Department of Informatics and Media

Master Programme in Social Sciences, specialization Digital Media and Society

Two-year Master’s Thesis

What do an expatriate need -
and what can Expat World Stockholm give them?

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June 2018
Acknowledgement

I have mixed feelings about the fact that five years of studying have come to an end; feelings ranging from relief and proudness to fear of what comes next. It has been a journey that has included all types of emotional states. My years at university have been invaluable and made me the person I am today. However, to keep up the motivation would not have been possible without some people, which I have longed to provide my acknowledgment to.

Jakob and Leonie, your kindness and appreciation of your students alongside your innovative and inspiring ways to teach, will always remind me of the greatness of studying. My class friends from Digital Media and Society, it is important for me to emphasize how happy I am that I got the opportunity to create new lifelong friendships with people from all over the world. Without you, these two years would not have been half as fun and exciting. My family and friends, my closest companions, team players and biggest support; no place in the world can compete with Stockholm; as you are there.

There are a few people that I especially need to thank; without them, it would have been a non-existent thesis. To begin with, PG Holmlöv, thank you for your support and valuable insights throughout the whole process. And your humor; never has e-mailing been more fun. Tim and Emma, I do not know how to show my appreciation for the time you spend on proofreading. But what I do know is that in South Korea, makgeolli and pajeon is on me. Agnes, our friendship is a living example of the beauty of digital media. No matter how long you will be living abroad, you will forever be my best friend of all best friends.

Mathias. I cannot describe what you mean to me - because it is impossible to put these feelings into words. You are one of a kind. Jag älskar dig.
Abstract
This research investigates the Facebook group Expat World Stockholm, a group that enables people to exchange information, experiences, and knowledge about Stockholm. Although the group primarily address expatriates, that is - people who live in another country for an extended time, the group welcomes anyone to join. The aim of this study is an attempt to identify needs that members’ express with their participation in the group. What are they searching for in Expat World Stockholm and what potentially is served in the group to fulfill these needs? To achieve this aim, I analyzed the content and feature usage generated in the group during two particular time periods, namely January to February 2017 and January to February 2018. To gain an understanding of expatriates’ needs expressed in the group, the content analysis in the form of common word-pairings were interpreted together with the use of features. Based on the findings it seems that the members, in general, express a need of informational and social (emotional) support, and have in particular, in both of the time periods, utilized features that enable them to share and reach support through clickable references. For this reason, it seems that Expat World Stockholm appears to be a group of supportive, helping and mutual behavior. A general implication of this study is that technology becomes an important part of expatriates’ information behaviors as they seem to rely on the Internet, social media and online communities as sources to find information and (emotional) social support.

Keywords
Facebook, Expat World Stockholm, computer-mediated communication (CMC), informational support, social (emotional) support, common word-pairings, features, wall posts, comments, symbolic language, sharing modalities
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1. Introduction

In everyday life individuals encounter a need of information, the wide range of needs will most likely influence the source from which they gather their information. Online communities are no exception. Online communities have come to play a significant role in many aspects of Expat World Stockholm members' everyday life, which is the Facebook group of interest in this study. The group enables people to create, develop and maintain social relationships, share and gain knowledge, express their opinions and thoughts and consuming products and services - regardless of time and space (Bagozzi & Dholakia, 2002; Expat World Stockholm, 2018).

Living abroad may evoke informational and social uncertainty - feelings that may arise due to lack of knowledge about “living, working, and relating to locals in a culturally unfamiliar environment” (Farh, Bartol, Shapiro & Shin, 2010, p. 439), and/or because of a limited or non-existing social contact with their home country (Farh et al., 2010). Information sharing has, for this reason of uncertainty, become particularly valuable and essential for ‘expatriates’ - that is, people who live in another country for an extended time. People who share common ground and value information similarly will encourage the sharing of information (Hyduk & Worrall, 2016).

When I moved to the Netherlands, autumn 2017, I deleted most of my social media accounts, but kept my Facebook account, partly because of a group called ‘Expats in Groningen’ (Facebook, 2018). These types of groups are a widespread phenomenon on Facebook and can in the simplest sense be explained as an online group that connect people who in one way or another have a relation to and/or an interest of a particular city. Through these groups, members can exchange experiences and knowledge about the city, share and reach an array of different types of information and seek social connection and emotional support. These may be valuable assets for newcomers to make sense of their new environment and ease stress and uncertainty (Farh et al., 2010. Because of the
informative, inclusive and supportive nature of ‘Expats in Groningen’ I deemed it beneficial for gaining insightful and valuable information about the city and I saw it as an opportunity to connect with other ‘expats’ in Groningen. This sparked my interest to study a similar group with the attempt to explore and identify the needs that expatriates have expressed in this particular group - namely, *Expat World Stockholm*. This group consists of many different features that can potentially fulfill various types of needs and tasks - some features may be particularly useful. To gain a broader understanding of expatriates’ needs that are expressed in *Expat World Stockholm* common word-pairings were also extracted and interpreted together with the use of features. I could have chosen any expat group on Facebook, but considering that *Expat World Stockholm* currently have around 12,000 members (*Expat World Stockholm*, 2018), which may potentially generate an abundance of content, together with the fact that Stockholm is my hometown, increased my motivation to select this group. In relation to this, my research question is as follows:

**RQ:** Based on common word-pairings and the usage of features, what needs do expatriates express in the Facebook group *Expat World Stockholm* and what is potentially served in the group to fulfill these needs?

To answer this, I conducted a quantitative content analysis of common word-pairing and features between two different time periods. I choose to collect data from two different time periods, namely January to February 2017 and January to February 2018 as it may provide better insights of expatriates’ needs and also enhance the understanding of the group's characteristics. The data were processed with the use of the social analytic tool Sociograph (Sociograph, 2018), which provided URL-links to all wall posts and comments - text boxes that allow posting of messages, generated in the group in the chosen time periods. The coding, counting and the creation of figures presenting the frequency of the features, were managed in the electronic spreadsheet form Excel. It is relevant to clarify that a wall post and a comment are features per se, but the analyzed
features are a selection of features that can be used to compose a message through a wall post or a comment. Besides, the textual content of the wall posts and comments were also managed through Excel and subsequently imported into the language program Python which as a result provided a list of the 20 most common word-pairings. It is relevant to emphasize that the comment text box affords fewer features than the wall post, which is why the selected wall post and comment features were coded separately. However, to answer the research question, the results of the wall post and comment features are analyzed together and jointly discussed with most common word-pairings and potentially reveal insights of expatriates’ needs.

1.1 Relevance and contribution to the field

Facebook is viewed as the “leading interactive media content generator” (Skalski et al., 2017, p. 201) and has grown to become an important platform for people engaging in a range of communication behaviors, such as “requesting help from their social network to address information needs” (Lampe, Vitak, Gray & Ellison, 2012, p.3195). It is, also, a platform that operates from a ‘perpetual development mindset’ (Feitelson, Frachtenberg & Beck, 2013), meaning its system will develop without any predefined final goals, with a regular implementation of new features, which might heavily impact the way things are phrased and expressed. Also, Expat World Stockholm will probably overtime contain a diversity of members that provide new perspectives and exchange knowledge and information about Stockholm. Even though social media sites may rise and fall in popularity - "interactive and social media appear to be here to stay" (Skalski, Neuendorf & Cajigas, 2017, p. 201). From these perspectives, it can be argued that Facebook is a platform of change and will most likely continue to attract new members - meaning that the platform may have the potential to always be an interesting, essential and relevant study field. Besides, conducting a study of Expat World Stockholm may also widen the groups’ recognition, thus reach Facebook users that may find the groups’ assets useful for their needs. Eventually, depending on the
findings of this study can potentially enhance the idea that people favor interpersonal sources over formal ones when they seek for information around daily activities (Worrall & Hyduk, 2016). It also has the potential to enhance the idea that technology is an important part of expatriates’ information behavior since they rely on the use of the Internet, social media, and online communities to find information and social support (Hyduk & Worrall, 2016).

1.2 Disposition

Chapter 2 begins by presenting a definition of what a feature is, followed by a broader description of the selected features, how they are applied in this study, as well as a motivation for selection these particular features. The chapter continues by presenting a background of broader concepts related to the area of this study, followed by a literature review covered in chapter 3. This chapter offers a selection of earlier studies, which aim to provide insights into what is known about the topic of this study. Chapter 4 presents a theoretical framework that brings together (online) communication, online communities, and online language. In chapter 5 I present a detailed presentation of the chosen methodology, the process of the data collection, limitations, validity, and reliability as well as ethical issues. Chapter 6 presents the findings of common word-pairing and feature usage, which are analyzed together along with theories presented in chapter 4. Eventually, Chapter 7 attempts to provide further discussion of the principal findings of the empirical material and again apply it to the theories outlined in chapter 4. This chapter ends by suggesting some ideas that I perceive as interesting and relevant for future research.
2. Background

2.1 What is a feature?

It can be argued that a feature can be defined, interpreted and used in multiple ways and settings. It is for this reason relevant to discuss and clarify how this study applies the term. Smock, Ellison, Lampe, and Wohn (2011) explain that a feature on Facebook is a “technical tool on the site that enables activity on the part of the user” (Smock et al., 2011, p. 2323). This definition seems relevant to follow since the selected features of this study are features available to use on a Facebook wall post and comment, with the potential to enable communication between the members. It can be argued that some of the selected features for this study are not unique for Facebook, meaning that they can be encountered on other social media platforms. However, since they are features that are available to use on Facebook, this study identifies the selected features as Facebook features. Besides, a feature can be viewed as a prominent, interesting or important attribute or character of something (Collins, n.d), where ‘something’ in this case is wall posts and comments. It can be argued that the selected features are prominent, interesting and important features for the function of wall posts and comments, which otherwise could end up as a ‘characterless limbo’, meaning that they can be viewed as ‘specific’ types of online communication tools, with the potential to develop into new forms, structures and styles of expression (Kadir et al., 2012a). Even though the wall post and its possible comments are features per se, they are not the features being analyzed in this study. It is instead the features or ‘tools’ that enable the user to compose a message through the wall post and comment that are being analyzed. However, in this case, one can not exclude the other, meaning that the existence of the selected features depends on the existence of the wall posts, and the other way around. From this perspective interplay of wall posts and its possible comments, along with its identified ‘message composing’ features, can be applied to Krippendorff’s (2013) idea of communication, which he
recognizes as “the awareness of the relational space between senders and receivers, of the process through which interpersonal relations are negotiated, social structures are constituted and members of large populations come to know about each other” (p.3).

2.2 Motivation for the selected features

The majority of the selected features can be used in both wall posts and comments, except for some features that are only available in wall posts (See Table 1). Facebook offers many features that users can use to compose a message. At the same time as current features of Facebook are improved, new features are being introduced. It felt therefore relevant and necessary to limit the number of features analyzed in this study. The selected features for this study have been chosen based on following reasons: (1) its potential to meet the needs members of Expat World Stockholm require. To clarify, of all Facebook features, it can be argued that some features are more suitable for ‘expats’. For example, one of the selected features called ‘Share an event’ enables people to share information about different activities, which might be of advantage for ‘expats’ who recently moved to a new city and wants create new social relationships (2) iconic and salient features of Facebook. People may not share the same idea of what constitutes an iconic feature for Facebook. This means that what this study identifies as an iconic Facebook feature is a subjective opinion. (3) That the selected features are available in both of the data collection periods, based on the intention to make a comparison that is as equal as possible. Data collection was performed using the social analytics platform Sociograph (Sociograph, 2018) With the use of Sociograph, the URL-links to each wall post and possible comments generated in Expat World Stockholm during the time periods were provided. This enabled me to collect the relevant data and compare the features available during these time periods. However, regarding the feature ‘reaction symbols’ - six pre-defined symbols expressing different emotions viewed in this study as an iconic feature of Facebook - an exception to this feature was made. It was noticed that before May
2017, the 'like'-button was the only ‘reaction symbol’ available in comments (Cohen, 2017; Garun, 2017). This means that the remaining five ‘reaction symbols’ were not available to use in the first time period; January to February 2017. For this reason, the 'like'-button will be compared between the two time periods and referred to as ‘reaction symbol’. Since all of the six ‘reaction symbols’ were available in the second time period; January to February 2018, a presentation of the use of the additional five ‘reaction symbols’ is presented.

2.3 Description of the selected features

The selected features are grouped into two categories based on similar function and meaning. Table 1 presents the selected features that can be used to compose a message in wall post and Table 2 presents the selected features that can be used to compose a comment message:

<table>
<thead>
<tr>
<th>Wall post</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Symbolic language</td>
<td>Sharing modalities</td>
</tr>
<tr>
<td>‘Reaction symbols’</td>
<td>‘Share’</td>
</tr>
<tr>
<td>‘Emoticon’</td>
<td>‘Share a Link’</td>
</tr>
<tr>
<td>‘Emoji’</td>
<td>‘Share an Event’</td>
</tr>
<tr>
<td>‘Sticker’</td>
<td>‘Tag’</td>
</tr>
<tr>
<td>‘GIF’</td>
<td>‘Link’</td>
</tr>
<tr>
<td>‘Photo’</td>
<td>‘Ask for Recommendations’</td>
</tr>
<tr>
<td>‘Video’</td>
<td>‘Check in’</td>
</tr>
</tbody>
</table>

*Table 1: An overview of the selected wall posts features*

<table>
<thead>
<tr>
<th>Comments</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Symbolic language</td>
<td>Sharing modalities</td>
</tr>
<tr>
<td>‘Reaction symbols’</td>
<td>‘Tag’</td>
</tr>
<tr>
<td>‘Emoticon’</td>
<td>‘Link’</td>
</tr>
<tr>
<td>‘Emoji’</td>
<td></td>
</tr>
</tbody>
</table>
The category symbolic features represent features identified in this study as various types of graphics and visual objects, that can be viewed as socio-emotional symbols that say ‘more than a thousand words’, or at least have the potential to compensate for the lack of facial expressions (Jibril & Abduallah, 2013). It is important to emphasize that an emoticon is a typographical icon and most of the time has an associated emoji (further described in table 4). The emoji feature depends on if the site supports the translation of the typographical icon into the emoji. Facebook has its emoji system which translates the most common typographical icons into emojis. The ones that are not supported by Facebook's system are shown as the typographical icon. Further on in this study the distinction between the features emoticon and emoji means the typographical icon that Facebook does not support or the translated emoji, which both are emoticons.

