



UNIVERSITY OF GOTHENBURG
DEPARTMENT OF SOCIAL WORK

A multi-level study of the influence of the media and internet on attitudes towards homosexuality

Master's Programme in Social Work and Human Rights
Degree report 30 higher education credit
Date: 17-01-2020
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Abstract

Title: A multi-level study of the influence of the media and internet on attitudes towards homosexuality.

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Keywords: Homosexuality, media, internet, social work, advocacy, censorship, attitudes, Homophobia.

The aim of this quantitative study is to investigate the relationship between media freedom and internet use on people's attitudes towards homosexuality. It is the first study looking into the combined effect of the media and internet use on attitudes towards homosexuality. What is the effect of the media and the internet on attitudes towards homosexuality? I argue that while both mediums have the potential to frame attitudes, positive attitudinal change is only achieved when the media is at least partially free. I carry out a multi-level (random-intercept) regression analysis using data from the World Values Survey and Varieties of Democracy Institute's datasets. I carry out a multi-level analysis using a two level model consisting of country and individual levels. This includes 54 countries and approximately 77,000 individual respondents.

The results show that both media freedom and internet use can positively affect people's perception towards homosexuality. However in the case of the internet, frequent internet use is seen to positively affect perceptions of homosexuality only when the media is at least partially free. In line with current literature on the internet, frequent internet use in heavily censored, non-democratic media environments is expected to strengthen negative attitudes towards homosexuality.

This complements other studies done separately on media freedom, the internet and attitudes towards homosexuality. It provides more generalizable conclusions and brings us one step closer to understanding the media and internet's impact on attitudes and attitudinal change on this issue. The research findings also show the importance in social workers understanding the media and internet landscape when advocating for their clients, an essential role in the social work profession, in the pursuit of achieving social justice, equality and empowerment of people.

Acknowledgements

I would have never been able to complete this thesis without the guidance from my supervisor, Dr. Anna Lürhmann. Thank you, Anna. Your insights, words of encouragement, patience and constant positivity and confidence in my work always came in the moments when I most needed it and never failed to cheer me up.

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List of Abbreviations

UDHR	Universal Declaration of Human Rights
IFSW	International Federation of Social Work
LGBTQ	Lesbian Gay Bisexual Transgender Queer
WVS	World Values Survey
V-DEM	Varieties of Democracy

1. Introduction

“Any male person who, in public or private, commits..... any act of indecency with another male person, shall be punished with imprisonment for a term which may extend to 2 years.”
(Section 377A, Penal code, Singapore)

The quote above shows section 377 of the penal code of Singapore¹. It was introduced by the British to 42 of its former colonies, criminalizing homosexual acts from 1860 onwards. Similar laws continue to remain in force in 28 of the former British colonies (Human Rights Watch, 2008). As of March 2019, same-sex relations are illegal in 68 countries (Human Rights Watch, 2015). Punishments range from fines to jail time to the death penalty as is the case in Iran and Saudi Arabia today (Mendos, 2019).

The issue of homosexuality is a highly polarising issue. There is a clear sign towards decriminalisation. In 1969 same-sex relations was prohibited in 70 more countries (138 in total). While this is an important milestone in attaining equality and freedom, it is also important to understand that decriminalization does not immediately lead to positive perceptions of homosexuality (Rao, 2014; Mendos, 2019). Decriminalization without protection and attitudinal change towards acceptance would continue to leave homosexuals vulnerable (Adamczyk, 2017; Ayoub & Garretson, 2017).

This is why it is important to understand the mechanisms that lead to attitudinal change. Various factors such as religion, sex and age, have been identified to influence how individuals perceive the issue (Adamczyk et al., 2018; Jäckle & Wenzelburger, 2015). Equally important, is to understand how these messages and beliefs are transferred from policy makers and decision makers to the rest of society.

The media is an important tool for information transfer, shaping and re-shaping perceptions and enforcing change. The strength of these processes are impeded and altered when the media is heavily controlled and censored which is the case in many countries around the world (Butler, 2009; Silverstone, 2007).

The emergence of the internet is another important feature that needs to be studied more. Especially in places with restrictive and coercive laws limiting the freedom to report, the internet still has the ability to circumvent the barriers put up by media laws in countries where the media is beholden to the government. Hence, the larger extent of freedom available on the internet, allows for more well balanced arguments and independent journalism to be presented (Carlo-Gonzalez et al., 2017; Diamond, 2010).

This quantitative study attempts to investigate the relationship between media freedom and internet use on people’s attitudes towards homosexuality. There are large variations between countries with regards to how homosexuality is treated as well as the freedom of the media and internet. Hence studying a large set of countries allows for the study of possible trends. It would also help in understanding the similarities and differences between countries immersed in different environments. This study will make use of data from the World Values Survey (WVS) dataset and the Varieties of Democracy Institute’s (V-Dem) dataset to carry out a multi-level

¹ (*Penal Code—Singapore Statutes Online*)

(random-intercept) regression analysis. The sample contains 54 countries and about 77,000 individual respondents.

The results from this study together with previous research in this area can be used to gain greater understanding about the strengths and weaknesses of the media and internet in shaping attitudes. The results can also aid social work practitioners in their work in advocacy and pursuing the main aims of the social work profession.

As mentioned above, homosexuality remains a contentious issue in the world today with homosexuals enjoying full and equal rights in some parts of the world and are seen as criminals in other parts. The Universal Declaration of Human Rights (UDHR) sets out the fundamental human rights that need to be protected. It recognizes that “all human beings are born free and equal in dignity and rights” (UDHR, 1948). This applies regardless of one’s (among other things) sexual orientation. This thesis adopts this standpoint and views homosexuality as an issue that should be deemed justifiable in all instances.

1.1 Purpose and research questions

The aim of this study is to contribute to understanding how people’s attitudes towards homosexuality are formed. To achieve this, I have formulated the research question as follows:

Research question: *How does media freedom and internet use affect people’s attitudes towards homosexuality?*

1.2 Definitions

Homosexuals

In this study, the term homosexuals will be used to refer to individuals who identify as having emotional, romantic and sexual attractions to people of the same sex. The UN and other major civil society and international organizations use this term to refer to such individuals in their work (OHCHR, 2012). This suggests that there are no negative connotations associated with this term.

Homosexuals tend to be grouped together with other individuals who identify as Bisexual, Transgender and Queer to form the LGBTQ community. These different groups of people undergo varied experiences and issues based on their sexuality. Addressing all these issues would go beyond the scope of this study. As such, I have decided to only concentrate on the situation with homosexuality and homosexuals in this study.

Attitudes towards homosexuality

Attitudes towards homosexuality in this study refers to how people conceive of the idea of homosexuality and consequently homosexuals. Attitudes and perceptions are used interchangeably in this study to refer to the same phenomenon.

Media

Media in this study, refers to the main means of mass communication which consists of broadcast media, which refers to television programs both fictional and non-fictional; print media which refers to newspapers and magazines and the radio.

1.3 Relevance to social work and human rights

The United Nations (UN) advocates for the removal of laws that criminalize and facilitate the discrimination and criminalization of homosexuals. Issues regarding sexual orientation have been integrated into work done by various UN bodies. Examples of the programs involved include the Office of the High Commissioner of Human Rights (OHCHR), United Nations Development Program (UNDP), International Labour Organization (ILO), United Nations International Children's Emergency Fund (UNICEF, 2013) (OHCHR, 2012). The UN adopted its first resolution on the rights for homosexuals and transgendered individuals in 2011. This non-binding resolution called for an end to discrimination on the grounds of sexual orientation and gender identity (OHCHR, 2012).

However, these set of ideals are not achieved when states criminalize homosexuality. The lack of anti-discrimination laws in countries with laws that criminalize homosexuality also mean that homosexuals can be discriminated at work and in society without being able to seek justice for these actions (Human Rights Watch, 2015). These issues of inequality of access to social justice, makes it an important issue to investigate.

The core mandates of the International Federation of Social Work (IFSW) include “promoting social change, social development, social cohesion and the empowerment and liberation of people” (IFSW, 2014). Additionally, “advocating and upholding human rights and social justice” are the main principles of social work (IFSW, 2014). As such, advocating for the equality in treatment of homosexuals in all facets of life constitutes an important part of social work.

When working to ensure equality in access to social justice for homosexuals, it is important to understand the reasons behind why people harbor negative views toward homosexuality. It is important to get to the root causes of such prejudices that often lead to discrimination. This is where attitudes come in. Studying the different ways in which attitudes are formed would provide an in road into how these attitudes can be altered to encourage acceptance and equality. It is here that media freedom and internet use are relevant. By understanding how information about the world is obtained and processed, work can be organized around what can be done to fight these prejudices. This shows how my choice for the thesis topic is highly relevant to the two main pillars of this master program – social work and human rights.

This section has illustrated how advocating for the rights of homosexuals constitutes part of social work. The results indicate the strength of the media as a tool for framing thoughts and attitudes. Hence when advocating for this group of people, social workers may see the value in advocating for changes in the levels of censorship given the possible trickle-down effect in the change of attitudes towards homosexuality can potentially bring about. Knowledge on the various individual country level variables and the effects of the different combinations on the level of attitudes formed can be taken into account when planning for advocacy material and activities. Consequently, social workers would be able to curate their work based on their target

audience and on the media and internet environment within their countries, and the way in which they form perceptions on issues, in this case, homosexuality.

1.4 Research gap

Perception studies into the issue of homosexuality is a generally understudied field. There have been numerous papers studying attitude formation with relation to homosexuality. However, many of these looks at specific case studies. The multi-country studies tend to look into other macro and micro level factors such as religion, age and economic development. There have been studies that have looked at the media's impact on attitudes towards homosexuality. Most of these studies have been qualitative in nature. There are a number of studies looking at the media's impact on attitudes towards same-sex marriage but not specifically on homosexuality as an issue. There have also been quite a number of papers looking at how the internet has the ability to mobilize marginalized groups. But these studies have been done from a civil society perspective. The relationship between internet use and attitudes towards homosexuality is vastly understudied.

Hence in this regard, to my knowledge, this study is the first that looks into the effect of media and the internet in shaping attitudes towards homosexuality.

2 Theoretical framework

This chapter expands on the theoretical framework that will be used to interpret and analyse the results of this study. This theoretical framework builds on two theories, intergroup contact theory and advocacy, and two concepts, the multiple modernities approach and the politics of belonging.

2.1 Intergroup contact theory

The intergroup contact theory or contact hypothesis was founded by Gordon Allport in 1954 (Allport, 1954). It was first published in his book, *The Nature of Prejudice*. The theory was initially formulated to deal with prejudice and stereotyping along racial lines between majority and minority groups. However, in the decade following the publication, the hypothesis has been expanded to also address prejudice against the LGBTQ community (Mary E. Kite, 2016; Schiappa et al., 2005).

Prejudice, refers to the preconceived opinions held by people that are not based on reason, actual fact or experience (Kite, 2016). According to Allport (1954), prejudices are formed through assumptions made about a group of people based on inaccurate information. As a result, groups of people are categorized according to characteristics elicited from misinformation. According to the contact hypothesis, prejudice can be reduced or overcome as individuals learn more about these categories. These prejudicial perceptions towards categories of people being discussed here can be based on a variety of combination of factors such as negative experience from certain groups, messaging in the media and socialization from close relations (Schiappa 2007).

The theory, emphasizes the importance of contact in reducing prejudice. Allport outlined four important conditions that had to be satisfied before positive attitudinal change occurs. These four conditions are "equal status" where people from both groups who are engaging would

have to be from an equal social status; have “common goals” where both groups would have to work on a common task and share a goal, “intergroup cooperation” where individuals would have to work together and not compete against each other and the “support of the authorities, law or customs” where someone in a position of authority is seen to support the interaction between people of the opposing groups. This type of contact would have to take place over a substantial period of time as only casual or superficial contact would lead to the formation of stereotypes (Mary E. Kite, 2016; Pettigrew & Tropp, 2008; Schiappa et al., 2005).

According to Allport, satisfying these four conditions, would facilitate prejudice reduction in three main ways. Firstly, it allows people from the majority to learn about those from the minority and hence facilitate prejudice reduction. Secondly, it would enable people from the majority group to understand and see things from the perspective of the people from the minority group and help them empathize with the minorities. And lastly, it reduces the fear and anxiety that the majority may have for the minority. In this way, prejudice is reduced as the group categories are re-conceptualized (Allport, 1954; Mary E. Kite, 2016). Conflict may arise when anxiety is created between participants. Hence as mentioned above, the contact has to be prolonged and long enough to illicit the desired positive effects. It is the positive contact generated from the prolonged contact that leads to attitudinal change through the creation of a sense of dissonance² (Brewer & Brown 1998:578).

This theory was further proven by Pettigrew and Tropp’s (2006) study. Here they conducted a meta-analysis of over 700 samples and confirmed the contact hypothesis for a variety of minority groups. Their study also found that interpersonal contact was especially effective in reducing prejudice towards homosexuals. This is further supported by Herek’s (1988) study which found that university students who reported having pleasant exchanges with a homosexual tend to generalize from that experience and report positive attitudes towards homosexuals as a group. Furthermore, Herek and Glunt (1993: 239)’s study of interpersonal contact and heterosexuals’ attitudes towards gay men in the US found that contact “predicted attitudes toward gay men better than did any other demographic or social psychological variable”; such variables included gender, race, education, age, geographic residence, marital status, number of children, religion and political ideology. These studies show the strength and effectiveness of the contact hypothesis in producing positive attitudinal change among individuals with regards to homosexuality.

However, in reality, direct face to face contact might be difficult to achieve in certain places. Factors such as fear arising from laws that criminalize homosexuality or a general sense of societal disapproval, may discourage homosexuals from openly disclosing their sexual orientation. However, studies have shown that extended, vicarious and indirect contact has also been proven to be effective in changing attitudes (Horton & Wohl, 1956). An example of such ‘parasocial interaction’, is the portrayal of the issue in the media.

2.1.1 Parasocial interaction

The idea of parasocial interactions was introduced by Horton and Wohl in 1956. They hypothesized that people internalize the media in a manner similar to interpersonal interaction. This possibility of the impact of the media, was also recognized by Allport (1954) who saw the importance of the media in forming perceptions of minorities. According to the theory, “one of the most striking characteristics of the new mass media – radio, television and the movies –

² Cognitive dissonance will be further discussed in chapter 3.4.4

is that they give the illusion of a face-to-face, social relationship with the performer” (Allport, 1954: 228). There are three main factors that facilitate this change. Firstly, it is because the brain is seen to process messaging and experience obtained from the media in a manner similar to how it experiences direct human to human contact. As such, they are seen to react to fictional characters and narratives in a similar way as they would in real life experiences (Kanazawa, 2002). This is further supported by Reeves’ (1996) theory of the ‘media equation’. Here he proposes that individuals’ interactions with computers, television, and new media are fundamentally social and natural, just like interactions in real life,” (Reeves, 1996: 5). Secondly, a media environment with regular depiction of homosexuality would allow people to ‘interact’ or gain ‘contact’ with more people parasocially than directly (Schiappa et al., 2007) p95. While individuals are able to distinguish between fictional characters and reality, this is something that is often not consciously applied with consuming media (Schiappa et al., 2007). This is further supported by Rothbart and John who also found that “Inclusion of the media as sources of images can instill stereotypical beliefs about minorities” (Rothbart & John, 1985: 83).

After performing a meta-analysis of 30 parasocial interaction studies, Schiappa, Allen and Gregg (Preiss, 2007), found three qualities that were strongly associated with parasocial contact: “the social attractiveness or likeability of the characters, their perceived realism and perceived homophily.”

From these processes, the research has shown that intergroup contact as theorized by Allport can also be achieved through parasocial contact. Emotional relationships can be forged through mediated communication. When positive connections are made, people’s behavior would be altered in that they would actively look for additional parasocial contact. This would consequently work towards changing attitudes towards minority groups - in this case, homosexuals (Horton & Wohl, 1956; Schiappa et al., 2005).

All of the current literature to my knowledge, looks at the attitudinal change in homosexuality from a negative to positive perspective. However, while there has been an increase in accurate and positive portrayals of homosexual characters in fictional and non-fictional media in the recent years in many parts of the world, positive portrayals of homosexuality are also banned and/or avoided in many parts of the world. As mentioned in the introduction, many states where the media is heavily controlled harbor the rhetoric that homosexuality is undesirable and have described homosexuals as sex crazed/immoral etc. Thus, according to the contact and parasocial theory, consistent negative portrayals of homosexuality in the media, would work towards reinforcing negative attitudes towards the issue as well. People living within these states would also be socialized with such ideas from a young age. The literature has shown that such cultural ideas and practices tend to cross state boundaries and be shared across regions. The multiple modernities theory investigates this further.

2.2 Multiple modernities approach

The multiple modernities approach was introduced by Shmuel Eisenstadt in 2000 (Eisenstadt, 2002). There are theories such as the world society theory (Meyer et al., 1997) that predict that the forces of globalization are bring the different cultures around the world closer and forming a “more or less unitary global culture” that will spread around the world and “reshape all aspects of social life”. The multiple modernities approach refutes this.

