The Impact of Education on Online Participation.

Does education make the difference?

A Bachelor Thesis written by Kaja Seger

under supervision of Bas Denters and Norbert Kersting.

July 6, 2017

Table of Contents

List of Tables:

List of Figures:

I. Abstract

One of the key elements of democracy is participation. Although traditional participation in European democracies is stated to be decreasing, new participation forms establish. The internet was long seen as a potential remedy for low political participation albeit the expectations were not (yet) fulfilled. The question remains who participates? In The Netherlands, it is argued that participation is predominantly determined by education. Following the argumentation line of Bovens & Wille (2009), higher educated people are overrepresented in political institutions and activities in The Netherlands. This study expands the research on a 'diploma democracy' to the online participation, in social media in particular. Furthermore, possible reasons of why education matters are examined. Education is expected to foster characteristics like political knowledge, internal efficacy and political interest, that later affect the likelihood of engaging online. Surprisingly, education does not directly influence online participation. Education only indirectly influences online participation over political interest and internal efficacy. Moreover, age seems to stimulate the probability to use social media for political participation – younger people are more likely to make use the internet as participation form. A 'rising meritocracy' which is claimed by Bovens & Wille (2009) can thus not be observed in regard to online participation forms in The Netherlands.

***Keywords**: Education, Online Participation, Social Media, Political Participation, Netherlands, Logistic Regression*

II. Introduction

Plato's ideal of a state run by an academic elite is, according to Bovens and Wille, currently present in The Netherlands (Bovens & Wille, 2009: 2). Education dominates the political participation of a citizen to the extent that high educated people are strongly overrepresented in any forms of political activities and institutions. A 'diploma democracy' has arisen and threatens the representative democracy, its legitimacy and stability (Bovens & Wille, 2009: 5). The question arises why people need a 'diploma' to participate and whether this is also visible in newer and unconventional forms of participation. In this study the impact of education on online political participation in The Netherlands is observed. The focus is put on online participation in social media in particular, as its influence is growing as alternative communication channels such as in Arab Spring or Occupy (Loader, Vromen & Xenos, 2014: 145). Understanding social media participation and social networking can be fruitful for understanding future democratic governance (Loader, Vromen & Xenos, 2014: 149). This study follows the question to what extent the level of education influences whether a person uses social media for local political participation. This research further aims to observe possible reasons for why education makes a difference. Using a quantitative study conducted in The Netherlands, this paper will investigate the effect of education over subsequent personal characteristics on political participation in social media.

Several studies have shown that education positively affects political participation. In The Netherlands higher educated people are more active in several political domains than people with lower education (Bovens & Wille, 2009: 17). This phenomena can also be seen in the United States. In a study about participatory inequalities Verba, Burns and Schlozman (2003: 58) argue that inequalities in participation derive from educational differences that can even be passed on by generations – well educated parents have well educated children. In their investigation, Bovens and Wille observe the phenomena of over represented high educated people in various participation arenas, including the internet. Their results illustrate serious worries about a lack of political involvement especially amongst low educated Dutch citizens which would certainly cause fundamental inequalities of a representative democracy. Has this effect also spread to online participation? Research on social media has shown that it facilitates political participation and engagement in civic activities (Kim & Chen, 2015: 320; Christensen, 2011: 9). Can social media thus be a platform for anyone?

In addition, evidences indicate a present 'digital divide' in The Netherlands, also caused by education (Van Deursen & Van Dijk, 2010: 906). If participation in the internet "has become the most popular form of political participation" (Bovens & Wille, 2009: 21) or if it is indeed a potential remedy (Christensen, 2011: 1) for low participation, research should engage on who it actually uses.

But why does education matter? Are higher educated people more competent, (digitally) skilled or motivated to participate? Education itself is not the only determinator for political participation but

rather fosters characteristics that make people participate (Brug, Hakhverdian and Vries, 2012: 243). Bovens and Wille (2009) argue that education and political engagement such as political interest and efficacy are strongly connected. Among the high educated people, political interest and efficacy is much higher (Bovens & Wille, 2009: 37) which thereupon influences a person's intention to use online participation tools (Kersting, 2016: 3; Ayo, Mbarika et al. 2017: 7). In terms of e-participation there may be educational differences not only in the degree of participation but also considering a digital divide.

Social media is a util venue for participatory democracy (Chen & Kim, 2015: 325), easily accessible and can encourage civic engagement (Christensen, 2011: 3). Other findings indicate a link between the use of "online forms of communication (mainly e-mail and forum use) and participation" (online and offline participation) in The Netherlands, arguing that the internet may be seen as a new hope for political participation in the future, especially increasing (online and offline) political participation among young people (Bakker & Vreese, 2011: 451; Loader, Vromen & Xenos, 2014). Considering the potential of online participation in information exchange, communication and participation, threats of a 'diploma democracy' and unequal abilities of citizens to participate ought not to arise from the beginning on. More attention would need to be paid to *who* actually uses social media in a political manner. Is the ability and interest to participate online strongly connected to education? Or does online participation enable citizens to participate in relatively 'easy' forms of political participation and opens possibilities for a broader spectrum of people? Although previous research shows the effect of education on political participation, little research so far has investigated the role of education regarding online participation in social media. Political participation in the internet is augmenting (Kersting, 2016a: 1; 2016b: 99). Social media can be a linking platform for both, bottom-up – to inform policy makers about public opinion – and top-down – to inform the public about policies – participation. Primarily, this research will newly connect the educational effect of political participation to social media as a deliberative participation form. Education in this regard will be investigated as a necessary resource to develop participation competences like political knowledge and internal efficacy, and as a motive stimulating political interest. Both are factors that may influence a person's use of social media to politically participate.

III. Research Question

This research aims to answer following explanatory research question:

To what extent does education influence whether a person engages in online political participation in social media in The Netherlands?

The spectrum of the study is limited to The Netherlands as a unit of analysis. Education is considered to be the independent variable which is expected to explain the outcome of the dependent variable online participation. As education cannot be seen as an exclusive explanation but to foster participation through other characteristics, two subsequent sub-question are formulated. The sub-questions include other, intervening factors to analyze the effect of education on online participation via personal characteristics:

(1) *To what extent does the level of education affects the personal characteristics political Interest, political knowledge and internal efficacy.*

(2) *To what extent do these personal characteristics further influence whether a citizen uses social media for political participation in The Netherlands?*

IV. Theoretical Framework

The theoretical framework summarizes some of the literature concerning the research questions. The discussion is opened with the question whether online participation and social media are indeed a form of political participation and what are their chances and threats. Moreover, the debate about the 'diploma democracy' in The Netherlands is opened and its influence on political participation. Moreover, potential side-effecting characteristics of education and the special role of political interest, knowledge and efficacy are introduced.

Political Participation in Social Media

Political participation are actions done by citizens to influence political outcomes (Brady, 1999). Although it is argued that participation has declined and citizens are less willing to take part in politics, one can also say that political participation is not merely declining but also diversifying (Loader, Vromen & Xenos, 2014: 143). The question is whether social media is a compensation for declining participation or merely an extension of channels for already participating (Christensen, 2011: 2-4; Kersting, 2016b: 109). The internet opened new forms of political participation and was first seen as a potential remedy for the decline in political participation albeit the expectations are not

(yet) fulfilled (Christensen, 2011: 1; Kersting, 2016b: 109). The features of online participation are very diverse and range from direct contact to politicians over online petitions to Facebook activities (Kersting, 2016b). Although the degree to which online participation is used remains rather low, the willingness of citizens to do so is increasing in European countries like The Netherlands, Denmark, Finland and Spain (Kersting, 2016b: 99).

