



UNIVERSITY *of* LIMERICK

O L L S C O I L L U I M N I G H

Final Year Project Report

**University of Limerick students’
perspective towards Net Neutrality in the
context of Irish politics**

By: Barry O’Riordan

ID: 13144278

Course: Computer Games Development

Supervised by

Tabea De Wille

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Abstract

This project aims to investigate the University of Limerick student body's general opinion on the subject matter of Net Neutrality and how it relates to the current Irish political climate. A questionnaire was distributed to all University of Limerick students email accounts and those who were eligible were offered to give their opinion on various areas of the subject matter of Net Neutrality. The sections within the questionnaire included questions on the students' current knowledge on the area and questions to try gain an understanding on if they believed Net Neutrality was an issue in Ireland today. To coincide with the questionnaire, I also contacted the three prominent Irish political parties to record their current stance on Net Neutrality. To back up the current stance they provided me, research on public announcements by the political parties will be utilized to investigate if the parties are actively working towards safeguarding Net Neutrality, the opposite, or if they haven't given any public stance in the past. To support these areas, research on the current practices within Ireland that pertain towards Net Neutrality will give a picture on if Net Neutrality is already at risk within Ireland. Alongside the investigation, research on the last 5 years of Irish newspapers will be used to investigate if and how the Irish media is reporting on Net Neutrality in Ireland as this one of the main resources in which the Irish public gains information.

Over the course of this project, more than 300 students' opinion and knowledge on Net Neutrality was acquired and the stances of the Fianna Fáil, Sinn Féin and Fine Gael on Net Neutrality was recorded. To support this data, research on the Irish media's coverage on Net Neutrality and the current practices in Ireland that may go against the principles of Net Neutrality was conducted.

The aim is to understand the University of Limerick's general student's opinion on Net Neutrality, verify if their opinions line up with the Irish political party's stances or if they differ and to find answers on why they align or not.

Declaration

This Final Year Project is presented in partial fulfilment of the requirements for a
B.Sc. in Computer Games Development.

I hereby declare that this project is entirely my own work, in my own words, and that
all sources used in researching it are fully acknowledged and all quotations properly
identified. It has not been submitted, in whole or in part, by me or another person, for
obtaining any other credit / grade. I understand the ethical implications of my
research, and this work meets the requirements of the Faculty of Science and
Engineering Ethics Committee.

Signature:

A handwritten signature in black ink, appearing to read "Barry O'Riordan". The signature is written in a cursive, flowing style with a large initial 'B'.

Date: 17/04/2018

Acknowledgements

I would like to sincerely thank my supervisor Tabea De Wille for all her help, support and patience throughout this project. Pushing me to make our weekly meetings and always carving out time to give me feedback on my project was critical in me completing the project. She was the best supervisor I could ever ask for. I would also like to thank all the lecturing staff of the University of Limerick for the past four years of guidance.

I would especially like to thank my parents and family for their love and encouragement. Thank you, finally, to all my friends for their backing and friendship over the years.

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Chapter 1: Introduction

To define Net Neutrality, it “*prohibits Internet Service Providers (ISPs) from speeding up, slowing down or blocking Internet traffic based on its source, ownership or destination*”. (Kramer, Wiewiorra, Weinhardt, 2013)

Net Neutrality ensures that everybody has access to the online content and services they want, without any discrimination or interference. Restricting online traffic can put start-up businesses and small and medium-sized enterprises (SMEs) working online at a disadvantage as larger firms could have their traffic fast-tracked - and consumers who use free or cheap Voice over Internet Protocol (VoIP) services may find their service limited. (European Commission, 2017)

1.1 Background

In recent years the topic of Net Neutrality has become a controversial topic due to the events in the USA and the Federal Communications Commission rumoured role of trying to remove the established laws that protect an open and free internet. (CNN, 2017)

Because of Ireland being within the European Union, the country is within the Digital Single Market which allows all Irish citizens the ability to freely travel across any European Union country to work, live, study or shop without having any bureaucratic barriers to enter any EU country. Accompanying this, the European Union currently still upholds Net Neutrality laws across all its member countries. (European Commission, 2018)

1.2 Motivation

The increasing tensions about Net Neutrality laws has been reported on frequently in the USA (CNN, 2017), however in Ireland it is not as discussed, possibly due to the current EU laws that uphold Net Neutrality principles. (European Commission, 2018) Therefore, there can be an assumption that European Union countries are safe, and the topic is not reported on as often. Because of the scarcity of reporting the public can be misinformed on Net Neutrality or have no general knowledge of the subject matter at all. This can be seen when looking at Irish media coverage in the past, for example, The Irish Times

reported on the topic of net neutrality 43 times in a 10-year span with a vast number of these reports not being related to Ireland at all. (The Irish Times, 2018)

This brings a motivation to investigate the consensus of a selection of people within Ireland to understand their opinions and gather information on their general knowledge around various Net Neutrality areas and scenarios. Upon some research it is evident that there has not been any research on the Irish public's opinion of Net Neutrality and most reports on internet usage by the Irish public is outdated. For example, in 2003 it was reported that 56% of a surveyed population within Ireland use the Internet for personal uses, and of that number, 36% used it every day or nearly every day. This meant that 20% of people in Ireland used the Internet every day or nearly every day (O'Donnell, 2003). When comparing those findings to a recent survey in 2017 that surveyed a population within Ireland discovered that 70% of the surveyed population used the Internet every day, with 9% using it at least once a week, 2% using it at least once a month and 19% that haven't used it within the last 3 months (Central Statistics Office, 2016).

Due to the gap in time between these reports, seeing the growing prominence of daily Internet usage every day and the lack of information about the public's knowledge on Net Neutrality it is a driving factor to research the general opinion of a population within Ireland and find out their general knowledge on the subject area of Net Neutrality, it's benefits and the consequences of a fading enforcement of the principles of Net Neutrality. To accompany the lack of information available, researching the stances of Irish political parties on the area of Net Neutrality is needed to understand if that will be a linking factor to the general opinion on Net Neutrality. This can be seen if the parties were active on keeping the Internet free and open or if they chose to not comment which didn't bring it to the public's attention.

It is important to understand if there is a disconnect between the political parties. Young students are the future of Ireland, political parties have the responsibility to serve the concerns of everyone. This is one of the factors on why it is important to undertake this research, there may be a gap present on how student's views align or not with the political parties in Ireland and since technology as we move forward become more integrated with our lives it

needs to be researched on if political parties today are out of touch with technological issues. It's better to see if there's a disconnect present today and not sometime in the future when it may matter.

