

Master's Programme in New Media,
New Media Design and Production

Runoja: Publishing Site-specific Poetry on a Mobile Application Platform

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Abstract

The media environment has become increasingly digital. Remediating content with analog origin into digital forms has produced a wide variety of implementations; some of them have been successful and others less convincing. In a good solution, the content utilizes the possibilities of the new digital medium and is somehow enhanced by it.

This thesis studies the remediation process of site-specific poetry that is being published digitally. It concentrates on the aspects of the content that justify the chosen medium, and how the remediated experience was being created around them. The thesis answers to the research question of how can a location-based mobile platform add to the experience of site-specific poetry and explores the themes of art and daily life and tangentiality.

Through practice-based research, the thesis examines the production of *Runoja*, a location-based mobile application for site-specific poetry. The application was built to enhance the site-specific aspect of the poetry and to create a tangential art experience. The examined production included three stages: Developing the initial prototype and conducting the first round of user testing; developing the refined prototype and conducting another round of user testing; and based on the learnings, designing the next steps that were still needed before publishing.

The test results gained in the scope of this thesis show that the remediation process of *Runoja* managed to add elements to the new digital experience that were positive for the participants and would have been impossible to achieve in the analog form. The spontaneous aspect of the tangential experience increased the connection to daily life and justified the use of the digital medium. Regarding the site-specificity, the research showed some challenges in creating a strong connection between the content and the locations. Other important themes that rose up in the results were the design of notifications, sharing the content and copyright.

Through the reflection on the presented topics, this thesis provides recommendations for designing future projects with similar themes. By answering the research question, this research provides results from a specific perspective while sharing the initial objective of all digital remediation.

Keywords poetry, site-specific art, experience, mobile application, digital publishing, digital media, remediation

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Mediakentästä on tullut yhä digitaalisempi. Analogisen sisällön uudelleenmuotoilu digitaalisiin formaatteihin on tuottanut monenlaisia sovellutuksia: osa onnistuneempia ja osa vähemmän vakuuttavia. Hyvässä ratkaisussa sisältö hyödyntää uuden digitaalisen alustan mahdollisuuksia, jotka korostavat sen vaikuttavuutta.

Tämä maisterityö käsittelee paikkasidonnaisen runouden uudelleenjulkaisemisen prosessia digitaalisella alustalla. Työ keskittyy runosisällön piirteisiin, jotka luovat perusteet uuden julkaisumuodon valinnalle ja joiden ympärille uudistettu kokemus rakentuu. Opinnäyte vastaa tutkimuskysymykseen, miten sijaintipohjainen mobiilialusta voi tuoda jotain lisää paikkasidonnaisen runouden kokemiseen? Lisäksi tutkimuksessa käsitellään taiteen ja arjen yhteyttä sekä kokemuksen toissijaista luonnetta.

Tutkimuksessa perehdytään sijaintipohjaisen paikkasidonnaista runoutta sisältävän Runoja-mobiilisovelluksen tuotantoon. Tutkimus on toteutettu käytäntölähtöisen tutkimuksen metodein. Runoja-sovellus rakennettiin korostamaan runojen paikkasidonnaisuutta sekä luomaan taide-elämys, joka perustuu toissijaiseen ja taustalla olevaan toiminnallisuuteen. Tuotanto koostui kolmesta vaiheesta: ensimmäisen prototyypin kehittämisestä ja käyttäjätestauksesta, parannellun prototyypin kehittämisestä ja käyttäjätestauksesta sekä seuraavien kehitysaskelten suunnitelmasta julkaistavaa versiota varten.

Tämän opinnäytteen puitteissa saavutettujen tulosten perusteella Runoja-sovellus onnistui tuomaan digitaaliseen kokemukseen elementtejä, joita testikäyttäjät pitivät toimivina, ja jotka olisivat olleet mahdottomia saavuttaa analogisessa formaatissa. Toissijaisen kokemuksen spontaanuisuudesta korosti taidekokemuksen yhteyttä arkiseen elämään ja perusteli sen myötä digitaalista julkaisumuotoa. Paikkasidonnaisuuteen liittyen tutkimus paljasti haasteita vahvan yhteyden luomisessa sisällön ja siihen kytkettyjen paikkojen välillä. Muita merkittäviä esiin nousseita teemoja tuloksissa olivat mobiilisovelluksen ilmoitusten suunnittelu, runosisältöjen jakaminen edelleen käyttäjien toimesta sekä tekijänoikeudet.

Opinnäyte tarjoaa näihin pääteemoihin liittyen suosituksia sovellettavaksi tulevissa suunnitteluprojekteissa, jotka käsittelevät vastaavia aiheita. Vastaamalla esitettyyn tutkimuskysymykseen tämä opinnäyte esittelee tuloksia kyseisestä näkökulmasta, jakaen samalla kuitenkin yhteisen ensisijaisen tavoitteen kaikkien projektien kanssa, jotka pyrkivät uudelleenmuotoilemaan analogista sisältöä digitaalisille alustoille.

Avainsanat runous, paikkasidonnainen taide, kokemus, mobiilisovellus, digitaalinen julkaiseminen, digitaalinen media

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1. Introduction

Poetry has a long history as an art form and a way of storytelling. It is not usually considered as something that would be natively digital, but being either written or spoken words, it contains multiple possibilities in both analog and digital worlds. In the scope of this thesis, poetry will be taken into the continuum of remediation by publishing it through a mobile app and through that, adding digitality to the experience. Remediation, as Bolter and Grusin (2000, 45) define it, is “the representation of one medium in another.” They argue that it is a crucial aspect of today’s digital media. In the modern age, where so many things have already been subject to digitalization, this kind of remediation processes should be reviewed also from the perspective of mediatization. Meaning that it is important to look at not just the new medium as one, but as part of the bigger media environment (Hepp et al. 2018, 5-6). The new medium is not just part of the continuum of remediation in general or the continuum of publishing poetry but also part of the whole intertwined media environment of multiple digital devices and applications. This fragmented environment exposes the remediated poetry to hypermediacy as well. An experience that is published as a mobile app has to adopt the multiplicity of the platform as part of it. “A viewer confronting a collage, for example, oscillates between looking at the patches of paper and paint on the surface of the work and looking through to the depicted objects as if they occupied a real space beyond the surface” (Bolter and Grusin 2000, 41). A mobile app experience can be seen as a collage of the physical mobile device, its operating system and all the applications that might overlap with each other’s user experiences. Bolter and Grusin (2000, 5-6) also acknowledge a double logic in the remediation processes of the modern digital media environment, where immediacy, the feeling of real connection between the content and the people experiencing it, is being pursued through new implementations and mediums, yet these new mediums are not necessarily just enhancing the immediacy but also adding new elements to the hypermediatic collage. This same double logic of immediacy and hypermediacy is very much present in the production presented in this thesis as well as many of the related work presented in the next chapter.

According to Bolter and Grusin (2000, 59-60), reform is one way of seeing the act of remediation, especially in cases where existing medium is reused and taken into digital forms.

Remediation as reform includes an assumption that whatever comes out of it, is somehow a more superior medium than the one that preceded it (Bolter and Grusin 2000, 59-60). It should be acknowledged in the process that choosing a digital platform for a traditional form of art exposes the experience to new platform-specific challenges. Therefore this thesis does not claim that it would present a reform per se, but a remediation of written poetry by using a digital platform, that might bring something new to the experience without holding any aspirations to replace its present forms. Digital publishing could add to the art experience and despite the challenges it could benefit by gaining completely new aspects relating to content and possibly inspire new audiences through the new medium. With digital publishing, I refer to all kinds of digital ways of presenting poetry or other types of analog origin content. In this thesis, the published content is poetry that has a meaningful connection to a particular location in the world. Mobile technology has the potential to connect the poetry to those locations. This thesis will approach the topic by examining the production of a site-specific poetry experience on a location-based mobile application.

1.1 Focus and Goals

The goal of this thesis is to investigate combining poetry with a digital mobile device platform, concentrating especially on the research question: how can a location-based mobile platform add to the experience of site-specific poetry? The investigation will be conducted through the example of my production which seeks to connect the affordances of the mobile device and the set of site-specific poems that are not natively digital. Another goal of the thesis is to explore and narrow the middle ground between art and everyday life. This is a result of both the strong site-specific aspect of the work and the chosen mobile device platform.

The poems included in the production are written by me and Ronya Hirsma. Every now and then, for a few years, I have been writing poetry with a general title “Hetkiä täältä – Moments from Here”. Those poems are about specific moments in specific locations. In this thesis, I concentrate on mirroring the work of art to art theory and figuring out what are the aspects of the artwork that could and should be enhanced when creating the art experience on a digital base. The aspect of site-specificity in my poems is the core of the remediation process and has led to the location-

based approach. John Dewey's (1934/2010) theory of experiences has worked as a starting point and it connects quite essentially to research on user attention. According to Dewey, all experiencing includes being exposed to or going through new information and reflecting it to existing knowledge (Dewey 1934/2010, 56). Getting the user input and acceptance for experiencing is one of the main challenges when taking the artwork knowingly into the hectic environment of notifications and multiple attractions. Finding good solutions for creating this sort of tangential experience is another important goal for the thesis and a major aspect of the mobile app design process in the production.