Eisenstadt posits that instead of a single model of culture, there are instead multiple distinct interpretations that are formed, mostly based on regional and sub-regional lines. The theory suggests that cultures form and re-form differently in different parts of the world, giving rise to different 'cultural programs'. These cultural programs are products of discourses and ideologies that tend to be elite driven. These 'cultural elites' as Eisenstadt refers to them, consists of people in power within the various states and regions. Examples of these elites include political leaders and religious figures. Each cultural program, would have their own version of 'modernity' (Eisenstadt, 2002).

According to the multiple modernities approach, the different aspects of the different cultures are a product of what he describes as the "historical path dependence" (Eisenstadt, 2002:22). The various cultural programs are in "constant dialog" with the modern. And these programs constantly go through a process of selection and re-interpretation of the "imported ideas". This is a process that also includes the rejection of ideas that the cultural elite may deem inappropriate or not in line with their system of beliefs. In relation to this study, one topic of contention would be the issue of acceptance or non-acceptance of homosexuality.

The multiple modernities approach can be used to understand the vast difference in the level of attitudes towards homosexuality by region. When going through the process of selection or interpretation of 'imported ideas', traditions are formed based on the ideas that are accepted and rejected. Calhoun (2007) argues that the formation of traditions are a continuous political endeavor that is being constantly reproduced. He states that when national traditions are constructed, it is often not about how factually accurate these assumptions are. It is more related to "how effectively the claim is made (Calhoun, 2007: 46). Much like how countries choose to define their social problems as will be mentioned in the following chapter. This is reflected in the case of homosexuality and Russia, Edenborg reflects on how LGBTQ rights movement is not seen as a push for progress. Instead, it is seen as "the western homosexually orientated elites increasing their pressure on Russia" (Edenborg, 2017: 92). As such, it is framed as a 'clash of civilisations' narrative where the West is seen to be forcing their ideas onto the Soviet bloc (Edenborg, 2017).

As mentioned above, the main people who dictate and formulate these cultural programs are the 'cultural elites' in the different states and regions (Eisenstadt, 2002). The constructed cultural framework in the different areas are then transmitted to citizens in various ways – by laws enacted to maintain and strengthen the status quo and stabilize the culture and via the media (Butler, 2009). By creating what is acceptable and what is not through the various cultural programs, perceptions of who belongs and who does not belong is created. Hence, a system of belonging is produced and with time, reinforced.

2.3 Politics of belonging

The concept of the politics of belonging was introduced by Nira Yuval-Davis (2011) in her book entitled *The Politics of Belonging*. This concept is centered on the sense of belonging that is constructed differently in different communities. This is achieved by socially constructing boundaries regarding what is acceptable and what is not, around different issues. She used the Sylvia Walby's (2003) concept of citizenship and Benedict Anderson's (Anderson, 2006) 'imagined communities' to illustrate the politics of belonging. Firstly Yuval-Davis like Walby, interprets citizenship as society's "membership in different kinds of politics" (Yuval-Davis, 2011: 48). This often takes on the culture of the hegemonic majority in the different social contexts. It is the groups in power or the 'cultural agents' who decide the

cultures and groups of people that are deemed to be ‘authentic’ and consequently the ‘other’ (Yuval-Davis, 2011).

Benedict Anderson’s conception of ‘imagined communities’ is relevant here. He sees a nation as a “socially constructed community” of people who recognize that they are part of a group (Anderson, 2006). Castells (2009) also supports this idea by illustrating how society today has now become a ‘network society’ where feelings of belonging are no longer achieved through nation or state lines but instead according to identity communities (Yuval-Davis, 2011: 11). Here identities are seen to be “stories people tell themselves and others about who they are and who they are not” (Yuval-Davis, 2011:14). These individuals then come together to form collectives which in turn reinforce each other. These collectives then form ‘imagined communities’. Hence, based on this explanation, the groups of people who are seen to belong and not belong, are dependent on the individual identity narratives.

In this way, the communities exist in the minds of individuals according to their beliefs, not physically. These communities set the boundaries of what is acceptable and what is not. For example, Yuval-Davis highlights how much of this discourse “tend to construct people of particular ethnicities, beliefs or sexualities” as not ‘normal’ within the imagined community. And this consequently, defines who belongs and who does not (Yuval-Davis, 2011).

These narratives on what it means to belong, are reinforced in a variety of ways including and not limited to the media. Anderson (2006) has also talked about how the media has allowed for new ways of understanding the world. These forms of technology allow for language to unify people within the imagined community. The various media platforms are then used to frame issues according to the belief system of the different communities and express what is considered to be acceptable and what is not (Butler, 2009).

It is not just about a matter of socially constructed boundaries that are important to feelings of belonging, it is also the “different emotional attachments and identifications that a variety of people would feel towards the same ‘imagined community’, as well as their normative value systems” (Yuval-Davis, 2011: 92). The formation and reproduction of culture provides for the intersectional manner in which individuals experience themselves. This is also related to the “ethical and political value systems” present within states/boundaries that people use to make judgements and cultivate feelings of belonging or not belonging (Yuval-Davis, 2011).

According to Butler (2009), the “repetitive practices” that come out of the value systems, allows for the reproduction of identity narratives and constructions of attachment and belonging. For example, the repeated admonishing of homosexuals on various platforms (Eg: media, law, education), would reinforce the idea of how such people do not ‘belong’ within the community. From this, it can be seen how these feelings of belonging also lead to exclusion.

Certain cultures are more rigid in their beliefs than others. This could be related to the nature of the society the culture is embedded in – collectivistic or individualistic. Collectivistic cultures refer to cultures which are regarded as “tight”(Welzel, 2013). Here strict norms and expectations may lead to rigid traditions that people are expected to follow. This may be due to existential pressures as described by Welzel (2013) and according to the religions, traditions and values that guide these societies where people tend to be highly dependent on each other. The construction of boundaries in these countries may be more tightly bound. As a result, the forces of exclusion and inclusion would be much stronger, thus increasing polarization between those who belong and those who do not. These societies may be less open and accepting to

alternatives and hold what is considered to be acceptable and not acceptable more strictly (Welzel, 2013; Yuval-Davis, 2011).

Conversely, individualistic countries would be structured in the opposite manner. When states are more loosely governed by norms and expectations, people and communities would be more open to alternative forms of lifestyles or choices (Welzel, 2013). With regards to the politics of belonging, these countries would be less polarizing towards homosexuals.

The theoretical framework so far argues how while the media has a large potential to change attitudes, there are multiple roadblocks that lie in the way of enforcing this change. While censorship is the medium through which attitudes are maintained, it is the various belief systems transpiring from culture, tradition and power that motivate the level of censorship present within states. Social workers have the responsibility to advocate for change in this area. As the following section shows, the important work of advocacy is carried out in a variety of ways.

2.4 Advocacy

There are three dimensions of social work. These are namely, promoting social change, problem solving and empowerment. Advocacy is central to social work and can be seen as the red thread that passes through all three dimensions. It promotes equality, social justice and social inclusion (Dalrymple, 2013: 2-4). It is an essential component in attaining social justice. It makes sure that everyone's voices are heard including those at the periphery of exclusion who may face difficulties voicing their opinions. The ability to mobilise is imperative in fighting inequality and injustice in society to enable clients to enjoy the basic rights equally and regain voice and agency.

Social justice refers to the ideal condition in which all members of a society have the same basic rights, protection, opportunities, obligations and social benefits. This plays a central role in advocacy (Dalrymple, 2013: 2-4).

Advocacy can be carried out in two ways, actively and passively. Passive advocacy involves representing clients and speaking on their behalf while active advocacy refers to representing the larger interest of the client groups at the judicial level. This could include advocating for changes or introductions of laws which would bring society closer to the ideal of a socially just society. In this way, advocacy is seen to operate in a 'contested space' (Dalrymple, 2013: 10-14) between informal self-representation and professional help and support.

Advocacy can also be either systematic - where individual clients with similar cases and experiences are taken together to push for change within legislations or practice - or case based where advocacy work is done on behalf of individuals or small groups of people such as families. Often times, both types of advocacy are employed interchangeably to inform and lead to systemic change (Dalrymple, 2013: 15-19). In the case of homosexuality, working at the client level with individuals would help shed light on the repercussions of the structures that are currently in place that may restrict the rights of homosexuals. This experience and information can then be used at the systematic level to push for changes of the structures within the system.

According to Almog-Barr and Schmid (2014), there are two different kinds of advocacy strategies – insider and outsider strategies. Insider strategies involve direct work with actors within the decision making system such as policy makers (Almog-Bar & Schmid, 2014; Mosley, 2011). Examples of such activities include getting involved with government committees and

pushing for a change in policies. This direct contact can be useful and effective in directly communicating with policy makers. However the success of such activities may vary based on the issue and the general level of openness of the system. In situations where the people in power are not open to change, social workers would have to go through another route and adopt outsider strategies. Outsider strategies involve working outside the structures in place within the society (Almog-Bar & Schmid, 2014; Mosley, 2011). These strategies include working with civil society, formulating and carrying out public education and organising, participating in networks and engaging the media related to the various issues (Almog-Bar & Schmid, 2014; Mosley, 2011).. The main aim of these activities would be to raise awareness and formulate solutions, most of the time with minimal support or aid from policy makers. For this to be effective, social workers need to understand how attitudinal change occurs and the most appropriate mediums to achieve this change. The following section looks into this.

3 Literature review

This chapter looks into the current research in the area of attitudes towards homosexuality, the media and the internet. This literature review aims to present the research that has been done in this field and to create a broad understanding of the issues relevant to this study. I start by introducing the idea of attitudes – how they are formed and consequently, how they can be changed. I then go on to explain the role of the media and the internet in attitude formation and change. I conclude this chapter with a summary of the current research and by discussing gaps in the current research and how this paper aims to address aspects of this gap.

3.1 Obtaining relevant literature

Data from various sources were used to gain the relevant research needed to carry out this study. Electronic databases such as SuperSearch (Gothenburg University Library), Google Scholar, Social Science Database were used to look for relevant literature. A combination of different search strings and keywords were used when looking for the literature. Examples of some of the search strings are listed below:

Homosexuality AND attitudes
Media AND Attitudes AND Freedom
Internet AND Attitudes
Internet AND Censorship
Homosexuality AND Internet

When looking for relevant literature keywords and synonyms were used and in different combinations to get the optimal results. Both journal articles and books were attained from these search functions. Google was also used to gain general information on this issue. I also attained relevant information and reports from non-profit actors such as Human Rights Watch and ILGA; information from IFSW; UN documents and relevant statistics used throughout this study.

3.2 Social problem: *Homosexuality vs Homophobia*

While there are countries, such as the Netherlands, that allow for same-sex marriage and have anti-discriminatory laws which protect homosexuals, other countries many located in Asia and Sub-Saharan Africa criminalize same-sex relations (Mendos, 2019). Hence, we can see that while some countries construct homosexuals as equal humans worthy of access to the same rights

extended to the rest of the population, other countries categorize them as criminals unworthy of equal rights.

According to Loseke (Loseke, 1999), social problems are moral evaluations based on what experts evaluate to be wrong. There are several categories that have to be satisfied before an issue can be classified as a social problem. The issue must be observed to negatively affect a large group of people. And it has to be a condition that we believe can be changed, improved or fixed. These indicators are both objective and subjective in nature and can be seen in how countries choose to frame the issue. This can be observed in how laws on the issue are constructed and implemented (Loseke, 1999). With regards to homosexuality, countries frame the issue in one of two way – *homosexuality* or *homophobia*.

3.3 Importance of perceptions

Public policy involves making use of social resources to remedy situations and to support victims and/or rehabilitate perpetrators (Spicker, 2014). Laws and perceptions of homosexuality would have an important effect on the formation of public policy within states. This would depend on how governments choose to define the social problem.

When governments construct *homophobia* as the social problem, laws are enacted to stop the acts of injustice and violence against homosexuals. These unfair treatments are considered to be unjustifiable. Homosexuals are seen to be the victims in this case. Hence, the issue is framed such that it is the homosexuals who experience widespread hurt by the actions inflicted upon them by certain pockets of society. It is also these actions that can be changed, improved and fixed. An example of this is the *Equal Treatment Act 1994* that was passed by the Dutch Parliament. Under this law, discrimination on the grounds of sexual orientation in employment, housing, and both public and private accommodations are prohibited (Koninkrijksrelaties, 1994). Thus, the act of treating someone unfairly based on their sexual orientation is constructed to be illegal and unacceptable.

Conversely, when governments construct *homosexuality* to be the social problem, the homosexuals are seen to be committing the acts of injustice and violence against the rest of the population. This is then seen as the actions causing widespread hurt and suffering that need to be changed. Hence, social policy is implemented to punish homosexuals.

It is because of this that perceptions are extremely important. As seen from this section, it is the narratives that governments choose to align themselves with that would determine the outcome of the welfare and protection provided to this vulnerable group. With regards to the social work practice, it would also determine the scope of work that social workers would be able to provide to this community. Hence, we see that it is the attitudes towards homosexuality of the different actors within society that would determine how the issue of homosexuality is treated in society.

3.4 Attitudes

Attitudes in this study, refer to how people choose to perceive of homosexuality. Peoples' perceptions of this issue vary over a spectrum with the two ends representing complete acceptance and complete unacceptance. An important question to ask is *how* do these factors influence attitude formation. This is a complicated and important question. Understanding how

these attitudes are formed would allow researchers to then think about how attitudes can be changed to foster greater levels of acceptance. The combination of multiple different factors make making a causal determination almost impossible. However, as mentioned in intergroup contact theory, repeated – both direct and indirect – contact with homosexuals and the issue of homosexuality would reinforce one’s view on the issue. Thus constantly being fed information about how homosexuality is morally wrong and goes against ‘traditional family values’, for example, can compel one to adopt that frame of thought (Kite, 2016). In the following sub-section, I present various ways, from a psychological perspective, in which peoples thoughts on this issue are formed and reinforced through time.

3.4.1 Outgroup homogeneity effect

It is in human nature for individuals to categorize themselves. This categorization leads to the formation of two groups – the ingroup (us) and the outgroup (them) (Kite, 2016). These groups are formed fairly easily and people do not need to have ‘well developed stereotypic beliefs’ to be part of the ingroup. In the case of homosexuality, people who are opposed to homosexuality see themselves as the ‘us’, the ingroup and homosexuals as the ‘them’, the outgroup. This process of categorization would facilitate the stereotyping of the outgroup by the ingroup (Kite, 2016). Peoples alignments with the groups are based on the stereotypes they have of the outgroup – in this case homosexuals. In these situations individuals in both groups see diversity within members of their own group. However, they do not expect the same level of diversity within the other group and consequently perceive of them as rather homogenous (Linville et al., 1989; Park & Judd, 1990). This difference in perception, is known as the *outgroup homogeneity effect*. There are a variety of reasons for this way of thinking of which two are especially relevant in this case. Firstly, by interacting more with members of their own groups, people receive more information about their peers and view them as unique individuals. However, minimal and superficial interaction with the ‘other’ group would not allow them to understand the differences between individuals within the other group. This leads to members of the other group being treated according to stereotypical ideas of who they are and what is expected of them. As such, people would make biased judgements on the actions of people from the opposing group based their attitudes towards the group as a whole and not based on the individual alone (Pettigrew, 1979).

This is why it is important to increase contact between groups so that both sides are able to perceive of members of either groups as individuals and not bounded to certain values or stereotypes. Direct contact can be challenging to achieve, especially with increased polarisation between groups. However, as outlined in the previous chapter, the media is able to broach this gap through indirect contact. As the next sub-section discusses, it is the observed social roles occupied by different people that have the potential to change the way people think and perceive of issues.

3.4.2 Social role theory

Social role theory, developed by Alice Eagly (1987), states that “beliefs about social groups develop from observing the world around us”. According to this theory, people pay attention to social roles occupied by members of the different groups and make judgements based on that. For example, observing women perform care taking roles while men go to work, leads to the formation of the traditional gender roles. These ideas are then generalized to the social group. Consequently, stereotypical views are formed. In this case that all women are nurturing individuals (Dovi, 2010).

This theory is especially relevant to countries that identify homosexuality as the social problem. Homosexuals are often portrayed as immoral and sexually deviant in countries where *homosexuality* is socially constructed as the social problem. These countries are often able to effectively control the media and other sources of information (Human Rights Watch, 2018). Regulation of the media and other sources of information also mean that individuals in society tend to only see homosexuals as ‘bad’ people. Furthermore, without access to structures that ensure equality such as anti-discrimination laws and marriage, the rest of the population are not exposed to the normality of same sex relations. Criminalising homosexuality leads to decreased contact between those who identify as homosexuals and those who do not. According to social role theory, the beliefs of the society would develop along these lines. In this way, the ingroup’s beliefs are further strengthened.