1.3 Overview

To look at the project, its focus is to gain the University of Limerick students' opinion and knowledge on Net Neutrality through a questionnaire. To quickly overview what will be covered in this report, research was carried out to investigate if a disconnect between the younger generation and political parties and to also research if there have been any studies on public opinion on Net Neutrality to serve as a basis for my study. The methodology of the study is detailed, from the questionnaire created, the plans to contact local political party representatives and the decision on getting direct responses from the party offices. The questionnaire results serve as a primary piece of work in this study due to them representing the students' knowledge and opinions on Net Neutrality, from these results, I will discuss all aspects of the study and if the statistics adhered to my pre-conceived notions prior to this study and why or why not. For all the data I also researched for answers on why some trends are present to try and give weight to the responses but also to point out any possible bias present and why this came about. The other primary piece of work is the stances gained from the political parties and the research done around their stance to see what action has been taken on the subject of Net Neutrality. From these pieces of work, I'm able to discuss all the findings I have and try to identify explanations on the trends in the information I gathered. To conclude, I will use everything I discussed and see if my research question is answered and look forward on what can be done on Net Neutrality in Ireland.

Chapter 2: Literature Review

Before undertaking the study, research went into investigating if there have been studies that focused on if there are variations if political party's opinions have always aligned with the public's opinion, and the knowledge of the public on Net Neutrality.

Upon investigation there has been no studies on both these topics in Ireland, which bolsters the importance of this study, therefore, two studies based on the United Kingdom and Sweden have been used as a basis. The two studies below are relevant to the two primary pieces of work I was carrying out. These studies are:

- *Understanding Change and Stability in Party Ideologies: Do Parties Respond to Public Opinion or to Past Election Results?* by James Adams, Michael Clark, Lawrence Ezrow and Garrett Glasgow of Cambridge University.
- *Net Neutrality - Do we care? A study regarding Swedish consumers' point-of-view upon Net Neutrality* by Andreas Patriksson of the KTH Royal Institute of Technology.

2.1 Understanding Change and Stability in Party Ideologies: Do Parties Respond to Public Opinion or to Past Election Results?

From the article's Abstract comes a concise summary. The prior research into explaining the evolution of parties' ideological stances in relation to decision rules that stress the uncertainty of the political environment stemmed this article due to the author's willingness extend the research by examining whether parties adjust their ideologies in response to two possible influences: shifts in public opinion, and past election results. (Adams, Clark, Ezrow, Glasgow, 2004)

From their findings, they suggest that parties respond to shifts in public opinion, but these effects only are significant in situations where the public opinion is shifting in a direction that is away from the party's policy positions. They concluded that these findings indeed have important ramifications for the parties' election strategies and for models of political representation. (Adams, Clark, Ezrow, Glasgow, 2004)

2.2 Net Neutrality - Do we care? A study regarding Swedish consumers' point-of-view upon Net Neutrality

From the Abstract, Patriksson states the study takes another direction than the previous studies which took a legal, financial or technological viewpoint and aimed his study at understanding the consumer's point of view regarding Net Neutrality. The study investigates whether consumers are aware of the subject and if so, how they value it. (Patriksson, 2017)

After surveying 77 of the Swedish public and holding 10 qualitative follow-up interviews, the results showed that consumers lacked knowledge regarding Net Neutrality. A majority never heard the term or its meaning which made it hard to check if they valued Net Neutrality or not. Although when informed of the possible implications, the consumers ended up valuing the implications of Net Neutrality, even they did not have any knowledge of the issue prior to the survey. The study revealed the consumers had confidence in their regulatory authority when it came to safeguard the Internet's openness which implied that it's the regulatory authorities task to inform and educate the public on Net Neutrality for them to value it and see its long-term implications. (Patriksson, 2017)

Chapter 3: Methodology

3.1 Questionnaire

A questionnaire was chosen due to its strengths and the limitations I could work around:

Strengths

- Data can be collected quickly.
- All participants can choose to provide feedback.
- Feedback is anonymous, which encourages openness and honesty.
- Results can be easily processed in Excel.

Limitations

- Questions can be interpreted differently than intended
- Data processing for large samples can take time.
- Motivation to take the questionnaire

(University of Sheffield, 2014)

Regarding collecting data quickly, to ensure I was staying on schedule to hit my project goals, not having to reserve a week or two to dedicate my time to interviewing potential participants to allow me to continue work on other aspects of the study was welcomed. The goal of the questionnaire is to extrapolate as much information from the students about Net Neutrality as possible, the questionnaire was designed to allow the students to offer feedback on every question that was issued to them. When issuing the survey to the students, it was clearly explained that all the data submitted will be anonymous, this is to abide by the University of Limerick's Ethics Guidelines (University of Limerick, 2017), but another benefit from this is that the students can feel that they can be completely open and honest when discussing their opinion. The final strength relates to the processing of the data in Excel, due to the potential participants being in the thousands, processing sample data this large would be a large task, but with Excel's functions, it allowed me to easily compile the data for analysing.

Even though there are many strengths of the questionnaire, there was a significant amount of time in trying to minimise the effect the limitations would have on the survey. Weeks were spent in Semester 1 on deliberating the final question set to be distributed to the students to ensure that students understood what they were asked in the questionnaire. From the results and feedback on the survey, there was no flaws issued by any of the participants on vague questions or structure. When discussing the potential coverage of the survey on the student body the possibility of dealing with a large data sample may take a large amount of time to analyse. An idea of limiting the survey to a fixed number of students was discussed but the choice to leave it un-capped to better represent the University of Limerick students' opinion and perspective. The projected response number was roughly 100 students, after the distribution, the questionnaire gained 310 responses eight days after distribution.