To what extent online participation can be considered as a form of participation is widely discussed by distinct researchers. Critique claims that virtual activism is pointless as it has no direct impact on political outcomes (Shulman, 2005: 113). Furthermore, accusations of Slacktivism summarize that the nature of internet activities in social media is rather to make the participants feel better than to achieve political goals. The same critique is valid for Facebook groups stating that the primary aim is to make statements to friends rather than to have political results (Christensen, 2011: 4). Participation, however, composes of several different forms and although online participation in social media has no direct political outcome neither is attached to certain authorities (Christensen, 2011: 3) it still remains participative. Online participation can be considered as a form of demonstrative participation, as it is of expressive nature and used to express protest, rather than creating a dialogue (Kersting, 2016b: 110). Social media aims at the construction of identity (Kersting 2016b: 95).

In semi-authoritarian states like Russia, internet participation is mainly used to express protest but also to state one's opinion and for discussion (Kersting, 2016b: 111). Online participation in social media can hence also be used for public deliberation (Delli Carpini, Cook, Jacobs, 2004). Public deliberation is a mean of deliberative democracy which can be summarized as a participation shift from "voting-centric" to "talk-centric" democracy that focuses on the formation of opinion through communicative processes (Chambers, 2003: 308). Deliberation is the process of analyzing a problem and identifying solutions (Delli Carpini, Cook, Jacobs, 2004: 317**)**. It aims to find a consensus by debating, discussing and producing reasonable, well-informed opinions (Chambers, 2003: 309). Social media could provide a deliberative platform to enhance better communication and inclusion of citizens. "Why not only help experts communicate with each other, but also assemble, explain, debate, and disseminate the best available information and ideas about public policy, in ways that are accessible to large audiences of ordinary citizens." (Page, 1996: 5).

Social media is about connecting people, it has the possibility to spread information, create public events and reach out worldwide. It can provide a platform for deliberative and demonstrative approaches, which of course relies on the way and extent it is used and on its participants. Through public talk people can develop, express and share their views and learn to understand the positions of others. This kind of participation can appear in a variety of media including internet forums (Delli Carpini, Cook & Jacobs, 2004: 319).

However, the question remains whether all citizens possess the skills to deliberate effectively. Research on online deliberation shows that "participation in online discussions can produce greater awareness of the reasons behind opposing views, but can also produce polarization" (Price & Cappella, 2002: 305). Slacktivism criticism doubts the intention and efficiency of online participation, thus the quality and core of this easily performed participation form. However, most critics acknowledge that even in Slacktivism, there is a political core (Christensen, 2011: 3). Although skepticism about the effectiveness and intentions (self-presentation vs activism) of online participation is raised, it is still considered as a form of political participation. Recent research even suggests a positive but weak relation between online and offline activity (Christensen, 2011: 7) and online activism is an entry to political participation especially for the youth (Kersting, 2016b: 111; Loader, Vromen & Xenos, 2014: 1).

In this study, online participation in social media is examined as a form of political participation.

Education

Bovens and Wille argue that in The Netherlands Plato's dream of a state run by an academic elite has become reality (Bovens & Wille, 2009: 2) and that a 'diploma democracy' – a democracy lead by people with 'diploma' – has arisen in The Netherlands. Their results show that in various domains of political participation the percentage of high educated people is significantly higher (Bovens & Wille, 2009: 19). Also having a look at political institutions, the presence of high educated people is remarkable. The authors argue that around 70 % of the Dutch population has low or medium education and they are almost absent from the political institutions (Bovens & Wille, 2009: 2). These findings only support what is considered to be "common knowledge in political science" (Bovens & Wille, 2009: 17) – that the level of education affects political participation of citizens (Kersting, 2012: 17; 2016a: 4). However, Bovens and Wille furthermore argue that in The Netherlands, educated people have different political interests than the less educated. "Such biases in representational relationships can be a serious threat to the legitimacy and stability of parliamentary democracy." (Bovens and Wille, 2009: 5). Furthermore, according to Bovens and Wille, the use of digital communication technologies such as the internet has evolved to be the most popular way of political participation (Bovens and Wille, 2009: 21). However, the survey only includes the use of internet, emails or sms rather than social media.

In an representative democracy this overrepresentation of the high educated is a serious threat. Following the simple definition that representation is "how the absent thing is made present" (Hanna Pitkin 1967: 10), the presence of the entire population is open to question. Other authors support the relationship between education and political participation in the Netherlands: "considerable political

inequality between the higher and lower educated remains (...)" (Brug, Hakhverdian and Vries, 2012: 244; see also Lindeboom, Lucas and Waterborg, 2012).

However, a different study using the same data like Bovens and Wille, criticizes the conclusion that higher and lower educated people emphasize different political issues (Lindeboom, Lucas and Waterborg, 2012: 251). The authors argue that there is a consensus between the low and high educated people on the top five most serious national problems (Lindeboom, Lucas and Waterborg, 2012: 251). This critique only holds if representation is distributed according to opinions and interests. Even if there is a consensus about the top five national problems, the opinions on best practices how to solve these problems may differ. Moreover, representation does not necessarily needs to be grouped according to political opinions. Representation can also be grouped regarding personal properties such as gender, age, class and education (Cotta, 2000: 492).

Regardless of the political salience of the or lower educated population, there seem to be political inequalities impaired by the degree of education. But why does education matter?

Education and Political Interest, Political Knowledge and Internal Efficacy

Education itself cannot be seen as the only indicator for political participation but rather fosters characteristics that make people participate (Brug, Hakhverdian & Vriesm 2012: 242). The authors sum up that "the higher educated indeed are more likely to participate in politics and further are more likely to be civically engaged, to display higher levels of political interest and lower levels of powerlessness and cynicism." (2012: 243).

Kersting (2016a: 4) distinguishes between two forms of political non-participation: political cynicism and apathy. Political apathy indicates poor political knowledge and interest leading to low internal efficacy – the self-perceived ability to participate. Political cynicism not necessarily indicates low political knowledge but low political interest together with low external efficacy – the perception of 'how much one can change about politics or one's voice counts' (Kersting, 2016a: 4). Since political cynicism and external efficacy are rather a perception of governmental responsiveness and perceived 'external' possibilities for getting involved rather than education-related personal characteristics, it will be excluded from the model. However, internal efficacy, political interest and political knowledge play a crucial role explaining (non-) participation.

People with higher education tend to have better awareness of the political system (Denters & Geurts, 1993: 452) and have more political knowledge than less educated people (Carpini & Keeter, 1991: 607). "Persons with higher levels of education may better understand the political world and recognize ways to influence authorities" (Abramson 1983: 178) which not only underlines the effect of education on political knowledge but also on political efficacy. Findings from Denters & Geurts (1993: 457) indicate that education does not directly affect internal efficacy. However, formal

education indirectly increases the sense of political competence (Denters & Geurts 1993: 457). Common 'push theories' on what encourages political interest suggest education as an influencing factor (Van Deth & Elff, 2004: 478). In a cross-national study several explanatory factors that may foster political interest were investigated (Van Deth & Elff, 2004). Although the explanatory power of individual characteristics such as education was not strong enough to explain differences in political apathy or disinterest across countries, parts of the effect of political interest can still be attributed to education (Van Deth & Elff, 2004: 500). Considering the importance of resources on political activities, Brady et al. (1995) argue that education is important for some political activities, while income determines others political activities. Education, however, is important "because it enhances political activities and civic skills" (Brady, Verba & Schlozman, 1995: 271).

From this theoretical framework following hypotheses are derived:

H1: The higher the level of education, the higher is the person's political knowledge.

H2: The higher the level of education, the higher is the citizen's internal efficacy.

H3: The higher the level of education, the higher is a person's political interest.