The idea of “interfaceless” interface is a recurring theme around remediation: achieving the most natural access to the content is often thought as the main target and it is thought to lie behind the interface (Bolter and Grusin 2000, 23-24). The content itself defines the most natural way and this should be recognized in the design process. It is unlikely to find some universal solutions that would work in all cases with all kinds of artworks. Describing the production and creating a case study of one example can still work as a valuable reference for many kinds of productions aiming to be presented in any form of digital publishing.

1.2 Motivation and Where I Come From

From the very beginning of my master studies I have been aiming to work with the theme of digital publishing. Last time I was writing a thesis was about seven years ago during my photography bachelor studies. Exhibitions and photo books seemed to be the most preferred way of publishing and presenting the artistic work among the students. Even though 2015 was already a time where computers and smartphones were a huge part of our lives, and for many of my colleagues and fellow students also strongly included in their artistic processes, there seemed to be no interest towards presenting the end works on any digital platforms. Many had websites and were constantly showing their projects on traditional webpage galleries, but web or other digital forms never faced the same excitement as what went into designing exhibition installations or books. Those physical formats were considered as proper art publications that were designed to enhance the whole art experience, but the web galleries existed only as accessible portfolios for the students. Some media houses were experimenting with online publishing and people were

talking about “multimedia”, but in the art school circles that felt more like a swear word than a serious possibility for presenting art. But of course, since there was not really any teaching on the subject, people did not have proper means of exploring it either.

I am a big friend of art books and exhibitions, installations that play with different materials and other sensations of the physical world, but at the same time I feel like ignoring the digital possibilities and treating the digital world only as a place to copy and document the original work is a missed opportunity. Therefore I’ve wanted to explore the different possibilities digitality offers and I believe that bringing those things into use could produce new kinds of aspects into art experiences. In my own pondering around the subject I have concentrated mostly on art forms that I have talked about as traditional or something that is not usually natively or originally seen on digital platforms. I think that one of the main points to keep in mind when taking an artwork of such an art form into the digital world is that the use of the digital platform should be somehow justified. There is no intrinsic value in digitality, but the possible value should be found in the elements the digitality adds to the experience.

1.3 Thesis Structure

The second chapter of this thesis presents the background research based on the review of literature and related work. This chapter sets the context and outlines for the examination of the production by going through the relevant topics such as remediation, the experience of art, location and site-specificity of art, the spontaneity of art and its connection to everyday life. The use of mobile device notifications, which is an essential mechanic of the production, is covered through existing user research and statistics. The background chapter provides tools for the design and development process of the production and criteria for its reflection later on.

The third chapter is about the methodological approach. The chapter explains the basic principles of practice-based research and describes the three stages the thesis production consists of.

The fourth chapter focuses on the production. This chapter discusses the choices that were made in the production of the location-based mobile application for publishing site-specific poetry and

the reasoning behind them. The focus is more on the design of the concept, but some necessary technical details are also shared. Details on the user tests conducted of the prototypes are also discussed in the production chapter. Development, testing, results and refining form the production together.

The fifth chapter reflects the production and the results gained from the user testing to the goals and the conducted background research. Reflection chapter provides analysis on the core themes of the production: site-specificity; tangential art experience; poem notifications; sharing the content; and remediation.

The last chapter concludes the most relevant learnings from the production and its reflection. What worked, what did not work and what should be considered in the future endeavors of publishing art in new digital ways.

2. Background

This work is about publishing site-specific poetry on a mobile platform. Site-specific in this case means that the poems have a meaningful connection to a particular location in the world. The mobile application as the publishing platform connects the poetry to those locations. The aim of this connection is to enhance the aspect of site-specificity and add another level to the art experience.

This thesis moves roughly between two theoretical frameworks: the research on usage of mobile devices and the art theory of experiences and site-specificity. Placing poetry into a digital form, to the hectic world of mobile devices and notifications, creates a dialogue of combining these two worlds. These frameworks create a basis for the work. The poetry that is published, and remediated, in the scope of this production, is defined and put to context within the art theoretical framework and the medium-specific digital media research works as an input for the digital development process of the publishing platform.

2.1 Digital Remediation of Literature

Written text penetrates the whole society. It is part of mundane tasks and special occasions. As the world develops, so do the ways text is used. This section provides examples of approaching texts and literature in various digital ways.

2.1.1 The Continuum of Remediation

Mechanization in the 15th century led to revolutionizing the distribution of literature through the printing press and lately we have seen digitalization becoming part of more and more fields of life. The effect mechanization and digitalization have had on text has made it more accessible, easily distributable and readable. By overcoming the issues of copying everything by hand and being restricted by the physical location of manuscripts, text and its reality have become more widespread. More direct access to texts and their reality is one of the motives of remediation Bolter and Grusin (2000, 53) describe: the reality is behind the medium and by real they mean

something that “would evoke an immediate (and therefore authentic) emotional response.” They depict a continuum of remediation towards immediacy with three visual examples from different times:

Remediation did not begin with the introduction of digital media. We can identify the same process throughout the last several hundred years of Western visual representation. A painting by the seventeenth-century artist Pieter Saenredam, a photograph by Edward Weston, and a computer system for virtual reality are different in many important ways, but they are all attempts to achieve immediacy by ignoring or denying the presence of the medium and the act of mediation. (Bolter and Grusin 2000, 11)

Despite this example might be easily interpreted as narrowing remediation down to just producing accurate representations of the world, Bolter and Grusin (2000, 58) remind that for example “modern art was often regarded as real or authentic, precisely because it refused to be realistic”, which shows that immediacy is not only a result of the concrete real. Remediation therefore is not just a progressive line of new mediums but a wider continuum of parallel adaptations. In the digital age, these new parallel mediums form an entirety that connects for example social life, work, free-time and politics under the same platforms and devices (Hepp et al. 2018, 4). According to Hepp et al. this sort of remediation can be seen as mediatization, because these media are having an effect on the development of the social reality. New digital mediums are automatically seen as part of the whole digital media environment and its controversies such as digital inequality and datafication. “Being digital, at the same time and in addition they became means of producing data that can be delinked from the specific acts of communication and can be used for very different purposes” (Hepp et al. 2018, 5). Researcher Giovanna Di Rosario (2011, 98) claims that “In the Western tradition authors have a duty: authors are responsible for what they say and write.” She also writes about the function of the author and how it “has changed with regard to the history of literary criticism and to the content of the work.” In the context of mediatization, datafication and the modern digital media environment the author could be seen to have responsibility over more than just what they say and write.

2.1.2 Shared Authorship

Forms of responsibility considering what they write or how they collect data can be naturally appointed to the author. But in addition to the author's own responsibilities, according to Di Rosario (2011, 99), there has also been a trend since the beginning of the use of digital media technologies, to share the artistic responsibility with the reader in the creation of an experience. Electronic poetry and other texts can use many different ways of interaction to include the reader, such as: requiring the reader to navigate around the text and make it visible by somehow moving it inside the electronic device; making the reader move themselves in the physical space in order to see the text; or to give them possibility to modify, add to or erase parts of the text (Di Rosario 2011, 102-103).

Electronic literature and poetry do not only use computers as means of interaction and experiencing, but in many adaptations, authorship is also shared with computers (Di Rosario 2011, 68). First examples of computer-generated poetry go back to the 1950s and 60s, when Theo Lutz and Brion Gysin respectively managed to use computers of the time, better known as calculators, to produce free verses, Di Rosario remarks. Since then computers have worked as co-authors more and more, and especially after the internet got globally popular in the 1990s, the amount of this kind of “cyber-poetry” has continuously increased, Di Rosario (2011, 68) points out.

2.1.3 Ebooks

For mainstream audiences, electronic literature might be more associated with ebooks than for example cyber-poetry. According to Katherine Hayles (2008, 3), term-wise, many of the ebooks are in fact generally not considered as “electronic literature”, if they are not a “first-generation digital object”, but a mere digitized version of a printed book. But in the context of digital publishing, as I have been referring to it, including digital objects of all generations, ebooks can be seen as a well-justified digital adaptation from at least the reachability point of view. Where ebooks and their printed predecessors are traditionally seen as being the same contentwise, the difference between them lies in the ways they are being used and read (Zhang and Kudva 2013,

2). According to Zhang and Kudva (2013, 3), who have researched the reader's choices between these two types of books, the main reasons for preferring ebooks are "the need of getting a book quickly" and "reading books while on the move." They also name "ease of access and the increasing selection of ebooks" as another important reason for preferring the newer, digital medium. Zhang's and Kudva's (2013, 4) conclusions make it clear that ebooks are not a result of a reform that would replace their printed equivalents: "Both print books and ebooks have unique attributes and serve distinct functions in meeting people's reading needs, which may vary by individual demographic, contextual, and situational factors. ... As they stand, ebooks and print books complement each other, providing the same content in two different media." In addition to ebooks, which one could say are perhaps the closest digital adaptation of their analog predecessor, the world of literature is constantly seeing adaptations that alter also the content and through that the whole experience of reading.