3.4.3 Gender belief system

Most cultures have developed expectations of the roles each gender should occupy within society (Worell, 1996) . Each gender belief system, has expectations on the roles and actions in terms of everyday conduct and behaviour based on ones gender. Judgements are then passed when these expectations are violated (Worell, 1996). The expectations of these belief systems are transmitted through the process of socialization through various mediums such as the media, and via parents and peers and begin at a young age (Adamczyk, 2017; Alwin & Krosnick, 1991). However, these gender expectations are violated in the case of homosexuals. Gay men are not seen to possess the culturally defined masculine characteristics necessary for males within this gender belief system. And gay women do not comply with the gender expectations of reproduction and being a caring and nurturing individual (Horn, 2013; Mary E. Kite, 2016; Worell, 1996). In this sense, expressing unhappiness with homosexuality is also showing compliance to the established gender expectations. In support of this, 42 studies were reviewed by Whitley (2001) which found that “people who endorsed traditional gender-role attitudes also tended to have negative attitudes toward homosexuality” (Kite, 2016: 468).

3.4.4 Cognitive dissonance and attitude change

Cognitive dissonance theory proposes that people tend to prefer that their attitudes, belief system and consequent behaviours follow a systematic pattern (Kite, 2016). Disruptions in these patterns result in an uncomfortable state of emotions known as cognitive dissonance. When in this state, people would work towards reducing this state of discomfort. This plays an important role in one’s attitudinal change towards homosexuality. The media has an important role to play in this aspect.

3.5 Media

The literature has suggested that there are both micro and macro level factors that contribute to individuals’ attitudes towards homosexuality. Hadler’s (2012) work on the societal influences on tolerance namely in xenophobia and homophobia highlights the importance of global forces in predicting homophobia. Work done by other scholars have also highlighted the importance of other factors such as economic development (Adamczyk, 2017; Adamczyk et al., 2018; Andersen & Fetner, 2008; Calzo & Ward, 2009; Jäckle & Wenzelburger, 2015; Xie & Peng, 2018), religion (Adamczyk, 2017; Adamczyk et al., 2018; Calzo & Ward, 2009; Jäckle & Wenzelburger, 2015; Xie & Peng, 2018), age (Adamczyk, 2017; Carlo-Gonzalez et al., 2017; Jäckle & Wenzelburger, 2015; Mary E. Kite, 2016; Nabi & Oliver, 2009), gender

(Calzo & Ward, 2009; Jäckle & Wenzelburger, 2015; Mary E. Kite, 2016) and democracy (Adamczyk, 2017; Adamczyk et al., 2018; Ayoub & Garretson, 2017; Jäckle & Wenzelburger, 2015; Lee & Hicks, 2011) in the development of attitudes towards homosexuality. These factors will be further elaborated on in the methodology chapter.

The research that has been done so far also supports the postmaterialism thesis introduced by Ronald Inglehart. Examples of postmaterialistic values are self-expression, autonomy and freedom of speech. The thesis proposes that as a nation becomes more affluent, individuals place less importance on material security and instead develop a need for postmaterialistic values like those mentioned above (Inglehart, 1997). The post-materialism thesis also highlights the importance of how the process of socialization plays an important role in determining one's values. Someone who has experienced economic hardship is likely to maintain materialistic values while someone whose basic needs are met, are more likely to transition to postmaterialistic values (Inglehart, 1997). This is both important and relevant to the issue of homosexuality as it shows how one's background and past experience has a hand in determining how one would perceive the issue of homosexuality. However, as mentioned in the theory section, an individual's attitudes are the product of an intersection of factors. And as this section will show, the media plays an important role in this intersection.

The media can be seen to come in various forms – television, print, radio – both fictional and non-fictional. It has the potential to bring both homosexuality and homosexual characters closer to audiences. It has the ability to make audiences familiar with the issues and frame it such that it becomes personal to the audience members, thus reducing the social distance mentioned previously (Ayoub & Garretson, 2017). This is especially so in the case of television media.

While media scholars view media and its purposes differently, most agree on one thing: that is not an isolated entity whose effects are capable of being quarantined and measured (Butler, 2009; Edenberg, 2017; Livingstone, 2009; Silverstone, 2007). Instead, the general idea is that the media provides a space where much of the social and political interactions occur. Livingstone (2009) states that instead of merely adding to an already formed story, the media has the ability to completely transform stories. Silverstone (2007), sees the media as a “space of appearance” where political life and interactions occur. In support of the politics of belonging, he emphasizes the role that the media plays in constructing belonging and believes that the media “provide the frameworks (or frameworlds) for the appearance of the other and define the moral space within which the other appears to us”(Silverstone, 2007: 7). It is through this medium that the idea of “sameness and difference” (Silverstone, 2007: 19) is created. The issues of visibility come into play here. According to him different worlds become visible to most people through the media. In this way, the media becomes an important part of everyday life, an important source of information. While it still remains different from actual experience, it is still highly entangled as this is the space where different groups become visible to each other. This is especially relevant when the different groups of people do not interact outside of the media on a regular basis.

Judith Butler's work compliments this as well. She proposes that the media offers ‘frames’ which control the narratives that are visible to the public (Butler, 2009). In this way, the media is able to curate reality. Secondly, it is also able to designate the ‘victims’ in the different scenarios. By doing this, it is also able to govern the perspective of the viewers. Following this, countries framing *homophobia* as the social problem would frame persecuted homosexuals as the victims while countries framing *homosexuality* as the social problem would frame members

of the public being 'affected' by the actions of homosexuals as the victims. Schemes are then consequently produced, and viewers are able to make judgements on what is visible, and what is not visible. The same actors determining these perspectives, are also setting the norms for what will be 'legitimate' interpretations. As mentioned in her book, "although restricting how or what we see is not exactly the same as dictating a storyline, it is a way of interpreting in advance what will and will not be included in the field of perception" (Butler, 2009: 66). Being able to successfully control visibility in this way also shows the ability of political actors to designate different levels of humanity and significance in the real world.

This is where the issue of social distance to homosexuality becomes relevant. Becker (2012) and Gonzalez and colleagues (2017) have looked into how the shorter the distance between an individual and a homosexual, "the higher the degree of perceived similarity and the more significant the impact on attitudes" (Becker, 2012: 525), much like the outgroup homogeneity effect mentioned above. Gomillion and Giuliano's (2011) study also supports this. Here they showed how increasing the availability of positive and accurate portrayals of homosexual characters in the media may positively influence attitudes towards homosexuality. Gonzalez and colleagues discussed how increasing number of gay characters, both fictional and non-fictional, on television also contributed to positive value change among viewers (Carlo-Gonzalez et al., 2017). This is in line with social cognitive theory which states that "individuals learn about appropriate and inappropriate behavior by observing which behaviours are rewarded or punished, and that the media provide compelling models for observation" (Nabi & Oliver, 2009:413). Cognitive dissonance theory is relevant here as individuals who initially hold negative attitudes towards homosexuality may harbor uncomfortable feelings when homosexuals are seen to act or behave contrary to their belief system. Or even when they perceive these homosexual characters to have similar interests or habits as themselves. The process of overcoming this discomfort, may lead them to changing their view of homosexuals to one that is more positive.

Gerbner's cultivation theory supports this (Signorielli & Morgan, 1990). This theory investigates the long-term effects of television (Nabi & Oliver, 2009: 70). The theory states that the more time people spend watching and 'living' in the world of television, the higher the chances of them believing that social reality aligns with the reality that is portrayed on television. It is the imagery that surround people that reflects and reproduces how people think about the real world. The ideological messages and imaging transmitted through television has the ability to strongly influence attitudes in reality (Riddle, 2010). In the same vein, we see how the media has the ability to provide society with a frame of reference with the regards to the topic of homosexuality (Ayoub & Garretson, 2017). This frame differs in different domestic contexts. The frames could portray homosexuality as a biological or uncontrollable trait. On the other hand, it can also be portrayed as a personal choice, one that can be controlled as in the case in China (Xie & Peng, 2018; Zhang & Min, 2013). This is further supported by Ayoub & Garretson's study of global changes in attitudes towards homosexuality which showed that a recurring theme in the responses from national experts from more than 70 countries demonstrate that societal perceptions to the introduction of gay visibility was highly related to the depictions of homosexuality in the media (Ayoub & Garretson, 2017). This provides evidence to the 'framing theory' used by Zhang & Min, to discuss how media frames reflect a curated set of meanings regarding a specific issue. This set has the ability to influence the manner in which audiences form opinions and beliefs regarding certain issues, in this case homosexuality (Zhang & Min, 2013).

In support of this, Schiapa and colleagues (2005) looks at the effect of framing and how television viewing can bring about positive effects. They assessed university students' attitudes towards homosexuality before and after making them watch season one of the television series *Six Feet Under*. This acclaimed program depicts a positively portrayed gay couple. Students were asked to rate their attitudes towards homosexuality before and after watching the series. They reported more positive views after watching the series.

The contrary is also true. There are repeated themes, imagery and values that are passed on through multiple and diverse genres. Thus, this would occur across programs that have very little in common (Nabi & Oliver, 2009). This would then lead to the cultivation of "stable and common conceptions of reality in the overall pattern of programming" which societies are exposed to in the long term (Nabi & Oliver, 2009: 72). Laws can be introduced in places to ensure the maintenance of this structure. For example, the media law in Singapore states that "films that depict a homosexual lifestyle should be sensitive to community values. They should not, promote or justify a homosexual lifestyle" (Singapore Media Development Authority, 2013: 18). Furthermore, films that "promote or glamorize the homosexual lifestyle" are not allowed to be shown in Singaporean media (Singapore Media Development Authority, 2013: 24). Thus by only portraying negative imagery of homosexuality over a long period of time, socialization and formation of attitudes according to the manner mentioned above is achieved. As socialization is a process that occurs over an extended period of time, age is an important issue to investigate.

3.6 Age

Age is an important factor in this regard. Multiple studies have shown that the ability of the media to influence people's perceptions towards homosexuality is the strongest for younger cohorts and this diminishes with age (Adamczyk, 2017; Alwin & Krosnick, 1991). This is because the media consumed by the young tend to vary to a larger degree and also consist of international sources (Adamczyk, 2017; Ayoub & Garretson, 2017). Hence this allows them to receive a variety of messaging instead of a fixed and possibly only negative voice. The young are also socialized in a period of time with a larger presence of positive information regarding homosexuality (Ayoub & Garretson, 2017; Calzo & Ward, 2009). This has led to new frames of references on homosexuality from multiple contexts both fictional and non-fictional (Ayoub & Garretson, 2017).

3.7 Media and attitudes

It is also important to note that media freedom and the level of democracy of a country are strongly correlated. Countries with higher levels of democracy also tend to enjoy higher levels of media freedom. Consequently, many countries with lower levels of media freedom have laws restricting the media from broadcasting and publishing work that may showcase homosexuality in a positive or neutral light. This has shown to have an impact on different societies attitudes towards homosexuality. Ayoub & Garretson (2017) have shown that inter cohort differences are strongly associated with both infrastructure of the national media and the national political context. This illustrates the importance in the ability of ideas and images to influence more liberal or conservative attitudes depending on the context and country.

The world society approach has a trickle-down view of value transfer as mentioned in the theory section (Meyer et al., 1997). It states that it is a network of governmental and non-

governmental institutions that drive ideas on the global level. These ideas then influence social organizations and different actors at the national level (Hadler, 2012). However, their ability to influence ideas would diminish the greater the level of media controls a state may have on place. It is here that the internet has the potential to bypass restrictions and facilitate the flow of information.

3.8 Internet

The internet allows for a myriad of possibilities for the LGBTQ movement. In the past years, it has moved past just being a medium of information transfer and has now developed the ability to change narratives within societies from ‘Us vs them’ to ‘Us and them’ (Phillips, 2014). This has been achieved in a number of ways. It has allowed for new and innovative forms of engagement at both local and international levels (Phillips, 2014). The emergence of the internet has challenged the boundaries (cultural, social geographical and institutional) put in place by governments, acts as an essential source of alternative information and a mechanism for information transfer (Diamond, 2010; Phillips, 2014; Tremblay & Paternotte, 2015). This is especially important in societies where the mainstream media is tightly controlled.

3.8.1 Internet penetration rates

The figures below are from the International Telecommunication Union (ITU) (International Telecommunication Union, 2019). Figure 1 shows the increase in the level of internet penetration across the world according to the level of development from 2002 to 2019. While there has been a steady increase in internet penetration worldwide, the inequality in the level of internet penetration between the developed and developing world has also remained somewhat constant.

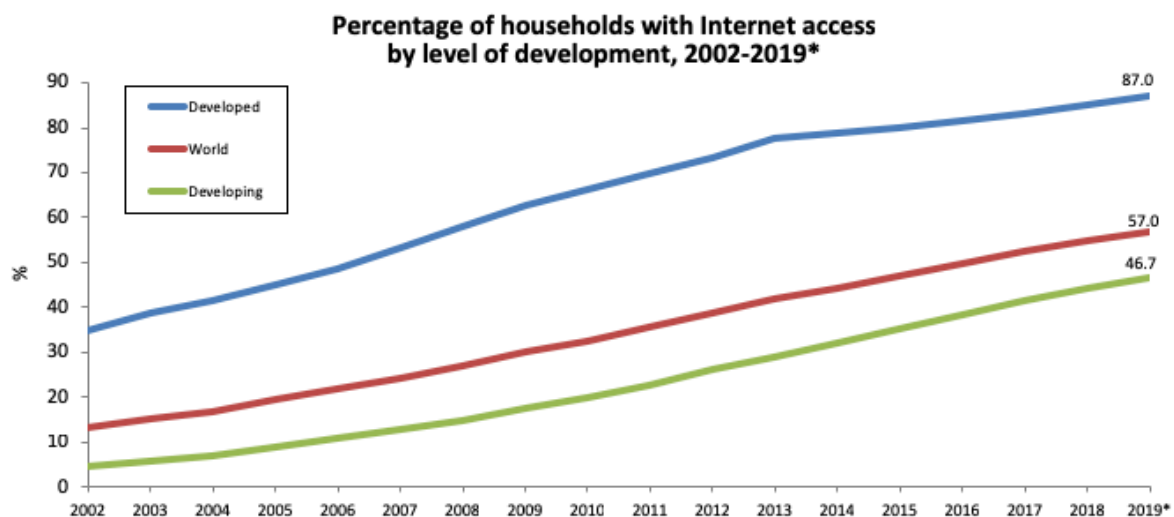


Figure 1: Increase in Internet penetration from 2002 to 2019. (Source: ITU World Telecommunication, 2019)

Figure 2 further looks into this situation. This figure shows the difference in internet penetration in 2019. A big difference in the level of access is observed between the various

regions worldwide. Hence, it can be assumed that the effect of the internet would vary across regions based on the different levels of access people would have to the internet.

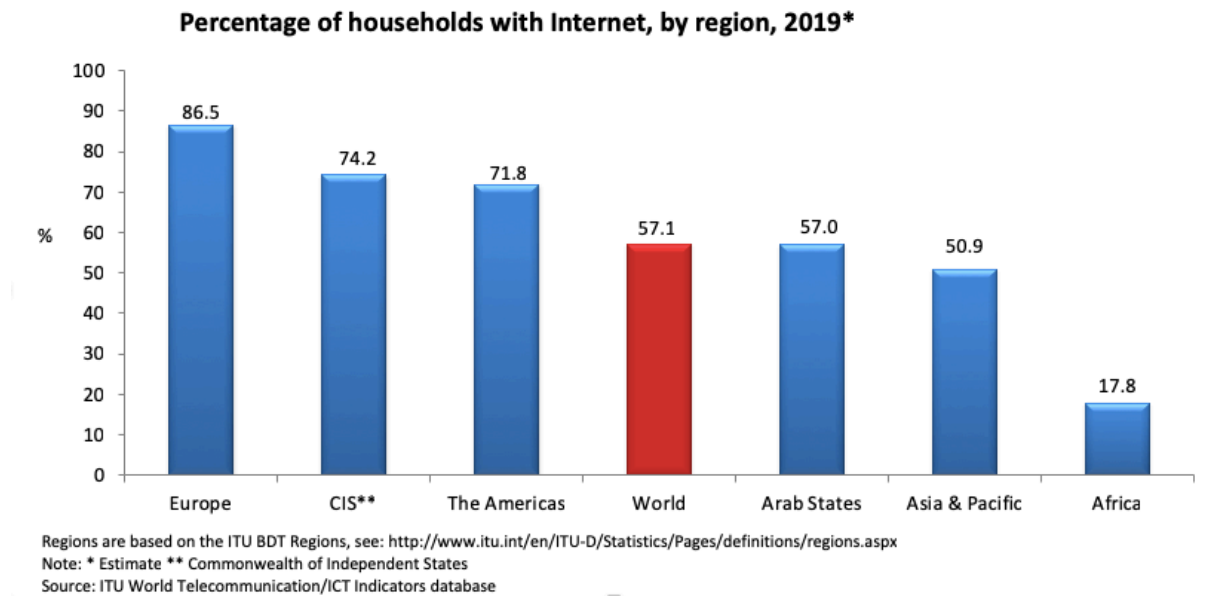


Figure 2: Difference in internet penetration across regions in 2019. (Source: ITU World Telecommunication, 2019)

3.8.2 Internet as liberation technology

Larry Diamond sees the internet as a form of liberation technology. Liberation technology, is defined as “any form of information and communication technology (ICT) that can expand political, social and economic freedoms” (Diamond, 2010: 70). While less democratic regimes tend to have repressive media laws which constrain journalists by dictating what can and cannot be reported in the media, the internet by contrast, is harder to regulate and hence provides an opening for ‘controversial’ issues to be discussed with few or no restrictions. As a form of liberation technology it, among other things, allows people to express their opinions, mobilize protest and consequently expand the horizons of freedom (Diamond, 2010). The ever-increasing penetration rates of the internet into societies in recent years, as depicted in figure 1, facilitates this process. These factors allow the internet to be a breeding ground for organizations at the grassroots level (Diamond, 2010). Where people were previously spread out individuals with their own personal and quiet voice, the internet has the power to bring these voices together. The protests during the Arab Spring is an example of this type of mobilization. Social media platforms such as Facebook and Twitter were used to organize protests in Tunisia and Egypt (Breuer et al., 2015; Howard & Hussain, 2011).