The problem of education shaped participation is not solely of representative but rather of normative character. Do lower educated people simply lack the abilities (H1 and H2) or willingness (H3) to participate? Education may cause differences in participation abilities and interest. Distinct attitudes toward participation on the basis of education would represent a different side of the problem – are some people left behind? A political system should not solely be open and interesting for educated people. If the failure of getting involved in online participation forms is the consequence of educational constraints that make it difficult for people to participate due to lesser personal capacities, then there are serious concerns about political online activity. A democracy were only high educated people feel able and encouraged to participate would violate its own principles. Excluding a part of the society on the basis of their education can never represent the will of the majority nor be fair and open.

Education and Online Participation

As already discussed previously, the level of education plays a crucial role on a person's intension, willingness but also abilities to participate in politics.

"The internet has an effect on participation, but this may exacerbate existing differences among citizens in their level of activity, since it is the well–educated and politically interested who take advantage of the technological possibilities" (Christensen, 2011: 2) and further establish a digital divide by the well educated and politically interested using these online forms (Norris, 2001). Thus education may influence online participation due to its impact on political participation but also the

digital divide and the lack of internet skills. Evidences of Van Deursen and Van Dijk indicate that in The Netherlands, the original digital divide of physical internet access has lead to a gap which is more difficult to close: a divide in skills of how to (successfully) use the internet (Van Deursen & Van Dijk, 2010: 893). Their results show that education (among age) is a main contributor to an individual's level of internet skills (Van Deursen & Van Dijk, 2010: 906).

Education not only influences participation itself but also the general internet use which in return will affect online participation. I expect these relationships also to appear considering the use of social media for political participation.

H4: The higher the level of education is of a Dutch citizen is, the more likely is this person online participation in social media.

Political Knowledge, Political Interest and Internal Efficacy and Online Participation

Reasons for non-participation according to Kersting (2012; 2016a) are political apathy and political cynicism. Political apathy indicates a lack of both political interest and participation competences like political knowledge and low internal efficacy – the self-perception to be able and competent to politically participate (Kersting, 2012: 17; 2016a: 3). The lack of political knowledge may prevent people from participating. People with general political knowledge may also be better aware about their possibilities to involve. Politically aware people are more active in politics and are delighted from following politics and their activism (Claassen & Highton, 2009). Participation is further shaped by a person's internal efficacy (Ayo, Mbarika, A. Oni, S. Oni, 2017: 8). Previous studies have shown the impact of political efficacy on their intention for political participation (Almond & Verba, 1963; Beaumont, 2011; Morrell, 2003; Ayo, Mbarika, A. Oni, S. Oni, 2017. Thus, both political knowledge and internal efficacy are shaping a person's participation. Citizens that lack these competences may perceive a barrier to participate and feel incompetent. Education may moderate barriers or chances to participate by increasing a person's political knowledge or internal efficacy.

In this accordance, political knowledge and internal efficacy are expected to increase the likelihood of a citizen's use of online participation in social media.

H5: The higher the political knowledge of a person, the more likely is the person to do online participation in social media.

H6: The a higher the internal efficacy of a person, the more likely is the person to do online participation in social media.

As people are free to participate, competences are not the only explanation for non-participation but also disinterests in politics. Political engagement depends on political interest (Kersting (2016a): 3;

Ayo, Mbarika, A. Oni, S. Oni, 2017: 4). Van Deth (1990: 278) defines political interest as to what degree politics evoke citizen's curiosity. Disinterest in politics can be caused by the citizens' perception of the political processes to be unpredictable or political choices to be irrelevant (Denters & Geurts, 1993: 451). Furthermore, as indicated by Kersting (2012: 17; 2016a, 3) the influence of political knowledge may change in regard to political apathy (low political knowledge) or cynicism (higher political knowledge) but the absence of political interest is a reason for non-participation in both cases: cynicism and apathy. A minimal level of political interest is needed for a citizen to be part of collective decisions. Curiosity or interest in politics often leads to participation (Van Deth & Elff, 2004: 478). People may simply not participate because they are not interested in politics. However, education can increase participation motives such as political interest. Having interest in politics may make people want to share their interest with others and make other people also follow their political interest. Providing that the internet offers an opportunity to gather people and identify others with the same interest, it further may augment their online participation (Kersting, 2012: 26-27; Ayo, Mbarika, A. Oni, S. Oni, 2017: 4). The positive relationship between political interest and (online) participation is also expected to be valid in regard to social media use.

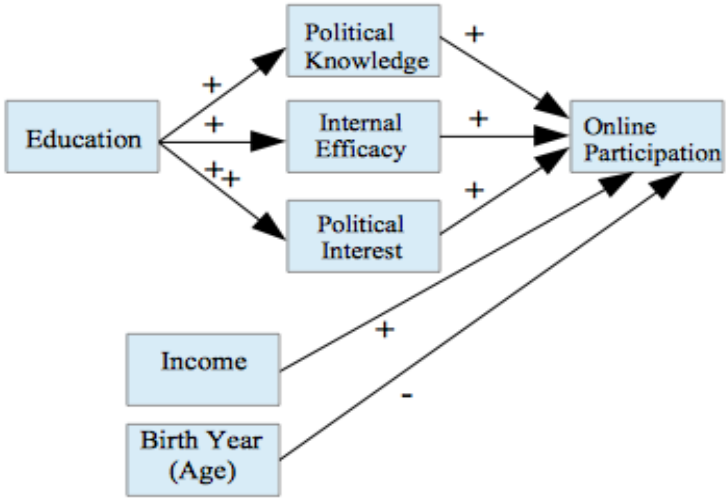
> *H7: The higher the political interest of a person, the more likely is the person to do online participation in social media.*

As control variables, net income and the year of birth (age) are included in the analysis as both can have a spurious relationship with online participation. Income may be a required resource in order to buy access to the internet (Brady, Verba & Schlozman, 1995: 271). Although in the Netherlands 94 % of the households have access to the internet (Seybert, 2011: 2), this is not equivalent to smartphones. In regard to social media, constant presence may positively affect the degree of online participation – which is more the cases using a smartphone. Moreover, the impact of income can be an offspring of the original digital divide (access to internet caused by income) that may still influence use of the internet (Van Deursen & Van Dijk, 2010: 897).

Considering the year of birth, younger people are generally less enagegd in political activities and are more dis-attached from politics (Bakker & Vreese, 2011: 451). Although, younger people interact more in the internet, they are still associated with more political apathy and less participation (Loader, Vromen & Xenos, 2014: 143). Thus the birth year is expected to negatively affect the likelihood of doing online participation.

The causal diagram (Figure) visualizes the hypotheses and expected relationships, including age and income as they are both expected to have a positive impact on online participation.

Figure 1: *Causal Diagram*



V. Research Design

The research design is cross-sectional. All data has been collected at one time and without manipulation. This design enables the comparison of a large data set. Furthermore, the design enables the measurement of various variables and their interrelations by using a logistic regression analysis. However, using a cross-sectional design, several threats to internal and external validity need to be considered.

Interval Validity

Time order

Due to the collection of data at a single point of time, reverse causation is possible to occur. Considering the research design, the independent variable education is expected to affect the dependent variable social media participation via the intervening variables political interest, political knowledge and internal efficacy. In order to establish a causation the independent variable needs to precede the dependent variable in time. Since parts of the effect of education is expected to run via the intervening variables, the intervening variables also need to precede the dependent variable. There is a possible threat to internal validity considering that the use of social media for political participation can also lead to political interest, efficacy and knowledge. Actively posting or commenting political issues online may increase a person's political interest, efficacy and knowledge. The causal effects indeed might be in both directions. Furthermore, these intervening variables are supposed to result from education. Tracing the associations back it is very unlikely that political interest, knowledge and efficacy would lead to an higher degree of education.

Spuriousness

Even if causation exists, a correlation is only given if the relationship is also non-spurious and the possibility of an influence by third variables is excluded. The effect of education works via theoretically plausible intervening variables that link education and online participation. The inclusion of the intervening variables that influence the effect of education on online participation in the theoretical framework already exclude possible spuriousness. Furthermore, other control variables 'year of birth' and 'income' that may confound the relationship are included. Income as an offspring of the original digital divide (access to internet) that may still influence the digital divide and thus the use of social media. Age may be another term influencing online participation.

