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	Exploring the potential for sharing
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Abstract

Currently, over 20,000 Facebook users are registered in Greenland, representing over a third of the population. Previous research has explored how cultural identities of the Inuit are embedded on the Web with reference to their off-line communities. However, it has yet to be examined as to what purpose Greenlanders are using Facebook and how social media can be harnessed to support the sharing and management of Greenlandic local knowledge (GLK). As Facebook use continues to increase in Greenland and thereby impact the culture of Greenland, it has become relevant to investigate the affordances of such social networking sites to support the spontaneous sharing of GLK by Greenlanders, for Greenlanders. This project, documenting what, how and with whom Greenlanders are sharing on Facebook will allow us to better design a means of managing such information and build a network towards potential sharing and stewardship of GLK in Greenland, supporting the use of the language and dialects of Greenland through social media in the process.

Aalborg Universitet   Aarhus Universitet   School of Education University of Aarhus   Danmarks Pædagogiske Universitetsskole   Copenhagen Business School HANDELSHØJSKOLEN   Roskilde Universitetscenter   it-vest samarbejdende universiteter

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Resumé

Formålet med dette masterprojekt er at undersøge potentialet for sociale medier som Facebook til at støtte Grønlændernes skabelse af og deling af grønlandske lokal viden og se nærmere på hvordan Facebook kan bevare det grønlandske sprog og de dialekter der findes rundt om i landet.

Denne undersøgelse er en af få som tage udgangspunkt i hvordan grønlænderne bruger sociale medier og det skal dermed ses som en bred undersøgelse som forhåbentligt vil kunne inspirere og iværksætte mere grundige og specificerede undersøgelser i fremtiden.

Projektet har identificeret spørgsmål og hypoteser som skal kunne svares ved at analysere data indsamlet fra grønlandske Facebook brugere ved brug af et online spørgeskema. Dette indsamlede data er blevet analyseret og set gennem nogle teoretiske grundlag af både vestlige og oprindelig folks videns systemer. Med baggrund i disse teorier har det også været muligt at forstille sig hvordan grønlandske Facebook brugere kan anvende inuit måder til at lære i forbindelse med brug af moderne informations- kommunikations og teknologi værktøjer. Under analysen er der blevet gjort rede for de væsentligste elementer som Facebook platformen stiller til rådighed for brugerne for at kunne skabe og vedligeholde netværker og grupper. Netværker og grupper der kan skabe og dele viden med hinanden for at give mening og liv til deres aktiviteter.

Analysen af resultaterne bruges til at få svar på hvordan grønlændere deler oplysning på Facebook, med hvem og af hvilke art? Resultaterne belyser også hvilken rolle sprog spiller i grønlændernes aktivitet på Facebook. Analysen af resultaterne i kombination med de teoretiske grundlag viser bl.a. at grønlænderne er i stand til at kunne anvende Facebook som et platform for skabelse og deling af viden og at Facebook kan fremme brugen af det grønlandske sprog og forskellige dialekter.

Den lokale viden grønlænderne kan dele viste sig at være anderledes end forventet. Der kræves dermed større indblik i hvad grønlænderne anser som lokal viden i et moderne Grønland med en spændende fremtid foran sig.

Projektet konkluderes ved at svare på hypoteserne som støtter hovedspørgsmålene, og ved at forslår hvordan projektet kan udvikles for at grønlandske Facebook brugere kan støttes i både skabelse og deling af grønlandsk lokal viden og udvikling af sproget på Facebook.

Introduction

Greenland is a very large country with a very small population. First inhabited over 4,500 years ago by indigenous people from North America, Greenland now has a population of 56, 452 of which 15, 469 live in the capital city Nuuk (Statistics Greenland, 2010). Greenland is a land of extremes: extreme temperatures, distances and cultural diversity. With the establishment of Self Government in 2009, Greenland is becoming increasingly independent of the Danish Realm of which it is a part. As Greenland faces an increasingly globalised and modern future traditional knowledge and culture is slowly changing from a way of life to a form of tourism. Local knowledge in Greenland, therefore, is potentially under threat of extinction through a dwindling level of use and transfer from one generation to the next. However, in the digital age of which Greenland is also a part, new opportunities for creating and sharing such knowledge are widely available, not least in the form of social media available on the Internet.

The purpose of this investigation is to explore the potential of social networking websites, specifically Facebook, for sharing Greenlandic Local Knowledge (GLK). Using responses collected from a closed-question online questionnaire, the degree to which Facebook has the potential to serve as a platform for the sharing of GLK will be explored through the lens of relevant Western and Indigenous theories of knowledge creation and transfer.

Presentation of the Problem Area

The problem area to be investigated is inspired by the continuing and increasing popularity of Facebook in Greenland (see figure 1). Although not translated to Greenlandic, a Danish version of Facebook is available. Danish, previously the dominant language in Greenland, continues to be widely and sometimes solely used within matters of Government, business and higher education in Greenland. Whereas the continued impact of Danish presents many opportunities for speakers of Danish in Greenland, it can have negative consequences for the creation and sharing of local knowledge as many Greenlanders in possession of such knowledge lack the ability to speak Danish or other languages.

The advent of Facebook and the rapid development of Information Communication Technology (ICT) in Greenland has the potential to influence the sharing of local knowledge and presents opportunities for Greenlanders with access to the Internet to personally create and share

such knowledge. Written Greenlandic, unlike some Indigenous Arctic languages, uses the Latin alphabet and is thus suitable for use on Facebook, a largely text-based communication platform. The combination of increasing exposure to ICT, combined with social media empowering and enabling individuals to create and share media online, presents new opportunities for Greenlanders regardless of the language they speak. Such new opportunities and the potential they represent have yet to be fully explored from the perspective of Greenlandic speakers using social media. This investigation aims to contribute data and analysis that will shed light on this as yet little explored area of research and, in doing so, will explore the potential for the sharing of GLK on Facebook.

Total Facebook Users:	20 240	Penetration of population:	35.12%
Position in the list:	177.	Penetration of online pop.:	38.92%

Figure 1, Facebook users in Greenland, (Socialbakers, 2011)
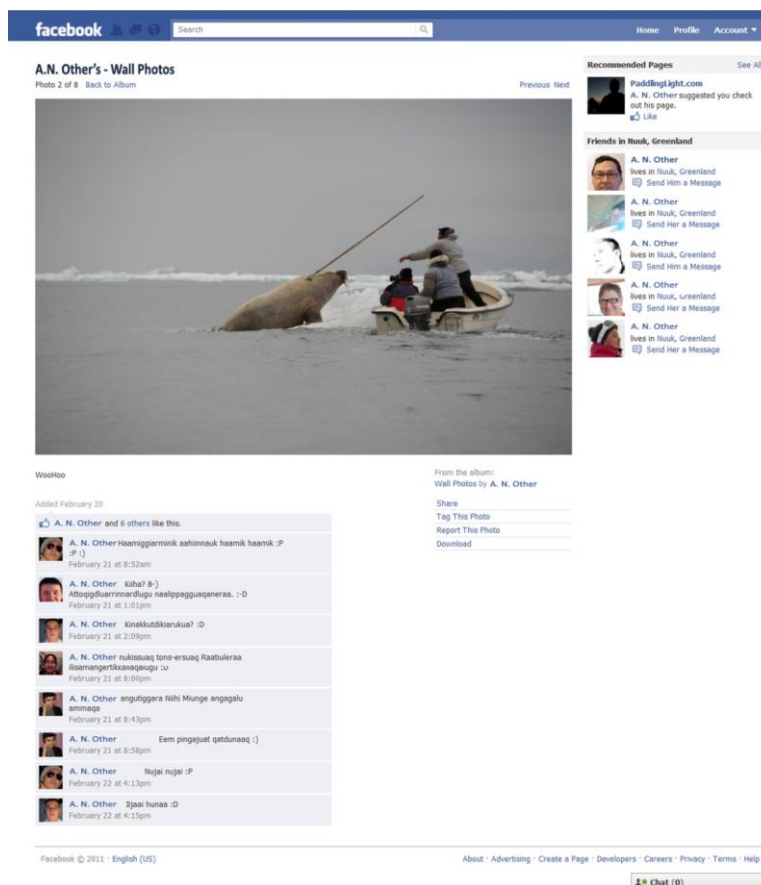
Motivation

Figure 2: Facebook Screenshot of Greenlandic Local Knowledge

In the course of this investigation casual and determined use of Facebook has often revealed material for inclusion. The above image (see figure 2), captured with a screenshot, encapsulates the very idea underlying the project, i.e. the potential to share GLK on Facebook. A Greenlandic Facebook user from the Qaanaaq area of Greenland captured and uploaded this image of the walrus being hunted with a blend of traditional (spear) and modern (motor boat) equipment. The comments and discussion generated following the uploading of this image were made possible by the social media software supporting the Facebook social networking website. The decision to upload the content, however, was made by an individual. The individual shared the content with his Facebook network of friends and friends of friends. Comments were predominantly written in *Avanersuarmiutut*, the dialect of the Qaanaaq area. (This is particularly significant in that little if any of the Qaanaaq dialect has ever been written or recorded on paper.) Whilst the potential for sharing GLK, inspired by this image, will be discussed at length later in this paper, the screenshot itself serves as a visual representation of the motivation upon which this investigation is founded. The discussion surrounding the image has the potential to continue on Facebook.

Similar Investigations

As no previous studies have investigated the use of Facebook in Greenland relevant studies on Greenlanders' use of ICTs and social networking sites, Danes' use of Facebook, and Canadian Inuit's use of multimedia will be reviewed in this section.

Christensen (2003) has explored Greenlandic identity on the Internet. Christensen's online survey was conducted in Danish followed up with some respondents via email. Christensen revealed how the Greenlandic affiliation for the environment was clearly transferred from the physical to the online environment. Christensen's study preceded Facebook; whilst interesting, it is clearly dated considering the ease at which Greenlanders can transfer their identity to the online environment through social media today.

A more recent study by Lynge (2006) took screenshots of Greenlanders' profiles on social networking websites including Arto.dk, a Danish-based chat site also used by Greenlanders, and inequnaq.com, a website similar to the original concept of Facebook. The original concept of *the Facebook*, as popularised by the film "The Social Network" (Columbia Pictures, 2010), allows users to upload pictures of themselves and vote on the pictures of others. Lynge also used

interviews to understand how young Greenlanders create their own identity and communicate online. Lynge confirms the relative lack of research addressing Greenlander's use of the Internet, their habits and preferences (Lynge, 2006, p. 99), and concludes that web pages in Greenland are used by young Greenlanders as a means of meeting new friends and a new way of meeting people one already knows (p. 101). With respect to the Greenlandic identity, Lynge observed that young Greenlanders' identity was linked to their siblings and friends with whom they are connected online (p. 103). The interest in creating networks that include family and friends on Facebook is further explored in this survey.

Klastrup's (2009) investigation of what Danes living in Denmark and abroad do on Facebook provided much inspiration for the online survey for this investigation. However, it is Klastrup's work on Facebook status updates, shown on television (Danskernes Akademi, KNR, 2011), that is of particular interest to this project as will be discussed in the relevant section below. Klastrup identified five types of status updates, ranging from the *personal* to the *dramatic* and the more *interactive* status updates that provide insight into just how GLK could be shared and the knowledge gained through the use of Facebook.

Gearheard (2005) investigated the use of interactive multimedia to document and communicate Inuit knowledge in Canada. Whereas the CD-ROMs produced in connection with recording environmental knowledge by local people are now, by Gearheard's own admission (S. Gearheard, personal communication, March, 4, 2011), quite dated, her continuing work with the Exchange for Local Observations and Knowledge of the Arctic (ELOKA), a project of the National Snow and Ice Data Center at the University of Colorado, exemplifies the role of third-party professionals involved in supporting local people in preserving and distributing local knowledge, digitally and through traditional archiving means. The stewardship of local knowledge, as described in an interview with two ELOKA personnel (2011), will be discussed later in this paper.

The Purpose of the Project

This project explores the suitability and applicability (hereafter referred to as the *potential*) of social media, specifically Facebook, as a platform for sharing GLK by individuals and groups of Greenlandic speakers independent of outside support.

As a result of interviews conducted with representatives of ELOKA and further research conducted online, it is apparent that the archiving and preservation of local knowledge by Indigenous groups is often facilitated by professional organisations, including universities. A wealth of research on the documenting and archiving of local knowledge from, for example, Aboriginal communities in Australia and Inuit communities in the Canadian Arctic has already been conducted. Whilst ELOKA and similar groups play an important role in the preservation, distribution and stewardship of local knowledge, this investigation departs from previous research in that it is more concerned with how social media alleviates the need for a third-party to be involved in the preservation and distribution of local knowledge.

This project therefore attempts to show that knowledge created by an individual can be shared with others without the need for a third party and without entering into the contentious area of Indigenous Property Rights. It is the responsibility of the individual Greenlandic Facebook user, indeed any Facebook user, to decide what media and information they choose to share on Facebook. This project assumes that Greenlandic Facebook users are aware of the concerns expressed by many Facebook users across the world as to who has the right of ownership of content uploaded to Facebook. The issue of ownership, be it Intellectual and/or Indigenous Property Rights, is beyond the scope of the current paper.

The Problem and Hypotheses

The current study is guided by the following research questions covering two areas of interest: sharing and language.

The first research question concerns the sharing and related activity between Greenlandic Facebook users, their Facebook friends and friends of friends.

Research Question 1.1-3: "sharing"

1.1 What kind of information are Greenlanders sharing on Facebook?

1.2 How are Greenlanders sharing on Facebook?

1.3 With whom are Greenlanders sharing the information on Facebook?

This question is supported with the following hypotheses that:

Question 1, Hypothesis 1:

Greenlandic Facebook users are predominantly engaged in the communication of social information (e.g. personal news).

Question 1, Hypothesis 2:

Greenlandic Facebook users activity, i.e. information and media sharing, suggest that local knowledge can also be shared on Facebook.

The second research question concerns the language used by Greenlandic Facebook users when they are sharing information and media on Facebook.

Research Question 2.1-2: "language"

2.1   To what extent are Greenlanders using their own language and dialects on Facebook?

2.2   How does the use of Greenlandic on Facebook influence the creation and sharing of Greenlandic Local Knowledge?

This question is supported with the following hypotheses that:

Question 2, Hypothesis 1:

Facebook supports the use of Greenlandic and Greenlandic dialects.

Question 2, Hypothesis 2:

Greenlandic Facebook users conversant in more than one language are more active and thus better able to demonstrate the potential for Facebook as a means of creating and sharing GLK.

Project Limitations

The project is limited to interpretation on the self-report data collected from respondents to the online survey. Whilst necessarily limited in scope the project does provide unique insights into many specific elements of sharing GLK on Facebook, and thus it is hoped that this paper will serve as a starting point for similar research projects in the future.

Central Themes of the Project

The central theme discussed in the project concerns the potential for Greenlandic Facebook users to share GLK independently. In the following discussions and analysis of the data collected relevant themes associated with sharing will include access to Facebook. The theme of access will incorporate aspects relevant to language but will also address other issues including those of technology, connection and the cost of Internet access in Greenland. Trends and activity associated with sharing and language found in the data will also be analysed and presented in connection with the research questions and supporting hypotheses.

Notes on the Appendices

All appendices to this project indicated in the text are available in PDF format on the attached CD. A complete list of the appendices can be seen in the relevant section below.

Theoretical Framework

> Knowledge is one of those concepts that is extremely meaningful, positive, promising, and hard to pin down (Von Krogh, Ichijo & Nonaka, 2000, p.5).

