Building virtual learning communities: a qualitative study of an online community of practice on the language-learning website Duolingo

Magalie Richard
682285A Bachelor’s Seminar and Thesis
English Philology
Faculty of Humanities
University of Oulu
Spring 2016
# Table of contents

1 Introduction

2 Description of the research material
   2.1 Duolingo
      2.1.1 Language-learning game
      2.1.2 Translation
      2.1.3 Discussion stream
   2.2 Survey among Duolingo users

3 Theory
   3.1 Communities of practice
   3.2 Web 2.0

4 Methodology
   4.1 Qualitative study: interaction analysis in Duolingo community
   4.2 Analysis of feedback from Duolingo users

5 Analysis
   5.1 Observations on Discussion stream
      5.1.1 Requests for information, problem solving, and coordination and synergy
      5.1.2 Seeking experience
      5.1.3 Reusing assets
      5.1.4 Building an argument
      5.1.5 Growing confidence
      5.1.6 Discussing developments, mapping knowledge and identifying gaps
      5.1.7 Documenting projects
      5.1.8 Visits
   5.2 Survey results from users

6 Conclusion

References

Appendix 1. Discussion stream
Appendix 2. Survey
1 Introduction

The enthusiasm for learning foreign languages has grown in popularity alongside globalization. Some might learn languages for better career prospects, others simply as a hobby, but one thing is certain: connecting online with strangers from around the globe is now easier than ever and can be done in the comfort of one’s home. This ability to connect with others is a substantial factor in making people eager to learn new languages. Depending on the learner’s goals and personality, there are several ways to learn a foreign language; one might choose immersion or traditional language classes, but autodidacticism is an option that offers a large amount of advantages for learners with enough motivation and time to invest. Now that computers, tablets, and smartphones are everyday-life tools, it is also possible to learn online from a great variety of free websites and software; and with the growth of virtual online communities, the boundaries of isolation traditionally associated with language self-teaching have been pushed back.

In this research, I will attempt to describe how the community of Duolingo, an online free of charge language-learning platform, builds a community of practice through certain types of social interactions called activities. The focus will be on Duolingo’s general discussion section called the Discussion stream. As my main source of data, I will look at how the members of the website interact with each other and at the nature and content of the messages posted in the Discussion stream. This data will be analyzed alongside a list of typical activities communities use to develop their practice. I will also gather feedback from active users about their habits and feelings in relation to the community aspect of Duolingo to see if it corresponds with my observations.

The goal of this thesis is, by analyzing these interactions and the answers of the users to the questionnaire, to clearly demonstrate how Duolingo is indeed a growing community of practice.
2 Description of the research material

2.1 Duolingo

Duolingo is a free of charge and ad-free language-learning platform compatible with Web, Android, iOS and Windows Phone (Duolingo, 2016). It was officially launched to the general public in 2012 and has now over 100 million users. Luis Von Ahn (2011), the co-founder and CEO of Duolingo, explains in a TEDx talk given at Carnegie Mellon University that Duolingo’s initial goal was to have the users indirectly translating the contents of the web available in every major language while progressively learning a new language. Over the years, however, Duolingo has shifted in a slightly different direction, and its current state will be described in the following section. The focus of this thesis will be on the Duolingo website rather than the Duolingo application, as the Discussion stream is only available on the website. Since there are many different places where members have the possibility to interact with one another, to avoid confusion, the section for questions in the game exercises will be referred to as In-game discussion; the section for discussion pertaining to the translation section will be referred to as Translation discussion, and the general message board will be referred to as the Discussion stream. It is possible to learn from several different languages on Duolingo, but the information in this thesis is about the courses taught in English.

2.1.1 Language-learning game

The structure of the basic Duolingo language-learning game is fairly simple. The main goal is to complete the language course by finishing what is commonly called the Skill tree of whichever language the user wants to learn. It is possible to easily switch between language courses with just a click from a drop-down menu at any time to practice more than one language. The easier skills are found at the top of the tree, and the learner works their way towards the bottom. The skills in the tree are divided into a variable number of
lessons. When a new grammatical rule is introduced in a skill, it is explained in the *Tips and notes* section just below the lessons. The lessons must be completed in the order they are presented; completing lesson 1 unlocks lesson 2, and so on. However, if one is confident enough about a skill, it is possible to *Test out* the skill by taking a test consisting of a mix of all the lessons. This function allows more advanced learners to avoid wasting time on knowledge they already have. The tasks in a lesson vary between repeating a sentence into a microphone, translating from or into the foreign language, typing what is heard, and selecting an answer from multiple choices. If a question arises during a lesson, the user can check the *in-game discussion* by clicking the *Discuss sentence* button to see if the question has already been addressed. Upon completing a lesson, the user is rewarded with experience points (XP). Gathering experience points allows the user to go up levels. The purpose of the leveling system is mainly for motivation as the levels have no impact on the game itself. Learning skills, going up levels, and long *streaks* (when the user plays many days in a row) are rewarded with *Lingots*, the Duolingo currency. They can be used to unlock bonus skills, a Timed-practice option, a Progress Quiz, Power-ups, etc. However, *Lingots* quickly become somewhat useless as they can be obtained fairly quickly and the content of the *Lingot store* is limited. The streak and the *Lingots* are both used as motivators. Moreover, the user can set a *Daily Goal* to achieve. For example, if the daily goal is 20 XP, the user must gather at least 20 XP to prevent the *streak* from breaking. A weekly graph is also provided to show the fluctuation in the daily progress of the user. Motivation is also achieved through the *Leaderboard* where the user can compare their progress with their friends’.

