identity model of deindividuation effects) within psychology and social psychology.

4.4.2. Deindividuation, anonymity and pseudonymity online

Since the early days of the Internet there has been a discussion about the potential effects of increased possibilities of anonymity in online space (Turkle 1996). One concern has been that anonymity would lead to the deindividuation of individuals acting online, which in turn could impede on personal responsibility for online actions (Kabay 1998). There are also concerns about the effects of the use of pseudonyms enabled by online communication (Weicher 2006). In addition there have been concerns about how identity theft is made possible when individuals are allowed to communicate without having their physical bodies present (Wallace 2008). All of these concerns indicate that there might be something about online communication that is fundamentally different from offline communication.

The level of individuation in online communication can be viewed as the amount of metadata or metainformation that is communicated about an individual. Such metainformation could include everything from a name or ID number, to vast information about an individual’s social media profile, personal website, contact details and IP number of the device used to access the Internet. It could even include information about the geographical location of an individual, information from third party sources and potentially even biological data such as DNA and fingerprints. This type of personal information varies to a lesser extent in offline spaces where the level of individuation is usually held rather constant. Typically an individual cannot control how much personal information s/he shares in terms of physical attributes when interacting with other individuals in offline space. If an individual should decide to share more personal information it is typically something that s/he can do at will. Of course an individual could act under pseudonym or stolen identity in offline space, but this would be harder to pull off than in online space where one’s physical appearance is typically concealed.

In this way, communication via online fora has increased the potential for sharing personal metainformation. The width and depth of personal information that can be shared in online space is unprecedented. Unprecedented is however also the potential for distortion of metainformation and the lack of individual control over the diffusion of such information.69 Thus, the

69 Typically discussed in terms of personal integrity.
risk of autocracy in online fora not only concerns power over what is being communicated, but also power over information about who is doing the communicating. From an individual perspective, control over personal information starts with anonymity. It is only if an individual can control the dissemination of personal information that acting under pseudonym or stolen identity becomes possible to begin with. Pseudonymity or identity theft is therefore contingent on anonymity. In view of the arguments above it is reasonable to assume that anonymity is not a dichotomous psychological variable. Individuals will not feel either anonymous or registered. We have however reason to expect that individuals' perceptions of the possibility of anonymity can vary on a scale from little control over personal information, to much control over such information.

4.4.3. The role of anonymity in Chinese online fora

As we have seen, previous studies have found that changing social identity cues is one of the most important factors affecting what people express in online fora (Rhee and Kim 2009, 231). We should therefore expect the level of anonymity to be an important factor in explaining participants’ individual interaction, including voicing dissatisfaction and daring to exit, also in the case of Chinese online fora. In China there have been efforts to decrease the level of anonymity online, including an initiative to introduce a mandatory real-name registration regime (Jin 2012). Even without such an online identification regime there are concerns that individuals cannot use the Internet without having to consider possible practices of monitoring and surveillance (Deibert 2012). If anonymity is such a crucial aspect affecting individuals' expressions of opinion online, and if the role of anonymity is context- and situation-specific, then we must test these mechanisms in the specific context of the fora we want to study.

There are several studies that seek to elucidate how individuals express themselves in online fora in China. Many studies use quantitative content analysis of online discussions to evaluate the nature and quality of those discussions (Wu 2012, Zhang 2005, Zhou, Chan, and Peng 2008). These studies are often focusing on limited or local discursive spaces, as studying larger and connected fora would render such a complex data material that it would demand very advanced research techniques.70 And so in recent years

70 Even though researchers are fast to pick up. See for example (King, Pan, and Roberts 2013, Zhou et al. 2010).
there have been several studies on specific discursive phenomena in specific online spaces (see Yang 2011 for an overview). These studies do a very good job of describing what topics are discussed in certain spaces and how discussions sometimes take shape in online fora. However, these studies fail to show which individuals voice what opinions and why. There are other studies that use survey data to show which individuals are the most likely to voice their opinions online, and what their motivations might be (Qiu 2009, Zhu and Wang 2005). But these studies do not explain what makes an individual behave in a certain way when engaging with a specific forum.

Ideally we would want to follow a group of individuals as they roam the Internet engaging in political discussions. Additionally we would like to be able to manipulate the level of for example anonymity to see how this might affect the group of individuals. In the best of worlds we would like to be able to test one individual under anonymity setting A, then erase the experience from that individual’s mind and repeat the test with a new and altered anonymity setting B. As this is not possible, the next best solution is to test these different anonymity settings on different individuals by random selection in a between-subjects experimental design (Druckman et al. 2011).

To date there are no studies that take the issue of anonymity seriously enough to test how the level of anonymity might influence an individual’s interaction with a Chinese online discussion forum (see Herold and Marolt 2011 for an overview). There are some studies that have sought to discover these mechanisms for the South Korean context, where there have also been attempts to establish an online identity registration regime (Cho, Kim, and Acquisti 2012, Rhee and Kim 2009). These studies of Korean fora partly utilize experiments, but even here we fail to get close enough to the actual circumstances for each individual at the moment of interaction within a specific forum.

4.4.4. Using anonymity as a catalyst for entropy

To really understand what mechanisms are at work, we have to follow users at close hand while they interact with and within a forum. It is however very difficult to do this in an online environment. For those who are not granted administrator capacity, or who do not have other capabilities to monitor and supervise the Internet, the users are up there in the cloud, faceless members of

71 There are some studies of the effects of online anonymity on economic behavior (Hua 2008) and contributions to knowledge accumulation (Zhang and Zhu 2011).
a vast crowd of unknown users. Because of this problem, studies that seek to investigate the role of anonymity have usually been designed as lab experiments in an isolated environment that allows the researcher to control a number of variables. The problem with such studies is that they fail to appreciate the context and situation-specific factors that were found to be so important (Ajzen 2006, 2005, Postmes and Spears 1998).

One solution to this problem is to use a lab-in-the-field experimental design. The advantage of taking the laboratory experiment to the field is that it allows us to control a number of factors at the same time as we can appreciate the specific nature of the context and situation at hand. A lab-in-the-field experiment can be defined as an experiment: "... where the subjects participate in a common physical location (called lab in the field) but the experimenter, to some degree, brings the laboratory to the subjects' natural environment more than the subjects come to the laboratory." (Morton and Williams 2010 definition 8.5). The benefit of this type of experimental design is that it allows us to work with anonymity as a catalyst in the specific context. To test the impact of anonymity we can use control groups who are not granted anonymity. In this way we let the catalyst react in one group and not in the other. This would make it possible for us to measure the average treatment effect of anonymity in open government initiatives in China as a means of evaluating the levels of entropy as exit, voice and loyalty.

Exactly how to make such measurements will be explored in the following chapter. Besides testing the effect of anonymity on user behavior in Chinese open government initiatives, there are a number of theoretical suggestions that have been left lingering from chapter three. These are more concerned with the quality of system dissatisfaction and are less suited to test quantitatively. It is however these theoretical suggestions that will help us with the possible explanations to what could be successful solutions of dealing with system dissatisfaction. Besides the obvious solution, to deal with fundamental issues of quality of government such as corruption, the CCP might be looking at a number of other issues that are more closely related to the steering system design of these fora. Such design issues could be concerned with things like the quality of open government procedures (Rothstein 2011, Rothstein and Teorell 2008).

We will not seek to categorize specific discussion fora as corresponding to any ideal type of democratic, representative, deliberative or collaborative steering model. What we can do is to test empirically how Chinese citizens experience these fora. By asking citizens about the nature of their system dissatisfaction we might be able to find out if they feel that they are mainly denied access (democratic autocracy), are being misrepresented or are having their opinions distorted (representative autocracy), are having their opinions treated in an
arbitrary way (deliberative autocracy), or cannot depend on the communication tools provided (collaborative autocracy). Because of the supposed propensity for loyalty under normal circumstances, the introduction of the catalyst of anonymity is maybe our only chance to study individuals’ system dissatisfaction. In doing this we hope to evaluate the level of entropy to detect and measure autocracy.

4.5. Conclusion

In this chapter we have discussed how autocracy can be estimated by measuring the level of entropy in a system. We have suggested that Albert Hirschman’s theory of exit, voice and loyalty is a good operationalization of the cybernetic concept of entropy. Whether a system is open or closed is expected to influence how entropy will occur. Exit, voice and loyalty can be tampered with in attempts to manage high levels of entropy. High levels of exit and voice can be decreased by increasing the level of loyalty. In the Chinese context it is likely that anonymity will disable loyalty. Thus anonymity can be used as a catalyst to release exit and voice. It is difficult to predict the net effect of anonymity, in terms of engagement with a forum, as the released entropy could take the form of either exit or voice. Exit might decrease content production, as users would be leaving the forum, whereas voice might increase content production.

To test these mechanisms we will now move on to the more empirical part of this thesis. In the following chapter, we will discuss how to understand open government initiatives in China. We will begin with a short overview of Chinese online fora to situate open government initiatives within a wider context of the Chinese online environment. After this we will shortly present the forum that we chose to use for our experiment. In chapter six we will present the results of the experiment. Here we will discuss the treatment effects of anonymity in terms of entropy as exit, voice and loyalty. In chapter seven we will dig deeper into the results of the experiment by discussing the interviews held with all the experiment participants. In this chapter we will discuss how dissatisfaction with the particular open government initiative can be understood in terms of due to democratic autocracy, representative autocracy, deliberative autocracy and collaborative autocracy. After this we will summarize the results in the final chapter eight.
5. EXPERIMENTING WITH ENTROPY IN ONLINE FORA

5.1. The Chinese online environment

As already mentioned there are several specific online phenomena in China that have all contributed to spark popular and academic debates about wider sociopolitical effects. In recent years one of the main areas of interest has been the study of weibo⁷² fora. China has had a long tradition of managing and restraining information (Kalathil and Boas 2001). It has been argued that the introduction of the Internet has changed the way that flows of information can be managed in China and that this presents a considerable challenge for the existing/previous regime of information management. It is argued that the Internet constitutes an environment where Chinese citizens can express their opinions much more freely than what has been possible in the offline environment. The online environment is seen to potentially open up for public spaces that will facilitate uninhibited communication in online fora such as weibo fora (Lagerkvist 2006, 2010).

Weibo fora allow individual Internet users the possibility to set up personal blogs that are accessible by the larger forum community. Users of weibo fora can also publish short messages to be viewed by the whole weibo community.⁷³ For their ease of use and multitude of functionality, weibo fora have become immensely popular for both individual consumption and production of online content (Zhang and Pentina 2012). We are not specifically interested in weibo

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⁷² From 微博, an abbreviation of 微型博客 meaning ‘miniblog’ or ‘microblog’.
⁷³ In this way weibo fora combine the functionality of both Facebook and Twitter that are currently banned in China (Zhang and Pentina 2012).
fora in our study. But the surge in popularity of these fora serves to highlight a number of contextual factors that are important to take into account when studying the contemporary Chinese online environment. Crucially, the configuration of weibo fora shows the problems of using any distinction between private and public space, or public and empowered space, when studying any type of online space or forum situated within the Chinese online environment.

5.1.1. State influence and regulation

In the late 1990's Internet practices mainly revolved around bulletin board systems (BBS) and personal homepages (Yang 2012). As BBS fora allowed users to raise controversial topics anonymously, they provided a type of online version of the big-character wall poster phenomenon\(^\text{74}\) which has constituted an important form of political expression throughout modern Chinese history (Sheng 1990). Because of the relatively unhindered way that Internet users could discuss a variety of topics at BBS fora, these fora rapidly became very popular. In 2005 one of the early university BBS fora\(^\text{75}\) was regulated so that users had to register to gain access to the forum. With this new regulation only students of the particular university could enter this early forum. This has later set an important example for the regulation of other BBS fora (Yang 2012), but also other social media like the popular site Xiaonei\(^\text{76}\).

Since 2005 there have also been quite strict rules for independent websites and personal blogs\(^\text{77}\) (Lee 2012). The combination of stricter regulation of both BBS fora and independent blogs might explain the surge in popularity of weibo fora. Individual pages of weibo fora are exempt from the cumbersome registration procedure that is now required by law when establishing any independent blog or website in China (Jiang 2010). Individual use of weibo fora has also largely been exempt from the strict rules of real name registration that was introduced for some BBS fora beginning in 2005. However, in recent years weibo users have increasingly had to provide personal details to register some weibo accounts (Fu and Chau 2013). There are competing and sometimes conflicting interests when it comes to the introduction of real name

\(^{74}\)大字報 are big banners of political slogans that can be posted in offline public space and that usually allow for some level of anonymity for the person who puts them up as this can for example be done by night.

\(^{75}\)水木清华 BBS

\(^{76}\)校内 is a social media site for university students. Typically students have to register by university, department and year to build a profile.

\(^{77}\)Non-commercial blog or website accessible through an independent domain name.
registration at weibo fora. On the one hand there are commercial interests to keep weibo fora free of registration procedures. On the other hand there are regulatory interests of state agencies to introduce such procedures (Lagerkvist 2012). From a user perspective, identity registration is not necessarily associated with state regulation as some weibo fora providers have made it part of their business model to incentivize users to share personal information to upgrade their accounts (Yu, Asur, and Huberman 2012).

Online fora in China are run by a variety of service providers ranging from private companies to state-owned media agencies. These providers usually have to navigate both commercial interests and regulatory requirements (Yang 2012, Stockmann 2013). State-owned media agencies are directly influenced by the demands of a number of other state agencies, but increasingly, so are private corporations (Weber and Jia 2007). The most popular weibo forum has been the one provided by the Sina corporation (Gao et al. 2012). Another important weibo service provider is the Tencent Corporation that also hosts the very popular instant chat service QQ. In addition there are providers of weibo fora that are more closely connected to the state apparatus. One such provider is the People’s Daily news organization that also publishes the People’s Daily newspaper, which is the official media outlet of the Chinese government and the CCP.

In recent years the Sina Corporation has had to comply with a number of both legal and informal requirements made by state agencies. Such compliance has included the introduction of identity registration procedures for users entering Sina weibo and the editorial oversight of politically sensitive content (Lagerkvist 2012, Tai 2006). Because of these activities, Sina's and other weibo hosts’ independence from the state can be put into question. Because these are some of the main providers of online fora, it is questionable if there are any weibo fora that can ever be considered autonomous from the oversight and intrusion of the CCP.81

81 Besides various identity registration procedures initiated at various online fora there have been other more manifest techniques of regulating online consumption and production of content. From the mandatory procedure of showing ID when entering Internet cafés (Chase and Mulvenon 2002), via interference in debates and censoring of content by state employed staff infamously known as the fifty-cent party (Hung 2010), to the attempt to implement the deployment of censoring software (Green dam youth escort) on computers sold in China (Herold and Marolt 2011).
5.1.2. Online identity registration in China

We can conclude that the Chinese online environment must be considered to be under the influence and oversight of the Chinese government and the CCP. This means that personal metainformation of online users could potentially be accessible by Chinese state authorities at all times. There are however ways for individuals to increase their control over personal metainformation in online space. Despite the increasing need to register, there are some possibilities to withhold personal metainformation by use of technical tools. One possibility is to use deindividuation tools such as proxy- and VPN services. Because a number of websites are banned in China some Chinese Internet users have learnt how to use these services to access banned sites (Yang and Liu 2014). These services allow access to banned sites by changing the IP address of the device used by an individual Internet user. By doing so, such services could also allow for the psychological effect of anonymity. Of course the problem with these services is that although they allow access to banned sites they still do not provide any solution to the increasing demands to register to gain access to online fora that are based in mainland China. These anonymization tools provide protection for viewing controversial content but they are sometimes not possible to use to produce controversial content, as a user still has to register somehow to make comments or write posts in online fora.

Another reason to think that it is at least possible to feel anonymous in Chinese online space is the rather strong tradition of anonymity at some online fora. We have already mentioned Tencent’s chat service QQ as one of the most popular online services in China. What makes QQ unique in terms of deindividuation is that it has traditionally provided users with randomly assigned identity numbers. These numbers have then been possible to use to register for other online services like personal blogs, forum identities and even online banking services (Herold and Marolt 2011, 167).

We know from the discussion in chapter four that pseudonymity is contingent on anonymity. However, in the case of the randomly assigned identity numbers supplied by QQ, it seems that anonymity has in fact been made possible by pseudonymity in some Chinese online space. We must however consider this to be a milder form of anonymity. In a way QQ has helped create an online environment where Internet users might feel partially safeguarded by randomly assigned online ID numbers. In a way, QQ numbers provide pseudonyms that could help to entice feelings of anonymity by proxy identities. But because of the probable possibility of state agencies to access information about QQ accounts, the randomly assigned pseudonyms could easily be linked to personal information such as IP numbers. In a way this
allows individuals to feel anonymous in relation to anyone who does not have the capacity to gain access to those numbers. Users are therefore anonymous in relation to friends and family, but not in relation to government agencies and the CCP.

Of course individual perceptions of anonymity and individuation must be studied empirically for every specific context and situation. What we can say more generally is that there are two main concepts for deindividuation in Chinese. These are wuming\(^{82}\) (without name) and niming\(^{83}\) (secret name) (Herold and Marolt 2011). The concept that seems to be more commonly used in relation to online phenomena is niming. This would suggest that the main source of anonymity experienced by Chinese Internet users is not the type of strong control over personal information that is enabled by the removal of personal metainformation. This is the type of anonymity that would be provided by proxy- and VPN services. Instead anonymity in Chinese online space is more likely to be based on pseudonymity and the type of milder control of personal information that is enabled by the use of avatars of proxy identities. This type of anonymity would be provided by random or temporary fake identities such as QQ numbers.

5.2. Open government fora

We have defined open government as experiments with increased participation, deliberation and transparency, sometimes by use of online fora. In recent years there have been a variety of these experiments in China that have focused mainly on either transparency or participation. In addition, some fora have put emphasis on deliberation on policy. Experiments have ranged from the very local, to regional and central levels of government. They have also varied in the level of institutionalization and closeness in their relation to state agencies. They have been initiated both by single individuals and by government agencies (Florini, Lai, and Tan 2012).

Sina weibo has been one of the main fora in which government agencies and individual officials have made their presence known to citizens, not least through the establishment of their own pages at the Sina weibo site (Svensson 2012, Noesselt 2013). This can be seen as a type of not so institutionalized open government initiatives that are difficult to evaluate over any longer

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82 无名
83 匿名
periods of time and as part of any coherent government strategy. In a way these initiatives show that there might not be any coherent strategy to initiate these experiments. Therefore these scattered initiatives may still evolve in ways that are difficult to predict. We should also acknowledge that a number of different state and non-state actors might have a variety of reasons to set up these fora. This calls into question the validity of any distinction between public and empowered space that we already dismissed in chapter four. In the case of Chinese online space, it is highly questionable if there are some spaces that matter more than other spaces. Government fora are typically not initiated on any clear mandate from community members or government officials. Instead they often evolve as a type of 'beta institutions' (Schlæger and Jiang 2014).

5.2.1. Central propaganda spaces

Even if the Chinese online environment can seem like a jungle of indistinct demarcation and political importance, there are some researchers who have at least made attempts at empirical evaluations. Min Jiang distinguishes between central propaganda spaces, government regulated commercial spaces, emergent civic spaces and international deliberative spaces (Jiang 2010). According to her categorization, central propaganda spaces represent the most explicit attempts by government agencies to initiate dialogue and information sharing with citizens. Typically such spaces lie under government websites. There has been a strong increase in the number of government websites in recent years. Nowadays, most county, city and provincial level agencies have set up their own online spaces. Many of these spaces have subsequently facilitated fora to some degree as they usually provide some means of information exchange and communication between individuals in different capacity and relation to the government agency. On the central level it has primarily been state news organizations that have been responsible for establishing central propaganda spaces. It is within fora like 'Strengthening the nation forum' that prominent figures of the CCP have made their appearances online (Jiang 2010).