The third and final category, sharing modalities represent features where internal and/or external content in one way or another is transported, extended and/or shared through wall posts and comments. Through a few ‘clicks’ one can retrieve information and gain knowledge shared by others (Liu, 2011). The perception that the primary function of Expat World Stockholm is to be an environment for ‘expats’ to exchange and provide information concerning Stockholm increased the motivation to include a selection of features identified in this study as sharing modalities. To emphasize, despite the ‘quick share’, the ‘clickable’ link may contain helpful information that hopefully answers and fulfills the ‘expats’ questions and needs.

Since this study analyzes many Facebook features, it seemed relevant to provide a list that as clear as possible present and describe the meaning of each

| ‘Sticker’ |  |
| ‘GIF’ |  |
| ‘Photo’ |  |
| ‘Video’ |  |

Table 2: An overview of the selected comment features
feature and how they are applied in the study. Also, as this study also extracted and interpreted common word-pairings to identify a particular type of content, a brief explanation of the process is explained as well.

<table>
<thead>
<tr>
<th><strong>Plain text</strong></th>
<th>What is it?</th>
<th>How is it applied?</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Textual analysis</strong></td>
<td>A member can compose a message by words in the wall post and comment text box. Meaning that, an analysis of the textual content of wall posts and comments was applied.</td>
<td>Through common word-pairings generated in wall posts and comments, the particular type of content of <em>Expat World Stockholm</em> was extracted and interpreted. In order to get an idea of what the expats communicate about is discussed among the members of <em>Expat World Stockholm</em> in the chosen time periods, I conducted a analysis of the textual content of wall posts and comments. The actual text of <em>all</em> of the wall posts and the comments were pasted in the coding scheme, created in the spreadsheet Excel and subsequently imported into the programming language Python. As a result, a list of the 20 most common word-pairings was provided.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Symbolic Language</strong></th>
<th>What is it?</th>
<th>How is it applied?</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>‘Reaction Symbols’</strong></td>
<td>Six pre-defined emotions, known as ’like’, ‘Heart’, ‘Haha’, ‘Wow’, ’Sad’ and ’Angry’. This features is placed below the wall post and the comment text box and is represented by a ‘thumbs up ’ button</td>
<td><strong>Wall post:</strong> all reaction symbols will be coded, counted and compared between both of the time periods 2017 and 2018. <strong>Comment:</strong> Only the usage of the ’like’-button will be coded, counted and compared between both of the time periods of 2017 and 2018. But, for the time period 2018 all six ‘reaction symbols’ will be coded and counted, since they were available to use on the comment by then. However, they cannot be compared with the first time periods, since only the ’like’ button was available at that time. <strong>Note:</strong> A user can only ‘react’ once per wall post and/or comment. But, total number of how many times that particular wall post and/or</td>
</tr>
</tbody>
</table>

Table 3. *Category plain text*
<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>‘Emoticon’</td>
<td>Characters found on the keyboard, such as punctuation marks, letters, and numbers are used to create emoticons. These are pictorial icons that generally present a sentiment and need to be read sideways due to the limits of our keyboard. For example: :) :-(</td>
<td></td>
</tr>
<tr>
<td>‘Emoji’</td>
<td>Pictographs of faces, objects, and symbols. A cartoon figure free from the binds of punctuation, numbers, and letters. An emoticon of :) becomes 😊 on Facebook.</td>
<td>An emoji can be pasted in wall posts and comments multiple times, which is why the total number of emojis is counted. If a post contain 5 emojis, it is coded as ‘5’.</td>
</tr>
<tr>
<td>‘GIF’</td>
<td>A compressed image file that plays and loops in the same way as videos and have the same size requirements</td>
<td>A GIF can be pasted in once per wall post and comment. If a wall post and/or comment contain 1 GIF, it is counted and coded as ‘1’.</td>
</tr>
<tr>
<td>‘Sticker’</td>
<td>Similar to emojis but larger in size and more graphically advanced</td>
<td>A sticker can be pasted in once per wall post and comment. If a wall post and/or comment contain 1 sticker, it is counted and coded as ‘1’.</td>
</tr>
<tr>
<td>‘Photo’</td>
<td>Facebook affords its users the ability to upload a photo(s).</td>
<td>Wall post: A number of photos can be uploaded in the same wall post, which is why total number of photos is counted. If a wall post contain 5 pictures, it is coded as ‘5’. Comment: It is only possible to upload one photo per comment. If a comment contains a photo it is coded as ‘1’.</td>
</tr>
<tr>
<td>‘Video’</td>
<td>A user on Facebook can upload recorded videos or livestream videos from their own cameras.</td>
<td>Recorded and livestream videos are counted as video. Wall post: ‘see photo’ Comment: ‘see photo’</td>
</tr>
</tbody>
</table>

Table 4: Category symbolic language
<table>
<thead>
<tr>
<th>Sharing modalities</th>
<th>What it is?</th>
<th>How is it applied?</th>
</tr>
</thead>
<tbody>
<tr>
<td>‘Tag’</td>
<td>A tag is created on Facebook by either using the hashtag symbol “#”, or the commercial at symbol “@” and then insert the name of the target object. As a result, the tagged object receives a notification. Both symbols result in ‘clickable’ links but the tag done by ‘#’ is recognized as #Fridawashere and the tag done by ‘@’ can look as following; Fridawashere (i.e without the ‘#’ in be the beginning). A user can not tag a person and (or another object (e.g a page, company) outside Facebook.</td>
<td>This study will not distinguished between a tag used by the symbol ‘#’ or ‘@’. If a post contain #Fridawashere and Fridawashere it is counted as 2 tag(s).</td>
</tr>
<tr>
<td>‘Link’</td>
<td>A clickable link to a website cited in wall post and/or comment text box.</td>
<td>Link(s) were coded as a link if it looked as following: <a href="http://www.fridaishere.com">www.fridaishere.com</a> Fridaishere.com <a href="http://www.fridaishere.com">http://www.fridaishere.com</a></td>
</tr>
<tr>
<td></td>
<td></td>
<td>A link can be pasted in multiple times in the text box area of wall posts and comments, which is why the total number of link(s) is counted. If a post contain 5 links it is coded as ‘5’.</td>
</tr>
<tr>
<td>‘Share’</td>
<td>Facebook allows its users to ‘share’ the wall post, which is done by ‘clicking’ on the button that is placed below the text box area of the wall post. Similar to ‘tag(s)’, the content of the wall post can be shared internally on Facebook, but not to an external page.</td>
<td>Similar to ‘reaction symbols’ in that a wall post can only be shared once. But, the total number of how many times that particular wall post has been ‘shared’ is displayed, which is why the total number of ‘shares’ is counted.</td>
</tr>
<tr>
<td>‘Share a Link’</td>
<td>If it says ‘Share a Link’ on the header of the wall post, it indicates that a user has shared a link with information from an external website. It is common to encounter a Facebook plug-in displayed on external websites. When a person clicks on this plug-in, they will be able to link that particular information to other parts on Facebook, in this case the group Expat World Stockholm.</td>
<td>One ‘shared link’ is displayed on the wall post. If the header of the wall post displays ‘share a link’ it is counted as ‘1’.</td>
</tr>
</tbody>
</table>
‘Share an Event’ | If it says ‘Share an Event’ on the header of the wall post, it indicates that an user has shared an event created on Facebook. The created event can only be shared internally on Facebook. | One ‘shared event’ is displayed on the wall post. If the header of the wall post displays ‘share an event’ it is counted as ‘1’.

‘Ask for recommendations’ | Facebook enables its users to ask friends and/or strangers for recommendations about a particular place, service etc. This feature is a clickable button placed below the text box area of the wall post. | This study does not code what type of recommendation, only if they ask for a recommendation. The feature can be used once per wall post and is therefore coded as ‘1’ if it is used.

‘Check in’ | Facebook allows its users to let friends and/or strangers to know their actual position. This feature is a clickable button placed below the text box area of the wall post. | This study does not code where the member has checked in, only if they have checked in. The feature can be used once per wall post and is therefore coded as ‘1’ if it is used.

Table 5: Category sharing modalities

2.4 Social Networking Sites and Social media

A social networking site can be recognized as “any of the numerous online platforms used by people to build social networks or social relations with other people who share interests and/or real-life connections” (Shah, 2017, p. 174). SNS facilitates information sharing and participation that is “characterized by the affordances of user-generated content” (Ariel & Avidar, 2015, p. 19). Social network sites have increased in popularity and have become an ineluctable part of “modern industrialized lifestyle” (Lai & Yang, 2014, p. 1310). Burke, Marlow and Lento (2009) argue that for a social network site to emerge, a “widely distributed set of regular contributors” (p. 953) are required. For this reason, it is essential for SNS developers to design additional features that potentially increase the level of involvement that, as a result, will further the contributions of content in the SNS (Burke et al., 2009).

Social media is known as “forms of electronic communication, such as websites and microblogging platforms, through which users create online communities to share information, ideas, personal messages, and other content” (Shah, 2017, p. 174). It provides people an opportunity to interact with each other,
both familiar and unfamiliar, which can contribute to the maintenance and development of interpersonal relationships (Ariel & Avidar, 2015; Lai & Yang, 2014; Shah, 2017). Users of social media range from children to adults and from private persons to smaller and larger companies, who often use it to “attract more consumers for their specific products or services” (Shah, 2017, p. 31). Despite the user’s age and/or background, a common understanding is that they use various types of social media to “seek information that is in accordance with their interests, needs, or existing attitudes” (Shah, 2017, p. 31).

2.4.1 Facebook

Among the high number of existing SNS and social media sites, Facebook continues to be the most used in the world (Statista, 2018). Its continued popularity and high number of members, ranging from private persons to bigger companies, can be explained by a number of factors - it might be viewed as a useful tool to: assert and defend opinions and ideas; create and maintain social relationships and share and distribute information (Smock et al., 2011; Kadir et al., 2012b). Facebook define themselves as the below:

“Facebook is a social utility that helps people better understand the world around them. Facebook develops technologies that facilitate the spread of information through social networks allowing people to share information online the same way they do in the real world” (Facebook, 2018).

2.4.2 Facebook and its “Perpetual development” mindset

Speed and growth are two of Facebook’s main developmental characteristics (Feitelson et al., 2013). As mentioned above, Facebook operates with a “perpetual development” mindset, meaning that Facebook and its system will develop “with no predefined final objective” (Feitelson et al., 2013, p. 8-9). The platform’s software is not installed at customers’ locations, instead, it runs on their servers. This allows for quick and fine-tuned control over versions and structures. Given that Facebook’s engineers are also users of the platform, they have first-hand
insight and experience with the domain. The combination of first-hand knowledge and knowledge derived from analyzing real users’ usage patterns can reveal valuable insights into what works and what needs to be improved (Feitelson et al., 2013). This is also an example of how Facebook’s mindset of the software development differs from conventional software companies, where the software products are fixed and bounded, including “delimited scope and predefined completion dates” (Feitelson et al., 2013, p.9). As long as Facebook keeps this mindset, the system will continue to develop in an indefinable time (Feitelson et al., 2013), meaning regular development of new features can be expected.

2.5 Emoticons, emojis, GIFs and stickers

The so-called symbolic socio-emotional suppliers language (Jibril & Abdullah, 2013), has become highly popular and prevalent in various forms in online communication (Kadir et al., 2012b) and is today a well-known international feature, recognized by principally everyone, regardless of one’s original language (Ross, 2006). It is available to use in a range of technological devices, including computers and mobile phones (Herring & Androutsopoulos, 2015).

Emoticons and emojis are two of the most popular and prominent hieroglyphic/symbolic languages used online to compensate for the lack of facial expressions and gestures common in physical communication (Grannan, n.d; Kadir et al., 2012b). Emoticons were introduced before emojis, and can be defined as “punctuation marks, letters, and numbers used to create pictorial icons that generally display an emotion or sentiment”. They are often read sideways due to the limits of our keyboard. An emoticon can be recognized as the following: “:=)” (Grannan, n.d). The emergence of new online communication applications, including instant messaging, introduced new, interesting ways for people to communicate, including the pictograph symbols of emojis and stickers. Emojis can be said to be an evolution of the emoticons and are commonly recognized as yellow cartoon faces displaying various expressions, as well as other symbolic
objects, including animals, food, flags and so on. Stickers used in online settings can be defined as a more ambitious graphic symbol and larger (Grannan, n.d; Stack Exchange, n.d). The animated Graphics Interchange Format (GIF) also appeared alongside the emergence of emojis and stickers. It is known as a compressed image file (Black, 2018), recognized as “short video clips that loop endlessly” (Herring & Androutsopoulos, 2015, p. 141-142). As has been noted, the image of symbolic languages, such as hieroglyphic language, has undergone some graphical changes, from ordinary typographical symbol to a more advanced graphical icon (Amaghlobeli, 2012; Herring & Androutsopoulos, 2015).

2.6 Tagging and sharing content

The opportunity to tag shared content, which can be shared with and commented on by other people, is now a function available to use on many internet sites (Kim et al., 2013). This function is, according to Herring and Androutsopoulos (2015), a part of the modernized online environment, also associated as Discourse 2.0, which includes “user adaptations to circumvent the constraints of Web 2.0 environments, including interactive uses of the symbols ‘@’ and ‘#’ (p. 131). The commercial at symbol (‘@’) and the hashtag symbol ‘#’ are a form of labeling symbols followed by words, phrases or names, often short, descriptive and simple, and are used to tag another person and/or object. The function of social tagging has increased as a study focus among researchers, especially regarding the abilities this phenomena creates concerning user participation, collaboration, sociability, and usability (Huang & Chuang, 2009). At the same time as the function of tagging has shown in general to be a beneficial and useful tool, challenges have also appeared (Huang & Chuang, 2009), as mentioned “participants of this new online communication process do not share the same framework of understanding” (Huang & Chuang, 2009, p. 341). As a consequence, this might lead to different perceptions and interpretations of the meaning of a tag and what it represents (Huang & Chuang, 2009).
Facebook’s idea with the tagging activity was to afford its users the ability to broaden and enrich their content-sharing on the platform (Ha, Han, Lee & Kim 2017). A user can tag a post with the intention to reach either a specific person or a broader public, which means that the name of the tagged objects will be publicly displayed (Savage, Hernández, Bhattacharjee & Höllerer, 2015). This suggests that Facebook’s tagging activity potentially gives rise to making new acquaintances, new ways to share content and is an effective way for users to inform others that they are being involved in a shared post, which also is the platform’s primary intention with the function (Savage et al., 2015). Besides, the tagging activity on Facebook is not only utilized for private use but also used by organizations to market their products and/or attract new customers (Ha et al., 2017). Savage et al. (2015) point out that content producers that “publicly show that they are taking the time to consider a particular targeted audience” (p. 302) are often received positively by Facebook users, compared to tagged posts that are produced automatically by companies.