2.1.4 Audiobooks

One recent success story would be the on-going boom of audiobooks, which are published on digital platforms and mostly consumed through mobile devices (Thorp 2020). Audiobooks use the original written text and transform experiencing it into listening instead of reading. In a literature experience in the form of an audiobook, the base content of the book stays the same, but there are added and reduced elements compared to the experience of reading, and those elements then offer something new to consuming a book.

The New York Times opinion columnist Farhad Manjoo (2021) summarizes many of the differences, and looks at them in the context of how reading and listening books are generally compared to each other in his column "When Listening to a Book Is Better Than Reading It". As the title suggests, Manjoo sees that the "cultural bias" that can be encountered, about audio being somehow a lesser form of literature than printed text, should not be upheld. He does acknowledge and state that the style of the text definitely matters if the text works well as an audio or not. The aspect of multitasking when listening to audiobooks can make more complicated texts work worse when they are listened to. Manjoo also mentions examples of the audio book reader being able to make the book more impressive or authentic, for example in

cases where a memoir is read by the author themselves or when a well-known actor brings their style and personality into the story (Manjoo 2021). In addition to the use of a successful actor as the reader, there have been huge productions of multiple different readers in one book, like in the audio adaption of the novel *Lincoln in the Bardo* by George Saunders, where there were 166 different readers in total (Thorp 2020). This together with 3D surround soundscapes and other digital innovations are adding elements of radio theater to the experience (Manjoo 2021). Penguin Audio's publisher Richard Lennon finds audio books to be more of an addition to literature consumption than an alternative (Thorp 2020). For existing readers listening to books might have become part of situations where reading is not possible, such as while exercising or cooking. For Lennon the most interesting audience for audio books is the one that hasn't necessarily been actively reading before. The wish to gain new audiences can be a driving factor in a remediation process.

2.1.5 Insta Novels

In 2018 the New York Public Library, together with creative company Mother, launched a project called *Insta Novels*, where five literature classics were published on NYPL's *Instagram* stories. At least partially, the hope was to connect new audiences to the classics and reading in general, but according to poet and researcher Noa Shakargy (2021, 2), *Insta Novels* ended up being more of a marketing campaign than a successful adaptation of literature published on a digital platform. Because of the use of a popular already existing mobile device platform, the project is not just about taking some literature classics into a digital form but intertwining them into an existing social environment and culture. Shakargy (2021, 4) has analyzed the project through the concepts of remediation and mediatization, from which the latter “focuses on how media come together and affect the communicative construction of social and cultural domains.” She criticizes treating *Instagram* only as a publishing platform and not really understanding or taking into account that “it is a language and a culture with its own aesthetics. Hence, a successful transference of art into the digital age requires a contemporary deciphering of the artistic creation and its reinstatement, much like cultural translation” (Shakargy 2021, 2).

One of the literary works featured in the *Insta Novels* is “The Raven”, a poem by Edgar Allan Poe (The New York Public Library 2018). The poem is divided into nine pages, or story screens, which mimic pages of a traditional book. Before the poem, there is an animated and illustrated title screen with ambient sound. The animation is stylish and together with the sound it sets an uncanny atmosphere. But after the audiovisual title, starts the poem itself and after a couple of pages, the meaning of the language of *Instagram* and *Insta Novels*' lack of it Shakargy (2021, 2) was referring to, becomes quite evident. For the most part, the experience of reading the poem does not differ much from for example reading a news article on the phone, other than it being a bit harder since *Instagram* stories make you hold your finger on the screen in order to not advance to the next page too fast. In the end of the fourth page the raven answers: “Nevermore”, for the first time. The word “Nevermore” is used ten more times in the poem after this and the creators of the Insta Novel have decided to underline this repetition by animating the word with constantly increasing font sizes in-between all of the remaining pages (Fig. 1). Adding this movement to the stylized lettering might be closer to the typical visual language of *Instagram* but for the reading experience it mostly just cuts the flow of the poem's stanzas instead of making the whole body of work feel more *Instagram*-native. The experience is like Shakargy (2021, 10) concludes: “Whereas at a glance, it seems that *Insta Novels* stretches the boundaries between the eternity of literature and temporality of social networks content, or the personal and public story, mediatization analysis reveals that media values such as liveness and storytelling were neglected.”

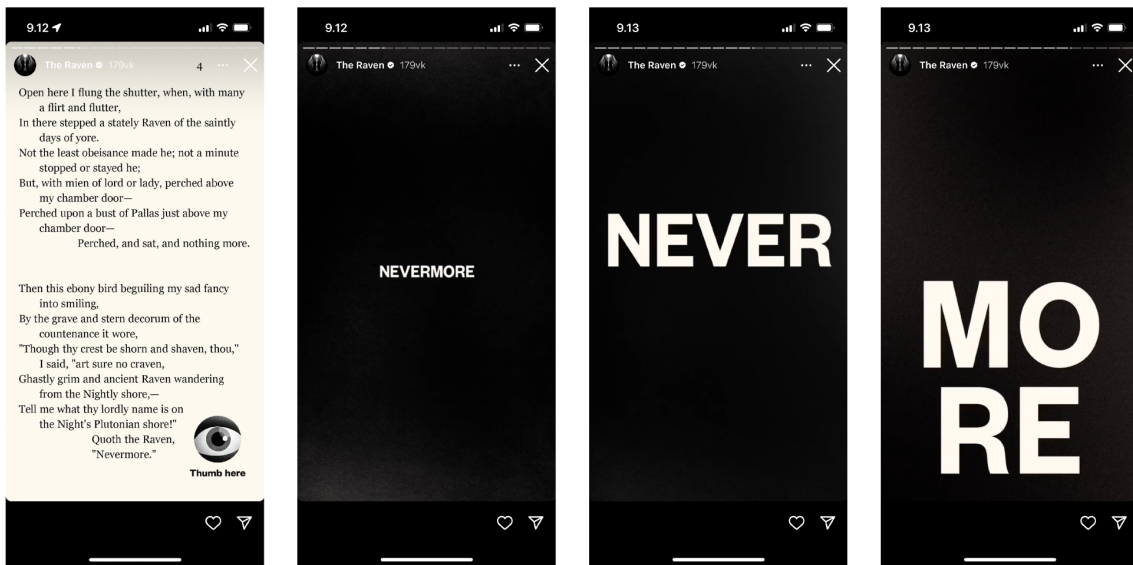


Figure 1. Screenshots of NYPL’s *Instagram* story screens from *The Insta Novel* version of “The Raven” by Edgar Allan Poe. Examples of the basic page look (left) and the animated screens used between the pages towards the end.

2.1.6 PhoneMe

The University of British Columbia’s Digital Literacy Centre has been running an on-going project called *PhoneMe*, which uses several digital ways together to publish poetry written by the local community members about their own living environment (Balyasnikova and James 2021, 107). In the first stage of the project, Digital Literacy Centre hosted writing workshops for the community members of the Downtown Eastside of Vancouver. The poems were then recorded as spoken word by calling a specific phone number and leaving a voice message. The written text was turned into digital audio as spoken word poetry, that was also geotagged by the workshop facilitators to the location it was written about. Both written and recorded versions of the poems were then added to the *PhoneMe* map on their own website, which utilized also the Google Street View imagery of the locations, and then they were also shared on social media. According to Balyasnikova and James (2021, 110), including all these different aspects of the digital media environment was done for both educational purposes as well as for distributing the poetry for wider audiences. Pinning the poems to a specific point on the map and including the Street View image aspired to underline the connection between the words and the reality (Balyasnikova and James 2021, 107). *PhoneMe* project offered a platform for self-expression of new authors

together with a possibility to draw public attention for the issues covered in the texts, Balyasnikova and James explain: “On a broader scale, the project amplified community voices through our interactive online platform. By speaking directly to issues of concern to the community's, *PhoneMe* poets claimed an agentive role in their neighborhood's future.”

2.1.7 Pentametron

In 2018 Ranjit Bhatnagar published *Encomials: Sonnets from Pentametron*, a poetry book in a physical, printed form. Compared to other related work presented here, Bhatnagar's process was in a way reversed, a project that started and was most of all digital, spawned also an analog result. In 2012 Bhatnagar created *Pentametron*, a *Twitter* bot “writing” poetry by retweeting people's *Twitter* posts that were written in the iambic pentameter (Rockmore 2020). *Pentametron* analyzed the pronunciation of the words and created rhyming connections between the retweets.

They played Location at the roller rink (@geeaanz, August 21, 2017)

PUT ON THE FUCKING ZORA ARMOR LINK (@princesidon_txt, August 21, 2017)

“Based on a nationwide survey...” (@TFFG, January 6, 2019)

Damn everybody getting waived today (@Beltway_8, January 7, 2019)

(Bhatnagar, n.d.)

