

The Initial Plan: *Understanding the Structure of Social Networks from Our Mobile Phone Contacts*

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Project Description

I will be using Dunbar's number as a basis to my research as I believe that the increased reliance on mobile phones for communication is changing our social networks and allowing us to not only increase the amount of relationships that we can hold but also the meaningfulness of those relationships and the range of people that we hold the more immediate relationships with.

I am going to try and gain an insight into the social networks of a range of different demographic groups in a hope to see if there is a great deal of difference in the importance of the role their mobile phone contacts play in terms of communication and upholding meaningful relationships.

The methodology I will be using to undergo my project will focus on the participation of test subjects. By this I mean that without the research that I will ascertain through questionnaires and case studies from people within different social demographic situations I will not be able to either prove or disprove my hypothesis.

I will more than likely use an online survey facility such as www.surveymonkey.com as to collect and collate the data manually would take too long for the time constraints I have and also I feel by doing it online it would make it an easy experience for the user and hopefully encourage more people to participate therefore presenting me with more primary data.

However for a refined selection of the demographic groups I will be taking on case studies of one of the participants from each of the chosen groups to gain further insight to their social network.

I will produce what I will define to be a social network diagram for each of the case studies. It will effectively show you who the subject talks to on either a daily, weekly or, monthly basis. How they communicate with them using their mobile phone contacts and also who they are and what is their relationship to the user. I will highlight the amount of un-meaningful relationships that the subject is holding through old phone contacts as well.

Aims and Objectives

The aims and objectives that I hold for this project revolve not only around my academic goals but also around personal development. My main aim throughout my project is to prove a predefined hypothesis either correct or incorrect through my research into peoples mobile phone contacts and there subsequent effect on each persons' social network structure.

I hypothesise that the amount of meaningful relationships that we can hold has increased since we have increased the usage of our mobile phones. Without the use of our mobile phone contacts we may be able to hold on average 150 recognised human relationships; however I suggest that by adding in the extra convenience of a mobile phone it has allowed us to increase the meaningfulness of the relationships that we hold, therefore affecting the structure of our social network. I presume that any one persons' immediate social network has increased due to the accessibility to people that a mobile phone offers. This may well have been from once consisting of immediate family members that you would see and therefore communicate with every day to now consisting of close friends who you may text and call more in a day than you now interact with those afore mentioned family members.

By breaking down the work involved within this project into smaller aims and objectives I will be able to achieve the main goal of the project and prove my main hypothesis wrong or right. The smaller goals that I have set for the project are as follows:

- ❖ To gain a knowledgeable insight into Dunbar's Number.
 - ✓ *By doing vast background research into Dunbar's Number Theory I will be able to gain a greater understanding of the basis of the project. I will also research other theories surrounding the amount of meaningful relationships any one person can hold at any one time in order to determine and critically explain why I have chosen Dunbar's Theory.*
- ❖ I will state throughout the project a number of different sub-hypotheses that I will also be looking to prove either correct or incorrect through my research.
 - ✓ *I will use my research into different demographic groups to see whether there are in fact differences. For example "Does a user's age effect how useful mobile phone contacts are at maintaining meaningful relationships?"*
- ❖ I am hoping to collect and collate data from multiple different sources in order to compare and contrasts the information created between the different demographic groups.
 - ✓ *I will do this through online surveys and case studies.*
- ❖ During the project I will carry out at least 4 successful case studies.
 - ✓ *Within the case studies I will gain an inside knowledge of the subjects mobile phone contacts and be able to create a social network diagram for each on them. This will further enable me to compare and contrast the different groups.*
- ❖ I will need to develop a way to clearly map out the case study subjects mobile phone contacts in the form of a diagram.
 - ✓ *It will need to show who the people are that they are communicating with and what their relationship is to the test subject, the frequency of the communications, the reason for contacting them etc...*
- ❖ Establishing any connections between the amount of phone contacts that people hold and the theory behind Dunbar's Number.
 - ✓ *Basically does a mobile phone act as an extension of your consciousness and allow you to hold a higher number of meaningful relationships. Also does it add to the meaning of those relationships; the more obscure relationships becoming closer than they would without contact through a mobile phone.*

- ❖ I want to look into the amount of un-meaningful relationships that a person can hold through with the help of their mobile phone contacts list. Does it allow a person to clutch on to more past relationships that now have no meaning in the context of Dunbar's number than they would without a phone?
 - ✓ *The way that I will explore this is through a series of questions asked to the case study participants.*
 - ✓ *How many of your contacts can you 100% say hold the persons correct and current number?*
 - ✓ *How many of your contacts have you not spoken to or had any form of meaningful relationship with in the past 6 months?(To define a meaningful relationship I will look to Dunbar's number Theory and establish some basic rulings.)*

I also have some personal development aims and objectives which are as follows:

- ❖ To improve my ability to research a topic effectively using academic and public sources.
- ❖ To improve my ability to write concisely with structure and clear aims.
- ❖ To harness the art of effective time keeping and project management.