2.7 Hypertextuality and Hyperlinks

The term hypertextuality can be explained by “websites, particular words or phrases on one page are linked to other pages with more information” (Baym, 2006, p. 524). A hyperlink is a reference to an object and is the most significant component of electronic hypertext systems, usually represented by a word, phrase or other object that can be clicked on, which then lead to either a different location within the same website or document or to a separate, external website or document (Franklin, Hamer, Hanna, Kinsey & Richardson, 2005; Yi, Choi & Kim 2016). According to Baym (2006), the process of hypertextuality allows “different readers of the same text potentially very different reading experiences” (p.524) and also provides a possibility for the readers to independently choose which hyperlink to click, depending on their need and interests of information (Baym, 2006). Oblek (2005) suggests that hypertextuality is a component that “reflect specific communication potentials of the Internet” (p.88), which produces newness and innovation of media
production and media consumption (Oblek, 2005). Interlinking of information has had a major impact on “involving information processing” with new opportunities that have “lead users to context-sensitive help” (Walther, Gay & Hancock, 2005, p. 639). When a media product is posted and shared online, like a clip uploaded from a TV show on Youtube, it is known as user-selected content (USC) (Skalski et al., 2017). This indicates that sharing links in a group of strangers can work as a bridge that connects people since the content of the links might potentially contain information of shared interest (Kim et al., 2013). Another advantage with hyperlinks is the ability to compensate for the message length, which may occur when creating a message by the use of only letters. (Yi et al., 2016).

2.8 Expatriates

The concept of expatriates has often associated with “corporate expatriates”: people who temporarily moves to another country to “help their organizations meet their business objectives” (McNulty & Brewster, 2016, p. 31). However, nowadays a common description of expatriates is “traditional expatriates”: people with international experience, including employees, students, migrants and international business travelers (McNulty & Brewster, 2016, p. 31). The meaning of an expatriate has also been defined in more general terms:

“A person who has citizenship in at least one country, but who is living in another country. Most expatriates only stay in the foreign country for a certain period of time, and plan to return to their home country eventually, although there are some who never return to their country of citizenship” (BusinessDictionary, 2018).

Additionally, Hyduk and Worrall (2016) mean that sharing information is particularly of value for immigrants and expats, which they view as people who are living in a new country for an extended time. They explain further that expatriates rely on both strong and weak social ties, and view the internet, social media and online communities as valuable sources to reach information and seek
social support. Farh et al., (2010) present a similar idea and believe that expatriates likely seek informational and emotional support from people who have experienced or are facing a similar situation and adds that people who have experienced feelings of confusion in a new country may likely feel compassionate and set off time to share information and communicate empathetic support (Farh et al., 2010). In the remaining parts will the term ‘expatriates’ be referred to as ‘expats’.

2.9 Groups on Facebook and Expat World Stockholm

Facebook users can form a group(s) and/or become a member of a group(s). Group participation provides users the opportunity to interact and discuss a common topic of interest with friends, acquaintances and/or strangers (Smock et al., 2011; Kadir et al., 2012a. Anyone that is a member of Facebook can create a group(s) and groups can either be open or private. The Facebook group *Expat World Stockholm* was created by the online community ‘MyExpatsWorld’, known as the largest and the fastest growing online portal for expats (MyExpatsWorld, n.d). Many groups like these exist on Facebook, and some of them contain a large number of members. *Expat World Stockholm* has just over 11,000 members. Regardless of the number of members, the function and idea of these groups remain the same: to work as an online environment and to help and connect people who either live abroad or are planning to move abroad to come together and exchange knowledge and information about the specific city (Facebook, 2018). From this perspective indicates that *Expat World Stockholm* consists of members who either are planning to move to Stockholm, already live in Stockholm or have in general interest of the city. However, even though the primary function of *Expat World Stockholm* is to assist as a meeting point for expatriates, they also welcome people who want to gain information and knowledge about the city as well as people willing to exchange and share their experience of the city, but that may not have lived in the city or have moved. In the remaining parts will the term ‘expatriates’ be referred to as ‘expats’.
3. Literature Review

3.1 Information seeking and information value

Lampe et al., (2012) conducted a study with the aim to understand how likely it is that people use Facebook for informational purposes, meaning if it serves as an adequate information source and fulfills individuals everyday information needs (Lampe et al., 2012). They partly found that it was Facebook-users individual characteristics that determined how likely they are to use Facebook to seek information - in particular, how they perceive their relationship with network members (Lampe et al., 2012). Behaviors that "groom connections in a network, were significant predictors of how likely respondents were to turn to Facebook for their information-seeking activities" (Lampe et al., 2012, p. 3203).

Hyduk and Worrall (2016) conducted an in-progress study focusing on how Canadian immigrants and expats members of the social media platform Twitter interact with the information values of community members. The data was a sample of messages on Twitter, also known as 'tweets', "collected on Canadian immigrant and expat topics" (Hyduk & Worrall, 2016, p. 1). They collected data from the Twitter community through unobtrusive ethnographic observations and a content analysis of 597 tweets from chosen hashtags and keywords (Hyduk & Worrall, 2016). Hyduk and Worrall (2016) found that information value of cultural, contextual and economic value appeared to be highly common. They explain that information that has a "cultural value is of interest to or important to many members of a world" (Hyduk & Worrall, 2016, p. 3), and were for that reason not surprised when the results showed that information of cultural value was the "most highly applied code" since their study focused on immigrants and expats population in Canada - a group of people where cultural value information is particularly important for (Hyduk & Worrall, 2016, p. 3). As mentioned above, it was also found in their study a great number of tweets coded as economic and contextual value. The huge numbers of tweets of contextual value indicate
according to the researchers a connection between the hashtag and the user, meaning - the user belonged to a specific hashtag in this community. In other words, a contextual value is at a particular time, place or situation (Hyduk & Worrall, 2016). Information valued for economic purposes is "perceived to be profitable in an economic sense" (Hyduk & Worrall, 2016, p. 3), where they found a great amount of the tweets were information about work and business (Hyduk & Worrall, 2016). Similar to the findings of cultural value, the authors were not that surprised that a great number of tweets was of economic value as many people who are moving to another country most likely seek for information concerning employment and income (Hyduk & Worrall, 2016). Seraj (2012) also conducted a study focusing on value, but analyzed how the online community Airliners.net, an online community on aviation, convey value to its consumers and influence participation. Through a nethnography along with offline and online interviews, Seraj (2012) identified intellectual value (goal driven and quality content), social value (interactive environment that helps creating social ties) and cultural value (self-governed community culture consistent with its principles) as the main characteristics that creates value for the members of Airliners.net (Seraj, 2012). Besides, Java, Finin, Song, and Tseng (2007) focused in their study on topological and geographical characteristics of Twitter's social network. Members of Twitter can have public profiles, where the dataset used in Java et al., (2007) study was "created by monitoring this public timeline" (p. 2). A total number of 1,348,543 tweets from 76,177 unconnected users were collected (Java et al., 2007). The researchers found that conversing about daily activities, seek and share information seemed to be common reasons for using Twitter. They also identified that depending on the community, the user plays a different role of an information source, friend and information seeker (Java et al., 2007).

3.2 ‘Language of Computer-mediated communication (CMC)’

Language plays an essential role in the communication activities of computer-mediated communication (CMC) - recognized as the interaction
between individuals in an online setting (Herring, 2007; Baron 2008). Because of
the development of communication technologies, a particular and unique type of
communication has been introduced, which involves “the use of new word forms,
structures and style of expression” (Kadir et al., 2012a, p. 276). Questions
focusing on how language is used by people when communicating online have,
since the late 1970s, interested many researchers in various fields including
linguistics, communication, and sociology (Baym, 2006). Many metalinguistic
terms have been used interchangeably to signify language appearing online:
electronic discourse (AbuSa’aleek, 2015), interactive written discourse, electronic
language (Baron, 2008), digital language and online communicative language
(Stapa & Shaari, 2012). At the beginning of CMC research, the language of CMC
was commonly seen as one, homogeneous type of communication, but due to that
online communication technology regularly develops can affect how people
communicate online. More research on CMC emerged, which lead to new
understanding of, and insights into the use of online language, especially insights
indicating that online communication is formed by an interplay between
technological, social and contextual factors (Herring, 2004; Herring, 2007;
Herring & Androutsopoulos, 2015; Androutsopoulos, 2011). Technological
factors can be message persistence, message format, size of the message buffer
and channels of communication. Social factors refers, for instance, to the number
of active participants, public/private, participants characteristics (e.g
demographics and proficiency of language and earlier experience of computers
and CMC), purpose of communication, topic or theme, norms of social
appropriateness, code of language variety and individuals’ personal writing styles
(Baym, 2006; Herring, 2007). This means that recent evidence demythologizes
previous views of online language as a consistent, standardized homogeneous
language (Androutsopoulos, 2011; Herring, 2007; Herring & Androutsopoulos,
2015). Squires (2010) corroborates this idea and suggests that the “Internet is not
a geographically bound place with local, place-distributed linguistic features” and
a clear, definable population of users (p. 461), adding that “When scholars isolate
medium-bounded contexts and characterize the linguistic patterns within them as
emerging from those contexts, they imply that new technologies breed new language varieties: that a medium in some sense determines the language used there” (Squires, 2010, p. 462).

3.3 Symbolic Language

The highly favorite feature emoticon has significantly been studied (AbuSa’aleek, 2015; Kadir et al., 2012b; Lewin & Donner, 2002; Stapa & Shaari, 2012). What is notable is that even if emoticons are recognized as one of CMC “signature” symbol, many studies have encountered a relative low-frequency use of emoticons (AbuSa’aleek, 2015; Kadir et al., 2012b; Lewin & Donner, 2002). In AbuSa’aleek (2015) study, the frequency of emoticons was 6.80 % and in Lewin and Donner (2002) 8 %. Even though Lewin and Donner (2002) were somewhat surprised by the result, they expressed optimistic opinions regarding the expansion of emoticons. The rather large timespan between AbuSa’aleek (2015) and Lewin and Donner (2002) which yielded the significant impact of emojis might bias similar results. A similar finding regarding the frequent use of emoticons appear in Kadir et al., (2012b) study, where messages of the Malay language, the English language and code-switching between Malay and English, English and Arabic and Arabic and Malay and ‘Other’ were studied. The category ‘Other’ included symbols like emoticons and other languages. The data was collected from an online discussion forum generated by students taking an e-distance course at the Universiti Teknologi in Malaysia. The results show that the use of English language had the highest number of messages, whereas the category of ‘others’ that partly contained symbols like emoticons, appeared at least. However, since the data was collected from an English language course forum, the results were relatively expected for the researchers (Kadir et al., 2012b).

3.4 Tagging and sharing content

Kim, Breslin, Chao, and Shu (2013) investigated PlanetRDF, a small community that contains a collection of blogs belonging to Semantic Web enthusiasts and
hackers. The goal of their study was to “explore a hidden structure of tagging practices” in PlanetRDF and examine if the tagging practice influenced the community’s internal relationship structure (Kim et al., 2013, p. 252). The data was generated from 58 members of PlanetRDF and their blogs, both individual user blogs and blogs of organizations (Kim et al., 2013). Savage et al., (2015), applied a similar focus where they analyzed different perceptions that people possibly have the ability to share content to a target audience on Facebook. The participants in both Kim et al., (2013) and Savage et al., (2015) showed positive attitudes about the tagging function and sharing modality of public targeting. The members of the community PlanetRDF were positive since interests for the community increased as a result of the use of tags (Kim et al., 2013). The participants in Savage et al., (2015) study viewed the public targeting sharing as positive since it both strengthened real relationships and created new acquaintances as well as facilitated the process of exchanging new information. To apply the function of ‘tags’ in order to maintain and strengthen social relationships (Savage et al., 2015) and raise awareness of communities (Kim et al., 2013) increased the function of social tags as a potential valuable tool for sharing social interests (Kim et al., 2013; Savage et al., 2015).

Yi et al., (2016) conducted a study where they “investigate the potential of the hyperlinks and hashtags as topical clues and indicators to tweet messages” (p. 1808). A quantitative and qualitative content analysis on external web resources, also known as hyperlink resources, were applied to identify the hyperlink characteristics in tweets. The results from a three month period of approximately 1.5 million analyzed tweets, present that about 88 % of the tweets contained a minimum of one URL. Their study also reveals that a majority of the URL in the tweets comes from news and media websites and that most of the hyperlinked resources are news and web pages (Yi et al., 2016). A general conclusion Yi et al., (2016) draw from the results is that generating new information seems less common among Twitter users and are instead more active in sharing information that is already published.
Based on a corpus of 4,666 posts and 418,580 comments from the New York Times Facebook page, Ha, Han, Lee, and Kim (2017) aimed to analyze if users reply when they have been tagged in a comment and what type of Facebook feature is used in the eventual response. To apply Facebook for the observation, Ha et al., (2017) hoped to “contribute to the understanding behavioral characteristics on social networking services (SNS) by investigating detailed properties of tagging activity” (p. 827). Ha et al., (2017) observed three types of Facebook features: ‘Likes’ ‘Shares’ and comment and aimed to monitor their frequency use through Facebook’s three response levels, which the author refers to as the post level, comment level and sub-comment level (Ha et al., 2017).