Pentametron combines the work of multiple authors into poetry. Bhatnagar, random *Twitter* users and the computational entity are all sharing the authorship of the poetic work. Using *Twitter* as both an enabler for content collection and as a publishing platform is a fine example of hypermediacy at play. By relying on the retweet-feature of *Twitter* in creating the poetry, *Pentametron* specifically makes us aware of the medium and the realness of the content the algorithm is composing together. These are both characteristic traits of hypermediatic manifestations (Bolter and Grusin 2000, 34). *The Pentametron* is most of all a cyber-poetry project, but by also remediating parts of it into a printed form, Bhatnagar connects the work into a wider discussion of mediatization, literature and computer-generated books. *Encomials* was in

fact published as a part of a wider series of books called *Using Electric* by the Counterpath press (Counterpath, n.d.).

2.1.8 Connection Between Source Content and the New Medium

What all these examples have in common with each other as well as the production connected to this thesis, is the connection they all have with daily life situations or systems that are part of people's lives despite the existence of these projects. Using existing and widely used platforms such as *Instagram*, *Twitter* or *Google Maps* and enabling and linking content to common moments and places underline the tangential connection to daily life. How projects like *Pentametron* and *Insta Novels* used or did not use the language and features of their chosen platforms, acts as a reminder for addressing the issue of how users are used to interacting in different kinds of digital environments and with different kinds of devices. The result of a design process should justify the chosen medium. Bolter and Grusin (2000, 46) also mention the connection of "both the source and the target media" while explaining the remediation process of digital media that alters the older medium without forgetting its existence. They use an example of a rock CD that in addition to audio also included video tracks of the band's live performance. Text as source material can also have a lot of variation that affects how it translates to different forms. The length and layout of the poetry, that is part of the thesis production, is fairly short and conventional. Comparing these poems to for example Mark Z. Danielewski's visually complex and playful style of writing in *House of Leaves* (Fig. 2 and 3), shows that texts that are in a way very opposite from each other, need different approaches in the remediation process. By looking at the presented examples here, the connection between the source and the new medium seems to be at the core of a successful remediation process.

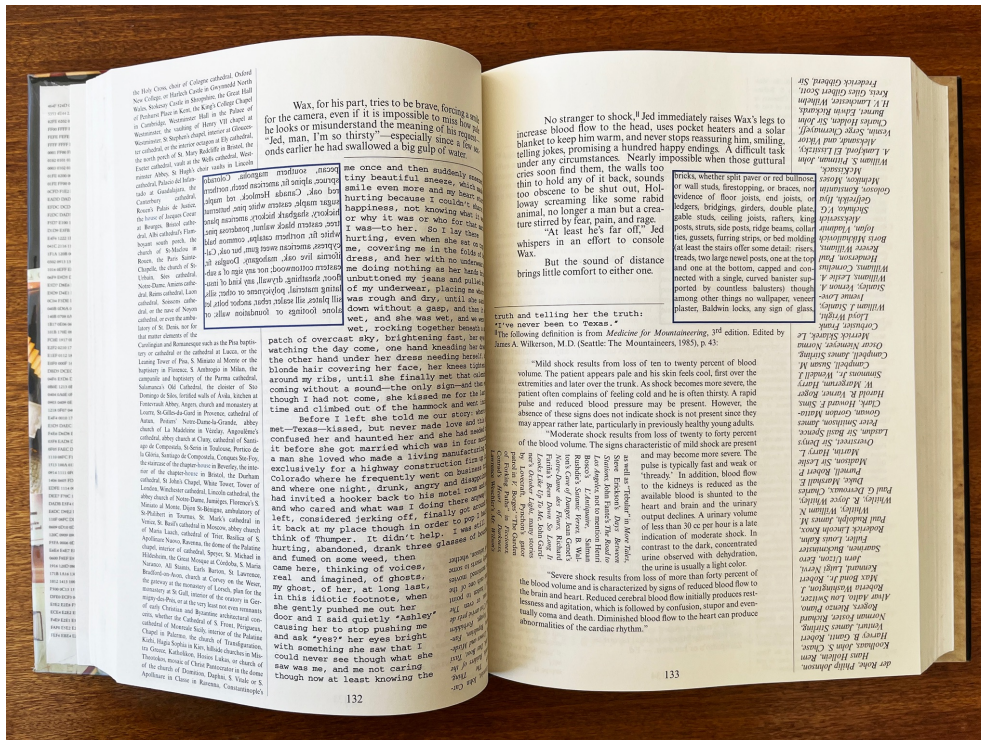


Figure 2. Extract 1 from Mark Z. Danielewski's *House of Leaves*.

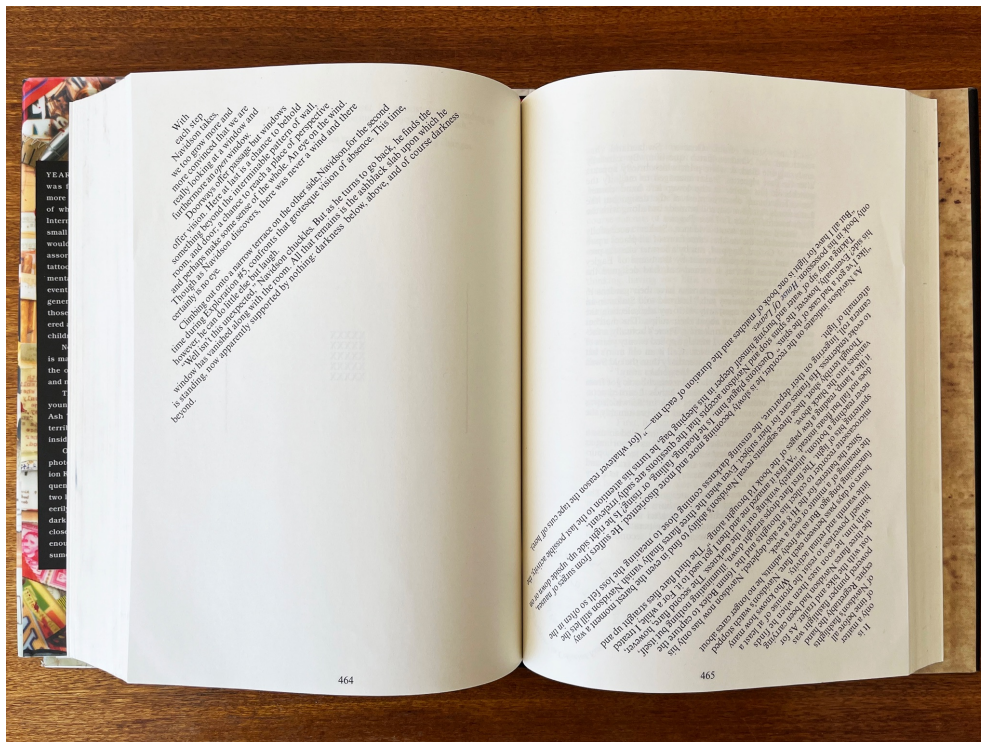


Figure 3. Extract 2 from Mark Z. Danielewski's *House of Leaves*.

2.2 Poetry and Art Experience

Poetry, like any other art form, develops and changes depending on the time we live in. Recent example of today's characteristics can be found from the writer and theater director Laura Ruohonen's (2021) analysis of the texts that were competing for the Finnish poetry award Tanssiva karhu (Dancing bear). Ruohonen was the chairperson of the 2021 jury and she noticed a common way of writing among the juried texts: a noteworthy amount of the writers were presenting thoughts that were not necessarily written to the end, but more like showing an open, on-going process in the text. Ruohonen describes the feeling quite poetically herself:

Rather than attempting to polish a diamond from the verses into which a crystal-clear image would form, many of the poets take the reader to a diamond mine, into the darkness of dust and waste, where they together with the poet, experience the distress of an explorer and the joy of discovery. (Ruohonen 2021, Translated by author)

This commonality among the recent poetry in Finland is not too surprising. Putting strict labels on anything seems to be often avoided by today's younger generations and emerging artists. Art, just as life, is not black and white.

In 1958 French philosopher Gaston Bachelard published his book *The Poetics of Space*, which is described as the “most concise and consummate expression of Bachelard's philosophy of imagination” by Richard Kearney (2014, xviii). Kearney approaches the writing from a contemporary standpoint. He finds particular importance in Bachelard's thoughts of imagination in modern society, the life that is filled with “digital communication networks and social media.” In *The Poetics of Space*, Bachelard (1958/2014) writes his way around a house that is at the same time a concrete one and a metaphor. Bachelard traverses through the thematic aspects of the space, the mind, the imagination and poetry, dreams and life. All this seems to be connected in his very poetical and philosophical writing. Kearney then looks at it from the contemporary world and its devices and on the contrary to that, he sees value in dreaming and giving time for

the imagination. He summarizes the core of Bachelard's winding writing in his introduction to the book:

The Poetics of Space is about hide-and-seek places where the mind can go on holiday for a while and think about nothing—which means everything. Havens where the soul can pause, in silence, and free itself to dream. (Kearney 2014, xviii)

The idea of modern society being so busy that it affects the way we experience things by making it shallow is not a new one. Kearney's thoughts about *The Poetics of Space* could have been thought as relevant already in the time of its original publishing in 1958. John Dewey (1934/2010, 61) bemoans the corruption of people's experiences because of the hectic and impatient life already in 1934 in his book *Art as Experience*. Dewey states that almost all experiences are left incomplete since the pace of something else appearing and taking over is so high. He questions whether what we keep calling experiences even deserve the name “experience” anymore, because of the miscellaneous and scattered nature they have (Dewey 1934/2010, 61). Allocating enough time and attention for an experience seems to be often thought as a sort of validator for an experience.