84 强国论坛 under the People's net of the People's Daily news organization. A forum set up to facilitate discussions and protests after the NATO's bombing of the Chinese embassy in former Yugoslavia in 1999 (Yang 2003).
5.2.2. Open government fora in central propaganda spaces

In this thesis we will not give a complete account of all types and varieties of open government initiatives in China. As already mentioned we will focus on fora situated within central propaganda spaces. We focus on these fora as they are most closely associated with the state apparatus (Jiang 2010, 12). As these fora are located within online government spaces they represent the most explicit attempts by the Chinese government to initiate information sharing with citizens. Good examples of such fora are those that lie under the People’s net \(^{85}\) and that invite citizens to engage, primarily E-two sessions \(^{86}\) and E-gov forum \(^{87}\) (张旭 2011). Both of these fora allow for deliberation on policy proposals at the Chinese People’s Political Consultative Conference CPPCC. As such they give citizens insight into the policy proposals that are discussed at the CPPCC (transparency), they also give citizens the possibility to raise, comment and vote on proposals (participation). They even provide opportunities for citizens to engage in online discussions with representatives of the CPPCC, other government agencies and each other (deliberation).

5.3. Experiment design

In our study we conducted a lab-in-the-field experiment to investigate the role of identity registration in citizens’ interaction with an open government initiative within central propaganda space. As the activity on the site E-two sessions changes following the political calendar, peaking at the time of the two sessions, \(^{88}\) we instead chose to focus on the more permanent site, E-gov forum (see figure 3 for a view of the main site interface).

The E-gov forum is designed as a bulletin board system where users can view policy proposals and comments sorted by popularity divided by ministry, subject, location and response rate. Users can also engage with the forum by voting for or against proposals, but also by writing comments and filing complaints to comments made by other users. If users want to submit their own proposals they must choose if they want to register by personal details from another forum, register at E-gov forum, or refrain from submitting

\(^{85}\) 人民网

\(^{86}\) My translation from E-两会 (http://ezheng.people.com.cn).


\(^{88}\) 两会 The annual meeting of the National People’s Congress and the Chinese People’s Political Consultative Conference, usually held in early spring.
personal information. The suggested procedure is however to register as a user, hand proposals in to be checked by a moderator who will proceed to publish the proposal for other users to vote on. Then a moderator will hand the proposal over to the proper department who will return with a reply.

To test how identity registration might affect users of E-gov forum we set up a context and situation specific experiment. Between the 28th of May and the 10th of June 2013, university students at a big university in China were approached on campus and asked to participate for 45 minutes in a research project about a new website. About 70% of approached students agreed to participate, resulting in the total number of fifty students participating in the experiment. Participants were all approached at secluded locations on the first, second and third floors of the main university building where students often sit to study or browse the web using the university’s Wi-Fi connection (see figure 4).

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89 The gender distribution ended up being almost 50/50 in both treatment groups.
Participants were first handed a tablet computer\textsuperscript{90} prepared with a survey questionnaire.\textsuperscript{91} In this questionnaire they were asked to answer a number of questions about their Internet habits and about their interest in politics. They were then given a laptop computer\textsuperscript{92} where half of the students were asked to log on to the Internet using their own student ID and password. This procedure represents the natural or baseline treatment in that students always have to log on to the university network using their personal student ID. The other half of the students was allowed Internet access without such personalized log on procedure. This anonymized procedure represents the manipulation treatment in our experiment.

The deployment of treatments was made by random assignment. To further strengthen the treatment, students in the registered group were shown a message at the end of the questionnaire saying that they could be identified using the IP number of the computer that they were using.\textsuperscript{93} The anonymous users on the other hand were shown a message saying that anything they said or did would be completely anonymous and that the IP number of the

\textsuperscript{90} iPad with simplified Chinese language settings prepared with survey.
\textsuperscript{91} The web survey tool used was Survey Monkey by SaaS.
\textsuperscript{92} MacBook Pro with simplified Chinese language settings.
\textsuperscript{93} 请注意，您将使用您自己的身份。在操作时，您的任何言行都会通过您正在使用的这台电脑的 IP 地址与您的个人行为联系起来。
computer could not be traced to them. All participants had to click a box acknowledging that they understood these instructions.

When students were handed the laptop computer the main site of E-gov forum was already open in the browser. What the students did not know was that the computer had also been rigged with software running in the background. This software had been installed to record all the students’ interactions with the forum. The students were allowed unlimited time at the forum. Two individual experiments had to be discarded. The first because the student was unaccustomed to the type of computer used, and the second because the whole website froze and none of the links worked, incidentally occurring on the 4th of June (the anniversary of the massacre at Tiananmen square of 1989). This is a date when information is allegedly monitored extra attentively by government agencies (Lagerkvist 2005). The first student was replaced by another participant. The second student was allowed to participate in the experiment as the disturbance was naturally occurring. That participant’s screen recordings were however considered to be invalid and were removed from the experiment analysis.

5.3.1. Hypothesis

In our experiment we used a Rubin causal model design type test of hypothesis (Morton and Williams 2010). For this study we chose to test the standard assumption that individuals produce more content in online fora when allowed anonymity. In its simplest form our model looks as follows:

Baseline treatment (independent variable): Original forum setup of restricted anonymity
Manipulation treatment (independent variable): Modified forum setup of increased level of anonymity
Dependent variable: Individual online content production
Hypothesis: An increase in anonymity will result in an increased individual production of online content.

This is a hypothesis that is intuitively reasonable according to previous research discussed in chapter four. However in line with our conclusions from that chapter we suspect that this hypothesis might not hold. If anything we

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94 请注意，在这里您将受到严格的匿名保护。您的任何言行都将被视为一个普通IP地址发表。
95 This resulted in the total number of screen recordings to be 24 for anonymous users and 25 for registered users.
need to test the positive correlation between anonymity and content production in this specific context and situation. If we find evidence in conflict with this hypothesis it could well be that there are other mechanisms at play. Our reading of Hirschman suggests that a decrease in loyalty, sparked by anonymity, will have two possible effects. The first would be to allow for exit, and the second would be to facilitate voice. Therefore it could be that anonymity will increase individual content production in the form of voice, but that the main effect will be increased levels of exit that would thus lower the aggregate amount of content production. In addition we cannot know what level of content production that follows from loyalty in this specific context. The main objective of the experiment is to establish whether the content produced is negentropic or entropic and how entropy is affected by the level of anonymity granted. Entropic communication would represent symptoms of autocracy. To estimate the level of entropy in the content produced we must find means to measure not only the quantity of content produced but also the quality. We will return to these questions when discussing the experiment results in the following chapter six.

5.3.2. Construct validity

For the time being our main objective is to explore the validity of the hypothesis and the general theoretical notion that anonymity will cause more content production by reducing the level of social inhibition (Connolly et al. 1990). According to this hypothesis the main effect of the manipulation treatment should be increased levels of content production by experiment participants at the forum. We have already discussed how online anonymity is a rare thing in China and it is very likely that registering by student ID and personal password would constitute a clear case of identity registration. Removing the process of registering by student ID and personal password would constitute a case of a significantly increased level of anonymity. This would thus imply a high level of construct validity of this experiment.

For our study we conjecture that ‘social identity cues’ also become ‘political identity cues’ in the Chinese online environment. To be fair to the study of Connolly et al. they make no prediction about how anonymity will play out in real world political contexts. Thus we have to accept that we will not be able to falsify the general hypothesis about the role of anonymity in non-political lab environments. For this reason we apply an ‘inspired-by-evaluations-of-formal-theory-predictions’ approach where the ambition is not to test the hypothesis of Connolly et al. but to explore how it performs in this specific environment (Morton and Williams 2010).
5.3.3. Ecological validity

The interesting question of validity in relation to the study of Connolly et al. is one of ecological validity. We have previously argued that there seems to be a tendency within the research community to conjecture that anonymity leads to increased levels of interaction, content production and free speech. This notion seems to stem from early lab experiments on the role of anonymity in computer mediated discussions and deliberations. Our point in doing this experiment is to challenge the ecological validity of these early results. It might be that anonymity plays out very differently in different contexts.

Having said this, we must also be aware of the ecological validity of our experiment. The experiment was set in the context of an elite university campus in a metropolitan area on the east coast of China. Any findings from our experiment must be tested for validity in different contexts if we are to make generalizations about the effects of anonymity on the behavior of individuals from different age groups or in different contexts within China. This is to say that although we might be able to trust the validity of the causal effects for the group studied, we cannot be sure that the effects will be the same for a different group in a different context.96

5.3.4. Reliability

Effective randomization of treatment assignment is a precondition for believing that any average treatment effect is because of anonymity. If randomization is unsuccessful there could be a large number of other variables that might influence any measured treatment effect (Druckman et al. 2011, Morton and Williams 2010). If, for example, different students linger in the university building at different times, unsuccessful randomization could lead to a risk that any average treatment effect would be because of students treated with anonymity are also students who follow different schedules and study different curricula. If randomization is successful such differences should be evenly distributed between the two treatment groups.97 As we used a randomized assignment procedure to distribute treatments on subjects in a lab-in-the-field environment, we were able to control for most observable confounding factors.

96 There is some reason to believe that the effect could be different in different areas depending on factors such as economic autonomy (McMann 2006).

97 Effective randomization was achieved by use of a randomization tool on iPhone to decide which experiment treatment to administer.
Unobservable factors such as cognitive ability and computer skills were not considered to be an issue as the sample groups consisted of students of the same age and intellectual ability, all participating in the experiment under similar circumstances. Asking control questions at the point of the final debrief minimized the risk that students had figured out the purpose of the experiment. According to students’ answers no one had realized that they had been subject to an experiment.

When performing experiments over extended periods of time in a specific location, there is a risk that experiment participants will communicate with each other about the experiment. This might lead some participants to have inside information about the experiment. If this should happen, not all participants will be equally un-informed and we would thus not be able to assume stable unit treatment. To minimize the risk that the stable unit treatment variable assumption (SUTVA) would not hold, all of the subjects were told not to discuss their participation with anyone (Morton and Williams 2010). Unfortunately we had to consider SUTVA when deciding on the total amount of students participating in the experiment. Should we have extended the experiment to increase the number of students participating, there would have been a risk that students would have become curious about the experiment taking place on campus. The effect of this could have been that students would have started talking with each other about the experiment. By limiting the experiment group to fifty students we can be reasonably confident that SUTVA holds.

Another obstacle when performing a lab-in-the-field experiment in a confined space of the context at hand is the attention that it might get from staff and officials. The chosen university campus was ideal as there were many foreign students and a social atmosphere in the main building. In this environment, Chinese students could be approached without attracting the attention of university personnel. At the end of the second week of experiments there were however initial signs of attention by security staff which was also a reason for limiting the experiment to fifty students. The relatively low number of participants is the main issue of reliability in assessing the average treatment effect of anonymity, as we will see in chapter six. However, because of SUTVA and the risk of having to abort the experiment if interrupted by the

98 Many locations in Beijing and Shanghai were scouted before setting up the main experiment.
99 The experiment had been sanctioned by a research center affiliated with the university, but no official permits had been applied for nor granted.
security staff at the university, fifty students were still considered the optimal number for the experiment under the local conditions.³⁰⁰

To avoid any reliability issues in the analysis of the material, all screen recordings were anonymized to hide information about which treatment each student had been subject to. The anonymization of the individual recordings not only guarantees intersubjectivity in how the data is processed and analyzed. It is also an important tool to put into effect some ethical considerations.

5.3.5. Ethical considerations

There are three main ethical considerations involved in undertaking this type of experimental research. The first is that we, for the purpose of the experiment, are using surveillance techniques in which individuals’ political preferences are registered and recorded. As this is potentially a breach of personal integrity we need to make sure that those records will be contained, completely deindividuated and used only for research purposes. As already mentioned, all records were thus immediately deindividuated after recording and given anonymous reference numbers. All records were retrievable only by use of a password, and made accessible only to people within the research team.

The second ethical consideration concerns the psychological comfort of participants. To ensure that the participating students would feel no discomfort from partaking in the experiment we took a number of precautions. The main precaution was that all participants were given a full debrief at the end of the experiment. At the debrief they were all informed about the purpose of the experiment and the means by which their actions had been recorded. At this point all participants were given the opportunity to have all recordings deleted.³⁰¹ All participants were given a written note explaining that their identity would be kept safe including contact details if they would have any further questions later on.

The third and most important ethical consideration is the safety of participants. Because of the unknown consequences of any type of political behavior in China, all participants and contributors on location have been completely

³⁰⁰ Several pilot experiments were performed on many locations in China in preparation for the experiment.

³⁰¹ None of the participants chose to have their records deleted.
anonymized. The experiment was designed so that the manipulation treatment would not result in any extra imposition or safety risk as it only increased the level of anonymity for individual participants. In this way the treatment assignment could not have imposed any increased level of discomfort or safety risk on participants. All survey collection, experiment sessions and interviews were conducted by me, a representative of a Swedish university. The reason for this was to mitigate feelings of anxiety that any of the research data would ever be used by any Chinese organization or institution. Assurances that this would not happen were also given to participants at the final debrief. The experiment was set up in accordance with all contemporary ethical standards for experimental research (Morton and Williams 2010, Druckman et al. 2011) and Internet research (Eynon, Fry, and Schroeder 2008).

5.4. Data output

The material gathered and analyzed mainly consists of screen recordings of the subjects’ up to twenty-minute-long sessions of interaction with the E-gov forum. Before entering the forum all subjects were asked to fill out an online survey mapping their political preferences. In addition to this, interviews were held after each individual session to ask each participant about their experiences and reflections. This renders us with a rather rich material of several kinds of data: screen recordings, survey data, observational data and interviews.102

We consider the screen recordings to be the main material for evaluating our hypothesis. These recordings should provide us with complete and exact representations of all the participants’ interactions with the forum. In this sense the main material underlying this study is of very high reliability. The only time when the screen recordings might misrepresent a participant’s interaction with the forum is when s/he might be interrupted by the offline world of the field-lab-environment. Examples of this could be if a participant had to go to the bathroom or if s/he received a phone call. At the few instances when this happened an annotation would be made in the experiment log to be accounted for in the analysis.

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102 Interviews were held in a semi-structured way immediately after the subjects had finished their sessions at the forum. According to the subjects’ own preferences the interviews were held in either Chinese or English. All but one student chose Chinese.
5.4.1. Online content

We have previously concluded that online content production is mainly limited to clicks and text production. Any individual content production at the forum must thus be measured by the quantity and quality of clicks and text produced.\textsuperscript{103} Clicks can be in the form of showing interest in a topic by clicking on it or showing support or opposition to a proposal by voting for or against it. Text on the other hand must be analyzed to assess its meaning.

One of the fundamental problems when using textual content for research is how it is detached from its author and from the context in which it was first produced. There are several possible ways to explain the meaning of a piece of text, as well as the possible intentions of the producer of that text. In many cases we can trace the producer and gather more information about the context in which the content was produced. Typically this is the case when we analyze the meaning of a text where the writer and the date and place of publishing are known. This kind of information greatly increases our possibilities of learning more about the inherent meaning of the text and the intentions of its producer (Skinner 2002).

In some cases it is impossible to know the identity of the producer of textual content and the context in which that content was produced. This is often true for textual content on the Internet. Because of this, online content is sometimes regarded with skepticism. When there is no identifiable writer or publisher, it can be difficult to trust the reliability of the textual content. It can also be difficult to determine the exact meaning of the textual content if it cannot be related to any specific writer or to previous statements by that writer, thus making it difficult to determine the validity or coherence of the textual content in relation to the full views of the individual who produced it (Sveningsson Elm, Lövheim, and Bergquist 2003, 215). In our study this problem is greatly relieved in that we know the content producer and that we have access to survey data about that individual's political preferences. In addition we have access to interview data including her or his reflections about the content produced.

\textsuperscript{103} Scrolling was also considered but finally discarded as a measure of content production.
5.4.2. Online speech acts, click acts and read acts

In the case of online textual content we are fundamentally dealing with the same methodological questions that prominent researchers of textual content in general such as Quentin Skinner have asked before us. What is a producer of a text trying to achieve with a certain utterance? What does the textual residue say about what the text producer was trying to do in making that utterance? (Skinner 2002, 104).

In Skinner’s *Visions of Politics* (Skinner 2002), text producers are seen as free agents that can be supposed to act politically unhindered through textual speech acts. This is evident in his discussion of illocutionary speech acts, where speech acts as warnings are discussed mainly from the point of view of the person doing the warning (Skinner 2002, 110-115). Skinner writes that the aim of his methodological and theoretical perspective is: ".... to see such texts as contributions to particular discourses, and thereby to recognize the ways in which they followed or challenged or subverted the conventional terms of those discourses themselves" (Skinner 2002, 125). In saying this, Skinner is implicitly saying that we need not necessarily question to what extent a producer of a text is autonomous enough to engage in acts of political subversion.

From our theoretical discussion in chapter four, we know that we should not make any assumption about autonomous individuals who are uninhibited in producing subversive or any other speech acts. Thus it becomes more relevant to discuss the inhibition of speech acts. In this sense we are focusing less on the empowerment to perform speech acts and more on political disempowerment or powerlessness (Cheater 1999). Rae Langton has discussed powerlessness in relation to speech acts in the following way: ".... one mark of powerlessness is an inability to perform speech acts that one might otherwise like to perform" (Langton 1993, 314). In developing this argument Langton draws on the work of John Austin to theorize powerlessness (Austin 1975). Although we sympathize with Langton in trying to analyze powerlessness in relation to speech acts, we know that we should be skeptical of the use of the concepts powerlessness and empowerment to begin with. Following our previous discussion, power is not to be considered an asset but a cost. If we are interested in studying the absence of inhibition of political action, we should expect power to be the problem. Any effective transmission of intention into action should instead be expected to depend on the level of behavioral control.

As noted earlier in chapter four, the online environment allows for communicative action based on the type of communication tools typically available in standard computers and mobile devices. Keyboards allow users to type in text,
but mice/track pads/touch screens also allow users to navigate and choose content by the act of 'clicking'. Any measurement of political action in this environment must take into account these activities as well as action through speech. In our study we will therefore measure both speech acts and click acts.

Furthermore, if we accept the notion of the ‘prosumer’ discussed in chapter one, then we have to accept that the distinction between production and consumption is possibly misconceived in any assessment of political action. If we are interested in all types of action there is no reason to exclude the consumption of online content. For this reason we are also interested in ‘read acts’. The most explicit element of action as consumption, in relation to online content, is the act of clicking on a certain type of content. However, once clicked, the act of lingering on that content should also be considered a type of action. To summarize we will be looking for entropy as speech acts, click acts and read acts.

5.5. Interviews

One key method in exploring the mechanisms behind entropy is the use of qualitative interviews. When designing this experiment there was one question that eventually had to be raised. Should any interviews be conducted before or after the experiment debrief? The debrief is the point at which experiment participants are told about the purpose of the experiment. This is an inevitable part of any experimental research, particularly for ethical reasons (Morton and Williams 2010). At the point of debrief, experiment participants can be surprised and shocked by how they reacted to the experiment or to the manipulation treatment. Therefore it is important for the researcher to be considerate and sensitive to emotional reactions at the point of debrief. In this section we will discuss the possibilities of using any such emotional reactions as an icebreaker in an interview conversation. The more general purpose is to discuss how interviews can be used in experimental research.