External Validity

Due to a large data collection all over The Netherlands, the sampling is well generalizable to the whole Dutch population. However, there are some limitations. The study focuses on education and political participation in social media. Thus, the transferability to other countries would require a similar educational system, political culture and social media or internet usage. Furthermore, the study was conducted with Dutch speaking people only which excludes immigrants. In addition, generalizations to another point of time (in future or past) are not possible.

VI. Case Selection and Sampling

In order to answer the research question data from a local election survey (translated from: *Lokaal Kiezersonderzoek)* is used. The data were collected in a survey administered by *Centerdata* in 2016 in The Netherlands. The topic of the questionnaire is "politics and policies in your municipality" ("Politiek en beleid in uw gemeente") (Centerdata, 2016) The population are all Dutch citizens. The data has been collected through an online survey by the LISS Panel – Longitudinal Internet Studies for the Social Sciences (Centerdata, 2016). In total, the panel consists of 4500 households and 7000 individuals and is based on a true probability sample of households (lissdata.nl).

The sample is the best way to answer the research question. The LISS panel best represents the Dutch population due to its broad and representative case selection. Furthermore, the data has been selected in March 2016 and provides a current case selection which is considering the fast changing spirit of the internet and social media and its increasing use from great importance. Due to unavailability of financial and structural resources to conduct a large n cross-sectional study oneself, the LISS panel is the best choice. Apart from its multitude, a broad spectrum of political issues are covered.

VII. Operationalization

The questionnaire from the described sample contains 38 question about “politics and policies in your municipality”. The data is quantitative which allows to compare a large n dataset. Each variable of the distinct hypotheses can be coded, measured and analyzed. The sample size of the questionnaire is 2643. Since only cases will be included where all of the values of the distinct variables are present, the sample size used on the analysis diminishes to 2354 (Appendix D**)**.

The dependent variable “online participation” is operationalized considering two questions from the survey. First, whether the person uses social media to comment on political issues (Question v10_10_, p. 14; Appendix A) and second, whether the person reports over or posts political issues in social media (Question v10_11_, p. 14). On this basis, a dummy variable is created with either 'No' (= 0) or if at least one of the two participation options were chosen 'Yes' (= 1).

The independent variable 'education' is measured in regard to the person's highest diploma succeeded (Question oplmet, Codebook: 39;). The value of the variable ranges between six levels of education: 0 = Elementary school which is a primary school; 1 = *vmbo* which is a secondary school for 'pre-vocational education' and takes four years to graduation; 2 = *havo/vwo* are both secondary schools, graduation from *havo* takes 5 years and from *vwo* six years; 3 = *mbo* is a tertiary school which is oriented towards vocational training; 4 = *hbo* is taught in vocational universities and typically takes four to six years; 5 = *wo* and refers to scientific education, which is taught at universities where bachelor programs take typically three years and can be followed by Master studies and doctorate. Other possible answers were whether the person has 'not yet completed education' or is 'not following any education' are excluded from the variable since they do not give any valid statement about the degree of education and the percentage of the excluded cases is less than 3 % (Appendix E).

For the measurement of the intervening variables 'political knowledge' an index is created. Including three indicators it is aimed to find out how much the respondent knows about local politics. For this purpose, the name of the mayor is asked (Question v33, Codebook: 24); whether the councilors of the municipality are also part of the municipality council (Question v34, Codebook: 24); and whether the person found the responding to these questions difficult (Question eva2+1, Codebook: 32). For the first two question a dummy variable is created with either the correct (= 1) or incorrect (= 0) answer. For the latter, the values ranged between 1 and 5 about whether the respondent found the responding of the questions difficult. In regard to the frequencies the values 1 and 2 are recoded to 1 = did not find it difficult and 3 to 5 to 0 = did find it difficult. On the basis of the three variables an index is created using the MEAN.2. The values range between 0 and 1 (0, 0.33, 0.5, 0.67 and 1). Considering the distribution of the political knowledge index, the values 0,5 (medium political knowledge) and 1 (very

high political knowledge) are represented by less than 1 % of the participants (Appendix F**)** . To have a better distribution of the variable, 0,5 is combined with 0,33 and 1 with 0,67. This leads to a downgrade of the variable which now has the values 0 = 'no political knowledge', 0,33 'little' and 0,67 'medium' as the highest value of political knowledge.

The operationalization of the intervening variable 'internal efficacy' is covered by the question if the participant would consider him-/herself to be well able to play an active role in local politics (Question v24v11, Codebook: 22). The answer possibilities range between 'strongly disagree' (= 1) to 'strongly agree' (= 5) which are recoded to 'very low' internal efficacy (= 1) – if a person does not consider him-/herself to be able to play an active role in politics – and 'very high' internal efficacy (= 5). In regard to the frequencies of the original variable 13 % answered the question with 'I do not know'. As 'I don't know' neither indicates high internal efficacy, nor low internal efficacy, it is collapsed with the middle value of the variable 'neither nor' (= 3). The answer merely indicates that the person has not thought about or considered his/her abilities to involve in politics and can thus be merged with people that neither consider to have high internal efficacy, nor little.

The third intervening variable 'political interest' measures the extent to what a person is interested in local politics (Question v27, Codebook: 23). The values of the variable are: 'not interested' (= 1), 'interested' (= 2) and 'very interested' (= 3).

Moreover, the two control variables 'age' and 'income' are included as metric variables. Income is operationalized with 'personal net income per month in categories' (Question *nettocat*, Codebook: 38). The values range between 'no income' (= 0) over 'less than 500' (= 1) increasing steps of 500 Euros per category. The upper end of the income is form 4000 to 5000 (= 9) and 5000 and more (= 10). The answers 'I do not know' and 'I do not wish to tell' are excluded, since they do not enable a categorization of the income.

The second control variable 'year of birth' is measured on a metric scale of birth years (Question *gebjaar,* Codebook: 34). The values range from 1918 to 1998 (Appendix D).

VIII. Data Analysis

This study aims to examine the effect of different levels of education on online participation in social media in the Netherlands. In order to answer the main research questions of the overall effect of education over certain characteristics on online participation and the subsequent two sub-questions, the analysis is divided in two stages. The first stage answers the first sub-question *to what extent the level of education influences a citizen's political interest, political knowledge and internal efficacy*. It is expected that education shapes personal characteristics that later affect participation. Expectedly,

people with higher education have more political knowledge (H1), internal efficacy (H2) and political interest (H3). The second step in the analysis is to answer the second sub-question *whether these characteristics determine if a citizen engages in online political participation through social media in the Netherlands*. To answer the second questions the combined effects of education and the specified characteristics and social media engagement are analyzed by conducting a logistic regression. It is expected that people with higher education (H4), political knowledge (H5), internal efficacy (H6) and political interest (H7) are more likely to do online participation in social media. Later on and coming back to the main research question, assumptions about the overall relationship between education – including certain personal characteristics that may trigger participation willingness and abilities – and online participation are made.