If we are to begin to understand how social networking sites such as Facebook can support and facilitate the sharing of knowledge between the Greenlandic people we must first determine the nature of the knowledge to be shared. It is also important to identify the similarities and differences between such knowledge and the concept of knowledge as understood in Europe and North America. It will become clear through the course of this paper that differences in the understanding of knowledge exist between the cultures of indigenous peoples, including the Inuit of Greenland, and the West. Such differences highlight the need for alternative thinking when creating, sharing and taking responsibility for knowledge.

In this section the knowledge to be shared or having the potential to be shared by Greenlanders on Facebook will be defined. This will be done in three parts. First, a broader look at knowledge from a typically Western point of view will be presented, identifying both explicit and tacit knowledge. Business ideas and theories associated with knowledge creation and enabling will be used in considering how such knowledge is shared. Second, having established the concept of knowledge from a Western perspective, the Inuit concept of knowledge will be discussed as this has bearing upon the sharing of GLK on Facebook. Finally, areas of overlap between the two concepts and understandings of knowledge will be illustrated and examined in relation to how modern strategies of knowledge enabling, Inuit knowledge sharing traditions and ICT might be combined to facilitate the sharing of GLK on Facebook.

Western Knowledge and Knowledge Enabling

In this paper, the term "Western Knowledge" is used to convey the concept of knowledge seen from a typically Western perspective. For the purpose of this paper the term includes the means by which we in the West seek to acquire knowledge through traditional schooling and further education from generation to generation. The gaining of knowledge in this context occurs typically but not exclusively within schools and other formal educational institutions. The metaphor for learning is acquisition, rather than participation (Sfard, 1998). Although alternative pedagogical approaches exist that incorporate more experiential and problem-based learning

approaches, this is not the case in modern Greenland. As Greenland continues to be influenced by its colonial past the formal education system in Greenland continues to be very traditional, i.e. learning occurs typically in institutions where there is an emphasis upon a teacher transmitting a curriculum and presenting written learning materials to pupils. The impact and influence that Western educational practices have had and continue to have on Inuit culture is an important consideration in this paper.

From a Western business perspective, knowledge is big business with a wealth of literature and theories developed to facilitate the sharing and use of knowledge, both explicit and tacit, in organisations today. Incorporating strategies of knowledge management has been recognised as sound business sense for organisations wishing to achieve greater success. This paper includes elements of knowledge management in business that are relevant to this study. For example, the work of Von Krogh, Ichijo and Nonaka (2000) sheds interesting light on both the creation of knowledge and the means of using it to best effect. Their work on knowledge enabling has inspired this investigation and their view of knowledge, described below, will be used in discussion of findings in this paper.

> Von Krogh et al. (2000) suggest that
> *[K]nowledge is justified true belief*. An individual justifies the truthfulness of his or her beliefs based on observations of the world; these observations, in turn, depend on a unique viewpoint, personal sensibility, and individual experience (p.6).

The concept of justified true belief as a unique, personal, and individual experience is important to understanding the indigenous/Inuit concept of knowledge. Von Krogh et al emphasize a level of responsibility that the knowledge creator assumes stating that "when somebody creates knowledge, he or she makes sense out of a new situation by holding justified beliefs and committing to them" (p. 6). This *commitment* will be explored further in the section on Greenlandic Local Knowledge below.

In addition to the broader, more personal concept of knowledge provided above, this paper will now focus upon the two types of knowledge that institutions and organisations in the West are concerned with, namely explicit and tacit knowledge. Von Krogh et al define the two types of knowledge thus:

[K]nowledge is both explicit and tacit. Some knowledge can be put on paper, formulated in sentences, or captured in drawings. ... Yet other kinds of knowledge are tied to the senses, skills in bodily movement, individual perception, physical experiences, rules of thumb, and intuition. Such tacit knowledge is often very difficult to describe to others (Von Krogh et al., 2000, p. 6).

The above definition of explicit and tacit knowledge provides us with a base of understanding and explains that identifying tacit knowledge is more challenging than identifying explicit knowledge. The following sections will briefly explore explicit knowledge, whilst taking greater care to identify tacit knowledge. Peat (1994) suggests that tacit knowledge is crucial in Inuit knowledge systems. Therefore, I draw on the work of Von Krogh et al when exploring the concept of *knowledge enabling*, an alternative to the more widely quoted concept of *knowledge management*. I intend to demonstrate later in this paper how the concept of knowledge enabling combined with an appreciation of tacit knowledge are of particular relevance when considering the sharing of Inuit knowledge through social media.

Explicit Knowledge

Though easier to understand and demonstrate explicit knowledge, it should neither be underrated nor ignored for its impact upon learning be it in a traditional learning institution or modern organisation. Whilst less exotic than its more shadowy partner, tacit knowledge, the incorporation of explicit knowledge in knowledge sharing practices allows for a rapid dispersal of knowledge within a organisation or community, often and sometimes exclusively through the use of ICT designed for such a purpose.

Wenger's (1998) work on Communities of Practice lends itself equally well to the sharing of explicit knowledge between colleagues within an organisation or members of an Inuit community. However, in light of the discussion above pertaining to traditional means of imparting knowledge, according to Wenger (1998)

if we believe that information stored in explicit ways is only a small part of knowing, and that knowing involves primarily active participation in social communities, then the traditional format (a teacher lecturing a class) does not look so productive" (p.10).

In effect, explicit knowledge requires active participation to be effective, it is not sufficient for institutions and organisations to rely upon the accessibility of explicit knowledge, reproduced in various forms. Even explicit knowledge requires activity around it in order to be learned. Incorporated within Wenger's concept of practice in social communities one can find explicit "language, tools, documents, images, symbols, well-defined roles, specified criteria, codified procedures, regulations, and contracts" (Wenger, 1998, p. 47), each of which can be made accessible to members of social communities or even students or colleagues within an institution or workplace. What follows with these explicit, more tangible tools and repositories of information and knowledge are the "implicit relations, tacit conventions, subtle cues, untold rules of thumb, recognizable intuitions, specific perceptions, well-tuned sensitivities, embodied understandings, underlying assumptions, and shared world views" (Wenger, 1998, p. 47) to which they relate. To consider how such implicit tools, behavioural cues and less visible content can lead to the creation and sharing of knowledge we must consider the concept of tacit knowledge.

Tacit Knowledge

I shall reconsider human knowledge by starting from the fact that *we can know more than we can tell* (Polanyi, 2009, p. 4).

Polanyi succinctly informs us, above, that the exploration of tacit knowledge is going to be far from straightforward. Several of Polanyi's ideas in combination must be considered when exploring tacit knowledge, starting with Polanyi's (1966) considerations of "an active shaping of experience performed in the pursuit of knowledge. This shaping or integrating I hold to be the great and indispensible tacit power by which all knowledge is discovered and, once discovered, is held to be true" (p. 6). Polyani's truth is echoed in Von Krogh et al's *justified true belief* (see above), and both ideas suggest that when we are able to actively shape and thus give meaning to something, that thing then becomes knowledge that we can believe to be true and then integrate into our collected knowledge. Whilst the active element of discovery, Polanyi's shaping of experience, can occur in participation within a community, the ultimate discovery resides in the individual where true *personal* belief can be found.

Polanyi's work on tacit knowledge incorporates many interrelated elements, from the *functional* through to the *ontological* aspect of tacit knowing. For the purpose of this paper,

however, a more straightforward incorporation of Polanyi's work has been adopted in order to ensure greater application of the similarities between Western and Inuit knowledge. Furthermore, in order not to overreach the remit of the project survey and analysis, a more straightforward representation is useful when considering the already challenging concepts of entering into a relationship with knowledge coupled with Polanyi's functional aspect of tacit knowledge to be explained below.

Through his observations of the use of electric shock syllable and association experiments Polanyi believes that tacit knowledge involves two *terms* of tacit knowing. The second term of tacit knowing relies upon knowing something by attending to it. In Polanyi's example he illustrates the subject knowing the particulars of the electric shock by *attending to it* (p. 9-10). For example, syllables signifying the approach of an electric shock focus the subject's attention upon the coming shock, but he can only be aware of the shock itself, in this instance the first term of tacit knowing, because he *attends to* the awareness of the particulars of the shock. "Such is the *functional* relation between the two terms of tacit knowing: *we know the first term only by relying on our awareness of it for attending to the second*" (p. 9-10).

Consider, for a moment, a more Greenlandic example of the functional aspect of tacit knowledge. The *qajaq*, the original kayak, is a traditional Greenlandic hunting tool, the use of which in hunting narwhal is still evident in Qaanaaq, north Greenland, today. When paddling in strong winds the qajaq is susceptible to being violently blown about if the hunter does not compensate for the effects of the wind. His awareness of the effects of the wind, just like the subject tensing prior to the coming shock in Polanyi's example, allow the hunter to know the wind itself by *attending to* its effects. The hunter, in actively shaping his experience of the knowledge of the wind and its effects, finds his discoveries to be true. The functional aspect of tacit knowing in this example, like Polanyi's example above, is not easily conveyed in an explicit manner. The waves of emotion and response associated with a coming electric shock are just as varied and numerous as the emotions and responses elicited by the coming wind. These two examples are also comparable in that one cannot directly see electricity or wind. The subject above attends to the electric shock on recognition of a particular syllable shown, the hunter, likewise, attends to the wind on recognition of particular signs of the effects of the wind, also shown. To echo Polanyi, one can say that both the subject of the controlled test and the hunter have gained tacit knowledge through active shaping of their experience in the pursuit of such knowledge. Whether in the laboratory or at sea the pursuit of such knowledge is equally relevant.

Tacit knowledge is of particular relevance to this investigation in that local Greenlandic knowledge is typically not written down and thereby more tacit than explicit, i.e. it is shared in a more practical application similar to the apprenticeships documented by Lave and Wenger (1991) in regards to situated learning and legitimate peripheral participation. If the hunter in his kayak were to have "apprentices" with him, their "legitimate peripherality" (Lave & Wenger, 1991, p. 95) places them in far more than just an observational perspective; they are involved in "participation as a way of learning – of both absorbing and being absorbed in – the "culture of practice"" (p. 95).

Despite the explicit nature of Facebook, for example the text and images containing more explicit information, the social network and community also provides a means of legitimate peripheral participation. As will be explored later in this paper, participants within a social community, such as a group of Greenlandic higher education students, active within a Facebook network have the potential for participating in a community of practice of Greenlandic local knowledge. Tee and Karney (2010), suggest that students who engage in discussion online shared more tacit knowledge by expressing "a greater diversity of opinions and perspective that are usually not present in explicit sources" (Tee & Karney, 2010, p. 395). Thus, Greenlandic students may use the different tools in Facebook as a means of creating and sharing knowledge as they engage in discussion within their community of practice.

Tee and Karney (2010) studied the sharing and cultivation of tacit knowledge in an online learning environment by isolating and identify key learning episodes experienced by participants in online discussions. Incorporating Polanyi's (1966) work on tacit knowledge and Takeuchi and Nonaka's (1995) SECI model of knowledge creation. Tee and Karney observed that the instructor on the course noted that "on a number of occasions ... the students knew and could do more than they were able to express" (Tee & Karney, 2010, p. 404), thus supporting Polanyi's (1966) generalisation of tacit knowledge. However, the students themselves revealed that during the course "they had cultivated significant personal tacit understanding" (p. 404). This investigation thus supports ideas to be explored later in this paper concerning the knowledge that can be created and shared on Facebook.

Having identified the fact that tacit knowledge is still somewhat *"hard to pin down"* (Von Krogh et al, 2000, p. 5) the following section will consider how such knowledge is created and shared in the modern society and organisation.

Knowledge Creation and Knowledge Enabling

The advent of web 2.0 has placed creation firmly in the hands of the individual and groups of like-minded individuals engaged in the production of a vast range of information, material and even products to be shared and distributed on the Internet. As Shirky (2008) revealed in his work on how people coming together can influence change, we are no longer limited in our private lives and we can actually make use of "capabilities previously reserved for professionals" (p. 17). Shirky noted that the publisher Tim O'Reilly recognised that these newly available capabilities build upon "an architecture of participation" (p. 17). This is clearly visible in the ongoing development of Wikipedia, an online encyclopaedia relying upon contributions from ordinary individuals, i.e. people contributing their own private time and energy to a larger community project.

Shirky (2010) also introduced the concept of "Cognitive Surplus" to explain the shift of time previously devoted to television to more creative pursuits that can be seen and measured through personal projects and contributions of time and energy made online. Television was introduced to Greenland much later than in Shirky's USA and has had a shorter period of time in which to impede upon the creativity of Greenlanders. Historically, Greenlanders are perhaps by definition far from idle in that families, especially those from hunting backgrounds, must be provided for and this takes time. The hunt is a time-consuming activity as is the preparation of the skins to be sold and made into clothes. In fact many of the activities associated with living so closely to the land are neither short in duration nor passive like watching television. Today, as modern, more traditionally Western lifestyles are now increasingly evident, one could surmise that fewer Greenlanders are as active and thereby creative as they were previously. Yet, one could argue that the relatively short exposure to television combined with the rapid introduction and development of digital media and the Internet in Greenland has left a less visible mark on periods of inactivity when compared with the West, particularly the US. The change that Shirky identifies in the US, that "[o]ld logic, television logic, treated audiences as little more than collections of individuals ... members [of which] didn't create any real value for one another" (Shirky, 2010,p. 42), did not perhaps have the same effect on the population of Greenland. However, "[t]he logic of digital media, on the other hand, allows the people formerly known as the audience to create value for one another every day" (p. 42).

The premise of this investigation has been that Greenlanders interacting on the Internet and specifically, on Facebook, create *value* for one another in the sharing of personal stories through social media and links to various websites. The *creativity* of these individuals can be seen in what they share. The *value* derived by others can be seen in their reactions using tools and functions on Facebook such as *comments*, *likes*, and *tags*. The relationship between the individuals can be clearly seen and one can begin to measure the value of the individuals to one another by observing such interaction. Furthermore, I would argue that such relationships allow for greater participation within a social community that may develop into a community of practice, members of which have the potential to engage in learning situated within the virtual space that is Facebook.

When considering knowledge creation Von Krogh et al, (2000) believe "the creation of knowledge is not simply a compilation of facts but a uniquely human process that cannot be reduced or easily replicated. It can involve feelings and belief systems of which one may not even be conscious" (p. 6). As will be demonstrated in the following section, there are indeed beliefs incorporated within the knowledge systems of indigenous groups including the Greenlandic Inuit. However, the *uniquely human process* mentioned above complements the *value* individuals find within the creation and sharing to be found on and facilitated by Facebook. Furthermore, Von Krogh et al are convinced "that knowledge cannot be managed, only enabled" (p. vii) and I would argue that Facebook, by design, supports knowledge enabling. However, this over-simplification fails to recognise what Von Krogh et al identify as "the overall set of organizational activities that positively affect knowledge creation" (p. vii). In other words knowledge enabling is far more involved than the simple act of sharing one's creation on Facebook. Parallels can be drawn between knowledge enabling in the organisation and the potential for the same on Facebook. Von Krogh et al state that "[k]nowledge enabling includes facilitating relationships and conversations as well as sharing local knowledge across an organization or beyond geographic and cultural borders" (p. 4). Von Krogh et al.'s conceptualization of knowledge enabling will be used to inform the data analysis section, especially the notion that "[a]t a deeper level ... it relies on a new sense of emotional knowledge and care in the organization, one that highlights how people treat each other and encourages creativity – even playfulness" (p. 4).

Facebook encourages creativity by providing each Facebook user with a variety of options and functions. Once a user is logged into Facebook they immediately have the option of doing something creative, be it sharing their status or a link, for example. The initial range of options is

always available as a toolbar at the top of the user's profile page (see figure 3) and it is in response to other user's sharing that we can see how users treat and care for one another and how this can impact creativity.