5.5.1. The use of interviews in experimental research

There are two main bodies of literature on research methodology that can be consulted when looking for previous work on how to use interviews in experimental research. These are the broad fields of literature on experimental methods and interview methods. In addition it can be of interest to study
literature on participant observation and action research. This latter type of literature highlights any issues that arise when researchers actively engage with persons being studied and thus intrude in their normal environment. In our case the manipulation treatment might serve as such an intrusion. Indeed, subjecting individuals to an experiment might be perceived as an intrusion to begin with. As we are mainly interested in discussing interviews as a complement to experimental studies, we will focus on the literature on experimental methods.

In some of the literature on experimental methods, the research method of interviewing is simply considered irrelevant (Morton and Williams 2010 section 2.4.4). The main reason for this is that the goal of interviewing is mainly to gain access to human subjects as if the researcher was not there, rather than to manipulate the subject and thus the data-generating process. In contrast, the goal in experimental research is typically to manipulate human subjects in the data-generating process to be able to analyze different outcomes due to the introduction of the manipulation treatment (Morton and Williams 2010 section 2.4.4).

In some of the literature on interview methods it is often declared that the researcher should try to avoid influencing the interviewee. This is however only valid if the aim is to use quantitative interviews to explore causality in line with any positivistic notion of scientific inquiry (Kvale, Brinkmann, and Torhell 2009, 72, McCracken 1988, Ryen and Torhell 2004, Silverman 2011, 145). As the main ambition in experimental research is precisely to find causal relationships (Morton and Williams 2010), it is understandable why interviews are disregarded in the literature on experimental methods. Thus there seems to be an impossible relationship between experimental research and interviewing that can be summarized as follows: Experiments are set up to study causality and can be intrusive. Intrusive qualitative interviews cannot be used to study causality.

In the literature on interview methods there is however an appreciation for open-ended interviews where the interviewer actively engages with the interviewee with the risk of being intrusive. Norwegian psychologist, Steinar Kvale concludes that intrusive questions can serve to control the reliability of answers and thus verify some interpretations. Kvale suggests that there are times when intrusive questions might spark a reaction that can enable a better understanding of interviewees (Kvale, Brinkmann, and Torhell 2009). This would suggest that qualitative interviews are useful to control and verify a causal relationship. Such interviews cannot however be used as proof of any causal relationship.
Experimental research is intrusive in that subjects are typically exposed to different types of treatments. In successful experiments it is however only at the time of debrief that subjects are made aware of the different types of treatments that they have been subjected to. This means that subjects’ reactions to the intrusion of the treatment will only show at the point of debrief. We argue that this is a pivotal moment in the experiment that can be utilized for interview purposes. Before the debrief, it should be possible to perform non-intrusive interviews as if the interviewer was not there. But because the subject has been asked to engage in the experiment, there is still a risk of intrusion by the researcher, although the interviewee will not be able to comprehend the full nature of that intrusion. This is why we shall focus on the post-debrief interview that would have to be the kind of intrusive open-ended interview that Steinar Kvale advocates as having controlling and verifying qualities.

In the literature on experimental methods there is often a focus on the debrief for ethical purposes. However in a seminal article from 1977, Frederick Tesch notes that the debrief is for three purposes; ethical, methodological and educational (Tesch 1977). There are a number of observations that have been made regarding the methodological aspects of the debrief. Many researchers note that the post-debrief interview is a valuable opportunity to control for flaws in the experiment design (Christensen 2004, 257, D'Angiulli and Smith LeBeau 2002, Kassam-Adams and Newman 2002). After the debrief, when subjects have been made aware of the purpose of the experiment, they can provide the researcher with valuable information about whether they felt bored, did not pay attention, figured out the purpose of the experiment and their role in it, etc. There are however also those researchers who have concluded that post-debrief interviews are important in that subjects are allowed to comment freely on any part of the experiment, including provide explanations to their behavior (Christensen 2004, 368, Sharpe and Faye 2009). These interviews cannot be used to assess any treatment effect and thus prove any causal relationship, but they can be used to explore the mechanisms by which subjects are influenced by the treatments. This has led some researchers to state that the post-experiment debrief can in fact be more important than the data collected in the experiment (Sieber 1993). Of course the importance of post-debrief interviews depend on the research questions and the aim of the research. As we are conducting an ‘inspired-by-evaluations-of-formal-theory-predictions’ approach, post-debrief interviews could be of very high potential utility in our study.
5.5.2. Experiences of pre-debrief interviews

To test the difference in pre-debrief and post-debrief interviewing, we conducted a special pilot study. In this pilot study we tested both the pre-debrief and post-debrief design. In the pre-debrief design the ambition was to use the interviews as part of the proof for our hypothesis. Without going further into the details of this setup, we can conclude that the pre-debrief interviews were of little methodological value. The reason for this is that the comments of the interviewees were inconclusive as to whether the subjects had been affected by the anonymity treatment or not. No real measure could be found as the interviewer had to remain vague about the purpose of the experiment. Vague questions like ‘Did you feel comfortable expressing your views at this forum?’ were answered by equally vague statements about the comfort of using online services in general. Thus the interviews were of little utility in determining whether the hypothesis would find support or not. In addition to this, the pre-debrief interviews could not be used to control any confounding factors that might have occurred during the experiment. As the subjects could not be informed that they had been part of an experiment, they could not be asked if they had figured out the purpose of the experiment.

5.5.3. Case study of a post-debrief interview

Because of the failure of the pre-debrief interview design, we decided to do a case study of a post-debrief interview setting. One subject was singled out to be subjected to the same experiment as the pilot group but with the post-debrief interview instead of the pre-debrief interview. In this design we could ask the subject all relevant questions about the main purpose of the experiment, including how the subject experienced online identity registration.

The result was an open-ended conversation about the role of identity registration for individual political communication on the Chinese Internet. The subject who, by randomization, had been given the anonymity treatment started out somewhat hesitantly but soon elaborated on how she had been surprised by the level of anonymity granted at the forum and how this was unusual when interacting in Chinese online space.

我觉得匿名最好一些。但是，即使是匿名有很多人也会很害怕。因为你有自己的家庭，你家里边的网络它会有自己的 IP。你有你的工作环境，它也有 IP。这个东西，如果，如果你的言论反映上去之后，你的 IP 即使不说你自己的名字，但是可以找到你。所以它没有绝对的匿名，所以我觉得这个对人的行为影响还是很大的。
I think it is best to be anonymous, but even if you are allowed anonymity there are many people who would feel scared. Because you have your own household, that household will have its specific IP-number. Your opinion can be traced to your IP even if you don’t register by name. Therefore you don’t have unconditional anonymity. Therefore I think that this really might affect peoples’ actions.

By own initiative she also elaborated on how the level of anonymity might have influenced her behavior. She thought that being granted anonymity did not influence her level of engagement with the forum, nor the number of comments that she had produced, but that it might well have influenced the quality of the content that she had produced.

If anonymous I might say more and be more honest. If not anonymous I would perhaps also say a lot but I would be less honest.

Because she had been informed about the purpose of the experiment, her comments could not be used to test any hypothesis. However, given the results of this interview we could reassess the experiment data (screen recordings) to measure not only the quantity of content produced, as originally planned, but also the quality of the content produced. In this way we could use information from the post-debrief interview to explore the causal mechanisms in an abductive way. In doing so we would have better possibilities of measuring the treatment effect more effectively.

In our case study of a post-debrief interview we found that the post-debrief interview might perhaps be an underestimated tool for exploring causal mechanisms. Interviews cannot be used to validate or falsify hypotheses, but interviews can be very helpful in adjusting or elaborating hypotheses. Therefore post-debrief interviews are especially suitable for ‘inspired-by-evaluations-of-formal-theory-predictions’ approaches.

5.6. Notes on experimental research in China

A colleague once expressed frustration that not enough work got published that proved hypotheses wrong, described flawed methods or disclosed unreliable sources of data. He argued that such information would be very valuable for the larger community of researchers before venturing into new
research projects. For this reason we will now disclose some issues that presented themselves when setting up the second pilot experiment on site in Beijing. Some of these issues could possibly have been foreseen by taking into account previous experiences of the Chinese online environment.

Unfortunately not much has been documented about these issues by other researchers doing fieldwork on the Internet in China. For the benefit of other researchers doing successful fieldwork research about Chinese Internet phenomena in the future, these issues should be exposed and documented. Our experiences show that the Chinese Internet is not only a specific empirical context but also a specific research environment demanding specific research techniques.

5.6.1. Connectivity and research tools

For its ease of use, language compatibility, cost and design features, Google forms was chosen as the survey tool for the experiment. In pilot studies performed outside of China this tool showed high functionality, but after several attempts to make it work in China it had to be abandoned and replaced by another web survey tool. This tool also had some functionality issues after longer periods of use in Beijing in February 2012. These issues could not be resolved by using VPN services but seemed to disappear when using a number of commercial proxy pool services.

It is difficult to know the exact reasons for these technical issues, but there is a risk that it has to do with some aspects of the way the Chinese Internet is managed (Zittrain and Edelman 2003, Deibert et al. 2008, Deibert 2012, Deibert et al. 2010). There is some research that help to explain why proxy pool services can solve issues that single VPN servers cannot (Ding et al. 2011). This research points to the risks of relying on one single proxy server. Repeated attempts to connect to a specific server will be detected after which the service is likely to be blocked. This explains why proxy pool services work better as such services spread the risk of detection over several proxy servers (Ding et al. 2011).

5.6.2. Connectivity and timing

In the research leading up to the main experiment, a pilot study was performed that focused on both E-two sessions and E-gov forum. The pilot was set during the two sessions event in Beijing 2012, to facilitate a closer look at
the related online forum, E-two sessions. There is a risk that this planning added to the difficulties to go through with the experiment. There is little research that can confirm that Internet surveillance intensifies at the time of important political events in China. There are however some news outlets that have reported that this is likely the case (Henochowicz 2012). If this is true it is yet another aspect that needs to be taken into account when preparing for any Internet research on location in China.

Because of the trial and error approach of using pilot studies to test the ideal experiment environment, a number of practical issues could be resolved before launching the final experiment. The only issue that we did not foresee was how connectivity and the general functionality of the E-gov forum site would drop in the afternoon of the forth of June, the anniversary of the 1989 massacre at Tiananmen square in Beijing.

5.6.3. Internet research in China

Because of a variety of issues encountered when setting up the pilot experiments in China, they did not render any data that could be used for further analysis. But the pilot studies still provide us with valuable experiences and lessons to be learned for future research. Firstly, the researcher of Internet phenomena in China probably does well in moving away from a ‘globalized’ mindset when it comes to notions of the Internet. The Internet in China is quite different from the Internet in other places. This might affect both the way that users behave online and the way that researchers are able to conduct research. This calls for updated publications about how to do social science research in China, specifically in relation to Internet research (see Heimer and Thogersen 2006). Furthermore it also calls for updated publications on online research methods as we have seen that doing Internet research in China raises a whole range of practical methodological issues not covered elsewhere (see Fielding, Lee, and Blank 2008).

Secondly, the pilot studies show that Internet research is not always something that can be done conveniently from any computer anywhere in the world. To really understand the circumstances under which individuals engage in an online environment, the researcher might have to get close to the point of connection to the Internet in the physical world (see Rogers 2013).
5.7. Conclusion

From the discussions in this chapter we can conclude that lab-in-the-field experiments can be used to evaluate if and how identity registration affects individuals' content production at online fora. Because we work with an 'inspired-by-evaluations-of-formal-theory-predictions' approach, we do not primarily set out to test the hypothesis of a positive correlation between anonymity and content production. Instead we seek to understand the mechanisms by which anonymity might function as a catalyst in affecting the distribution of entropy in the form of exit, voice and loyalty. We will use the experiment data of screen recordings to evaluate the average treatment effect of anonymity. After we have measured the average treatment effect of anonymity we will move on to explore the mechanisms behind any such treatment effect. A good way of exploring the mechanisms behind such effects is by engaging with experiment participants in post-debrief qualitative interviews.
6. THE EXPERIMENT

6.1. Introduction

The main point of departure for this thesis is the perceived paradox that some authoritarian regimes have opened up their government agencies and even policy processes to citizen participation and practices resembling those of democratic deliberation (He and Warren 2011). There are several examples of this phenomenon of open government initiatives in China. Some of the more recent initiatives have been the use of online fora for citizen participation and even deliberation on policy proposals (Jiang 2010). Political theorist John Dryzek has suggested that deliberative processes need to be authentic, inclusive and consequential for them to be effective (Dryzek 2009). The level of inclusiveness and consequentiality is mainly up to the government in terms of deciding whose opinions to consider and to what extent, but authenticity is fundamentally up to citizens’ choices. As our perspective is citizen centric, our focus is exclusively on how Chinese citizens engage with these fora. According to our theoretical discussion we are not so much interested in authenticity, but rather in autonomy. As it is difficult to study autonomy we are instead focusing on autocracy. To explore the level of autocracy we have proposed to measure entropy.

In chapter four we determined that a probable response by citizens to autocracy in open government initiatives would be entropy in the form of exit, voice and loyalty. Citizens who are not satisfied with a communication forum can exit the forum, voice dissatisfaction with that forum or loyally distort what they communicate into the forum. Whichever of these entropic forms of communication individuals resort to, the net effect can be understood as decreased levels of quantity and quality of communication into the forum. At a psychological level this can be explained by a perceived lack of behavioral control.
Our literature review shows that the empirical research up to date suggests that the most crucial aspect affecting individual behavior in online communication is social identity cues. More specifically the level of anonymity seems to have an effect on the quantity and quality of content production in online communication. The bulk of previous research suggests that individuals who are granted anonymity will be more likely to express their opinions and produce content in online discussions. According to previous research we therefore expect increased levels of anonymity to increase the level of both quantity and quality of communication at E-gov forum. However, a number of studies of Chinese Internet phenomena suggest that there are several impediments to achieving online anonymity in China. Therefore we have concluded that the relative lack of possibilities of online anonymity is a probable cause for the impairment of communication in Chinese online fora.

6.1.1. Evaluating theory

In accordance with previous research, our main working hypothesis is that anonymous users of online fora produce more content in terms of written comments, votes and policy proposals. Anonymous users are also expected to be free to produce content that is more controversial and anti-normative, according to previous research discussed in chapter four. The formal theory to be evaluated would thus be the hypothesis of a positive correlation between anonymity and online content production. Considering the theoretical foundation for this study, testing formal theory is however not the principal objective. Instead we work along the lines of an ‘inspired-by-evaluations-of-formal-theory-predictions’ approach (Morton and Williams 2010).

From the viewpoint of our theoretical stance, we focus not only on any relationship between anonymity and content production, but rather on possible relationships between anonymity and the three types of entropy. Our main interest is therefore to investigate what causes anonymous and registered users to produce negentropic or entropic communication. As we believe it is difficult to measure negentropy, we instead choose to measure entropy. The specific goal of the study is to evaluate the role of anonymity on the production and distribution of entropy in the form of exit, voice and loyalty. This can be described visually as in the image below.
6.1.2. Testing the hypothesis

Of course, a group of fifty students does not constitute a sample that is representative of the entire Chinese populace. The aim of the experiment is however not to determine the impact of anonymity for all Chinese citizens in all online fora. As we are only interested in differences between the two treatment groups and do not see the two groups as samples of a larger population, we will use nonparametric statistical methods to analyze the results.\textsuperscript{104} This implies that we do not need to assume normal distribution, as we do not see the experiment participants as a sample group of a larger population. Instead we expect, according to our hypothesis, that the distribution of content production will be stochastically greater in the anonymous treatment group than in the registered treatment group. This means that we would expect anonymous users to produce more content than registered users when comparing any two pairs at random. A good way to measure such differences, is in our case, by use of Wilcoxon–Mann–Whitney (WMW)\textsuperscript{105}

\textsuperscript{104} As apposed to using parametric methods where the experiment group is seen as a sample group of a larger population and the sample group itself is also larger.

\textsuperscript{105} Also known as the Mann-Whitney U test and the Wilcoxon rank-sum test.
nonparametric tests (Fay and Proschan 2010). Using a WMW test, we focus on differences in median results between the two treatment groups rather than differences in mean results. Comparing means would have been more appropriate if evaluating the hypothesis by use of t-tests for normal distribution sample groups.

Although the WMW test does not require the assumption of normal distribution, we must still assume homogeneity of variances. This means that the variances in the two treatment groups should be relatively similar for us to trust the results of the WMW tests and compare medians. A good way to test homogeneity of variances is to perform nonparametric Levene’s tests. The nonparametric Levene’s test is performed by pooling the data from both groups, then ranking the scores, placing the rank data back in the original groups and performing a Levene’s test on the ranks. This type of test has proven very robust for testing hypotheses in situations where sample groups are small (Nordstokke and Zumbo 2010). Because we are evaluating the theoretically derived hypothesis that anonymity is positively correlated to content production we will use exact one-tailed significance tests (Siegel and Castellan 1988).

A problem with comparing the median values between the two treatment groups is that some measures of the dependent variable, such as voting, only happen very rarely in both experiment groups. This implies that the variable almost becomes dichotomous making the group median zero for both groups. In these cases we will add some other descriptive measures, such as mean values, to the discussion to better illustrate the results. We will also add observational data when this is required to explain the results. A summary of all relevant results can be found in the appendix.

6.2. Average treatment effect of anonymity

One striking result of the experiment is that there is no significant treatment effect of anonymity in terms of quantity of content production. When measuring the total amount of time spent at the forum and the total number of comments and votes produced at the forum, no significant effect of anonymity can be found. If anything, registered users have a tendency to

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106 Sometimes referred to as equality of variances.
107 If there is no homogeneity of variances we should instead compare the mean ranks between the groups.
produce more content at the forum. This is a result that we will have reason to discuss at length further on. For now we can only conclude that our results suggest that the prediction of previous research, that anonymity is instrumental in enhancing content production, needs to be rejected or at least adjusted in the context of this specific forum. We should reject the hypothesis that anonymity will increase the level of content production at E-gov forum.

Besides increasing quantity of content production, previous research also suggests that anonymity can be instrumental in enhancing controversial and anti-normative speech. Because of this, it has been argued that anonymity could enhance the quality of online communication, in terms of free speech. Our results support this view in that anonymous users, although producing less content, were more true to their preferences and opinions stated in the pre-experiment survey. We will discuss all of these results in due order, but we will start with a detailed discussion of the effect of anonymity on the quantity of content production.

6.2.1. Quantity of individual engagement

To begin our evaluation of the effects of anonymity, we measured the total amount of engagement with the forum, both in terms of production and consumption of content. The reason was to seek to measure users' total engagement as prosumers at the forum. This was done by constructing an index that would measure both content production and consumption in the form of speech acts, click acts and read acts. The quantity of speech acts was operationalized as the total amount of textual content produced, counted by number of characters written as comments or proposals at the forum. The quantity of click acts was operationalized as the total amount of productive clicks, such as opening links, liking and voting. Unproductive clicks such as closing tabs were not counted. Finally, the quantity of read acts was operationalized as the total amount of productive time spent at the forum. Unproductive time spent at the forum, such as in instances when pages were slow to load, was subtracted from the total.

As already mentioned, WMW tests performed on an index of total engagement showed no significant treatment effect of anonymity on the average

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108 Note that Chinese text is denser in terms of characters. A word usually consists of between one and three characters and a whole idiom can be only a few characters (White, Fu, and Benson 2013).