Assumptions

In order to implement a logistic regression analysis the data and variables are required to meet some assumptions. Firstly, the dependent variable should be measured on a dichotomous scale, with the values 0 and 1; and 1 indicating the desired outcome. The dependent variable 'online participation' is measured in 0 = the person does not follow any of the two participation forms; and 1 = the person does at least one of the participation options. Secondly, the dependent variables can be either continuous or categorical. The two control variables are continuous, while the independent and intervening variables are ordinal scaled, which gives the option to analyze them either in a continuous or categorical way. In this analysis, the logistic regression is conducted measuring the variables as continuous scale, because it best fits the answering of the hypothesis. Thirdly, there should be independence of observations, which is by a cross-sectional study where data is collected at one point of time given. Fourthly, multicollinearity should be absence. (Restore, 2017: 33) In regard to the correlation matrix (Appendix G**)**, multicollinearity is not likely to occur, as the Kendall's tau coefficients between the independent variables are too weak. Furthermore, the relationship between the explanatory variables and the logit of the outcome variable should be linear (Restore, 2017: 32). Problems with linearity of the logit can be tested using the Hosmer-Lemeshow test which is a statistical test for the goodness of fit for a logistic regression model. The results **(**Appendix H**)** show that there is no statistical significance between the observed data and the expected proportions, thus the model fits the data well (Restore, 2017: 48). Lastly, there should be no influential cases in the analysis that may mislead the results. Using the Cook's distance to check for influential cases. If a case has a Cook‟s distance greater than one it may be unduly influencing the model (Restore, 2017: 43). Requesting the Cook‟s distance, a new variable is created using logistic regression in the dataset called *COO_1*. Having a look at the frequencies (Appendix I) of the variable, there are no cases that have a Cook's distance greater than one, hence no influential cases.

Step 1 – Education and Its Effects

In the first stage education and its effect on the personal characteristics political knowledge, internal efficacy and political interest is tested. Due to the ordinal scale of the independent variables and the dichotomous character of the independent variable, nonparametric correlation measurements regarding the Kendall's tau are conducted. In addition, the analysis of cross tabulations gives evidence about the expected impact of education as stated in the hypotheses. For the tabular analysis the number of categories of the education is reduced.

H1: The higher the level of education, the higher is the person's political knowledge.

Considering the results of the cross tabulations the relationship between education and political knowledge, is indeed significant and in a positive direction which supports the hypothesis H2. In regard to the Kendall's tau 0.11, the strength of the relationship is however weak. The cross table (Table 1) shows that comparing people with low and medium levels of education, the percentage of people with a low degree of political knowledge is relatively high compared to people with high level of education. Around 43 % of the people with low or medium education have no political knowledge, whilst 34 % of high educated people have no political knowledge. Furthermore, the percentage of people with the highest scores of political knowledge is the highest amongst people with a high level of education: 20 % of the people with high education compared to 10 % of people with medium and low levels of education have high political knowledge. However, there are only small differences between people with low and medium levels of education in regard to political knowledge. Especially comparing 'no' and 'medium' political knowledge, proportionate differences between high and medium/low educated people can be seen which partly supports the hypothesis.

Table 1: *Cross tabulation: Education and Political Knowledge*

			Education[1]			
			low	medium	high	total
Political Knowledge	no	Count *and* % within Education	274	365	304	943
			43.80%	43.20%	34.40%	40.10 %
	little		293	391	402	1160
			46.90%	46.30%	45.50%	46.40 %
	medium		58	89	178	341
			9.30 %	10.50 %	20.10 %	13.80 %
	total		625	845	884	2354
			100,00%	100,00%	100,00%	100,00%

Kendall's tau-b 0.107; Correlation is significant at 0.01 level

1 Within the cross tabulations, categories of the variable education are combined in order to increase the number of n for a better comparability. Thus the levels of education are 'low education', including primary school and vmbo, 'medium education' which is havo/vwo and mbo, and 'high education' which contains hbo and wo.

H2: The higher the level of education, the higher is the citizen's internal efficacy.

Looking at the results, the correlation between education and internal efficacy is significant, positive and including the Kendall's tau of .21 moderately supports the presumption that higher educated people have a higher level of internal efficacy. The Cross Tabulation (Table 2) shows that among the people with 'high' internal efficacy the percentage of people with a high level of education is relatively big compared to people with medium and low levels of education. Furthermore, the percentage of people with a high degree of internal efficacy is increasing with increasing levels of education. On the other side, the percentage of people with very low internal efficacy is highest amongst people with a low level of education and steadily decreasing with decreasing levels of education. This effect merely disappears looking at people with unstated/medium degree of internal efficacy, where the percentages of people with low, medium or high levels of education are almost equally.

In regard to the cross table there is some significant support for H2 that with increasing levels of education the degree of internal efficacy also increases.

Table 2: *Cross tabulation: Education and Internal Efficacy*

			Education			
			low	medium	high	total
Internal Efficacy	very low	Count *and* % within Education	137	134	71	342
			21.90 %	15.90 %	8.00 %	14.50 %
	low		187	250	183	620
			29.90 %	29.60 %	20.70 %	26.3 %
	Neither nor / medium		242	307	351	900
			38.70 %	36,30 %	39.70 %	38.20 %
	high		40	127	228	395
			6.40 %	15.00 %	25.80 %	16.80 %
	very high		19	27	51	97
			3.00 %	3.20 %	5.80 %	4.10 %
	total		625	845	884	2354
			100,00%	100,00%	100,00%	100,00%

Kendall's tau-b 0.212; Correlation is significant at 0.01 level

H3: The higher the level of education, the higher is a person's political interest.

The next hypothesis H3 investigates the effect of education on political interest. The correlation is significant, but with a Kendall's tau of 0.11 rather weak. The analysis of the cross tabulation (Table 3) also gives some support for the positive direction of the hypothesis. Looking at the table, among the

people with low and medium education the percentage of people with no political interest is higher (around 45 %) than compared to people with a high level of education (33 %). Furthermore, the percentage of people that are very interested in politics is higher amongst people with a high level of education (9 %) than with medium and low levels of education (around 5 %). However, in all representative groups of education, the biggest percentages of people stated to be 'interested' in politics. Thus over all levels of education there is political interest, although the percentage of people among the high educated people is highest. Nevertheless, especially comparing high educated with low/medium educated people there are some differences among the people that are not interested and very interested in politics in regard to the level of education. The strength of the hypothesis is weak but can be confirmed.

Table 3: *Cross tabulation: Education and Political Interest*

			Education			
			low	medium	high	total
Political Interest	not interested	Count *and* % within Education	286	368	290	944
			45.80 %	43.60 %	32.80 %	40.10 %
	interested		308	436	516	1260
			49.30 %	51.60 %	58.40 %	53.50 %
	very interested		31	41	78	150
			5.00 %	4.90 %	8.80 %	6.4 %
	total		625	845	884	2504
			100 %	100 %	100 %	100%

Kendall's tau-b 0.110; Correlation is significant at 0.01 level

To conclude the first stage of the analysis, there are some proportionate differences in the levels of the intervening variables due to the degree of education. Higher educated people tend to have higher political knowledge, internal efficacy and more political interest compared to low educated people. However, although due to the cross tabulation the directions of the hypotheses were confirmed, the strengths remain weak and an increasing trend was mainly visible for the variable internal efficacy. According to Kendall's tau the correlation between education and political knowledge and political interest is weak and moderate for internal efficacy.

Step 2 – Online Participation

In the following, the independent variable online participation is included in the model in order to answer the second sub-question and main research question about the effect of education and its

personal characteristics political knowledge, internal efficacy and political interest on the likelihood to use online participation. In order to make assumptions about the relationship, a logistic regression analysis is conducted in two steps: First, the relation between education and online participation is examined – using a cross tabulation and logistic regression, including the control variables; and secondly by adding the intervening variables. Consequently, assumptions about the overall effect of education on online participation in social media can be made.

The cross tabulation (Table 4) gives first indications about the correlation between education and online participation according to hypothesis 4:

> *H4: The higher the degree of education, the more likely is the person to do online participation in social media*

The correlation between education and online participation is significant at the 0.01 level, however the strength is very weak; Kendall's tau is 0.06. The cross tabulation (Table 4) shows that only 4.8 % of the participants do online participation via social media. Amongst the people that do online participation, the percentage of people with high education is highest (6.3 %) and decreases with decreasing levels of education. This is only a small increase of people doing online participation by increasing levels of education. Nevertheless, the small number of online participants also explains the small differences of percentages within the educational level. In this regard, the first evidences about H4 give weak support.