2.1.2 Translation

The section of the Duolingo website that deals with translation is called *Immersion*. It is entirely optional and is not linked with the game’s lessons in any way. It is available for the most popular languages: Spanish (57.4M learners), French (34.5M learners), German (21.8M learners), Italian (13.7M learners), and Portuguese (5.00M learners). These are
also the languages that have been available the longest on Duolingo so far. The *Immersion* section has, however, not been developed since October 2014 and its future is uncertain. All the languages released after the ones listed above do not have an *Immersion* section. Moreover, split tests have caused *Immersion* to be disabled for many users at the beginning of 2016 to see the users’ reaction and opinion in regard to the complete removal of the *Immersion* section.

*Immersion* consists of articles from all types or sources that need to be translated. Many are from Wikipedia pages, others are from news articles, and it is also possible for users to upload texts to be translated in exchange of experience points. Users can translate sentences, edit translations, or rate other people’s translations (by upvoting or downvoting them). The user can go up levels called *Translation tiers* after receiving a certain amount of positive feedback on their translations. Each article has its own discussion section where the translators can interact with each other if needed.

2.1.3 Discussion stream

What makes this discussion section different from an average message board (also known as forum) is that, as the name implies, it is more of a list of discussions; it is, however, still an asynchronous communication system. The discussions are not pre-categorized so the user needs to set the narrowing options in order to see what languages interest them. It is possible to sort the posts by popularity and chronology, and the *Followed* option allows the user to go back to any of the discussions they partook in. There is also a search option in case of a need for specific information. This *Discussion stream* is used for a variety of purposes which will be analyzed more closely in the *Analysis* section. A preview of the *Discussion stream* can be found in Appendix 1.
2.2 Survey among Duolingo users

I have created an online survey on Webropol for Duolingo users in order to see if their feelings regarding the community aspect on the website match the observations I have made in the Discussion stream. Also, I was curious to know whether being able to interact with the others enhanced their learning experience. The first part of the survey includes questions about the general usage of Duolingo (where and why one uses it) to give me a better overview of the purpose of their use of Duolingo. The second part includes questions about motivation how the users feel about having the opportunity to interact with the other users and how they do it. The entire survey can be found in Appendix 2.
3 Theory

The theoretical background of this qualitative study will be focused on the theory of communities of practice which has its roots in sociocultural and constructivist theories. Also, as the Duolingo community is online, there will be a short introduction to what is known as Web 2.0, the new online environment of collaboration.

3.1 Communities of practice

Collaboration between people as a community is certainly not a new concept, but the use of the term communities of practice is. In essence, a community of practice is a group of people drawn together by a common interest in order share and build knowledge with each other. Its origin can be traced back to the end of the 1980s and beginning of the 1990s in the works of two researchers, Jean Lave and Etienne Wenger. Their first work together, Situated Learning: Legitimate peripheral participation, was published in 1991 and was a fresh and innovative point of view in learning theory. As stated in the foreword by William F. Hanks, in opposition to the more traditional definition of learning that describes it as the “acquisition of propositional knowledge”, Lave and Wenger “situate learning in certain forms of social coparticipation” (p. 14). In other words, it is seen as a social learning system whose focus is on the interaction between the members of the community rather than the information itself that is learned. The collaboration between Lave and Wenger extended over many years, and they have also expanded on the topic independently as well as with other researchers (Lave & Wenger, 2002; Wenger, McDermott & Snyder, 2002; Wenger, 2010; Chaiklin & Lave, 1993; Wenger, 1998; Wenger & Snyder, 2000; Wenger, 2004; Wenger-Trayner et al., 2015; Wenger, Trayner & de Laat, 2011).

Communities of practice are everywhere and most people are part of several of them sometimes without even realizing it. They can, for example, be part of work, as a group
of co-workers; of hobbies, as a music band or a soccer team; of education, as a collaborative project, etc. The members are not necessarily close to one another; for example, members of online-based communities of practice share and create connections sometimes without ever meeting one another.