A common limitation with any sort of questionnaire is getting the participants to be motivated to take it in the first place. Regarding students, this is even more evident, why should they take the time to do it? The distribution date of the questionnaire was crucial in getting the most responses and coverage. Ethics approval of circulating the questionnaire was gained in the first week of 2018 but circulating the questionnaire at that time when no students would be checking their email accounts would render a significant decrease in the possible coverage. The decision to get the best coverage was to wait and send the questionnaire to all University of Limerick student email accounts on the first week of Semester 2 (February 1st) logically it's the time at which the majority of students check their email accounts to register for modules, having the email be at the top of their inbox during that time was the best opportunity and from the response rate, it is evident that it was. (Barry O' Riordan, 2018)

3.2 Political Party Stances

When planning the route to gaining the current stances of the major political parties in Ireland, it was originally planned to interview local representatives around the Limerick area to understand their opinion and perspective of Net Neutrality because it would be interesting to see if the representatives of the county had a similar viewpoint to the University of Limerick students. The

plan was to contact representatives to schedule interviews in which they could answer some questions on their knowledge and their party's stance on the issue of Net Neutrality in Ireland. What was not foreseen was the response time from the representatives and what the was alternative to not getting interviews. Emails were sent out to over 25 political representatives in Limerick from various parties asking for short meeting to discuss the topic of Net Neutrality, from the 25, only seven responded, and of the seven responses, only one interview was carried out with a Fine Gael representative. Of the six other responders, they offered to answer over email which was accommodated, but they never filled out the consent form for me to use their interview in my study which led the data to not be used.

After learning that the local representative's interviews weren't coming to fruition, contact was made with representatives farther outside the Limerick, but all the representatives contacted never responded and the representatives who did want to schedule meetings, the earliest date to their convenience was timeslots within May and June which was too late for my study. Due to these setbacks, it was decided to move onto contacting the parties directly to get their current stance. The parties I decided to contact were the three main political parties within Ireland:

1. Fine Gael
2. Fianna Fáil
3. Sinn Féin

(The Irish Times, 2016)

The method of contact with the parties was contacting their office by email and phone to ask for their current stance on Net Neutrality within Ireland. From these methods I was able to gather the three parties' current stances on Net Neutrality within three days of contacting all three of the parties.

Chapter 4: Body of Work

4.1 Questionnaire Results

The initial questions to the questionnaire are basic ones that will allow me to easily split the data up to try and identify if there are any trends present, these cover:

- Gender
- Age
- Current or past student
- Faculty their course was/is under

Regarding gender, we see an even split on male/female participants.

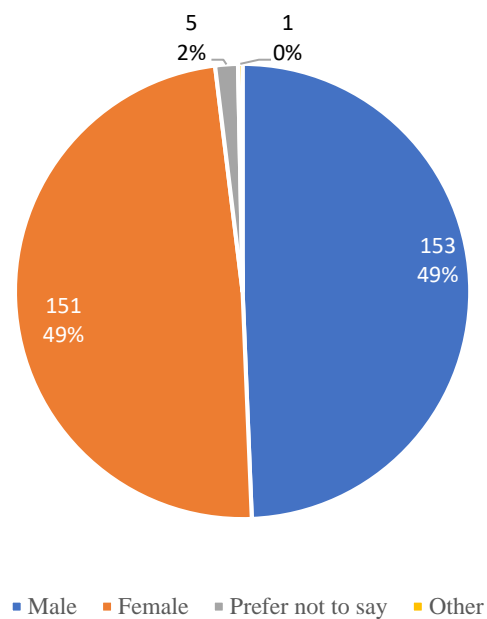


Figure 1 - Gender Split

When it comes to age groups surveyed, we see a heavy majority of the participants to be in the 18-24 age group. To adhere to the University of Limerick's Ethical Guidelines, participants under the age of 18 and above the age of 65 have been excluded from the surveyed data. (University of Limerick, 2017)

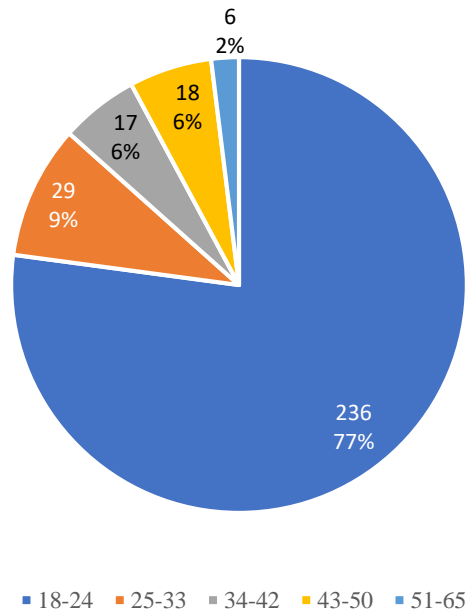


Figure 2 - Age Groups

An initial question to ensure that the surveyed participants are current or past students was asked.

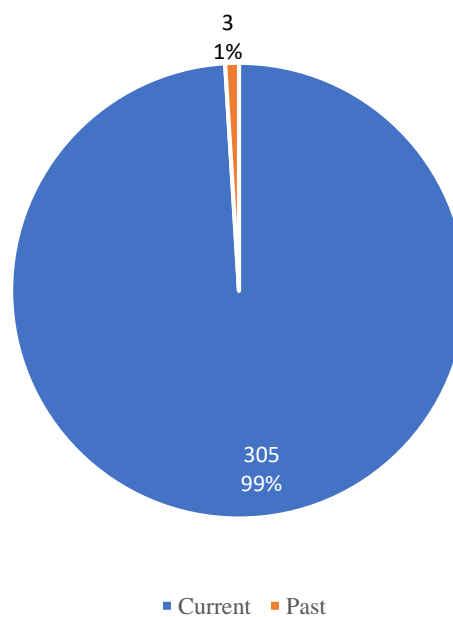


Figure 3 - Current / Past Student Population

To allow categorisation of the students, they were asked which Faculty their course of study was under.