Art experiences and art in general are also often seen as a subject to validation and labeling. The answer to if this is just ordinary life, some sort of special event or perhaps even art, affects the way we experience things. The documentary movie about Ryuichi Sakamoto, a composer and a musician, contains a scene where Sakamoto is shown inside his home on a rainy day (Nomura Schible 2017). The composer gets so excited about the sound of rain, that he decides to go outside with a plastic bucket on his head and stand in the rain. Sakamoto is clearly having a joyful experience standing there. In the movie, he is also seen recording the sound of leaves under his feet and movement of water under ice. As an artist who is used to collecting sounds from his surroundings and using them in his music, he obviously finds inspiration for his art from the ordinary (Nomura Schible 2017). But would it be a reach to say that perhaps the experience of standing in the rain with a sound-emphasizing bucket in his head is in fact already an art experience? John Dewey (1934/2010, 39-40) talks about the widespread perception of the juxtaposition between art and everyday life that he does not support. He uses culture as an

example and how it is not something that humans have just created out of nothing in a void separate from anything, but instead, culture has developed into what it currently is through a continuous interaction with the living environment of people. The onus, Dewey says, is on the people who hold on to that juxtaposition, to give proof of what is it that separates art and life. That separating line is an interesting aspect to keep in mind when designing an art experience. Discussion of that line has history and various different agendas have been tied to it. Shusterman (2000, 52-53) describes how for example Plato was stigmatizing art as something that is entirely fictional and therefore separated from the practical life. Shusterman sees this standpoint as untruthful and discrediting in order to underline the superiority of philosophy, ethics and politics, domains that Plato considered to be practical and connected to reality. Aesthetic experience is a term that is used by Shusterman (2000, 47) as one defining factor of art. He gives an example of how the objects and other material end results are often seen as the work of art even though the artistic value of them would not really come to existence at all without the aesthetic experience of the viewer.

That aesthetic experience extends beyond the historically established practice of art should be obvious. It exists, first of all, in the appreciation of nature, not least the part of nature which is the animate human body. But we also find it in ritual and sport, in parades, fireworks, and the media of popular culture, in bodily and domestic ornamentation, from primitive tattoos and cave drawings to contemporary cosmetics and interior decorating, and indeed in the countless colorful scenes and moving events which fill our cities and enrich our ordinary lives. (Shusterman 2000, 47)

This view of widespread aesthetic experiences shares a common ground with John Dewey's idea of art as experience (Shusterman 2000, 47, 293-294). There is always a particular something that defines an experience (Dewey 1934/2010, 51). "A specific meal, a specific storm or a specific end of a friendship" as Dewey lists. Those could very well be things that have inspired the creation of a poem. A specific meal ends up being a specific poem of an experience of the meal. This particular something sparks emotions that connect to both writing the poem and experiencing it as a reader. According to Dewey's (1934/2010, 57) view on the emotional side of

experiences, the real character of emotions is most visible when there is a mental space for them to exist and be involved in developing the experience.

Much, if not all, of the poetry included in the thesis production has been created following an experience. In the thesis production, achieving the mental space and openness to emotions as a reader is very much the result of how the user of the application will accept the spontaneous experience in a moment and space they might not have been prepared for. Both, the way Laura Ruohonen (2021) saw the Finnish poetry of the 2020s and how Bachelard (1958/2014) writes about the imagination, feel very essential for the type of experience I have been creating in this work. The production is designed for precisely the society Kearney (2014) talks about and will face the challenge of taking time for the mind, but it also tries to tackle that challenge within that specific world. The production uses the devices that are very deeply connected to the digital networks Kearney sees this imagination of Bachelard to offer counterweight for. The production aims to take the poetry right next to those digital networks and, as Ruohonen mentioned, offer the reader a chance to polish their own diamond and make their own experience. This puts a specified art experience side by side with elements and experiences of an ordinary day.

2.3 Location and Spontaneity

Every art experience happens in a location. For some experiences, it may be irrelevant and changing, and for others, an essential and non-removable aspect. This thesis concentrates on the latter and this section goes through site-specific elements and examples of art experiences. If we take the example from the previous chapter, the one of a specific meal that Dewey (1934/2010, 51) introduced, we could quite easily connect it to a location too. A specific restaurant offers a place, a stage, for something to happen and for constructing an experience.

Sculptor Richard Serra is an artist whose work is often used as an introduction to site-specific art. Both Nick Kaye (2000, 1-2) and Douglas Crimp (1990, 151-155), in their books, respectively, *Site-Specific Art: Performance Place and Documentation* and *On the Museum's Ruins*, describe Serra's history of underlining the importance of the location and the site-specific nature of many of his works. Both of the authors describe how Serra sees that moving this kind

of work would make it something totally different or even destroy it completely. The meaning of the artwork was more in the dialogue between the sculpting and its site instead of the sculpting as an individual object. In fact Serra has also made artworks where the sculpting was no longer even a specifiable object but an intertwined element connected to the site. Good example of this was his work *Splashing* from 1968, where Serra had splashed lead on top of the line between a wall and the floor inside a warehouse. Crimp (1990, 153) describes how *Splashing* was no object but an artwork changing the orientation of the whole space and how, just as Serra himself had said, it was also something that was impossible to remove and reposition without destroying the artwork completely. Even though the art form and the amount of physicality between poetry and Serra's sculpting work is very different, poetry could as well be seen to lose something if removed from its location. Or maybe the other way around: the poetry could at least be seen to gain something if connected to the location.

Another kind of approach to site-specificity can be found from the performative work *Nights in This City* by an artist group Forced Entertainment. *Site-Specific Art: Performance Place and Documentation* includes a chapter of the work written by Tim Etchells (2000, 13-24) from the Forced Entertainment. *Nights in This City* uses real-world locations as stages for building experiences. The performance was first held in Sheffield in 1995 and then later in Rotterdam in 1997 (Etchells 2000, 13-24). It was constructed in the form of a bus tour around the city. Audience was on board a moving bus with performers working as tour guides who were sharing site-specific information of the current surroundings, "from the official and the historical to the personal, the mythical and the imaginary." (Forced Entertainment, n.d.) *Nights in This City* reminds of a performative theater play. It has actors who are following a script which quite quickly proves to be complete fiction, or at least not really connected to the real locations in any way. Nevertheless, it uses the means of site-specificity. *Nights in This City* needs a city as its stage, but as executing the same performance in both Sheffield and Rotterdam shows, it is irrelevant which city it is. This resembles the psychogeographical concepts of the Situationists International originating from the 1950s. In his dissertation, Marko Pyhtilä (2005, 53-55) describes one form of the psychogeographical concept of *dérive*, drifting in the city without a destination such as work or other aims of ordinary life, where a map of a wrong city is used to navigate in another. This adds coincidence to the drifting and offers new perspectives towards

the surroundings. The experience in *Nights in This City* is built on top of the connections between the city and the stories, despite them being false:

We think of this project like a strange writing onto the city - a playful and poetic reinvention - like you can take the city and project on top of it using words - of course the text contains hardly any facts about the city - it's not an official tour in that sense - it's much more playful. We are driving the streets of Sheffield and pretending that it is Paris. (Etchells 2000, 20)

This excerpt of Tim Etchells' writing about the performance is a good description of how the artist group managed to use site-specificity in their own, artificial, style and that way create a unique experience.

One case example of poetry in the city, with an emphasis on the spontaneity of the experience, is the annual *Runoja raiteilla* (Poetry on tracks) project, a collaboration between Runokuu – Poetry Moon literature festival and HSL, the public transport organization of the Helsinki region (HSL 2017) (HSL 2021). No adequate documentation of the project seems to exist but I have personally experienced the project in various years and therefore the description of the project relies on my experiences. *Runoja raiteilla* has taken poetry to the digital screens inside trams and metros. During the festival month, the screens that normally show public transport information, news, weather forecasts and advertisements have also poetry among the other content. This work of art is not exactly site-specific, the poetry included is not shown in or connected to a particular geographical location. The use of public transport vehicles as the location, despite their geographical whereabouts, underlines connecting art to the daily life commuting. This creates a spontaneous and tangential experience. The location becomes meaningful through its liminal nature in moving between locations. Poems that were chosen for *Runoja raiteilla* were fairly short in their length, so that they were easy to absorb and quick enough to read. The digital info screen as the platform restricts the length of content since it has to be readable in the short amount of time before the screen changes to the next message in line. Based on my own experience, not being able to pause the text to read it thoroughly when noticing the poem can end

up with an experience cut short and losing an interested reader. Avoiding this is much easier when using a personal device that allows the reader to have their time with the poem.

All of the different aspects of location presented above connect to the use of location in the production this thesis is built around. Site-specific poetry is very different as a medium compared to Serra's sculpting work, but instead of the differences, it is interesting to look at the similarities site-specificity can bring to both of these art forms. I would not necessarily be as strict as Serra was with his sculptings, saying that my poems would get entirely destroyed if they were separated from their location, but I do certainly believe that the experience would be altered. Presenting the poetry in the same location that worked as a stage for the original experience of the poet, that led to writing the poem in the first place, aims to strengthen the connection between the experiences of the reader and the writer. Using the reality around us and letting the momentous locations work as stages can make the art experience a spontaneous and tangential addition to the daily life endeavors.

