Arguments For Anonymity

H. Webb, N. Savage and P. Millard

School of Computing, University of Portsmouth, Portsmouth, United Kingdom
e-mail: hazel.webb@myport.ac.uk

Abstract

This research identifies the balance of arguments relating *for* and *against* the use of online anonymity in society in the context of linking users to their true identity via real name policies. Survey results were extracted based on occupational status, focussing on both technology students and those in full time employment, which primarily consisted of staff at a High School. This provided a range of awareness and information (for instance with regard to online risk) of which is believed to influence the participants opinions and attitudes.
In summary, results suggest students are less inclined to sacrifice the element of freedom and privacy associated with anonymity in comparison to those in full time employment. Students appear more aware and concerned with the barrier and difference between reality and virtual reality and, should they be identifiable, are likely to change their behaviours as a result. However, this measured as less of a concern for those in full time employment, who seemed more inclined than students towards the introduction of real name policies.

Keywords

Cyber-disinhibition, Anonymity, Real name policy, Privacy

1. Introduction

With the volume of daily Internet users and the availability of the Internet in UK households steadily increasing (Office for National Statistics, 2014), it is of little surprise that cybercrime is "the fastest growing form of crime" (Hodges, 2007). Goleman (n.d.) suggests use of the Internet hinders the function of the brains inhibitory circuits that are responsible for keeping unruly urges in check, known as cyber-disinhibition. Whilst Goleman goes into little detail as to *how* this cyber-disinhibition is instigated, links can be identified from Sulers' theory of The Online Disinhibition Effect (2004) to assist in identifying its causes. Suler defines six factors which primarily construct this effect; dissociative anonymity, invisibility, asynchronicity, solipsistic introjection, dissociative imagination and minimization of status and authority. However, "most approaches to understanding the phenomenon confine themselves to considering the impact of a single factor – anonymity" (Gackenbach, 2011, p. 89). Having the understanding of anonymity as a main influence of cyber-disinhibition, it seems logical that linking users to their true identity will control the propensity for cybercrime and deviant behaviour online, known also as toxic disinhibition (Suler, 2004).

The effects of disinhibition will apply to both the computer-assisted and computer-focussed categories of cybercrime, particular focus in the context of this research is

that of computer-assisted cybercrimes. These consists of traditional crimes which are able to be committed without the use of a computer (Furnell, n.d.) and are subsequently increased in scale and reach as a result, for instance cyberbullying.

With regards to social media in particular, a popular platform for cyberbullying, the Select Committee on Communications (2014, p. 20) state "the law is rarely the most effective tool for changing behaviour: effective law tends to reinforce, rather than in itself change, social attitudes". As a result, it is suggested a suitable method of changing a user's behaviour is by means of policy interventions, such as Real Name Policies. However, there are a number of arguments *for* and *against* the introduction of such policies, as identified by Reusch & Märker (2012) which can be supported by other authors, these include:

For:
- The Self-Control Argument

   Increasing the linkability to one's true identity will provide increased self-regulation based on users being held accountable for their online activities. Research into the impact of the South Korean Real Name Verification Law (temporarily introduced in 2007, which involved linking users accounts to their resident registration numbers for websites with a daily viewership over 100,000) displayed an overall reduction in uninhibited behaviours, thus proving the validity and significance of this argument (Cho, 2011; Reusch & Märker, 2012).

- The Legal Argument

   Holding users legally accountable for their actions by generating identifiable profiles will prove beneficial for law enforcement when dealing with criminal acts. As stated by the Select Committee on Communications, "there is little point in criminalising certain behaviour and at the same time legitimately making that same behaviour impossible to detect" *(*Select Committee on Communications, 2014, p. 16; Reusch & Märker, 2012).

- Offline = Online Argument

   If we are accountable with our own names offline, it should not be any different online. This is based on the concept of real names being "natural", where people are forced to communicate via their real name in the real world and this should therefore be emulated in the online world (Edwards & McAuley, 2013, p. 2; Reusch & Märker, 2012).

Against:
- The Open Participation Argument

   Forcing users to register with their real name may reduce their willingness to participate, particularly regarding vulnerable groups such as victims of crime or abuse, authoritarian regimes or political activists. However, previous research into the South Korea Real Name Verification Law revealed a decrease of participation on a short-term

basis only, with little impact overall in the long-term (Reusch & Märker, 2012; Cho, 2011).