Figure 3: Facebook sharing toolbar

The following section regarding GLK contains some challenging elements of knowledge that those of us with a traditionally Western mindset can find difficult to comprehend. Such concepts are, however, beginning to be addressed albeit vicariously through the advent of social media. In light of this and in anticipation of the next section we should consider the following statement that "[k]nowledge, for us [in the west], is an abstraction with no independent existence" (Peat, 1994, p. 67).

Greenlandic Local Knowledge and Coming to Knowing

> In Greenland, the environment is the very basis of all life; it provides for both economic and cultural needs. As the environment changes, so does the way of life for Greenlanders; and as Greenlanders change, so will the environment. (Petersen 2010, p. 270)

Terms such as *Traditional, Local, Inuit, and Indigenous* are often used in combination to describe the non-western knowledge systems researched in numerous studies in areas where people live closely with the environment. For example, Lodhi and Mikulecky (2010) broadly define *Indigenous Knowledge* (IK) as "knowledge of indigenous (local) community accumulated over generations of living in exacting environment. This definition encompasses all forms of knowledge – technologies, know-how skills, practices and beliefs – that enable the community to achieve stable livelihoods and survival in their environment" (Lodhi & Mikulecky, 2010, p. 94).

Although the words *local* and *indigenous* appear to be interchangeable in the above definition, not all members of an Inuit community are indigenous. As inferred by Pulsifer and

Parsons (P. Pulsifer & M. Parsons, personal communication, February, 21, 2011) from ELOKA the word "local" may be substituted for "indigenous" to define the knowledge under investigation in this paper. As Greenland is an exacting environment in the sense that local knowledge is necessary for survival Lodhi and Mikulecky's definition is appropriate and pertinent to Greenlanders today as in the past. Furthermore, the term *Greenlandic Local Knowledge* (GLK) used throughout this paper specifically identifies the origin of the knowledge, its roots in the environment and its national identity, of particular relevance when being shared online. However, whilst this paper will continue to refer to the knowledge to be shared on Facebook as GLK, some examples common to Inuit, Eskimo and native peoples indigenous to North America will be used to illustrate the specific aspects of knowledge experienced in places where people lived and live close to the land.

Lodhi and Mikulecky (2010) develop their definition in stating that indigenous knowledge "is usually shared among local communities and transferred from one generation to the next, through oral traditions and storytelling" (p. 94). There are similarities to be found in the history of the Greenlanders and other communities living closely with their environment such as the Blackfoot Native Americans. Peat (1994) has observed similar characteristics of knowledge among the Blackfoot people, observing that

the heart of traditional knowledge cannot be translated, written down in a book, or transposed to an individual living thousands of miles away in a totally different environment. Knowledge belongs to a people, and the people belong to the landscape (p. 63).

Peat, writing ten years prior to the advent of Facebook, could not foresee just how the Internet, ICT and social media would reduce miles to an insignificant measurement in terms of communication. The transposition of local knowledge, however, is perhaps equally challenging today as it was then.

Westerners are likely able to quickly appreciate the concept of gaining knowledge through observation and repeating an act one has observed. Describing a hunter demonstrating to his boys how to hunt reindeer with a bow and arrow in Alaska, Barnhardt and Kawagley (2005) present a picture we can identify with in that the "knowledge, skills, and standards of attainment required to be a successful hunter were self-evident, and what a young hunter needed to know and be able

to do were both implicit and explicit in the father's lesson" (p. 9). As stated above, explicit knowledge that we can see or receive visually and orally through demonstration is relatively easy to both impart and import. In the case of the hunter, it is the tacit knowledge, small yet vital practices and habits that are harder to witness and more difficult to process.

Peat maintains that Polanyi's (1966) *tacit knowledge* "comes close to the Native American's vision of coming-to-knowing. In both cases the knowledge is acquired through experience and relationship with the thing to be known. In both cases the knowledge is not so much stored as data in the brain but is absorbed into the whole person" (Peat, 1994, p. 66). The boys observing their father hunting reindeer have a greater chance of absorbing their father's tacit knowledge as they already have a relationship with and experience of the knowledge to be known. This is related to Lave and Wenger's (1991) legitimate peripherality, in that the boys are *absorbing* and *absorbed* in a culture of practice. The Native Americans are very familiar with the reindeer, its habits and habitat, as they were, traditionally at least, dependent upon the reindeer for their own survival. A Westerner would miss many of the unspoken practices performed by the hunter as they do not necessarily have the same experience of or relation to the animal or the environment. Of course, this could be rationalised by suggesting that given sufficient time Westerners too would begin to pick up on the tacit knowledge imparted by the hunter. However, in the course of such rationalisation we would miss another aspect of indigenous knowledge that is at once hard to conceptualise and interpret, thus serving to further mystify indigenous knowledge and knowledge systems; Peat (1994) explains:

> When I listen to Native people I get the impression that knowledge for them is profoundly different: It is a living thing that has existence independent of human beings. A person comes to knowing by entering into a relationship with the living spirit of that knowledge (p. 67).

Let us dare to explore the more spiritual element of knowledge attainment, an element that would appear to be very far from the Western understanding of knowledge. Whilst on first impression it might be alien in concept, the idea of entering into a relationship with the living spirit of knowledge, and the coming to knowing of Native American knowledge systems, is not unlike Polanyi's (1966) functional aspect of tacit knowing (above). In the example above the boys are observing their father hunting reindeer. Their relationship with the experience to be known, i.e. killing the reindeer with a bow and arrow, enables them to *attend from* their father's

explicit demonstration and thus *attend to* the tacit knowledge of, for example, changes in their father's behaviour that were neither spoken of nor explained prior to or preceding the lesson. Much like the hunter in his qajaq (kayak), the boys actively shape the experience of the knowledge to be gained by attending to, for example, their awareness of the reindeer's reaction to being struck by the arrow, and thus learn where best to place that same arrow when attempting to bring down the reindeer. As the boys entered into a relationship with the knowledge to be shared they built upon their existing knowledge and added to what they observed through reflecting upon their relationship with, and understanding of the experience. Just like hunter in his qajaq, the boys are aware of the environment and their place within it, and thus tacit knowledge, almost spiritual in nature, is more easily learned.

In modern terms, when we consider the knowledge sharing potential of social networking sites like Facebook, we must also consider the tacit knowledge and the knowledge spirits that are underlying the information being shared between, in the case of this paper: Greenlandic Facebook users. Peat says that "[k]nowledge in the traditional world is not a dead collection of facts. It is alive, has spirit, and dwells in specific places" (p. 65). I argue that this is also the case in the modern world of which Greenlanders are very much a part. If we in the West can live with the fact that we can neither physically touch nor truly explain the invisible contacts made possible by social media technology in the ether of Facebook then, perhaps, we are ready to begin to apply such acceptance to the fact that the alien concept of knowledge spirits in indigenous cultures is equally real, and equally difficult to quantify.

In the following section further consideration will be given to identifying how modern concepts of knowledge enabling together with indigenous ideas of knowledge spirits experience areas of overlap. Within these overlapping areas we can begin to appreciate how social media technology can facilitate the process of sharing GLK on Facebook.

Knowledge Sharing Strategies: Modern and Indigenous

As has been demonstrated above, there are many similarities in the ways in which knowledge can be shared using modern and indigenous practices and theories. If we consider the business concept of knowledge enabling (Von Krogh et al, 2000) highlighting care and creativity, and combine that with a community of practice, one can surmise that an organisation wishing to enable the creation and sharing of knowledge should invest in a caring and supportive environment within which staff feel comfortable. Community members that are secure and comfortable within a community of practice are thus more likely to enter into legitimate peripheral participation for extended periods. According to Lave and Wenger (1991) "[a]n extended period of legitimate peripherality provides learners with opportunities to make the culture of practice theirs" (Lave & Wenger, 1991, p. 95). Similarly, like the boys hunting reindeer with their father, the culture of practice becomes theirs as they participate within it. The more one participates within a culture and community of practice the greater the impact it has upon one's life.

Wenger et al (2002), in considering the cultivating of communities of practice, place great emphasis upon the concept of *aliveness*. From the perspective of the Inuit one can say that the environment is very much alive; they are living in harmony with the land, absorbing the knowledge to be learned from their participation in lessons within a context of situated learning. If we consider further the concept of relationship, to the land, between community members and in relation to the knowledge to be learned, Wenger et al believe that within communities the principle "is not only to encourage participation, but also to help weave connections among these diverse constituents [community members]. This is done both by encouraging informal relationships and by designing formal systems and policies that foster coordination and alignment" (Wenger et al, 2002, p. 193). Similarly, Facebook as a platform for the potential creation and sharing of GLK supports the cultivation of communities of practice by bringing the relationships and content to life, thus giving value to the relationships and to the content being shared. The caring and creative element for communities provided by the Facebook platform is consistent with Wenger et al's comment that "[c]ommunities create aliveness through a mix of public and private spaces that encourage diverse forms of participation" (p. 193). By design Facebook enables communities to create such aliveness. What is missing in this scenario is a greater definition of the human element of participation, caring and support necessary to stimulate the creation and sharing of GLK. To investigate the human element relevant to this

investigation, I analyze the data collected from the online survey through the lens of the above theories to understand ways in which Facebook affords Greenlanders with the virtual space to create and share knowledge.

Theory: Opportunities and Limitations

Whilst business models of communities of practice and knowledge enabling appear to be relevant to this investigation it is important to recognise that such organisations have a vested interest in the creation and sharing of knowledge. Knowledge, as suggested earlier, is big business. Successful knowledge strategies can make the difference between profit and loss. The communities considered in this paper are not professional organisations with common goals. Nor are they communities that have been created by a third-party with the intent to create and share GLK. Therefore, one can only suggest how such theories could the practices of various Greenlandic Facebook communities.

Nonetheless, it would be interesting to see the commonalities between the formal and informal means of participating within a community seen from the perspective of an organisation and a Facebook network of friends. Equally thought-provoking is the concept of situated learning that can be enacted in a community, be it on the open tundra of Alaska or within an online community. Culture is important and the culture of practice; sharing a common point of reference and understanding; engaged in a relationship to each other and the place, virtual or otherwise, incorporates a legitimacy of participation that stimulates the sharing of knowledge. Active participation appears to be the key and, as suggested above, it is important to consider such activity and participation when analysing the data collected later in this paper.

Method

This paper investigates the use of Facebook by Greenlandic Facebook users resident in both Greenland and abroad. The method detailed below was chosen as the best means available in answering the research questions and supporting hypotheses of this investigation. Whereas much of the previous theories outlined above concerns the creation and sharing of knowledge to understand the potential of Facebook for sharing GLK between Greenlandic Facebook users the survey was designed to reveal the actual use of Facebook by Greenlandic Facebook users. The data collected in the survey, combined with the theoretical foundation of knowledge creation and sharing will provide a suitable base of understanding from which an answer to the research questions can be found and conclusions and recommendations drawn.

This investigation incorporated a closed-ended online survey to collect as much data as possible to answer questions related to the activity of Greenlanders on Facebook, as well as the language and dialects that they are using on Facebook. Closed-ended questions on an online survey were chosen to optimize response rate (Andersen & Kanuka, 2003).

Survey Design

The online survey was conducted using SurveyXact (www.survey-xact.dk) software and website provided by Rambøll Management. The collection of questionnaire data was chosen as the most appropriate means to answer the research questions for two specific reasons. First, the survey needed to be accessible for the majority of Greenlanders. Christensen's previous survey investigating the Greenlandic presence on the Internet and its influence upon identity (Christensen, 2003) was conducted predominantly in English and Danish, both for the online survey and as the chosen language for follow-up email interviews. As Christensen observed "this prevented not only non-users from participating but also people who were not confident or able to write and express themselves through those written languages" (Christensen, 2003, p. 31). Based on Christensen's experience, this survey was written in Greenlandic in order to reach as many Greenlandic respondents as possible. Further issues surrounding the use of Greenlandic only are raised in the section on ethics section below.

Second, as covered in more depth below, the researcher was limited by a lack of proficiency in Greenlandic and wanted thus to deny respondents the means to write longer

responses requiring translation. Responses could, however, be shared on the Facebook page through Facebook users' own initiative in the language of their choice.

Consequently, the design of the survey predicated the language it was to be written in and the form it would take, i.e. one-click multiple-choice responses, not least through a wish to encourage further cooperation from the respondent, as suggested by Oppenheim (Cohen et al, 2007, p. 336).

Supplemental Interviews

Some interviews were undertaken in order for the researcher to gain a better understanding of the current means of digitally archiving local knowledge shared by indigenous Arctic groups. The interviews were conducted through Skype and recorded, with the interviewees' consent for the purpose of note-taking. The interviews were conducted on two separate occasions, the initial questions for each having been sent in advance to provide a framework for the interview. The information provided by the interviewees has not been used in connection with the data collected from the online survey and should be seen as separate from such.

Empirical Foundation

Facebook by design allows for access to a vast amount of information that can be analysed and interpreted by researchers. All information shared on Facebook, regardless of media type or substance, is documented and preserved and can be backtracked to its origin and the identity of the originator can be revealed, often without the need to be personally connected to that person on Facebook. As a result, the empirical foundation of any research on Facebook is at once accessible and potentially overwhelming.

Rather than lurk unseen on Facebook, gathering information, the researcher chose to openly ask specific questions through the use of the online survey in order to confirm personal observations of the use of Facebook by his Facebook friends, Greenlandic and otherwise.

As identified within the introductory section of this paper, other investigations have revealed similar empirical evidence suggesting that Facebook is a powerful medium for sharing, communicating and interacting with others. Global interest in Facebook as a phenomenon and its

impact on people's lives around the world can be observed in all forms of digital and print media, both amateur and professional. This foundation and wealth of readily available observations and opinions about Facebook contribute to the overall resources available to support an investigation of this type. In fact, in such an investigation as this it is important not to be distracted by the overwhelming mass of material available, much of which is not relevant to this investigation.

Survey Ethics

Like many researchers of Facebook, the researcher is also a Facebook user. As will be revealed in the section on distribution below, there is an element of subjectivity inherent in any research in which the researcher knows, or is linked to the respondents to his or her survey. The researcher is at once embedded within the subject group, much like Klastrup (2011) describes in her own observations of her friends' status updates. Like Klastrup, the researchers own interest in what was being shared by Greenlandic Facebook users was piqued by actual observations of his own Greenlandic Facebook friends. Whilst this detracts from a more traditional experiment and introduces an unavoidable element of bias, it does provide for a more meaningful qualitative analysis as the researcher has existing rapport with the participants. It also enables further interaction between the researcher and his subjects. The researcher personally experienced comments on his Facebook page that highlighted a specific problem with the formulation of one of the questions. Additional comments were also shared on Facebook and it was therefore possible to follow up on other aspects of the investigation that the researcher might not have been aware of had he not been in a relationship with the subjects. The extent to this relationship will be explored further in the section on distribution; however, the instant nature of feedback on Facebook can be likened to the respondents to Christensen's (2003) survey who provided him with the means of further contact via email. For the purpose of this investigation further contact for the purpose of clarification of a point from respondents, known or otherwise, was neither suggested nor sought. Further comments shared on Facebook were done so spontaneously by Greenlandic Facebook users.