Communities of practice do not necessarily come together specifically for the purpose of learning; sometimes learning is simply the natural result of interaction between members (Wenger-Trayner & Wenger-Trayner, 2015). According to the Wenger-Trayners (2015), a community of practice is different from a mere group of friends talking together and can be characterized by three aspects that will allow the growth of the community when developed: the domain, the community, and the practice. Here, the domain is language learning; the members share the same enthusiasm for languages and are dedicated to this activity on different levels. The community is how the members discuss and share experiences and knowledge together, as well as provide assistance to those who are less experienced. And finally, the practice is the set of resources the community concretely builds collectively. And in this context, practice is not a synonym of action but “a way of doing things, as grounded in and shared by a community” (Eckert & Wenger, 2005, p. 583). In their brief introduction to communities of practice, the Wenger-Trayners provide a list of the most often observed activities in these communities, “problem solving, requests for information, seeking experience, reusing assets, coordination and synergy, building an argument, growing confidence, discussing developments, documenting projects, visits, and mapping knowledge and identifying gaps” (p. 3). This list of activities will serve as the basis for my analysis of the Duolingo community.

3.2 Web 2.0

The internet was a real revolution when it comes to communication. It brought whole new ways for people to interact instantly with others, no matter how far they were from one another. What is nowadays called Web 2.0 is an environment of contribution,
interaction, and collaboration where people gather to expand their knowledge (Gunawardena et al., 2009). More precisely, McLoughlin and Lee (2007) describe it as a “second generation, or more personalised, communicative form of the World Wide Web that emphasises active participation, connectivity, collaboration and sharing of knowledge and ideas among users” (p. 665). It is a constructivist type of environment where many co-produce and participate rather than being mere spectators; the contributors in these environments form a knowledge-building community. Web 2.0 technologies include, for example, blogs, wikis, and social networking websites. In this case, I consider Duolingo to be a Web 2.0 technology because it is a platform where people create content—sometimes by themselves, sometimes through collaboration—that is accumulated and kept for later use as a reference; it precisely reflects the informal and collaborative type of learning that is typical of Web 2.0.
4  Methodology

The main analysis in this qualitative study will be based on observations made on the Discussion stream, but I have also conducted a survey among members of the Duolingo community to collect feedback and further demonstrate my claims that this community is indeed a growing community of practice.

4.1 Qualitative study: interaction analysis in Duolingo community

As mentioned in the theory section, this research will be based on a list of common activities through which communities develop their practice according to the Wenger-Trayners (2015): problem solving, requests for information, seeking experience, reusing assets, coordination and synergy, building an argument, growing confidence, discussing developments, documenting projects, visits, and mapping knowledge and identifying gaps. For each of these activities, examples from the Duolingo Discussion stream will be provided to demonstrate, through an analysis, that they correspond to each other.

4.2 Analysis of feedback from Duolingo users

To further demonstrate the sense of community among Duolingo users, I have created a survey to see if the users’ answers would reflect what can be observed in the Discussion stream.

For the data collection, I have randomly contacted users I noticed on the Discussion stream. Their level of activity on the Discussion stream was unknown to me, as Duolingo does not provide the number of messages a user has posted. To increase the amount of answers I would get, I created a discussion on the Discussion stream myself explaining that I was conducting a survey for my Bachelor’s thesis. The respondents’ enthusiasm
went beyond my expectations and I had to deactivate the poll after a few hours, as I had already gathered more than enough data.

The survey was anonymous and the only personal information asked was the participants’ gender, age, and nationality. The answers of two respondents were discarded due to a lack of seriousness. Only the three first questions about age, gender, and nationality were mandatory; all others could be left blank.

It is worth mentioning that question 7 might be biased, as most of the respondents were contacted through the Discussion stream. However, it was a way to ensure that there would be enough respondents to the survey considering that only a fraction of the 100 million users are actively using Duolingo, and not all of them use the Discussion stream.
5 Analysis

5.1 Observations on Discussion stream

As explained in the description of the theoretical framework, I will base my analysis on the list of typical activities provided by the Wenger-Trayners through which communities develop their practice and see how they apply to the Duolingo community. I have taken the initiative to combine some of the activities in the list together due to their similarity.

5.1.1 Requests for information, problem solving, and coordination and synergy

Questions about grammatical issues represent a very large portion of the discussions created on the Discussion stream. Tips and explanations about grammar are included in the Duolingo lessons, but they often overlook details and lack depth. For this reason, many users use the Discussion stream to ask for additional explanations about what was not fully explained or understood. Native speakers as well as experienced learners often work together to provide support for those in need and make sure all the questions have been answered. Example 1 is a typical situation in which information is shared and problems get solved by users through collaboration,

Example 1.

What does the 'У' do at the beginning of many Russian sentences?

User 1: I noticed a У at the beginning of many sentences in Duolingo, such as 'У папы есть яблоки' but in English, why does that say Dad has apples and what is the У for? Also why does the verb 'to have' contain 2 words? Not so complex just wanna know why У

User 2: I think it just means at or by: 'at Father [there] are apples.' This is merely the common way of expressing ownership in Russian, rather than using a transitive verb as English does.