- The Freedom Argument

    It is maintained that "every user has the right to freedom of expression" (Select Committee on Communications, 2014, p. 5) and as a result, this could be infringed with the introduction of a real name policy. In addition, the Internet enables the opportunity for multiple identities of which can be creatively explored (Reusch & Märker, 2012).

- The Privacy Argument

    Section 1 (3) of the Human Rights Act 1998 states "Everyone has the right to respect for his private and family life, his home and his correspondence" (Human Rights Act 1998) where rights to privacy existing offline should also be applied online (UK Statement at the Panel on the Right to Privacy in the Digital Age, Human Rights Council, Geneva, 2014). In addition, this request for personal data also brings an increased risk of information leakage (Reusch & Märker, 2012) causing an increase in risk, for instance regarding harassment and identity theft.

It is suggested Western societies gravitate towards websites with lower levels of anonymity (Morio & Buchholz, 2009), however there are a number of other influences suggested to determine the extent of each argument on an individual user. For instance, an individual's ability to make privacy-sensitive decisions is believed to be influenced by; incomplete information (with regards to externalities, risk and uncertainties), bounded rationality (individual's ability to acquire, memorise and process all relevant information) and systematic psychological deviations (deviation from the rational strategy) (Acquisti & Grossklags, 2005). Therefore, these elements with regards to each individual should be considered when conducting primary research, as they may influence the responses that are collected.

2. Methodology

In order to determine the significance and extent of the proposed arguments for and against addressing anonymity, in particular identifying any primary source of controversy, an online survey was conducted. This questioned the participants' opinions and attitudes regarding the linkability between their offline and online identity in the context of real name policies. Questions were split into three main categories; anonymity, real name policies and demographics. Though consisting of mainly closed-ended questions, open-ended questions were asked in order for participants to justify particular responses should they wish to do so.

Whilst the focus of this research is aimed at identifying the significance of each argument in society, theories relating to the availability of information in decision making, such as risk, also proves significant in such an investigation. As a result, the

distribution of the survey was mainly focussed on two main groups (where it is assumed the degree of information varied) of which could be compared;

- Computing students
- Staff at a High School

3. Results

When collating the responses from students (50), full time employment (52) part time employment (9) and unemployed (3), research demonstrated the extent of each argument and how greatly it varied. For instance as illustrated in Figure 1, when looking at the responses as a whole, it was found 54% of respondents either definitely or moderately agreed with the statement which debated the offline = online argument (Reusch & Märker, 2012). Should these be extracted by students responses and those in full time employment (referred to as FTE), it reveals that in fact only 40% of students either definitely or moderately agreed, a difference when compared to the 63% of those in FTE.
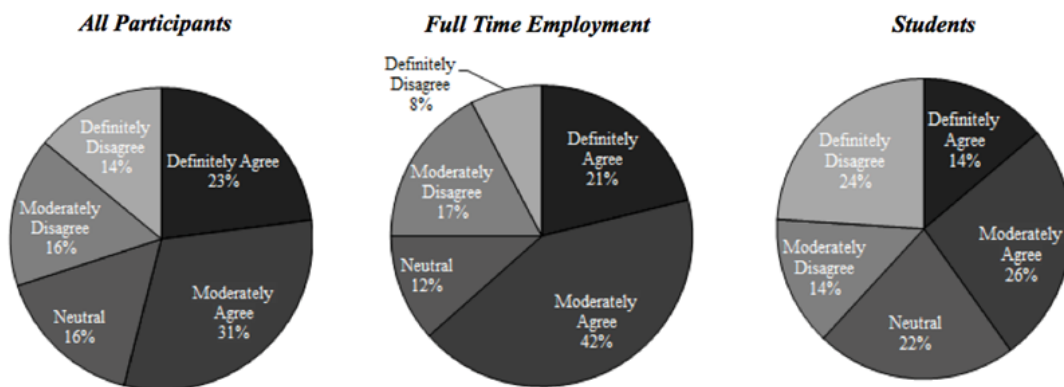

Figure 1: Differentiation Between Results

As a result, the responses to this survey, summarised in Table 1, have been extracted based on the participants occupational status, focussing on students and those in full time employment. Whilst all responses for each question should be considered, answer(s) which received a high number of responses in each group have been highlighted in order to determine on average which arguments are deemed of least and most significance.