A second significant ethical concern was that in choosing to write in Greenlandic only, a small population of Greenlanders was excluded from participating in that they do not speak Greenlandic. Although the data collected from many non-Greenlandic speaking Greenlanders would surely have contributed and even increased the amount of usable data, this group was deliberately excluded. Had non-Greenlandic speaking Greenlanders been included in the survey it

would have been published in Danish, thus enabling the many thousands of Danes living in Greenland, and potentially thousands more outside of Greenland, to respond. As the investigation is primarily interested in investigating the Facebook habits of Greenlanders, indigenous to Greenland and of Inuit descent, it was deemed acceptable to release the survey in Greenlandic only. The number of Greenlandic-speaking non-Greenlanders who might respond to the survey is, in the researcher's personal experience, negligible. Determined users, however, could have completed the survey through clicking alone, regardless of the language it is written in. As this is true of all anonymous closed-ended online surveys this particular problem will not be considered further.

Finally, the very nature of the online survey would preclude participation of *non-computer users*, but not necessarily *non-Facebook users*. The researcher has experience of some Greenlandic non-computer users who access Facebook purely through their mobile phone. Given the cost of accessing the Internet via one's mobile in Greenland it is unlikely, though not impossible, that such users would have participated in the survey. This has not been investigated further.

Distribution

The link to the online survey was distributed through 1. A Facebook Page created for the purpose and 2. An article in Greenland's national newspaper. Both distribution methods are discussed below.

1. Facebook Page

A Facebook page was created to host the link to the survey (see figure 4). The page itself was designed to facilitate feedback and participation from respondents and, more importantly, to enable the sharing and thus distribution of the survey via a network of Greenlandic Facebook users. With the addition of a "like" button it was possible for users to instantly share their interest in the survey and thus encourage others to respond.

The researcher initially made use of his own network of Facebook friends to inform them of the existence of the survey, explain what he was trying to achieve and to encourage them to share the link with their own friends. The ethical dilemma that this presents in an online survey

has been introduced above. However, it is interesting to note that of the 143 people who have indicated that they "like" the page (March 2011) only 24 are connected to the researcher personally on Facebook, of which 7 are non-Greenlandic speakers and cannot, theoretically at least, complete the survey.

The link was shared often in status updates on Facebook and the researcher noticed that several of his friends regularly did the same. The link was also shared on relevant Greenlandic Facebook pages and Facebook groups about Greenland, of which there are surprisingly few at the present time. During this period the researcher was personally less critical about accepting friends on Facebook and about joining groups and liking pages, with the sole purpose of distributing the survey to as many Facebook users as possible.

Figure 4: Facebook Survey Page created for the purpose of the investigation

2. National Newspaper Article

The researcher contacted the editor of Grønlandsposten (AG) one of two national newspapers in Greenland. Following an interview an article was published in both Greenlandic and Danish (see appendix 1) As AG is also available online it was possible to share the web

edition on Facebook and, once again, it was noticed that several of the researchers Facebook friends did the same. AG's printed article included a written link to the survey as did the online web edition.

The researcher anticipated that having a large number of Greenlandic Facebook friends would allow him to build a level of interest both quickly and easily. Whilst this strategy of using the social media tools available on Facebook created a quandary, in that the researcher would of course know some of the potential respondents completing the online survey, it was also a means of testing the theory that Facebook friends can indeed share information and links for a variety of specific purposes.

Whilst distribution on Facebook alone limited the potential respondents to active Facebook users connected to the researcher and his friends, the newspaper article allowed for AG readers, both on and offline, to discover the survey by following the link. It is believed then that the combination of Facebook and AG allowed the researcher to reach a relatively large group of Greenlandic Facebook users within Greenland and living abroad.

Challenges

There were a number of challenges to be overcome within the project the most of significant of which were as 1. Greenlandic, 2. Facebook Fatigue, 3. The current Greenlandic Facebook Presence and 4. Geography, each of which is discussed below.

<u>1. Greenlandic</u>

By far the greatest challenge was the use of Greenlandic as the language for the survey and potential communication on Facebook. The original questions needed to be translated, and a translation was sought and paid for. Greenlandic, however, is a difficult language to translate directly to, for that reason it was important that the original English questions were as straightforward as possible. As the researcher is neither Greenlandic nor fully conversant with the language a fault or two naturally occurred, one of which was identified by respondents. It was previously believed that West Greenlandic was the main language of Greenland, the dialects being from the south, east and Qaanaaq area. It was revealed, however, that question 12,

concerning which other language/dialect one spoke, omitted West Greenlandic. This omission, however, is not considered to greatly affect the data collected.

2. Facebook Fatigue

Whereas Facebook popularity has yet to peak in Greenland there are an increasing number of articles, from Denmark for example, describing what could be called "Facebook Fatigue". Facebook Fatigue is mentioned here as a challenge in the sense that in continually sharing the link to the survey on Facebook the researcher was in danger of boring potential respondents. There are only so many ways to share a link on Facebook and the lack of creativity in this respect might have lessened the attraction of the survey competing with other more interesting status updates.

3. Greenlandic Facebook Presence

Whereas there are to date 20, 240 Facebook users registered as originating from Greenland (see figure 1), there are relatively few Facebook pages and groups specifically created by Greenlanders or about Greenland, few if any of which contain local knowledge. It was therefore difficult to find relevant pages and groups through which a link to the survey could be shared. Additionally, just as the researcher himself registered his Facebook profile while residing in Greenland, so too have many other non-Greenlanders and non-Greenlandic speaking Greenlanders. The actual number of Greenlandic-speaking Greenlanders registered as Facebook users is therefore difficult to determine, and not possible for this particular investigation.

4. Geography

To those not familiar with Greenland it is difficult to describe just how huge this country is. The population of 56,452 (Statistics Greenland, January 2010) is spread over many isolated communities, large and small, connected by helicopter, plane, boat and dog sledge, there are no roads connecting towns in Greenland. This geographical challenge manifested itself seemingly in the fact that the north of Greenland and the capital city of Nuuk seemed to be best represented in the survey. This representation mirrored the areas the areas the researcher has lived and worked in, indicating a potential sphere of influence among the respondents, and that the south was thus poorly represented. However, when asked "where do you live?" respondents likely answered

where they are living *currently*, not where they come from. Many respondents indicated that they also used the southern dialect on Facebook. As Nuuk is the only place to study for specific qualifications and also an attractive place to live and work for many Greenlanders, it is not unlikely that many respondents living in Nuuk are originally from the south of Greenland. Whilst alleviating the fears of the researchers own influence upon respondents, it does, however, present a problem of analysis when seen from a geographical perspective.

General Areas of Enquiry

General demographic questions were included towards the beginning of the survey in order to establish who was responding and from where. Such questions were included as a means of trying to identify the typical Greenlandic Facebook user and, in the hope to reveal the users that represented members of the Greenlandic population that would be in a position to create and share GLK, hunters for example.

Respondents were also asked to indicate to what degree they were active on Facebook, with whom, and how they shared information. Analysing such responses allowed the researcher to identify sub-groups possessing the greatest potential for sharing GLK. A specific sub-group, categorised by age, was identified, the results from which have been analysed further in the relevant sections below.

Questions and results pertaining to *general* areas of enquiry, for both the total respondents and sub-groups, have been included in the appendix (see appendix 2 and 3).

Specific Areas of Enquiry

Two areas of specific enquiry were identified, each of which is discussed below.

1. Sharing

Much emphasis was placed upon questions surrounding the sharing of information on Facebook, with a view to identifying the potential for sharing knowledge on Facebook. The varied means of sharing on Facebook were identified and respondents were asked to indicate their level of use within each category.

Questions pertaining to the substance of the information shared were included with the intention to attempt to reveal just what kind of information was being shared and how that might relate to the potential for creating and sharing GLK on Facebook. Considering the researcher's limited Greenlandic cultural background questions of a general nature were asked, encompassing areas including vocational and traditional information (see appendix 2 and 3 for full list of subject areas). However, in terms of GLK questions related to areas typically identified by the Greenlandic government (www.nanoq.gl) and tourist bodies (www.greenland.com) interested in promoting Greenland were asked. The researcher wished to vicariously determine the level of Greenlandic interest in such typical cultural iconography as revealed by Greenlandic Facebook users.

The questionnaire also asked respondents to indicate with whom they were sharing information in order to examine the potential for sharing GLK within networks of friends, family, colleagues and others, in Greenland and abroad.

Questions concerning the context in which information was shared were not included as answers to such questions would necessitate longer responses thus requiring further translation from Greenlandic to English than was possible. Furthermore, questions necessitating longer responses would potentially have dissuaded greater participation than was actually achieved.

2. Language

Respondents were asked to indicate to what degree they shared information in their own language and relevant dialects. Their use of other languages and information stemming from other countries was also the subject of the investigation with a view to determining the potential for cross-cultural sharing of GLK on Facebook.

Language, specifically the place of Greenlandic language within Greenland, is continuously debated at all levels and across all media within Greenland. During the period of colonialism Greenlandic was not always recognised as the national language of Greenland. Its use, therefore, is of profound sentimental, cultural and political importance. This particular survey and subsequent analysis, however, merely scratches at the surface of this topic as the use of Greenlandic is but an aspect and not the sole focus of this investigation.

Questions and results pertaining to *specific* areas of enquiry, for both the total respondents and sub-groups, have been included in the appendix (see appendix 2 and 3).

An additional area of interest to this investigation concerns the issues surrounding *Intellectual* and, in the case of this investigation, *Indigenous Property Rights*. Whilst of great significance the issue of who owns GLK created and shared on Facebook is beyond the scope of this particular investigation. Several questions in the online survey presented later in this paper serve as an indication of the level of interest and concern Greenlandic Facebook users have regarding this issue. However, results from the survey regarding this aspect of creating and sharing GLK are included where relevant purely as a point of interest and are not to be considered in any greater depth. Greater concerns over Indigenous Property Rights in connection with Facebook would be better served by an investigation dedicated to this issue.

The total number of respondents to the online survey numbered 128 of which 86 answered all 22 questions. The largest group of respondents fell into the category of respondents between the ages of 25-34 years old, of which there were 46 respondents, 34 of whom answered all 22 questions. Even after subtracting the total number of respondents from this category the 25-34 year olds continued to be the largest group contributing to the survey. For this reason and further reasons provided in the relevant section below, they were chosen to be the focus group the data from whom was chosen for closer scrutiny later in the investigation.

Background Questions: Greenlandic Facebook Users

Presented below (see figure 5) are the demographic results for *all respondents*. This information is useful in building a picture of the different Greenlandic Facebook users contributing data to the investigation.
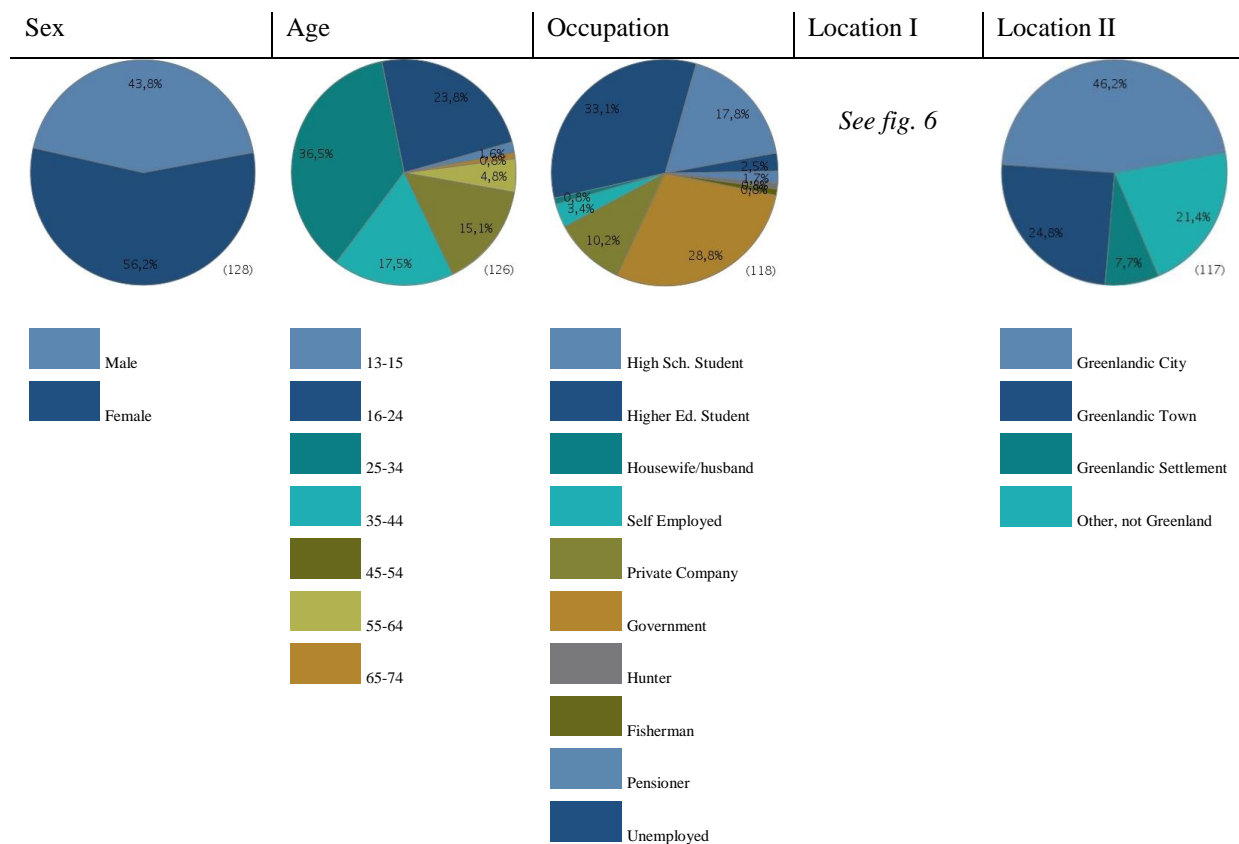

Figure 5: Greenlandic Facebook users

Of particular interest in regard to the sharing of GLK is the fact that only one respondent indicated that hunting was their occupation. Hunting is generally considered to be of great cultural and traditional value, knowledge of which would be of interest to be shared on Facebook, especially in light of the screenshot used with respect to motivation earlier in the introduction. One can begin to surmise even from these initial results that the local knowledge to be shared on Facebook could well be of a different character than originally imagined by the researcher.

Both sexes were almost equally represented, suggesting an equality to be found on Facebook that is not always evident in daily life in Greenland. The researcher has often encountered situations where there is even today a clear definition of roles between men and women, especially in traditional hunting areas. As the data reveals a larger percentage of respondents living in the Greenlandic cities one could begin to speculate as to the level of activity on Facebook between the sexes in direction proportion to the location in which they are currently living, with the settlements typically more closely connected to hunting and traditional roles within small societies. However, the data collected includes only 9 respondents from the settlements and leaves too much room for speculation and not enough hard data. The use of Facebook in the settlements therefore is perhaps a subject best reserved for future investigation. One might also choose to investigate further the degree to which Facebook supports the interest of both men and women from age 13 and upwards, 13 being the minimum age for membership of Facebook.

Prior to considering the location of the respondents inside and outside Greenland (see figure 8) it is of relevance to the investigation to consider the cost of using the Internet in Greenland. Figures 6 and 7 show the cost of connecting to the Internet through the sole Internet provider in Greenland: Tele Greenland.