User 1: Thanks so much!

User 3: Okay, let me try to help you :) У is known as the construction "to have" in English. "У" in Russian literally means "to me or by me" For example, У меня есть кошка. I have a cat. But if you were to look at it literally, it means "by me is a cat, to me there is a cat". When learning
Russian try not to compare it to English as in most languages, there is no direct translation and each language has their own way of expressing certain things. So let me break it down. У (by, to) меня есть (have) кошка (cat). If you are saying that someone else has something "у папы есть кошка" then папа would go into the Genitive case, the same as меня. Also may I add, when you are telling someone you don't have something У меня нет кошки, you get rid of есть and put the noun in the Genitive case.

I hope I helped a bit.

User 4: A correction: I’m not certainly not fluent, but I took Russian in college, and "есть" doesn't mean "have." "Есть" doesn't have an exact English equivalent; it's a word you use to emphasize that something exists. Like if someone asks you if you have a cat, you'd say, "У меня есть кошка" — "I have a cat," because the other guy wasn’t sure the cat existed. But if the cat's hiding under the couch, and you coax her out, you'd say, "У меня кошка" — "I have the cat," because the cat's existence wasn’t in question, just its whereabouts.

User 3: Well thank you very much for your correction, I do appreciate it. I do however know that есть does not directly mean "have" the construction however includes есть. Which is used to show possession. Also есть is used when something exists. But however I try not to directly translate everything.

User 1: Understood and now it makes some sense! :)

User 3: I am glad I could help :)

User 5: I want to clarify it. A straight analog for "есть" in English is "there is, there are". But directly translating it's the same word as "is". "есть (yest')" and "is" (and for example german "ist") sound similar because they are both from common Indo-European root. Actually sometimes we (russians) use "есть" in its main sense for some emphasis. For example, "Машина есть механизм" instead of usual "Машина это механизм". It sounds for russian ear like something old russian or scientific. Ukrainians use it more often ("есть" is "e" (Ye) in Ukrainian) the same way English spoken people use "is". In Old Russian (and Old Church Slavonic, yet another predecessor of modern Russian) were different forms of the verb "быть" ("быти" in Old Russian): "Яс (Аз) есмь" - "I am", "Ти еси" - "You are", "Он, она, оно есть" - "He, she, it is", "Ми есме" - "We are", "Ви есте" - "You are" (plural), "Они суть" - "They are". The forms died out like in Old English, for example. P.S. "У ... есть ..." we can (and we do almost always) translate as "... have (has) ...", but it's not direct translation. For "... have (has) ..." we have (and we use it sometimes) direct translation. For example, "I have ..." translates as "Я имею (Я владею) ...". P.P.S. Sorry for my bad English.

User 5: It's not completely correct, actually. "У" means neither "to" nor "by". "To me" is "ко мне", "by me" is "от меня". In this case for example "У меня" means "In my possession", "У папы" means "in dad's possession" and so on. In other case it may mean "my, his, her..." and something like that. For example, "у меня рука сломана" we can translate as "my arm is broken", or "у дома сломана крыша" we can translate as "the house's roof is broken", but
In the example above, a user asks a grammar-related question about a concept they did not completely grasp in a Russian lesson *(request for information)*, and more experienced users work together *(coordination and synergy)* and share a variety of tips providing explanations on different levels of depth based on what they have found themselves to be useful after reflecting on their own learning process *(problem solving)*. In this case, the members of the Duolingo community work together to build the best answer possible. As it is not possible to edit other people’s writings, the answering users correct each other’s explanations in their own messages in order to reach an optimal answer. They do not only help User 1, but they also help one another in their explanations and dedicatedly provide precise details concerning grammar, culture, and history. The practice of a community, as the Wenger-Trayners (2015) describe it, is “dynamic and involves learning on the part of everyone” (p. 4). The only person in the previous example who is a native speaker of Russian is User 5, but everybody’s input is taken into consideration with respect. No one denigrates User 2’s answer even if it might not be entirely clear or complete in comparison with the others. This example demonstrates clearly how building the
community is important for the members and how they are aware of the eclecticism in communities of practice; they can achieve harmonious collaboration even though the users trying to help all have different levels of proficiency in Russian. Despite being an informal online community, the users invest time in solving problems and are rewarded with appreciation from the person in need. And this appreciation is part of the factors that trigger participation and growth in the community, as members feel like they have an actual positive impact.

5.1.2 Seeking experience

It is common among communities of practice for members to reach out to other members for opinions about something they are not familiar with. This type of request, along with the ones in the previous section, is frequently found on the Discussion stream. Members regularly ask for reviews of other tools for language learning to use in addition to Duolingo. For example, here a user asks for more information about the website Memrise to enhance their personal learning experience,

Example 2.