The literature has suggested that the internet has the ability to engage in two primary ways. It is first able to reach out to the gay community. In states where the people from the gay community face discrimination and legal barriers, as suggested by Diamond, it provides an avenue for people from the LGBTQ community to come together and discuss issues that maybe be important to them (Phillips, 2014). Once this is achieved, these free spaces are then able to focus resources on creating a positive self-image of the community (Phillips, 2014). This is especially important because countries where homosexuality is prohibited also tend to paint homosexuals as morally deviant individuals (Human Rights Watch, 2018). Hence, groups are able to make use of the internet and its far reaching abilities to correct this misconception and fight these negative stereotypes and produce positive and accurate depictions of homosexuals (Tremblay & Paternotte, 2015). Gonzalez and colleagues (2017) confirm this hypothesis. Their

study found that *both* media and the internet is needed to have a positive effect on gay rights. Media alone was not sufficient in effecting changes to gay rights.

The internet has also been a liberating technology by providing a space for civil society to mobilize themselves (Tremblay & Paternotte, 2015). The same study highlighted how Polish LGBT organizations depend on new technologies to “create change, to mobilize people and to unite the movement” (Tremblay & Paternotte, 2015: 207). Interviews done suggest how availability and user-friendly nature of the internet has allowed of a free flow of information, knowledge and information in a country with a highly censored media environment. However, the state of the internet is not always rosy as the next sub-section illustrates.

3.8.3 Internet – *Not* a liberating technology?

While the idea of the internet being a utopia for freedom of information is inviting, the literature has suggested that this is not the case everywhere. While the internet does stand to bring about many benefits, these benefits are not seen to be reaped uniformly across the world. A report by Freedom House in 2018, showed that internet freedom fell in 2018 for the eighth year in a row (Freedom House, 2018). The same report showed that at least seventeen countries passed laws in 2018 that restricted online media and that there was a growing trend of officials sharing information on the different methods in internet censorship. Chinese officials held trainings session on ‘information management’ which were attended by 36 of the 65 countries studied by Freedom House. Hellmeier (2016) has shown how the internet has not proven to be a type of liberating technology in non-democratic regimes. Instead, his work has illustrated how autocrats have employed different methods to regulate the internet. Hence, the regulation of the internet can restrict the availability of information to citizens. This would not be productive in exposing these people to alternative views with regards to homosexuality and hence change opinions on the issue. Furthermore, the prospect of punishment for discussing certain topics as demonstrated in some middle eastern countries (Human Rights Watch, 2018), could also encourage self-censorship among users.

In contrast to the previously mentioned mobilization of civil society, the same resource, has been used as a tool for LGBT opposition groups (Tremblay & Paternotte, 2015). Right wing groups have also mobilized among themselves and maintain cross-national ties with similar minded groups in other parts of Europe. And while research suggests that these anti-LGBT groups tend to be weaker than the pro-LGBT groups (Ayoub & Garretson, 2017), it is important to recognize the double-edged sword nature of the internet.

3.8.4 Internet as an echo chamber

Another point of concern would be the issue of echo chambers in internet use. Edenberg mentions this in his work which discusses how while there has been an influx of alternative narratives in the internet sphere, these narratives are frequently and effectively countered by certain leaders (Edenberg, 2017). In this way, efforts by minority groups to offer alternative points of view are not considered and instead effectively refused. This is seen to happen more frequently in less democratic states. In this way as also mentioned by Hellmeier (2016), the internet can also be used to reinforce one’s thoughts instead of being exposed to and consuming information from the other side of the fence. In the same report, Freedom House (2018) has also suggested that the echo chamber phenomenon can be used to further polarize citizens, pulling groups further apart in their views. Thus, when attempting to determine the effect of

the internet in changing attitudes, it is important to not approach the subject of the internet in isolation but instead study it within the power structures of the given state.

3.9 Summary of literature

In this section, I have provided the mechanisms behind how attitudes are formed. The previous section has showed how the media and the internet have the potential to change the way people perceive of homosexuality. The section on attitudes and contact theory, has illustrated the importance of contact with homosexuals for productive attitudinal change to occur. However, this can be difficult especially in states where homosexuality is criminalized or vilified. This may push homosexuals to hide their identity and consequently lead to limited contact with groups that might be against their way of life. This would also be the case in states where the cultural norms, gender belief systems and consequent expectation of social roles may not be welcoming to homosexuals.

It is here that the media is able to encourage a change in opinions. As mentioned above, introducing both fictional and non-fictional characters into the media, has the power to close the social distance between the two groups of people. This form of indirect contact has the potential to create a situation of cognitive dissonance between viewers which may lead to a change in opinions among the viewers. While they may not immediately believe that homosexuality is always justifiable, their opinions might change such that their view that everyone in the out-group are, as mentioned in the outgroup homogeneity effect, the same and not diverse, is altered. This situation has the potential to arise when the media is free and as discussed, this is not always the case. There are different country specific structures in place around the world that prohibits or discourages the positive portrayal of homosexuality. When this is the case, the negative stereotypes that people already harbor, would be reinforced.

This is where the internet has the potential to widen the perspectives by providing a space for information sharing and again to bring homosexuality closer to individuals. However, the literature has also shown that in reality, there are other obstacles in the way of this. Firstly, the growing trend of the censorship of the internet could lead to information being withheld from users and also encourage an environment of self-censorship. Second, is the issue of echo chambers. People who already harbor strong opinions on the issue, may choose to only consume information that aligns with their point of view, thus strengthening their point of view. The presences of anti-gay movements also work towards reinforcing these ideas. This echo chamber situation then further strengthens the gap between the in-group and out-group leading to an increasingly polarized society.

Thus, while the media and the internet have the potential to bring about positive changes in attitudes towards homosexuality, the intersectional nature of society, makes it important to study these two mediums within the structures that they are embedded in.

4 Formulation of hypothesis

To recap the two research questions posed at the beginning of the study is as follows,

Research question 1: *How does media freedom and internet use affect people's attitudes towards homosexuality?*

Based on the literature presented above, I have formulated three hypotheses to answer these questions.

Hypothesis 1

This thesis so far has shown how attitude formation is an ongoing process and is the product of an intersection of multiple factors with societies. While there are multiple factors on both the global and individual level, this study focuses on the effect of media in affecting peoples' attitudes towards homosexuality. I have shown how one of the main reasons for peoples' negative attitudes towards homosexuality is the lack of contact with homosexuals, both directly and indirectly, leading to a large 'social distance' (Allport, 1954; Kite, 2016; Schiappa et al., 2005). As illustrated by the parasocial contact theory, the media has the potential to close this gap with positive portrayals of homosexuality. But only when the media is not censored (Schiappa et al., 2005, 2007). However, the structures in place borne from the different regional cultures and expectations may or may not construct homosexuality as a social problem. When it is constructed as a social problem, homosexuals would be seen as not belonging within society. I hypothesize that in these cases, content in the media would admonish the homosexual lifestyle and frame it as undesirable. This would in turn increase the distance between the ingroups and outgroups and reinforce negative stereotypes against homosexuals (Kite, 2016). Hence, media freedom would be essential for people to receive accurate portrayals and consequently harbor positive attitudes towards homosexuality and/or experience positive attitudinal change towards the issue. Based on this, hypothesis 1 (H1) is formulated as follows,

H1: Media freedom is positively related to attitudes towards homosexuality

The literature has shown that in reality, there are various structures in place in states around the world that restrict and curate the kind of information regarding homosexuality that is made available to the public (Adamczyk et al., 2018; Ayoub & Garretson, 2017). By defining homosexuality as the social problem, the combination of criminalizing homosexuality and regulating the media leads to people in certain societies to only be exposed to negative media messages on the issue while having little contact with homosexuals in their everyday life. This combined with other cultural norms such as the expectation of various gender roles within the culture, the product of different gender belief systems, could lead to reinforcements over time on their attitudes towards homosexuality. The lack of stimulus from the opposite point of view, would give people no impetus to think about the issue from other perspectives (Kite, 2016). However as mentioned above, the emergence of the internet as a liberation technology has given rise to new possibilities (Diamond, 2010). Firstly, homosexuals are able to gather online and mobilize themselves. Once this is done, they are able to portray themselves and the issue in a positive and accurate manner. This would be information that is different from what people may have been receiving on the mainstream media and in society in general (Tremblay & Paternotte, 2015). Based on the emergence of this new technology with new possibilities, I have formulated hypothesis 2 and follows,

Hypothesis 2: *Internet use for attaining information is positively related to attitudes towards homosexuality*

The literature has also shown that while the internet has the potential for expelling the truth on homosexuality, it is imperative to study this phenomenon within the different political structures present in society. As the literature has shown that internet censorship is on the rise, it would be expected that the combination of media censorship and internet censorship would not lead to positive change in attitudes towards homosexuality uniformly across all countries (Hellmeier, 2016). It has also been shown that non-democratic countries that tend to restrict the flow of information to its citizens (Freedom House, 2018). Based on this, I have formulated hypothesis 3 as follows,

Hypothesis 3: *Increased internet use is positively related to attitudes towards homosexuality only when the media is at least partially free.*

5 Methodology

This chapter discusses the chosen method, data sources and variables used to test the hypotheses presented above.

5.1 Chosen method - Multi level analysis

The main assumption behind Ordinary Least Squares (OLS) regression models is the independence between individual units (Jakobsen, 2016). However, this assumption is breached in this study as the individual respondents' answers in the WVS can be attributed to the influences at the country level.

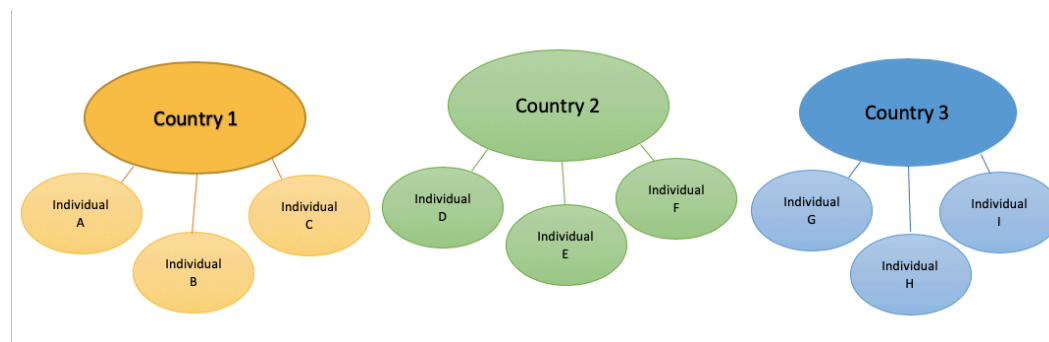


Figure 3: *Simplified multi-level model. (Source: Authors own illustration)*

As such, a multi-level (random-intercept) regression analysis is adopted to address this study. The main objective in multi-level analysis, is to “account for variance in a dependent variable measured at the lowest level, by investigating information from all levels of analysis” (Jakobsen, 2016:194). In this way, a multi-level approach takes into account the clustering of data occurring at the country level. A 2-level model, similar to that shown in figure 3, is formed with individuals at level one and countries at level two.

5.2 Data sources

Data from the World Value Survey (WVS) dataset and the Varieties of Democracy dataset are used to operationalize the hypotheses in this study. Two additional variables ‘Same sex

marriage’ and ‘Legality of same sex relations’ are constructed with information retrieved from various sources online.

5.3 World Values Survey

The variables studying the individual level (level one) data are obtained from the World Values Survey data set. The WVS comprises of a global network of social scientists studying changing values and their impact on social and political life and is headquartered in Stockholm, Sweden (WVS Database, 2015). The sample survey is its main mode of data collection. The first version of the questionnaire is developed in English and then translated into the different national languages. The minimum age for the samples drawn is 18. There is no upper age limit. The minimum sample size from each country is 1000. Stratified random sampling is employed to ensure that the sample is representative of the national population (Inglehart, 2004). The survey which started in 1981, includes almost 100 countries and almost 90% of the world’s population. The surveys are carried out in waves. Data from wave 6, covering information from 2010 to 2014 will be used in this study. It consists of 60 countries and more than 85,000 respondents.

5.4 Varieties of Democracy Institute

The variables studying the country level (level two) data is taken from the data set from the Varieties of Democracy Institute. The Varieties of Democracy Institute (V-Dem) is based at the Department of Political Science, University of Gothenburg in Sweden and is run by a network of political scientists. The database has over 700 indicators covering about 200 countries from 1900-2018 on democracy and socioeconomic and demographical background information. The data is mainly collected from contributions from over 3200 local country experts around the world (Coppedge et al., 2019).

As mentioned above, the WVS data set holds information of the opinions of respondents from the years 2010 to 2014. In order to take into “account the historical factors that may shape differences in perceptions” (Jakobsen, 2016: 254), the country level variables are lagged to 2009. This is done because we can expect the respondents’ opinions to be at least partially based on the social and political situation that have been exposed to in the recent past. Hence, the variables from the V-Dem data are confined to the year 2009.

5.5 Variables

5.5.1 Dependent Variable: Attitudes towards homosexuality

The dependent variable in this study, is attitudes towards homosexuality. This refers to how individuals within a state view homosexuality – something that is acceptable or unacceptable. This variable is operationalized using the survey question labelled ‘V203’ in the WVS questionnaire where respondents express their views on homosexuality. They choose an answer between 1 and 10 where 1 refers to ‘never justifiable’ and 10, ‘always justifiable’³. This variable is scaled on the ordinal level (Inglehart et al., 2014: 15).

³ The complete questions asked for the three focal variables are listed in Appendix 2.

5.5.2 Independent Variable

There are two main explanatory variables -media freedom and internet use- in this thesis.

Focal independent variable: Media Censorship

Media censorship refers to the actions taken by government bodies to restrict or control the type of information that is made available to people living within the geographical boundary of the state (Nabi & Oliver, 2009). Media censorship in this study is operationalized using the ‘Government Censorship Effort – Media’ indicator from the V-Dem dataset. Here country experts are asked, “Does the government directly or indirectly attempt to censor the print or broadcast media?”. Indirect attempts in this situation include “politically motivated awarding of broadcast frequencies, withdrawal of financial support, influence over printing facilities and distribution networks, selected distribution of advertising, onerous registration requirements, prohibitive tariffs and bribery” (Coppedge et al., 2019: 253). Experts choose an answer between zero and four where zero corresponds to a high level of censorship and 4 corresponds to a low level of censorship.

Focal independent variable: Internet use

Internet use in this study refers to the frequency with which respondents use the internet to attain information on both domestic and international news. Internet use is operationalized using the WVS question labelled V223. Respondents are asked about the frequency at which they use the internet to attain information about both local and international affairs. Respondents pick one of the following options: “daily, weekly, monthly, less than monthly or never” (Inglehart et al., 2014: 16). This variable is scaled on the ordinal level.

5.6 Control Variables

I control for variables that explain variation in attitudes towards homosexuality by influencing the focal variables.

The literature review supported by the theoretical framework above have shown that religion and the cultural context within a country is an important factor in affecting attitudes towards homosexuality. The mixture of religion and culture within states can lead to varying levels of religiosity within countries. Consequently, the level of *religiosity* within a country plays a substantial role in determining one’s perceptions (Adamczyk, 2017; Adamczyk et al., 2018). I control for this by using an individual level variable from the WVS dataset where respondents are asked to identify themselves as either ‘religious’, ‘not religious’ or ‘atheist’.

Studies have shown that the ability of the media to influence people’s perceptions are the strongest for younger cohorts and this diminishes with *age* (Adamczyk, 2017). The young today are socialized in a period of time with a larger presence of positive information regarding homosexuality (Ayoub & Garretson, 2017; Calzo & Ward, 2009). Furthermore, research has suggested that once people start developing certain sets of values, they tend to adhere strongly to these values that are developed in their youth and continue to retain these values as they age (Alwin & Krosnick, 1991). To account for this, the age of the respondents is controlled for in this study.

The respondent’s level of *education* is another factor that is controlled for in this study. It plays a significant role in explaining why people have different perceptions. Generally, people with

higher levels of education are more tolerant and accepting of ‘ambiguities and inconsistencies’ (Jackman & Muha, 1984).