Figure 6: Internet prices for the whole of Greenland (www.tele.gl)

	Bredbånd	Inkl. GB	Hastighed	Pris pr. md.	Pris pr. MB	Vilkår
Nuuk og Qaqortoq	Small	1	512 / 128	299	0,30	Privat
	Medium	15	2048 / 256	999	0,07	Privat
	Large	50	4096 / 512	1999	0,04	Privat
	X-large	100	4096 / 512	2999	0,03	Privat

Figure 7: Internet prices for residents in Nuuk and Qaqortoq (www.tele.gl)

Flat rate Internet connection is not an option for residents of Greenland. Private Internet users must pay per megabyte (MB) and, depending upon the Internet package they subscribe to, they have a limited amount of gigabytes (GB) included in the cost of the package, after which they must pay per MB used thereafter. Many families in Greenland have experienced phenomenally high Internet bills each month, and an increasing number of government institutions and private companies have blocked certain sites due to high traffic for personal use by staff, including YouTube and Facebook. As streaming media on the Internet is very expensive to access in Greenland schools have been forced to block these sites too. This has relevance to the potential for sharing media such as videos that could contain GLK. The cost of uploading and downloading material can be very prohibitive for many families and organisations. One might also speculate that the cost of accessing the Internet in the Greenlandic settlements, beyond the means of typical hunting families on a low income, might also affect the number of respondents from these areas and the potential for their knowledge to be shared on Facebook. The settlements are also notoriously plagued by periods of bad connection and slow data transfer rates.

Many people leave the settlements out of necessity for employment and training. Whilst fewer people in the settlements have access to a computer many people, especially teenagers and young adults, have a mobile phone capable of accessing the Internet. This specific aspect of how Greenlandic Facebook users access Facebook is included in the survey and discussed later.

Nuuk is the largest city in Greenland with a population of 15, 469 (Statistics Greenland, January 2010). It is no surprise then that the majority of respondents are from Nuuk. However, Nuuk also has the greatest number of work and study opportunities and as the survey reveals many respondents are either Higher Education Students or Government employees.

Denmark is also represented in the survey and this is important when one considers that further and alternative education possibilities are only available outside of Greenland, as are

many jobs. Access to the Internet in Denmark is also far cheaper and faster than anywhere in Greenland. For many years there has been a concern that educated and qualified Greenlanders are leaving the country. In light of that fact one might infer that GLK is in need of preservation if it is to be available to coming generations of Greenlanders.

Qaasuitsup
Kommunia
26.3% (31)

Kullorsuaq

Uummannaq

Ilulissat

Qeqqata
Kommunia
8.5% (10)

Sisimiut

Kommunerqarfik
Sermersooq
34.7% (41)

Kulusuk

Nuuk

Paamiut

Kommune
Kujalleq
4.2% (5)

Qaqortoq

Denmark
20.3% (24)

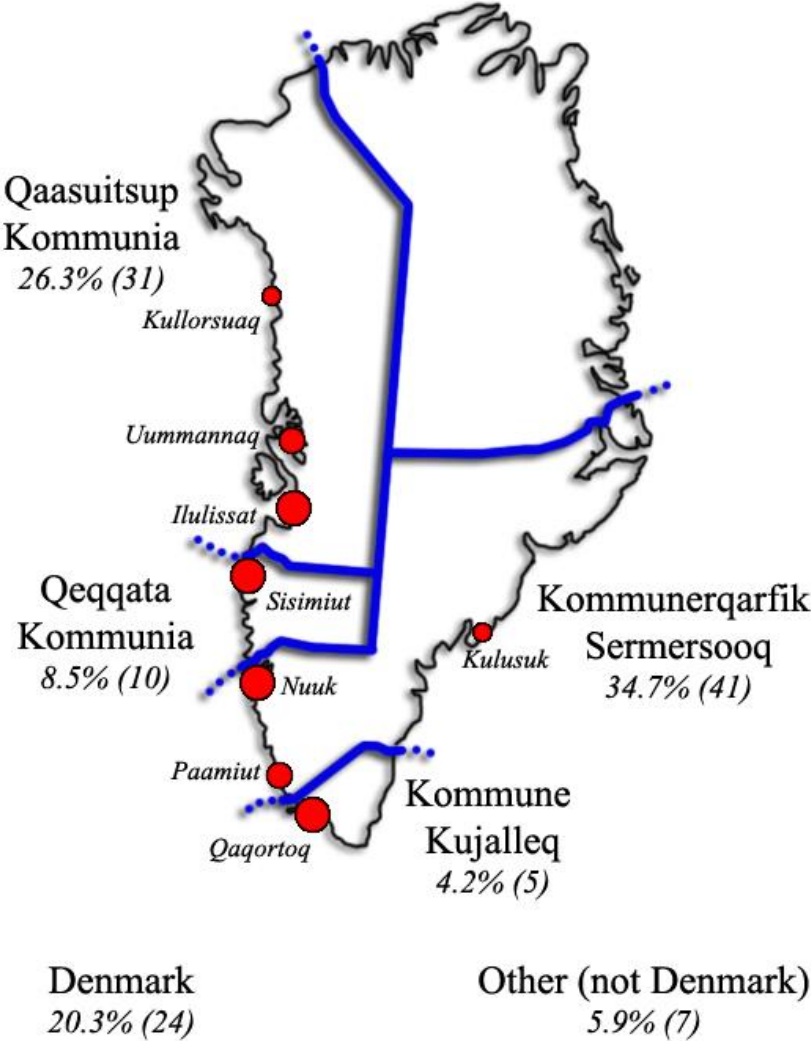Other (not Denmark)
5.9% (7)

Figure 8: Where do you live? Part 1

Sharing on Facebook

This section will use the data collected to answer the following research question:

Research Question 1.1: "sharing"

What kind of information are Greenlanders sharing on Facebook?

Respondents provided data about a range of different types of information they shared on Facebook (see appendix 2 and 3) of which the four types presented in the table below have been selected for further consideration (see figure 9). In one of the hypotheses supporting the research questions it was suggested that Greenlandic Facebook users predominantly shared *personal* and *social* information. The data from the 25-34 year olds however, reveals that they are also actively sharing information including *cultural* and *traditional* content. Examples of cultural information provided in the survey included television, music and cultural events, while traditional information was exemplified by Greenlandic traditions, national dress and kayaking. The data collected from this group of respondents suggest that the hypothesis has not been proven and that there is more cultural and traditional information being shared by Greenlandic Facebook users than previously thought.
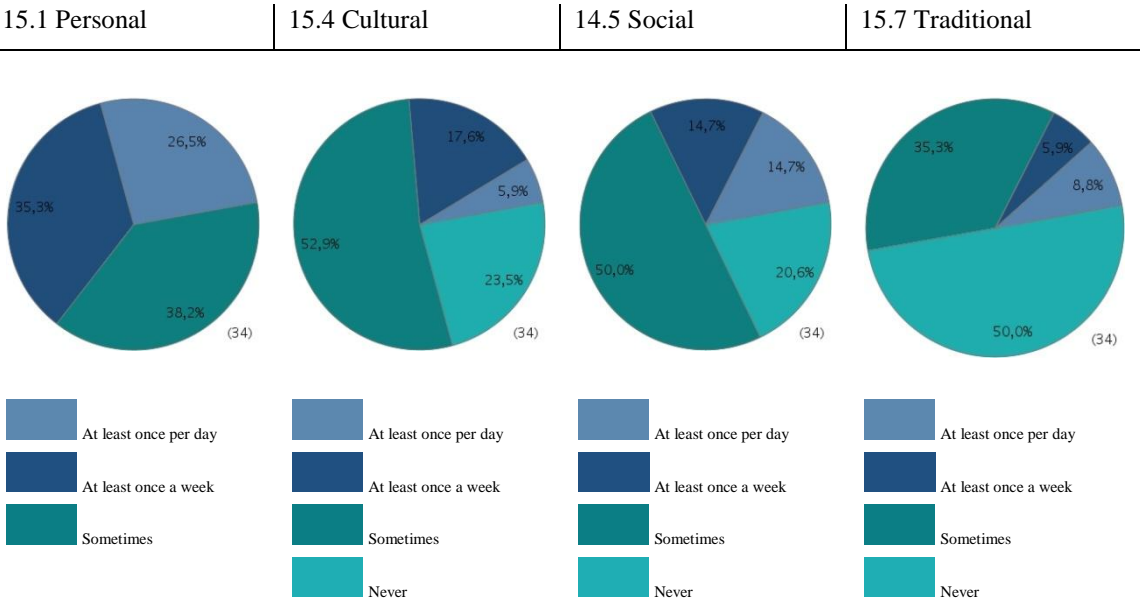
15.1 Personal	15.4 Cultural	14.5 Social	15.7 Traditional

Figure 9: General Information

When one considers the question concerning *Greenlandic Information* (see figure 10), of which four examples have been identified, the remaining are available in the appendix (see appendix 3), it would seem that little cultural and traditional information is being shared at all. It is interesting then to note that the questions themselves may have contributed to a misrepresentation of what is considered cultural and traditional in Greenland. The typical tourist image of Greenland including hunting and dog sledging and crafts is often represented in the media, television, Internet and in print. This popular Greenlandic concept of culture and tradition might simply be out of date and would benefit from further investigation. Hunting and dog

sledging are in decline as a result of falling prices for skins and, not least, rapidly retreating sea ice considered to be a result of a changing climate. Other aspects of Greenlandic culture, different to those represented in the tourist brochures and various media, are growing in popularity and changing the image of Greenland.
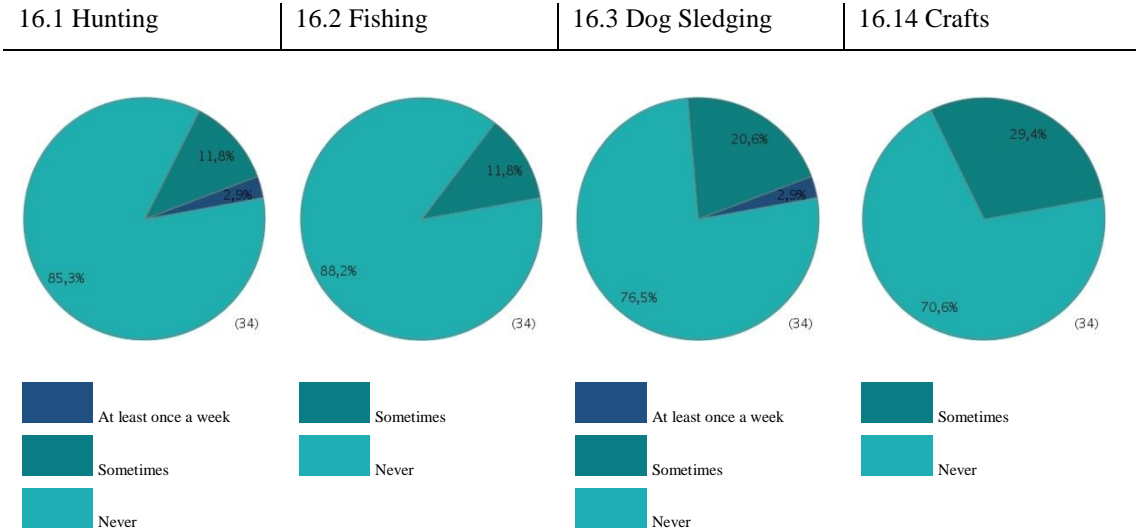
16.1 Hunting	16.2 Fishing	16.3 Dog Sledging	16.14 Crafts

Figure 10: Greenlandic Information

This particular group of respondents represent those who are in a position to change the image of Greenland, and one might begin, therefore to consider what is GLK?

This investigation concerns the potential for creating and sharing GLK on Facebook. Perhaps already at this point in the paper, one can appreciate that the content of the local knowledge to be shared is not necessarily truly *traditional* in nature but perhaps more modern, reflecting a more modern Greenland, in which the Greenlandic people are active users of modern technology. This distinction allows us to focus upon the creation and sharing of GLK but not necessarily the preservation of GLK on Facebook. If in creating and sharing GLK on Facebook traditional Greenlandic knowledge can also be preserved, then that should be considered positive. The nature of the GLK to be created, however, will be very much dependent upon the Greenlandic Facebook users involved in the creation process. The *value* and *aliveness* of traditional GLK however, might not necessarily appeal to those in the best position to create and share it.

In addition to the content of the information being shared the respondents also provided data about the country from which the information shared originated. Whilst predominantly Greenlandic, the 25-34 year olds did reveal that some information originated from other Inuit areas and even more from America and England (see figure 11). Considering the number of friends and the inclusion of nationalities other than Greenlandic among the collected data from Greenlandic Facebook users, it seems there is great potential for sharing GLK with other communities outside of Greenland.

17.1 Greenland	17.2 other Inuit areas	17.3 American/English
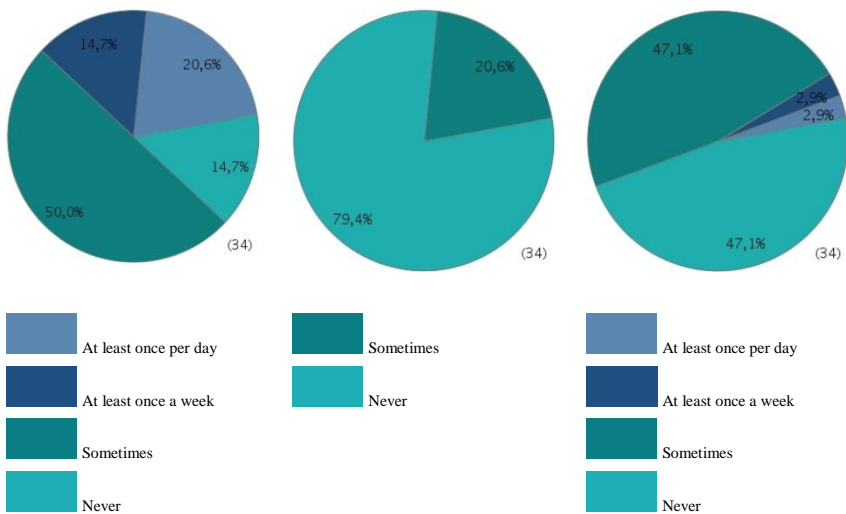
Figure 11: Country of Origin

There remains the question, however, as to the purpose of sharing GLK across national boundaries. Inherent within this question is the issue of Indigenous and Intellectual Property Rights. As indicated earlier, this is an area of concern for all Facebook users. It is, however, arguably of greater concern to indigenous groups, including Greenlanders, and therefore warrants greater attention than the scope of this particular investigation allows.

Research Question 1.2: "sharing"

This section will use the data collected from *25-34 year olds* to answer the following research question: *How are Greenlanders sharing on Facebook?*

Greenlandic Facebook users between the ages of 25-34 were chosen as a focus group for analysing the activity of respondents to the survey. This group was chosen as they were best represented in the data from the survey, they represent the largest group active on Facebook in Greenland (see figure 12) and, according to the data collected in this investigation, 61.4% live in a Greenlandic city, 50% are in higher education and 31.8% work for the government – two areas that are interested in the creation and sharing of knowledge. This group is also more likely to use Greenlandic, Danish and English equally on Facebook (see appendix 3).

Male/Female User Ratio on FB in Greenland	User Age Distribution on FB in Greenland
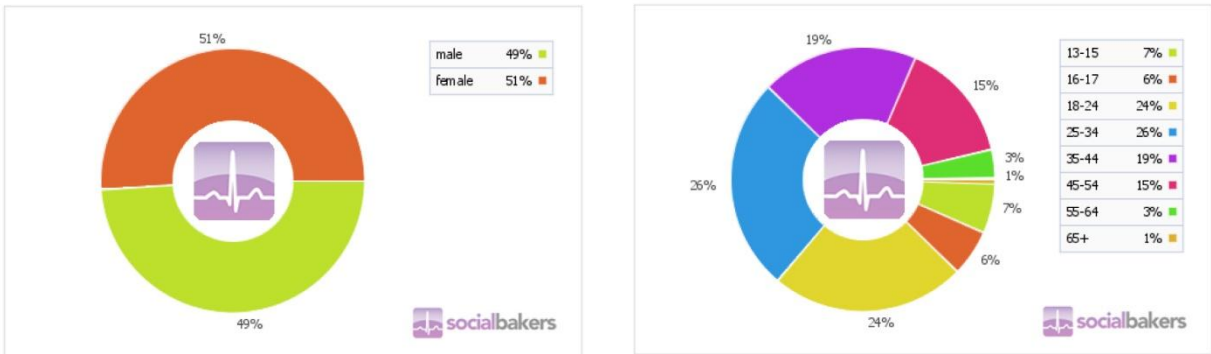
Figure 12: Socialbakers demographic results (March 2011)

In the following presentation and analysis of the data for 25-34 year olds attention will be given to the use of Facebook functions used for sharing by Greenlandic Facebook users. Sharing in this context is considered to include using and interacting with Facebook status updates and using Facebook functions such as those shown in figure 13: *like*, *tag* and *comment*.