Table 4: *Cross tabulation: Education and Online Participation*

			Education			
			low	medium	high	total
Online Participation	No	Count *and* % within Education	605	806	828	2239
			96.80 %	95.40 %	93.70 %	95.10 %
	Yes		20	39	56	115
			3.20 %	4.60 %	6.30 %	4.90 %
	total		625	845	884	2354
			100,0 %	100,0 %	100,0 %	100,0 %

Kendall's tau-b 0.055; Correlation is significant at 0.01 level

Logistic Regression

The logistic regression is conducted in two steps. Firstly the independent variable education and the control variables age and income are analyzed. Secondly, the intervening variables political knowledge, internal efficacy and political interest are included and checked for changes in the outcome.

First of all the results show that 95.1 % of the participants do not do any online participation forms in

social media (Appendix J). Thus the probability of a person to not do online participation is 95.1 %. The unequal distribution of the dependent variable restricts the possibilities of the logistic regression analysis (Diaz-Bone, 2006: 232). The Pseudo R2 Nagelkerke indicates the explanatory power of the model and how powerful the predictor are to explain the outcome. Pseudo R2 values below 0.05 show very weak correlation, while values above 0.2 already indicate a strong relationship. Pseudo R2 values above 0.4 barely appear (Diaz-Bone, 2006: 244). The Pseudo R2 of the first-step model is 0.04 (Nagelkerke) and thus indicate a very weak correlation.

Table 5: *Variables in Equation*

	Step 1			Step 2		
	B	Sig	Exp(B)	B	Sig	Exp(B)
Education	0.11	0.16	1.12	0.02	0.78	1.02
Income (cat)	-0.02	0.66	1.02	-0.03	0.57	0.97
Age	0.03	0.00	1.03	0.04	0.00	1.04
Political Knowledge				.49	.27	1.64
Internal Efficacy				0.45	0.00	1.57
Political Interest				0.79	0.00	2.20

Pseudo R2 Nagelkerke: Step 1 0.039; Step 2 0.122

In regard to the results of the first step (Table 5), only the control variable year of birth is significant at the 0.01 p level. While the effect of education was significant in regard to the bivariate correlation using the cross tabulation, in the logistic regression the effect is not significant anymore. Apparently, there is a correlation but no causation between education and online participation as by the inclusion of the third variables the significance disappears. The spurious control variable year of birth now explains parts of the effect that was first attributed to education.

However, the unequal distribution of people that do or do not use social media for politics may mislead also the results. As 95 % of the people fall under the 'no participation' group, it is more likely that someone does not do online participation regardless of the educational level.

Only year of birth (age) has a significant impact on online participation. The direction is positive, indicating that with each additional increase in the year of birth, the likelihood of online participation through social media increases. The odds ratio (Exp(B)) of 1.04 indicates that the probability of doing online participation is higher for younger people. For each additional increase in the year of birth the probability of doing online participation increases by 4 %.

In the second step the intervening variables political knowledge, internal efficacy and political interest are included in the analysis (Table 5). The explanatory power of the 'new' model has quite increased as now 12 % of the variance can be explained by the model (Nagelkerke 0.12) compared to 4 % without the intervening variables.

H5: The higher the political knowledge of a person, the more likely is the person to do online participation in social media use of social media.

The results show that the effect of political knowledge is not significant and thus does not influence the likelihood to do political online participation. The hypothesis H5 can be rejected.

H6: The higher the internal efficacy of a person, the more likely is the person to do online participation in social media use of social media.

Looking at the results for internal efficacy, the effect is overall significant at the 0.01 level. The B coefficient is positive, indicating that increasing units of internal efficacy are associated with an increasing logit of online participation. The odds ratio (Exp(B)) of 1.57 tells that with each unit increase of internal efficacy, the probability of engaging in online participation increases by 57 %. The coefficients give some weak support for the hypothesis 6. With each additional level of internal efficacy a person is 1.5 times more likely to do online participation.

H7: The a higher the political interest of a person, the more likely is the person to do online participation in social media use of social media.

Considering the results for political interest, the effect of political interest is significant and positive indicating that the more political interest is connected to increased probability of engaging in online participation. The odds ratio further support the hypothesis, showing that with each additional level increase in political interest, the probability of doing online participation augments by 120 %. A person that is interest in politics is 2.2 times more likely to do online participation than a person with no political interest.

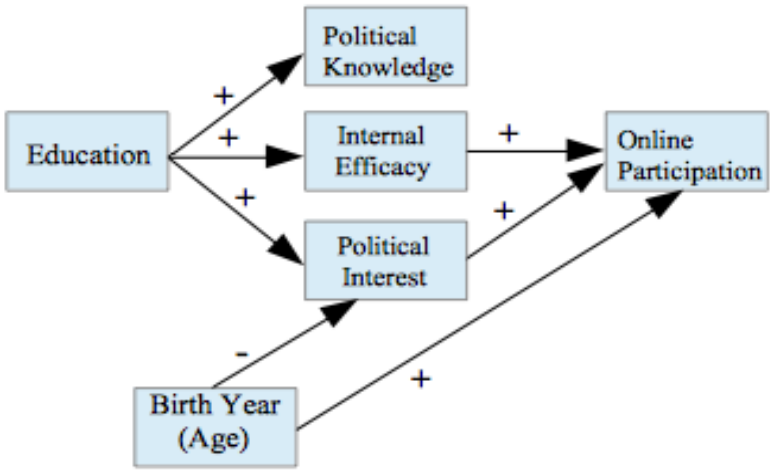
Education does not directly affect online participation, however as education has an impact on political interest and internal efficacy, it also indirectly influences online participation. Considering that the effect is only via the intervening variables, the effect is very weak.

The table furthermore shows that the impact of the control variable age remains significant and the odds ratio has slightly increased from 1.03 to 1.04 (Exp(B)). This indicates that within the new model for each increase in the year of birth the probability of doing online participation now increases by 3.6 %. This increase of the odds by including the intervening variables indicates that the effect of birth year (age) on online participation is strengthened by the intervening variables. Thus age not only has an direct effect on online participation – the younger the person the more likely to do online

participation – but also an weak indirect effect. Especially the year of birth and political interest have a negative and moderate relationship (Appendix E).

Path Diagram

The following path diagram visualizes the conclusion about statistical inference in the overall model.
Picture 2: *Path Diagram*



IX. Conclusion

Theoretical Conclusion

Considering the cross tabulations, all of the correlations are significant. The cross tabulations illustrate positive relationships that are consonant with all the hypotheses. These trends are especially visible comparing low and high level of education. Taking into account the medium degree of education, the distribution is in all cases, except internal efficacy, similar to either low or medium education, and hence does not differ as expected. The effect of education on political knowledge (H1) and political interest (H3) is of a positive direction but weak, and moderate for internal efficacy (H2). With an increasing level of education the degree of internal efficacy – the self perceived competence to play an active role in politics – also increases.

Including online participation, the cross tabulation gives very weak support for a relationship between education and online participation (H4). First of all only 5 % of the people actually are politically active in social media. Considering the high expectations of the internet as a 'potential remedy' for low participation, they are not fulfilled. Nevertheless, among the few people that do online participation in social media, the percentage of higher educated is minimal higher. This weak effect disappears after including the control variable age. Instead, younger people are more likely to do

online participation. This finding is somehow contrary to the literature stating declining and low political participation especially among the youth. However, this decline can mainly be seen in traditional, institutional forms of participation (Bakker & de Vreese, 2011: 453). Generally in western European countries, the internet use of young people is higher compared to older people (Bakker & de Vreese, 2011: 453). The internet is a new medium for alternative ways of participation that attracts younger people proportionately more albeit with limited success (Kersting, 2016b: 111).