109 The index was composed of the total number of seconds spent at the forum + 10 x the number of links viewed + 100 x the number of votes cast + 500 x the number of comments made. Different versions of this index were devised to weight the posts differently. Indexes were also devised to give
level of engagement or production of content at the forum. To be fair to the hypothesis, we adjusted the index to give different weights to the different measures of content production. As an example we measured only genuine production of speech acts and click acts, not including read acts as engagement by consumption. Independently of how the index was weighted the tests failed to show any significant treatment effect in support of the hypothesis of a positive correlation between anonymity and active engagement. Instead every type of index produced results that pointed in the other direction, that there is a negative correlation between anonymity and active engagement. This was true both for content production and overall prosumption engagement. As this reversed treatment effect could not be proven to be statistically significant, we should however refrain from supporting any counter-hypothesis based on these results. The homogeneity of variances in the measurements of quantity of content production was verified by a nonparametric Levene’s test on the index.111

6.2.2. Quality of individual engagement

To assess the quality of engagement we used screen recordings in combination with pre-experiment survey data. The idea was to measure any discrepancy between intention and action that could be understood as individual lack of behavioral control, as discussed in chapter four. The survey also provided data about the students’ previous experiences of the E-gov forum and similar sites, and to what extent they were interested in using these fora. According to the survey results, ten percent of the students had heard about the site and only a couple of students had prior experience of using it. What is interesting to note is that a majority of students (73%), stated that they were interested in using the site in the future.

The survey data shows that a majority of students (86%) were interested in discussing politics at the sub-provincial level rather than at the provincial or national level. The results also show that a majority of students were more interested in discussing issues relating to education (94%), health (74%) and the environment (71%). In addition a majority of the students (65%) stated that they had specific ideas or opinions that they wished to express. These figures are of limited value as descriptive statistics, as the experiment group participants scores on ranked scales instead. No matter how the index was devised the results were the same.

\[ U = 246, Z = -1.080, P = 0.144 \]

\[ P > .05 \]
seen as a sample group of any larger population, is very small and unrepresentative. We can however use the survey results as reference data with which to compare the data of the screen recordings. This allows us to test for any treatment effect of anonymity on the quality of engagement with the forum.

Although we are interested in the quality of the students’ interaction with the forum, we can still use quantitative measures to assess any treatment effect on the quality of engagement with the forum. Any group difference in discrepancy between intentions stated in the survey and actual actions performed at the forum would be indicative of a qualitative treatment effect of anonymity. To assess any such treatment effect we first chose to measure general differences between the level of interest stated by the students and the outcomes in terms of level of engagement with the forum. The latter was measured using the index already discussed under 6.2.1. We moved on to measure any discrepancy between the preferred level of government to engage with and subsequent behavior at the forum. Finally we checked for any discrepancy between specific interests in policy areas stated in the survey and actual topics viewed or commented on at the forum. This includes a measure of whether students managed to express their specific suggestions at the forum. All results of these measurements were then compared between the two treatment groups to assess the average treatment effect.

To assess the effect of anonymity we split the data to investigate any differences in discrepancy between intention and action between the anonymous and registered treatment groups. We used nonparametric bivariate methods to assess any correlation between intention and action leaving us with the comparison of Spearman’s correlation coefficients between the two groups.\(^{112}\)

When running a test of correlation on the combined index of engagement with the forum, no significant correlation could be found. This means that individuals from neither group had a significantly higher level of interaction with the forum in terms of read acts, speech acts and click acts, as a function of prior interest. However when checking only for the measure of links opened there was a significant correlation between prior interest and activity in the anonymous treatment group\(^ {113}\) but not in the registered group\(^ {114}\). This means that anonymous users who were interested in engaging with the forum did also succeed in acting on that interest to a significantly higher degree than

\(^{112}\) The Spearman’s correlation coefficient is calculated on ranked data rather than absolute values and therefore more appropriate for non-normally distributed data.

\(^{113}\) Spearman’s rho 0.524*. Correlation significant at the 0.01 level (2-tailed Sig. 0.009).

\(^{114}\) No significant correlation.
registered users. Anonymous users managed to act on their prior interest in terms of links opened but not in terms of content produced in the form of speech acts and click acts such as votes. This would suggest that anonymous users were better at exploring the forum rather than using it to express their views.

Another interesting result is that anonymous users were better at using the forum to explore the specific topics that they had shown prior interest in. This is to say that anonymous users were better at finding the topics under which they actually wanted to contribute. The results show that anonymous users who stated a high interest in using the forum before entering were more likely to engage with topics at the forum that they had expressed specific prior interest in.\textsuperscript{115} This was not the case for individuals in the registered group.\textsuperscript{116} This would suggest that anonymous users engaged with the forum more effectively in terms of individual behavioral control. It also suggests that the act of registering might have incentivized registered users to somehow engage with the forum in a way that they had not intended, thus creating disaccord between intentions and actions.

Unfortunately we were unable to measure the discrepancy between stated interest and subsequent actions regarding what level of government to engage with. Much of the material was simply too vague to make classifications as belonging to any specific level of government. This can serve as some indicator as to the level of practicality and consequentiality of the forum. In conclusion it seems that the act of registering did have an impact on how users engaged with the forum and what opinions they expressed. However, the act of registering did not have any significant effect on the quantity of content production. To enable a deeper understanding of these results we now venture into the more exploratory part of the evaluation of theory. We start by exploring the probable mechanisms explaining why anonymous users did not have a higher rate of interaction with the forum.

6.3. Exit

According to the predictions of our theoretical perspective, the level of entropy as exit is really a function of whether the system in question is open or closed. The general idea for this is that an open system would allow individuals to

\textsuperscript{115} Spearman’s rho 0.695\textsuperscript{*}. Correlation significant at the 0.01 level (2-tailed Sig. 0.000).

\textsuperscript{116} No significant correlation.
leave the forum without much hesitation. To what extent the system is to be considered open or closed is dependent on the system itself. A familiar example drawn from political science is that of elections in representative systems. An election can be either voluntary or compulsory. If it is voluntary then it makes less sense for any disgruntled voters to turn up at the polls, as the inability of the system to represent their views might make them stay at home on election day. The design of the electoral system might thus have an effect on the turnout of voters. We could view voluntary elections as a sort of open system of voting, whereas compulsory elections could be considered a closed system of voting.

In systems of compulsory voting, some incentives are put in place for voters not to resort to exit, thus making it more of a closed system. There are a number of political scientists who have discussed the possible effects of this ‘closing’ of the electoral system. These researchers have conjectured that along with increasing the level of turnout in elections, having a compulsory system might also increase the number of invalid or ‘donkey’ ballots (Tingsten 1937), and increase the number of protests against the compulsory voting system (Jackman 2001). In our terminology this would represent an increased level of voice. Other researchers have suggested that a closed system of compulsory voting may increase the level of party identification in that voters might resort to ‘cognitive misers’ to deal with forced choice (Mackerras and McAllister 1999). In our terminology this can be explained as an increased level of loyalty in absence of the least costly alternative of exit.

Our study is not of elections in representative systems. But just as elections within representative systems can be considered open or closed, so can online fora of other types of systems. In a study of an offline deliberative forum in China it was found that an important aspect of authoritarian deliberation is that citizens can be expected to be more compliant in their attendance. This was suggested to be because of possibly unpleasant repercussions for staying home if a government agency has asked you to attend (Fishkin et al. 2010). In the offline setting this is a viable logic, but the question is if this logic would hold for the online environment as well, especially when considering the possibility of online anonymity. In lack of online identity registration, a government forum inviting citizens to deliberate on policy proposals can be seen as an open call to which an individual has no obligation to respond. Out of the groups of registered and anonymous users in our experiment we would still expect a higher rate of participation from the anonymous users. According to our working hypothesis, these users might be more protected from any unpleasant repercussions.

As already mentioned, and contrary to previous research discussed in chapter four, our results show differently. When comparing the median of time spent
at the forum between the two experiment groups, it is the registered group that shows a higher median of time spent at the forum and a higher number of links clicked, independently of prior interest. Because of this result we can immediately reject the hypothesis of a positive correlation between anonymity and level of engagement with the forum. If anything the results point in the opposite direction that would lead us to test the counter hypothesis of a negative correlation between anonymity and level of interaction with the forum. A WMW test of the median difference between the two treatment groups shows that the average treatment effect is not strong enough to support either hypothesis.

Therefore we must conclude that the results of the experiment are inconclusive as to whether anonymity restrains or promotes exit in this context. If anything we should conclude that it does neither. This is not an unimportant result as it shows that the general hypothesis that anonymity would increase activity, at least if activity is measured by attendance, does not hold in this context. Given our results it is more likely that identity registration has the effect of making individuals feel obliged to attend this open government call. This effect would be more in support of the hypothesis of assured attendance in processes of authoritarian deliberation and possibly collaboration (Fishkin et al. 2010).

6.3.1. Observational results

From observing the users during the experiment it is clear that a majority of both anonymous and registered users asked to exit the forum before the twenty minutes of time scheduled for their session was up. In the anonymous group 80% wanted to stop before the time was up. In the registered group 56% wanted to stop before the time was up. That a majority of users of both groups wanted to exit before the time was up, is an interesting result. It leads us to question whether the hypothesis of assured attendance in authoritarian deliberation is as true for the online environment, as it might be for the offline environment.

One way to view this is that the Internet is an environment where individuals feel free to move in and out of spaces without having to neither explain nor take responsibility for their attendance, or more importantly, lack of attendance. It seems plausible that no one is expected to explain why they are viewing a website or not. The only thing that might require such explanations would have to be positive actions such as producing votes or comments. This could explain why students in the anonymous group were more effective in their communication at the forum. Anonymity would assure that they never run the risk of having to explain their actions. This result could also make us
alter the way we might think about online media in contrast to print media in authoritarian contexts.

There is a notion that owning or having possession of subversive printed material can always be compromising for an individual. This might be the case independently of whether the individual is planning to use the material to produce any political messages or not. That notion is perhaps erroneous for online media as individuals are less likely to have to explain content both consumed and produced. This would however only be the case if individuals are allowed anonymity. If acting under registered identity, individuals must likely have to ponder the risk of having to explain and take responsibility for content both produced and consumed. Individuals might possibly also have to be able to explain and take responsibility for content not produced and not consumed. The observation that a majority of both anonymous and registered users chose to exit indicates that exit might be a prevalent form of entropy in the context of E-gov forum. Entering central propaganda spaces might instantly provoke feelings of uncertainty about what content to consume and produce. This might be especially pertinent for registered users, and it could explain why a much higher percentage of anonymous users resorted to exit.

6.3.2. Limits of experiment in measuring exit

It is important to note that it was impossible to design the experiment without affecting the level of openness. We chose to adopt an experiment design where users were allowed to choose for themselves if and when to exit, thus making for a more open system. The alternative design would have been to force each user to stay at the forum for a determined amount of time. The reason for the more open system experiment design was that it would constitute a better representation of the way the forum actually functions (non compulsory participation). The alternative, of having a closed system design, would also have made it impossible to measure the level of entropy as exit, as this option would not have been available to subjects. Independently of the experiment design we can conclude that the results of the experiment lead us to believe that exit is an important form of entropy in the case of E-gov forum.
6.4. Voice

From the discussion in chapter four we know that Albert Hirschman hypothesized that there were situations in which individuals would resort to voice even though exit was possible. Therefore we have reason to believe that there could be some levels of voice even in open systems with relatively high levels of exit. It is important to note that voice in our analysis is not primarily defined as the voicing of dissatisfaction in general. Voice, from our theoretical perspective, is strictly defined as the voicing of dissatisfaction directed at the system. The system is in our case mainly the forum at hand. This is why we have operationalized voice as instances and overall time spent investigating or questioning the forum. A box situated at the bottom of the main page of the forum was isolated as especially important for voice. This box contains information solely devoted to discussions about the functioning of the forum. This box also contains information about how to contact the forum administrator with comments or critique on the forum itself.

The measure of voice was constructed by summarizing speech acts, click acts and read acts emanating from the box mentioned. This means that any comments made about the functioning of the forum itself, any clicks made within the box, and any time spent on links opened from the box were included in this measure. Any type of action emanating from content outside of the box was included if the content was obviously engaging in forum critique.

The reason for measuring comments made, time spent and instances of forum critique is that voice can be, but is not always, a public demonstration for all to see. If we think of Hirschman’s store metaphor, voice can be everything from talking about the store with other customers, to asking for the manager or making loud complaints at the counter. Voice can however also be to show interest when other individuals are expressing their grievances. Therefore we used three measures for voice as forum critique. The first measure was of comments made that were critical of the forum. This can be defined as speech acts relating to voice. The second measure was of any instances of forum critique. This can be defined as click acts relating to voice. The third measure was of time spent on all links concerned with forum critique. This measure also includes the reading of other users’ comments about the functionality of the forum. This can be defined as read acts relating to voice.
6.4.1. Anonymity and voice

Only a minority of users from both groups showed interest in voicing forum critique in the form of speech acts. For this reason we cannot compare median results nor evaluate any treatment effect of anonymity on speech acts relating to voice. It is however likely that an individual would only be interested in voicing dissatisfaction as speech acts after a certain amount of time using the forum. Thus it is unlikely for users to engage in speech acts within twenty minutes of their first ever interaction with the forum. It is however more likely that an individual would be interested in passively exploring possibilities for forum critique at the first encounter. Such exploration would thus show up as voice via read acts and click acts.

If measuring instances of forum critique as a dichotomous variable, it is evident that a much higher percentage of anonymous users (38%) engaged in any type of forum critique compared to registered users (20%). The number of instances of forum critique clearly supports this view. Of those users who engaged in this type of behavior, anonymous users spent a mean average of 18.92 seconds on these links whereas registered users only spent a mean average of 12.12 seconds on such links.

These results point in a direction that is very interesting from the view of our theoretical perspective. It seems that there is a tendency for anonymous users to engage more often in forum critique than those registered. This would suggest that any impairment of online anonymity in China might have the effect of inhibiting entropy as voice. Unfortunately we cannot trust this result, as there is not sufficient proof of significant treatment effects when running WMW tests on the measurements of voice. This means that we can only use the results as hints for further exploration in the interview material. We will therefore return to this discussion in the following chapter seven.

The design of the experiment did not allow for any changes to the forum. Therefore we were unable to test what would happen if the links to forum critique were to be removed, thus eliminating the possibility of voice. Our theoretical framework suggests that this would lead to increased levels of exit, under open system conditions. The only possible outcome under closed system conditions would be increased levels of loyalty.
6.5. Loyalty

We will now focus on the role of identity registration for the production of entropy as loyalty. It is not as straight forward to construct a good measurement for loyalty as it is for exit and voice. The main reason for this is that we might expect high levels of loyalty even when the system looks to be running as normal. This is to say that it can be difficult to sort negentropic communication of unforced discussions, from entropic communication in the form of loyalty. Using Hirschman’s store metaphor one could say that it can be difficult to sort normal customer behavior from coerced customer behavior. In our case it can be hard to tell if forum users are using the forum because they find it genuinely satisfactory and valuable or because they find themselves pressured into using it. One indication suggesting the latter derives from the previously discussed results, that registered users were quite active at the forum but failed to use it effectively in accordance with their own intentions and interests.

6.5.1. Loyalty as voting

The dilemma of sorting out entropic communication behavior is probably most pressing when it comes to voting at the forum. The act of voting can be seen as an act of approval, possibly signaling that the forum is a success in user legitimacy. However, the act of voting can also be understood as an effective public display of loyalty. To try to separate genuine interest in voting from loyal voting behavior we used the pre-experiment survey results for reference. In the survey all users were asked to fill in their general interest in using the described forum. They were also asked in what policy areas they would like to write proposals and cast votes. These surveys were then used to analyze if there would be any correlation between specific interests in voting and actual voting and if this would be stronger in the anonymous group than in the registered group. Should registered users show a higher propensity to vote without prior interest in the specific topic, this could be an indication that they had felt pressured into voting by the act of registering at the forum. As such it would be a sign of entropy as loyalty.

As only seven users ended up voting in total (two users from the anonymous group and five users from the registered group), median values are not optimal for illustrating the results. This low rate of voting also makes it unlikely that we should be able to find any significant average treatment effect on voting between the two treatment groups. As already indicated under 6.2.1. there is a tendency for registered users to be more active as voters. But when performing
a WMW test we find the result not to be significant.\textsuperscript{117} This is still an important finding as the result support the null hypothesis, that there is no positive correlation between anonymity and content production in the form of voting. Although voting is only one measure of content production it is arguably one of the more important ones. The result indicates that anonymous users are not more likely to engage in voting at E-gov forum. This is contrary to the standard notion that anonymity would increase the propensity to engage actively in online discussions, ultimately resulting in the casting of votes.

It is interesting to note that the few anonymous users who showed an interest in voting also ended up actually voting at the forum. In the registered group however, none of the few users who had shown interest in voting ended up eventually casting votes at the forum. These results add support to previous conclusions that the act of identity registration seems to increase the discrepancy between intentions and actions. Another interesting thing to take note of is that registered users, who did end up voting, voted on average about twenty times more than anonymous users. There were two registered users in particular who were very active in their voting behavior. These users had showed only low or moderate prior interest in voting. In addition only one of these users had stated any specific suggestion of policy proposal in the survey. This supports the finding under 6.2.2. that registered users might have been incentivized by the registration procedure to engage more actively, but not necessarily in accordance with their genuine preferences. These results can be interpreted as a sign of loyal voting behavior among some of the registered users. Faced with enforced identity registration these users ended up casting votes at a forum that they had little interest in using to begin with.

6.5.2. Loyalty as propensity to perform nationalistic acts

When taking a more heuristic approach with the data, a rather dominant tendency revealed itself. It seemed as if the registered users were engaging relatively more in ‘nationalistic’ debates than anonymous users. This sparked an investigation in which we quantified the number of users’ nationalistic read acts, click acts and speech acts. We operationalized such acts as instances when a user would view a nationalistic topic, vote for a nationalistic proposal or comment on a nationalistic topic. Nationalistic topics were defined as those that:

\textsuperscript{117} Significant at the 0.05 level by a 1-tailed significance test (1-tailed Sig. 0.034). Note that the result points in the direction of the counter hypothesis, which is why we should apply a 2-tailed significance test. In this case the result is not significant.
• Express frustration with the People’s Republic of China’s lack of influence in Taiwan, Macau or Hong Kong
• Express frustration with the People’s Republic of China’s influence in the wider region of East Asia or the world
• Express frustration with the world’s view of the People’s Republic of China

In the discussion about voice, we stated that voice had to be criticism aimed at the forum in order for the communicated messages to be considered entropic. It would be plausible but unlikely that dissatisfaction with the forum would render loud criticism of other institutions or organizations. In the case of loyalty there is no reason to adopt such a forum endogeneity clause. It is reasonable to believe that the forum represents certain interests, from the view of the users. Users might well perceive these as the interests of the Chinese Communist Party or of the state of the People’s Republic of China. If this is the case, then it would be reasonable for a user to show loyalty toward the forum in the form of loyalty toward the party or the state. Recent research has pointed out that there is a tendency of loyal dissent in Chinese online discourse (Lagerkvist and Sundqvist 2013). Our results suggest that individual participation in such discourse might be specifically linked to processes of identity registration online. It is possible that loyal dissent in the E-gov forum will take the form of engagement in nationalistic debates and that such engagement will be induced by identity registration procedures.