*I just started Memrise ... any experience?*

**User 1:** I often read in the discussion on Duolingo, that Memrise was great to help you learn vocabulary. Since I think I need a larger Spanish vocabulary than I have at the moment I started Memrise. What are your experiences with it? Any advice for me?

In response, some users described their own experience with Memrise, in details or briefly, and others gave a summary of the website’s features from a neutral point of view. The will among the community to provide quality information to each other is clear in this post, as the only answer that did not provide any valuable argument was downvoted by members who thought it to be irrelevant, and thus automatically hidden. The members of a community of practice do not only value sharing their opinion and experiences, but
also building a repertoire of resources—such as reviews of other language-learning tools in this case—with appropriate information exempt of low-quality comments. This shows how communities of practice care not only about sharing existing knowledge, but also about creating new knowledge collectively (Wenger-Trayner & Wenger-Trayner, 2015).

5.1.3 Reusing assets

When learning a language independently, learners often create their own material to understand better a complicated grammar concept or acquire new vocabulary. Here is an example of a discussion started by a user who has created extra material to help understanding Italian grammar,

Example 3.

The "Lazy man's guide to Clitics" !!

User 1: So, at the very least, you’re going to have to remember Direct and Indirect pronouns, and know what a preposition is. Yes, you will have to memorize things. I could not find a single useful chart anywhere on the Internet. Spanish? Loads of them. Italian? Nope. So I made one: […]

Extra material can of course be created in an infinite amount of ways ranging from self-made guides, to flashcards, lists, etc. Active members of the Duolingo community notice what are the most frequently asked questions and some voluntarily share additional material they have developed themselves to provide assistance to other community members. These users switch from being a learner into being the equivalent of a teacher whenever they feel like their own experience could be beneficial to many others. This breaking of the traditional teacher-student hierarchy is typical in communities of practice and is part of the collective knowledge-building process. In their introduction to communities of practice, the Wenger-Trayners (2015) point out that some people are core members in the community, while others are peripheral members. Example 3 shows
how core members voluntarily take the initiative to help less experienced members of the community by sharing their own learning strategies, and thus reusing their assets.

5.1.4 Building an argument

The activity of building an argument is not all that different from a request for help, but the main distinction is that the goal of building an argument is to convince. Considering that Duolingo’s primary focus is on autodidactic learning, it is not surprising to see that most discussions about building arguments are usually about the author of the discussion trying to convince themselves. Here is an example of a user who seems to have a clear wish but that needs some arguments in order to make an informed decision,

Example 4.

<table>
<thead>
<tr>
<th>Learning two languages at once..?</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>User 1</strong>: I am a native English speaker, and just an English speaker. Currently i am on the second part of the French learning tree but i’m stuck on conjunctions etc so i’m stuck in that area. I’m hoping to go over the topics again and again and again etc so that i can eventually push past into learning new parts of the tree. I feel like i should stick to French alone since i’m already finding it pretty hard (the grammar still confuses me) but Dutch is out, and i’ve always wanted to learn Dutch! I’ve tried the basics and i love it, but trying to learn two languages from scratch is going to be difficult, especially as i now have a full time job and other responsibilities so i recently never have a chance to learn. What i’m basically trying to ask is: is learning two languages difficult and problematic compared to just one? I really want to learn both but i’m scared that i won't be able to...</td>
</tr>
<tr>
<td>Thanks :)</td>
</tr>
</tbody>
</table>

It is evident in this post that User 1 is looking for arguments to convince themselves that learning two languages at the same time is feasible. Fundamentally, communities of practice are drawn together by a common interest, so it feels natural and logical for a member to reach out to other members to ask for advice to build an argument when the topic of that said argument is the interest that unites everybody. To User 1, the members
of the Duolingo community are the circle of people in their life that have a language-learning expertise and for this reason they decide to seek help from Duolingo members.

5.1.5 Growing confidence

Communities of practice develop conventions and ways to express themselves; they have their own set of rules about how members are expected to interact with each other. This is especially true in online communities where new conventions and cultural norms are often created (Gunawardena et al., 2009). Newer members joining the community slowly grow accustomed to these until they reach the point where they begin using them themselves. Growing confidence is a key activity on the Discussion stream; it is common for users to make a post on the Discussion stream to let the others know that they have successfully finished a Duolingo language course (more commonly known as a Skill tree). Here is an example of one,

Example 5.1

My first finished tree!

User 1: I just had to do a little happy dance in a place where people will understand what it is like to finish one's first tree (all golden). As a 50 year old with some mild dyslexia and a pretty poor history of language learning (O level french some 35 years ago) I can't express how delighted I am to have stuck it out this far and to have taken a real step in learning another language. Because of my spelling and typing coordination issues I originally lost heart with Duo when we used to lose hearts, as I would always make enough mistakes to end the session, but when I found out that didn't happen anymore I started up again and got addicted. A non judgemental, infinitely patient, always available tutor...just what I needed to get some confidence back. Thanks Duolingo!