Project Planning

Once I have completed my initial report and I have begun my project I will be moving towards producing two further reports entitled my Interim Report and my Final Report. I will now briefly explain what each of the reports will contain.

Interim Report

Introduction – The introduction I will provide in my Interim report will basically be a continuation of my project description from my initial report with slightly more detail.

Background Research – Firstly before I begin my project I will need to conduct background research firstly into the theory that I have chosen to base my project around. I will look extensively into Dunbar's Number Theory in order to ensure that I am always heading in the correct direction with my own research. I will look into other theories surrounding the matter of how many meaningful relationships you can hold at any one time simple to see if they correlate with Dunbar's research. I will critically assess Dunbar's theory and also any other research similar to mine into mobile phone contacts in a hope to discover a completely unique aspect of research to input into my project.

Approach – There are multiple factors in regards to my approach that I need to assess before I can start my project. For example:

- ❖ What website should I use for collecting my research data? Is Survey Monkey the best one to use in this instance?
- ❖ How will I decide what demographic groups to choose? What criteria will I base my decision on?

I will produce an example of the questionnaire that I created and have collected and collated results from. I will explain the choices behind the questions, such as their structure; were they open or closed? And also why did I choose to ask that specific question.

As I would have already carried out all of the case studies by the hand in date I will also submit a copy of the case study template and again I will explain all of the aspects to the structure of it. I will obviously have to ask certain questions and examine the data in a certain way so that I can gain the information that I want to use as proof alongside my hypothesis.

In the interim project I will submit some of the initial raw data in order to show the direction of the project as the hypothesis that I have stated currently may become invalid in light of the data that I collect. I may also discover other directions to head in as I undertake my first semester of the project therefore any change that I make to the project after I retain the data will be in this part of the interim report as I will be changing the approach.

Final Report

Introduction - This will simply act as a further extension of my Interim Report in such a way that I will simply extend the project description to include any alterations that I have made in the final stage of my project. Again I will provide an extension to the background research that I provided in the Interim Report if I have had to conduct any extra research in order to complete my project. I will also introduce a brief overview of my results gained from the project and any problems that I faced during the project.

Design - During this section of the report I will discuss all of the design aspects of my project. I will have to carefully look into the design of the questionnaires and I will face issues as small as "Do I use open or closed questions?" to much larger issues such as "Is there already a guideline for carry out case studies in such a manner that you can obtain the maximum amount of personal information from a test subjects without seeming overbearing and invading their privacy?". There will also be design issues during the stage of presenting my results in some form of diagram.

Implementation- There is not a huge amount of implementation work within my project for me to discuss in this section as although I can describe how I carried out the case studies, and questionnaires I would not be

able to go into too much detail as I feel I would eventually repeat what has been said in the design phase and what is to be said later on in the results stage. Therefore at this moment in time I have not decided whether I am going to be including an Implementation section into my Final Report as I may just insert the information into the other relevant section of the report.

Results – The results section of the report is pretty self-explanatory as it will contain all of the research results from my project after they have been screened for anomalies and correlated together for each demographic group. For instance I am hoping to display my case study results using a set of diagrams to show their social network based on their mobile phone contacts and then also one of their real life support network in order to discover if they differ in any way.

Evaluation – I am going to evaluate a number of different aspects of my project such as the way in which I carried out my research; where the candidates of my research happy with the process or did the find it intrusive or un-personal? This will allow me to evaluate my project from a different view point in order to eliminate any bias that I may hold towards my research methods validity. I'll be able to then critically evaluate faults within the project that I may have never noticed through my own perception. There are obviously a whole range of topics that I will evaluate through my project, however I am not going to state them all here as at this stage the project may take a different direction as I further develop it to what I will outline in this report.

Future Work and Reflection on Learning- These topics will allow me to look at the project that I have just completed and in hindsight discuss anything that I may have carried out differently I were to carry out the project again. Also it will allow me to look at if there is any room for further developments into my research topic that could hold some academic standing.

Whereas the reflection on learning section will be a completely personal and in some senses bias view on how I feel I have completed the project. Including what skills I feel I have gained? , What skills I have improved? , How did I deal with complications in the project? Etc...