The results show that registered users have more than four times the propensity to produce nationalistic click acts, if measuring mean averages.\(^{118}\) Although this result is not statistically significant, it indicates that it could be the quality of communication at the forum that is primarily affected by online identity registration. In addition, our previous results show that the quantity of content production is affected positively by identity registration. This would suggest that the combined effect of identity registration is an increased overall level of nationalistic content production by registered users. To test this we chose to create a collected index of both quantity and quality of nationalistic content production. When combining these variables into one index we found some evidence for a connection between identity registration and nationalistic acts. It turns out that registered users have an overall mean score of 2.32 in this index of level and amount of nationalistic content production, whereas the anonymous users only reach an average mean score of 0.42. When performing a WMW test comparing the median values for both groups the positive correlation between identity registration and nationalistic content production

\(^{118}\) Mean averages of 0.29 instances for anonymous users vs. 1.36 instances for registered users.
shows not to be significant. Unfortunately the homogeneity of variances is not sufficient to trust these results. This means that we should reject the hypothesis of a positive correlation between identity registration and intensified content production of nationalistic click acts due to the lack of homogeneity of variances. As in previous cases, this does not mean that we should stop our investigation into these results. It only means that we have to turn to other methods to deepen our investigation. Thus we will return to this discussion in chapter seven when discussing the results of the post-debrief interviews.

The results from our experiment indicate that in the context of the E-gov forum, registered users are more likely to show entropy as loyalty. It looks as if identity registration led users of this relatively open forum to possibly enter the mindset of the ‘good citizen’, discussed by Guillermo O’Donnell in the case of Argentina. It is conceivable that registered users felt more obliged to produce online actions that would demonstrate loyalty to a higher degree than anonymous users. It seems as if one feasible way to display such loyalty was in the form of nationalistic acts at the E-gov forum.

### 6.6. Conclusion

The experiment was designed to allow for an ‘inspired-by-evaluations-of-formal-theory-predictions’ approach. In taking this approach we simultaneously worked with several theoretical perspectives and their associated hypotheses and predictions. The main hypothesis that we set out to evaluate was that online anonymity would lead to increased levels of individuals’ content production and expression of opinions in online discussions. The results of this study show that in the context of the E-gov forum this hypothesis does not hold and that we cannot reject the null hypothesis. The experiment shows that contrary to the predictions of the hypothesis evaluated, registered individuals seem to produce more content at E-gov forum. We can only speculate about the reasons why this hypothesis does not hold in the context of E-gov forum. One probable reason for not seeing any average treatment effect, in terms of quantity of content production, is that anonymity is difficult to secure in the context of the Chinese online environment. This

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119 Significant at the 0.05 level (1-tailed Sig. 0.028). Here we should also use a 2-tailed significance test. Rendering the result just shy of significantly probable.
120 A nonparametric Levene’s F test showed p<0.05 which implies that we cannot assume homogeneity of variances.
would put into question the validity of the experiment and the effectiveness of the treatment.

One reason to believe that the experiment is valid and that the treatment was effective is the average treatment effect in terms of quality of content production. Our results show that registered users were just as active in their general content production but that anonymous users had a higher quality of content production in terms of coherence between prior interests and subsequent participation. Anonymous users were more true to their prior interests both in terms of level of engagement and in terms of what specific policy areas they engaged in.

Another hypothesis that we were able to evaluate in this experiment was that authoritarian deliberation would induce a relatively high rate of attendance in deliberation. The results of the experiment show that a majority of individuals chose to exit the forum within a time frame of twenty minutes. This would put into question the prediction that the effectiveness of deliberation in authoritarian contexts is at least aided by a high level of attendance. The experiment shows that the online environment could possibly promote entropy by exit, but that this could be dependent on the level of anonymity. It seems as if registered users were more likely to feel obliged to participate.

The main theoretical perspective to be evaluated in this study is the general theory of entropy as a product of autocracy developed in this thesis. According to our theoretical perspective, dissatisfaction with the political communication platforms available to an individual will increase levels of entropy in individual communication flows. Entropy will take the form of exit, voice and loyalty, or a combination of the three. Exactly what will demote or promote one or the other of these forms of entropy was left open for the experiment to elucidate. According to the results of the experiment we can begin to model the mechanisms of entropy production as in the model below (figure 6).

In this model both anonymous and registered users are most likely to resort to exit if the system is open. Even in open systems some individuals may decide to remain in the system. In such cases anonymous users would be more prone to resort to voice whereas registered users would be more prone to resort to loyalty. In cases of closed systems, all users are left with only voice and loyalty as viable options. In such cases we can expect anonymous users to resort to voice and registered users to resort to loyalty.
Whatever validity claims we grant our theoretical model, we must acknowledge the central finding of our experiment which is this: Individuals who are allowed anonymity are not more likely to engage actively at E-gov forum to produce more content. Instead, it seems as if users who have their identities registered, are more likely to engage actively at E-gov forum, especially if those users have low prior interest in using the forum. These users are possibly also more likely to engage in nationalistic click acts.\textsuperscript{121} The further validation and exploration of possible mechanisms behind these effects will be the focus for the following chapter seven.

\textsuperscript{121} It is advised for the reader to consider the concept of ecological validity discussed in chapter five. Although we can trust some of the results of the experiment in this context that does not suggest that the results can be replicated in different contexts. To increase the ecological validity we would have to test the model under different settings in different contexts.
7. DISSATISFACTION AND THE LOGIC OF LOYALTY

7.1. Introduction

When subjects finished the experiment they were all asked to participate in an interview about their experiences.\textsuperscript{122} In order to create an icebreaker effect, participants were debriefed about the nature of the experiment during the interview. For ethical reasons a second debrief was performed after the interview. In this second debrief all participants were told that participation in the study was strictly anonymous and that all records of participation would be deleted at will. None of the participants chose to have their records deleted.

As discussed in chapter five, the interviews were mainly set up to explore possible mechanisms behind any treatment effect of identity registration. As has been shown in the previous chapter, one treatment effect was that registered users had a higher level of engagement with the forum in that they stayed longer, generated more click acts and produced more written content. Another treatment effect was that registered users were more likely to engage in nationalistic acts at the forum. These results are interesting in themselves, but post-debrief interviews might help us to validate the results and explore the possible mechanisms behind these findings. What led registered users to engage more with the forum and why did they engage relatively more in nationalistic click acts?

In this chapter we will seek to give answers to the questions above, but first we will seek to validate the high levels of dissatisfaction that we have only

\textsuperscript{122} The interview was voluntary. One student (registered) declined to participate. This resulted in the total number of 25 interviews with anonymous users and 24 interviews with registered users.
assumed so far. To understand the nature of dissatisfaction, we will focus on perceived behavioral control applied to the categorization of autocracy from chapter three. In doing so, we will determine if dissatisfaction with the forum can be understood as due to democratic, representative, deliberative or collaborative autocracy.

7.2. Dissatisfaction

Leading up to this point we have focused on the effects of autocracy in terms of entropy, via mechanisms of dissatisfaction. Entropy has been operationalized as exit, voice and/or loyalty. The argument has been that any dissatisfaction with an information system or forum might lead to disruption in communication. Such disruption will take the form of: exit, that messages will be lost as they will not enter the forum; voice, that messages will be augmented and/or distorted as critique of the forum; or loyalty, that messages will be distorted to comply with the setup of the forum.

In the previous chapter we did not make any attempts to measure dissatisfaction itself, as isolated from any effects. We did this for two reasons. The first reason is that we have deemed it difficult methodologically to find a reliable quantitative estimate of general dissatisfaction. The second reason is that we are mainly interested in the effects of dissatisfaction as these can be expected to have real political implications. It is however important to understand the mechanisms for how dissatisfaction transmits into entropic communication. This is why we in this chapter will seek to elucidate dissatisfaction as perceived lack of behavioral control and explore the possible mechanisms by which autocracy might produce entropy.

To get some sense of the general level of satisfaction or dissatisfaction with E-gov forum, we asked all participants of the experiment what they thought of the forum\textsuperscript{123} and if they would like to use it again\textsuperscript{124}. The result was that about half of the participants had mixed feelings about the forum and were undecided as to whether they would like to use it again. Interestingly enough the group that had been anonymous were more dissatisfied (28\%) and did not want to use the forum again (44\%), whereas those that had been registered where more positive (50\%) and stated that they would like to use the forum again (42\%). In fact, none of the registered participants were decidedly

\textsuperscript{123} 这个网站你觉得怎么样?
\textsuperscript{124} 你以后会用这个网站吗?
dissatisfied and only two registered participants stated that they would not like to use the forum again, stating that they lacked all interest in political matters.

These questions were asked before participants had been informed about the treatment assignment and the nature of the experiment. This might explain why registered users persisted in their rather uncritical evaluation of the forum. However, when the purpose of the experiment was revealed, many registered users who up until that point had not shown any dissatisfaction, suddenly started talking more critically about the forum.

Although many users were clearly dissatisfied with E-gov forum, some still expressed satisfaction about the initiative itself and expressed high hopes for how an updated version of the forum might be used in the future. This state of hopeful skepticism helps to explain the high number of users with mixed feelings. Some users even expressed surprise and shock that the site existed at all which might have prevented a reliable response about its functionality.\textsuperscript{125}

I think this is very good. I am shocked because I previously never heard about such a site. (Reg11)\textsuperscript{126}

Some knew about similar initiatives in other countries and expressed hopes that the site could be a path forward for China as well. Giving clear reference to the open government initiatives of the Obama administration, the following user reveals knowledge about how such initiatives can function.

I think that this is very similar to that system for making suggestions that they have in the US. But too few people in China know about this. I think none of my friends know about this. But of course if this website develops into something more it will be good for the promotion of democracy in China. (Ano19)

Other users also recognized the similarities to open government initiatives elsewhere. Many indicated that the future success of the site would depend on

\textsuperscript{125} The fact that a majority of users had never heard about the forum is also important to consider in view of the experiment results.

\textsuperscript{126} The abbreviation ‘Reg’ indicates that the user had been subjected to the baseline treatment of identity registration. The abbreviation ‘Ano’ indicates that the user had been subjected to the manipulation treatment of anonymity.
the government’s ability to promote it better. Some users also thought that ordinary people had a responsibility to use it more for it to have any real impact.

It’s similar to that site for making suggestions that they have at the White house. Maybe a little bit similar. But I think the rate of participation is not as high. Also it has not been made as accessible to the public. We don’t know much about it. (Ano5)

According to our theoretical perspective, it might however not be sufficient to promote the site better if it systematically distorts the communication of those using it. Instead we have suggested that the likely effect of such distortion is entropy in the form of exit, voice and loyalty, all three of which can be expected to be detrimental to the popularity and functionality of the forum. We will now move on to discuss in detail if and why users were dissatisfied with the forum and how this can explain the suspected presence of entropy discovered in the experiment. To do this we will revisit the categorization of autocracy developed in chapter three. We will use our four categories of autocracy to evaluate forum dissatisfaction.

7.2.1. Dissatisfaction due to democratic autocracy

The main form of democratic autocracy was determined to be exclusion from a communication platform. Thus dissatisfaction because of democratic autocracy would mainly be for an individual to experience some barrier of entry. As the forum was open for anyone to join we did not expect users to experience any significant barriers of entry. This assumption about forum openness was given support by the interviews. Within the forum there are different levels of participation, which includes a possibility to apply for editor status. Some users did show interest in applying for this type of status but no one expressed any dissatisfaction about such status being granted unequally.

What did however seem to be a cause for dissatisfaction was the inclusion/exclusion of other users. As indicated by the comment of user Ano5 above, one perceived issue was that not enough people used the forum. One concern was that there could be barriers for the equal participation of everyone. In addition to this, several users indicated that the forum was maybe too inclusive. Several interviewees stated that they thought it curious that so many users were listed as residing in Europe. Some were also wary that
Chinese speakers from the US, Taiwan, or other places would enter the forum and add proposals, comments and votes.

我觉得是，首先是明显感觉用户不是很多啊。然后，然后提议什么的也挺少，而且最有意思我看它说提建议的人最多的竟然是欧洲用户。
First of all I think that it is clear that there are not that many users. I also think that there are very few suggestions and such. But the most interesting and surprising thing is that most active users are based in Europe. (Ano20)

In democratic terms this can be understood as an issue regarding the proper delimitation of demos. The comment above indicates that some users might have been dissatisfied with the inclusion of the Chinese diaspora into the demos of the forum. This could imply a risk of indirect dissatisfaction due to democratic autocracy at the forum.

7.2.2. Dissatisfaction due to representative autocracy

The second category of autocracy that we discussed as a possible source for dissatisfaction was that of representative autocracy. Under representative autocracy individuals would feel that their communication is at risk of being misrepresented and distorted by long chains of messaging. There are a number of users who describe this type of dissatisfaction with the forum. One user specifically notes that the chain of communication at the forum is too long and complicated which makes it difficult to know what will happen as a result of any comments produced.

就外表做的还可以，但是它，比如说这个网站的流程，就是一个提案从提出到最后如何交到相关部门的手中的这个流程十分长。而且我觉得它网站上不是有一个相关部门的回复吗？实际上非常少，也就是说很多人提出提案，最终得到回复的只有那么几个。所以做，看上去是很好，但是有效性不是很强。

On the outside it looks good, but for example the process, for one person to hand over a proposal to the right department, is very long. In addition there is no department devoted to the site itself, right? In fact only a few of those leaving proposals will get a response. Therefore although it looks good the validity is not very strong. (Ano12)

Several users note that, although it is a problem that not enough people use the site, it would be impossible to keep it going if it would suddenly become more popular. They conclude that such popularity would create a type of information overload that could not be dealt with by a few government representatives.
But really there is a built-in flaw, which is that if users become too many there is no way for the government to respond to all. (Ano20)

Some users even stated that they would refrain from using the forum, as they did not want to overload it with their content. However, most users did not react with sympathy toward this issue, but instead expressed their clear disappointment with government representatives’ inability to respond.

Have a look at this (proposal). Today is the sixth of June, and have a look here, their earliest posting was at the beginning of April. More than two months. Really China has so many ministries, so many departments. This site has 20 sections and still it is not enough. Yeah, so regarding this site, to use this site to speak your mind, you would seldom get any response. So with regard to this as a communication channel, to use it as part of government in China. You say it might be a good communication channel to use in the policy process. But really this issue clearly illustrates the problem. Do you understand what I mean? (Reg19)

Some users argued that the system not only was slow and inefficient but that it might also distort the intended meaning of proposals. One user explained how handing over a proposal to unknown representatives to interpret at a different time and place would leave the one who came up with the proposal without much control over it.

我不知道那些相对应的政府官员他们选择回复一些提案, 包括把提案就是到时候提到人大上去讨论解决的时候, 是怎么样选择的。就感觉你提出这么一个意见不一定能够得到很好的反响和解决。所以就没有什么兴趣去参加。

I don’t know which government representatives select which proposals, including how and why they choose to discuss them at the People’s Congress. That’s why I feel that it is unclear what impact a proposal will have. That is why I have no interest in participating. (Reg25)
This comment highlights the lack of accountability if viewing the forum as a representative system. As such it is at risk of some levels of dissatisfaction due to representative autocracy.

7.2.3. Dissatisfaction due to deliberative autocracy

The third type of autocracy that we discussed in chapter three was deliberative autocracy. The type of dissatisfaction related to deliberative autocracy is that individuals would feel limited by the forum setup in terms of how the forum administrator is interpreting their participation and their interactions. Some users express views that clearly exemplify this type of dissatisfaction. One user notes that it is difficult to know the real purpose of the site, stating that maybe the site has not been set up to get input about popular opinion at all, but instead to create a space for the outflow of public grievances.

The same user notes that it is unclear whether the people who work with the site have the confidence and ability to resolve issues that might arise in online discussions at the forum. In this way the administrators of the forum are discredited of being able to collect information about public opinion and doing something concrete and productive with that information.

Other users think that the site has an official tone, which might affect how people express themselves. The user Ano20 thinks that this makes the site non-representative. However according to our categorization we would think that this is a typical case of the site being subject to deliberative autocracy. The

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127 Echoing the sentiment of blogger Michael Anti discussed in chapter four (Anti 2012).
problem is not that the site fails to represent the messages of users, but rather that it tampers with the participation and interactions of the users to begin with. This might have an effect of disavowing certain types of messages.

I think the site has a little bit of an official tone. Furthermore, if not too many people participate, then it won’t reflect the real circumstances of the people. Besides I think the suggestions are quite long and don’t reflect real circumstances. Because, really, if you ask normal people, they won’t post political stuff like that about China/US relations. Such questions are too big. Normal people are more interested in questions concerning their lives, for example salaries, pensions, education, children and employment. But these topics reflect something not so good. That’s why I think that this website is not so representative. (Ano20)

The user Ano23 thinks that the main problem is that the site makes some people engage in discussions and others not. This would suggest that the way the forum is designed has an effect of making some users feel comfortable to participate to begin with.

Because my feeling is that the discussions are quite few and the people who engage in the discussions are different from the type of people I usually come across. (Ano23)

This user goes on to specify what type of people the forum might attract. The suggestion is that the site probably attracts more older people and possibly people who have nothing better to do.

This view is shared by the user Reg15 who thinks that most users of the forum seem similar to users of another popular online forum in China. In this way, dissatisfaction is directed at how the site positions itself not only to certain
groups in the offline environment but also to certain groups of people in the online environment, and that the forum tries to compete with other fora in other online spaces.

It's just that the crowd who uses the site is not so big. Very few people like me, who are a bit younger, seem to use the site. In general it seems like it is people who chat that use it like a chat forum. It seems to attract the same kind of users as Baidu Tieba online chat forum. (Reg15)

These comments indicate that people who come across the forum might self-exclude themselves, either because they have no interest in taking part in the debates, or because they don’t feel that they should. The statement below supports this notion that people might exclude themselves.

I think it is not so good to use while enrolled at university but maybe after graduation. After becoming a real member of the community one can care more about these things. (Reg9)

Some users are also clearly dissatisfied with how the topics at the forum are organized. There is also frustration with the possibility to start new topics. This indicates a lack of perceived control over what can be communicated at the forum.

I was looking at what was written about Shanghai and there was nothing from 2012 or 2013. All I saw was stuff from 2010 and most of it was about the World Expo. Even if I also care about this topic I think it is probably not the most relevant now. From looking at the site just now, this is what I think. (Ano10)

In addition some users vented their disappointment about how responses to suggestions were communicated, but also about the overall tone of the typical users. This would indicate perceived lack of control, not only over what to talk about at the forum, but also how to talk about things at the forum.
And then regarding the proposals. I had a look at a couple of proposals that I am interested in and then had a look at the replies by a professor and thought that the reply wasn’t really that good. And the reply even had some factual errors. And then regarding the other users. Most users were mostly concerned with issues relating to their own personal situation and interests.

(Reg25)

This concern about the tone of users’ comments was shared by others who suggested that comments were often flimsy and that users were unaware of how the forum was shifting them away from other fora. The user Reg7 indicated that such a shift might have consequences that would be difficult to foresee.

Because after having looked at the site I think that the stuff in there is maybe just a lot of peoples’ thoughts. But in the end perhaps there is no result of these thoughts. If they say something and there is no result, in the end they don’t do anything about it. If this site will replace other kinds of fora people won’t stop to think about the results of this. (Reg7)

The comment above indicates that the forum is at risk of high levels of dissatisfaction due to deliberative autocracy. Judging from the comment above it is clear that perceived lack of control over the effects of participation could even influence a person’s intentions to participate. In this sense, and using the reasoning of deliberative democracy theorists, a lack of consequentiality of the forum could have a negative effect on the level of authenticity at that forum. This implies that although users are free and equal in their participation they are still uncomfortable with, or unsure about, the effects of that participation.