Figure 13: Facebook sharing functions

The following results for Greenlandic Facebook users' activity surrounding *status updates, like, tag* and *comment* have been selected for analysis as they represent the greatest level of interaction and thereby potential for "sharing" on Facebook.

Sharing on Facebook: Status Updates

Updating one's Facebook status can serve many different purposes. This particular function has been investigated previously by Klastrup (Danskernes Akademi, KNR, 2011). Klastrup identified and categorized the different types of status updates according to the level of reaction desired or received from the initial update. Klastrup's five categories for Facebook status updates have been translated from Danish to English, by the researcher, as follows:

1. **About Me updates:** the most common, these updates encourage sympathetic responses.
2. **Episodic or Conclusive updates:** these updates are often positive and convey the user's current status at the end of a specific period of time, e.g. relaxing at the end of a busy but productive day at work.
3. **Dramatic or Cliffhanger updates:** very open, such updates leave the user's friends in doubt as to the conclusion and demand a response if they want to know more. Equally, such responses allow the user to continue relating their story.
4. **Meta updates:** comments about other users' status updates. Such updates are often sarcastic in nature.
5. **Interactive updates:** these updates include and involve the user's Facebook friends and allow for further interaction and enjoyment through participation in a common story.

Klastrup supports her research of status updates by drawing attention to the rich media available on Facebook, from which readers of a friend's status can formulate their own understanding of where their friend is in life at that particular moment in time.

This investigation, however, explored status updates as but one means of sharing information and knowledge on Facebook. The data revealed a surprisingly low number of respondents in this category who were updating their status on a daily basis (see figure 14). However, the potential for status updates by Greenlandic Facebook users in the creation and sharing of GLK is perhaps more evident when one considers the activity of others surrounding the status updates, i.e. friends can indicate if they *like* the status, they can *comment* upon it and they can now *tag* people within it. Further activity surrounding status updates can be seen in the following results.

Klastrup's contribution to the research on Facebook regarding status updates is useful to bear in mind when considering the potential for this simple tool to express information in multi-contextual manner. The potential for tacit knowledge to be gained through the activity, especially comments, surrounding a status update has similar implications to knowledge creation and sharing as discovered by Tee and Karney (above) in their work surrounding tacit knowledge gained through online discussion (Tee & Karney, 2010). Clearly, as Klastrup suggests, the type of update can vary and the content of such updates can but need not contain information or knowledge relevant to GLK. In Tee and Karney's investigation a lecturer was present in some of the online discussions and, when not present the students were self motivating. It is therefore interesting to consider the need for a third-party or interested individual to facilitate the creation and sharing of knowledge through status updates, an area that will be discussed later in this paper.

13.1 Update my Status
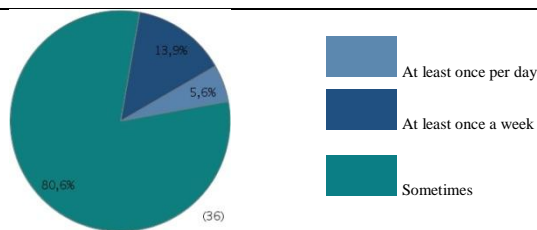
Figure 14: Status Updates

Sharing on Facebook: Like

Whereas to "like" something shows a degree of engagement with the subject matter or the subject themselves, i.e. the person who has initiated the response through updating their status or writing a comment for example, the actual act of clicking "like" on Facebook requires little effort. Where GLK is concerned one might one day be faced with the consequences of liking something, a photograph of a walrus being speared for example, especially when one's non-Greenlandic Facebook friends and friends of friends might not share the same cultural background or appreciation of the same. However, if the simple act of "liking" something can incite discussion and emotive responses then it is clearly a powerful tool in sharing GLK on Facebook, made even more powerful in that it is so simple.

The simplicity of liking something adds to the greater context and provides other users with the means to formulate their own meaning and understanding in relation to the material. To return

to the previous discussion of entering into a relationship with knowledge in order to gain knowledge, one can say that the minute a user indicates that he or she likes something they enter into a relationship with that something. Of course, the simple act is not enough, nor is the face-value relationship one has entered into if there is no further thought or action to encourage a deeper, more meaningful relationship. Social media, including Facebook, however, provide a means of entering into a deeper relationship in that one's simple act is not necessarily completed, i.e. the relationship has not necessarily been halted at that particular level of interaction. In fact, the opposite is true. Facebook keeps the user appraised of any further activity centred on their act, in this case the act of liking.

Through a degree of interconnectedness too complex to fully explore within the confines of this paper, all users are kept up to date regarding activity in which they have participated. The user is alerted when others "like" the same thing they have; they are alerted too when others comment on the thing they "like", even if those further actions are by Facebook strangers. In other words, our relationship with that thing is not ended. In the simple act of liking something we are encouraged by the Facebook platform itself to take responsibility for our act and the acts that occur around it. It is true that some things are less popular than others and thereby generate less traffic, ergo the level of responsibility and depth of the relationship around such acts is diminished. However, with the assistance of an application, for example, the Facebook traffic, i.e. the interest generated around a topic or media, can be increased, either through people pressure or even paid promotion. The important aspect is to appreciate that the similarities surrounding the Native American coming to knowing can be found in that we are encouraged to enter into a relationship with information and acts instigated by others and facilitated by ICT; on entering into that relationship we begin to take responsibility for the information itself, or even the further information and potential knowledge it contains, thus we too gain such knowledge. The difficulty, in the case of sharing GLK on Facebook, will be determining the extent to which such knowledge is useful or trivial.
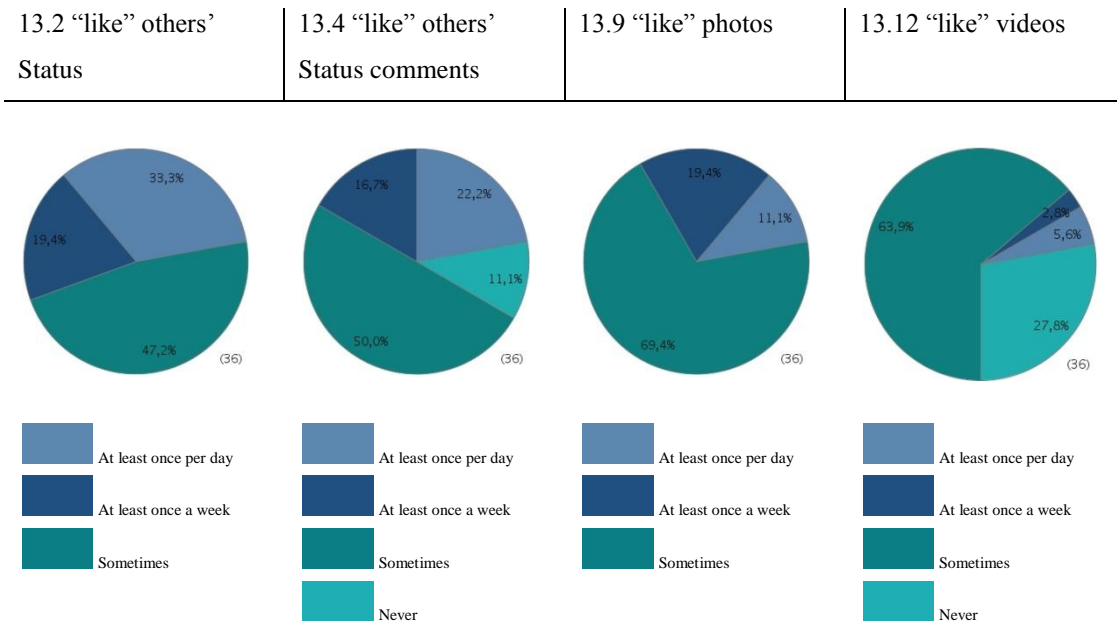
13.2 "like" others' Status	13.4 "like" others' Status comments	13.9 "like" photos	13.12 "like" videos

Four pie charts with legends:

13.2 "like" others' Status: 33,3%; 19,4%; 47,2% (36)
Legend: At least once per day; At least once a week; Sometimes

13.4 "like" others' Status comments: 16,7%; 22,2%; 11,1%; 50,0% (36)
Legend: At least once per day; At least once a week; Sometimes; Never

13.9 "like" photos: 19,4%; 11,1%; 69,4% (36)
Legend: At least once per day; At least once a week; Sometimes

13.12 "like" videos: 63,9%; 2,8%; 5,6%; 27,8% (36)
Legend: At least once per day; At least once a week; Sometimes; Never

Figure 15: "like"

In contrast to the percentage of respondents aged 25-34 updating their Facebook status, the data revealed far more activity surrounding the *liking* of others' status updates and comments surrounding the status updates (see figure 15), thus indicating a greater potential to make use of this function in creating and sharing GLK. However, as discussed above, *liking* something is a simple act. How much learning or gaining of knowledge exists within the act of *liking* something is doubtful, unless greater discussion and reflection can be incited by the subject matter being *liked*. However, as Greenlandic Facebook users can *like* a variety of media including photos and videos they can participate within a social community that, with support and guidance from within, could evolve into a community of practice, wherein the act of liking something leads to greater participation and *value* for its members. Greenlandic Facebook users create *value* for one another in the act of liking something. This value contributes to the *aliveness* of the material being shared. Therefore, the simple act of *liking* has within it the potential to mean something far more to the originator of the material being liked and the community to which it belongs. That Greenlandic Facebook users actively *like* things on Facebook, to the degree indicated by the data, suggests that this is one function that deserves greater recognition than the simple act it requires to perform.
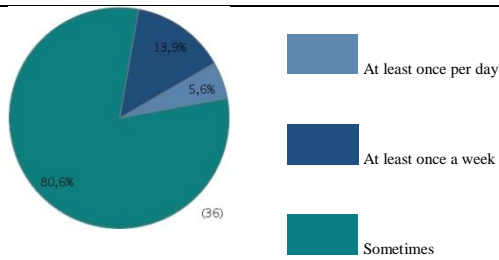
Sharing on Facebook: Tag

In many respects, to *tag* on Facebook is similar to liking something or someone. Tagging is, however, more demanding in that it encourages a greater degree of input from the user who has chosen to "tag" someone or something. Users are often presented with the opportunity to tag a photo or video within which there might be someone or something about which the user is interested. Tagging someone is further facilitated by a drop-down box facility within which the user simply begins to type the name of a friend and their full name, including a link to their profile, is pasted onto the photo or video. The person tagged is informed through the Facebook alert function indicating where and by whom they have been tagged. Like many features on Facebook the level of permission given to others regarding the tagging of oneself can be adjusted through applying various user-defined settings. One can also be tagged by a friend on strangers' photos and alerted to such by Facebook. One's own Facebook presence is thus distributed beyond one's own network. Whilst this may be a cause for concern among users in general it creates opportunities for the sharing of GLK that need not be limited to networks but can indeed enable the distribution of GLK media and information beyond the community of practice.

The data collected from 25-34 year olds (see figure 16) suggests that all respondents are active at some point in the tagging of photographs uploaded to Facebook. Far fewer are actively tagging videos and this may have something to do with streaming video being expensive and often slow to view on Facebook due to the high Internet costs and slow rate of data transfer experienced in Greenland. The potential then for using video as a source of GLK to be shared on Facebook is currently limited. This might change if the costs and rates of transfer for the Internet were to improve. The act of tagging however, and the alerts provided by the Facebook software, again introduce the element of *value* to the material being shared, in this case a photograph, and the response from other Facebook users that keep this material *alive*, even months or years after the date it was originally uploaded. Once tagged in a photograph, or even a status update or comment as is now possible (a function introduced after the survey was conducted), the Facebook user is alerted to more activity surrounding the initial tagging. For example, when others are tagged in the same photo, when others comment on something a user has commented on, the software upon which Facebook is built alerts the connected users. One can say that the potential for legitimate peripheral participation is constantly being developed as the connections of Facebook are multiplied through the activity of its users.

13.7 Tag people in photos	13.10 Tag people in videos
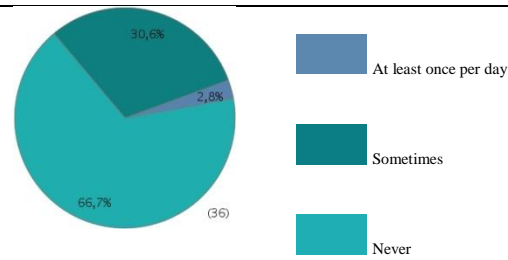
Figure 16: Tag

Sharing on Facebook: Comment

Unlike liking and tagging on Facebook, to comment on something requires a greater degree of activity and participation. It also requires the user to write. The written aspect of Facebook will be considered in greater detail in the section on language later in this paper. Suffice it to say here that the questions in the survey did not ask in what language Greenlandic Facebook users commented, only what languages they used on Facebook. The language used, and in some cases the dialect, will of course affect the participation of members within a community. Language can exclude others from understanding or enjoying content shared by others and this will of course affect the potential for GLK to be shared on Facebook. However, as the data revealed (see figure 17) all respondents were more or less active in commenting on other user's status updates and photographs. It is clear that there is far less activity surrounding videos on Facebook, and this may well be related to the reasons stated above, i.e. having more to do with cost and rate of transfer than a lack of interest.

It has not been proven in the course of the investigation if the cost and rate of transfer of data are reasons prohibiting activity surrounding videos. It does seem likely though given the information provided about costs above, and in the personal experience of the researcher.

13.3 Comment on others status	13.8 Comment on photos	13.11 Comment on videos

13.3 Comment on others status: 25,0% At least once per day, 16,7% At least once a week, 58,3% Sometimes (36)

13.8 Comment on photos: 22,2% At least once a week, 8,3% At least once per day, 69,4% Sometimes (36)

13.11 Comment on videos: 52,8% Sometimes, 2,8% At least once per day, 2,8% At least once a week, 41,7% Never (36)
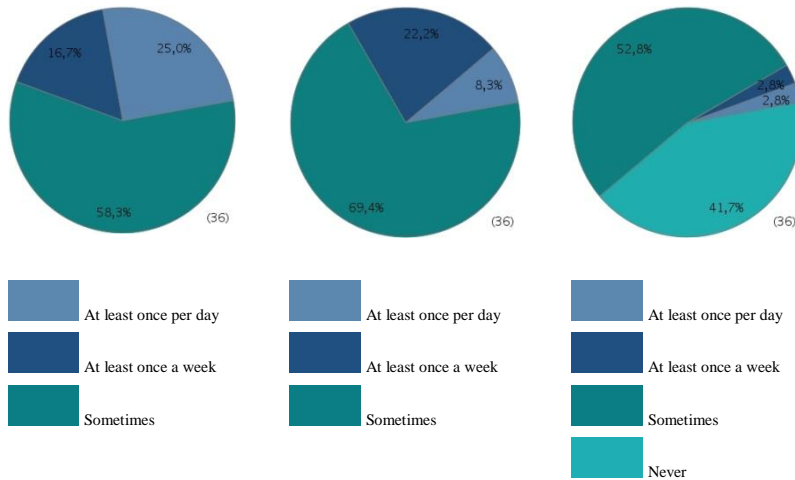
Figure 17: Comment

Once again, as in the act of liking and tagging, *commenting* upon other Greenlandic Facebook users' shared material creates *value* and *aliveness* that can be built upon to encourage and support the creation and sharing of GLK on Facebook. Comments have the added advantage in that they can be of greater length and include supplemental written context to the material being commented upon. Comments made upon each of Klastrup's (2009) five status update types could be used to present and allow for the creation and sharing of explicit and tacit knowledge, but it is the *interactive updates* which present perhaps the greatest potential in that they are more akin to online discussions than other, shorter update types.