2.4 User Attention and Mobile Device Notifications

To gain what can be gained from the digital remediation of an art form such as poetry, the process should start by analyzing how the wanted aspects of the work could be enhanced through the new medium. When the medium changes, so do the ways of interaction and consuming. Acknowledging these new changes and challenges is important for a successful remediation process. Themes like site-specificity and spontaneity can easily be attached to the possibilities of mobile technology and the ways mobile devices are used but in addition to answers and suitable technological features, as the following case examples show, medium-specific challenges such as battle for user attention can arise.

Mobile app *Explore*, by McGookin et al. (2019, 197, 200), was designed to offer additional information on cultural heritage for the visitors of a Finnish recreational island, Seurasaari. According to McGookin et al. the main point of their research and production was the idea of tangential access to that information: the app was directed to all visitors of the location, not just the ones who were specifically there for such reasons. The users have their own plans and

objectives and they are not actively using the app while moving around. “Whilst individuals may not be actively attempting to engage with the cultural heritage of the area, they may be open to finding out about it as a part of everyday life” (McGookin et al. 2019, 198). During their user research of the app, even though there was also a possibility to use the app more actively and for example look at a map that showed the content locations, McGookin et al. (2019, 203-204) found out that all their test users were mainly using *Explore* through notifications. This was the intended way of using the app and it also seemed to be a well made choice.

Another implementation of a very similar structure, a location-based app that offers content in the midst of daily life, is the *Hidden Newcastle* by Tyne & Wear Archives & Museums (Pybus 2015). It was an app with an aim to work on the side and outside the local museums by offering interesting and provoking stories of the local cultural history. It was originally published in 2012 and had very similar working principles as *Explore*: the content was available in the exact locations the stories and information were connected to. *Explore* had a function that automatically removed the notification from the device if it was left unattended and the person moved further than 10 meters from the location (McGookin et al. 2019, 201). The first version of *Hidden Newcastle* also had content that could be accessed only in the specific location, but they ended up removing the location-based restrictions on viewing the information, when they noticed that most of their users were not using the app in that way (Pybus 2015). The difference in the usage of these apps could be explained by differences in the content but also by changes in ways people use their mobile devices in their daily lives. The user research of *Explore*, which found out that the users saw the app more as a “companion” than as something that would actively direct them to a specific direction, was conducted in 2016, four years later than the original publication of the *Hidden Newcastle* (McGookin et al. 2019, 207-208).

Because of the mostly notification-based functionality in *Explore*, the user research McGookin et al. (2019, 203-204) conducted concentrated especially on how the participants were interacting with the app and what was their reaction to the notifications. Their post-study questionnaire proved that the participants did not feel obliged to react to all of the notifications and they were neutral or disagreeing towards the claim that the app was drawing their concentration away from

their environment. For some users, the large amount of notifications in contiguous locations did result in slight annoyance though.

Another quite important aspect of notifications with a tangential goal is the moment they are received. This might crucially affect how the notification is handled. “Sometimes in our conversations, when we were talking, then [imitates a beep] again” (McGookin et al. 2019, 203-204), one of the participants described the disruption *Explore* caused. These results made the researchers wonder if the timing of the notification should not be entirely defined by the location, but if the app should also try to take into account the possible gaps in people's actions that would be more suitable for receiving and accepting a notification. This option would then of course decrease the importance of location and would not necessarily be the best option for a production where the experience is most of all site-specific. In that sort of context, it is then a matter of deciding if it is better to not show the content at all than to show it in a wrong location. David McGookin (2019, 4-5) has also researched these same questions in the context of another app, *Reveal*. It was designed for reminiscing people's photo archives on their mobile devices by using the geolocation of the images as a trigger and curator. The app was checking the user's location and comparing it to the locations where photographs in the archive had been taken. Then *Reveal* prompted the user with a notification saying “209 images you took are nearby. Launch Reveal to see them.” The app was built with an emphasis on the locations and like *Explore*, it also had a function that removed notifications and the content connected to it if they were left unattended and the user moved away from the location. Through user research, this emphasis proved out to work as intended and strengthen the experience of reminiscing, “in particular, the notion of feeling, or reliving, the experience was enhanced by being in the same place” (McGookin 2019, 8). Here, once again, it was acknowledged that by choosing to restrict viewing of the content outside the content-specific locations, might at times result in the content not being viewed at all. For example when the participants were traveling from one place to another, they were not really pausing to consume these notifications. The overall amount of consumed *Reveal* notifications among the participants was one or two per day (McGookin 2019, 8). The user research showed that the challenge in implementations that rely heavily on location, such as *Reveal*, seems to be in the delivery of the notifications and the content. The experience itself was deemed positive by the users, they just need to consume the notifications to reach it.

In a daily life situation it does not really happen that a user would just stand by waiting for an app to provide them content. All the apps are competing for the same time. Pielot, Vradi and Park (2018, 2) define the use of notifications in their research article on how users handle notifications: “Notifications are designed to attract attention. They therefore implicitly accept the possibility of interrupting the user during other activities.” This recurring theme of notifications colliding with whatever might be going on in daily life puts more pressure on the design of the notifications. Pielot, Vradi and Park (2018, 2) examined almost 800 000 notifications from 278 different users. Pielot, in his earlier research with Karen Church and Rodrigo de Oliveira (2014, 239), had found out that the type of notifications affected how the notification was perceived and reacted to. This led Pielot, Vradi and Park (2018, 4) to divide the examined notifications into five different categories: Messaging, Group Messaging, E-mail, Social and Non-Social. This division provided a clear result showing that messaging was the most common source for notifications and that it also had the highest attention rate. “They[messages] are usually targeted directly at the receiver and thus usually highly relevant”, Pielot, Vradi and Park explain. Notifications from non-messaging apps on the other hand proved out to be quite unsuccessful in making the users open the app. The significantly smaller amount of notifications received from non-messaging apps compared to messaging apps might also already tell about the way users perceive them: the users might have decided to entirely disable notifications from those kinds of apps (Pielot, Vradi and Park 2018, 8).

The tangential approach of *Explore* works as a good reference for the spontaneity in my production. The app should not be in a dominant role and actively used to achieve the hoped balance between the art experience and daily life. Relying fully on the location-based notifications as a trigger for the experience feels essential for the site-specific nature of the poetry similar to *Reveal*'s site-specific photo archives. The studied case examples proved the hypothesis right, about mobile technology offering working features for location-based and spontaneous experiences, but they also presented the many challenging sides of the design for attention these solutions bring along. Without overcoming these challenges the working features and the whole experience will not surface.

3. Methods

The methodological approach of this thesis is practice-based, meaning that the production of the location-based mobile application for site-specific poetry works as a centerpiece of the research. “If a creative artifact is the basis of the contribution to knowledge, the research is practice-based” (Candy 2006, 3). The iterative production process and the app as an outcome are analyzed in the scope of relevant theory and existing works. As Candy (2006, 9) explains, it is not the artifact itself that creates the knowledge but the textual analysis conducted of it. The production is essential for this kind of theses but its contributive meaning must be presented through critical reflection (Candy 2006, 2).

The reflection comes to existence through the different stages of the production, from the rudimentary first version to the plan of the finalized application with attention to details. Ross Gibson (2010, 6) talks about “studio” as the concrete or figurative space where the artist-researcher conducts the iterative, rigorous processes of experimentation which lead to new work and enhanced understanding.” The first iterations happen mostly inside that “studio” and rely on what Gibson (2010, 6) calls “studio-savviness”, the possibly “more implicit than explicit” knowledge of the artist. The background research conducted is of course already part of the production from the very beginning. The user and co-poet views are included on the later iteration stages. The reason behind this is to have a technically adequate version to test so that the lack of basic features would not get in the way of the spontaneous poetry experience which is the core of this thesis. This division does not exclude the possibility to go back and change the technical features either, if needed.

The research was conducted in three stages: 1) developing the initial prototype adequate for user testing and conducting the user test; 2) refining the prototype by addressing the issues raised from the user testing and testing it again; and 3) putting all the gathered knowledge together and refining the concept for the final version of the application. In stage 1, the prototype was developed in four phases and in-between tested by myself with an emphasis on debugging and technical features. Choices made in the first phases of the development were based on the conducted background research and my own knowledge as an artist. In the end of the first stage

an outside testing was conducted by installing the prototype app on the personal mobile devices of the test users for a week. Individual semi-structured interviews were conducted afterwards with the test users. The interviews were audio recorded and I also took notes during them. In stage 2, the test results from the previous stage were analyzed and put together and the app prototype was then refined according to them. At the end of stage 2, another round of user testing with new participants was conducted with similar structure and interviews. Finally, in stage 3, the plan for the final version of the app was designed with the knowledge gained from the two sets of user testing combined with the existing background research.