Duolingo users frequently share their success stories to build their own confidence and inspire others, and the feeling of being part of a community is fostered by these positive interactions between the members. Participation plays an important role in communities of practice and this connection between the members through success stories is one of
the factors that promotes the growth of the community by making the less experienced members feel welcome and part of the group. There were over 50 answers to the post in Example 5, all of them congratulating User 1 on their accomplishment. It is interesting to note the bidirectional motivation process. On the one hand, this success story provides inspiration and motivation to other users who might find themselves in similar situations,

Example 5.2

**User 2:** Congratulations. I can relate exactly to what you are saying..

And on the other hand there are users who do not only congratulate User 1, but also provide words of encouragement for the future,

Example 5.3

**User 3:** Great job. Let's see you golden up some more trees.

**User 1:** If you insist :-)....esperanto looks fun.

In answer to all the positive feedback, User 1 shares their gratitude and clearly expresses their feeling of belonging to the community,

Example 5.4

**User 1:** Thanks for the kind and encouraging comments people, it is so nice to be part of this community.

This instantaneous bonding between complete strangers demonstrates how strong the sense of community is in Duolingo. Positive interaction and mutual motivation allows growth in communities of practice.
5.1.6 Discussing developments, mapping knowledge and identifying gaps

*Discussing developments* is another important activity in communities of practice, as it allows the members to collectively evaluate and possibly improve their learning environment. Duolingo is a relatively new language-learning website and is constantly being upgraded with improvements or new features. In the *Discussion stream*, the users discuss these new additions or changes. Obviously, Duolingo users do not have the power to make direct changes to the game’s content, but the team behind the game is usually quite receptive to the feedback from the community. As an example, here is the first post of a discussion about developments in the Irish course,

Example 6.

<table>
<thead>
<tr>
<th>New Irish Audio is Now Live</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>User 1</strong>: Dia daoibh,</td>
</tr>
<tr>
<td>Thanks for all your patience while some issues were ironed out with the implementation of the new Irish audio.</td>
</tr>
<tr>
<td>All users should now have the new voice! Feel free to leave your feedback here, on my stream or in sentence discussions.</td>
</tr>
<tr>
<td>Slán!</td>
</tr>
</tbody>
</table>

In this case, the post was written by a forum moderator working in the team in charge of the Irish course; they have updated the robot voice that reads the sentences in the Irish course, and they want to hear the users’ opinion on the new voice. Participatory design is a natural way of working in a community as it is very much about collaboration. The Duolingo users work together towards the common goal of making their learning experience better, but having some leaders (moderators) in the group helps to keep harmony and control. Also, it is a common misconception to believe that there are no leaders in communities of practice. According to the Wenger-Trayners (2015), “in many communities of practice decisions need to be taken, conditions need to be put in place, strategic conversations need to be had” (p. 6). With a community as big as Duolingo’s, it would be illogical to give these responsibilities to each and every one of the members;
therefore, trustworthy volunteers are selected to become moderators and ensure that everything is in order. Moreover, not everyone is willing to take responsibilities in a community; many like to observe and only occasionally participate. In the case of Example 6, there were over 200 replies mostly consisting of constructive feedback. This high-quality feedback really demonstrates how members of a community of practice are willing to invest time and energy into discussing developments. Moreover, the fact that a forum moderator gathers feedback from users underlines the importance of the role of leaders in a community of practice.

I have merged mapping knowledge and identifying gaps with this section because it is mostly found in the form of suggestions from users for improvements on Duolingo. By starting discussions with suggestions, users try to get the attention of forum moderators or anyone higher than the average user in the Duolingo hierarchy to hopefully have an influence on the development of the website. Users give suggestions regarding the content of the language courses, the design and the features of the website, the languages available, etc. Members of a community of practice naturally always want to improve the community’s environment to achieve the best experience possible for everyone.

5.1.7 Documenting projects

Documenting projects means to take note of problems or situations that have happened repeatedly and to reorganize this information in a way that will make it useful in the future if something similar were to happen again. In other words, documenting projects simply means to write down useful and valuable information for the community for later use. On the stream, forum moderators have the right to turn a regular discussion into a sticky discussion if they judge it to be useful enough. Sticky discussions will always be at the top of the stream and will, consequently, be the first discussions a user will see. For example, many of these sticky discussions are guides about grammar-related issues that
are problematic for most language learners, others are instructions about how to use Duolingo. The very first sticky discussion is called Duolingo Wiki & FAQ (unofficial, but still amazing). It is especially interesting because it does not only list detailed information about Duolingo's features and how to use them, but also provides a set of suggested rules about how to behave among Duolingo's community. As mentioned earlier in the growing confidence section, communities of practice usually establish their own rules, written or unwritten, to ensure a pleasant experience for the community members. Duolingo does provide an official set of guidelines to follow, but it is very short and is essentially only asking members to respect one another. To compensate for the lack of depth of the official guidelines, members of the community have worked together and created an extremely detailed wiki with valuable information for newcomers, including a section about how they are expected to behave. This short introduction before a list of faux pas to avoid really captures the essence of the feeling of community,