Time Plan

Project Week	Semester Week	Project Action
1	1	<ul style="list-style-type: none"> ❖ Introduction to supervisors and finalise choice of project.
2	2	<ul style="list-style-type: none"> ❖ Brainstorm ideas for the project to discuss with supervisors and write 1st draft of initial report.
3	3	<ul style="list-style-type: none"> ❖ Initial report deadline, submit before 19/10/12. ❖ Begin background research into Dunbar's Number and other likeminded theories. ❖ Also look at different ways to design a successful questionnaire to get the most information from people whilst looking the least intrusive. ❖ The problem of over researching may occur at this stage.
4	4	<ul style="list-style-type: none"> ❖ Carrying on with background research to finalise key ideas. ❖ Research how to design and carry out the most successful questionnaire possible. ❖ May discover that there is no suitable research in terms of pre-designed questionnaires.
5,6	5,6	<ul style="list-style-type: none"> ❖ Focus on questionnaire design. ❖ Choose final demographic groups that I will study. ❖ How many people properly represent a demographic group? ❖ Is the questionnaire too open or too closed to gain sufficient data from it? ❖ Should I trial the questionnaire first in order to possibly alter it before I submit it to all of the different groups? ❖ Will there be bias in my choice of demographic groups as I will need to involve people I know in my studies? Will this then affect my perception on the results?
7	7	<ul style="list-style-type: none"> ❖ Write a proposal to submit to Nick Avis in regards to the ethical approval of my questionnaires and research as I will be dealing with human subjects. ❖ Carry out a prototype questionnaire. ❖ I could face problems here with data protection and the ethics of the study that I wish to carry out.
8	8	<ul style="list-style-type: none"> ❖ Initiate data collection via questionnaires. ❖ Exporting all of the data from the online website. ❖ I am easing off mid-term in order to ensure that all of my other coursework's are on track and I am not falling behind.
9	9	<ul style="list-style-type: none"> ❖ Write up a 1st draft of the Interim Report and hand in to supervisors.
10	10	<ul style="list-style-type: none"> ❖ Make any necessary alterations to the Interim Report. ❖ Again I have eased off on my work load due to other coursework deadlines within this week.
11	11	<ul style="list-style-type: none"> ❖ Begin to collate findings from the questionnaires through Excel. ❖ Try to establish patterns and start to prove the sub-hypotheses correct or incorrect. ❖ Anomalies may create rifts in the data causing unreliability.
12,13	Christmas Break	<ul style="list-style-type: none"> ❖ Research and design the case study layout and the protocol I will use with each of the participants to ensure an un-bias, fair test. ❖ I will carry out one interview style case study and one focus group study. ❖ Difficulties may lay in trying to keep the case studies concise and not too intrusive in a hope not to put participants off.
14	Christmas Break	<ul style="list-style-type: none"> ❖ Look into the design of other social network and support structures diagrams. ❖ Research egocentric diagrams to see if there is enough relation to include them in the project.

		<ul style="list-style-type: none"> ❖ Reflect upon the results of the project so far in case there are any new routes that I could explore during the rest of the project. ❖ How can I go about classifying the strength of a relationship? ❖ How do I produce a true representation of both their social and support structure networks? ❖ Do I need to provide other evidence such as a technological timeline in order to further prove my hypothesis's and link the two diagrams together?
15, 16	Exam Period	❖ REVISION
17,18	1,2	<ul style="list-style-type: none"> ❖ Carry out all of the case studies once I have decided which demographics to focus on. This decision will be based on the initial raw data that I receive from the questionnaires. ❖ Ensuring they are all carried out in the same controlled environment may prove to be an issue.
19	3	<ul style="list-style-type: none"> ❖ Produce preliminary social network diagrams. ❖ Problems may be on-going in the debate of how to classify a relationship strength. ❖ Also how much detail do I need to include on the diagram to make it a viable representation of the case study data.
20	4	<ul style="list-style-type: none"> ❖ Produce preliminary social support network diagrams. ❖ May be hard to decide who provides a higher quality and level of social support in a persons' life? For example just they may be the parent of one of the participants does not mean that they provided the highest level of support.
21,22	5, 6	<ul style="list-style-type: none"> ❖ Make solid comparisons between the demographic groups and make sure all of the sub-hypothesis' have been proved either way. ❖ Begin to solidify ideas that I have researched throughout the project.
23	7	❖ Write up Design and Implementation section of the Final Report.
24	8	<ul style="list-style-type: none"> ❖ Write up Evaluation and Results section of the Final Report. ❖ May struggle to find explanations for anomalies.
25-28	Easter Break	<ul style="list-style-type: none"> ❖ Carry on completing Evaluation and Results section of the Final Report. ❖ Two weeks slack in order to ensure the report is completed before handing in a 1st draft as there are other coursework deadlines for this time period and the report may take slightly longer to write due to those other commitments.
25,26	9,10	<ul style="list-style-type: none"> ❖ Write up Future Work and Evaluation of Learning section of the Final Report. ❖ Hand in a draft for preliminary marking after carrying out checks on all of the sections of the report.
27	11	<ul style="list-style-type: none"> ❖ Last minute alterations that have developed after handing in a draft of the report to my supervisors. ❖ Less work in these final weeks due a large number of examinations in the Summer Semester.
32	Exam Period	❖ HAND IN FINAL REPORT 05/05/2012

- = Problems I may face whilst I carry out the tasks stated for the given week.
- = Extra Reasoning for timings.
- = Milestones for each week.