Research Question 1.3: "sharing"

This section will use the data collected from *all respondents* to answer the following research question: *With whom are Greenlanders sharing information on Facebook?*
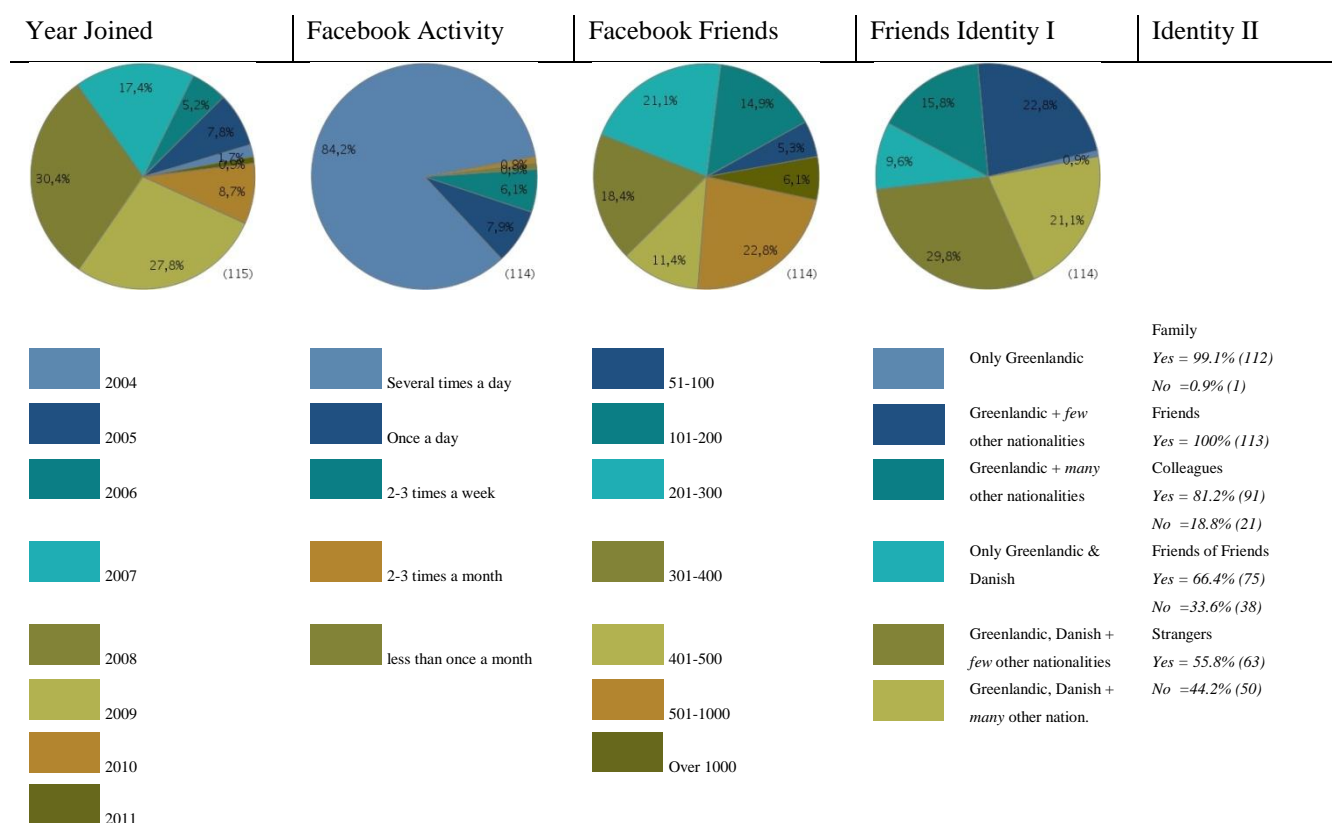
Year Joined	Facebook Activity	Facebook Friends	Friends Identity I	Identity II

2004	Several times a day	51-100	Only Greenlandic	Family
2005	Once a day	101-200	Greenlandic + *few* other nationalities	*Yes = 99.1% (112)* *No =0.9% (1)* Friends
2006	2-3 times a week	201-300	Greenlandic + *many* other nationalities	*Yes = 100% (113)* Colleagues
2007	2-3 times a month	301-400	Only Greenlandic & Danish	*Yes = 81.2% (91)* *No =18.8% (21)* Friends of Friends
2008	less than once a month	401-500	Greenlandic, Danish + *few* other nationalities	*Yes = 66.4% (75)* *No =33.6% (38)* Strangers
2009		501-1000	Greenlandic, Danish + *many* other nation.	*Yes = 55.8% (63)* *No =44.2% (50)*
2010		Over 1000		
2011				

Figure 18: General Facebook Questions

Respondents indicated that the overwhelming majority were active on Facebook several times each day (see figure 18). They typically have friends encompassing more than just family and there are few that only have Greenlandic Facebook friends. A large percentage of the total respondents have colleagues among their Facebook friends and over 50% have become friends with someone they did not know prior to Facebook, supporting Lynge's (2006) research that Greenlanders used social websites such as Arto as an interesting way to make new friends. The data also revealed that over 6% of Greenlandic Facebook users have over 1000 Facebook friends.

The regular activity, the number of friends – no one has less than 50, the fact that Greenlandic Facebook users have friends with whom they are colleagues, and of different nationalities indicates that this is a platform from which one could build the potential to share GLK. There is already evidence of a diversity of people within whose networks one could begin to identify communities of practice, for example colleagues, and of cultures be it Greenlandic or otherwise. Attention should also be directed to the fact that almost 100% of respondents have family members as friends. This is relevant in that the importance of family cannot be underestimated in Greenland where many people are related in small and larger communities. As has been revealed in the Danish media, grandparents in Denmark are joining Facebook to have

more contact with their grandchildren. Such older relatives in Greenland might also possess GLK that the younger members do not have knowledge of. The potential exists therefore to build upon the existing networks, family or otherwise, already in existence on Facebook for the purpose of sharing GLK. The willingness of Greenlandic Facebook users to create and share GLK is another matter. When asked if they would contribute to a Facebook page dedicated to sharing GLK 23% of all respondents indicated they would never do so (see figure 19). The remaining respondents who answered positively would no doubt need to feel that the activity was valuable in order to hold their interest and participation.

19 Would you contribute to a Facebook page dedicated to sharing
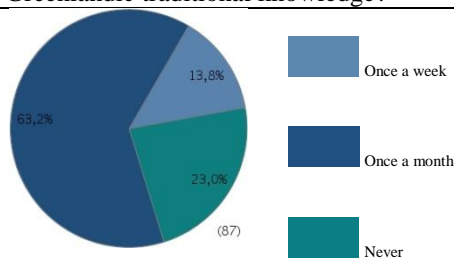Greenlandic traditional knowledge?

Figure 19: Greenlandic Facebook users contribution to GLK

Language on Facebook

Research Question 2.1: "language"

This section will use the data collected from *all respondents* to answer the following research question: *To what extent are Greenlanders using their own language and dialects on Facebook?*

In contrast to other Inuit languages such as Inuktitut from Canada, Greenlandic has been successfully preserved in a range of media, not least print media (see figure 20). New books are released each year by Greenlandic publishers and many works have been translated into Greenlandic. Language is central to any culture and not least a culture that is still today clearly influenced by its former colonial status. In many respects Greenland is still a part of Denmark and the ongoing debate concerning Greenland's independence continues within which language is a central issue.

Books published

	2004	2005	2006	2007	2008
			Number of titles		
Total	**123**	**114**	**142**	**120**	**126**
Non-fiction	6	4	9	15	15
Fiction	7	17	14	12	11
Books for children	-	10	11	16	26
Educational books	110	79	106	75	70
Other books	-	4	2	2	4

Figure 20: Books published in Greenlandic (Statistics Greenland, 2010, p. 26)

It was interesting to see to what degree Greenlandic Facebook users use different languages on Facebook. It can be argued that those users who write equally in all three languages (see figure 21) have the potential to use Facebook to the full in the sense that writing equally in all three languages suggests a degree of fluency allowing them to utilize all the different functions and applications on Facebook. 19.6% of 25-34 year olds indicated that they wrote equally in Greenlandic, Danish and English. Competency in a language, however, does not equal the same degree of competency in the use of social media, but knowing a language other than Greenlandic allows users to seek help from others.

The data collected above suggests that there are users within Greenland who are both active on Facebook and competent in languages that can be used to support others and ultimately support the potential for creating and sharing GLK. Challenges that arise due to language barriers can potentially be overcome with the support of members of a community of practice that provide value to one another through participating in a community task, the creation and sharing of GLK for example.

Whilst none of the respondents indicated that they use Inuktitut on Facebook it does not necessarily mean they do not understand Inuktitut. Inuktitut uses an alphabet of symbols that are unlikely to be made available on Facebook. A more specialized and in depth survey might ask how many Facebook friends one has that *speak* or can understand spoken Inuktitut, for example.

The high percentage of users writing in the South Greenland Dialect confirms the belief that more users from southern Greenland are represented in the data than have indicated they are currently living in the south.
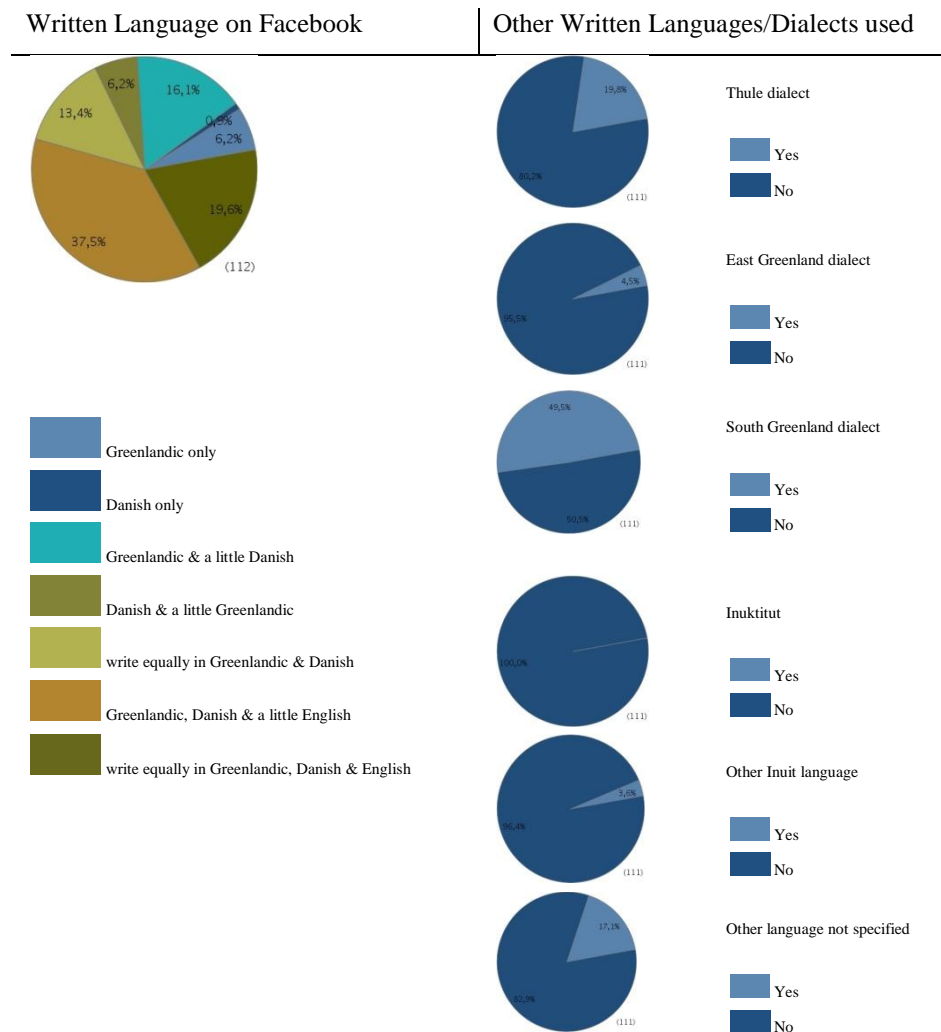
Written Language on Facebook	Other Written Languages/Dialects used

Legend for Written Language on Facebook:
- Greenlandic only
- Danish only
- Greenlandic & a little Danish
- Danish & a little Greenlandic
- write equally in Greenlandic & Danish
- Greenlandic, Danish & a little English
- write equally in Greenlandic, Danish & English

Thule dialect — Yes / No

East Greenland dialect — Yes / No

South Greenland dialect — Yes / No

Inuktitut — Yes / No

Other Inuit language — Yes / No

Other language not specified — Yes / No

Figure 21: Language

It is, however, the number of users writing in the Thule dialect that is of particular interest, for three reasons. Firstly, it cannot be ruled out that as the researcher currently lives in Qaanaaq, the area where the Thule dialect is spoken, respondents from this area may have been more interested to participate. Secondly, Qaanaaq is one of the few areas, if not the only, where one must hunt using traditional means, i.e. by dog sledge and kayak, and I would argue therefore that people in Qaanaaq have a great deal of *traditional* GLK that could be shared. The fact that a reasonable percentage of people write in the Thule dialect on Facebook might further suggest the potential for sharing this knowledge on Facebook, i.e. local knowledge shared using a local dialect. There is, however, an interesting factor at play, creating somewhat of a conundrum concerning the third reason writing in the Thule dialect on Facebook is interesting: as a written language the Thule dialect does not exist. There have been relatively few attempts to document this dialect in written form, attempts that have been hindered for many reasons, not least the fact

that speakers of the Thule dialect have rarely been in agreement over how words are spelt. To this day, there is one book written in the Thule dialect, containing a wordlist and a single article about which few people are in agreement.

Rather than consider the wider implications of language beyond Facebook, it is important to remain focused upon the immediate implications for the Greenlandic language, and its dialects: Facebook provides a means of digitally preserving the languages of Greenland. As language is so central to one's culture, Greenlandic Facebook users are thus preserving their culture in applying their minority language in a modern communication form. The Greenlandic language will no doubt change in the same way as English has changed, dramatically so with the advent of text and instant messaging and the influence of other languages. Whilst still a minority language spoken by significantly few people, Greenlandic will likely fare better than Inuktitut for example, provided it is used. Facebook encourages its use as can be observed across all of the various features available on Facebook.

The opportunity for Greenlandic Facebook users to create and share knowledge within their own language enables much greater ownership of the content, removes the need for an intermediary and potentially reduces the concerns over Indigenous Property Rights, mentioned above, in that it is Greenlanders themselves that are contributing information in their own language. The creation and sharing of GLK therefore, can reside in the hands of Greenlanders and presents interesting opportunities for Greenlanders to maximise their own cognitive surplus and *value* for members of this community of practice. In so doing they continue to keep the process of creation and the knowledge *alive*.

Research Question 2.2: "language"
How does the use of Greenlandic on Facebook influence the creation and sharing of GLK?