The results show that messages on Level 2 (comment level) had the highest percentage at 74 %. Level 3 (sub-comments) contained 56.02 % of ‘Likes’ and only 6 % for Level 1 (post-comments) (Ha et al., 2017). The ‘Sharing’ activity can only be used in Level 1 (post-level) and therefore “occupied the entire total ‘Shares’ count” (Ha et al., 2017, p. 832). Regarding ‘comments’, the results show that 96% of the ‘comments’ did not contain any tags (Ha et al., 2017). A general conclusion of Ha et al., (2017) study was that most of the participants responded with ‘Likes’, or comments and a difference was found in the proportion of the three activity levels (post-level, comment level, and sub-comment level). For example, Level 2 (comment level) generated most responses. When a user was tagged in a comment, almost half of the participants responded by clicking on the comments 'like'-button and around 34 % responded by writing a comment. Only 0.04 % responded by sharing the post they were tagged in (Ha et al., 2017). The results from Ha et al., (2017) indicate that “the tagging activity is an effective dialogic communication method on Facebook” (p. 834).

Smock et al., (2011) focused their study on how Facebook features such as status updates, comments, wall posts, private messages, chat, and groups, varied among 267 undergraduate students from a Midwestern university. The authors suggest that people’s need and purpose of their participation might determine and influence their choice of feature use (Smock et al., 2011). According to Smock et al., (2011) whose earlier studies measured Facebook use through self-reported
prosody, including time spent on the site and number of friends adds that this focus “tells us little about the psychological processes that motivate media choice and usage” (p. 2324). For this reason, Smock et al., (2011) analyzed Facebook features, which they view as features that enable communication between users: status updates, comments, Wall posts, private messages, chat, and Groups.

The authors view Facebook as a heterogeneous platform and should be studied as a “toolkit of features, each with a different set of affordances, as opposed to a singular tool” (Smock et al., 2011, p. 2326). With this focus in mind the authors aimed to “explore the motivations that predict use of specific features as opposed to more global measures of overall use” (Smock et al., 2011, p. 2324) and from this, identify patterns of use of the Facebook features mentioned above (Smock et al., 2011). Results show that status updates and group participation features that display information and opinions to a broader public were more common and popular compared to the use of private messaging (Smock et al., 2011). Smock et al., (2011) suggest that measurement instruments that treat the use of social network sites (SNSs) as homogeneous should not be applied since “the user-base, user-practices, and feature of these tools are increasingly diverse” (Smock et al., 2011, p. 2322).
4. Theoretical Framework

4.1 (Online) Communication

Individuals and information systems do not occur in isolation - they interact within a specific context, where "context is most often defined with the individual at the center" (Burnett, 2015, p. 7). It can be explained as "a particular combination of person and situation, that gives meaning to the process of finding, making sense of, and using information" (Burnett, 2015, p. 7). The primary aim of any language is to communicate the wishes of its users, meaning that "people expect to achieve an objective through speaking, writing, listening and reading" (Kaburise, 2011, p.6). The most important meaning-generating tool of humans is their capacity to convey their linguistic system or language. This linguistic system can be of advantage for communication if the speakers succeed in making other people aware of something, for instance, their thoughts, opinions, facts, and emotions (Kaburise, 2011, p.3). A common way of thinking of communication is the concept of a sender, a message, and a receiver. However, this concept reduces communication to a rather one-dimensional exchange of information. Communication is, in fact, a highly dynamic process; a process of negotiation of meaning between people, where people take on the role as speakers and listeners (Thurlow, Lengel & Tomic, 2004). People communicate all the time for many different purposes, such as to influence individual's behavior or attitudes, to inform, to entertain and to seek information (Thurlow et al., 2004), and is sometimes separate between interactional and informational communication. Interactional communication refers to relational-focused communication and informational communication to communication that is more content-focused. However, it is often relatively difficult to distinguish these two domains. For example, the meaning "Do you have the time?" can be viewed as informational (content-focused) communication as it appears to seek information, but the
intention is also relational (interactional communication) (Thurlow et al., 2004, p.30).

Communication is negotiable and therefore dynamic, and as it is multimodal it is also multifunctional - and are all central parts "to understanding how communication works and how it is used to express our identities, to establish and maintain relationships, and eventually to build communities" (Thurlow et al., 2004, p.30). These concepts are known as being essential subjects in the field of computer-mediated communication (CMC) (Thurlow et al., 2004). CMC was introduced in the 1980s and is known as the interaction between individuals taking place within an online environment, including e-mail, discussion forums, listservs and instant messaging (Dhir et al., 2015). It is at this time according to Herring (2007) "a truism that computer-mediated communication (CMC) (...) provides an abundance of data on human behavior and language use" (p. 1). Partly due to the regular introduction of new digital technologies people's behavior online has also become more "complicated, complex and even unpredictable" (Dhir et al., 2015, p. 515). On the other hand, the Internet is often recognized as an environment that enables people to come together and exchange opinions and ideas about questions of common interests and/or concerns, which creates a form of democracy that opens up for new opportunities for dialogical computer-mediated communication (CMC) (Oblek, 2005). Walther (1996) presents that compared to face-to-face communication, where "greater status and social power maintain a larger proportion of floor time (...) participation equality has emerged in many investigations using CMC" (p. 5). Walther (1996) adds that CMC could be seen as beneficial to handle and coordinate crises tasks between people who are geographically separated. Thurlow et al., (2004) also view the opportunity to communicate regardless of time and space as an advantage as it might create new and even better social relationships and communities that are developed by people sharing a common interest(s). Also, because of CMC ability to transmit information "across distance in almost no time and keeps it there until needed" (Walther, 1996, p. 33), can also explain why CMC is perceived as something liberating (Walther, 1996).
However, in early days of CMC, it was recognized and described in less favorable terms, such as ineffectual, unfriendly, antisocial and emotionally cold (Walther, 1996; Thurlow et al., 2004), as well as a "written form of communication too 'lean' for task-related communications" (Walther, 1996, p. 3). Personal sources were viewed as more suitable to provide adequate insights and understandings (Walther, 1996). CMC was at that time viewed as something with the limit capacity to enable relationship-oriented communication (Thurlow et al., 2004). In other words, "typed" and "computerized" were cold medium and appropriate to transfer data and information but less suited for "connection and personal" social uses (Walther, 1996, p.33). Also, due to the absence of nonverbal cues in CMC, each message seemed to contain less social information (Walther, 1996), meaning that "the fewer number of cue system supported, the less personal connection and involvement users experienced with one another (Walther, 2011, p. 445). On the other hand, depending on the situation, it could also be as suggested by Thurlow et al., (2004) that people who want to avoid showing his/her nervousness may prefer "poorer medium for communication" (p. 67). A similar though is provided by Haythornthwaite (2007), who suggests that the lack of social exposure common in online communication might increase people's motivation to ask for information from people they are not familiar with, and as a result make the information seeking process less complicated (Haythornthwaite, 2007).

Even though CMC might still be seen as systems of impersonal communications, people have for a long time, according to Thurlow et al., (2004) perceived it as a fulfilling, satisfying and enjoyable means of communicating. Walther (1996) even states that CMC has become "integral to the initiation, development, and maintenance of interpersonal relationships (...) involved in the subtle shaping of communication in almost every relational context" (p. 443). Eventually, some CMC settings can develop deep commitments among people, where people might perceive their online relationships as more valuable than their offline relationships, and when this happens, "it is only natural that they also start forming themselves into groups" (Thurlow et al.,2004, p. 79).
4.2 Online Communities

The term 'community' has gained a lot of attention and importance in the field of computer-mediated communication (CMC), but it is also a term without a generally accepted definition. Herring (2004) considers a ‘community’ as an abstract term with subjective elements, "especially when applied in online contexts" (p. 355). She adds that if people of the community attain feelings of sociability, support, and identity, they can then be recognized as primary characteristics of an online community. According to Hyduk and Worrall (2016), online communities are social aggregations of individuals who communicate and interact, where some communities might be a part of a bigger community nest. Bagozzi and Dholakia (2012) have a similar idea of online communities and sees its social areas in the digital environment where people have come together for many different reasons, such as instance being a part of intellectual dialogues, exchange knowledge, makeup plans, brainstorm and to share emotional support. Online communities are often seen as network environments that contain digital information; that connects like-minded people who interact around a shared topic and/or interest, contain norms, rules and feelings of solidarity and empathy (Kollock, 1999; Bagozzi & Dholakia, 2002; Thurlow et al.,2004; Preece & Krichmar-Maloney, 2005; Androutsopoulos, 2011; Meijer, Grimmelikhuijsen & Brandsma, 2011). Besides, people may engage in online communities to reach a common goal(s), which may be intended for the group as a whole, or for individual purposes, like self-exposition, learning through knowledge transfer and engaging in co-creation and innovation (Seraj, 2012).

Online communities may consist of a diverse group of people, ranging from a group that is close to more sparsely connected, with little or no possibility of ever connecting physically, meaning that their interaction stays within the digital environment (Bagozzi & Dholakia, 2012). Bagozzi and Dholakia (2012) adds that the generated content in online communities is often created through an active participation of the members, where the content creation "acts as an
important shaping force of the community's character, and determines not only its influence on participants but also the status and influence of individual members" (Bagozzi & Dholakia, 2002, p.4). Given that digital environments can save and archive content economically, online communities have come to represent "an aggregation of collective expertise on individual topics (...) and create a capital of knowledge, increasing its value for all members" (Bagozzi & Dholakia, 2002, p.5). Bagozzi and Dholakia (2012) believe that each member of a group are aware of the positive interconnection as they seek to achieve a common goal(s), which may be functional or hedonic. The functional goal of the online community refers to a cooperative exchange of valuable information (e.g., products), and a hedonic goal refers to "the creation and consumption of positive, confluent experience through interaction" (Bagozzi & Dholakia, 2002,p.3).Moreover, the developments of digital platforms support the activities in online communities and help to arrange its interactions. In other words, digital platforms contain numbers of different technological tools, with the function to support all dimensions of interaction, such as from individual to community interactions. From a user's perspective are these tools viewed as an array of features with different functions to support their task (Faraj et al., 2011).

According to Bagozzi and Dholakia (2012), one common characteristic of all online communities are text-based communication and explain that "text-based communication in the digital environment is the primary formative and shaping force for their evolution, growth, and sustenance" (p. 3). Online communities have come to play a more significant role in many aspects of members' everyday life, such as opportunities as mentioned above - creating, developing and maintaining social relationships, sharing and gaining knowledge, share opinions and consuming products and services (Bagozzi & Dholakia, 2002). However, many discussions about online communities have centered on perceptions that online groups not only lack in physical proximity but also in the ability to maintain stable memberships, long-term commitment and social liability (Haythornthwaite, 2007). It can also be difficult to get a clear picture of a community's context since the members of the group might not be connected (Preece & Krichmar-Maloney,
2005). From the perception that communities bring together like-minded people who expect to understand each other and exchange experiences and points of views, it might encourage more people to explain their needs and ask for help from the community members, instead of asking outsiders who might not understand their kind of world (Haythornthwaite, 2007).

Faraj et al., (2011) present the term knowledge collaboration, defined as "the sharing, transfer, accumulation, transformation, and co-creation of knowledge" (p. 1224), and relates it to online communities. They relate the term to online communities and explain that knowledge collaboration in online communities includes "individuals' acts of offering knowledge to others as well as adding to, recombining, modifying, and integrating the knowledge that others have contributed (Faraj et al., 2011, p. 1224). The authors view knowledge collaboration as a critical element of the continuance of online communities as "individuals share and combine their knowledge in ways that benefit them personally while contributing to the community's greater worth" (Faraj et al., 2011, p. 1224), which indicates that online communities potentially have the ability to develop collaboration between a group of people, who share a common interest, but are possibly unknown to each other (Faraj et al., 2011).

4.2.1. Informational seeking, Information sharing and social support

Information seeking is a complex process "consisting of social, communicative and interactive behavior" (Ikoja-Odongo & Mostert, 2006, p. 148). It has been noticed that when people seek for information, it will most likely be from people they regard as knowledgeable and helpful (Farh et al., 2010), and might favor seeking information from people "less costly to contact" (Farh et al., 2010, p. 442). Information seeking behavior arises from the recognition of some need, a lack of knowledge that needs to be solved to handle the issue (Ikoja-Odongo & Mostert, 2006, p.148. These needs can potentially be solved in several ways, including libraries and online services, but also from human beings (Wilson, 2006). Information behavior can be defined as "the full range of behaviors and activities related to information available to members of a world" (Burnett &
Worrall and Hyduk (2016) state that information sharing is an important part of users' information behavior since they seek the most accessible information prefer interpersonal sources over formal sources and find emotional needs essential. They add that not all information sharing behaviors are significant, but believe that "the full range of information sharing behaviors are relevant, including the encouragement of information sharing by boundary spanners" (Worrall & Hyduk, 2016, p.2).

Worrall and Hyduk (2016) mean that information-centric online communities are "sources for users who are seeking and sharing information, with greater encouraged when users share similar judgments of information value" (Hyduk & Worrall, 2016, p. 1). Seraj (2012) describes online communities as socialization platforms, where the sharing and receiving of information may enable to fulfill particular needs (Seraj, 2012). Also, information sharing can induce the development of cultural memories where much of the cultural memory formation and information sharing is seen in the everyday information behavior, mainly present in online communities (Worrall & Hyduk, 2016).

Social support is a multi-dimensional concept, difficult to define and hard to measure, and remains as an abstract concept as "almost anything that infers a social interaction may be considered social support" (Hupcey, 1998, p. 1231). One definition is that social support is information leading a person to believe that he/she is being liked and appreciated and are a part of a network of communication and common obligation (Hupcey, 1998). It has also been explained as "an exchange of resources between two individuals perceived by the provider to the recipient to be intended to enhance the well-being of the recipient" (Hupcey, 1998, p. 1232). However, "as a multidimensional concept, social support also includes other facets that may determine if social support is requested, accepted and/or received" (Hupcey, 1998, p.1232), where some of these aspects are related to the interaction between the sender and the receiver of social support (Hupcey, 1998). Other factors include things like "the type of support provided in terms of matching the support to the need (...) perceptions of the support received
versus what was provided" (Hupcey, 1998). However, despite that it is a concept defined by various terminologies, they all connote some positive interaction or sympathetic behavior, which the theory of social support suggests, is provided to a person who is in need of help and support (Hupcey, 1998).