“While there are official guidelines, the community has developed its own set of expectations as well. An influx of down votes is generally a sign that someone has violated an official guideline, or has committed a faux pas. If this happens to something you have posted, feel free to ask for guidance and someone will help you. It's not the end of the world. It is easy to recover from such an event because most Duolingoers just want you to succeed. But, here are a few things it's good to know from the start: […]”

This positive and encouraging attitude towards newcomers shows how the Duolingo community is much more than just strangers learning languages independently. Rather than simply making of a list of what one is not allowed to do, more experienced members have a supportive attitude to help new members overcome problems, and thus promoting the growth of the community

5.1.8 Visits

A great advantage of online communities is how members can interact with others at any time of the day in the comfort of their home, and this might lead one to believe that visits
are not exactly an activity that applies to this type of communities; however, it seems like nothing can really replace human interaction in person, as several members express their wish to organize Duolingo meetings. In fact, a number of meetings have been arranged by Duolingo staff around the United States, and some others have been organized in Europe as well by community members themselves.

If we broaden the sense of visits, another alternative to face-to-face meetings that allows to break from the asynchronous type of communication typical of online forums is to use software to speak through voice chat. One of the most common ways for people to get together over the internet is by using Skype, a free application for voice and video calls,

Example 7.

**Need a partner to learn German with - Level A**

**User 1:** Hi there, I'm in the early stage of learning German, yet sometimes, i'm less motivated, and I think i need a partner to learn with. I'm in level "A".

Please post me if interested, and send me your Skype ID to begin, mine is: *******

Thank you,

The desire to establish synchronous communication with strangers comes from the strong sense of community among the users; voice chats are much more personal than messages on a forum. As a second example, using TeamSpeak—a software that allows users to speak on a chat channel through their computer just if it were a conference call over the telephone—a group of Duolingo users learning Danish have created a chat channel where they get together to speak in Danish every Saturday. Visits are one of the most important activities that differentiate a community of practice from a simple group of people interacting with each other. The will to share knowledge and create new bonds is real and makes the members of the community want to achieve genuine synchronous human interaction in any way they can.
5.2 Survey results from users

First of all, I was positively surprised not only by the amount of feedback I received in such a short amount of time, but even more by the ratio of relevant versus irrelevant comments. On a short notice, 78 people took some of their time to share constructive feedback with me, a fellow Duolingo user. The answers of only 2 users out of 80 had to be taken out of the results, and this already clearly demonstrates how strong the community spirit and the desire to help another member are. The respondents are aged between 13 and 78 years old and the average age is 32 years old. They come from 25 different countries but the majority are from the United States. I was pleased to see that all of the activities from the Wenger-Trayner’s list were mentioned directly or indirectly in the respondents’ answers.

As I suspected, close to all of the respondents answered yes to the question “Do you use the general discussion section?”, but it was interesting to see that 6 people answered that they do not. There is always a minority of members in a community of practice who like to observe rather than participate, and as it was mentioned earlier, they are called peripheral members (as opposed to core members).

There was a great variety in the answers to the question about why and how the respondents use the Discussion stream. Many mentioned using it to either seek or give help (requests for information, and problem solving); and someone said that they helped because they wanted to give back to a community that has been so good at answering their questions. This desire to give back to others is a true sign of a strong and united community.

Several others stated using the Discussion stream to share (reusing assets) or look for (seeking experience) additional resources for language learning. Some said they used it to voice their opinion, either about updates, existing features, or simply to give a suggestion.
to improve Duolingo (*discussing developments, mapping knowledge and identifying gaps*). Also, another reason mentioned was to learn from more experienced users; this transfer of knowledge between experienced and non-experienced learners is typical in communities of practice (once again, *seeking experience*).

For many, the *Discussion stream* is a direct source of inspiration and motivation; some said they enjoyed sharing their progress and success stories, and others mentioned up voting these positive messages to strengthen the confidence of the successful person (*growing confidence*). Only 20 respondents asserted getting motivation exclusively from themselves rather than from others. The rest felt strongly positive about inspiring other members, supporting them, and of course getting motivation from them. Strangers care about each other’s self-confidence and feelings because everyone feels connected through the common interest the members of the community share.