Question	Response (%)					
	Group	**DA**	**MA**	**N**	**MD**	**DD**
People should have the ability to use the Internet anonymously for certain kinds of online activities.	Students	**66**	*22*	*4*	*8*	*0*
	FTE	*21*	**46**	*6*	*15*	*12*
We are accountable with our real names offline, so it shouldn't be any different online.	Students	*14*	**26**	**22**	*14*	**24**
	FTE	*21*	**42**	*12*	*17*	*8*
Introducing Real Name Policies would prevent me from visiting certain websites.	Students	**32**	**30**	*18*	*16*	*4*
	FTE	*6*	**33**	*11*	**29**	*21*
I would consider more carefully what I am posting online if I had to use my real name.	Students	**52**	*20*	*8*	*14*	*6*
	FTE	**21**	**21**	*23*	*18*	*17*
The introduction of Real Name Policies would make me feel safer online.	Students	*2*	*24*	*20*	*24*	**30**
	FTE	*23*	**35**	*21*	*15*	*6*
I think real name policies should be more widely used.	Students	*4*	*20*	*20*	*22*	**34**
	FTE	*17*	**35**	*27*	*13*	*8*
I would be willing to sacrifice my privacy for the purposes of a safer online experience.	Students	*0*	*20*	*16*	*26*	**38**
	FTE	*21*	**38**	*6*	*27*	*8*

-	Response (%)		
	Group	**Yes**	**No**	**Don't Know**
Have you ever decided not to use a website because they asked for your real name?	Students	42	48	10
	FTE	42	52	6

-	Response (Number of responses)**					
	Group	**A**	**B**	**C**	**D**	**E**	**F**
Why do you prefer to use an anonymous identity?	Students	**25**	*3*	**41**	**28**	*4*	*0*
	FTE	*10*	*0*	**35**	*15*	*9*	*1*

DA: Definitely Agree **MA:** Moderately Agree **N:** Neutral **MD:** Moderately Disagree **DD:** Definitely Disagree

A. *I can be more open and honest.*
B. *I am able to make mean-spirited remarks without being identified.*
C. *To protect my identity (for security purposes)*
D. *To provide equality between users (e.g. free of gender, race or appearance).*
E. *I do not user an anonymous identity as I prefer not to.*
F. *Other*

Table 1: Survey Results - Quantitative Data

The participants also had the opportunity to expand on their responses given to two of the questions, some of which have been identified in Table 2, outlining areas of particular interest.

We are accountable with our real names offline, so it shouldn't be any different online.		
	Students	**Full Time employment**
Definitely or Moderately Agree	*"People who use the internet to 'troll' or target a group of people based on gender, sexual orientation or religion should be held accountable should anything happen to the targeted individual."*	*"I am me and therefore I shouldn't pretend to be anybody else except who I am"* *"Certain online activities are more meaningful if real names are used."*
Definitely or Moderately Disagree	*"Sometimes I can say and do things online that don't necessarily reflect me as a person. I like the anonymity that being online gives me so I don't face repercussions for absolutely everything I do."*	*"People feel more able to express themselves behind anonymity. Whilst this can sometimes lead to cyber-bullying & hate crime it also allows them to be who they feel they can't be in real life."*
I think Real Name Policies should be more widely used.		
	Students	**Full Time Employment**
Definitely or Moderately Agree	*"I would feel more secure and would find the person more trustworthy if they used their real name."*	*"I am naïve and assume that most people used their real names - clearly I do not live in the real world!"* *"To protect all innocent parties, particularly children"*
Definitely or Moderately Disagree	*"I do not want everyone to know my business. At times people benefit from being anonymous as they are not judged."* *"Real Name Policies do not make you any safer. The opposite is true. In addition, Real Name Policies are a way for governments to stifle free speech and activism on the internet. Anonymity is important."*	*"You need to protect yourself from fraud or identity theft, if you have a limited understanding of what your using online a fake name can give you reassurance"*

Table 2: Survey Results - Qualitative Data

Participants were asked to provide some basic details, of which can be seen in Table 3 in order to assist in the analysis of the results. This identified that, on average, the majority of students spent between 3-9 hours online with those in full time employment spending between 0-6 hours online. It was also identified that of the students asked, they were predominantly male.