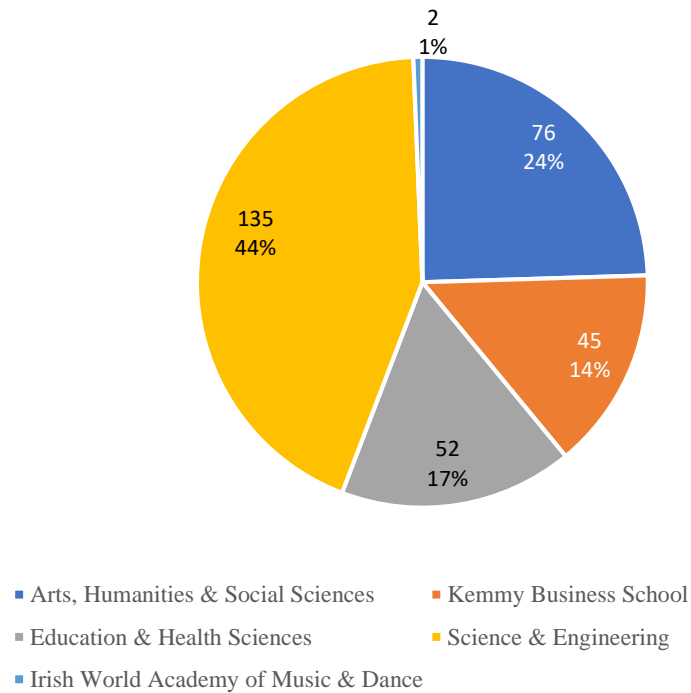


Figure 4 - Student Population per Faculty

To accompany the faculties in which students had their course of study under, a follow-up question was asked in which what type of course they were studying, below is the data per faculty:

Arts, Humanities & Social Sciences – 76 students

- Modern Languages & Applied Linguistics – 24 students - 31.6%
- Culture & Communication – 13 students – 17.1%
- Politics & Public Administration – 13 students – 17.1%
- Law – 12 students – 15.8%
- Sociology – 8 students – 10.5%
- History – 6 students – 7.9%

Kemmy Business School – 45 students

- Accounting & Finance – 14 students – 31.1%
- Economics – 13 students – 28.9%
- Management & Marketing – 13 students – 28.9%
- Personnel & Employment Relations – 5 students – 11.1%

Education & Health Sciences – 52 students

- School of Education – 16 students – 30.8%
- Nursing & Midwifery – 10 students – 19.2%
- Physical Education & Sport Sciences – 10 students – 19.2%
- Psychology – 7 students – 13.5%
- School of Allied Health – 5 students – 9.6%
- Graduate Entry Medical School – 4 students – 7.7%

Science & Engineering – 135 students

- Computer Science and Information Systems – 35 students – 25.9%
- School of Engineering – 34 students – 25.2%
- School of Natural Sciences – 25 students – 18.5%
- Electronic and Computer Engineering – 20 students – 14.8 %
- Mathematics and Statistics – 13 students – 9.6%
- School of Design – 8 students – 5.9%

To end the initial questions, the students were asked if they had any knowledge on what the term Net Neutrality means. From the 310 responses, 101 students had no knowledge on the issue, while the remaining 209 students had little to a reasonable amount of knowledge when relating to Net Neutrality.

The questionnaire led into the first section mainly about the student's personal internet experience. After giving a definition of Net Neutrality, the students were asked if they ever heard of the term prior to the questionnaire:

- Yes – 208 students – 67.1%
- No – 102 students – 32.9%

The 310 students were then asked to choose the 3 most used categories that they used the internet for:

- Social: 242
- Entertainment: 235
- Education: 212
- Email (Personal): 89
- Gaming: 67
- Work related: 54
- Email (Work): 31

The students were then asked what Internet Service Provider that they had at home:

- eir – 98 students - 31.6%
- Vodafone – 68 students - 20.3%
- Virgin – 41 students - 13.2%
- Sky – 39 students - 12.6%
- Other – 69 students - 22.3%

In the second section of the questionnaire, the students were introduced to the term Banded Access. Banded access means an environment where websites are rank ordered. Sites which pay a premium will have the fastest connection projected speed above today's levels, and those who do not pay will be slower or even be inaccessible. Students were asked if they believed it would hinder start-up business innovation on the Internet:

- Yes, it might – 265 students - 85.4%
- No, it may not – 12 students - 3.9%
- Don't know – 33 students - 10.6%

Students were also asked to expand on their thought, of the 148 who expanded 128 students had strong opinions on it being a bad practice.

The students were then asked if they were open to having a safer environment on the internet when information that is deemed inappropriate was removed:

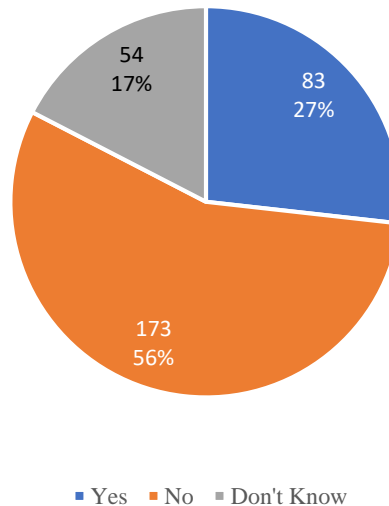


Figure 5 - Are Students Open to a Safer Internet?

160 students expanded on their choice, 127 were vocal against a safe but potentially censored environment on the internet.

Students were given a potential benefit of why Internet Service Providers may want Banded Access is the possibility of them saving money investing into expanding their network. They were asked who should pay for the expansions of the network:

- Internet Service Providers – 126 students – 40.6%
- The Irish Government – 81 students – 26.1%
- Web-Based Companies – 67 students – 21.6%
- The General User – 20 students – 6.5%
- All Parties – 98 students – 31.6%

Students were then asked who is more likely to pay for these expansions:

- The General User – 213 students – 68.7%
- Internet Service Providers – 49 students – 15.8%
- The Irish Government – 47 students – 15.2%
- Web-Based Companies – 37 students – 11.9%
- All Parties – 14 students – 4.5%

The students were given a situation, if Banded Access was to be introduced, but to stop its introduction the costs of the expansions were pushed onto the general user. They were asked on their stance:

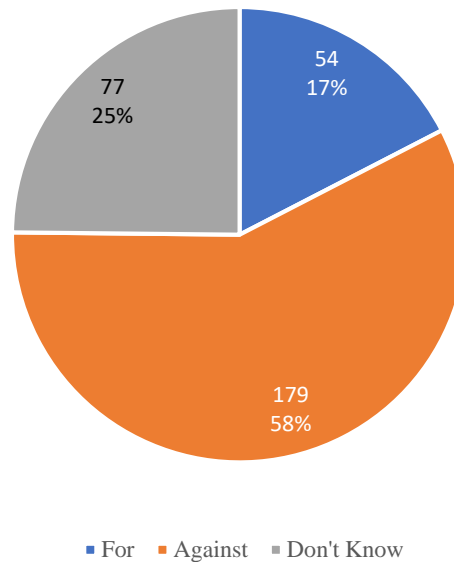


Figure 6 - Banded Access Dilemma

To conclude the questionnaire, students were asked from the brief information provided in the questionnaire and/or their general knowledge of the area did they believe that Net Neutrality is a real issue in Ireland:

- 50% believed it was
- 21.3% believed it wasn't
- 28.7% were undecided

70 students added onto their stance with 60 students believing that Net Neutrality is an issue today, with a subset of that 60 believing that it's not an issue in Ireland today, but still an issue.