When discussing the support that Facebook provides Greenlandic Facebook users it is perhaps more correct to say that Facebook neither prohibits nor hinders the use of Greenlandic and its dialects. Greenlandic Facebook users with little or no understanding of Danish or English will not be able to fully apply all the functions and user-settings available without help. Facebook does not provide help or support in Greenlandic but the fact that Greenlandic Facebook users can connect and communicate via Facebook in their own language gives value to their interaction and

encourages further activity. Being able to participate in Facebook activity using one's own language keeps the content alive. Greenlandic Facebook users can experiment with the different functions experientially, with or without knowledge of another language. Furthermore, Facebook applications can be written in Greenlandic and thus support the purely Greenlandic speaking Facebook user in the creation and sharing of GLK. (To date the researcher is unaware of any Facebook applications written in Greenlandic.) Third-party applications written in Greenlandic may well be the key to increasing activity within a Greenlandic community of practice interested in creating and sharing GLK.

Accessing Facebook

According to Statistics Greenland, in 2008 there were more registered mobile phones in Greenland than the current population of 2011 (see figure 22). Related access issues concerning Internet costs and data transfer rates in Greenland have been discussed above. In the course of that discussion the use of mobile phones was suggested as a possible means for Greenlandic Facebook users to access the website. In the following section the data collected from 25-34 year olds revealed that 71.4% of the respondents have used or regularly use a mobile phone to connect to Facebook (see figure 23).

Communications	
Telephones - main lines in use:	22,818 (2008)
Telephones - mobile cellular:	55,816 (2008)
Direction dial number:	299
Radio broadcast stations:	AM 5, FM 12
Radios	98 percent of all households has a radio (2002)
Television broadcast stations	Kalaallit Nunaata Radio-a national TV plus some locale TV stations
TV-products:	97 percent of all households has a TV (2002)
Newspapers:	Atuagagdliutit/Grønlandsposten (AG) og Sermitsiaq
Internet country code:	.gl
Internet suppliers:	1
Internet connections:	11,695 (2008)

Figure 22: Communications

Mobile phones have the advantage over computers in that they are more portable, cheaper and increasingly more sophisticated. The degree of social connectivity among Greenlanders, otherwise separated by huge geographical distances, has been enhanced and increased through mobile communications. Whereas the survey limited the questions surrounding mobile phone use in connection with Facebook to that of *logging in* to Facebook, the researcher's personal experience and observations on Facebook suggest that Greenlandic Facebook users are using

mobiles for a variety of Facebook activities. This area of Facebook use warrants further study as it suggests a more dynamic use of Facebook than previously anticipated.

Other means of *logging in* to Facebook, through Twitter for example appear to be less widely known or used. This is likely to be related to language as Facebook is available in Danish whereas Twitter, for example, is not. Access to social media in Greenland is very dependent upon the available languages as English is taught at a lower level and spoken by fewer people than in Denmark for example. Whereas how one logs in to Facebook has less relevance to this particular investigation it may become more relevant in the near future as the current trend on the Internet appears to be the linking of websites under one username. For example, one can currently *log in* to Facebook via a Twitter account, access Flickr via Google and receive Gmail via one's Hotmail inbox. The increased connectivity increases the ability to participate in activity across several platforms as one can, for example, configure a Twitter account to update ones Facebook status and vice versa. Although potentially daunting, such interconnectivity increases the social connectivity of a community and again presents interesting possibilities for the creation and sharing of knowledge via a diverse range of ICT tools.
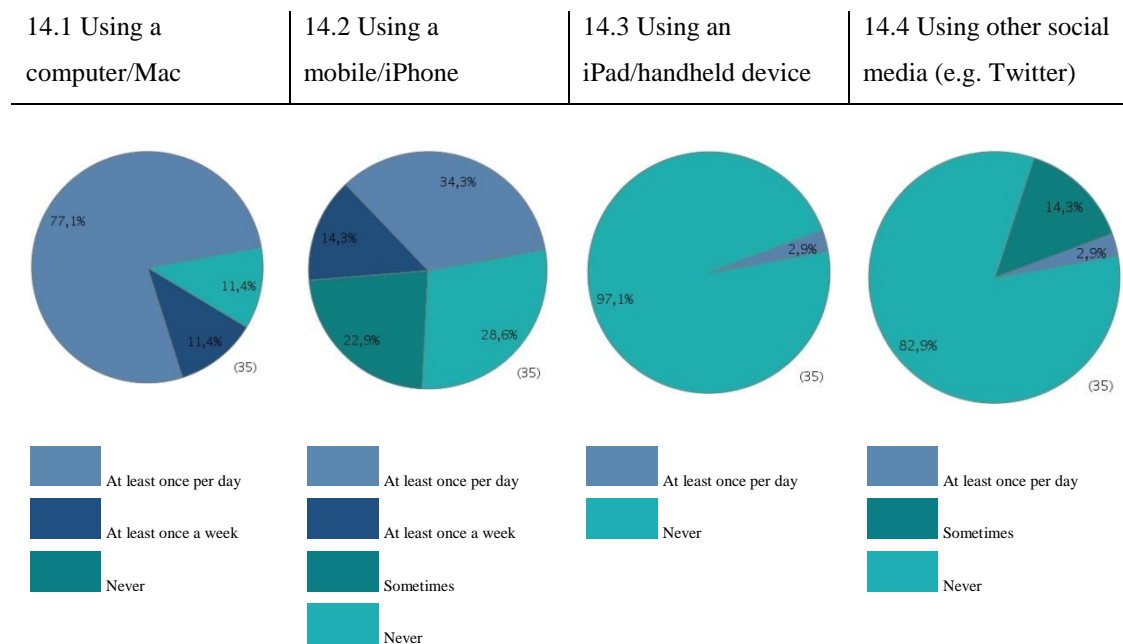
14.1 Using a computer/Mac	14.2 Using a mobile/iPhone	14.3 Using an iPad/handheld device	14.4 Using other social media (e.g. Twitter)

Figure 23: Logging In to Facebook

It is likely that the cost of using the Internet and the poor rate of transfer will be the greatest factor limiting access for Greenlandic Facebook users living in Greenland.

Conclusion

To conclude this investigation I will begin with the hypotheses to be tested.

Question 1, Hypothesis 1:

Greenlandic Facebook users are predominantly engaged in the communication of social information (e.g. personal news).

Hypothesis 1 is, fortunately, not entirely correct in that 25-34 year olds have proven that they are engaged in the sharing of information of a traditional and cultural content, albeit a relatively small percentage. This was unforeseen. Furthermore, as discussed in the results section above, the answers to the questions were misleading in that the questions themselves could have been better formulated. The survey was also affected by the researcher's own typically Western concept of what is traditional and cultural information. Greater Greenlandic input should have been sought in order to ensure a more Greenlandic perspective in the survey.

Question 1, Hypothesis 2:

Greenlandic Facebook users' activity, i.e. information and media sharing, suggest that local knowledge can also be shared on Facebook.

The results indicate that Greenlandic Facebook users are active on Facebook, have tried many of the different sharing functions and have a suitably large network of family, friends and colleagues with whom they share information. There is great potential for sharing local knowledge.

Question 2, Hypothesis 1:

Facebook supports the use of Greenlandic and Greenlandic dialects.

Facebook does not directly support the use of Greenlandic and its dialects. However, neither does it prohibit the use of Greenlandic. Users can write in Greenlandic but there is currently no support or labelling of functions in Greenlandic. A third-party application written in Greenlandic may be developed in the future as the Facebook platform does not prevent it. This, in fact would be a desirable addition to Facebook and not purely from the perspective of creating and sharing GLK.

Question 2, Hypothesis 2:

Greenlandic Facebook users conversant in more than one language are more active and thus better able to demonstrate the potential for Facebook as a means of creating and sharing GLK.

Clearly, without further support from applications written in Greenlandic or Facebook itself, speakers of Greenlandic only will be limited to communicating in their own language. The results from the 25-34 year olds, however, do show a large percentage of Greenlandic Facebook users confidently using two or three languages. I have often observed comments between Greenlandic Facebook users using a mix of languages and I would argue that Greenlandic-only speakers can follow the gist of a series of comments, or even understand a status update, written in a foreign language by reading the associated comments that are written in Greenlandic. Further investigation is necessary however to fully test the above hypothesis.

Reflection over theories and methods used

The survey for this investigation was deliberately very broad in scope and many of the survey questions require a deeper investigation in order to fully prove or disprove the hypotheses. The above results have revealed, however, a range of activity between Greenlandic Facebook users and other users in their networks. This activity gives value to the content being shared and injects a dynamic into the communication that is not currently present to the same degree in other forms of communication in Greenland. The content that Greenlandic Facebook users create on Facebook, from a simple status update to an uploaded image, generates activity even when the user has logged off the website. The survey did not ask how many Greenlanders check Facebook before they go to work in the morning, but I am sure there are many who do so. As the Facebook software alerts its users to activity surrounding their content the users themselves are encouraged to comment further and thus keep the content alive until new content takes over. If this dynamic could be harnessed for purposes other than the sharing of personal and social information then I believe the potential for creating and sharing GLK on Facebook is great indeed.

The theories employed with the purpose of revealing the potential for creating and sharing GLK on Facebook are useful in that they are concerned with activity, participation and observation within communities, elements of all of which can be observed and experienced on Facebook. A great deal of emphasis was placed upon theories to do with tacit learning but little

reference has been made in this paper as regards the learning to be found on Facebook. However, in much the same way as tacit learning occurs in knowing something by attending to it, it is the premise of this paper that Greenlandic Facebook users have the potential to reproduce the tacit learning otherwise found in nature on Facebook. The ever changing and vibrant environment to which Greenlanders are connected is to some respects present on Facebook. There is a dynamic element on Facebook that one has a relationship to as a result of the connection one feels to one's community of practice. The more meaning and value members of the community give to one another the more likely they are to be absorbed by the community. Greenlandic Facebook users can, simply put, know more by attending to something, helped greatly by the relationship they have within a community of practice.

Recommendations and Future Investigations

This project has identified many possible areas for future investigation. However, in keeping with the purpose and central theme of this investigation, it seems appropriate to build upon this investigation and develop a practical means by which Greenlandic Facebook users can create and share GLK independent of third party involvement. A future project could take the form of the development of a Facebook application designed with this purpose in mind.

Facebook users are daily invited to participate in the use of different applications that are integrated into users' networks of Facebook friends. Many applications can be classified as purely social and recreational activities, whilst others have a combined sharing and archiving function. It is the latter type of application that presents great potential for Greenlandic Facebook users engaged in the creation and sharing of GLK.

An application could be developed to exploit the full range of functions available on Facebook and combine them in a dynamic knowledge sharing archive. For example, images, videos and texts could be tagged through the use of the application. All users who have accepted and integrated the application into their Facebook profile could enjoy a greater element of connectivity surrounding the sharing of knowledge. When one user tags an image, all connected users receive a notification upon which they can choose to interact further with the item of knowledge. This interaction and the activity it generates can incorporate many of the above knowledge systems and is certainly a worthy project for further investigation.

Following the development of a knowledge sharing application a period of beta testing with a group of Greenlandic Facebook users would provide the empirical data required to evaluate the potential for such an application to support the creation and sharing of GLK on Facebook. Such a project would build upon the findings of this investigation and enable Greenlandic communities of practice to take responsibility for the creation and sharing of GLK, modern and traditional, without the need for a third party.

Whilst the potential for creating and sharing GLK on Facebook exists it has yet to be proven. Whereas Facebook is enjoying a long period of popularity in Greenland and around the world, it is unlikely to continue indefinitely. There is cause for concern over the longevity of any popular website and for that reason this investigation has chosen not to focus on the preservation of GLK, rather on the creation and sharing. The question of how GLK is to be preserved on Facebook, though relevant, is premature with respect to this particular investigation.

The potential for Greenlanders to take responsibility for the creation and sharing of GLK is, in my opinion, fully possible using the current social media tools at hand with Facebook being the most suitable platform, not least as it is available in Danish, the second language of Greenland. The responsibility of GLK and the stewardship of Greenlanders own local knowledge is therefore well within reach of Greenlandic communities of practice and can be supported by interested and motivated Greenlandic individuals without the need of a third party.

References

Anderson, T., & Kanuka, H. (Eds.). (2003). *e-Research: Methods, strategies, and issues*. Boston: Allyn and Bacon.

Barnhardt, R & Kawagley, A. O. (2005). *Indigenous Knowledge Systems and Alaska Native Ways of Knowing, Anthropology and Education Quarterly*, Vol. 36, Issue 1, pp. 8–23, retrieved 11th March 2011, from www.fws.gov/nativeamerican/.../TEK_Barnhardt_Kawagley.pdf.

Christensen, N. B. (2006). *A screen of snow and recognition reigned supreme? Journeys into the homeland of a Greenlandic webpage*, In: Landezelius, K (ed.). *Native on the Net: Indigenous and Diasporic Peoples in the Virtual Age*, Routledge.

Christensen, N. B. (2003). *Inuit in Cyberspace: Embedding Offline Identities Online*, Museum Tusculanum Press.

Cohen, L. et al (2007). *Research Methods in Education, Sixth Edition,* Routledge.

Gearheard, S. (2005). *Using interactive multimedia to document and communicate Inuit knowledge,* Études/Inuit/Studies, vol. 29, n° 1-2, 2005, p. 91-114, retrieved 27th October 2010, from http://id.erudit.org/iderudit/013934ar.

Klastrup, L. (2009). *Danskernes Akademi: Facebook Fortællinger,* retrieved 28th March 2011, from KNR, DR2.

Lave, J. & Wenger, E. (1991). *Situated Learning: Legitimate peripheral participation,* Cambridge University Press, 2008 edition.

Lynge, L. (2006). *Nye samværs og kommunikationsformer i Grønland - en undersøgelse af de unges identitet og narrative kompetencer på hjemmesider*, Institut for sprog, litteratur og medier Ilisimatusarfik – Grønlands Universitet, retrieved 15th April 2011, from www.ilisimatusarfik.gl.

Nonaka, I. et al (2000). *Enabling Knowledge Creation: How to Unlock the Mystery of Tacit Knowledge and Release the Power of Innovation*, Oxford University Press.

Peat, F. D. (1994). *Blackfoot Physics: A Journey into the Native American Universe*, Fourth Estate.

Polanyi, M. (1966). *The Tacit Dimension*, University Of Chicago Press, 2009 edition.

Sfard, A. (1998). *On two metaphors for learning and the dangers of choosing just one, Educational Researcher, 27*(2), 4-13.

Shirky, C. (2010). *Cognitive Surplus: Creativity and Generosity in a Connected Age*, The Penguin Press HC.

Shirky, C. (2009). *Here Comes Everybody: How change happens when people come together,* Penguin Books.

Statistics Greenland (2010). *Greenland in Figures 2010*, Government of Greenland, retrieved 1st March 2011, from www.stat.gl.

Tee, M. & Karney, D. (2010). *Sharing and cultivating tacit knowledge in an online learning environment,* International Society of the Learning Sciences, Inc.

Wenger, E. et al (2009). *Digital Habitats: stewarding technology for communities*, CPsquare.

Wenger, E. Et al (2002). *Cultivating Communities of Practice*, Harvard Business Press.

Wenger, E. (1998). *Communities of Practice: Learning, Meaning, and Identity,* Cambridge University Press, 2008 edition.

Appendices

*Appendix 1**

Article from Grønlandsposten (AG), *in Danish*

*Appendix 2**

Results from the online questionnaire for <u>all respondents</u>, *in English*

*Appendix 3**

Results from the online questionnaire for <u>respondents aged 25-34</u>, *in English*

* All appendices are available on the attached CD.