In regard to the intervening variables people with higher political interest, are more likely to engage in social media as a form of political participation (H7). Thus people that are already interested in politics are also active in social media. Furthermore, internal efficacy (H6) plays a significant role whether a person participates in social media. The proportion of people that use social media for political issues are characterized by political interest and the perception of being capable and comfortable in engaging in politics (high internal efficacy).

Surprisingly political knowledge did not seem to have an impact on social media participation. One may argue, that people with high political knowledge rather engage in 'more influential' forms of political participation, concerning the accusation of *Slacktivism*. For simple posting and putting 'Likes' the level of political knowledge has no impact. Moreover, social media could merely be used as a demonstrative and expressive form of participation for which political knowledge may not be that influential. On the other hand, without having a participation barrier shaped by political knowledge, social media may offer a barrier-free platform for everyone interested in politics.

Is there a 'diploma democracy' in The Netherlands? Although education fosters personal characteristics that later affect online participation, the impact of education is very weak. There is no direct effect of education, but only indirect over political interest and internal efficacy. The limited influence of education is somehow plausible as social media offers an easy and accessible platform to participate. It does not require to actively search for political news or political activities, as they are offered on the platform itself. Moreover, higher educated people may rather engage in conventional political activities and civic engagement, than the 'less effective tool' (Christensen, 2011: 3). Taking into account that political knowledge does not affect online participation either, it can be concluded that knowledge and education are no participation barriers in terms of social media participation. Thus a 'diploma democracy' has not reached political activities in social media.

Practical Implications

Studies about online participation have shown a positive effect of online participation on other participation forms and civic engagement (Christensen, 2011:9; Bakker & de Vreese, 2011: 460; Kersting, 2016b: 111). Facebook, for example, can be used to inform about political events and demonstrations, but also to spread news about current political topics. Thus it is likely that through the

use of online participation forms like social media people are encouraged to further engage in other forms of participation.

The potentials of social media highly depend on its purpose as participation venue; and whether it is used for demonstrative or deliberative participation. The fact that political knowledge has no significant impact on social media participation may be an indicator for low quality of political statements and debates in social media. Excluding political knowledge from a political platform may increase the risk of opinion polarization and shifting to risky extremes (Christensen, 2011: 2).

Taking into account that neither education nor knowledge influence the likelihood to use online participation can also be a chance. It is young people, with political interest and the perceived capacity to be active in politics that would proportionately more engage in social media. Considering that many young citizens became disappointed with the manifested political parties there is a chance to revitalize a political debate – online. The disenchantment of young people by politics should not be viewed as a lack of interest, but of finding alternative ways to be political active and establish political values (Loader, Vromen & Xenos, 2014: 143).

Clearly the internet will never provide a full and good substitute for traditional activism (Christensen, 2011: 7) but it is an addition. The internet not only may increase the opportunities for deliberation and be an useful utility for citizens to exchange views but may also serve as a tool for studying political activism. The impact of deliberation is highly context dependent, changes with the purpose of deliberation, the subject, the participants, connection to authoritative (Delli Carpini, Cook, Jacobs, 2004: 336). Seeing that neither education nor political knowledge predominantly determines the likelihood of using social media for participation could be seen as a possibility to include more people – especially the young. In order to stimulate online participation, political interest would need to be addressed. In addition, it is important to encourage people to participate and arouse the perception of being able to participate, being capable to be a part of a political movement and encourage people's internal efficacy. The internet can become “a new discursive place not only for political elites”, and in return shift to more 'offline' participation (Vesnic-Alujevic, 2012: 1). However, considering the little use in The Netherlands, there is still room for improvement and chances to include the in a 'diploma democracy' unheard.

Further Research and Limitations

For further research, it may be interesting to investigate on the potentials of social media as a participative tool. Who uses social media for actively mobilizing people, creating events, social networking, spreading news and who only passively 'watches' what is ongoing. Does Twitter offers a potential to get in touch with local politicians?

Although the research question could be perfectly answered, in order to examine online

participation and what kind of people use it, a better predictor is needed. Hence, the effect of age could be further investigated. As young people are generally assumed to engage less in politics, it would be interesting to examine the potentials for online participation for the youth – also in regard to other online participation platforms. If social media participation is a platform 'for everyone' – regardless of education and knowledge barriers – the potentials to use it in a more participative and political way may be worth examining. Is it the use only limited for demonstrative participation or can it extend to a deliberative platform?

Taking into account that social media is relatively barrier-free – from education and political knowledge – investigations upon the quality of the contents and opinion polarization may be interesting, before assuming about 'good hope' for the youth.

Generally the low number of online participants has limited the research. Due to data availability, the investigation of online participation was limited to social media. It would have been interesting to further investigate more forms of online participation. The measurement of the intervening variables could be improved, by including more indicators. In addition, this research is limited to The Netherlands.

X. Literature

Abramson, P. R. (1983). Political attitudes in America: Formation and change. San Francisco: W.H. Freeman.

Almond, G. A., & Verba, S. (1963). The civic culture. Boston: Little Brown.

Bakker, T. P., & Vreese, d. C. H. (2011). Good news for the future? Young people, Internet use and political participation. *Communication Research*, *38*(4), 451-470.

Beaumont, E. (2011). Promoting political agency, addressing political inequality: A multi- level model of internal political efficacy. The Journal of Politics, 73(1), 216–231.

Brady, H., Verba, S., & Lehman Schlozman, K. (1995). Beyond sES: A resource model of political participation. *The American Political Science Review, 89*(2), 271.

Brady, H. (1999). "Political participation," In: John P. Robinson, Phillip R. Shaver and Lawrence S. Wrightsman (editors). *Measures of political attitudes*. San Diego, Calif.: Academic Press.

Bovens, M., & Wille, A. (2009). *Diploma Democracy - On the Tensions between Meritocracy and Democracy*. School of Governance and Department of Public Administration. Utrecht University and Leiden University. Utrecht/Leiden.

Carpini, M. X. D., & Keeter, S. (1991). Stability and Change in the U.S. Public's Knowledge of

Politics. *Public Opinion Quarterly*, *55*(4), 583. doi:10.1086/269283

Chambers S. 2003. Deliberative democratic theory. *Annu. Rev. Polit. Sci.* 6:307–26

Claassen, R. L., & Highton, B. (2009). Policy polarization among party elites and the significance of political awareness in the mass public. Political Research Quarterly, 62(3), 538–551.

Cotta, M. and H. Best, 2000. "Between Professionalization and Democratization: A Synoptic View on the Making of the European Representative", in Parliamentary Representation in Europe 1848-2000. Heinrich Best and Maurizio Cotta, eds. Oxford: Oxford University Press.

Denters, B., & Geurts, P. (1993). Aspects of political alienation: an exploration of their differential origins and effects., Aspects Of Political Alienation: An Exploration Of Their Differential Origins And Effects.

Hakhverdian, A., Brug, v. d. W., & Vries, d. C. (2012). The emergence of a 'diploma democracy'? The political education gap in the Netherlands, 1971-2010. *Acta Politica*, *47*(3), 229-247.