4.2 Political Parties Current Stance on Net Neutrality

As mentioned in the Methodology chapter, the three political parties interviewed to get their current stance on Net Neutrality are:

1. Fine Gael
2. Fianna Fáil
3. Sinn Féin

Below are the responses / notes taken from the interactions with each of the political parties:

Fine Gael

With a call held with the Fine Gael Headquarters the representative gave the following comments when asked about Net Neutrality:

“ISPs should never discriminate against any information.”

“All information should be treated equally.”

“The only content that should have action taken on it by authorized officials is data that can be construed as illegal content, examples of illegal content are as follows: child pornography and illegally accessed copyright materials.”

In October 2015 a vote was held to around restricting fast lanes and strengthening Net Neutrality laws, Fine Gael voted against these amendments, is this the reason why the party took this stance in 2015?

“Yes, Fine Gael today still believes that Internet Service Providers should never be the dictating voice on what online content is deemed acceptable or not, but there should be rules in place to protect copyright holder’s intellectual property and the existence of content that is against Irish law should not be allowed.”

Fianna Fáil

When contacted, a Fianna Fáil representative gave the below comments on their stance on the issue of Net Neutrality and on their prior work:

“Fianna Fáil wholeheartedly supports an internet that is transparent, free from blocking and with no censorship of content. There have been calls to

introduce internet blocking to block access to child pornography and to tackle cyber-crime and terrorism. It is questionable what effect blocking has on illegal activity and there are huge knock on ramifications: innocent individuals/organisations can face huge cost and disruption if they are “put off the internet” and there are huge costs to service providers in acting as “gatekeeper”. Fianna Fáil is not comfortable that internet providers would have huge power in controlling what information was and was not available to its users.

While we are satisfied that freedom of expression is currently protected, there is a rapidly changing landscape in the realm of online activity and the Government must keep pace with this to ensure the constitutionally enriched right to freedom of expression is fully protected in the context of the internet. With this in mind, Fianna Fáil continues to engage on these issues at a national and European level. We have established an internet working group within our own party to address all issues related to the internet, and we continue to call upon the government to establish a Digital Safety Commissioner, as per the Internet Content Governance Advisory Council's recommendations.

To answer your question regarding our abstention during the plenary session on EU Regulation 2015/2120, Fianna Fáil did not have an elected MEP at this time and thus did not participate in the vote on the same. Fianna Fáil is wholly supportive of net neutrality. Given the European Union's protection of net neutrality, we do not believe that net neutrality, defined as the principle that internet service providers should not offer differentiated speeds on different websites, is an issue in Ireland at present. This being said, the recent decision by the Federal Communications Commission to repeal the principle of net neutrality in the United States highlights the need to identify and address threats to the principle of net neutrality. Furthermore, as with any law, enforcement is key to ensuring that the rights of all Irish citizens to browse the web freely. In this regard, Fianna Fáil has been vocal in our calls for the Commission for Communications Regulation to be properly resourced and equipped to monitor Ireland's internet market, and this is something which we will continue to raise.”

Sinn Féin

With a call held with the Sinn Féin Office the representative gave the following comments when asked about Net Neutrality:

“ISPs should never have that amount of control.”

“When it comes to freedom of information, Ireland should lead by example.”

When asked about the 2015 EU amendment vote:

“We still stand firm today in believing that Net Neutrality principles should be protected. In 2015 we showed our stance and it is the same today.”

“Recommend to research Sinn Féin TD Matt Carthy as he is a vocal representative of Sinn Féin on all issues around safeguarding Net Neutrality laws.”

Discussion

5.1 Is there a gender discrepancy?

When looking back at the questionnaire data, we can now look to try identifying if there are any trends in the data. As detailed earlier, 209 students knew what Net Neutrality was from ranging from little information to being well informed. 101 students knew nothing of the subject and had not heard of Net Neutrality prior to the questionnaire. When we bring gender into the equation, 76 females and 129 males knew about Net Neutrality while 74 females and 24 males didn't know about the subject. Even though the male / female gender percentage being equal, most male participants are in a course under Science & Engineering when compared to females whose numbers are more skewed in the other faculties. Of the females under the same faculty, 100% of the participants had knowledge on the issue, while 28% of surveyed males had no prior knowledge. While the data shows one picture, when narrowed down it shows a primarily even knowledge-base on the issue. The reason for the high number of participants being from the Science & Engineering, as seen in Figure 4, this can be attributed to the large number of the students within the University of Limerick studying courses in that faculty in comparison to other faculties. (University of Limerick, 2018) Although this may lead to a bias in the data as the data that is supposed to represent all students may skew towards the opinions of the students studying courses from the Science & Engineering faculty. Therefore, from the data it is evident that there is not a gender discrepancy, although it may appear that in general male participants have knowledge of Net Neutrality.

5.2 Does age play a factor?

When we narrow down the age groups just like the genders, we see a rough 50/50 split of knowledge on the issue. When viewed overall, we see the same skew towards students having prior knowledge on the issue of Net Neutrality. As seen in Figure 2 we see a large amount of the sample data being students in the 18-24 age group. We see that the age groups that skew towards having prior knowledge on the issue are the 25-33 and 34-42 age groups. But we are

seeing this skew due to the tiny sample size of those age groups in comparison to the 18-24 age group. While this may give rise to questions of a bias being present in terms of the 18-24 age group, it also needs to be taken into account that as stated in the University of Limerick's 2018 Profile, of the 14,047 students recorded to be studying at the University, 11,444 of these students are undergraduates, and the majority of undergraduates fall into the age-group of 18-24 so this can be construed as be representative of the students opinion as a whole. (University of Limerick, 2018)