Economic development plays an important role in determining attitudes towards homosexuality. A key finding from multiple cross national studies has shown that people from countries with high levels of economic development tend to hold positive attitudes towards homosexuality (Adamczyk et al., 2018; Hooghe & Meeusen, 2013; Štulhofer & Rimac, 2009). The reasons for this centres around the value change in societies – from conservative to liberal – that accompany economic development. As mentioned in the post-materialism thesis, cultural values in less economically developed countries tend to reflect concerns about survival and highlight the importance of conformity and group loyalty. They tend to be more collectivistic and traditional in nature (Adamczyk, 2017; Hofstede, 2001). With increased economic resources, people are less likely to fear competition from others and are more likely to be open to other ways of life, increasing trust and reducing intolerance. Economic development is controlled by using the logged GDP per capita of each country in the sample.

The literature has also suggested that the level of *democracy* in countries play an important role in the formation of perceptions. The values and institutions enshrined in democracies such as freedom of speech and expression and equality between individuals, protect the rights and portrayal of homosexuals. As the countries in the sample have different levels of democracies, peoples’ access to information and rights would consequently differ. This could in turn influences the way attitudes are formed on an individual level (Meyer et al., 1997). To account for this, I control for the level of democracy in the countries. This is done using V-Dem’s ‘Regimes of the World’ variable. While the original variable has four categories, I further code the countries into two categories - ‘Democracy’ and ‘Autocracy’. Related to democracy, is the issue of civil society. Civil rights refer to the rights of citizens to political and social freedom and equality. Gay rights is part of civil rights (Adamczyk, 2017; Hadler, 2012). One’s belief in civil rights should be related to their attitudes towards homosexuality. To account for this, I control for people’s perceptions on the importance of civil society by using an individual level variable in the WVS dataset. Here respondents are asked to what extent do they think that civil rights constitute an essential part of democracy (Inglehart et al., 2014: 9).

As mentioned in the literature review, the multiple modernities theory suggests that different regions tend to have developed distinct “cultural programs” over time (Eisenstadt, 2002). This could influence the attitudes formed within regions based on the different cultural leanings. I account for this region-based clustering by controlling for the regions in the sample using V-Dem’s politico-geographic indicator. Here, the countries are split into six groups depending on the regions – Eastern Europe and Central Asia, Latin America and the Caribbean, MENA, Sub-Saharan Africa, Western Europe and North America and Asia and Pacific.

Research has shown that people who personally know homosexuals tend to harbor more positive attitudes towards homosexuals (Detenber et al., 2013; Hinrichs & Rosenberg, 2002). The literature review has also highlighted the power of framing by the media and how the visibility of positive images related to homosexuality are able to influence the kinds of attitudes towards homosexuality that are formed by bringing the issue of homosexuality ‘closer’ to individuals (Butler, 2009). To account for the positive influence that might arise from ‘closing the distance’ and observing homosexual relationships in society, I created two variables – ‘*same sex marriage*’ and ‘*legality of same sex relations*’.

In the same-sex marriage variable, the countries are coded according to the legality of same sex marriage in the countries. Countries where same sex marriage is allowed are coded as 1, countries where marriage is not allowed by other alternative such as civil unions are legal are coded as 0.5 and countries where any kind of official unions are prohibited are coded as 0. In the legality of same sex relations variable, the countries are coded according to whether or not same sex relations are legal or prohibited. Countries with no restrictions are coded as 1 while countries where same sex relations are illegal are coded as 0⁴. As the country level data, I am using is lagged to 2009, these two variables are coded according to the situation in the individual countries in 2009. The assumption here is that homosexuals living in countries where same sex relations, marriage and civil unions are legal would have greater visibility and hence able to foster positive attitudes among individuals as opposed to the situation in countries where homosexuality is illegal and hardly discussed, seen and understood to be against the norm.

Research has shown that women are inclined to have more positive attitudes towards homosexuality than men (Adamczyk, 2017). This is because men have a tendency to support ideals and behaviors according to traditional gender role values (Butler, 2009). As homosexuals are not attracted to the opposite sex and hence do not adopt the traditional roles in society, they are seen to go against the traditional gender roles. To control for this, the *sex* of the respondents is taken into account.

⁴ These coded variables are presented in greater detail in Appendix 5 and Appendix 6.

5.7 Summary statistics

I matched and merged the relevant information from the WVS and V-Dem datasets. Six countries that did not have all the corresponding data for all the variables stated above are dropped, leaving a sample of 54 countries and 77,402 respondents. Appendix A lists the countries studied in this thesis.

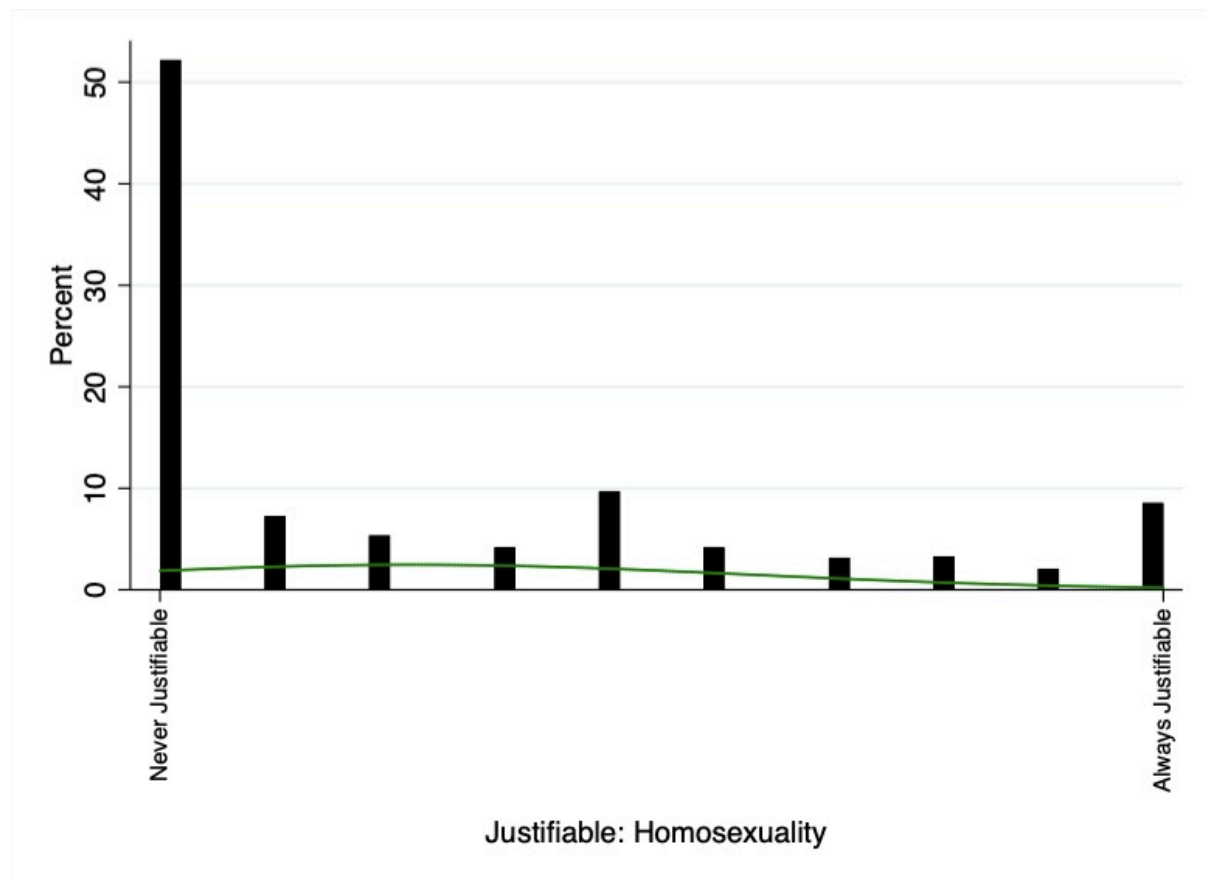


Figure 4: Spread of the attitudes towards homosexuality

Figure 4 shows the spread of the focal dependent variable – attitudes towards homosexuality. As mentioned above, respondents in the WVS are asked to pick a number from one to ten to represent how they feel towards the issue of homosexuality. One corresponds to ‘never justifiable’ and ten corresponds to ‘always justifiable’. Figure 4 shows that the attitudes are heavily skewed to the left. This could be due to the pool of countries used which generally have negative views on homosexuality.

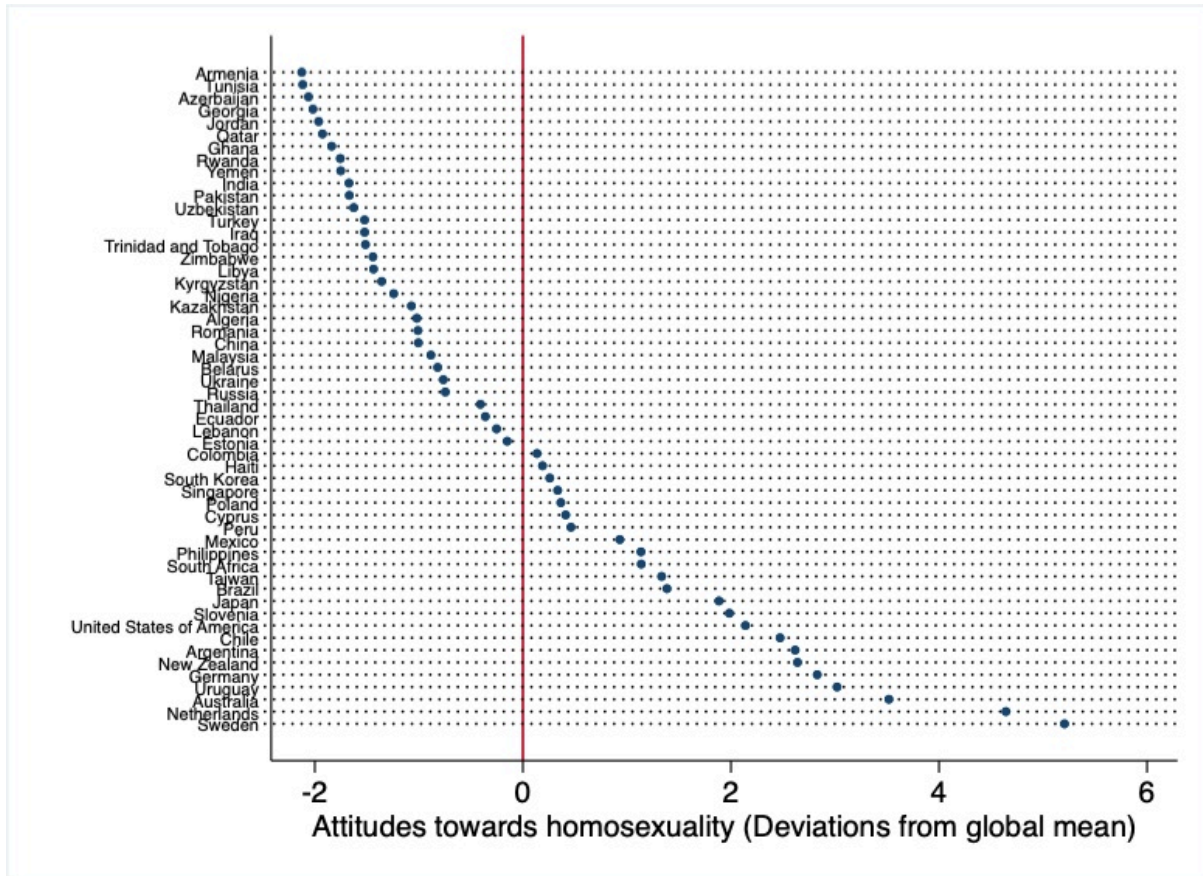


Figure 5: Deviations from the mean by country for attitudes towards homosexuality. Note: Global mean = 3.26

Figure 5 illustrated the deviations from the mean by country for attitudes towards homosexuality. The mean value for the attitudes towards homosexuality in the sample is 3.26. The red line depicts this overall global mean score of 3.26. The red line measures the individual countries' deviations. Each black dot represents each country's deviation from the mean with regards to their attitudes towards homosexuality. The mean values for the countries falling to the right of the red line is higher than 3.26 while the opposite is true for countries on the left of the red line. For example, respondents from Armenia scored the lowest in this sample with a mean of 1.16 ($3.26 - 2.13$) and respondents in Sweden scored the highest with a mean of 8.47 ($3.26 + 5.21$).

Table 1 below provides a summary of all the variables that are used in this study.

Variable	N	Mean	Std. Dev.	Min	Max
Dependent Variable					
Attitudes towards Homosexuality	77 402	3.260	3.029	1	10
Independent Variables					
Media Censorship	84 739	2.380	1.261	0.043	3.905
Internet Use	81 224	2.699	1.778	1	5
Control Variables					
Education	83 981	5.650	2.407	1	9
Age	84 629	42.07	16.636	16	102
Religiosity	81 772	1.361	0.576	1	3
Sex	84 693	1.521	0.500	1	2
Civil Rights	79 674	7.415	2.576	1	10
GDP per Capita (logged)	84 739	9.414	0.965	7.148	11.63
Regime Type	84 739	1.819	1.020	0	3
Legality of Same Sex Marriage	84 739	0.189	0.342	0	1
Legality of Same Sex Relations	84 739	0.680	0.467	0	1
Region	84 739	3.446	1.853	1	6

Table 1: Summary of variables

6 Results

This section presents the results of the multi-level (random-intercept) analysis that was carried out to test the three hypotheses.

To recap, the three hypotheses of this thesis are

Hypothesis 1: *Media freedom is positively related to attitudes towards homosexuality.*

Hypothesis 2: *Internet use for attaining information is positively related to attitudes towards homosexuality.*

Hypothesis 3: *Increased internet use will be positively related to attitudes towards homosexuality only when the media in the country is at least partially free.*

Before testing the hypotheses, I create an empty model containing only the focal variables, attitudes and media censorship and test the Intra Class Correlation (ICC). The ICC “represents the proportion of the total variability in the outcome that is attributable to the second level” (Jakobsen, 2016:203). This is done to determine if a multilevel analysis is necessary. A value of 0.363 is obtained. This means that 36.3% of the variance in the dependent variable is at level 2 and 63.5% of the variance is at level 1. Since this value is above the generally accepted rule

of 5% (Jakobsen, 2016), it should not be ignored. Hence the sample's ICC value of 36.3% can be accepted as sufficient reason to carry out a multi-level study. Once this is established, I test the three hypotheses using multilevel (random-intercept) analyses.

6.1 Hypothesis 1: Media freedom

		H1			
		Model 1	Model 2	Model 3	Model 4
Main variables	Media Censorship	0.989**** (0.15)	0.928**** (0.14)	0.492** (0.18)	0.530**** (0.18)
	Internet Use		0.138**** (0.0063)		0.138**** (0.0062)
Level 1 variables	Education		0.0752**** (0.0046)		0.0750**** (0.0045)
	Age		-0.0121**** (-0.00063)		0.0122**** (0.00061)
	Religiosity		0.408**** (0.018)		0.408**** (0.17)
	Sex		0.366**** (0.018)		0.366**** (0.017)
	Civil Rights		0.0254**** (0.0035)		0.0255**** (0.0030)
Level 2 variables	LgGDP			0.472** (0.16)	0.338** (0.16)
	Regime Type				
	Democracy			-0.537 (0.47)	-0.559 (0.45)
	Same Sex Marriage			2.04**** (0.52)	2.069**** (0.52)
	Legality of Same Sex relations			0.706*** (0.30)	0.579** (0.29)
	Region				
	Latin America/ Caribbean			0.991*** (0.38)	1.09*** (0.37)
	MENA			0.0099 (0.4)	0.0543 (0.38)
	Sub-Saharan Africa			0.304 (0.52)	0.226 (0.50)
	Western Europe/ North America			1.54*** (0.52)	1.48*** (0.50)
	Asia and Pacific			0.797** (0.35)	0.767** (0.34)
	Constant	1.05** (0.4)	-0.522 (0.38)	-3.4** (1.58)	-3.74** (1.5)
	var(const)	1.96	1.71	0.643	0.59
	var(Residual)	5.94	5.59	5.94	5.58
	Observations	78004	74492	78004	74492
	Groups	54	54	54	54
	Group Minimum	654	574	654	574
	Group Average	1444.5	1379.5	1444.5	1379.5
	Group Maximum	3608	3478	3608	3478
				-	
	log likelihood	-180306.1	-169942.96	180276.16	-169914.3

Table 2: Results from hypothesis 1, co-variables of attitudes towards homosexuality

Note: Multi-level (random-intercept) regression using MIXED command in STATA. The maximum likelihood estimator is used. Standard errors are in parentheses.

****p < 0.001, ***p < 0.01, **p < 0.05, *p < 0.1.

When testing H1, an empty model containing only the focal variable, model 1, is first produced. Table 2 shows that the focal independent variable, media censorship, is statistically significant and positively correlated to attitudes towards homosexuality (0.989). This is in the expected direction.

The individual level control variables are added in model 2. All the level 1 control variables are seen to be significant and correlated in the expected directions at the 0.1 percent level. The correlation between attitudes and homosexuality decreases slightly from (0.98) to (0.93). The respondents' level of religiosity and sex were the most highly correlated at (0.41) and (0.37) respectively. The respondents' level of education, perception of importance in civil society and age were also correlated but to a smaller extent at (0.075), (0.025) and (-0.012) respectively.