To study how the eclecticism within the community is perceived by the members, I asked them the following questions, “How do you feel about being able to ask questions even though the people answering might not be language professionals? Do you find it helpful or more confusing?”. Surprisingly, the majority of the respondents claimed that both accurate and inaccurate information was useful to them. Many highly valued the advice giver’s own learning experience; a respondent emphasized how a learner’s point of view can, in some cases, be more helpful than the one of a native speaker’s, as they have a less intuitive view of the language that is an advantage when trying to explain technical grammatical details, for instance. The members of a community of practice are well aware of the eclecticism among the members and are not shocked by it; on the contrary, they make the best out of it and embrace this plurality of approaches (*coordination and synergy*).

When asked if their experience on Duolingo made them feel part of a community, 44 respondents positively, 15 explained somewhat having a sense of community, and 17 answered *no*. Once again, this shows who are the core members of the community and
who are the peripheral members. The fact that 32 of the respondents were not absolutely positive about feeling like they are part of a community is not very shocking considering that Duolingo is an online community. The physical distance between the members makes it much harder for them to grow close to one another. Yet, almost all the respondents seemed to value the sense of belonging coming from the same interest the members of the community share.

Similarly, when asked if they have made friends on Duolingo, half of the respondents said that they did not. Members of a community of practice benefit from the interaction they have with one another, but they do not necessarily need to become friends to have a fulfilling community experience. However, many have blamed the format of the Discussion stream for making it harder to bond with others; a more organized forum would have probably made a significant difference.

There were no mentions of activities related to visits (face to face meetings, or voice chat), but since it is not specified anywhere that this activity requires synchronous communication, I would then include the answer of a user who stated being part of an online Italian book club on the Discussion stream with other Duolingo members. Despite the asynchronous communication, the fact that Italian learners gather to discuss different stories or novels at regular intervals is, from my point of view, enough to consider these regular discussions as visits.

Finally, just a fraction of the respondents thought Duolingo would still be useful if there were no Discussion stream for users to share on. This answer supports the claim that social interaction is absolutely essential when building and fostering a community of practice.
6 Conclusion

Only little research has been done in the past on Duolingo and most of it is about the efficiency of the game itself rather than the community that surrounds it. The main goal of this thesis was to describe how the community of the language-learning website Duolingo is a growing community of practice. It was achieved by conducting a qualitative study on the community through the content of Duolingo’s Discussions stream—the section used for general discussion—and a survey among users about their use of Duolingo and their feelings towards the community. There could have been many different approaches to this study but I chose to base my analysis on a list of typical activities by the Wenger-Trayners that communities do to develop their practice (the repeated actions a community does to develop knowledge) and see how they apply to the Duolingo community by looking for concrete examples of these activities in the Discussion stream.

The first set of activities, requests for information, problem solving, and coordination and synergy, were generally found in discussions where a user asked grammar-related questions and other users built the best answer possible by collaborating together. Seeking experience was noted in posts by members looking for reviews of other learning tools from more experienced members. The reusing assets activity mostly came from language learners that have developed tools by themselves and want to share them to benefit other community members. Building an argument usually appeared in the form of a member seeking arguments before making a decision for themselves. Sharing success stories is a huge part of the motivation-building process and is the community’s way of growing confidence. Since Duolingo is a relatively new website, it is constantly upgraded with new features, so by discussing developments, mapping knowledge and identifying gaps, the members of the community give feedback and suggestions to the website developers. Sticky discussions—discussions which have been judged to contain important enough information to be kept at the top of the Discussion stream—can be interpreted
as *documenting projects*. Finally, *visits* were planned by members of the community not only face-to-face in large groups, but also through voice chat in smaller groups. Moreover, the survey conducted on Duolingo members revealed mentions of occurrences of all the above cited activities; thus, reinforcing the claim that Duolingo is a growing community of practice.

In light of the observations made on Duolingo’s *Discussion stream* and in the survey I conducted, I have come to the conclusion that the Duolingo community possesses the typical qualities of a growing community of practice, as all the examples listed in this thesis reflect the nature of most messages posted on the *Discussion stream*. In the future, this study could be useful to enhance the quality of the community experience on Duolingo if the website developers were to consider introducing new features and tools to further promote interaction between members.
References


Appendix 1. Discussion stream.
Appendix 2. Survey.

Duolingo feedback

1. Are you *

   - Male
   - Female
   - Do not want to tell

2. How old are you? *

3. Which country are you from? *

4. Why do you use Duolingo?

5. Where do you use Duolingo?

6. Do you use the discussion sections in the game's exercises and/or in the translation section? (not including the forum-like general discussion section)

7. Do you use the general discussion section?

   - Yes
   - No

8. If you use it, why and how? If you don't, why not?
9. How do you feel about being able to ask questions even though the people answering might not be language professionals? Do you find it helpful or more confusing?

10. Does your experience on Duolingo make you feel like you are part of a community? Why/why not?

11. Do you make friends on Duolingo?

12. Do you get motivation from other users? If yes, how?

13. Would Duolingo be as useful if there were no discussion sections?

14. What keeps you active on Duolingo?

15. Anything else you would like to share about your Duolingo experience?