7.2.4. Dissatisfaction due to collaborative autocracy

The final category of autocracy discussed in chapter three is collaborative autocracy. The essence of this form of autocracy is that an individual might feel dissatisfied with the general tools of communication. Dissatisfaction due to collaborative autocracy can be described, as when one’s existence in a system
is dependent on tools that one is uncomfortable with. In our case there is ample evidence, in comments made by forum users, that many are indeed dissatisfied because of collaborative autocracy. Sometimes it is difficult to separate between dissatisfaction due to deliberative and collaborative autocracy. If deliberative autocracy might result in dissatisfaction with how communication tools are used in a specific forum, collaborative autocracy will result in dissatisfaction with the tools themselves. As can be seen in the comment below, the user might well be dissatisfied with how the People's Daily moderates and administers the forum, but the main problem is that this is not a good environment to express one's views to begin with. Why it is not a good environment is not specified.

Anoth
er user comes a little closer to specifying why there is discomfort involved in using the forum. This person explains that s/he does not participate in discussions online in general. In this sense s/he has not been 'born into' the world of the forum, what we referred to as isogonia in chapter three.

This issue of birth into the system is made even more complicated when a user, who is comfortable with online discussion fora in general, expresses doubts about this forum in particular.
Because in China, maybe, I think that if the system is not reformed, democracy will not be valued enough. So, this website might suddenly see a drop of users or a drop in substantial influence. (Ano19)

The hesitation that this user is showing about birth into this specific system might be explained as follows. A user could spend a lot of time and effort in getting to know the forum and how it works, learning the practices of adding new topics, comments and votes. But, all of this time and effort would be wasted if the site could suddenly disappear. The result of this could be that the user will have made the effort all in vain. This dilemma also explains user Reg13’s hesitation about the People’s Daily as the provider of the forum. The People’s Daily would probably not hesitate to close down a popular site for political reasons. A private news organization on the other hand, might want to keep such a site up for commercial reasons as long as it is popular among its users.

From one user’s perspective it is clear that the whole survival of the system is not in the hands of the users themselves. The risk of unexpected termination of the system is therefore a dominant aspect of dissatisfaction with the system. This is also a clear hurdle for the increased popularity of the site, as can be seen from the comment below.

After having looked at this site today I became really interested. Maybe I will return to have a look at the site in the future. But for me to really participate would have to depend on how the site develops. My concern right now is that the site hasn’t been around for that long. If the site manages to survive I would start using it more and contribute to the discussions. (Reg11)

In a sense the perceived lack of control over cataclysmic events such as the complete termination of the forum can be seen as one of the most serious reasons for user dissatisfaction. Of course there are other less severe aspects, than the immediate risk of termination of the entire site, that still give rise to dissatisfaction due to collaborative autocracy among users. Many users comment on different aspects of the functionality of the site, saying that the content is fine but that the functionality should improve.
Then there are users who show dissatisfaction with very specific aspects of the forum. A variety of which are mentioned in the comment below. Crucial for our understanding of this as dissatisfaction sparked by collaborative autocracy, is that the users themselves cannot control all of these aspects. The tools for changing them are not built into the system.\textsuperscript{128}

As discussed in chapter three one crucial aspect of collaborative autocracy is the inequality of birth into the system. It is evident from many of the comments made by users that this is indeed an important reason for dissatisfaction with E-gov forum. Users feel that they, by adopting the settings of the forum, are in fact opting for it. Many users are however not prepared to do this as they do not like many of the settings and therefore feel uncomfortable being born into the system. This would then have the effect that only some users are comfortable using the system. Thus the system is at risk of very high levels of dissatisfaction due to collaborative autocracy. According to the interview results, such dissatisfaction would mainly show up as exit. Most users are simply not comfortable with opting for open government initiatives, such as E-gov forum, by becoming users. As we have seen, there is however reason to believe that some users would still consider opting for the system by becoming users. From the results of the experiment we know that the

\textsuperscript{128} Echoing the radical open source arguments of Daniel Rushkoff, that Internet users need to acquire the skills and rights to program online environments for such environments to become truly democratic (Rushkoff 2003, 2010).
likelihood for such reluctant participation increases with identity registration procedures. We will now turn toward an investigation of the possible mechanisms behind this type of induced participation.

7.3. The effects of anonymity

From the theoretical discussion leading up to the experiment, we know that there are many different suggestions as to how exit, voice and loyalty might correlate or interact (Barry 1974, Dowding et al. 2000, Laver 1976, Birch 1975). So far we have been unwilling to accept any such general theoretical stipulations. Now we have however reached a point in our investigation where we can allow ourselves to try some of these ideas in the specific empirical context at hand. So far we have only conjectured that exit, voice and loyalty should be expected to fluctuate according to a zero sum logic, meaning that a gain in exit would result in a loss in either voice or loyalty, or possibly both. In accordance with this line of argumentation we suggested that the impossibility of exit would lead to increased levels of voice and loyalty. We also noted that in complex systems, entropy might take the form of exit in many parts of the system, but accumulate in the form of voice and loyalty in parts that do not allow for exit.

One result of the experiment was that a majority of both anonymous and registered users wanted to exit before the time was up. This indicates that exit is possible in the studied system. But because anonymous users were more likely to exit, we have reason to suspect that the process of identity registration might be instrumental in closing the system to some degree. This would thus be to the effect of enforcing participation. 129 To uncover the possible mechanism behind this, we simply asked users if they felt comfortable using the site. 130 Our hope was that users would themselves explore any role that identity registration would have in causing feelings of discomfort. After they had answered this and some additional questions, all subjects were informed about the purpose of the experiment and the treatments of registration and anonymity that they had been subject to. They were then asked if they thought that having been registered or anonymous had affected their

129 Suggesting a similar mechanism as the type of enforced participation discussed by Fishkin et al. (Fishkin et al. 2010).

130 你以这种方式表达你的观点，你觉得你舒服吗？
behavior. After this they were asked if they thought that the forum should allow users to be anonymous or not. Finally, they were asked what they thought of real name registration on the Internet in general.

When answering the first question, most users were mildly positive about the comfort of using the site. Although this question was asked before users were informed about the manipulation that they had been subject to, some users still noted that the level of comfort did depend on the level of anonymity granted. When users were finally debriefed about the purpose of the experiment, many became very talkative about how they had perceived anonymity/registration at the forum. Many also wanted to reflect on how they thought it had affected them. Many users were very interested in discussing the normative aspect of identity registration both regarding the specific site, but also regarding the Internet in general.

When quantifying all users’ post-debrief opinions about the effect and value of identity registration, it is clear that there are no big differences between the manipulation treatment and the baseline treatment groups. A majority of both registered (88%) and anonymous (72%) users believed that the level of anonymity had affected their behavior. Also, a slight majority of both groups thought that the forum should allow users to be anonymous.

7.3.1. Loyalty vs. exit

One way of explaining higher levels of exit among anonymous users is that identity registration connects the online forum to a variety of other systems. The logic would be that any actions in the specific system of E-gov forum might have repercussions in other systems to which it is connected. The effect might be that the forum would become a subsystem of a bigger system from which exit might not be possible. In such a situation users might presume that non-participation might imply non-compliance. To lower the possible risks of non-compliance, users might feel forced to participate. In this way registered users would stay in the forum because of any discomfort associated with leaving. One user explains the situation as follows.

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131 你是否认为使用了真实身份注册后会影响你在这个网站上的言行？/ 你是否认为使用了匿名会影响你在这个网站上的言行？
132 你觉得这种的网站最好是匿名，或者实名？
133 你怎么看待网络实名制注册？
I think I haven’t gotten used to this. I am used to using pen and paper or to talk in person to someone about my opinions, but not going online. Because online I don’t know which government officials are listening to what I am saying. (Ano4)

Another possible explanation is that only registered users find the forum meaningful. The logic for this would be that registration lowers the propensity for voice to the benefit of loyal users who are relieved of the clamorous forum critique of complaining users. The following statement exemplifies this view.

Because I think ID registration would make one group of people not want to express themselves. And real name registration, such that Weibo has enforced, first of all would take away one big group of users, and second of all would make some users refrain from expressing themselves or making them express things that they don’t mean. (Ano9)

Although a majority of users preferred anonymity, almost twenty percent of users thought that the forum should enforce identity registration procedures. It is possible that individuals within this group of users are positively inclined to become active users if they perceive themselves as being registered. One user describes the active participation of registered users in the following words.\(^{134}\)

Because to discuss politics on this type of website, a more general view of opinions and proposals is necessary. So maybe real name registration could raise the threshold to this forum so that people with more knowledge and skill would express their views. Thus disorderly people who enter the site will not start to attack proposals that they don’t agree with. (Reg11)

\(^{134}\) Incidentally, according to the screen recordings, this user stayed at the forum for a very long time and even showed interest in applying for editor status.
In contrast, proponents of anonymity thought that identity registration would inhibit freedom of speech at the forum. Some of these users conjectured that such inhibition of freedom of speech could be detrimental for discussions at the forum. The general belief was that anonymity would give protection to express important views that might be considered controversial.

One user even suggested that real name registration is a deliberate government policy to make the Internet less of a public space for free speech. This user also noted that such registration would distort any content that is being produced at E-gov forum.

By using the word 'harmonious', this user is likely referring to efforts made by the Chinese government to decrease the amount of public unrest as part of the more general quest for a 'harmonious society'. Many users were clearly wary of this evolution of the Internet. Some even thought that the question of online anonymity had become irrelevant, stating that the infrastructure of the Internet is increasingly used to eliminate all chances of being anonymous.
One user considered the possibilities of online anonymity already to be a thing of the past. In this user’s view everything one does online is to be considered public.

Eh, earlier right, two years ago one would perhaps still worry about this, but now one doesn’t care anymore, one doesn’t pay attention as everything is public. (Reg19)

Other users supported the notion that online actions are public acts. Many users indicated that one must take responsibility for what one does online and that this responsibility increases with real name registration.

Anonymity has two sides to it, right. First, anonymity makes it possible for netizens to say whatever is on their minds, but at the same time netizens might say things that they don’t have to take responsibility for. (Ano1)

Some users expressed an interest in having online fora where people would take responsibility for what they said. In one user’s view, the emergence of such fora would contribute to a shared sense of public spirit.

I think that this really is one important direction for future development. Really in China, many say that China lacks freedom of speech and that public opinion surpasses freedom, and then publish stuff that they don’t take responsibility for. There’s a lot of that, but I still think there is a development. Because the public hasn’t yet built up a sense of public spirit, a form of collective citizen consciousness. China really lacks a kind of public spirit. In relation to public goods people usually start from a private stance. This type of public spirit or responsibility for the collective has never really been expressed. (Ano24)

In view of these comments it is possible to imagine that registered users feel a sense of purpose that they should engage more with fora at which they are
registered, and thereby contribute to responsible debates. In this way users might even see registered participation as a form of civil service, as part of being a good citizen with possible benefits for them in other systems to which the forum is connected. These comments suggest that Internet users in China are perhaps increasingly pushed into high levels of participation but low levels of contestation in online political discussions. According to the results of the interviews, identity registration might be an important tool to achieve these effects.

7.3.2. Loyalty vs. voice

Not only did the experiment show that registered users had a higher level of engagement with the forum. The results also suggest that anonymous users tend to engage more in forum critique whereas registered users tend to engage more in nationalistic discussions. To explore why, we now turn to users’ comments about how they thought anonymity would affect what they said and how they said it.

As we have seen, a vast majority of users thought that identity registration would affect their behavior at E-gov forum. Many users were also very interested in discussing why and how. One dominant conception among users was that anonymity would increase their propensity to be more outspoken at the forum.

我觉得应该会吧。如果匿名的话可能有些，有些话，就是如果用实名的话不敢讲啊。就是他如果用匿名就敢讲。但是也，就是特别激进的话，匿不匿名其实都一样，因为就是各种其他各种手段还是能够把你查出来的。

I think it must, right. Maybe, if anonymous, one would say stuff that one would not say if registered. But maybe when it comes to really radical speech, anonymity makes no difference as there are always ways to find you.

(Ano2)

There were also those who thought that anonymity would make people engage in more reactive speech. This would give support to our finding that anonymous users engage more in forum critique, understood as entropy as voice.

他们其实的目的也不是要给你提什么建议或者怎么，他们只是要表达一种负面的情绪。
Their real intention (anonymous users) is not to give you a real proposal or anything. They just want to express that they are in a negative mood. (Ano17)

Other users who had been anonymous in the experiment had very elaborate ideas about the effects of anonymity on the likelihood of engaging in forum critique. One user thought that anonymity would lead individuals to make radical pleas for democracy.

Recently in China real name registration has been promoted. As I am in favor of real name registration I believe that anonymity, besides promoting freedom and authentic speech, leads to some extreme things. For example it leads some people to express things about democracy. (Ano19)

Some users even speculated that anonymity would make some groups of people speak out more than others. One suggestion was that especially middle-aged men would speak out more if allowed anonymity.

You see, it seems like on political websites, one very active group is angry youth.135 These are people who are very sensitive to politics. Most of them are men between 20 and 50 years old who have problems with their jobs or whatever. (Ano20)

It is interesting to note that most users had ideas about the circumstances under which they themselves had participated in the experiment. That is to say that anonymous users reflected more about how anonymous users would behave, whereas registered users were more inclined to reflect on how registration would affect behavior.

If anonymous users thought that anonymity would lead to radical speech at the forum, many registered users thought that real name registration would have a moderating effect. Many registered users concluded that E-gov forum

135 Derogatory term for young angry leftist nationalist movement often reacting against perceived neo-conservative nationalist movements in Japan and the United States (Yang and Zheng 2012).
was different from other fora in that it would not facilitate radical speech to the amount that other fora might.

One user thought that discussions would be better at E-gov forum. The possible mechanism proposed by this user was that a forum of registered users would facilitate more comprehensive and systematic discussions. This would be because the forum would not be clamored with radical speech of anonymous users.

One registered user thought that E-gov forum was different from other fora because of identity registration. This user suggested that because the forum was special, users also had to engage with it differently. The suggestion was that users had to be more respectful and use a bit more moderation.

One user also commented that it would be more suitable to express opinions at the forum in a milder and more neutral way. It is unclear whether this user would still use other fora to express more radical views.
It's just that for example more radical proposals or more extreme proposals I would not post. Maybe if I would register with my real name or log in I would certainly not express myself in this way. Maybe I would be a bit more neutral. (Reg9)

In view of these comments we can conclude that many registered users felt that they had to moderate their actions at the forum to be more neutral. It is not immediately clear what this would mean in practical terms. In view of the results of the experiment, we can only conjecture that engaging more in nationalistic discussions seems to be one possible way for users to behave in a more careful and neutral way. It is difficult to know precisely how users feel about engaging with the forum in this way. What we do know is that many users are concerned about the risk of negative implications of real name registration. One user expressed fears that it might fundamentally alter the way the Internet works.

Some users were concerned that the government might find out about users’ opinions. The user below was clearly concerned about a fellow-user at the forum whom had posted comments that were thought to put that user at risk of reprisals.

Because I just saw that the site has a rather strange ranking called ‘number of proposals ranking’. On the right side of the page there is a list of who has posted most proposals. There I saw a number of netizens listed who had posted a lot of proposals. I got really worried about one user and thought that s/he might be tracked by her or his IP number and asked why s/he has posted so much. The number-one-user has so many postings that I thought
s/he must post stuff every day and so I got very worried that s/he would get caught by the officials and asked some questions. (Reg25)

Some users indicated that, not only were they concerned about government surveillance, but also that people around them would find out about their opinions. For example one user expressed worries that family members might find out about individual political preferences.

有些话可能你在用你自己的名字，让别人知道是你说就会觉得比较奇怪。然后也不想让人家知道你会关注这种问题。
There are some things that, if you would use your own name, other people might find out about and think was strange. Also unexpectedly your family could find out that you cared about these issues. (Ano17)

As we have seen, several users concluded that real name registration have some benefits and might be necessary in some situations. But, some users suggested that any systematic online identity registration procedures might not be suitable for deployment in China.

我觉得在一个充分民主的社会，实名制是，它的积极作用是要大一些。但是在中国这样一个民主不是很完全的一个社会，实名可能会有一些负面的效应。政府可能会，可能会通过这个实名制来操控网上网络的一个借口。
I think that in a more democratic society the use of real name registration is of more positive use. But in Chinese society where democracy is still lacking, real name registration might have some negative effects. The government might use real name registration as an excuse to manipulate websites and the Internet. (Ano3)

Overall, many users voiced concerns about what they could communicate in online fora. They commented on how online fora could facilitate free speech and unhindered political discussions. At the same time they expressed concerns about how such free speech could be offensive and disruptive. Many users thought that there were benefits to online identity registration, as people would think twice before expressing their views. Indeed, a majority of users thought that they had themselves altered their behavior, as a function of identity registration, during their sessions with E-gov forum. Some registered users admitted that they had perhaps changed how they had behaved at the forum because of identity registration. In line with the results of the experiment, these users stated that they had participated actively at the forum even though they had concerns about the functionality of the forum.
7.3.3. Assessment of the effects of anonymity

The results of the interviews support the general findings of the experiment that exit, voice and loyalty works much like different outlets of entropy as a product of autocracy, via mechanisms of dissatisfaction and perceived behavioral control. Any correlation or interaction between exit, voice and loyalty can best be symbolized by how fluid flows in communicating vessels. Depending on the situation and context an individual can let dissatisfaction flow into exit, voice and/or loyalty. Both experimental data and interview results suggest that the most likely channel for dissatisfaction is exit. The larger volume of this vessel in the image below would symbolize this. The second most likely channel for dissatisfaction is that of voice, symbolized by a still relatively large volume vessel. As a last resort, individuals will release their dissatisfaction in the form of loyalty, symbolized by the relatively narrow vessel in the model below.

![Diagram of exit, voice, and loyalty channels](image_url)

*Figure 7*

Whenever users feel that participation is completely voluntary they are most likely to exit without second thoughts. Should the path of exit be closed off, users would have to choose between voice and loyalty as outlets of dissatisfaction. Finally if identity registration is enforced, then this seems to have the effect of closing off the possibilities of voice. In this situation, most users will be left with only loyalty as a last channel through which to release, or rather store their dissatisfaction.

From a system perspective, exit seems to be the least sustained form of entropy. The system effect of high levels of exit seems to be limited to a
feeling of slight dissatisfaction among remaining users, that not enough people use the forum. Voice on the other hand, seems to have slightly higher sustain effects on system entropy. If many users channel their dissatisfaction as voice, then users of the forum feel dissatisfied about the forum being disorganized, too radical or filled with reactive speech.

So far we have not been able to fully assess the sustain effects of high levels of loyalty. From the experiment we only know that dissatisfaction as loyalty seems to have the side effect of making users engage more in nationalistic discussions. From the interviews we can only conjecture that loyal engagement might be a way to play the part of the ‘good citizen’. We have not been able to determine what other users think of such increased levels of loyalty and how it affects their long-term feelings of satisfaction/dissatisfaction with the forum. All we know is that some users seem to be satisfied with the way discussions are more moderate due to real name registration. There are however deep concerns among many users about what real name registration might mean for the Internet in general and its role in China in particular. In view of the interview results, there is a risk that users via online registration are incentivized to participate in forums that they are dissatisfied with.

7.4. Conclusion

In this chapter we have been able to validate the high levels of dissatisfaction among users of E-gov forum that was only assumed in preceding chapters. According to the results of the interviews, a majority of anonymous users have mixed or negative feelings about the forum and would not like to use it again. In the registered group, people were more positive but shifted to a more critical stance once they had been debriefed about the purpose of the experiment.