5.3 Is there an ISP monopoly in Ireland today?

As discussed in the Methodology chapter, when students were asked about the ISP they had at home we saw that eir was the most common ISP that students had. When it comes to Net Neutrality when there's a monopoly on providing internet in areas, it strips the aspect of competition, allowing an ISP to dictate what they provide as customers cannot simply switch to other providers as there may not even be a secondary option available. This can set a precedent that can allow ISPs to possibly introduce practices that can go against the principles of Net Neutrality and they won't lose customers unless their customers want to have no internet. Examples of this can be seen today in the USA (Jeff Dunn, 2017). But in relation to eir in Ireland, their "monopoly" or large market share is explained by a different reason. In 2014 it was reported that eir owns most of the infrastructure and therefore are available in much of the country. The reason eir has the highest usage is due to the other ISPs reluctance to invest in most areas as it may not be a good return on investment. So, we see that the reason eir has a large market share is primarily due to the ISPs not wanting to provide their service in rural areas where eir may be the only available option due to them having the infrastructure in place for many years. (Bodkin, 2014)

5.4 When needed, would students help preserve Net Neutrality?

To quickly refresh on Banded Access an example would be music sites paying Internet Service Providers to grant better speeds to their respective service and possibly stomp out any competition by slowing speeds to their services or completely blocking access all together. Although it can provide benefits in providing a safer environment for its users. For example: Blocking content

that the users wish to restrict to blocking illegal content to be accessed by its users. In January 2018, ISPs included eight popular pirating websites on list of blocked websites to join The Pirate Bay which was blocked in 2009. This isn't exclusive to Ireland as many of EU member states also follow suit in these blockings over the years. (Torrent Freak, 2018) When looking back in the Methodology chapter on how students were asked if they believed it would hinder start-up business innovation on the Internet:

- Yes, it might – 265 students - 85.4%
- No, it may not – 12 students - 3.9%
- Don't know – 33 students - 10.6%

We saw that the majority opinion was negative towards the idea of Banded Access. This was also seen when students were asked if they would be open to a safer environment online if content that was deemed inappropriate was removed:

- 55.8% were against the removal.
- 26.8% were in favour of the removal.
- 17.4% were undecided.

Again, when asked on who should pay for the network expansions students gave the viewpoint that the general user, should not pay, but would most likely pay. So, the question was asked if they had the option of stopping Banded Access from being a reality they, the general user, would have to pay for the network expansions that would stop Banded Access being a reality, we saw the students opinion drastically change:

- 57.7% were against paying.
- 24.8% were undecided.
- 17.4% were for the costs being raised.

To visualise the data to more accurately display the change in opinion, the two data points of if they would be open to a safer environment online if content that was deemed inappropriate was removed and the data point of stopping Banded Access from being a reality they, the general user, would have to pay

for the network expansions that would stop Banded Access being a reality are contrasted in the two pie charts below:

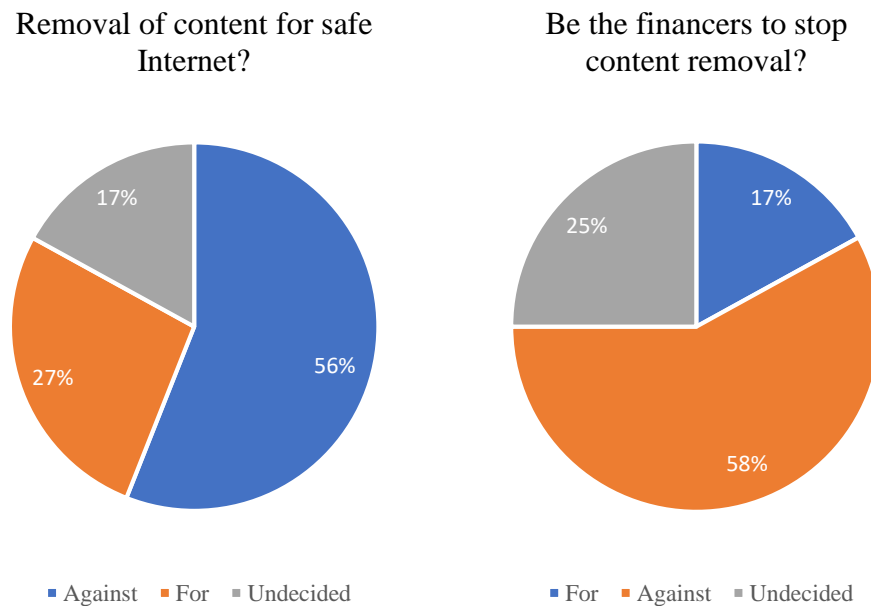


Figure 7 – Banded Access Stance Comparison

To clarify, the sections in Blue are stances that are against Banded Access and acting against Banded Access. We can clearly see here that when asked for their stance, most students are against the idea of Banded Access, but when they are the ones who can stop its implementation, we see that their opinion drastically swap into them not wanting to not support their prior stance when they must help.

5.5 Is Net Neutrality at threat in Ireland today?

It's important when discussing is Net Neutrality is an issue in Ireland today, research must be conducted on if Net Neutrality is already at threat in Ireland today. Phone companies in Ireland offer zero-rating plans where if customers purchase certain plans they get unlimited access to services and websites with no usage of their allocated data:

- eir offer unlimited access to Facebook, Twitter, Instagram, Snapchat, WhatsApp and Viber messaging. (eir, 2018)
- Three offer free access to DEEZER music streaming for 3 months. (Three, 2018)

- Vodafone offer free access to Spotify Premium for and access to Sky Sports mobile TV. (Vodafone, 2018)

Although when these practices can look to be against the principles of Net Neutrality, these practices are not exclusive to Ireland, zero-rating plans are offered in many EU states. In 2017 the European Commission studied the offers in various states (Bulgaria, Germany, Portugal, Sweden and the UK) they found:

- If exclusivity rights were given, then they can only be co-marketing agreements or discounts.
- The ISP / Phone company cannot include competing applications in their offers.

They found no evidence of zero-rating plans in any member state in Europe and that Net Neutrality would only be at risk if the companies zero-rated own content. (European Commission, 2017) When researched, these zero-rating plans are the only practices that were reported to be in the grey-area when it came to stress the principles of Net Neutrality in Ireland. (Independent, 2016) Therefore, a stance can be made that there are not many threats against Net Neutrality in Ireland today, but practices may indeed exist that are on the border, it depends on who is asked.