Kersting, Norbert. 2016a. Politische Beteiligung Junger Menschen : Grundlagen - Perspektiven - Fallstudien. Pp. 251–70 in *Jugend Und Politische Partizipation: Online- Oder Offline-Beteiligung?* Wiesbaden : Springer Fachmedien Wiesbaden : Springer VS. doi:10.1007/978-3-658-10186-2_12

Kersting, Norbert. 2012. Electronic Democracy. The Future of Electronic Democracy. Opladen: Barbara Budrich Publihsers. Pp. 11-55

Kersting, N., Prof. Dr. (2016b). Politische online-Beteiligung im internationalen Vergleich. eine revitalisierung politischer Beteiligung? *Zeitschrift Für Vergleichende Politikwissenschaft : Comparative Governance and Politics, 10*(2), 91-113. doi:10.1007/s12286-016-0290-0

Kim, Y., & Chen, H.-T. (2016). Social media and online political participation: The mediating role of exposure to cross-cutting and like-minded perspectives. *Telematics And Informatics*, *33*(2), 320-330. doi:10.1016/j.tele.2015.08.008

Lissdata.nl. Retrieved from: https://www.lissdata.nl/lissdata/about-panel (25.03.2017)

Loader, B., Vromen, A., & Xenos, M. (2014). The networked young citizen: Social media, political participation and civic engagement. *Information, Communication & Society, 17*(2), 143-150. doi:10.1080/1369118X.2013.871571

Morrell, M. E. (2003). Survey and experimental evidence for a reliable and valid measure of internal political efficacy. Public Opinion Quarterly, 67(4), 589–602.

Norris, P. (2001). Digital divide: Civic engagement, information poverty, and the Internet worldwide. Cambridge: Cambridge University Press.

Oni A.A., Ayo C.K., Oni S., & Mbarika V. (2015). Empirical study of user acceptance of online political participation: Integrating Civic Voluntarism Model and Theory of Reasoned Action. *Government Information Quarterly*, (2015 09 06). doi:10.1016/j.giq.2017.02.003

Page, B. (1996). *Who Deliberates?* Chicago: Univ. Chicago Press

Pitkin, H.F., 1967. The Concept of Representation. Berkeley: University of California Press.

ReStore. (2017). National Centre of Research Methods. Module 4: Binary Logistic Regression. Retrieved from: http://www.restore.ac.uk/srme/www/fac/soc/wie/researc h new/sr me/modules/mod4/index.html

Seybert, H. (2011). Internet use in households and by individuals in 2011. *Eurostat statistics in focus*, *66*, 2011.

Shulman, S.W. (2005). "The Internet still might (but probably won't) change everything: Stakeholder views on the future of electronic rulemaking," *I/S: A Journal of Law and Policy for the Information Society*, volume 1, number 1, pp. 111–145.

Waterborg J., Lucas K., & Lindeboom G.-J. (2012). Tensions between meritocracy and democracy A reply to the diploma democracy thesis. *Acta Politica*, *47*(3), 248-258. doi:10.1057/ap.2011.28

Van Deursen, A., & van Dijk, J. (2011). Internet skills and the digital divide. *New Media & Society*, *13*(6), 893-911.

Verba, S., Burns, N., & Schlozman, K. L. (2003). Unequal at the Starting Line: Creating Participatory Inequalities across Generations and among Groups. *The American Sociologist*, *34*(1), 45-69.

Vesnic-Alujevic, L. (2012). Political participation and web 2.0 in Europe: A case study of Facebook. *Public Relations Review, 38*(3), 466-470. doi:10.1016/j.pubrev.2012.01.010

XI. Appendix

Appendix A: Classification of survey items of the independent variable 'Education' and the dependent variable 'Online Participation'.[2]

Education	***Online Participation***
Oplmet: Highest education with diploma	V10_10_: On social media (like Facebook, Twitter, Instagram) commented on Political affairs in your municipality V10_11_: Political affairs in your municipality shared on social media (as Facebook, Twitter, Instagram)

2 All the survey questions have been translated from Google Translator.

Appendix B: Classification of survey items of the intervening variables political knowledge, political interest and internal efficacy.

Political Knowledge	***Internal Efficacy***
V33: Do you know the name of the mayor of your municipality?	V24v11: I am well able to play an active role in local politics.
V34: Are the aldermen in your municipality also in the city council?	***Political Interest***
Eva2t1: Did you find it difficult to answer the questions?	V27: To what extent are you interested in local politics?

Appendix C: Classification of survey items of the control variables year of birth and income.

Year of Birth	***Income***
Gebjaar: Year of Birth	Nettocat: Personal net monthly income in categories

Appendix D: Table 1 presents the descriptive statistics of the included variables. As only the cases are included where no value for one of the variables is missing, the n size is 2354.

Table 1: *Descriptive Statistics*

	Education	Online Participation	Age in birth year	Income in categories	Political Interest	Political Knowledge	Internal Efficacy
N Valid	2354	2354	2354	2354	2354	2354	2354
N Missing	0	0	0	0	0	0	0
Mean	2.80	0.05	1962.71	3.52	0.66	0.25	2.70
Median	3.00	0.00	1961.00	3.00	1.00	0.33	3.00
Std. Deviation	1.44	0.22	17.08	2.03	0.59	0.23	1.04
Minimum	0.00	0.00	1918	0.00	0.00	0.00	1.00
Maximum	5.00	1.00	1998	10.00	2.00	0.67	5.00

Appendix E: Table 2 shows the frequencies of the independent variable 'education'.

Table 2: *Descriptive Statistics, Frequencies of variable Education*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not (yet) in education/ not (yet) completed	15	0.60	0.60	0.60
	Primary School	102	3.90	3.90	4.40
	vmbo	567	21.50	21.50	25.90

	Havo/wo	305	11.50	11.50	37.40
	mbo	632	23.90	23.90	61.30
	hbo	661	25.00	25.00	86.30
	wo	299	11.30	11.30	97.70
	other	62	2.30	2.30	100.00
	total	2643	100.00	100.00	

Valid 2643; Missing 0

Appendix F:

Table 3: *Descriptive Statistics, Frequencies of Political Knowledge (Index Mean.2)*

	Frequency	Percent	Valid Percent	Cumulative Percent	
Valid	0 (no)	1040	39.30	40.30	40.30
	0.33	1185	44.80	45.90	86.30
	0.5	8	0.3	0.3	86.60
	0.67	345	13.1	13.4	100.00
	1 (very high)	1	0.0	0.0	100.00
Total		2579	97.60	100.00	
Missing System		64	2.40		
Total		2643	100.00		

Appendix G:

Table 4: Correlation Matrix

	Education	Online Participation	Political Knowledge	Internal Efficacy	Political Interest	Birth Year	Income
Education	1.00						
Online Participation	0.49**	1.00					
Political Knowledge	0.10**	0.06**	1.00				
Internal Efficacy	0.20**	0.13**	0.23**	1.00			
Political Interest	0.10**	0.10**	0.23**	0.26**	1.00		
Birth Year	0.14**	0.09**	- 0.11**	0.07**	- 0.22**	1.00	
Income	0.34**	- 0.01	0.15**	0.13**	0.14**	- 0.11**	1.00

*Kendall's Tau-b; ** Correlation is significant at the 0,01 level (1-tailed)*

Appendix H:

Table 5: *Hosmer and Lemeshow Test*

Step	Chi-square	df	Sig.
1	6.792	8	0.56

Appendix I: In order to show that none of the Cook's distances of the cases is greater than 1, the frequencies of the created COO_1 variable is showed. As the variable has 2354 cases, only the first three and last seven cases are printed.

Table 6: *Analog of Cook's influence statistics*

	Frequency	Percent	Valid Percent	Cumulative Percent
0.00	1	0.0	0.0	0.0
0.00	1	0.0	0.0	0.1
0.00	1	0.0	0.0	0.1
(...)	(...)	(...)	(...)	(...)
0.11	1	0.0	0.0	99.7
0.11	1	0.0	0.0	99.8
0.12	1	0.0	0.0	99.8
0.12	1	0.0	0.0	99.9
0.12	1	0.0	0.0	99.9
0.13	1	0.0	0.0	100.0
0.16	1	0.0	0.0	100.0
Total	2354	100.0	100.0	

Appendix J:

Table 7: *Classification Table*

		Predicted		
		Online Participation		
Observed		No	Yes	Percentage Correct
Online Participation	No	2239	0	100.0
	Yes	115	0	0.0
Overall Percentage				95.1