Categorizing dissatisfaction as due to democratic, representative, deliberative and collaborative autocracy has proved to be a feasible way of making sense of users’ comments about their experiences and expressions of dissatisfaction. An evaluation of the importance of these four categories of dissatisfaction would suggest that dissatisfaction due to deliberative and collaborative autocracy are the most important factors in the case of E-gov forum, whereas dissatisfaction due to democratic and representative autocracy are not as important.

A majority of both anonymous and registered users believed that being anonymous or registered had affected their behavior at the forum. A majority
of users stated that they thought that the forum should allow for anonymity in the future. No definite conclusion could be drawn as to why registered users had interacted more with the forum than anonymous users, or why they engaged more in nationalistic discussions.

The final model leaves us with a suggestion that loyalty is perhaps the type of entropy that has the highest risk of leading to sustained levels of dissatisfaction, before voice and exit. This is because users are forced into active engagement with a forum that they are dissatisfied with, using tools for communication that they cannot fully control. According to our discussion in chapter three, this would be a clear case of collaborative autocracy. We have seen that the effects of this type of autocracy might be for individuals to engage in participation without contestation. In the following and final chapter we will provide a brief summary of the main conclusions and results so far. After this we will move on to discuss possible implications of our findings, especially concerning the potential aggregate effects of collaborative autocracy. According to our discussion in chapter two, the empirical manifestations of collaborative autocracy could amount to collaborative authoritarianism. The results from our study of E-gov forum show that citizens can be made complicit in upholding authoritarianism via mechanisms of authoritarian collaboration.
8. AUTHORITARIAN COLLABORATION

8.1. Summary

The point of departure for this thesis was a perceived paradox of authoritarian deliberation playing out in contemporary Chinese politics. Several scholars have described this paradox as an anomaly of government initiatives in public participation occurring in authoritarian regimes (He and Warren 2011, Chen and Xu 2013). Other scholars have noted that authoritarian regimes are sometimes quite active in initiating processes of opening up to public participation (McMann 2006), not least by use of online fora (Åström et al. 2012, Karlsson 2013, Linde and Karlsson 2012).

We set out to add empirically and theoretically to this debate about open government initiatives in general, and how they play out in non-democratic environments in particular. The ambition was to help nuance a somewhat heated debate about the potential use of new models of governance, especially when facilitated by new technical aids such as the Internet. The specific aim was to apply a citizen centric approach in which the focus would be on any unintended effects of these initiatives. Of special interest was how these initiatives might even increase the resilience of authoritarian rule. Thus we asked if these initiatives could even increase the autocratic potential of the political system in China.

When approaching this research we proposed a rather broad set of research questions. Among these were the following: Is the Chinese government actively working toward implementing open government initiatives? What could be the reasons for this? What does open government initiatives mean in
the Chinese context? How do Chinese citizens react to these initiatives? What are the potential effects of these initiatives? Does this development promote good governance in China? What does good governance mean for Chinese citizens? Is this a development that is preferable given the interests of the Chinese citizenry and the Chinese government?

We chose to focus our empirical research efforts on the possible role of online identity registration for Chinese citizens’ interaction with open government initiatives. The suggestion was that the contextual factor of online identity registration might affect how open government initiatives would play out in China. We will now give a short summary of our conclusions and results after which we will move on to discuss the broader set of questions posed as part of the full research proposition.

8.1.1. Conclusions about description

In chapter one we warned about focusing too much on the descriptive research proposition. It was noted that descriptive findings could always be challenged because of basic problems of inductive reasoning. We have concluded that open government can both be seen as an idea and as a technique. We defined open government as initiatives that seek to increase information flows of participation, deliberation and transparency. As such, open government initiatives have been deployed at many levels and functions of government in China. Open government initiatives have been implemented through the enactment of law and by government decree, but they have also evolved by government officials making use of online fora at their own behest to fulfill a variety of purposes. In this way, open government initiatives have emerged as a type of 'beta institutions'. The further development of these institutions is likely to be dependent on the level of popularity and perceived functionality among users.

Few attempts have been made to botanize the full empirical flora of open government initiatives in China. In one attempt, Min Jiang has defined one group of such fora as central propaganda spaces (Jiang 2012). Fora that are situated within these spaces are closely related to the state apparatus. Thus they represent some of the most explicit attempts by the Chinese government to open up the government apparatus to increased information flows of participation, deliberation and transparency. In our own attempts to locate examples of fora within central propaganda spaces, we settled on E-gov forum. This forum has been set up by the People’s Daily news organization to provide citizen feedback to the members of the People’s Political Consultative Conference.
8.1.2. Conclusions about explanation

To resolve the paradox of authoritarian deliberation and to attain a view on autocracy and authoritarianism that could help us do this, we chose to explore systems theory and cybernetic perspectives on politics. In Karl Deutsch’s book *The Nerves of Government* (Deutsch 1963), we found a perspective on politics purely as information systems that has proven very productive for our study. According to Deutsch, the proliferation of power within a system will cause high levels of entropy. We concluded that such permeation of power on a systemic level could be defined as autocracy. We drew on the theoretical framework of Karl Deutsch to arrive at our own definition of autocracy as 'the systemic sustain of information distortion'. Equipped with this definition of autocracy, different models of governance were evaluated as to their autocratic potential. In line with Deutsch’s theory we expected the main effects of autocracy to be manifested in the form of entropy. In search of theories of social entropy we concluded that Albert Hirschman’s theory of exit, voice and loyalty would be a good option (Hirschman 1970). Using Hirschman’s trichotomy of effects of dissatisfaction we had the necessary tools to measure and assess the autocratic potential of open government initiatives in China.

When evaluating the environment in which open government initiatives in China are deployed we concluded that the difficulty for individual users to achieve online anonymity might constitute an important aspect. A literature review on previous research on individual behavior in online discussion fora supported this conclusion. Going forward we decided to evaluate the hypothesis that anonymity would increase the level of individual content production in online fora in general (Connolly, Jessup, and Valacich 1990), and subsequently at E-gov forum in particular. Our motive was to use online anonymity as a catalyst to spark a reaction in the distribution of entropy as exit, voice and loyalty. This was thought to unravel the level and type of autocracy at E-gov forum.

Equipped with our working hypothesis and the ambition to use anonymity as a catalyst for entropy we set out to do a lab-in-the-field experiment. We concluded that the only possible engagement with E-gov forum was for users to perform speech acts, clicks acts, and read acts. Any such acts would be perfectly and completely represented by the data material of the screen recordings. To be able to evaluate any dissatisfaction with the forum we decided to use qualitative interviews. To maximize the utility of these interviews we concluded that they should be performed after subjects had been debriefed about the purpose of the experiment to create an icebreaker effect. Post-debrief interviews were concluded to be valuable in controlling and verifying experiment results. To measure dissatisfaction in post-debrief
interviews we concluded that the theory of perceived behavioral control (Ajzen 2006) would be of high utility.

The experiment data suggest that the hypothesis of a positive correlation between anonymity and content production does not hold in the context of E-gov forum. No significant positive treatment effect could be found which is why we have to support the null hypothesis of no correlation between anonymity and quantity of content production. It is surprising that all measurements point in the opposite direction, that there could be a negative correlation between anonymity and quantity of content production in the case of E-gov forum. A probable cause for this result is that the hypothesis of a positive correlation between anonymity and quantity of content production is not applicable in the local context of E-gov forum. This is because online anonymity can be difficult to obtain and secure in the Chinese online environment. This was partially confirmed in post-debrief interviews where a number of subjects expressed doubt that online anonymity could ever be achieved.

Another hypothesis that we were able to evaluate for the online environment was that public deliberation is made easier in authoritarian contexts due to assured attendance (Fishkin et al. 2010). Although no definitive test of this hypothesis could be produced, there is circumstantial evidence that forum users did not feel obliged to participate in response to this open government call. Although many users seemed to feel comfortable to exit the forum, there are still some indications that registered users are more likely to engage actively with the forum. It also seems that registered users are more likely to engage in nationalistic discussions. Another result was that registered users have a tendency to refrain from voicing critique. These results possibly indicate a marginal effect in support of the hypothesis of assured attendance in public deliberation in authoritarian environments online, under conditions of identity registration. This would support the observation that initiatives for online public participation in authoritarian contexts could promote participation but demote contestation.

The experiment suggests that there might be high levels of entropy in the case of E-gov forum. This is supported by the interview results that suggest high levels of user dissatisfaction. Therefore we can conclude that individuals within this particular group of Chinese citizens are dissatisfied with their possibilities of participating in politics in this way. The case study of E-gov forum suggests that citizens react negatively toward open government initiatives, not primarily via dissatisfaction due to democratic and representative autocracy, but more importantly via dissatisfaction due to deliberative and collaborative autocracy.
8.2. The end of autocracy?

Leaving the solid ground of empirically validated research, we will now make a leap of faith in trusting that our theoretical arguments will carry us into the slightly treacherous terrain of prediction and eventually prescription. Thus it is finally time to discuss the full research proposition of this thesis.

We have already discussed how some scholars have warned against the growing number of concepts used to describe the state of non-democracy (Collier and Levitsky 1997, Snyder 2006). This is an extension of the more general argument posed by Giovanni Sartori that scholars should think twice before inventing new terms and concepts (Sartori 1970). The ambition of this thesis has not been to invent a concept to end the debate about autocracy, but rather to further deepen the debate and add complexity and nuance. We have argued that a single empirical definition of non-democracy is not enough, but that there is possibly a wide range of different contexts in which different concepts apply. What we have argued for is greater accuracy in the analysis of power in all types of systems and a readiness to assess the level of autocracy, as theoretically defined, in all models of steering. As systems become ever more complex such deepened attention to autocracy is badly needed, or in the words of Karl Deutsch:

Distrust of experience, fear of highly developed technology, and impatience with the sustained thought needed to understand complex processes and systems, all add up to the risk of massive intellectual failure. Risking a failure to understand the complex and dangerous reality now facing it, mankind may find itself confronted by a still more complex and more dangerous reality as the years go on. If we distrust anything that seems too complicated, we may be unable to deal with the realities we cannot avoid. And one cannot understand a complicated system or process without, at least for a time, accepting some information on trust. A master of political deception, Adolf Hitler, wrote in his book Mein Kampf that there were two kinds of people who were easiest to fool: those who believe everything they read and those who believe nothing. If Hitler were alive today, he might suspect that he would find some new easy victories among those who are approaching the age of computer with a Stone Age cast of mind. (Deutsch 1970, 569)

There is a rather unsettling and inevitable conclusion to be drawn from the cybernetic theory of autocracy presented in this thesis. That conclusion is epitomized in a famous joke that goes: ‘Entropy isn’t what it used to be’. The gist of the joke comes from the inherent logic of the concept of entropy, which is that entropy is ever increasing. This presents us with a slightly mind-
boggling logical conclusion of applying the concept of entropy to the social sciences. If entropy is ever increasing - so is autocracy.

Entropy is however a very puzzling and possibly paradoxical concept. According to the famous Liouville’s theorem, although entropy is ever increasing, entropy can also never change (Baranger 2000). What this means is that entropy can fluctuate in and out of systems, but it will always remain rather constant. This is possibly what Albert Hirschman tries to depict and explain in *Shifting involvements* (Hirschman 1982). Drawing cogency from Hirschman’s book, we might conclude the following for our case of open government initiatives in China. It might be possible for the CCP to try to shift entropy among citizens from some systems to other systems. What we have seen is a possible attempt to shift citizens’ involvements from non-state online spaces to central propaganda spaces. The rationale for doing this might be to try to quench any violent outbreaks of exit or voice in non-state online fora and turn it into deposits of loyalty, safely stored within fora of central propaganda spaces. This is a governance technique that could help to evade unpredictable effects of entropy as exit and voice in the short term, but the question is what the long-term effects will be?

8.2.1. A new look on totalitarianism

This thesis has been driven by an ambition to nuance the debate about whether the Internet is either good or evil when used as a tool for governance. Our primary focus has not been on the physical technologies of computers and communication networks. Instead we have focused on governance models in which these physical tools are utilized. Innovations in governance such as open government initiatives of deliberative and collaborative governance sometimes make use of physical tools such as computers and the Internet. In light of our theoretical perspective, the Internet as such is neither good nor evil. The effects of these models and the tools they apply can however be expected or unexpected, intended or unintended.

We have found that deliberative and collaborative models of governance can cause dissatisfaction with what can be communicated, how to communicate and with what tools to communicate. Dissatisfaction with E-gov forum seems to increase the likely outlet of entropy as loyalty. In more recent definitions of totalitarianism, it is precisely loyalty that is seen as one of the key mechanisms behind sustained and resilient authoritarian rule. Ronald Wintrobe suggests that dictators have two main techniques to utilize if they want to stay in power. The first is repression, which is associated with relatively high costs for authoritarian leaders. The second is loyalty that is potentially less costly from
the dictator’s perspective (Wintrobe 1998, 15). Of course from a cybernetic perspective both of these techniques are quite costly, as they will allow power to permeate the system and produce entropy. In Wintrobe’s analysis, totalitarianism is signified by high levels of both repression and loyalty whereas tyranny has low popular loyalty and high levels of repression. Wintrobe’s conclusion is that the main characteristic of a stable and long lived dictatorship is that it can maintain high levels of loyalty (Wintrobe 1998, 39). Wintrobe makes no clear suggestion as how to label regimes that are high in loyalty and low in repression. He vaguely points to the concept of ‘timocracy’\textsuperscript{136} that unfortunately has slightly different connotations and has been used in a variety of contexts.

Throughout this thesis we have been reluctant to categorize political entities empirically into one or other class of states or regimes. Should we allow ourselves to use Wintrobe’s analysis we might conjecture that some government systems in China can be classified as totalitarian. According to the theoretical conclusions and empirical results of this thesis, open government initiatives could be a possible way to move some systems in China into a state of more stable and long lived autocracy, in that these initiatives seem to promote entropy as loyalty, over entropy as exit and voice. This would however only be the case under conditions of online identity registration. If anonymity is granted in online communication, a more probable path of entropy would be in the form of exit or voice. Drawing from the conclusions of this thesis, a possible term for contemporary regimes that seek to increase levels of loyalty and thus lower the need for authoritarian leaders to engage in repression, would be - collaborative authoritarianism. Because open government initiatives seem to facilitate entropy as loyalty they could be instrumental in promoting a totalitarian agenda of achieving authoritarian collaboration.

8.2.2. Autocracy in whose interest?

We can only make speculations about the long-term effects of the potential promotion of entropy as loyalty. In accordance with the theoretical conclusions of this thesis there is reason for concern that such buildup of loyalty could imply long-term effects of future release of entropy as exit or voice. This is something that Chinese government officials might want to take into

\textsuperscript{136} A concept that literally means that only those with property should rule. Etymologically the word timocracy derives from the Greek word \textit{timokratia} from \textit{time} ‘honor, worth’ and \textit{kratia} ‘power’ (OED 2000).
account, especially when looking back at a political history of violent popular upheavals of sometimes cataclysmic magnitude.137

One set of questions from the introduction of this thesis, that we have not been able to answer, concern the motives of authoritarian leaders. In chapter one we asked if the Chinese government is actively working toward implementing open government initiatives and what could be the possible reasons for this. Of course there are several suggestions among scholars about possible ways to approach these and similar questions. The analysis of Ronald Win trobe above is but one suggestion, where the main focus is on the behavioral rationality of authoritarian leaders. The general perspective of this thesis has made us focus on instances of disruptions of information flows in all systems. This means that we accept that anyone might take advantage of possibilities of power over information in any type of system. It is however difficult to predict who might want to do this, for what reasons and under what circumstances.

8.3. The future of open government in China

We are now reaching the full assessment of the research proposition posed in chapter one. The only set of questions left for us to discuss are the ones concerning prescription. In chapter one we asked if the development of open government initiatives promotes good governance in China. We also asked what good governance mean for Chinese citizens and if the development of open government is preferable given the interests of the Chinese citizenry and the Chinese government?

As we have not engaged in any normative discussions about good governance in this thesis, we cannot answer these questions. If anything our cybernetic perspective suggests that such authoritative statements about good governance or preferable developments should be opened up to the full and free flow of opinions of those who are part of the system in question, thus in this case the Chinese citizens themselves. We could try to use the expressed opinions of the non-representative sample of Chinese citizens who participated in our experiment to make assessments about what Chinese citizens think. But if we were to do this we would possibly be responsible for instigating processes of both democratic, representative, deliberative and collaborative autocracy.

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137 As an example the Taiping and Dungan rebellions of the mid nineteenth century are among the worst man made catastrophes by death toll in human history (Spence 1999).
Given our theoretical conclusions and research results we can only hope to give some insightful advice on things to consider in the further development of open government initiatives in China.

8.3.1. Effects and side effects of innovation

Throughout this thesis we have treated normative political theory as the art of making innovations in sociopolitical steering systems. Whenever scientists engage in innovation they are presenting new solutions and techniques for anyone or everyone to utilize. This implies that social scientists should be aware of the possible effects, including the side effects, of their innovations. This thesis supports the notion that innovations can have unexpected effects depending on the general environment or system setting in which they are deployed. This might call for a greater attention to the principles of precaution (see O’Riordan 2013) when engaging in the advancement of normative political theory and proposed innovations in governance. It possibly also calls for greater attention to making assessments of the effects of early deployments of new innovations. Empirical studies of emerging governance innovations are needed to highlight early signs of unexpected effects of these innovations and also possibly detrimental effects and unexpected side effects.

Recently there have been a number of scholars who have promoted the system wide deployment of deliberative (Parkinson and Mansbridge 2012) and collaborative (Lathrop and Ruma 2010) governance. Whenever calls are made to launch the grand scale deployment of innovations, it should perhaps be a wake-up call for empirically minded researchers to find the empirical evidence of the possibilities and risks involved in such projects. This thesis has been devoted to a nuanced and empirically founded debate about the possible effects of open government initiatives in China. Guided by cybernetic theory we have focused less on the possible benefits of these initiatives and more on the autocratic potential that they might hold.

8.3.2. Open systems – closed worlds

Without claiming perfect empirically validated truths, we should perhaps still try to offer a more general assessment of the worst case scenario of open government initiatives in China, and possibly in different contexts globally. As this assessment assumes only verisimilitude in the worst plausible scenario, the reader is well advised to apply a good amount of skepticism and criticism.
In chapter three we concluded that one key aspect of collaborative autocracy is that citizens might feel uncomfortable about their possibilities of equality of birth into a system. In Hannah Arendt’s groundbreaking work *Origins of Totalitarianism* (Arendt 1951), she points out that no matter how repressive a regime becomes, there is always one aspect that any dictator will not be able to have power over – the equality of birth of newborn human beings.\(^{138}\) She writes as follows:

> Total terror, the essence of totalitarian government, exists neither for nor against men. It is supposed to provide the forces of nature or history with an incomparable instrument to accelerate their movement. This movement, proceeding to its own law, cannot in the long run be hindered; eventually its force will always prove more powerful than the most powerful forces engendered by the actions and the will of men. But it can be slowed down and is slowed down almost inevitably by the freedom of man, which even totalitarian rulers cannot deny, for this freedom - irrelevant and arbitrary as they may deem it - is identical with the fact that men are born and that therefore each of them *is* a new beginning, begins, in a sense, the world anew (Arendt 1951, 466).

There are those who have challenged this freedom of new beginnings. Michel Foucault suggests that even the biological conditions of life are subject to power (Foucault 1990). From the conclusions and results in this thesis it is evident that power over biological (offline) life is unnecessary if virtual worlds can be constructed to enable power over equality of birth to a similar effect, especially if the offline conditions of humans depend on their engagement with online systems. Under conditions of authoritarian collaboration, where repression is low and loyalty is high, citizens might even feel forced to participate in their own unequal birth into online environments.