5.6 What work have the political parties done?

In October 2015 a vote was held around restricting fast lanes and strengthening Net Neutrality laws in the EU:

- 6 Irish MEPs voted for the amendments:
 - 3 Sinn Féin
 - 3 Independent
- 4 Irish MEPs voted against the amendments:
 - 4 Fine Gael
- 1 Irish MEP voted to abstain:
 - Fianna Fáil

(Vote Watch, 2015)

These stances were in 2015 so they may have now been out-of-date, which is why research was conducted to identify their current work to try piece together their stance. After researching, nearly all the Irish parties have no information about net neutrality on any of their platforms. When researching newspaper articles on Net Neutrality in the last 5 years:

- The Irish Times reported on the topic of net neutrality 43 times in a 10-year span with a vast number of these reports not being related to Ireland at all. (The Irish Times, 2018)
- The Irish Independent only had 10 articles mentioning Net Neutrality. (Irish News Archive, 2018)
- The Sunday Independent only had 2 articles. (Irish News Archive, 2018)

When comparing these findings with the parties as a whole's stance on the issue, the lack of media coverage can be attributed to the lack of press releases by the parties.

When looking deeper into the Irish parties' specific work:

- The Green Party backed Net Neutrality in its General Election Manifesto, but it's stance is now unknown due their manifesto being removed from their website. (Green Party, 2016)
- Fianna Fáil backed Net Neutrality in 2012 which called for frameworks to be in place to handle how far copyright holders can intrude on user's privacy. (Dara Calleary, 2012)
- Sinn Féin TD, Matt Carthy is a vocal, strong proponent on safeguarding Net Neutrality laws. (Matt Carthy, 2018)

This lack of public information was the motivating factor on gaining the parties' current stance on Net Neutrality in Ireland. As seen in the Methodology chapter:

- Fine Gael gave the stance that they agree that ISPs should never discriminate on information, but actions must be taken on illegal content which is the reason for them voting against the amendments.

- Fianna Fáil were very vocal on their full support on the issue and that activities that censor any kind of information on the Internet should never be allowed. When asked why they abstained in 2015 their response was due to not having an elected MEP to vote, and therefore abstained.
- Sinn Féin stood alongside Fianna Fáil in the safeguarding all aspects of Net Neutrality and referred to TD Matt Carthy's regular public stances on the issue.

A common theme seen in the interview results is that the parties agree that information should never be discriminated against, but in Fine Gael's case, only illegal content.

Conclusion

6.1 Has my research title been answered?

From the questionnaire there's a majority opinion from the students on most of the subject areas to safeguard Net Neutrality laws in Ireland today.

To contrast with the political parties' stances, we can observe that they do indeed align nearly all issues. This is mainly due to a large portion of students being in a course under the Science & Engineering faculty, which as discussed, may be a bias due to many UL students studying a course in that faculty in comparison to the rest of the students in the sample data.

Although with the severe lack of public facing knowledge on the issue, a lot more work can be done by the parties to inform the public on their stances due to their being a 50/50 split in student's prior knowledge on the issue.

From my research into the University of Limerick students' perspective towards Net Neutrality in the context of Irish politics I can safely conclude that a good portion of the students are informed about the issue of Net Neutrality and that the opinion is generally to safeguard its principles. Then to tie it into Irish politics I can still see the same general opinions being shared by the parties. But as seen in the number of un-informed students and the lack of public knowledge on the issue of Net Neutrality in Ireland, the Irish public needs to be better informed on Net Neutrality as we move further into an age where technology is part of every aspect of our lives.

6.2 Reflection

When reflecting on my study over these eight months I would certainly schedule my interviews with political representatives immediately as the time lost waiting on responses ended up being time wasted. In relation to the questionnaire there was only one data point which I really saw the student's opinions drastically change when I challenged their stance against their will to act, I would certainly have designed more questions like this as it was very interesting in seeing how the UL students state of mind would change within minutes. Finally, regarding the distribution of the questionnaire, I would have

absolutely tried to get an equal response rate for each faculty in the University as seen in the Methodology chapter that many participants were from the Science & Engineering faculty, a better plan to ensure an equal number of responses from students in every faculty would have provided a more interesting data set.

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Appendices

Information Sheet



UNIVERSITY of LIMERICK

OLLSCOIL LUIMNIGH

Dear Participant,

My name is Barry O'Riordan and I am currently undertaking an FYP at the University of Limerick under the supervision of Tabea De Wille. The title of my proposed research is "University of Limerick students' perspective towards net neutrality in the context of Irish politics". The purpose of this project is to gather the University of Limerick students' opinion towards the issue of net neutrality that is a controversial subject in today current technological field. The findings from this questionnaire will help gain an understanding on the attitudes towards net neutrality. As part of my research I would like to invite you to fill in a survey questionnaire. Prior to analysis and use in academic write-ups, the data collected will be fully anonymized. Participation is voluntary, and you can withdraw at any point by closing the questionnaire form tab or window in your browser. The length of time required will vary from 5 minutes up to roughly 10 minutes.

By partaking, you declare that you are willing to take part in research for the project entitled "*University of Limerick students' perspective towards net neutrality in the context of Irish politics*". You also declare the following:

- I declare that I have been fully briefed on the nature of this study and my role in it and have been given the opportunity to ask questions before agreeing to participate.
- I declare that I am between the ages of 18 and 65.
- The nature of my participation has been explained to me and I have full knowledge of how the information collected will be used.
- I fully understand that there is no obligation on me to participate in this study.
- I fully understand that I am free to withdraw my participation at any time without having to explain or give a reason.
- I am also entitled to full confidentiality in terms of my participation and personal details.

If you have further questions regarding this research, please feel free to get in touch with either myself or my supervisor using the email addresses listed below.

If you have concerns about this study and wish to contact someone independent, you may contact: The Chair, Faculty of Science & Engineering Research Ethics Committee, University of Limerick, Limerick. Tel: 061 202802

Yours sincerely,

Barry O'Riordan

13144278@studentmail.ul.ie

Tabea De Wille

Tabea.dewille@ul.ie

Consent Form



UNIVERSITY of LIMERICK

OLLSCOIL LUIMNIGH

Consent Section:

I, the undersigned, declare that I am willing to take part in research for the project entitled **“University of Limerick students’ perspective towards net neutrality in the context of Irish politics”**.