In model 3, the country level control variables were added to the model in the absence of the individual level variables. When this is done, the correlation between attitudes and media censorship stays significant at the 0.01% level but decreases to 0.49. Not all the country level control variables are significantly correlated to media censorship. Contrary to what was expected from the literature, the level of democracy of the countries does not significantly correlate with media censorship. With regards to the regions, the regions 'Latin America and the Caribbean', 'Western Europe and North America' and 'Asia and Pacific' positively correlated with media censorship at the 1% level as compared to "Eastern Europe and Central Asia" which was used as the baseline category. However, the correlation between the 'MENA' region and 'Sub-Saharan Africa' and media censorship was not statistically significant. The logged GDP per capita was significant 0.47 at the 5% level. The 'same sex marriage' and 'legality of same sex relations' variables were also statistically significant.

Both individual and country level data and the focal variable are included in model 4. The correlation between media censorship and attitudes increases to 0.53 and is significant at the 1 percent level. The correlations of the individual variables remain statistically significant and similar to that in model 2. The regime type variable continues to be insignificant. Same sex marriage and legality of same sex relations continue to remain significant. The correlations with the various regions remain similar to that in model 3.

After running these models, the likelihood ratio test was carried out. This test included the full model (model 4) and the reduced random intercept model where the focal independent variable, media censorship, is omitted. The test results in a chi-squared distribution value of 4.79 with a p-value of 0.0287 at one degree of freedom, indicating that the full model is a significant improvement on the reduced model. Hence, we can accept that media censorship is important in explaining the variance in the model and that it does correlate to one's attitudes towards homosexuality.

The results in table 1 show that media censorship has a substantial effect of attitudes towards homosexuality with a correlation coefficient of 0.53 (model 4). Hence a 1 unit decrease in media censorship, would bring about a 0.53 unit increase in attitudes towards homosexuality.

The value of the correlation coefficient of media censorship decreases by 0.061 when the individual level control variables are added in model 2. A larger drop of 0.5 occurs when the country level control variables are added to the empty model in model 3. This suggests

a large explanatory power of macro factors in determining one's attitudes towards homosexuality.

6.2 Hypothesis 2: Internet use

		Hypothesis 2			
		Model 5	Model 6	Model 7	Model 8
Main variables	Media Censorship		0.9280**** (0.14)	0.4696*** (0.21)	0.5298*** (0.15)
	Internet Use	0.2319**** (0.0053)	0.1382**** (0.0062)	0.2318**** (0.0053)	0.1380**** (0.0062)
Level variables 1	Education		0.07518**** (0.0045)		0.0750**** (0.0045)
	Age		0.01213**** (0.00061)		0.01215**** (0.00061)
	Religiosity		0.4083**** (0.017)		0.4077**** (0.017)
	Sex		0.3664**** (0.017)		0.3663**** (0.017)
	Civil Rights		0.02543**** (0.003)		0.02545**** (0.003)
Level variables 2	GDP per capita (Logged)			0.3450** (0.18)	0.3380** (0.29)
	Regime Type				
	Democracy			-0.5108 (0.46)	-0.5592 (0.45)
	Same Sex Marriage			2.073**** (0.49)	2.069**** (0.49)
	Legality of Same Sex relations			0.6567** (0.29)	0.5790** (0.29)
	Region				
	Latin America/Caribbean			1.0045**** (0.37)	1.089**** (0.37)
	MENA			-0.0646 (0.39)	0.05432 (0.38)
	Sub-Saharan Africa			0.2121 (0.50)	0.2256 (0.50)
	Western Europe/North America			1.442**** (0.50)	1.483**** (0.50)
Asia and Pacific			0.8090** (0.34)	0.7667** (0.34)	
Constant	2.619**** (0.24)	-0.5216 (0.38)	-2.746 (1.5)	-3.729** (1.5)	
var(const)	3.0587	1.709	0.598	0.5891	
var(Residual)	5.78686	5.5873	5.787	5.587	
Observations	77402	74492	77402	74492	
Groups	54	54	54	54	
Group Minimum	613	574	613	574	
Group Average	1433.4	1379.5	1433.4	1379.5	
Group Maximum	3608	3478	3608	3478	
log likelihood	-177949.21	-169942.96	-177905.33	-169914.34	

Table 3: Results from hypothesis 2, co-variables of attitudes towards homosexuality.
 Note: Multilevel (random-intercept) regression using MIXED command in STATA. The maximum likelihood estimator is used. Standard errors are in parentheses.
 ****p < 0.001, ***p < 0.01, **p < 0.05, *p < 0.1.

Similar to H1, an empty model containing only the focal variable (model 5) is first produced. The focal independent variable, internet use, is statistically significantly and positively correlated to attitudes towards homosexuality at 0.23.

The individual level variables are included in model 6. Upon doing this, the correlation between internet use and attitudes remains statistically significant but falls in magnitude to 0.14. The rest of the control variables remain significant in the expected directions with values similar to that in model 2.

The country level control variables were added to the model in the absence of the individual level variables in model 7. The correlation between internet use and media censorship increases to the level observed in model 5 at (0.23). The logged GDP per capita is statistically significant at the 10 percent level. Similar to H1, the level of democracy is insignificant at all levels. Same sex marriage and the legality of same sex relations were statistically significant at the 0.1 percent and 5 percent levels respectively. With regards to the regions, the results were similar to that in H1.

Model 8 includes both individual and country level variables. The regression results produced are identical to the results in model 4.

After running these models, the likelihood ratio test was carried out. This test included the full model (model 8) and the reduced random intercept model where the focal independent variable, media censorship, is omitted. The test resulted in a chi-squared distribution value of 481.02 with a p-value of 0.00 at one degree of freedom, indicating that the full model is a significant improvement on the reduced model. Hence, we can accept that internet use is important in explaining the variance in the model and that it does indeed have an effect on one's perception of homosexuality.

The results in table 2 indicate that frequency of internet use does have a substantial effect on attitudes towards homosexuality with a correlation coefficient of 0.138 (model 8). This means a 1 unit increase in internet use would bring about a 0.138 unit increase in attitudes towards homosexuality.

6.3 Hypothesis 3

		H3			
		Model 9	Model 10	Model 11	Model 12
Main variables	Media Censorship	0.6796**** (0.14)	0.7434**** (0.14)	0.2771 (0.18)	0.3601** (0.18)
	Internet Use	0.05150**** (0.011)	-0.0191 (0.012)	0.05140**** (0.011)	-0.01911 (0.012)
	Internet Use X Media Censorship (mediainternet)	0.07809**** (0.0042)	0.0687**** (0.0042)	0.07807**** (0.0042)	0.06865**** (0.0042)
Level variables 1	Education		0.07547**** (0.0045)		0.07532**** (0.0045)
	Age		-0.01193**** (0.00061)		0.01196**** (0.00061)
	Religiosity		0.4003**** (0.017)		0.4000**** (0.017)
	Sex		0.3639**** (0.017)		0.3638**** (0.017)
	Civil Rights		0.02466**** (0.0029)		0.02469**** (0.0029)
Level variables 2	GDP per Capita (logged)			0.3588** (0.15)	0.3490** (0.15)
	Regime Type Democracy			-0.5372 (0.45)	-0.5817 (0.45)
	Same Sex Marriage			2.045**** (0.48)	2.047**** (0.48)
	Legality of Same Sex relations			0.6382** (0.28)	0.5633** (0.29)
	Region Latin America/Carribean			1.0453**** (0.36)	1.124**** (0.36)
	MENA			-0.0258 (0.38)	0.0871 (0.38)
	Sub-Saharan Africa			0.2634 (0.49)	0.2698 (0.49)
	Western Europe/North America			1.329**** (0.48)	1.379** (0.49)
	Asia and Pacific			0.8453** (0.33)	0.800** (0.33)
	Constant	0.9886*** (0.37)	-0.09149 (0.37)	-2.434 (1.49)	-3.44** (1.49)
var(_const)	1.67	1.63	0.5696	0.566	
var(Residual)	5.76	5.57	5.761	5.57	
Observations	77402	74492	77402	74492	
Groups	54	54	54	54	
Observations/Group Minimum	613	574	613	574	
Observations/Group Average	1433.4	1379.5	1433.4	1379.5	
Observations/Group Maximum	3608	3478	3608	3478	
log likelihood	-177760.49	-169811.29	-177731.67	-169782.82	

Table 4: Results from hypothesis 3, co-variables of attitudes towards homosexuality

Note: Multilevel (random-intercept) regression using MIXED command in STATA. The maximum likelihood estimator is used. Standard errors are in parentheses.

****p < 0.001, ***p < 0.01, **p < 0.05, *p < 0.1.

An interaction term is added to test H3. In model 9, a model with only media censorship, internet use and the interaction 'mediainternet' is created and tested. This produces statistically significant correlations in the expected direction. Media censorship exhibits the strongest relationship with a correlation of 0.68. Internet use produces a weaker relationship of 0.052 and the interaction term has a slightly stronger and statistically significant relationship of 0.078 at the 0.1 percent level.

In model 10, the individual level variables are added to the previous model. The correlation between media censorship and attitudes then increases to 0.74. The correlation between the interaction term and attitudes remains statistically significant and reduces in magnitude to 0.67. Following that, all the individual variables produce statistically significant correlations in the expected directions at the 0.1 percent level.

Model 11 contains the interaction terms and the country level variables. Here the correlation between media censorship and attitudes reduces to 0.28. The significance level also decreases to the 10 percent level. For the country level variables, the logged GDP per capita (0.3) is significant at the 10 percent level. The level of democracy of the country stays insignificant. Same sex marriage and the legality of same sex relations were statistically significant. The correlation with the various regions were similar to that in model 8 with the MENA region and Sub Saharan Africa staying insignificant.

The individual and country level variables are brought together in model 12. The correlation between media censorship and attitudes increases slightly in magnitude to 0.36. Internet use once again loses statistical significance. However, the interaction term of 0.069 remains statistically significant. The rest of the level 1 and 2 variables remain the same as that in model 11.

After running these models, I ran the likelihood ratio test again. This test includes the full model (model 12) and the reduced random intercept model which omits the focal independent variable (the interaction term), 'mediainternet'. This test results in a chi-squared distribution value of 728.92 with a p-value of 0.00 at one degree of freedom, indicating that the full model is a significant improvement on the reduced model.

To understand the effect of the interaction between media censorship and internet use on attitudes towards homosexuality, figure 4 below illustrates the effect of the interaction term on attitudes towards homosexuality.

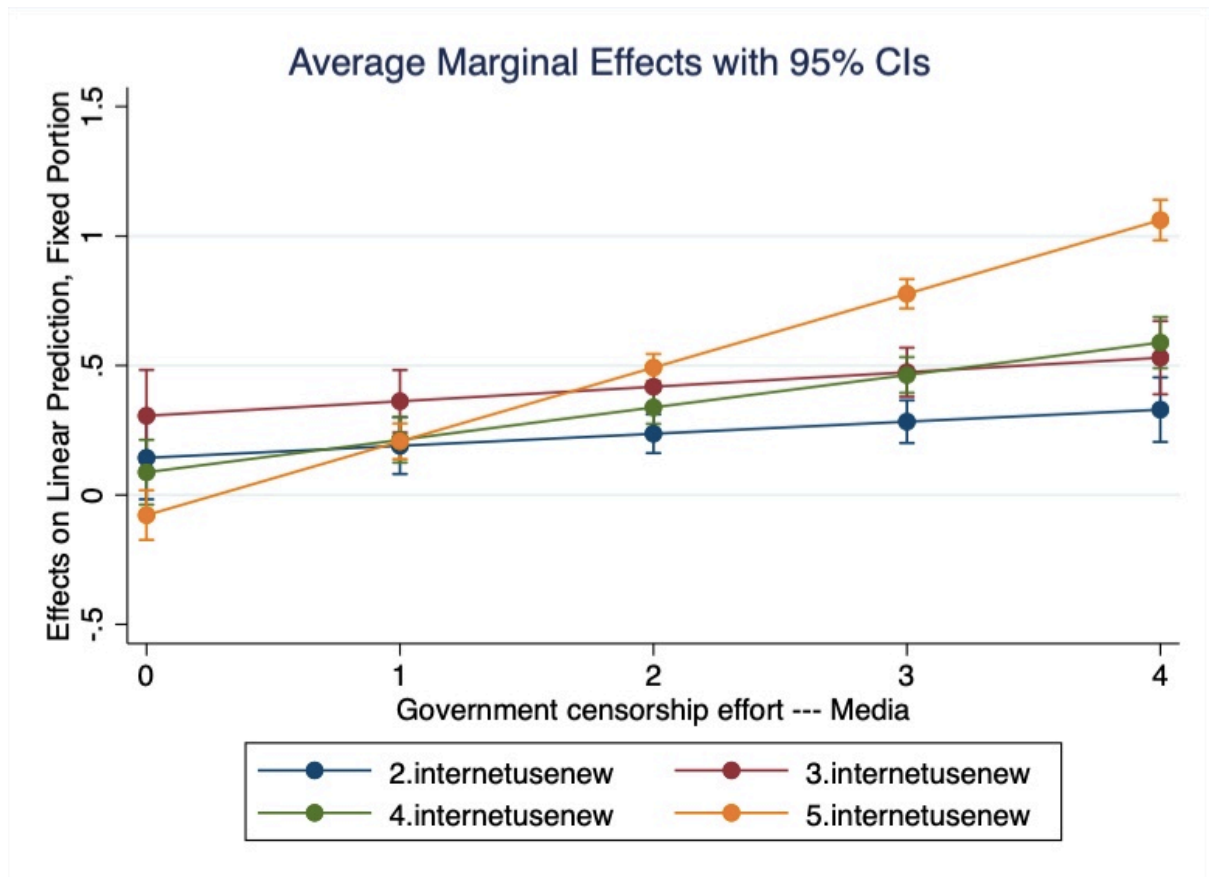


Figure 6: Average marginal effects based on the full model (model 12).

Results in table 4 show that the interaction term is positive and significant as expected. Figure 6 displays the average marginal effect of media censorship and internet use on attitudes towards homosexuality with never using internet as the reference group. A general upward trend is observed even though this occurs to different extents based on the level of internet used to attain information.

When looking at the frequency of internet use separately, daily internet use appears to be significant across all levels of media censorship. The overlapping confidence intervals in the daily and monthly internet use categories suggest no significant effect for these two levels of internet use. With less than monthly internet use, there is a general positive correlation between media censorship and internet use on attitudes towards homosexuality. The confidence intervals between less than monthly, weekly and daily stop overlapping from when media censorship is equal to 2 and beyond, suggesting a significant and positive trend beyond this point. Overall, it can be observed that the effect of the interaction becomes more pronounced and significant as the level of media censorship diminishes. The results support H3.

6.4 Comparing the three hypotheses

Hypothesis 1 is about the relationship between attitudes towards homosexuality and media censorship. The empirical tests indicate that the correlation coefficient of media censorship remains almost the same as the empty model when the individual level variables are added to the model (0.989 to 0.928 from model 1 to model 2). A bigger change from 0.989 to 0.492 occurs when the country level indicators are added to the empty model (from model 1 to model

3). These changes indicate that the country level control variables have a more substantial effect on attitudes than the individual level variables in explaining the effect of media censorship on attitudes towards homosexuality. This is in line with Hadler's (2012) work which emphasized the importance of global forces in predicting homophobia. The correlation suggests that media freedom does correlate with positive attitudes towards homosexuality. These results are also in line with the intergroup contact theory and the parasocial theory (Horton & Wohl, 1956; Schiappa et al., 2005). This means that contact made between viewers and the fictional and non-fictional characters in the media could work towards improving one's perceptions towards homosexuality.

Hypothesis 2 is about the relationship between attitudes towards homosexuality and internet use. The tests indicate the opposite compared to H1. The correlation coefficient of internet use decreases from 0.2319 to 0.1382 when the individual level variables are added to the empty model (model 5 to model 6). However, the same correlation coefficient remains the almost the same when the country level indicators were added to the empty model (model 5 to model 7). This shows that in the case of H2, the individual level control variables have a more substantial effect on attitudes than the country level variables in explaining the effect of internet use on attitudes towards homosexuality. This is also in line with the research that has been presented in the literature review chapter. Internet use could vary due to the intersection of a variety of individual level factors such as one's age, access to internet and the strength of one's own attitudes towards homosexuality before using the internet (Pettigrew & Tropp, 2006; Slevin, 2000).

The results of this study support both H1 and H2. The statistically significant results in the models related to both hypotheses suggest positive relationships between the focal dependent variable and both focal independent variables – media censorship and internet use. It cannot be assumed that this relationship is causal in nature based on this analysis alone. However, since the independent variable, media censorship, is lagged in this study, the direction of the relationship in H1 and H2 are likely to be from independent to dependent variable. As the results in these two hypotheses were according to the expectations that were set out, the null hypothesis for both H1 and H2 is rejected.