4. Production

This chapter dives into the details of the production of the *Runoja* application. The design and development of all the development versions of the app and the choices that were made and the reasons behind them, are explained. In addition to the technical testing and debugging done along the development by myself, the process also included two rounds of user testing. Details on the testing, analysis of the results and how it affected the production of the following version will be also discussed.

The whole design process started originally from the existing site-specific poems I had written. I was interested in how the poetry could be connected to the locations more strongly also when being read. The commonality of modern mobile phones capable of using gps and other location services offered quite evident possibilities for achieving the connection. By using technology that already exists in many people's pockets, the possible audience would in principle be a lot wider. So the wireframe concept of *Runoja* was a mobile app that would monitor the user's location and based on that, notify and allow them to read a poem connected to their current location.

In the beginning of the production I had an informal discussion with a few student colleagues where I explained the basic idea of *Runoja*. The conversation moved around the passive and active ways of using the application, ideas of adding gamification and navigation elements to finding the poetry were thrown around. In the end, the conclusion I ended up making was to take a minimal approach and not to include too many bells and whistles into the way of the experience. The poetry I had written was inspired by specific moments in specific locations. They had been created in the midst of daily life and that feeling was something I wished to convey to the reader's experience as well. I decided that the experience should be at the same time location-triggered and spontaneous. There would not be any active means to use the application but it would work as a background companion that would inform the user if they happened to encounter a poem. The amount or locations of the poems would not be known for the user beforehand.

The emphasis on the thesis production was more on the art experience and its connection with the digital publishing platform. This chapter will not go too deep into the technical details of the code but approaches the technical features from the point of view of how they affect the experience. For practical reasons, such as available devices and existing knowledge, the application was developed for the Apple iPhone. The coding was done in *Xcode* using Apple's own programming language Swift, which is commonly used in iOS development.

4.1 Stage 1 – Development of the Test Prototype

Stage 1, the development of the first test prototype, was done in four phases. In each phase a new version of the app was produced with added features and fixes to existing ones. The aim of the first stage of the production was to develop a technically working version of the application that could be installed on the test user's own phone and tested so that the test user could mainly concentrate on the poetry and art experience itself without major technical issues. The art experience has a strong tangential and spontaneous emphasis and therefore I wanted to conduct the user testing in a natural environment on the personal phones of the test users and without anyone overseeing them during the testing. Because of that, the technical implementation had to be taken quite far already before the first round of outside testing.

4.1.1 Notifying the User

The first version of the application was built with just one poem and concentrated completely on building the system that would send a local notification to the iOS notification center on the user's phone when they entered a specified geographical region connected to the poem. The poem was given coordinates and a radius which formed the notification-triggering region (Fig. 4). This was a natural starting point for connecting the production to the research question: how can a location-based mobile platform add to the experience of site-specific poetry? Because of the site-specificity of the content and the will to enhance precisely that in the remediated

experience, the system was also built so that it would remove the notification from the notification center if the user exited the region (Fig. 5). This choice included accepting that this would probably mean that some of the content would not be accessed at all, just as McGookin (2019, 8) had found out from the user research of his app *Reveal*. But *Reveal* had also shown that connecting location-based content with the real location could have a positive outcome for the user experience.

```
92 //Kumpula, Limingantien ja Vuoksenteien risteyksen ja yliopistokukkulan välissä, LH
93 let poemRegionLH06:CLLocationCircularRegion = CLLocationCircularRegion(center: CLLocationCoordinate2DMake(60.206245, 24.960874), radius: 100,
    identifier: "Lassi Häkkinen06")
94 //Kumpula, hiekkatie maauimalan ja käpymetsän välissä, LH
95 let poemRegionLH07:CLLocationCircularRegion = CLLocationCircularRegion(center: CLLocationCoordinate2DMake(60.207514, 24.956888), radius: 100,
    identifier: "Lassi Häkkinen07")
```

Figure 4. Code extract showing how the regions were created inside the Runoja application.

```
420 func locationManager(_ manager: CLLocationManager, didExitRegion region: CLRegion) {
421     poem = ""
422     Hei!
423
424     Tämä sovellus sisältää Ronya Hirsman ja
425     Lassi Häkkisen paikkasidonnaisia runoja.
426
427     Anna sovellukselle lupa lähettää ilmoituksia,
428     salli sen käyttää sijaintiasi ja unohda se.
429
430     Sovellus ilmoittaa, jos satut runon äärelle!
431     ""
432     print("Exited: \(region.identifier)")
433     UNUserNotificationCenter.current().removeAllDeliveredNotifications()
434     UNUserNotificationCenter.current().removeAllPendingNotificationRequests()
435
436
437 }
```

Figure 5. Code extract showing the actions done inside the Runoja application after exiting a region.

I tested the first version of the app inside *Xcode*'s iPhone simulator that allows changing the location coordinates of the simulator device. The test results were technically as desired, triggering and removing the notifications was working as intended.

4.1.2 From the Poet to the User

Choosing the passive and tangential approach where the user would technically be a mere receiver makes the notification system not just the core mechanic of the whole application, but in fact the only mechanic there is. One of the goals of the whole thesis was to find some best practices for publishing art in a tangential way. To achieve this, the notification analysis became an important part of the background research. Examples like the mobile device applications *Explore* (McGookin et al. 2019) and *Reveal* (McGookin 2019), together with more statistics-based research by Pielot, Church and de Oliveira (2014) and Pielot, Vradi and Park (2018), provided practical basis for designing the notifications for *Runoja*. The fact discovered by Pielot, Vradi and Park (2018, 4), about notifications from messaging applications being the most effective, gave me an idea of mimicking the visual language of message notifications from applications like *Telegram* and *WhatsApp*. Notifications on iOS devices consist of an application icon, a title and a message. I replaced the title with the author name and the message with the beginning of the poem, making the notification almost identical with the ones from messaging applications (Fig. 6). The only visual difference was the application icon. The messaging applications showed the app icon together with the profile picture of the message sender, whereas *Runoja*, at this point, was showing just the default icon provided by *Xcode*.



Figure 6. Message notifications from *WhatsApp* (above, left) and *Telegram* (above, right) and notifications from *Runoja* (below).

The act of receiving and quickly checking a message on the go had also a nice similarity to the spontaneous experience I was after. The locations of the poems that are unknown for the user beforehand and the feeling similar to receiving a message, make it very probable that the experience would clash with activities of daily life. Exploring the middle ground between art and daily life was another goal of the thesis, closely linked to the idea of the tangential experience.

I had thought about asking some other writers to participate in the project but at this point of the production I had not yet made any decisions on the matter. But especially after deciding on highlighting the author name on the notification and aiming for the feeling of receiving a personal message, I felt that the experience would only benefit from some variation on poets and with it, the style of the poetry as well. The site-specific poems I had chosen from my own archives to be published on this production were from the districts of Kumpula, Vallila, Sörnäinen and Kallio in Helsinki. Those districts form a connected area with walkable distances between each other, which at this point of the production was essential for testing and in creating an experience with frequent enough content. I reached out to Ronya Hirsma, who I knew to be a skilled writer with a connection to the area and got her to join the production as another poet.

We had an informal discussion with Ronya Hirsma about the site-specificity of the poetry and I gave her an overall explanation of the application's working principles. I was also asking her opinion on some of the design choices I had already made or was about to make regarding the visual style and the passive and active use of the application. This discussion gave affirmation to continue on the path I had chosen as her opinions seemed similar to my plans.

For the second version, new poems were added by both me and Ronya. Each poem was attached to the related coordinates to create the notification-triggering region. Now that the application included multiple poems, I took it to the real world on a real mobile device in addition to just testing it on the simulator. With the simulator, I had been testing the entering and exiting regions by jumping from way out of Finland to the exact coordinates of the poems. This method did work with stating that the technical elements were working but real-world testing showed some

issues with poems that were close to each other having partially overlapping georegions with each other.

4.1.3 Unique Georegions

The original main point of developing the third version of the application was to include the content inside it and change the shown poem according to the region the user and their phone was in. The first two versions of the application had concentrated fully on features that from the user perspective take place on the operating system of the mobile device. Triggering and showing notifications are technicalities that happen outside the application view itself. In addition to just creating the content inside the application I also ended up addressing the issues that rose from the real-world testing in the previous phase.

Adding the poems into the application view was in fact a very straightforward task. The system was built around the same text strings that were used in setting up the right message for the notifications. To include the site-specific aspect of not showing the poems outside their regions, the text string was modified to a basic welcome screen text every time the user exited a region. Upon entering a region, the text would then be changed into the specific poem of that region.

Taking the second version of the application into the real-world testing showed some issues with overlapping georegions between poems that were close to each other. Depending on the direction of entering some of the poem regions, it was possible that some of the poem notifications did not get triggered at all. This is because the mechanics were built so that only one poem could be active at a time. To trigger the notifications the user should exit the current region before entering a new one. But if the current region was not exited, and another one was entered, this led to a situation where the notification of the poem of the first region would still be active, but the content of the app would have already changed into the poem of the new region.

Another thing that rose from the real-world testing was that with some of the poems the triggering region felt a bit off. The site-specific nature between the poems varies and, especially in a city context with tall buildings and streets, the relevance of the region might not be equal in all the directions around the coordinates.