4.2.2 Informational and emotional support among expatriates

Informational support can be explained as "information assisting expatriates' functioning and problem-solving in the host country" and emotional support as "emotional resources helping expatriates feel better about themselves and their situation when adjustment difficulties become overwhelming" (Farh et al., 2010, p. 434). Whom the expatriates connect with will likely influence the amount of informational and emotional support they receive (Farh et al., 2010). It is common that many ‘expats' encounter situations in the new host country where they perceive feelings of uncertainty. These feelings may arise due to lack of knowledge concerning "living, working, and relating to locals in a culturally unfamiliar environment" - recognized as informational uncertainty (Farh et al., 2010, p. 439). Also, it is common that ‘expats' perceive feelings of social uncertainty because of minimal or none social contact with their network in their home country. Farh et al., (2010) suggest that when ‘expats' perceive feelings of informational and social uncertainty, they will most likely seek informational and emotional support from people in the host country, either with ‘host country expertise' and/or ‘peer expatriate' (Farh et al., 2010, p. 435).

Information-seeking theory suggests that people seek information will most likely do that from people they perceive to be knowledgeable, which in the context of an ‘expats', indicate that they will turn to people with host country expertise, which Farh et al., (2010) refer to as ‘experts.' It is although not a guarantee that these ‘experts' will be able to provide particular information that fulfills the ‘expats' need. Social support theory suggests that people who seek emotional support will probably seek it from people "they perceive as sharing or having shared a common stressor" (Farh et al., 2010, p. 441). In the context of an ‘expat' does this
mean that he/she most likely will find an empathetic ear from people whom themselves have had to adjust to a new country. Meaning that they are either going through or have gone through similar situations and perceived by 'expats' as helpful sources of emotional support (Farh et al., 2010). People that have encountered similar experiences may possess 'adjustment empathy' and are according to Farh et al., (2010) more capable of relating to 'expats' situation and their feelings of confusion. This indicates that they are more motivated and willing to set time to communicate calming words and help them to better understand their new (social) environment (Farh et al., 2010). It has been noticed that people exhibit better adjustment when they recognize the support as genuine and helpful, where the actual objective support resources become less critical (Farh et al., 2010).

If the informational and social (emotional) support have improved the expatriate's knowledge and understanding of the host country and minimized possible feelings of uncertainty and stress, it will likely increase its motivation to create ties with and add that particular person(s) to their informational and emotional support network. It is most likely that the recipient will turn to the same person for future requests, which may lead to a social exchange relation, where the expatriate engage in a reciprocal helping towards the person who helped him/her and therefore will want to return the favor (Farh et al., 2010). However, Kollock (1999) believe that a person who provided information voluntarily cannot expect that the person who received the information will do the same. He explains further that it might be a more significant possibility that a balance of reciprocity will occur within the group as a whole than to find a balance of reciprocity with a specific individual (Kollock, 1999). This idea is known as ‘generalized exchange', which Kollock (1999) explains arises when "a benefit given to a person is reciprocated not by the recipient but by someone else in the group" (p. 3). Except relying solely on an actors' host country expertise and 'adjustment empathy' as signals of their capacity to provide informational and emotional support, an expatriate may eventually choose to contact and approach people they perceive to be available and willing to help (Farh et al., 2010).
4.3 Online Language

The development of different forms of online communication languages induced alternative ways to express one's opinions online, which lead to a transition where 'lean' CMC, such as text-based communication, became more 'rich'. 'Rich CMC' can be exemplified as CMC that facilitates the ability to create messages with various fonts and colors and the function of combining pictures with sound (Baym, 2006). Facial expressions and gestures are examples of nonverbal cues highly "important in managing interactions with people (...), showing that you are listening" (Thurlow et al., 2004, p. 77). This mixture of channels of communication can be perceived as an attempt to enrich the message content further and facilitate for users to better express what they mean (Herring & Androutsopoulos, 2015).

This new online language is crawling into all parts of human's everyday lives, including socializing on Facebook, texting family members and email for work, and like any language, it is used differently by communities, groups, and individuals (Barrett, 2017). Barrett (2017) mean that change in online language enriches all our languages and helps communities to flourish and develop, and analyze language in a community can disclose the identity of the group (Barrett, 2017). The development of new words and phrases as well as language symbols including, emojis, GIFs and icons are a new lively and challenging types of language that enable new ways for people to express themselves (Barrett, 2017). Its purpose is to function as supplemental cues to increase a person's "actual (or intended) emotional state in the absence of nonverbal facial and vocal cues" (Oleszkiewicz et al., 2017, p. 289). These symbols make it easier for people to express their feelings, ideas and/or opinions more accurately in online settings (Kadir et al., 2012a; Oleszkiewicz et al., 2017). However, to communicate with these language symbols, we need to understand it, meaning that we are recommended to have some digital skills, knowledge, and experience that is broad and flexible (Barrett, 2017).
According to Baym (2006), people are aware that different situations require different language styles and likely change their style of writing, which implies that people adapt their language "to the technical and social contexts of their interactions" (Baym, 2006, p. 528). It can explain why nonstandard spelling is often a conscious choice, rather than lack of knowledge of standard spellings (Baym, 2006). New technological devices could also cause a person to adapt their language to meet the needs of the new context, or they may see them as an opportunity to interact in novel ways (Crystal, 2004). Also, various online features can lead to informal language use, both in more formal (e.g., e-mail) and informal communication (e.g., chats) settings. Increased acceptance of spelling errors in online contexts might potentially reduce the concerns of people with spelling issues and non-native English speakers about being judged by their limited language proficiency (Stapa & Shaari, 2012). Herring (2004) points out that linguistic features can be used more in CMC than in other modes of communication, where Thurlow et al., (2004) states that people often rely more on other modes of communication than the verbal mode of communication (Thurlow., 2004). However, Herring (2004) explains that it does not mean we have to use these other modes of communication- facial expressions can also be expressed and described by text - thus Herring (2004) disagrees with the idea that technological aspects determine the use of linguistic markers.

Since new communication technologies introduce new forms of use and literacy of language, which correlates to the development and uses of new technologies, the phenomena of online language will likely continue to cause crucial linguistic interest (Kadir et al., 2012b). However, to provide an accurate number regarding how many varieties of online languages will appear is very difficult. However, since it is an index sensitive to social change, resulting in new forms and uses of language, a non-corresponding effect on the way people communicate online would be surprising (Crystal, 2004; Kadir et al., 2012b).
5. Method

5.1 Content Analysis

Content analysis can be applied in both qualitative and quantitative studies (Kim & Kuljis, 2010) and is often used to identify “the occurrence of certain words, phrases, characters or sentences in the texts” (Stapa & Sharri, 2012, p. 819). According to Krippendorff (2013), content analysis views data as “texts, images, and expressions that are created to be seen, read, interpreted and acted on their meanings” and not viewed as physical events (p. xiii). Content analysis can clarify what is being mediated between humans, concerning textual matters, symbols, messages and information (Krippendorff, 2013). A common reason for using content analysis is due to its unobtrusive method, often applied when researchers want to analyze phenomena without their investigation influencing and disturbing the procedure (Kim & Kuljis, 2010; Krippendorff, 2013). By applying content analysis, the researcher can reach the data by downloading it from the Web and does not require users to be involved in the process (Kim & Kuljis, 2010). The enormous quantities of data that content analysis may bring can be viewed as an advantage because it can be applied to analyze trends and patterns of Web-based content (Kim & Kuljis, 2010). Considering that the data is often readily accessible in Web-based content, content analysis is a rather easy and economical technique, compared to other methods, including interviews and surveys (Kim & Kuljis, 2010).

5.1.1 Quantitative content analysis

When the intention is to analyze communication content in an objective and systematic way and to better understand “complex, social and communication trends and patterns generated by users” (Kim & Kuljis, 2010, p. 369), quantitative content analysis is common to use (Kim & Kuljis, 2010). Quantitative content analysis of words and thoughts expressed in texts, has been widely used to
analyze people’s communications, particularly across the social sciences (Schwartz & Ungar, 2015). Considering that this study is an attempt to, on a explorative level without any deeper insights, identify the needs of an expatriate based on common word-pairings and feature use generated in two time periods, one year apart, increases the motivation to choose a method of quantitative content analysis. However, it is relevant to highlight that even if this study focuses on analyzing “the artifacts (e.g. text, images) of communication itself and not the individual directly” (Kim & Kuljis, 2010, p. 370) this does not, in my opinion, mean that quantitative content analysis cannot provide any further “insight into users’ preferences and behaviors” (Kim & Kuljis, 2010, p. 369). Even if quantitative content analysis is the primary a method providing statistics of data analysis and not generally interpretive in its nature, it can still be of interest to discuss and speculate the results on a deeper level that approximate the perspective of the individual, which is mainly the focus for qualitative content analysis (Kim & Kuljis, 2010). A quantitative text analysis is also applied since this study analyzes common word-pairings generated in wall posts and comments in Expat World Stockholm. There is no universal definition of quantitative text analysis, but one common definition that is applicable for this study is “any systematic reduction of flow of text (or other symbols) to a standard set of statistically manipulated symbols representing the presence, the intensity, or the frequency of some characteristics relevant to social science “ (Mehl, 2006, p. 141).

5.1.2 Limitations of applying content analysis

As discussed above, the use of content analysis can bring many advantages, but by applying the method to Web-based content, could lead the content analyst to face many challenges (Kim & Kuljis, 2010). The complexity of new features, where text, graphics, video, animation, and hyperlinks are used in convergence, “and its continuously evolving nature provide challenges to the development of valid descriptive categories, recording and sampling frames for the method” (Kim & Kuljis, 2010, p. 370). Considering that the focus of content analysis is on what is
measurable and less focused on what is theoretically important, which requires that the research design “take into account whether there is a relationship with the frequency of occurrence” (p. 370). Kim and Kuljis (2010) suggest that content analysis should be used in conjunction with other techniques: experiments, interviews, and surveys, to measure aspects of the data that content analysis cannot do. Content analysis researchers can give many analytical answers, but the method cannot by itself provide the answers to the questions (Kim & Kuljis, 2010).

5.1.3 The process of content analysis

With inspiration from McMillan (2000) and Kim and Kuljis’s (2010) content analysis step-by-step guides, a seven step guide that characterizes the methodology used for this research has been compiled:

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Formulating a research question.</td>
</tr>
<tr>
<td>2.</td>
<td>Selecting a sample.</td>
</tr>
<tr>
<td>3.</td>
<td>Conceptualizing</td>
</tr>
<tr>
<td>4.</td>
<td>Creating a coding scheme.</td>
</tr>
<tr>
<td>5.</td>
<td>Pilot study/Intercoder reliability checks</td>
</tr>
<tr>
<td>6.</td>
<td>Coding</td>
</tr>
<tr>
<td>7.</td>
<td>Analyzing and interpreting the data</td>
</tr>
</tbody>
</table>
5.2 Access to *Expat World Stockholm*

After selecting the platform Facebook and the Facebook group *Expat World Stockholm* as the research sample, it was not needed to become a member of the group to get access to the data, since *Expat World Stockholm* is a public group (Expat World Stockholm, 2018). According to Kozinet (2015), the level of the researcher’s participation in an online community varies from passive to full participation. Since a quantitative content analysis method is applied to this study, it enables the researchers to investigate a phenomenon without disturbing the procedure (Kim & Kuljis, 2010; Krippendorff, 2013). This increases the justification of analyzing *Expat World Stockholm* as a complete observer. The researcher remains passive and unintrusive by “keeping a distance to the observed interactions” (Norskov & Rask, 2011, p.8). It can be viewed as a role similar to “the traditional idea of ‘objective’ observer,” where no interviews are conducted (Norskov & Rask, 2011, p.8).

5.3 Data Collection

Facebook affords its users the ability to compose a message in text boxes (Ha et al., 2017). In this study, these messages are referred to as wall posts and comments. The initial message is created in the wall post, and a comment or a comment thread emerges when users add comments to the wall post. A comment can also be commented on, which is referred to as a sub-comment. Since a comment and a sub-comment contain same features, I cluster them as a common type, namely ‘Comment.’ Even though the wall post and its possible comments are features per se (Facebook, 2018), they are not the features being analyzed in this study. The analyzed features are a selection of features that can be used to compose a message through a wall post or a comment together with an analysis of
a selection of the 20 most common word-pairings generated in wall posts and comments during the chosen time periods.

5.3.1 Periods of data collection

After I chose the focus of what to code, count and analyzed in *Expat World Stockholm*, the next step was to select time periods of the data collection.

As earlier mentioned, January and February 2017 and January and February 2018 were chosen as the two time periods for data collection, which in the remaining parts of this thesis are referred to as either “both of the time periods”, “the time periods of...”, “the two time periods” or only “2017” and “2018”. The time period within 2018 was chosen to obtain current, up to date data but still have enough time for coding the data, summarizing the results and conducting the compilation of the findings. The group participation of *Expat World Stockholm* was relatively low until 2017, which is why that year was chosen (Sociograph, 2018). To simplify the comparison between 2017 and 2018 the same months was chosen but with one year apart. However, a group that contains a high number of members does not necessarily mean the group is active and that adequate data would be produced. The time periods chosen for this study might well be viewed as somewhat limited to conduct comprehensive data. However, considering that *Expat World Stockholm* saw a rise in membership (Sociograph, 2018) and based on earlier experience of knowing that similar groups produce comprehensive data, I argue that a collection of common word-pairings and feature use generated in four months, one year apart, is adequate to gain some insights of what are the needs of expatriates that are offered in this group.

The data was accessed through URL-links, provided by the use of Sociograph (Sociograph, 2018). The data from 2017 was downloaded on February 15, 2018. I assumed that the coding process would require some time and therefore decided to begin to code the data generated in 2017. The data produced in the time period from 2018 was downloaded on March 16, 2018, two weeks after the last day of the second time period: February 28, 2018. The justification
for waiting two weeks before downloading the data was to increase the opportunity for more ‘completed’ conversation threads.