In the Chinese online environment, Internet users are often faced with some form of inescapable procedure of identity registration before entering any online space or forum (see image below for an example of an occasional announcement of the requirement of such a procedure\(^{139}\)). We have concluded that such procedures can be associated with feelings of lack of behavioral control among Internet users. Should users still accept this procedure and log on to the Internet by identity registration, it would be an act of opting for a system that users feel a lack of control over. If government sponsored fora for

\(^{138}\) The *Origins of Totalitarianism* was not based on any empirical research but primarily evolved as a heuristic account after observations and experiences from the Second World War and its aftermath.

\(^{139}\) The image is a screenshot from a mobile device when trying to log on to the Internet at Beijing Capital International Airport on the first of April 2013.
public participation are initiated in this environment they constitute spaces that facilitate open systems in that anyone is free to interact with these fora in any way they see fit. The problem is that the world in which these fora exist is a closed world where all other relevant systems, including offline ones, are at risk of being connected to those fora.

Figure 8

The repercussions for engaging, or not engaging, with such fora are simply unfathomable for the individual user. This means that individual users must potentially deal with the stress of having to consider different strategies and outcomes both for engaging and not engaging with online fora. In a way, users could be forced to engage with fora as a matter of survival in online and offline environments. This interconnected world is fundamentally lacking in equality of birth as some users have administrator status whereas other users lack such status. Consequently, in this world, different people are born as completely different creatures.

8.4. Autonomy and democracy

This thesis has tried to move beyond traditional conceptualizations of democracy and autocracy. The purpose has been to resolve the paradox of authoritarian deliberation and to find better ways to use conceptual tools to study contemporary politics. Whether this has been productive, or whether we have only contributed to conceptual confusion, is for you to decide. Cybernetic theory has possibly enabled a clearer view of the role of information and information processes in politics in general and of contemporary online
politics in particular. Central to cybernetic theory and to Karl Deutsch’s discussion of politics is the concept of autonomy. Deutsch discusses autonomy normatively, as a quality of learning systems of full flows of information. In this way, cybernetics offers a slightly different perspective of social and political life and of other normative concepts such as democracy.

There is wide agreement about what modern representative democracy has done for society, culture, education, health, the economy and many other things. There are several proposed explanations for the correlation between representative democracy and many of these beneficial sociopolitical effects. If we let our focus shift from democracy to autonomy, we might find that there is one quality of governance within representative democracy that is sometimes overlooked. One feature that has become more or less omnipresent in many societies all over the world is the principle of anonymized elections by use of the secret ballot.

8.4.1. Secrecy and autonomy

As the norm of openness is steadily gaining in popularity, there are those who argue for the introduction of the ‘open ballot’. They argue that open voting would be more democratic in that it would facilitate a higher degree of deliberation (Engelen and Nys 2013). The argument could be extended to include a facilitation of a higher degree of collaboration. A higher degree of collaboration would mean that responsible co-producing citizens should give instant feedback in decision making procedures. To give relevant feedback they would have to signal their individual position and capacity within the system, as discussed in chapter three.

The research for this thesis suggests that individual control over personal metainformation might be of crucial importance for individual autonomy and consequently also for the possibilities to uphold system autonomy. As discussed by Fei Xiaotong, it is unlikely that individuals over time can ever sustain their autonomy in relation to other people living nearby, if not facilitated by some proxy of anonymity (Fei, Hamilton, and Wang 1992). From this view the secret ballot might just be a unique and possibly ground-breaking innovation in steering systems. The secret ballot could even be one of the greatest democratic innovations of all time, if we by democracy mean an autonomous system capable of picking up on all relevant information from all

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140 Etymologically the word secret derives from the Latin word *secretus* meaning ‘set apart’ from se ‘apart’ and *cernere* ‘sift’.
affected human constituents. The reason for this is that the secret ballot might serve as a unique tool for accessing uncorrupted information about citizens' genuine opinions. From a cybernetic perspective the secret ballot could also serve as a type of ctrl+alt+delete function to prevent systems from becoming infused with power. Systems without this instrument could face an immanent risk of turning toward self-sustaining autocracy, in that individuals begin to participate in authoritarian collaboration.

The instrumental effect of the secret ballot might be somewhat underestimated in current debates about deliberative and collaborative governance. Proponents of deliberative and collaborative governance often wish to increase the level of individualization to facilitate better informed political discussions (Elster 1998, Ansell and Gash 2008). The risk is that they underestimate the possible link between individual autonomy and system autonomy.

8.4.2. Individual autonomy and system autonomy

Henry David Thoreau's classic text *Walden* (Thoreau 1983), can be understood as concerned with the strife for individual autonomy. The book portrays an individual who excludes himself from sociopolitical systems of environments, spaces and fora. Out in the woods by the pond named Walden, this individual seeks to live independently of others in complete autonomy. This quest for autonomy does however seem futile, as complete autonomy is almost impossible to achieve. Some have argued that there is sometimes an exaggerated preoccupation with individual autonomy in contemporary political debates (Oshana 2003). On the contrary our study shows that there might not be enough focus on autonomy. In recent debates about deliberation and collaboration there is a tendency to underestimate the most important input information in any system, the only valid source of information in any sociopolitical constitution - the constituents. We have found that secrecy and anonymity might be of fundamental importance in upholding individual autonomy. Secrecy might be a powerful and underestimated instrument in assuring that the constituents of any system engage in fora as behind a veil of ignorance (Rawls 1999). Such conditions might enable individuals to act according to their genuine preferences while at the same time being aware of their role as constituents of a wider system.

We should not draw too drastic conclusions from our limited experiment with deindividuation of citizens' participation in open government initiatives in China. The results of this research cannot easily be generalized to other contexts that might be very different. Before we attempt to make any generalizations we should at least raise some serious questions about ecological
validity. However, in accordance with our aim to apply the principle of precaution to the study of open government initiatives in China, we should raise some normative concerns. The results of this study indicate that open government initiatives might be counterproductive for individual autonomy at least in the case of China. Therefore our study should raise concerns about how these initiatives impede on individual autonomy and what this could mean for system autonomy.

We have seen that open government initiatives do not necessarily facilitate the mild voice of reason (see Bessette 1997). Depending on the design of these fora and on the specific context in which they are launched, open government initiatives could be instrumental in facilitating political participation that is far from characteristic of mild reason. We have some indications that one possible effect is that users of these fora feel obliged to act as 'good citizens', which could imply engaging in fervent nationalism. There is a risk that open government initiatives might remove a fundamental freedom associated with anonymity and the secret ballot. If citizens feel forced to engage as 'good citizens' in state sponsored fora they might lose their freedom of silence (see Nutting 1948).

8.5. Suggestions for future research

There are several research topics that are important to investigate further. Besides fundamental issues of prediction and prescription we should consider the importance of further exploring a number of research topics dealing primarily with description and explanation of open government initiatives. Because of the importance of developments in China, future research efforts should investigate how open government initiatives continue to play out in China. There are many ways to refine and adjust research tools to enable such research. Perhaps more importantly, research is urgently needed to explore the more general trend of open government initiatives being launched around the world. Comparative studies are needed to elucidate how different innovations in governance play out in different contexts, and what potential effects we might expect as a result.
8.5.1. On China

In the research for this thesis we have found that territoriality might play an important role in how citizens relate to and interact with online fora. A pilot experiment of Chinese exchange students’ online behavior performed ‘off location’ in Sweden suggests that Chinese citizens behave differently when traveling outside of China. Furthermore it seems that technology such as proxy servers, can have an instrumental role in loosening up the territoriality of online space, with possible effects on online behavior. The possibilities to evade territorial space could however be slowly disappearing as the Internet is maturing and becoming locked down within the state. These trends need to be described properly to enable a proper understanding of the future link between offline and online space.

Other interesting but non-validated findings are that the Chinese diaspora, and other groups fluent in Chinese, could have an important role to play in the Chinese online environment. Furthermore, Chinese websites based in Taiwan and Hong Kong might serve as important enclaves in the Chinese online environment. There are however early signs that the territorial integrity of those enclaves might be eroded by forces of globalization, including the institutionalization of bi- and multilateral international agreements (Mathiason 2008, Mueller 2010). This evokes fundamental questions about the validity of claims about the liberalizing effects of globalization and international cooperation and integration.

8.5.2. On research methods

In this thesis we have developed a research methodology of lab-in-the-field experiments that have proven very productive for overcoming otherwise prevalent obstacles of data collection and field research. As both quantitative and qualitative data have issues of reliability in authoritarian research environments (Heimer and Thogersen 2006), experimental research techniques provide very promising solutions to provide accurate data from which to draw causal inference.

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141 Many Chinese exchange students temporarily residing outside of China (interviewed about their Internet habits as part of pilot studies researching this thesis) confirmed that their Internet behavior changed when traveling abroad.

142 When we first started studying the E-gov forum in 2010 the most popular policy proposal was the legalization of gay marriage. Judging from some of the IP numbers that were displayed in these discussions, many of the users engaging in these debates were doing this from outside of China.
These research techniques could be developed further, not least to enable important research on the question of territoriality. Different aspects of territoriality could easily be manipulated in random assignment experiments using similar techniques. Chinese users in China and abroad could be subject to treatments of different levels of geo-location. Such experiments would be particularly interesting on mobile platforms that often come equipped with built-in geo-location tools. Another interesting experiment would be to manipulate the origin of online fora and measure the average treatment effect of information about forum location or server location. Any treatment effects of such manipulations would support the hypothesis that the Internet is becoming increasingly territorialized and that this has implications for user behavior. Not only would this add important empirical evidence in support of the notion that states have the possibility to lock down the Internet to match territorial borders and other manifest institutions of power. Such experiments could also be used to explore the mechanisms by which the emerging territoriality of online environments could have social and political implications.

8.5.3. On autocracy and governance

As mentioned in the introduction to this thesis, there are currently many experiments with open government initiatives taking place in a wide variety of contexts all over the world. The results of this thesis support a notion that such initiatives could be used to facilitate resilient authoritarianism. From this backdrop it would be interesting to lift the gaze to have a more general look at contemporary authoritarianism globally. It would be especially interesting to explore the intersection between the concepts of transparency and autocracy and build further on Gilles Deleuze’s analysis of coercion in open systems (Deleuze 1992, Birchall 2011b, a). Open government initiatives might just be at the cutting edge of autocratic innovation and maybe it is up to researchers to show how people might get hurt.

143 Popularized in notions of ‘The Chinternet’ or ‘The Great Firewall of China’.
Postscript on the societies of power

In this thesis I have argued for a revised use of the concepts of power and control. It has been my ambition not to accept social theory that is ex ante pessimistic about individual autonomy. I have sought to reject any theory that invalidates my individual control over my own words and actions. I believe that we should refuse to accept any theory that suggests that we are increasingly and permanently being stripped of our autonomy as individuals and societies. Although intellectually enticing, I believe that such theories are invalid as it is within human nature to do unexpected things and behave according to personal motivations. My point of departure has however been that there are some circumstances under which our individual control and autonomy can be temporarily disturbed due to the exertion of power over information. In this thesis I have tried to discuss how such exertion of power can be systematized and come to constitute autocracy. As mentioned in the beginning of this thesis, one specific personal experience has been very influential for instigating my research.

In 2008 I was staying in a small flat in the northeastern part of Beijing at the intersection of East Qinghua road and Xueyuan road. Almost every day I would walk across East Qinghua road to buy groceries. The crossing was very busy and pedestrians used to hurry across the street, often just barely avoiding vehicles swishing by. The crossing was very poorly planned and I remember thinking to myself that an accident was bound to happen eventually. One morning when I arrived at the crossing an old man had just been hit by a car and the remains of his body lay scattered across the road. I was struck with grief, but also a sense of being somehow complicit in bringing about this tragic accident. If only I had made the effort to try to contact someone in charge of the road to notify that person about the dangerous situation. Or perhaps I could have organized in the community to put up a sign for cars to slow down.

I went home that day with a heavy heart, sad about the fate of the old man. The next day when I arrived at the crossing there were almost no traces of the accident. It was like it had never taken place. Only some faded bloodstains were still there on the pavement to show that the accident had indeed occurred only yesterday. I began to realize that no one would register the accident and nothing would ever be done about the dangerous crossing.
I was only a temporary resident, but I soon understood that very few, if any members of my local community, would know how to remedy the situation. Perhaps very few people would even ever come to know about the tragic event. There were few opportunities for me to act out on my grievances or to discuss ideas about possible solutions. In frustration, I intuitively started thinking about social media and online fora to try to get some traction for the issue. At that point it happened. For a fraction of a moment I had a feeling that would later contribute to the motivation for writing this thesis. It was not a rational thought and it came and went away in an instant. Still it is a feeling that I cannot be proud of. For a second a thought flickered in my mind - What will happen to my visa renewal?\(^\text{144}\)

I never did do anything about that crossing. This was no great suppression of my opinion, no threat to my life, there would be no headlines of government corruption and no report about any violations of human rights. This was simply me, making my tiny contribution to the systemic distortion of information. It was one fleeting moment of lost individual autonomy with possible systemic ripple effects. It was my little contribution of authoritarian collaboration.

\(^{144}\) As it turns out, this was not all that far-fetched. In 2011, a Swedish student was expelled from China. The student had however greater reason to worry for his visa as he had tried to arrange a flash mob for the promotion of freedom of speech via his personal blog.
**APPENDIX**

Table A.1. Experiment results (Quantity of content production)

<table>
<thead>
<tr>
<th>Dependent variable</th>
<th>Median</th>
<th>Mean rank</th>
<th>WMW significance test</th>
<th>U</th>
<th>Z</th>
<th>Significance of homogeneity of variance test</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total time of engagement (seconds)</td>
<td>692.5 (Ano) 765 (Reg)</td>
<td>22.98 (Ano) 26.94 (Reg)</td>
<td>.169</td>
<td>251.5</td>
<td>-.970</td>
<td>.000</td>
<td>49</td>
</tr>
<tr>
<td>Total links viewed</td>
<td>10 (Ano) 12 (Reg)</td>
<td>24.40 (Ano) 25.58 (Reg)</td>
<td>.389</td>
<td>282.5</td>
<td>-.290</td>
<td>.179</td>
<td>49</td>
</tr>
<tr>
<td>Total votes cast</td>
<td>N/A N/A</td>
<td>22.46 (Ano) 27.44 (Reg)</td>
<td>.034*</td>
<td>239</td>
<td>-2.006</td>
<td>.001</td>
<td>49</td>
</tr>
<tr>
<td>Index of total engagement</td>
<td>863 (Ano) 942 (Reg)</td>
<td>22.75 (Ano) 27.16 (Reg)</td>
<td>.144</td>
<td>246</td>
<td>-1.080</td>
<td>.718</td>
<td>49</td>
</tr>
</tbody>
</table>

Ano = anonymous, Reg = registered

* Significant at the 0.05 level (1-tailed).

WMW significance test values show P-values for statistical significance

U = Mann Whitney U, Z = z-score (see Dinneen and Blakesley 1973)

Homogeneity of variance significance-values above 0.05 support the null hypothesis of homogeneity of variances. Under such conditions median values are indicative of group difference and treatment effect.

If no homogeneity of variance (values below 0.05), we should look at mean rank values.
### Table A.2. Experiment results (Quality of content production)

<table>
<thead>
<tr>
<th>Correlations</th>
<th>Spearman’s rho</th>
<th>Statistical significance</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Correlation between interest and engagement index</td>
<td>.321 (Ano)</td>
<td>.063 (Ano)</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td>.271 (Reg)</td>
<td>.095 (Reg)</td>
<td>25</td>
</tr>
<tr>
<td>Correlation between interest and links viewed</td>
<td>.524 (Ano)</td>
<td>.009** (Ano)</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td>.255 (Reg)</td>
<td>.110 (Reg)</td>
<td>25</td>
</tr>
<tr>
<td>Correlation between interest and engagement corresponding to specific interests</td>
<td>.695 (Ano)</td>
<td>.000** (Ano)</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td>-.043 (Reg)</td>
<td>.419 (Reg)</td>
<td>25</td>
</tr>
</tbody>
</table>

Ano = anonymous, Reg = registered  
Spearman’s rho = nonparametric bivariate correlation coefficient  
** Significant at the 0.01 level (2-tailed)

### Table A.3. Experiment results (Exit, voice, loyalty and nationalism)

<table>
<thead>
<tr>
<th>Dependent variable</th>
<th>Mean</th>
<th>Mean rank</th>
<th>WMW significance test</th>
<th>U</th>
<th>Z</th>
<th>Significance of homogeneity of variance test</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seconds of forum critique (Voice)</td>
<td>18.92 (Ano)</td>
<td>27.50 (Ano)</td>
<td>.065</td>
<td>240</td>
<td>-1.505</td>
<td>.003</td>
<td>49</td>
</tr>
<tr>
<td></td>
<td>12.12 (Reg)</td>
<td>22.60 (Reg)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Instances of forum critique (Voice)</td>
<td>0.83 (Ano)</td>
<td>27.58 (Ano)</td>
<td>.060</td>
<td>238</td>
<td>-1.561</td>
<td>.001</td>
<td>49</td>
</tr>
<tr>
<td></td>
<td>0.24 (Reg)</td>
<td>22.52 (Reg)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Instances of nationalism (Loyalty)</td>
<td>0.29 (Ano)</td>
<td>22.83 (Ano)</td>
<td>.108</td>
<td>248</td>
<td>-1.277</td>
<td>.002</td>
<td>49</td>
</tr>
<tr>
<td></td>
<td>1.36 (Reg)</td>
<td>27.08 (Reg)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Index of nationalism (Loyalty)</td>
<td>0.42 (Ano)</td>
<td>21.42 (Ano)</td>
<td>.300</td>
<td>214</td>
<td>-1.918</td>
<td>.001</td>
<td>49</td>
</tr>
<tr>
<td></td>
<td>2.42 (Reg)</td>
<td>28.44 (Reg)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Ano = anonymous, Reg = registered
Table B.1. Interview results (Attitudes toward forum)

<table>
<thead>
<tr>
<th>Question</th>
<th>Positive</th>
<th>Negative</th>
<th>Mixed</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>How did you like the forum?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anonymous</td>
<td>24% (6)</td>
<td>28% (7)</td>
<td>48% (12)</td>
<td>100% (25)</td>
</tr>
<tr>
<td>Registered</td>
<td>50% (12)</td>
<td>0% (0)</td>
<td>50% (12)</td>
<td>100% (24)</td>
</tr>
<tr>
<td>Would you use it again?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anonymous</td>
<td>20% (5)</td>
<td>44% (11)</td>
<td>36% (9)</td>
<td>100% (25)</td>
</tr>
<tr>
<td>Registered</td>
<td>42% (10)</td>
<td>8% (2)</td>
<td>50% (12)</td>
<td>100% (24)</td>
</tr>
</tbody>
</table>

Table B.2. Interview results (Attitudes toward anonymity)

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
<th>Undecided</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Did anonymity affect your behavior?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anonymous</td>
<td>72% (18)</td>
<td>20% (5)</td>
<td>8% (2)</td>
<td>100% (25)</td>
</tr>
<tr>
<td>Registered</td>
<td>88% (21)</td>
<td>8% (2)</td>
<td>4% (1)</td>
<td>100% (24)</td>
</tr>
<tr>
<td>Should this site allow for anonymity?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anonymous</td>
<td>56% (14)</td>
<td>20% (5)</td>
<td>24% (6)</td>
<td>100% (25)</td>
</tr>
<tr>
<td>Registered</td>
<td>58% (14)</td>
<td>17% (4)</td>
<td>25% (6)</td>
<td>100% (24)</td>
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