Question	**Response (%)**				
		Male		**Female**	
Gender:	Students	82		18	
	FTE	44		56	
-	**Response (%)**				
On average, how often would you say you go online each day?(hours)		**Under 3**	**3-6**	**6-9**	**9-12**	**12 +**
	Students	4	34	36	14	12
	FTE	34	46	10	8	2

Table 3: Survey Results - Participant Demographics

146

4. Discussion

The results themselves demonstrated the diversity in attitudes and opinions associated linking a user's offline and online identity. It can be assumed this range in opinion is the main source of controversy when introducing such a policy, with such a diverse balance between the arguments for and against the introduction of a real name policy.

The overall consensus of the student results demonstrated an increased preference in anonymity online as opposed to being identifiable, however this was deemed less significant for those in full time employment. The majority of students felt they had the right to use the Internet anonymously should they wish to do so and whilst to a lesser degree, this also proved the case for those in full time employment. When looking at the purposes of anonymous identities, both groups showed similarities suggesting these identities are primarily used in order to protect their own identity, with a significant volume of students also stating that being anonymous enables them to be more open and honest and provides equality between users.

However, should a real name policy be introduced, results suggest one of the main areas of concern for students would be in relation to the privacy argument (Reusch & Märker, 2012), with the vast majority suggesting they would not be willing to sacrifice their privacy for the purposes of security. One student suggested that real name policies allow others to participate in more focussed and personal harassment. However, this proved less of a concern for those in full time employment, where it was stated such measures will "protect all innocent parties, particularly children" as criminals can be more easily identifiable. Whilst not applicable to all of the responses, this demonstrates the differing opinions between being identifiable for a matter of protection or viewing it as the enabler to target attacks.

In addition, results suggest that students' online behaviour would also be likely to change as a result, for instance they would be less willing to participate on certain websites, known as the open participation argument (Reusch & Märker, 2012). It is suggested that requiring the use of a user's real name has previously prevented users, both students and those in full time employment, from using a particular website, however only a third of those in full time employment agreed that the requirement to use their real name online would reduce the likelihood of their participation. Taking this into consideration, a previous study into the impact of the South Korea Real Name Verification Law showed a reduction participation on a short-term basis only (Cho, 2011), therefore it can be loosely suggested that on a long term basis, this may not be a significant issue, however this cannot be evidenced without repeating the study conducted by Cho (2011).

In addition, the majority of both students and those in full time employment suggest they would consider what they are posting online should it be linkable to their true identity, though proved to a significantly lesser degree for those in full time employment. Several of the open-ended responses from students demonstrated a differentiation and detachment between virtual life and reality, thus reducing the

element of accountability associated with their online activities (all of which can be attributed to cyber-disinhibtion (Suler, 2004; Goleman, n.d.)). For instance, as stated in Table 3, a student added "sometimes I can say and do things online that don't necessarily reflect me as a person" later suggesting they do not have to face the repercussions of their actions in the real world. The prevalence of this and similar responses describe the *freedom* argument (Reusch & Märker, 2012) as an important factor for students. This also proves significant for some of those in full time employment, however not to the same extent as students. For instance as seen in Table 3, one participant in full time employment stated "I am me and therefore I shouldn't pretend to be anybody else except who I am" suggesting a greater acceptance and confidence with one's own identity.

Moreover, one participant in full time employment who agreed that real name policies should be implemented, stated "I am naïve and assume that most people used their real names - clearly I do not live in the real world!", whilst this may indeed be an isolated case, this may indicate the value of incomplete information in making decisions, where users are unaware and misinformed of the risks in cyberspace which influences the decision of which they ultimately make.

As indicated, one method of interpretation when conducting analysis was to look at these in terms of what a user would need to consider when responding to each question. For instance, amongst other factors it is suggested an individual's knowledge of the externalities, risk and uncertainties will influence their decision (Acquisti & Grossklags, 2005). As a result, the questionnaire was distributed to technology students of which it was believed may have a greater understanding of these and by contrast (though not explicitly), to staff at a High School. Whilst this approach was initially taken, it was noted that there appeared to be a distinct differentiation between the opinions reflected by these groups; students appear to value anonymity and the ability to create an online persona separate from reality, whereas those in full time employment seem more content and established within their own identities and are therefore happy to extend this into cyberspace. However, this cannot be directly attributed to occupational status, it could be inferred a result of age (where the average age was higher for those in full time employment) or time spent online (where students generally spent an increased amount of time online in comparison to those in full time employment).