5.3.2 Sociograph, Excel & Python

I realized relatively early that it would be too time-consuming and inefficient to manually scroll back one year to obtain access to the data generated in the time periods of 2017. For this reason, I used the platform Sociograph, a social analytics tool for Facebook groups and pages. It enables people to see posts in chronological order and provides various types of information, including URL-links, dates, types of posts and statistics about comments and shares. Sociograph affords people with an overview of a community’s general activity over the course of a year, month or tailored time range (Sociograph, 2018). To conduct equal data collection, consistently between the two time periods, Sociograph provides an export option to extract the data. It was, therefore, relevant to access the data from both time periods using this analytic tool. All of the URL-link(s) (all wall posts and comments) were coded, counted and analyzed.

The coding process for this thesis was conducted with the use of Excel, an electronic coding form (Skalski et al., 2017), which allows users “to organize, format, and calculate data with formulas using a spreadsheet system broken up by rows and columns” (Business Dictionary, 2018). The rows and columns of Excel facilitate the structure of the data potentially making coding more simple and effective. This indicates that it is a suitable coding form useful for researchers handling a high number of variables. Considering that the present study dealt with a number of selected Facebook features, compared between two times periods, lead to the decision to use Excel to obtain a clear and descriptive overview of data. The following variables relevant to this study were downloaded with the use of Sociograph and exported to Excel:

- the wall post unique Facebook Id
- Url to the Wall-post
- Total number of ‘Shares’
- Total number of ‘Reaction Symbols’

The selected wall post and comment features and the textual content of the wall post and comments could not be accessed through Sociograph. However, since I had access to the URL-link to each wall post, the process of the data of the remaining features, along with the textual content of the wall post and comments, was conducted relatively easy. To clarify, instead of scrolling back on the timeline of *Expat World Stockholm*, each URL-link was pasted into the web browser which displayed the wall post and its comments.

In Excel, the selected features were organized in separate columns. The id-number and URL-link to each Facebook post constituted the first columns. It seemed relevant to have the URL-link to each Facebook post at the beginning since this was the first step of the coding procedure. Also, if I needed quick access to a specific wall post and its possible comments during the coding process, it made sense to have the URL-link and the id-number available in the worksheets. The following columns contained the categories of ‘plain text’ (i.e., textual content, the features identified as symbolic language and features referred to as sharing modalities. An overview of the selected features for wall post and comments was provided in Table 1 and Table 2.

5.3.3 Pilot study

Before applying a coding scheme on the real data, training and a pilot study are relevant when coding interactive content. A pilot study provides opportunities to train on designing a coding scheme, test and control it. The advantage of this is that if any possible problems arise in the testing of the coding scheme, it can be improved before applying it to the real data (Skalski et al., 2017). The pilot study is based on data generated in *Expat World Stockholm* during the first week of December 2017, the 1st to 7th December 2017 to be exact. It felt relevant to apply the pilot study between these chosen time periods but for no particular reason.
During the pilot study, the initial coding scheme was improved by adding and removing some features and by changing the order of the features.

5.3.4 The coding process of the selected features and textual content

Throughout the coding process, the window of the wall post and the Excel-file were placed next to each other on the screen to make the coding more efficient (Skalski et al., 2017). Each URL-link, provided by Sociograph, was pasted in the web browser which displayed the wall post and its related comments. The coding procedure began by coding the content of the wall post. After coding the wall post content, possible comments related to the wall post were coded next. If the wall post did not contain any comment(s), the process continued by copying the next URL-link into the web-browser and repeated the same procedure of the coding.

The selected features were coded based on their order in the coding scheme. This means that ‘plain text’ was coded first. When the coding of 'plain text' was made, features identified as symbolic language were coded next, followed by the third and last category of the selected features, namely sharing modalities.

Overall, all features, except the feature ‘share’ and the total number of ‘reaction symbols’, were counted and coded manually. The total number of ‘share’ and the total number of ‘reaction symbols’ were not counted and coded manually since the data of these features were exported to Excel with the use of Sociograph. As briefly explained in Table 4, features such as ‘emoji’, ‘emoticon’, ‘link’ and ‘tag’ can be pasted into the wall post and comment text box multiple times and for this reason, the total number of these features were counted. Also, a user can click on the ‘share’ and ‘reaction symbols’ buttons once per post, but the total number of how many times these features have been clicked on is displayed. This means that the total number of these features are counted as well. The features ‘Share a link’, ‘Share an event’, ‘Ask for recommendations’, ‘GIF’ and ‘sticker’ can be used once per wall post, and the features ‘photo’, ‘video’, ‘GIF’ and ‘sticker’ can be
used once per comment. This means that if these features were used it was coded as ‘1’:

<table>
<thead>
<tr>
<th>id</th>
<th>url</th>
<th>‘plain text’</th>
<th>‘Link’</th>
<th>‘Shares’</th>
<th>‘Reaction symbols’</th>
<th>‘Like’</th>
<th>‘Emoji’</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td><a href="http://www.facebook.com/group/wallpost/">http://www.facebook.com/group/wallpost/</a></td>
<td>“Hi, my names is.”</td>
<td>2</td>
<td>7</td>
<td>5</td>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

**Table 7. Illustration of the worksheet for wall posts.**

*Note that the symbol ‘(...)’, is just illustrating that other categories are in between. Since the worksheet contained a great columns not all are illustrated here.*

After the coding process of the selected features, next step was to analyze the actual text (i.e. textual content) of the wall post and comments. As earlier mentioned, the idea of conducting a quantitative content analysis of the textual content of the wall posts and comments is to gain a better understanding of the expatriates need. Meaning that, based on common word-pairings, the attempt is to identify what the members may are searching for. Considering that all of the selected features were coded, counted and analyzed, I determined to conduct textual analysis of the textual content of all wall posts and comments as well. The textual content of the wall posts and comments were pasted into Excel and subsequently imported into Python, “an interpreted, object-oriented, high-level programming language with dynamic semantics” (Python, 2018). A list of words, such as conjunction, nouns, and adverb, were filtered out since I perceived them as insignificant and unimportant to identify specific needs among the members of Expat World Stockholm. As a result, a list of the 20 most common words-pairings was extracted and interpreted together with the features.

### 5.4 Validity and reliability

Heale and Twycross (2015) discuss that a researcher should invest time and energy to enhance the quality of the study and strive to conduct research thoroughly and carefully. In quantitative research, the terms validity and
reliability are often applied since the quality of the research can be measured through these terms (Heale & Twycross, 2015).

Validity can be defined as “the extent to which a concept is accurately measured in a quantitative study” (Heale & Twycross, 2015, p. 66). A measurement instrument is often viewed as valid if the tool measures what the research claims it measures (Krippendorff, 2013). When people accept the results of the research as true, “as speaking about the real world of people, phenomena, events, experiences, and actions”, the validity of the research is high (Krippendorff, 2013, p. 313). For example, an accepted and shared understanding of the definition of the features used in this study may increase the study’s validity. For example, ‘emoticon’ is defined in this study as a feature, but others might not perceive it as a Facebook feature since an ‘emoticon’ is created by using keyboard letters and not through clicking on a button provided by Facebook, which is the case regarding the feature ‘reaction symbols’.

Reliability is the accuracy of an instrument, or the consistency of a measure (Heale & Twycross, 2015), meaning that a study is considered reliable “when a research instrument consistently has the same results if it is used in the same situation on repeated occasions” (Heale & Twycross, 2015, p. 66). If the coding scheme of this research was applied during the same time period for the same group and the results were consistent, this would equate the coding scheme as a reliable measurement instrument. On the other hand, a “reliable process may or may not lead to valid outcomes” (Krippendorff, 2013, p. 213), which could be the case for Expat World Stockholm. Since Facebook regularly affords its users with new types of communication instruments, current features used in this study might have been replaced by new ones or at least developed into new forms. This indicates that this study’s coding scheme could work as a template for other studies with a similar research purpose and therefore be a reliable measurement instrument. But the features in the coding scheme must be controlled, either that the researcher needs to add new features or remove features that are no longer available in groups on Facebook.
The assumption that groups on Facebook contain a diverse group of members with different knowledge and experiences of using communication instruments online might affect their use of communication tools provided.

According to Heale and Twycross (2015), is it not possible to get a precise estimation of reliability but instead they suggest that an estimation of reliability can be achieved through different measures. Given that the coding scheme is first applied in a pilot study and then used on two different time occasions, could increase the study’s reliability (Heale & Twycross, 2015). It can be argued that the pilot study increased the study’s reliability since, as mentioned above, it enabled the opportunity to adjust possible issues of the initial coding scheme that occurred during the process of the pilot study. Besides, when conducting a quantitative content analysis, an intercoder reliability test is recommended to ensure equivalence of the coding, which includes a process of two or more coders that agree on the coding of the focused content (McMillan, 2000; Heale & Twycross, 2015). Considering that this study is conducted by one person, limited the possibility to double-check the coded data by two people. For this reason, the coded data of this study was double-checked twice, even if it had been more optimal if the coding of the content was agreed between at least two persons. However, at the beginning of the coding process, my supervisor provided feedback on the coding scheme.

5.5 Ethics

Applying content analysis can be considered as an advantage concerning ethical issues since it is unobtrusive and frequently used by researchers who want to analyze phenomena without the intrude or affect the procedure (Kim & Kuljis, 2010; Krippendorff, 2013). However, as soon as data is collected, ethical issues follow (Kozinets, 2015). Although the content analysis is often used when the communication content is intended to be analyzed in an objective and systematic way (Kim & Kuljis, 2010), it is still essential, as a researcher, to be aware of ethical aspects regardless of its level of participation. Even if my research topic
and the purpose of the study is, in my opinion rather harmless, consideration of ethical aspects is still highly relevant. If nothing else is agreed, it is significant to respect the members' anonymity before, during and after the research (Kozinets, 2015). For example, blurring any information that could expose the members' identification is one way to minimize ethical issues (Kozinets, 2015). This is significant in this study since members of *Expat World Stockholm* are not aware of the investigation. Although a common and broad message such as ‘Hi Expats, how is the weather in Stockholm at the moment?’, might not expose that member’s identity, it is still essential to invest time and energy to ensure members anonymity as much as possible. To minimize this issue, the excel files with the coded data was kept on my hard drive instead of the desktop, which minimize the risk for an outsider to get hold of the data. On the other hand, since the textual content analysis was conducted through Python, means that no in-depth coding was made, but as mentioned above, it is still highly relevant to have an ethical standpoint and think of possible issues. Lastly, since I am familiar with the meaning of groups like *Expat World Stockholm* I needed to confront my preconceptions regarding which types of features might be used more frequently than other features. Even if this might not affect the analyze per se, I still aimed to hold an open attitude to the data, without any expectations.

### 5.6 Limitations of the study

The rapid change of the content on the web can lead to problems for the researcher who apply content analysis to Web-based content, but it has been discussed that these issues can be reduced by quick data collection and downloading websites (Kim & Kuljis, 2010). However, even though the use of Sociograph was highly valuable, some issues followed and therefore viewed as limitations of this study. For example, there could be a risk that from the day the corpus was downloaded through Sociograph to the starting date of the coding procedure, the content of the wall posts and comments might have changed. This confirms the idea mentioned above that regular change of web content can lead to coding issues for content analysts. This indicates that the downloading of the data
and the coding should have been completed on the same occasion. An additional issue also concerns the rapid change of the content on the web. For example, it is possible some of the selected features have been developed between 2017 and 2018. Even though this is an issue hard to control, I still view it as a limitation of the study. Eventually, to find relevant theories for the focus of this study must be admitted was relatively difficult. Even though it can be argued that Facebook is changeable, relevant theories were found and presented, I perceive this as a limitation of the study since it potentially can inhibit the ability to conduct an essential, insightful and comprehensive analysis.
6. Findings and Analysis

This chapter provides an analysis of word-pairings and feature usage, with the attempt to identify the needs of ‘expatriates' that are offered in the Facebook group *Expat World Stockholm*. Although a high number of Facebook features were coded, counted and analyzed, only a selection of these features is presented in this chapter. This is because some of these features had a relatively low-frequency use and presented less notable results when they were analyzed together with the common word-pairings. Also, the word-pairings in Table 8 and Table 9 presented in Appendix are a selection of the 20 most common word-pairings that were generated in wall posts and comments during the time periods of 2017 and 2018. These word-pairings are presented in this chapter because they in combination with some of the features seemed more appealing to the focus of this study. The chapter begins by presenting some general thoughts of the findings, followed by a presentation of common word-pairings with features categorized as *sharing modalities* and ends with a presentation of common word-pairings with features categorized as *symbolic language*.

It is first relevant to emphasize following: The period of 2018 generated more wall posts and more comments compared to 2017 (see Figure 1 and Figure 2). Results of the usage of the selected features thus are presented in percent with the aim to provide a more equal and accurate measurement of the findings. However, some features are presented in both percentage and mean. This is because a wall post can be ‘shared' and/or ‘liked' multiple times and also contain several ‘emojis', ‘emoticons', ‘tags', ‘link', ‘photos' and/or ‘videos'. This concerns the comment as well, except for the ‘share' feature, as this feature is not a part of the comment. The mean is shown with a standard deviation to indicate the magnitude of the dispersion of features in a wall post. It is important to note that a features minimum count is 0, but the standard deviation might overlap a negative range in value which is not realistic. Therefore the standard deviation is only meant to indicate the spread of values. The features that also presents the frequency mean is presented in Appendix.
**Figure 1.** Total number of wall posts.

180 more wall posts were generated in *Expat World Stockholm* in 2018 compared to 2017.

**Figure 2.** Total number of comments.

Information seeking behaviors often arise because of a need that needs to be fulfilled (Ikojo-Odongo & Mostert, 2006; Serej, 2011). It is common that many ‘expats’ might face situations in the host country where they perceive feelings of informational uncertainty, which often arises because the ‘expats’ perceive a lack of knowledge about "living, working, and relating to locals in a culturally unfamiliar environment" (Farh et al., 2010, p. 439). Many people that move abroad may not have any social contact with their home country, which could arise into feelings of social uncertainty. If the ‘expat' encounter feelings of informational and/or social (emotional) uncertainty, they most likely approach people they perceive as helpful sources to diminish these uncertainties (Farh et al., 2010). For instance, word-pairings such as ‘cant find', 'help us', 'please pm', 'pm interested', ‘anyone knows' ‘would like' and ‘im looking' appears to be common in both of the time periods. This indicates that many of the members of Expat World Stockholm are in need of something and assume that the group consists of ‘like-minded’ people, who are more able to relate to an ‘expats’ situation. Meaning that many members might perceive the group as an essential starting point to reach one’s needs. As this study presents, Facebook contains many different features that may have the potential to support these needs, and depending on the need, some features might be more appropriate than others.