- I declare that I have been fully briefed on the nature of this study and my role in it and have been given the opportunity to ask questions before agreeing to participate.
- I declare that I am between the ages of 18 and 65.
- The nature of my participation has been explained to me and I have full knowledge of how the information collected will be used.
- I fully understand that there is no obligation on me to participate in this study.
- I fully understand that I am free to withdraw my participation at any time without having to explain or give a reason.
- I am also entitled to full confidentiality in terms of my participation and personal details.

Signature of participant

Date

Questionnaire & Explanatory Cover Letter



UNIVERSITY of LIMERICK
OLLSCOIL LUIMNIGH

Dear Person,

My name is Barry O'Riordan and I am currently undertaking an FYP at the University of Limerick under the supervision of Tabea De Wille. The title of my proposed research is "*University of Limerick students' perspective towards net neutrality in the context of Irish politics*". To gather data to support my FYP research, I am conducting a questionnaire that will be sent out to all University of Limerick students. The goal to this questionnaire is to gain an understanding of the average student's opinion on the subject area of net neutrality and how it relates to life in Ireland.

From the questions within the questionnaire I will be able to ask a variety of questions relating to the subject area and be able to analyse it to understand how student's opinions vary depending on the differing situations that could arise if net neutrality ceased to exist.

From this data I will also be able to contrast it with the current Irish political landscape by researching the current stances of various political parties on the issue, investigate their prior/current work on this issue and see if the opinions of the students and politicians align or differ and find answers to the results I uncover. To participate in this study, you must be between the ages of 18 and 65.

Yours sincerely,

Barry O'Riordan

13144278@studentmail.ul.ie

Tabea De Wille

Tabea.dewille@ul.ie

Questionnaire Content



UNIVERSITY of LIMERICK
OLLSCOIL LUIMNIGH

*Required **

What is your gender? *

- Female
- Male
- Prefer not to say
- Other

What is your age? *

- <18
- 18-24
- 25-33
- 34-42
- 43-50
- 51-65
- 65+
- Prefer not to say

In your own words, can you explain the term Net Neutrality? *

Have you ever heard the term Net Neutrality before taking this questionnaire? *

- Yes
- No

What do you use the internet for? Pick 3. *

- Social (Facebook, Snapchat, etc.)
- Gaming
- Work related
- Education
- Entertainment (Netflix, Spotify, etc.)
- Email (Personal)
- Email (Work)

What ISP (Internet Service Provider) do you have at home? *

- eir
- Sky
- Virgin Media
- vodafone
- Other

Do you believe banded access might hinder start-up business innovation on the Internet? *

- Yes, it might
- No, it may not
- Don't know
- Other:

Would you like to expand your thought?

Would you be open to having a safer environment on the internet at the cost of information that is deemed inappropriate being removed? *

- Yes
- No
- Don't know

Would you like to explain your choice?

The reason why banded access is attractive is the cost of the network. If banded access is blocked, who should pay for the expansion of the network? *

- Internet Service Providers
- The Irish Government
- Web-Based Companies (i.e. Google)
- General User
- All Parties
- Who is more likely to pay for these expansions? *
- Internet Service Providers
- The Irish Government
- Web-Based Companies (i.e. Google)
- General User
- All Parties

If banded access was to be introduced, and the alternate of information being censored was the costs of the expansion being pushed onto the general user, what's would your stance be on these costs? *

- For
- Against
- Don't Know

From the brief information provided in this questionnaire and/or your general knowledge of the area do you believe that "Net Neutrality" is a real issue in Ireland? *

- Yes, it is
- No, it isn't
- Don't know

Do you have any additional comments that you would like to add?

Email to Political Parties



UNIVERSITY of LIMERICK
OLLSCOIL LUIMNIGH

Dear Mr./Mrs _____

My name is Barry O'Riordan, I am a 4th year student in the University of Limerick. I am undertaking my Final Year Project with the research title of *"University of Limerick students' perspective towards net neutrality in the context of Irish politics"* under the Supervision of Tabea De Wille a lecturer at the Department of Computer Science & Information Systems at the University of Limerick.

I am inquiring if I could ask you several questions about the topic of Net Neutrality that will be a main resource of my research project which contrasts your party's stance on the issue with the general University of Limerick students' opinion on the issue to understand the similarities and differing opinions on the issue. The questions are short and concise and require a small amount of your time.

If possible, I would like to meet in person, but I can also accommodate a meeting via Skype or a similar method. The interview and the accompanying questions that I would be asking you will have gone through Ethics approval by the University of Limerick Ethics Governance & Faculty Research Ethics Committee.

The interview is completely confidential and anonymous, at your request, the interview can be stopped at any time and the questions do not need to be answered if you choose to not give an answer.

Thank you for your time,
Barry O'Riordan

Recruitment Letter for Questionnaire

Dear Student,

My name is Barry O'Riordan and I am currently undertaking an FYP at the University of Limerick under the supervision of Tabea De Wille. The title of my proposed research is "*University of Limerick students' perspective towards net neutrality in the context of Irish politics*". The purpose of this project is to gather the University of Limerick students' opinion towards the issue of net neutrality that is a controversial subject in today current technological field. The findings from this questionnaire will help gain an understanding on the attitudes towards net neutrality. As part of my research I would like to invite you to fill in a survey questionnaire, which, depending on your answers may lead to an experimental evaluation section. Prior to analysis and use in academic write-ups, the data collected will be fully anonymized. Participation is voluntary, and you can withdraw at any point by closing the questionnaire form tab or window in your browser. The length of time required will vary from 5 minutes up to approximately 10 minutes.

By clicking the "Next" button below, you declare that you are willing to take part in research for the project entitled "Perceived quality in localisation". You also declare the following:

I declare that I have been fully briefed on the nature of this study and my role in it and have been given the opportunity to ask questions before agreeing to participate.

The nature of my participation has been explained to me and I have full knowledge of how the information collected will be used.

I fully understand that there is no obligation on me to participate in this study.

I fully understand that I am free to withdraw my participation at any time without having to explain or give a reason.

I am also entitled to full confidentiality in terms of my participation and personal details.

If you have further questions regarding this research, please feel free to get in touch with either myself or my supervisor using the email addresses listed below. If you have concerns about this study and wish to contact someone independent, you may contact: The Chair, Faculty of Science & Engineering Research Ethics Committee, University of Limerick, Limerick. Tel: 061 202802

Yours sincerely,

Barry O'Riordan

Tabea De Wille

13144278@studentmail.ul.ie

Tabea.dewille@ul.ie