I created an interaction term where media censorship and internet use are interacted in hypothesis 3. The correlation coefficient of the interaction term decreases from 0.0781 to 0.0687 when the individual level control variables are added to the empty model (model 9 to model 10) and remained about the same when the country level variables are added to the empty model (model 9 to model 11). Hence the changes suggest that the individual level variables have a larger effect on attitudes than the country level variables in explaining the interaction effect of media censorship and internet use on homosexuality.

While the tests suggest that in the cases of the first two hypotheses, the correlations between the respective focal independent variables and attitudes towards homosexuality were statistically significant, the magnitudes of the correlation of media censorship is larger than that of internet use (0.530, model 4, 0.138, model 8 respectively). This suggests that the relationship between media censorship and attitudes towards homosexuality is stronger than that of internet use and attitudes⁵.

⁵ It should be noted that media censorship and internet use are different in terms of their level in the multi-level model and the scale on which they are measured. Media censorship, a country level variable, is measured on a scale from zero to four and coded by V-dem country level experts at V-Dem. Internet use, an individual level variable, is measured on a scale of one to five by individual respondents in the WVS dataset. Thus, the

The situation is mixed with H3. The hypothesis *‘Increased internet use will be positively related to attitudes towards homosexuality only when the media in the country is at least partially free’* suggests that the interaction term between media censorship and internet use should not uniformly bring about positive attitudes towards homosexuality as media censorship decreases and internet use increases.

As seen in figure 6 and in the results section above, this relationship does occur in the expected direction and not in a uniform manner as was expected. The average marginal effects illustrated in figure 6 indicate that the level of media censorship plays a stronger role in influencing attitudes. This is seen as the effect on attitudes towards homosexuality are not statistically significant when media censorship within the country is high. However, the relationship between attitudes and the interaction term is statistically significant and progresses in the expected direction from when media censorship is equal to two and beyond.

This is in line with the issues discussed in chapters 3.5 and 3.7 above. The low level of attitudes resulting from high media censorship despite frequent internet use supports Hellmeier’s (2016) hypothesis of the internet not being a form of liberation technology uniformly across all countries. This result suggests that governments methods of censoring the internet, could work towards preserving and reinforcing the current low attitudes towards homosexuality by regulating the internet and restricting the kind of information available to users within the different state boundaries.

This also supports the contact theory (Allport, 1954; Horton & Wohl, 1956; Schiappa et al., 2005). It can be assumed that people living in heavily censored media and internet environments, would receive minimal contact with homosexuals – both directly and indirectly. As such, there would be no or very little opportunity for them to engage with the issue differently (Linville et al., 1989; Kite, 2016; Pettigrew & Tropp, 2008; Schiappa et al., 2005). This coupled with the constant framing of homosexuality as undesirable on the various media platforms, would work towards reinforcing the already negative perceptions people have on the issue.

Furthermore from the perspective of the politics of belonging, the desire to belong would provide little impetus for one to contemplate changing ones’ views (Yuval-Davis, 2011). The multiple modernities approach further supports this result. This is especially so in countries where the cultural practices and traditions are geared towards negative perceptions of homosexuality. Here, negative values are likely to be preserved with the combination of media and internet censorship.

The results show that the correlation between the interaction and attitudes become significant and positive from when the level of media censorship is equivalent to two and beyond. This refers to countries where censorship is present but it may not be as extensive as it could be. This would also suggest that the internet would not be censored in these states as this is seen to occur mostly in authoritarian states which have a high level of media censorship (Hellmeier, 2016). Hence, people would have access to a larger variety of information in these cases. This could in turn give rise to the possibility of viewers making indirect contact with homosexual

difference in scale makes it difficult to make a direct comparison. Nevertheless, the fact that the effect in model four is almost four times high than that in model 8, suggests a strong relationship.

characters vicariously through the internet or various media platforms. Parasocial contact made in this manner may then lead to attitudinal change as outlined in chapters 2.1 and 3.4.1.

Based on this, we can accept that the interaction between decreased media censorship and increased internet use would lead to more positive attitudes towards homosexuality once the nature of the censorship is “direct but limited to especially sensitive issues” or less (Coppedge et al., 2019: 253). Hence based on this support for H3, the null hypothesis of H3 is rejected.

6.5 Control variables

6.5.1 Same sex marriage and legality of same – sex relations

The legality of same sex marriage and same sex relations remained statistically significant through all the tests in all three models. This supports the claims from various authors in the literature above who emphasize the importance of contact and social distance between people and homosexuality in altering attitudes (Carlo-Gonzalez et al., 2017; Linville et al., 1989; Mary E. Kite, 2016; Pettigrew, 1979). They also talked about how having positive homosexual portrayals in the media would lead to more generally positive views on homosexuality as viewers would constantly be introduced to content about homosexuality. This then brings the issue of homosexuality closer to them and in time normalizes the issue. Legality of same sex marriage and same sex relations could play the same role. The legal nature of both acts could allow people to be open about their sexuality and hence make homosexuality more visible in the public arena. With time, this could, in combination with other societal factors, work towards normalizing the issue. The results of the tests in relation to these two variables confirm this hypothesis.

6.5.2 Sex

As mentioned above, research has shown that women tend to harbor more positive views towards homosexuality (Adamczyk, 2017). Males’ tendencies to be more supportive of traditional gender roles (Butler, 2009), would suggest that they would frame who belongs and does not belong in their community with more rigidity. The sex of the respondents remained statistically significant through the tests, in support of this.

6.5.3 Age

The literature review discussed how age is an important factor in determining attitudes towards homosexuality. The kind of information that people are exposed to from a young age would have an effect on their socialization process and the way they perceive of different issues, homosexuality being one of them. The research has suggested that the younger generation tend to be exposed to a larger variety of information from both local and international sources. Exposure to the varied ways of framing the issue of homosexuality could work towards them being less rigid in who they deem to belong and not belong within their community. The results support this with age as a control variable consistently being statistically significant in all the tests.

6.5.4 Religiosity

Religion as a control factor remained statistically significant throughout the tests as expected. This is supported by the multiple modernities approach and the politics of belonging. As suggested by both concepts, religion within different cultural contexts has the potential to construct morality and consequently what is right and wrong (Yuval-Davis, 2011). This would in turn lead to a construction of boundaries defining who belongs and who does not. A higher level of religiosity, would/may indicate more rigid boundaries (Eisenstadt, 2002). This may in turn foster negative views towards homosexuality if that is what the religion dictates.

6.5.5 Democracy level and region

The literature suggests that democracy would play an important role in determining attitudes towards homosexuality. However, the tests carried out do not reflect this. The results for the different levels of democracy remained insignificant throughout all the tests. This could be due to multicollinearity. Multicollinearity refers to the phenomenon where a variable in a multi regression model can be linearly predicted from the others with a substantial degree of accuracy. This does not affect the accuracy or reliability of the model as a whole. But it would lead to the coefficient estimates being unreliable (Jakobsen, 2016). The level of democracy and government censorship of the media is theoretically and empirically linked and this could have led to the insignificance in the regime type variable in this study.

Instead, regions as a control variable is a better measure. When using Eastern Europe as a baseline, the regions Latin America and the Caribbean, Western Europe and North America and Asia and Pacific are statistically significant and have higher attitudes towards homosexuality than that of the baseline region which was Eastern Europe. However, a relationship cannot be found for Sub-Saharan Africa and the MENA regions which were statistically insignificant. These results are consistent with the multiple modernities approach by showing how attitudes tend to cluster at the regional level (Eisenstadt, 2002).

6.6 Robustness checks

Two checks are done to test the robustness of the results.

Firstly, I re-ran the models with robust standard errors. The results of these tests are presented in Appendix 3. The results are similar in the statistical significance to that in the original tests. This shows that the results are robust.

Secondly, the focal dependent variable testing attitudes towards homosexuality was replaced with another variable from the WVS dataset. Here respondents were asked if they would be comfortable having a homosexual as a neighbor. Respondents were given the option of 'yes' or 'no' (Inglehart et al., 2014). The results from these tests are presented in Appendix 4. The magnitudes of the correlations differ which is to be expected due to the differences in the methods of measurement of both variables. Attitudes are measured from one to ten while the neighbor variable is dichotomous. However, the variables at both the country and individual level remain statistically significant in the expected directions, similar to the original tests. This further supports the robustness of this study.

7 Implications of the study

7.1 Power of the internet as a form of liberation technology

What does this say about the power of the internet as a form of liberation technology?

The statistically significant results in the expected direction in table 3 show that internet use does play an important role in contributing to the nature of attitudes towards homosexuality that are formed. However, the results from table 4 also show that this power has its limitations. Figure 6 shows that internet use only starts benefitting users by cultivating more positive views towards homosexuality from the point where censorship is present but not extreme. This means that internet use is only beneficial when the level of media censorship within a country is moderate to low. Hence it can be concluded that internet use is only beneficial when there is already a certain level of media freedom within the country. In countries with high levels of censorship, frequent internet use still fosters negative attitudes towards homosexuality. This could be due to the fact that people's thoughts are already influenced by the government messaging through various channels, media being an important channel. As literature suggests, this shows that the internet's ability to 'liberate' peoples' thoughts are somewhat limited (Edenborg, 2017; Hellmeier, 2016). This in turn supports the theory mentioned above that traditional media still plays a big role in framing one's thoughts, especially in less democratic and highly censored societies (Hellmeier, 2016; Nabi & Oliver, 2009; Nabi & Riddle, 2008). Furthermore, in the case of countries with high levels of censorship, it could also be the case that individuals living within that space are already receiving stimuli from other sources (outside of just the media) suggesting that homosexuality is unacceptable. Thus, this could also impact the kind of information and material that individuals choose to consume online and could in turn work to strengthen their current beliefs instead of changing it. This is further supported by work done by Edenborg (2017). Here he mentions that despite the propagation of a multitude of alternative narratives provided by various mediums on the internet in Russia, a country with high level so fmedia censorship, attitudes of the general public have barely changed. Instead, these views have been criticized and the general homophobic climate of views have been reinforced, demonstrating the state's prowess in shaping and maintain views.

7.2 Implications for Social Work

What do these results mean for the social work practice?

As mentioned above, "promoting social change, social development, social cohesion and the empowerment and liberation of people" are the core mandates of the social work profession (IFSW, 2014). And "advocating and upholding human rights and social justice" are the main principles of social work (IFSW, 2014). Based on this, advocating for the rights of homosexuals constitutes part of social work (IFSW, 2014). The results of this study indicate the strength of the media as a tool for framing thoughts and attitudes. Hence when advocating for this group of people, social workers may see the value in advocating for changes in levels of censorship given the possible trickle-down effect in the change of attitudes towards homosexuality that this can potentially transpire. The results show how views can vary by a very large extent based on one's demographics. Hence, knowledge on the various individual country level variables and the effects of the different combinations of these factors on the level of attitudes formed must be taken into account when planning for advocacy material and

activities. In this way, social workers would be able to organize their work based on their target audience and the way in which they form perceptions on issues, in this case, homosexuality.

The results from hypothesis 3 also show the limitation of the internet as a form of liberation technology. As seen in the results and analysis section, firstly, the impact of the internet use is much smaller than that of mainstream media. Secondly, the effect of the combination of mainstream media and internet is only significant in countries with medium to low levels of media censorship. This is an important point for social workers to take into consideration in their work.

8 Ethical considerations

8.1 Validity

The validity of a quantitative study refers to the extent to which the results of the study measure what they are set out to measure (Bryman, 2012). This study aimed to study the effect of media censorship and internet use on attitudes towards homosexuality. The methods section outlined how this was accomplished through the three focal variables that were measured.

The theoretical framework and literature review chapters of this paper outlined the previous research that has been done in this field. This information also set out expectations of the results. The results obtained from this study is in accordance to the expectations that were originally set out. The fact that the results correspond to the established theories and other measures adds to the validity of this study.

8.2 Reliability

This thesis shows how homosexuality is viewed differently in different parts of the world. As a result, the ease at which the issue is discussed around the world varies. It is a topic that is politically sensitive in some countries. To deal with this issue, researchers carrying out the World Value Survey in individual countries decide if asking the question would be culturally appropriate and if it would generate accurate and honest answers. Consequently, there were a number of countries where the question of whether homosexuality is justifiable was deemed a sensitive topic. The question was dropped from the survey in these countries. I dropped these countries from dataset before carrying out the tests. This contributes to the reliability of this study.

The reproducibility of the results in the same conditions adds to the reliability of the study (Bryman 2016). As was shown in the robustness section, the focal dependent variable was exchanged for another variable with similar explanatory power. The results from these tests shown similar results based on the directions of the correlations. This adds to the reliability of this study. Furthermore, further reproductions of this study can be done employing the steps I have taken using different versions of the WVS dataset and the V-Dem dataset. This demonstrates the generalizability of this study.

9 Limitations and future research

In this multi-level analysis, a random intercept approach was taken where the countries are assumed to have the same slope when studying the relationship between the variables (Jakobsen, 2016). However, in reality it is realistic to assume that the slopes do vary as the combination of the different factors given the varying conditions in different countries would lead to different attitudes being formed on this issue. Hence, future research should look into adopting the random slope model. This would provide practitioners with further insight into the types of approaches to adopt and specific issues and areas to tackle on a country basis when working on issues of attitudes towards homosexuality.

When carrying out this study, the country level data was from 2009 and the individual level data was from 2010 to 2014. Hence, the results may not be up to date with the reality today. V-dem releases updated datasets every year and the WVS will release wave seven of its data set in the first quarter of 2020. Data from these studies can be used and the study can be replicated to obtain the most recent and up to date results.

This study did not take into consideration the specific attitudes of people working within the social work profession. Going by the theories presented in this thesis, it may be valid to expect a proportion of social workers would hold similar views to the general population through the difference socialization methods. Future research should look into this.

It would be also be relevant to look further into the implications of media freedom and internet use on social work. Research can look into how the state of the media and internet affect people who work directly with homosexuality in LGBTQ organizations. Qualitative interviews can also be carried out to understand the specific challenges and/or advantages these mediums bring to the advocacy and empowerment work done with regards to homosexuality in the social work profession.

Prior to testing the hypotheses, research was done to understand the different factors other than the media and internet that affects people's attitudes towards homosexuality. These factors were included as controls in this study to account for their effect. However, there is still a possibility that some factors affecting attitudes may have been omitted in the current literature.

10 Conclusion

This thesis set out to study the relationship between media freedom and internet use on people's attitudes towards homosexuality. Data from the World Values Survey dataset and the Varieties of Democracy dataset were used to construct and carry out a multi-level (random-intercept) analysis to investigate this issue. The results prove that while there are other factors that affect people's attitudes towards homosexuality, the media and internet do play important roles in attitudes towards homosexuality. While these two mediums provide numerous opportunities for indirect contact with homosexuals and homosexuality, it should also be studied with caution. Extreme censorship of the media and internet and increasing internet censorship especially among authoritarian regimes have the opposite effect on attitudes.

No study on attitudes towards homosexuality has been done by combining the effects of the media and internet. This study makes a new and important contribution in this area. The different directions of the correlation between the two mediums of information transfer illustrates the importance of further study into this area to understand how the internet and media work interdependently, depending on the situations in different countries and regions and the consequent effect on attitudes and attitudinal change.

This study also has contributed to the field of social work. By understanding the effect of the media and internet in different environments of information censorship and freedom, social workers would be able to decide on the best methods to employ to bring about attitudinal change on both the individual and societal levels. This would be useful to the social work profession in its pursuit of achieving social justice and equality and the liberation and empowerment of people.

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12 Appendix

12.1 Appendix 1 – Countries used in this study

This appendix presents the countries that are used in the multi-level (random-intercept) regression analysis.

List of countries	
United States of America	Rwanda
Haiti	Zimbabwe
Trinidad and Tobago	South Africa
Mexico	Algeria
Colombia	Tunisia
Ecuador	Libya
Peru	Turkey
Brazil	Iraq
Chile	Egypt
Argentina	Lebanon
Uruguay	Jordan
Netherlands	Yemen
Germany	Kuwait
Slovenia	Qatar
Cyprus	Kyrgyzstan
Romania	Uzbekistan
Russia	Kazakhstan
Estonia	China
Ukraine	Taiwan
Belarus	South Korea
Armenia	Japan
Georgia	India
Azerbaijan	Pakistan
Sweden	Thailand
Ghana	Malaysia
Nigeria	Singapore
Poland	Philippines
New Zealand	Australia

12.2 Appendix 2 – Focal variables

This appendix presents the questions from the WVS and V-Dem dataset that are used for the focal dependent and independent variables.

1: Dependent Variable: Attitudes towards homosexuality

Please tell me for each of the following actions whether you think it can always be justified, never be justified, or something in between, using this card. (Read out and code one answer for each statement):

V203. Homosexuality 1 (Never Justifiable) 2 3 4 5 6 7 8 9 10 (Always Justifiable)

Note: This variable is obtained from the WVS dataset.

2: Independent Variable: Internet use

People learn what is going on in this country and the world from various sources. For sources, please indicate whether you use it to obtain information daily, weekly, monthly, less than monthly or never (read out and code one answer for each):

V223. Internet 1 (Daily) 2 (Weekly) 3 (Monthly) 4 (Less than monthly) 5 (Never)

Note: This variable is obtained from the WVS dataset.