6.1 Common word-pairings and sharing modalities

It is found that comments generated in the time period of 2017 contain word-pairings such as ‘also check', 'countries click', click the link', 'link fill' and 'fill form' (See Table X in Appendix). Although these word-pairings did not appear during the time period of 2018, it can still be argued that ‘clickable' links are shared since the feature ‘share a link' and ‘links' appears to be commonly used in both of the time periods.
**Figure 3.** ‘Share a link’
Percentage of all wall posts that used the feature ‘Share a Link’. In 2017 it was 112 out of 300 wall posts that ‘share a link’, in 2018 the number was 158 out of 480.

**Figure 4.** ‘Link’
Percentage of all wall posts that contain ‘links’. In 2017 it was 95 out of 300 wall posts that contained a ‘link’, in 2018 the number was 122 out of 480.
Additionally, it is found that word-pairings such as 'free welcome', 'welcome drink', 'international mingle', 'mingle party', 'meet new', 'don't miss' and 'like invite' appears to be common word-pairings generated in wall posts in the time period of 2018. This indicates that members have shared information that possibly concern different leisure activities - an idea that again can be motivated based on the high usage of the features 'Share a link' and 'links'. Meaning that these links may contain information and/or invitations about various types of events and activities, which additionally can be supported considering the relatively high usage of the feature ‘Share an event'. This feature might be a valuable asset for 'expats' as it opens up a pathway to connect and interact with other 'expats' outside Expat World Stockholm. Also, many 'expats' might have modest or none social contact with their home country, meaning that they potentially encounter feelings of social uncertainty (Farh et al., 2010) and may be highly motivated to create new social acquaintances. It is for that reason, as mentioned above, likely that 'expats' perceive the function ‘Share an event' as an asset to reach this goal, or at least an attempt to establish a contact.
Figure 6. ‘Share an Event’

*Note:* Percentage of all wall posts which ‘Share an Event’. In 2017 it was 30 out of 300 wall posts that shared a link, in 2018 the numbers was 158 out of 480.

Compared to the features ‘Share a link’ and ‘links’ - the feature ‘Share an event' was less used, in both of the time periods. Considering that common word-pairings such as ‘bank account’, ‘id card’ ‘looking job’ ‘part time’ ‘work experience’ and ‘apartment rent’, leads to thinking that many ‘expats’ may perceive feelings of uncertainty and lack of knowledge about how to find accommodation and work and how to handle banking issues. Meaning that ‘expats’ might particularly be in need of informational support of general necessities, more than invitations and/or information about different events and activities. Nonetheless, since this study did not focus on analyzing where the shared links derive from, we can only speculate about the content of the shared links. However, Hyduk and Worrall (2016) explain that many immigrants and ‘expats' who have moved to another country because of work may be in a great need of information regarding employment and income. Meaning that, based on the above mentioned word-pairings together with the high usage of features ‘Share a link' and ‘links’, it could be interpreted that these links contain information about accommodation, work and how to handle banking issues - in other words, practical information highly essential and valuable for many ‘expats'
in order for them to make their adjustment situation less complicated. An interesting finding is that common word-pairings concerning accommodation, work and banking issues were only common in the time periods of 2018. Considering that "communication is affected by the environmental context of the individuals generating the content" - context like social issues including new media and current events (Koepfler & Fleischmann, 2011, p. 2), it could be interpreted that finding accommodation and employment in Stockholm were during that time period an issue. Many ‘expats’ may become aware of this situation as news media may highlight it, which could explain why some word-pairings concerned these subjects.

Even though Expat World Stockholm primarily turns to ‘expats’, it is a group that anyone can join, meaning that organizations and companies might share information. Considering that some of the common word-pairings are ‘join us’, ‘free welcome’, ‘party myexpatsworld’, ‘start free’, ‘free entrance’, ‘company member’, ‘invite free’, ‘trial company’ and ‘international mingle’, can to a certain degree enhance the assumption that information is shared by companies, organizations and/or other groups. Regardless of whom have shared the information and its purpose of participation, it can be argued that Expat World Stockholm is a group with the potential to enable a cooperative exchange of valuable information (Bagozzi & Dholakia, 2012). Also, companies and organizations may have the interest to be a part of Expat World Stockholm as they find participation an effective way to reach international employees.

The function to ‘tag' other users on Facebook is also viewed as a benefit for ‘expats', as it may broaden and enrich their content sharing on the platform and thereby a valuable tool to share social interests (Kim et al., 2013; Savage et al., 2015; Ha et al., 2017). Just like companies and/or organizations may share information through features like ‘share a link' and/or 'share an event', it is likely that they also utilize the ‘tagging’ function to market their products and/or attract new customers (Ha et al., 2017).
Figure 7. ‘Tag’

Percentage of all wall posts that contain ‘tags’. In 2017 it was 13 out of 300 wall posts that contained a ‘tag’, in 2018 the number was 24 out of 480.

Figure 8. ‘Tag’

Percentage of comments containing ‘tags’. In 2017 it was 83 out of 498 comments containing ‘tags’, in 2018 the number was 140 out of 1201.
Based on the findings from this study we cannot conclude who have utilized each feature, meaning whether it derives from companies, organizations or any other user. However, based on the findings presented in Figure 7 and Figure 8, we can conclude that the ‘tagging’ feature is used in both of the time periods, particularly in comments 2017. Meaning that together with the features ‘Share a link’, ‘Share an event’ and ‘links’ may strengthen the idea that members of Expat World Stockholm may particularly value assets of features that in one way or another facilitate their information seeking and potentially fulfill their needs/tasks as efficiently and comfortable as possible. With this in mind and that ‘expats’ seems to want to connect with other ‘expats’, a higher usage of the features ‘Check in’ and ‘Ask for recommendations’ were expected. One reason for this can be that ‘expats’ do not see the value of these features in relation to meet their needs.

6.2 Common word-pairings and symbolic language

Social support can be defined as information that leads to a person to feel that he/she is being liked, appreciated and is a part of a network of communication (Hupcey, 1998). From this perspective it can be argued that common word-pairings such as ‘good luck’, ‘great way’ ‘don’t miss’, ‘thanks lot’, hope see’, ‘hi everyone’, ‘hi guys’ ‘would like' 'really good', ‘would recommend’ and ‘ive used’ connote that the members of Expat World Stockholm generate positive interactions and/or sympathetic behaviors (Hupcey, 1998). Based on these word-pairings along with the high usage of the features ‘reaction symbols' and ‘emoji’ leads to an understanding that Expat World Stockholm is an environment of social (emotional) support. For example, the ‘like’-button, which is a type of ‘reaction symbol', appears to be commonly used in both of the time periods, and considering that this symbol can be interpreted as a ‘positive communication', it may have the potential to convey social support in the sense that it is ‘information' that may lead ‘expats' to think they are being liked and appreciated (Hupcey, 1998). Even though the ‘like’-button is used significantly more than the other five
‘reaction symbols', it can be noticed that ‘reaction symbols' - ‘sad' and ‘angry', viewed as less favorable symbols, were barely used. Again, this can to a certain extent strengthen the idea that *Expat World Stockholm* consists of a positive and caring communication.

**Figure 9. Distribution of ‘Reaction symbols’**

Percentage of ‘reaction symbols'. In 2017 it was 638 ‘reaction symbols’ in total and in 2018 the number was 1070. For example, it was 611 ‘likes’ out of 638 reaction symbols in 2017, and in 2018 it was 999 ‘likes’ out of 1070 ‘reaction symbols’, which corresponds to the percentage above.

**Figure 10. Distribution of ‘Reaction symbols’**

Percentage of ‘reaction symbols'. In 2017 it was 294 ‘reaction symbols’ in total and in 2018 the number was 682. For example, it was 294 ‘likes’ out of 294 ‘reaction symbols’ in 2017, and in 2018 it was 624 ‘likes’ out of 682 ‘reaction symbols’, which corresponds to the percentage above.
From an ‘expats' point of view who have moved to a country all alone, might be more vulnerable to feelings of stress, confusion, and loneliness. Since *Expatriate World Stockholm* might consist of people, who have lived in Stockholm for a while, meaning that they are ‘expats', but have such a comprehensive knowledge of Stockholm that they could be equated as ‘expats' with host country expertise (Farh et al., 2010). Meaning that, in the same way as these ‘experts' share information about practical necessities, they might also provide support in terms of calming words to the ‘expats’ (Farh et al., 2010), click on the ‘like'-button and/or add ‘emojis' in order to increase the meaning of their message's and express their support in a more accurate way (Kadir et al., 2012a; Oleszkiewicz, 2017). From this perspective, a higher usage of the remaining *symbolic language* features, that is - ‘emojis', ‘GIFs', ‘stickers' and ‘videos', were expected as they also represent different emotional symbols and objects with the function increase people's’ feelings, ideas and/or opinions in a more explicit way (Grannan, n.d; Stack Exchange, n.d; Kadir et al., 2012b; Oleszkiewicz, 2017).

![Figure 11. Emojis](image)

*Figure 11. Emojis
Percentage of all wall posts that contain Emojis. In 2017 it was 55 out of 300 wall posts with emojis, in 2018 the numbers was 107 out of 480.*
Figure 12. Emojis
Percentage of all the comments containing ‘emojis’. In 2017 it was 143 out of 498 comments with ‘emojis’, in 2018 the number was 209 out of 1201.

Given that members of *Expat World Stockholm* may originate from various countries, that speaks different languages and possess different knowledge and experience of communicating online, means that symbols recognized as socio-emotional suppliers, including ‘reaction symbols' and ‘emojis', viewed as universal communication tools and recognized by principally everyone (Ross, 2006), may be beneficial for ‘expats' who speak different languages, as it is a type of online language that ‘everyone understand'. This opportunity may particularly be of value for ‘expats' with spelling issues and non-native English speakers (Stapa & Shaari, 2012). Furthermore, people exhibit better adjustment when they perceive the support as genuine and helpful, where "the objective support resources one actually receives matter less for adjustment than how one perceives the support" (Farh et al., 2010, p. 445). Meaning that, if an ‘expat' receives a message that consists of both words and symbols, and interprets it as a type of positive communication and for that reason enhance its feelings that the sender genuinely wants to help - rejects to a certain extent ideas of computer-mediated communication (CMC) as being an emotionally cold, unfriendly and antisocial medium (Walther, 1996; Thurlow et al., 2004). Additionally, members of *Expat World Stockholm* may be aware of the positive interconnections of the group as
many ‘expats' works toward similar goals (Bagozzi & Dholakia, 2012), and thereby change their style of writing as they may have noted that different situations require different language styles (Baym, 2006).

A concluding remark of the presented findings - when the selected word-pairings were analyzed together with the selected features, it can be interpreted that many ‘expats' are in need of informational and (social) emotional support. Even though common word-pairings generated in the time period of 2017 signal information concerning events and activities, while common word-pairings generated in the time period of 2018 signal information about necessities, including accommodation, work and banking issues. This indicates that there may have been a different focus in the group between the time periods. However, common word-pairings signal that members in general seek and share any type of different information, including needs of finding answers concerning general necessities, a sharing of invitations to different events, distribution of advertisement by companies, and encouraging words. Based on the findings of feature usage it can be interpreted that members mainly have used features categorized sharing modalities to reach informational and social (emotional support), which potentially fulfills their needs. This means that features categorized as symbolic language show, in general, a low usage, which leads to thinking that ‘expats' may perceive these features as less relevant in relation to their need. Meaning that ‘expats' may possess particular needs that cannot be fulfilled by using these features. As mentioned above, it is instead interpreted that ‘expats' have particular need(s) where features categorized as sharing modalities may be more suitable and relevant to reach those needs. These features can be of value for ‘expats' since they namely are clickable references to other objects inside (e.g., a ‘tagged' Facebook page) as well as outside Facebook (e.g., external web sources), which potentially means that information and knowledge, that in one way or another most likely concerns Stockholm, is only a few clicks away Liu (2011).
7. Discussion and future research

Online communities are often recognized as social areas in the digital environment, where people have come together for many different reasons. One common understanding of online communities' existence concerns the idea of a shared topic and/ or an interest (Kollock, 1999; Preece & Krichmar-Maloney, 2005; Androutsopoulos, 2011; Meijer et al., 2011 Bagozzi & Dholakia, 2012). This study has analyzed the Facebook group *Expat World Stockholm*, a group that connects people who in one way or another have a relation to and/or an interest of Stockholm. Although the group primarily address ‘expats’ - that is, people who live abroad for an extended time, it is a group open for anyone, ranging from private persons to larger companies. It is for that reason most likely that *Expat World Stockholm* offers a great number of different types of information, which could particularly be vital for ‘new expats’ that currently have a sparse or non-existing network of social contacts. This indicates that online communities such as *Expat World Stockholm* potentially become valuable sources to reach informational and social (emotional) support. This has also been the focus of this thesis, namely to explore the needs of expatriates and what *Expat World Stockholm* may serve to fulfill these needs. To answer this question, a collection of common word-pairings and a selection of Facebook features generated in two particular time periods, namely January to February 2017 and January to February 2018, were interpreted and analyzed in combination. Based on the findings from this study it can be interpreted that many members - in both of the time periods - possess informational and social uncertainty as many of the common word-pairings seems to be questions and concerns, indicating that they are in need of informational and/or social (emotional) support. Many ‘expats’ may assume that *Expat World Stockholm* is a group of ‘like-minded’ people, and given that they may be in need of an empathetic ear they most likely join the group with the expectation to connect with people they assume can relate to their situation and are willing and motivated to help them to make sense of their new
environment (Farh et al., 2010). Also, many ‘expats’ may primarily value *Expat World Stockholm* as it is placed online. This opportunity may, in general, be of value for expatriates as it enables them to interact, communicate and handle crises tasks regardless of time and space. This opportunity may, in particular, be of value for ‘expats’ that for specific reasons cannot reach information physically and/or are in need of rapid information to solve some practical necessities (Walther, 1996; Thurlow et al., 2004). Also, *Expat World Stockholm* also offers an environment of less social exposure, which may encourage people to ask for help and support from unfamiliar ‘expats’, and thus facilitate their information seeking process (Haythornthwaite, 2007).