5. Conclusion

This research highlights the key concerns in introducing anonymity reducing measures in the context of real name policies in relation to; the self-control argument, the legal argument, offline = online argument, the open participation argument, the freedom argument and the privacy argument (Reusch & Märker, 2012).

The results demonstrate the diversity in attitudes towards generating a linkability between users' offline and online identities if viewing all of the collated results. However, if differentiating between students results (of which were technology

students) and those in full time employment (primarily staff at a High School), it identified several areas by which attitudes and opinions differed. Based on these results, students seem less inclined to sacrifice their privacy for the purposes of security, preferring to use (or at least having the ability to use) anonymous identities, with several students suggesting they prefer having the potential to differentiate their identities between the virtual and real world and the freedom this entails.

The results suggested those in full time employment seemed more inclined than students to embrace the introduction of a real name policy, however agree that this would cause them to consider more carefully what they were posting online and what websites they are visiting. Whilst this also proved a concern for students, those in full time employment seem more inclined to make this sacrifice.

It was initially suspected that the availability of information, for instance the participants' understanding of risk and uncertainties, was an influence the decision making process, such as when privacy-sensitive decisions *(*Acquisti & Grossklags, 2005). Whilst technical ability may have played a part in shaping the responses gathered, as previously discussed, this cannot be directly linked as a causation. Moreover, there appeared to be a distinct differentiation between the use of anonymity which may influence the way in which a participant is likely to respond; students appear to value anonymity and the ability to create an online persona separate from reality, whereas those in full time employment seem less concerned with this aspect of anonymity and prove more content with their true identity, therefore more willing to extend this into cyberspace. As a result, this may be influenced by age (where the average participant age was higher for those in full time employment) or time spent online (where students generally spent an increased amount of time online in comparison to those in full time employment).

6. References

Acquisti, A., & Grossklags, J. (2005). Privacy and rationality in individual decision making. *IEEE Security & Privacy*, 26 - 33.

Cho, D. (2011). Real Name Verification Law on the Internet: A Poison or Cure for Privacy? Pittsburgh, Pennsylvania.

Edwards, L., & McAuley, D. (2013). *What's in a name? Real name policies and social networks*. Paris.

Furnell, S. M. (n.d.). *Categorising Cybercrime and Cybercriminals: The Problem And Potential Approaches*. Plymouth.

Gackenbach, J. (2011). *Psychology and the Internet: Intrapersonal, Interpersonal and Transpersonal Implications*. Burlington: Academic Press.

Goleman, D. (n.d.). Cyberdisinhibition. In n.d., *What is your dangerous idea?* (pp. 74-76).

Hodges, M. (2007). Review: Cybercrime: The Reality of the Threat. Retrieved January 14, 2015, from https://www.suffolk.edu/documents/jhtl_book_reviews/Hodges07.pdf

Human Rights Act 1998. (n.d.). Retrieved March 13, 2015, from Legislation Gov UK: http://www.legislation.gov.uk/ukpga/1998/42/schedule/1

Morio, H., & Buchholz, C. (2009). *How anonymous are you onliine? Examining online social behaviours from a cross-cultural perspective.* London: Springer-Verlag London Ltd.

Office for National Statistics. (2014). *Internet Access - Households and Individuals 2014.*

Pakes, F., & Pakes, S. (2009). *Criminal Psychology.* Cullompton: Willan Publishing.

Reusch, M. A., & Märker, O. (2012). CeDEM 12 Conference for E-Democracy and Open Government. *Conference for eDemocracy and open Government.* Austria: Danube-University Krems.

Select Committee on Communications. (2014). *Social Media and Criminal Offences.* London: House of Lords.

Suler, J. (2004). The Online Disinhibition Effect. *Cyberpsychology & behaviour*, 321-326.

Uk Statement at the Panel on the Right to Privacy in the Digital Age, Human Rights Council, Geneva. (2014, September 12). Retrieved March 13, 2015, from Gov UK: https://www.gov.uk/government/world-location-news/uk-statement-at-the-panel-on-the-right-to-privacy-in-the-digital-age-human-rights-council-geneva