3: Independent Variable: Media censorship

Question: Does the government directly or indirectly attempt to censor the print or broadcast media?

Clarification: Indirect forms of censorship might include politically motivated awarding of broadcast frequencies, withdrawal of financial support, influence over printing facilities and distribution networks, selected distribution of advertising, onerous registration requirements, prohibitive tariffs, and bribery.

We are not concerned with censorship of non-political topics such as child pornography, statements offensive to a particular religion, or defamatory speech unless this sort of censorship is used as a pretext for censoring political speech.

Responses:

0: Attempts to censor are direct and routine.

1: Attempts to censor are indirect but nevertheless routine.

2: Attempts to censor are direct but limited to especially sensitive issues.

3: Attempts to censor are indirect and limited to especially sensitive issues.

4: The government rarely attempts to censor major media in any way, and when such exceptional attempts are discovered, the responsible officials are usually punished.

Note: This variable is obtained from the V-Dem datas

12.3 Appendix 3 – Robustness test 1

This appendix presents the results from the robust standard errors test.

		Hypothesis 1			
		Model 1	Model 2	Model 3	Model 4
Independent Variable	Media Censorship	0.939***	0.935***	0.492*	0.536*
		0.144	0.134	0.224	0.215
Level 1 variables	Education		0.0731***		0.0729***
			0.0182		0.0182
	Age		-0.0117***		-0.0117***
			0.00201		0.00201
	Religiosity		0.410***		0.409***
			0.0845		0.0846
	Sex		0.391***		0.390***
		0.0597		0.0597	
	Internet Use		0.140***		0.139***
			0.016		0.016
	Civil Rights		0,0214		0,0215
			0.0146		0.0146
Level 2 variables	GDP per capita (logged)			0.472*	0.339+
				0.184	0.176
	Regime Type				
	Democracy			-0.537	-0.559
				0.558	-0.52
	Same Sex Marriage			2.035**	2.087***
				0.64	0.59
	Legality of Same Sex Relations			0.706*	0.579*
				0.297	0.268
	Region				
	Latin America / Carribean			0.991*	1.071*
				0.441	0.417
MENA			0,00986	0,0469	
			0.368	0.337	
Sub-Saharan Africa			0,303	0,223	
			0.478	0.444	
Western Europe/ North America			1.539**	1.481**	
			0.529	0.521	
Asia and Pacific			0.797**	0.763*	
			0.291	0.309	
	Constant	1.050***	-0,555	-3.396+	-3.764*
		0.259	0.48	1.762	1.703
	var(const)	1.96			
	var(Residual)	5.94			
	Observations	77402	71614	77402	71614
	Groups	54	54	54	54
	Group Minimum	654	574	654	574
	Group Average	1444,5	1379,5	1444,5	1379,5
	Group Maximum	3608	3478	3608	3478
	Log Likelihood	-180306.08	-169942.96	-180276.16	-169914.34

Results from hypothesis 1, co-variables of attitudes towards homosexuality

Note: Multilevel (random-intercept) regression using MIXED command in STATA. The maximum likelihood estimator is used. Standard errors are in parentheses. ***p < 0.001, **p < 0.01, *p < 0.05, +p < 0.1

		Hypothesis 2			
		Model 5	Model 6	Model 7	Model 8
Main variables	Internet Use	0.232***	0.140***	0.232***	0.139***
		0.026	0.016	0.026	0.016
	Media Censorship		0.935***	0.470*	0.536*
			0.134	0.212	0.215
Level 1 variables	Education		0.0731***		0.0729***
			0.0182		0.0182
	Age		-0.0117***		-0.0117***
			0.00201		0.00201
	Religiosity		0.410***		0.409***
			0.0845		0.0846
	Sex		0.391***		0.390***
			0.0597		0.0597
	Civil Rights		0.0214		0.0215
			0.0146		0.0146
Level 2 variables	GDP per capita (logged)			0.345*	0.339+
				0.176	0.176
	Democracy			-0.511	-0.559
				0.528	0.52
	Same Sex Marriage			2.073***	2.087***
				0.593	0.59
	Legality of Same Sex Relations			0.657*	0.579*
				0.28	0.268
	Region				
	Latin America/ Carribean			1.004*	1.071*
			-0.425	-0.417	
MENA			-0.0646	0.0469	
			0.354	0.337	
Sub-Saharan Africa			0,212	0,223	
			0.452	0.444	
Western Europe/ North America			1.442**	1.481**	
			0.5	0.521	
Asia and Pacific			0.809**	0.763*	
			0.296	0.309	
Constant		2.619***	-0,555	-2,746	-3.764*
			-0,204	-0,48	-1,698
	var(const)	3.0587	1.709	0.598	0.5891
	var(Residual)	5.78686	5.5873	5.787	5.587
	Observations	77402	74492	77402	74492
	Groups	54	54	54	54
	Group Minimum	613	574	613	574
	Group Average	1433,4	1379,5	1433,4	1379,5
	Group Maximum	3608	3478	3608	3478
	Log Likelihood	-177949	-169942.96	-177905.33	-169914.34

Results from hypothesis 2, co-variables of attitudes towards homosexuality

Note: Multilevel (random-intercept) regression using MIXED command in STATA. The maximum likelihood estimator is used. Standard errors are in parentheses. ***p < 0.001, **p < 0.01, *p < 0.05, +p < 0.1

		Hypothesis 3
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		Model 9	Model 10	Model 11	Model 12
Main variables	Media Censorship	0.680***	0.743***	0,277	0.367+
		0.121	0.123	0.207	0.21
	Internet Use	0.0515	-0.0142	0.0514	-0.0142
		0.0369	0.0345	0.0369	0.0345
	Internet Use X Media Censorship (mediainternet)	0.0781***	0.0674***	0.0781***	0.0674***
		0.0162	0.0141	0.0162	0.0141
Level 1 variables	Education		0.0732***		0.0731***
			0.0187		0.0187
	Age		-0.0115***		-0.0115***
			0.00197		0.00197
	Religiosity		0.402***		0.402***
		0.0842		0.0843	
	Sex		0.388***		0.388***
			0.059		0.059
	Civil Rights		0,0206		0,0207
			0.0143		0.0143
Level 2 variables	GDP per capita (logged)			0.359*	0.348*
				0.169	0.171
	Democracy			-0,537	-0,58
				0.512	0.506
	Same Sex Marriage			2.045***	2.067***
				0.567	0.567
	Legality of Same Sex relations			0.638*	0.562*
				0.273	0.262
	Region				
	Latin America/ Carribean			1.045*	1.104**
				0.415	0.409
	MENA			-0,0258	0,0815
				0.342	0.328
	Sub-Saharan Africa			0,263	0,265
				0.426	0.422
Western Europe/ North America			1.329**	1.380**	
			0.481	0.504	
Asia and Pacific			0.845**	0.795**	
			0.294	0.308	
Constant	0.989***	-0,129	-2,434	-3.465*	
	0.21	0.428	1.622	1.645	
var(const)	1.67	1,63	0,5696	0,566	
var(Residual)	5.76	5,57	5,761	5,57	
Observations	77402	74492	77402	74492	
Groups	54	54	54	54	
Group Minimum	613	574	613	574	
Group Average	1433,4	1379,5	1433,4	1379,5	
Group Maximum	3608	3478	3608	3478	
Log Likelihood	-177760.49	-169811.29	-177731.67	-169782.82	

Results from hypothesis 3, co-variates of attitudes towards homosexuality

Note: Multilevel (random-intercept) regression using MIXED command in STATA. The maximum likelihood estimator is used. Standard errors are in parentheses. ***p < 0.001, **p < 0.01, *p < 0.05, +p < 0.1

12.4 Appendix 4 - Robustness checks 2

This appendix presents the results from substituting the dependent variable with a variable asking how respondents feel about having a homosexual person as a neighbor.

		Hypothesis 1			
		Model 1	Model 2	Model 3	Model 4
Main variables	Media Censorship	0.123***	0.124***	0.0568+	0.0597*
		0.0187	0.0214	0.0292	0.0291
	Education		0.00299***		0.00295***
			0.000827		0.000827
Level 1 variables	Age		-0.000837***		-0.000844***
			0.000114		0.000114
	Religiosity		0.0342***		0.0340***
			0.00323		0.00323
	Sex		0.0503***		0.0502***
			0.00323		0.00323
	Internet Use		0.0127***		0.0126***
			0.00115		0.00115
	Civil Rights		-0.000393		-0.000374
			0.00064		0.00064
Level 2 variables	GDP per capita (logged)			0.0614*	0.0522*
				0.0256	0.0256
	Regime Type				
	Democracy			-0,045	-0,0426
				0.0729	0.0727
	Same Sex Marriage			0.279***	0.279***
				0.0789	0.0787
	Legality of Same Sex Relations			0,0291	0,024
				0.0471	0.0469
	Latin America / Carribean			0.238***	0.238***
				0.0588	0.0587
	MENA			-0,000446	-0,00871
				0.0618	0.0616
	Sub-Saharan Africa			-0,0309	-0,0357
				0.0799	0.0797
	Western Europe/ North America			0.186*	0.179*
			0.0799	0.0797	
Asia and Pacific			0.163**	0.163**	
			0.056	0.0558	
Constant	1.195***	1.054***	0.638*	0.586*	
	0.058	0.0578	0.248	0.248	
var(const)	0.0408	0.0390	0.152	0.150	
var(Residual)	0.188	0.185	0.188	0.185	
Observations	79895	72560	79895	72560	
Groups	53	53	53	53	
Group Minimum	841	643	841	643	
Group Average	1507.5	1369.1	1507.5	1369.1	
Group Maximum	4078	3860	4078	3860	
log likelihood	-46813.827	-41865.256	-46787.734	-41840.171	

Results from hypothesis 1, co-variables of attitudes towards homosexual neighbor

Note: Multilevel (random-intercept) regression using MIXED command in STATA. The maximum likelihood estimator is used. Standard errors are in parentheses. ****p < 0.001, **p < 0.01, *p < 0.05, +p < 0.1

		Hypothesis 2			
		Model 5	Model 6	Model 7	Model 8
Main variables	Internet Use	0.0180*** 0.000955	0.0127*** 0.00115	0.0179*** 0.000955	0.0126*** 0.00115
	Media Censorship		0.124*** 0.0214	0.0551+ 0.0291	0.0597* 0.0291
	Education		0.00299*** 0.000827		0.00295*** 0.000827
Level 1 variables	Age		-0.000837*** 0.000114		-0.000844*** 0.000114
	Religiosity		0.0342*** 0.00323		0.0340*** 0.00323
	Sex		0.0503*** 0.00323		0.0502*** 0.00323
	Civil Rights		-0,000393 0.00064		-0,000374 0.00064
	GDP per capita (logged)			0.0528* 0.0256	0.0522* 0.0256
Level 2 variables	Democracy			-0,0429 0.0727	-0,0426 0.0727
	Same Sex Marriage			0.281*** 0.0786	0.279*** 0.0787
	Legality of Same Sex relations			0,0267 0.0469	0,024 0.0469
	Latin America/Caribbean			0.239*** 0.0586	0.238*** 0.0587
	MENA			-0,0103 0.0616	-0,00871 0.0616
	Sub-Saharan Africa			-0,0356 0.0796	-0,0357 0.0797
	Western Europe/North America			0.177* 0.0796	0.179* 0.0797
	Asia and Pacific			0.165** 0.0558	0.163** 0.0558
	Constant	1.430*** 0.0345	1.054*** 0.0578	0.675** 0.248	0.586* 0.248
	var(const)	0.627	0.039	0.0150	0.150
var(Residual)	0.187	0.185	0.187	0.185	
Observations	78808	72560	78808	72560	
Groups	53	53	53	53	
Group Minimum	787	643	787	643	
Group Average	1486.9	1369.1	1486.9	1369.1	
Group Maximum	4078	3860	4078	3860	
log likelihood	-45904.877	-41865.256	-45867.245	-41840.171	

Results from hypothesis 2, co-variables of attitudes towards homosexual neighbor

Note: Multilevel (random-intercept) regression using MIXED command in STATA. The maximum likelihood estimator is used. Standard errors are in parentheses. ****p < 0.001, **p < 0.01, *p < 0.05.

		Hypothesis 3			
		Model 9	Model 10	Model 11	Model 12
Main variables	Media Censorship	0.103*** 0.0214	0.108*** 0.0213	0,0401 0.0289	0,046 0.029
	Internet Use	0.00389* 0.00195	0,000195 -0.00211	0.00384* 0.00195	0,000155 0.00211
	Internet Use X Media Censorship (mediainternet)	0.00619*** 0.000748	0.00554*** 0.000785	0.00618*** 0.000748	0.00553*** 0.000785
	Education		0.00299*** 0.000827		0.00294*** 0.000827
Level 1 variables	Age		- 0.000825*** 0.000113		- 0.000832*** 0.000114
	Religiosity		0.0337*** 0.00323		0.0334*** 0.00323
	Sex		0.0500*** 0.00323		0.0500*** 0.00323
	Civil Rights		-0,00046 0.000639		-0,000441 0.000639
	GDP per capita (logged)			0.0541* 0.0254	0.0532* 0.0254
Level 2 variables	Regime type Democracy			-0,0449 0.0721	-0,0444 0.0722
	Same Sex Marriage			0.278*** 0.078	0.277*** 0.0781
	Legality of Same Sex relations			0,0256	0,0229
	Region			0.0465	0.0466
	Latin America/Caribbean			0.243*** 0.0581	0.241*** 0.0583
	MENA			-0,00739 0.0611	-0,00595 0.0612
	Sub-Saharan Africa			-0,0311 0.079	-0,0319 0.0791
	Western Europe/North America			0.167* 0.079	0.170* 0.0791
	Asia and Pacific			0.168** 0.0553	0.166** 0.0554
	Constant	1.188*** 0.0567	1.089*** 0.0575	0.697** 0.246	0.608* 0.246
	var(const)	0.0387	0.0384	0.0148	0.0148
var(Residual)	0.187	0.185	0.187	0.185	
Observations	78808	72560	78808	72560	
Groups	53	53	53	53	
Group Minimum	787	643	787	643	
Group Average	1486.9	1369.1	1486.9	1369.1	
Group Maximum	4078	3860	4078	3860	
Log Likelihood	-45858.425	-41840.338	-45833.126	-41815.313	

Results from hypothesis 3 ,co-variates of attitudes towards homosexual neighbor

Note: Multilevel (random-intercept) regression using MIXED command in STATA. The maximum likelihood estimator is used. Standard errors are in parentheses. ***p < 0.001, **p < 0.01, *p < 0.05.

12.5 Appendix 5 - “Same-sex marriage” variable

This appendix presents the coding for the “same-sex marriage” variable.

Same Sex Marriage			
United States of America	0.5	Rwanda	0
Haiti	0	Zimbabwe	0
Trinidad and Tobago	0	South Africa	1
Mexico	1	Algeria	0
Colombia	0.5	Tunisia	0
Ecuador	0.5	Libya	0
Peru	0	Turkey	0
Brazil	0	Iraq	0
Chile	0	Lebanon	0
Argentina	0.5	Jordan	0
Uruguay	0.5	Yemen	0
Netherlands	1	Kuwait	0
Germany	0.5	Qatar	0
Slovenia	0.5	Kyrgyzstan	0
Cyprus	0	Uzbekistan	0
Romania	0	Kazakhstan	0
Russia	0	China	0
Estonia	0	Taiwan	0
Ukraine	0	South Korea	0
Belarus	0	Japan	0
Armenia	0	India	0
Georgia	0	Pakistan	0
Azerbaijan	0	Thailand	0
Sweden	1	Malaysia	0
Ghana	0	Singapore	0
Nigeria	0	Philippines	0
Australia	0.5	New Zealand	0.5

Legend	
Marriage allowed	0
Civil unions allowed	0.5
Marriage and civil unions not allowed	1

12.6 Appendix 6 - “Legality of same-sex relations” variable

This appendix presents the coding for the “legality of same-sex relations” variable.

Legality of same sex relations			
United States of America	1	Rwanda	1
Haiti	1	Zimbabwe	0
Trinidad and Tobago	0	South Africa	1
Mexico	1	Algeria	0
Colombia	1	Tunisia	0
Ecuador	1	Libya	0
Peru	1	Turkey	1
Brazil	1	Iraq	0
Chile	1	Egypt	0
Argentina	1	Lebanon	1
Uruguay	1	Jordan	1
Netherlands	1	Yemen	0
Germany	1	Kuwait	0
Slovenia	1	Qatar	0
Cyprus	1	Kyrgyzstan	1
Romania	1	Uzbekistan	0
Russia	1	Kazakhstan	1
Estonia	1	China	1
Ukraine	1	Taiwan	1
Belarus	1	South Korea	1
Armenia	0	Japan	1
Georgia	1	India	0
Azerbaijan	1	Pakistan	0
Sweden	1	Thailand	1
Ghana	0	Malaysia	0
Nigeria	0	Singapore	0
Poland	1	Philippines	1
New Zealand	1	Australia	1

Legend	
Same-sex relations allowed	1
Same-sex relations prohibited	0