The findings from this study present that ‘expats' have used features categorized as sharing modalities, in particular, the features ‘Share a link', ‘Share an event', ‘links' and ‘tags'. Considering that these features may simplify the ‘expats’ information seeking process since they can share and reach a huge amount of diverse information - it was no surprise that these features were commonly used in both of the time periods. Although the features ‘reaction symbols' and ‘emojis' also present a high usage in both of the time periods, the features of the category symbolic language appear, in general, to be less used, compared to sharing modalities. As mentioned above, one explanation for this outcome could be that these features may not have that particular function that meets the expatriates' needs. On the other hand, supplemental cues such as ‘reaction symbols' and ‘emojis' present a high usage in both of the time periods, meaning that *Expat World Stockholm* could work as an example that questions ideas that each CMC message contain less social information because of the absence of nonverbal cues (Walther, 1996). Nowadays, many CMC settings consist of functions designed to enrich the meaning of a person’s message and help them to express their feelings, ideas and/or opinions more accurately (Kadir et al., 2012; Oleszkiewicz, 2017). It could be that many expatriates may be in need of interacting with other ‘expats’ in a more relaxed way and have a less need of obtaining information of practical issues, including healthcare, insurance, and accommodation.
Furthermore, considering that Facebook operates from a perpetual development mindset, meaning that they will most likely continue to implement new features on a regular basis (Feitelson et al., 2013), indicate that the future of *Expat World Stockholm*, recognized by expatriates as a suitable and valuable environment for them to fulfill their different needs, may depend upon the technological development of Facebook. However, since individuals and information systems do not develop in isolation - but connect within a specific context, where context is usually described with the individual at the center (Burnett, 2015), it would be a gross simplification to say that the future of *Expat World Stockholm* depends on Facebook's technological tools. It is also essential to take into consideration that the group's membership structure is subject to change, as 'expats' will either remain in the group or choose to leave, and that the members most likely come from different social backgrounds, with different experiences, knowledge, values, and thoughts, which makes *Expat World Stockholm* a context-specific heterogenous group. For instance, many of the common word-pairings generated in 2017 can be interpreted as an advertisement, indicating that many of members of the group during this time period were companies and/or organizations, while 2018 seemed to contain questions and concerns, particularly regarding accommodation and work. One explanation for this could be that finding accommodation and work was an issue in Stockholm at that time, which may affect many ‘expats’. To handle these issues, many ‘expats’ may have turned to *Expat World Stockholm* with the hope of getting help and support. Also, the feature ‘Ask for recommendation' were barely used in 2017, but the usage of this feature had increased substantially in 2018. One explanation could be that Facebook might have improved this feature and made it more apparent to the members. The point is - if *Expat World Stockholm* continues to be, or at least has the potential to be an appropriate and essential asset for ‘expats’ to reach and fulfill their needs, is something time may tell. However, if change happens, it is most likely due to an interplay between technological, social and contextual

Additionally, ‘expats' with many different types of needs may, in particular, perceive *Expat World Stockholm* as a suitable option since the members most likely come from different social backgrounds, with various types knowledge, experiences, and competencies - meaning that a broad and diverse spectrum of information and social (emotional) support can potentially be acquired in this group. It seems in general that information sharing within this group "covers a wide range of collaborative information behaviors (...) from deliberate, collaborative searching to serendipitous and unexpected sharing. From this perspective, *Expat World Stockholm* may be qualified as a clear example that rejects the perception of CMC as an ineffective, antisocial, unfriendly and emotionally cold medium - suitable to transfer data and information, but less suitable for relational-focused communication (Walther, 1996; Thurlow et al., 2004). Meaning that, even if *Expat World Stockholm* is a task-oriented group as many of the members works towards a similar goal(s) (Bagozzi & Dholakia, 2002), it has the potential to create and form social relationships through this task-oriented communication. The expatriate may approach the same person for future requests, which may lead to an exchange of social relations and mutual helping (Farh et al., 2010). Considering that findings signal collaboration and solidarity as people voluntarily share informational and/or social (emotional) support (Farh et al., 2010), it can be argued that *Expat World Stockholm* is a task-oriented group that consists of an effective, friendly, social and emotionally warm type of communication - a type of communication that in particular is appreciated by ‘expats’ who perceive a high level of loneliness and confusion.

As long as members of the group use the site as equals - seeking advice and giving advice, leading to a form of knowledge collaboration and feelings of belonging, *Expat World Stockholm* will most likely remain as an essential and valuable online community for ‘expats’ to seek and share informational and social (emotional) support (Herring, 2004; Faraj et al., 2015). From this perspective, *Expat World Stockholm* can be an example that rejects the idea of online
communities as not being able to maintain stable memberships, long-term commitment and social liability (Haythornthwaite, 2007). *Expat World Stockholm* may also have the potential to bring together ‘expats’ to a certain level where they become to value their online relations more than their offline relationships (Walther, 1996).

I believe that the collected and analyzed data provides interesting insights regarding the importance that online groups, such as *Expat World Stockholm*, seems to have for people living abroad and who are in need of all types of informational and social (emotional) support. This may enhance the idea that technology is an important part of ‘expats’ information behavior as many expatriates seem to depend on Internet, social media, and online communities to find information and social (emotional) support (Hyduk & Worrall, 2016). This leads to thinking that groups such as *Expat World Stockholm* may have the potential to develop to a level where physical tourist offices become less valuable and essential.

As been mentioned, based on the common word-pairings, the focus in the group seems to differ between the chosen time periods, where members in the time period of 2017 seems to have shared information about different events, services, and products, while common word-pairings generated in 2018 signal questions and concerns, particularly regarding necessities such as accommodation and work. However, in relation to the findings of the features, it can be interpreted that members of *Expat World Stockholm* mainly have used features that enable them to share and reach information through different types of linking functions, which may contain information of both informational and social (emotional) support. However, considering that this study cannot confirm whether the provided support actually ‘match’ the requested needs (Hupcey, 1998), is the analysis and discussion of the findings interpretations on a very broad and superficial level. Meaning that common word-pairings and feature usage can be viewed as not sufficient and adequate to obtain a clear and comprehensive understanding of ‘expats’ actual need and whether these need(s) has been
successfully met. However, as mentioned above, the findings still allow for speculations and interpretations - meaning that it can be assumed that members different types of needs most likely have the potential to be fulfilled through participation in *Expat World Stockholm*.

I would like to suggest for future studies to conduct a comparative analysis among several expats-groups on Facebook to investigate similarities versus differences among ‘expats’, which may provide better insights of expatriates needs. One suggestion to accomplish this is to combine quantitative and qualitative methods. Besides, it would also be interesting to investigate if the ‘expats’ needs have been fulfilled through a participation in the group and if it improved their knowledge and understanding of their new environment, and thus facilitated their integration to the host country. Another suggestion for future studies is to focus on where the content derives from - is it mainly ‘new expats’ that ask questions? How much of the content is shared by companies? Is there any difference in gender regarding feature usage - is the ‘like’-button in particular used by women? Where do the shared links lead to? Do the links mainly concern leisure activities or accommodation websites? Lastly, I also suggest for future studies to focus on whether these types of groups have created and developed new ‘offline’ friendships, if members have found accommodation and work through the site and/or whether companies and organizations have been able to find employees. This may reveal further insights of the importance of Internet, social media and online communities.
8. References


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Appendix

1. Common word-pairing

<table>
<thead>
<tr>
<th>Wall posts</th>
<th>2017</th>
<th>2018</th>
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<tbody>
<tr>
<td>free welcome</td>
<td>join us</td>
<td></td>
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<tr>
<td>welcome drink</td>
<td>looking job</td>
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<td>hi guys</td>
<td></td>
</tr>
<tr>
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<tr>
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<td>hi everyone</td>
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<td>work experience</td>
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<td>Comments</td>
<td>2017</td>
<td>2018</td>
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<td>good luck</td>
<td></td>
</tr>
<tr>
<td>would like</td>
<td>really good</td>
<td></td>
</tr>
<tr>
<td>like invite</td>
<td>Thanks lot</td>
<td></td>
</tr>
<tr>
<td>company member</td>
<td>Also check</td>
<td></td>
</tr>
<tr>
<td>invite free</td>
<td>Cant find</td>
<td></td>
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<tr>
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<td>Trying find</td>
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<td>Id card</td>
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<tr>
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<td>Bank account</td>
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<tr>
<td>click link</td>
<td>Please pm</td>
<td></td>
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<tr>
<td>link fill</td>
<td>Pm interested</td>
<td></td>
</tr>
<tr>
<td>fill form</td>
<td>Would recommend</td>
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<tr>
<td>hope like</td>
<td>part time</td>
<td></td>
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<tr>
<td>like try</td>
<td>thanks much</td>
<td></td>
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<td>ive used</td>
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**Table 8. Word-pairings, wall posts**
Selection of the 20 most common word-triplets generated in comments in 2017 and 2018, with no particular order.
2. Wall posts

Figure 13. ‘Share’
Percentage of all wall posts that have been ‘Shared’. Even if the members only can click on the ‘share’ button once per wall post, the total number of wall post that have been ‘shared’ is displayed, which means that ‘shares’ can be counted multiple times (See table 5)
**Figure 14** Mean number of ‘Shares’, ‘Links’ and ‘Tags’

Mean of ‘Share’ per wall post that has been ‘shared’, mean of ‘tags’ per wall post containing ‘tags’ and mean of ‘links’ per wall post containing ‘links’, with standard deviation. The total number of ‘shares’ in 2017 was 31 distributed in 13 wall posts, the total number in 2018 was 74 distributed in 33 wall posts. The total number in 2018 was 143 distributed in 122 wall posts. The total number of ‘tags’ in 2017 was 23 distributed in 13 wall posts, the total number in 2018 was 45 distributed in 24 wall posts.

**Figure 15.** Mean number of ‘Reaction symbols’

Mean of reaction symbol per wall post with ‘reactions symbols’, with standard deviation. For example, the total number of ‘likes’ in 2017 was 611 distributed in 163 wall posts, the total number in 2018 was 1105 distributed in 293 wall posts.
Figure 16. Mean number of ‘Emojis’
Mean of ‘emojis’ per wall post containing ‘emojis’, with standard deviation. Total number of ‘emojis’ in 2017 was 146 distributed in 55 wall posts, the number in 2018 was 217 in 107 wall posts.

Figure 17. ‘Emoticon’
Percentage of wall posts that contain ‘emoticons’
Figure 18. ‘GIF’
Percentage of wall posts that contain ‘GIF’

Figure 19. ‘Stickers’
Percentage of wall posts that contain ‘stickers’
**Figure 20. ‘Photo’**
Percentage of all wall posts containing ‘photos’. In 2017 it was 69 out of 300 wall posts with ‘photos’, in 2018 the number was 71 out of 480.

**Figure 21. Mean number of ‘photo’**
Mean number of photos per wall post containing ‘photos’, with standard deviation. The total number of ‘photos’ in 2017 was 173 distributed in 69 wall posts, the number in 2018 was 111 distributed in 71 wall posts
Figure 22. ‘Video’
Percentage of wall posts that contain Videos

Figure 23. ‘Ask for Recommendations’
Percentage of all wall posts that uses ‘Ask for Recommendations’. In 2017 it was 1 out of 300 wall posts that used the ‘Ask for Recommendations’ feature, in 2018 the numbers was 44 out of 480.
Figure 24. ‘Check in’
Percentage of wall posts that contain ‘Check in’
3. Comments

**Figure 25. Mean number of ‘Links’ and ‘Tags’**
Mean of ‘tags’ per comment containing ‘tags’ and mean of ‘links per comment containing ‘links’, with standard deviation. The total number of ‘tags’ in 2017 was 83 distributed in 83 comments, the numbers in 2018 was 141 distributed in 140 comments. The total number of ‘links’ in 2017 was 78 distributed in 73 comments, the number in 2018 was 172 distributed in 161 comments.

**Figure 26. ‘Reaction symbols’**
Percentage of all the comments containing ‘reaction symbols’. Keep in mind that during 2017 a ‘reaction’ is the same as ‘like’. This is because the five other ‘reaction symbols’ (i.e. ‘heart’, ‘haha’, ‘wow’, ‘sad’, ‘angry’) were not a part of the comment text box until May 2017. In 2017 it was 197 out of 498 comments containing the reaction symbol ‘like’, in 2018 the number was 297 out of 1201.
**Figure 27.** Mean number of ‘Reaction symbols’

Means of all ‘reaction symbols’ per comment containing ‘reaction symbols’, with standard deviation. The total number of the ‘reaction symbol’ ‘like’ in 2017 was 294 distributed in 197 comments, the numbers in 2018 was 624 distributed in 457 comments.

**Figure 28.** Mean number of each ‘Reaction symbols’

Mean of each ‘reaction symbol’ per comment containing ‘reactions symbols’, with standard deviation. For example, the total number of ‘likes’ in 2017 was 294 distributed in 197 comments, the total number in 2018 was 624 distributed in 504 comments.
**Figure 29.** Mean of ‘Emoji’
Mean of ‘emoji’ per comment containing ‘emojis’. The total number of ‘emojis’ in 2017 was 163 distributed in 143 comments, the number in 2018 was 250 distributed in 209 comments.

**Figure 30.** ‘Emoticon’
Percentage of all the comments containing ‘emoticons’
Figure 31. ‘Photo’
Percentage of all the comments containing ‘photos’

Figure 32. ‘Video’
Percentage of all the comments containing ‘videos’
**Figure 33. ‘GIF’**

Percentage of all the comments that contain a ‘GIF’

**Figure 34. ‘Sticker’**

Percentage of all the comments containing ‘stickers’