The first idea to address both of these issues was to make some of the regions smaller. This quite quickly proved to be problematic for the region monitoring technology that I was using. I had started out with a radius of 100 meters which based on my own testing and debugging seemed to be working pretty accurately, but in fact Apple's (2016) own documentation recommended treating approximately 200 meters as a minimum distance for region monitoring. Because of these limitations of the technology I ended up adjusting the center point coordinates so that the whole region would be as connected to the poem as possible. On earlier versions the coordinates were set on the exact locations I felt the poems were connected to. But this way, with some of the poems, the region also extended to irrelevant locations in some directions. To decrease the possibility of getting poem notifications that lacked the wished site-specific aspect, each poem was connected to a circular region with a radius of 100 meters instead of an exact spot. The center of this region became the new set of coordinates.

4.1.4 Layout

In the fourth phase of the development, the application was made ready for the outside testing. After the development of the previous three versions of the application, the technical features were already on a level that would enable the experience to be tested as intended and without any restrictions or lack of functionality. The major objective left to figure out before the testing was the layout of the poems on the mobile device screen.

My own texts that are part of the application content were originally laid out for the pages of a hardcover notebook I have used to write down the edited and finalized forms of these moment- and site-specific poems. The writing process of the poems usually started with whatever piece of

paper was available or the notes application on my phone. The flow of the text through line breaks and the use of space was created for the 17x22 centimeter page of the physical book, which is a lot bigger than the average size of the mobile devices *Runoja* application is designed for. For comparison, the screen of my own phone I was using for the testing has a screen size of approximately 6x13 centimeters. I had received Ronya Hirsma's texts on a *Google Docs* file and by looking at the poetry on a computer screen, it was clear that many of the poems would need some active fitting for the smaller screens.

I started the layout process by adding the poems to the application with the original, intended line breaks and row lengths. Parts that did not fit the screen properly this way, I started re-reading. I analyzed the style and tried to break a line from a point that would not cut something that felt like it belonged together. Because of the original format of my own poems, I had expected to run into multiple parts that would need fixing, but the needed changes were in fact very few and minor. On a physical page which was a lot bigger than the mobile device screen, the rows and the size of my handwriting were as well bigger than what text on a mobile device screen usually was (Fig. 7). My style of writing in general is also often quite short and simple compared to for example the poems of Ronya. Her texts were longer, more complex and had lengthier sentences and therefore also ended up having more changes to the layout when brought to the mobile device medium. (Fig. 8 and 9)

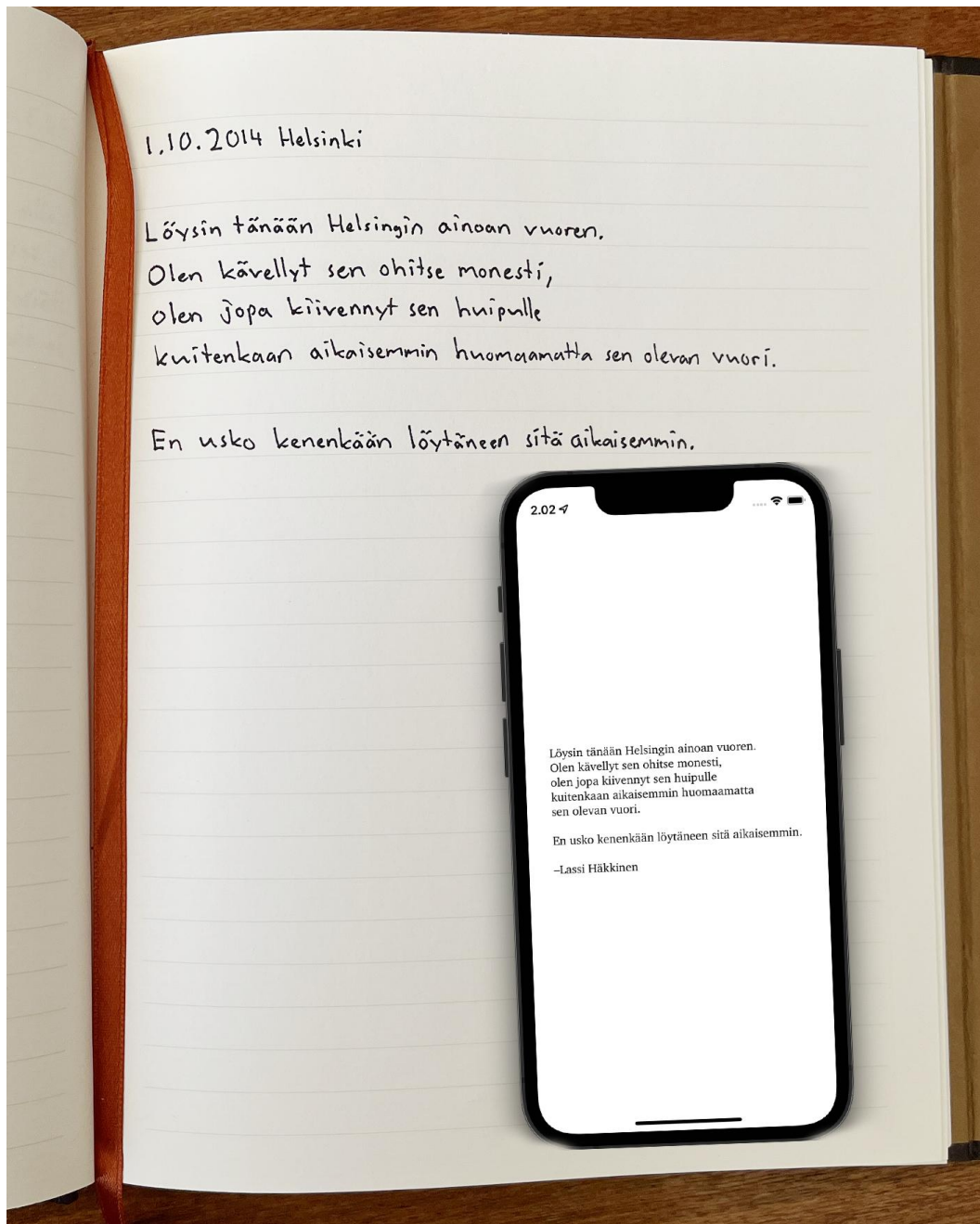


Figure 7. One of the *Hetkiä täältä* poems in the original book format and on the *Runoja* application.

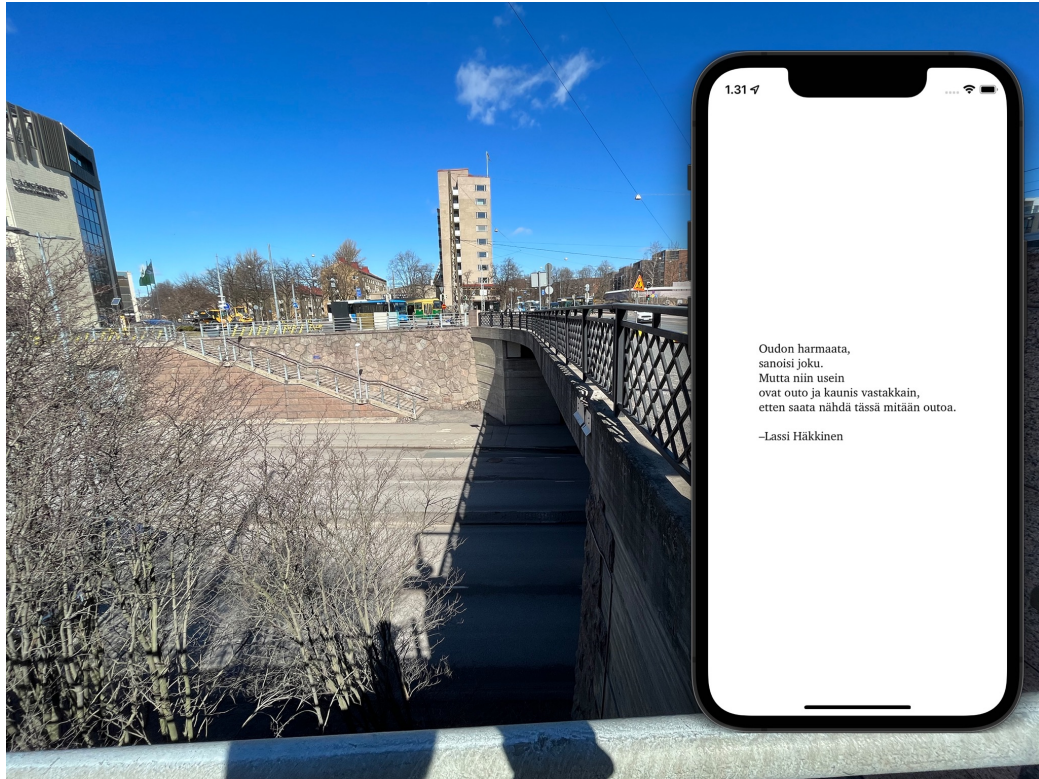


Figure 8. Image of a poem location together with the poem view of the app. Poem by Lassi Häkkinen.

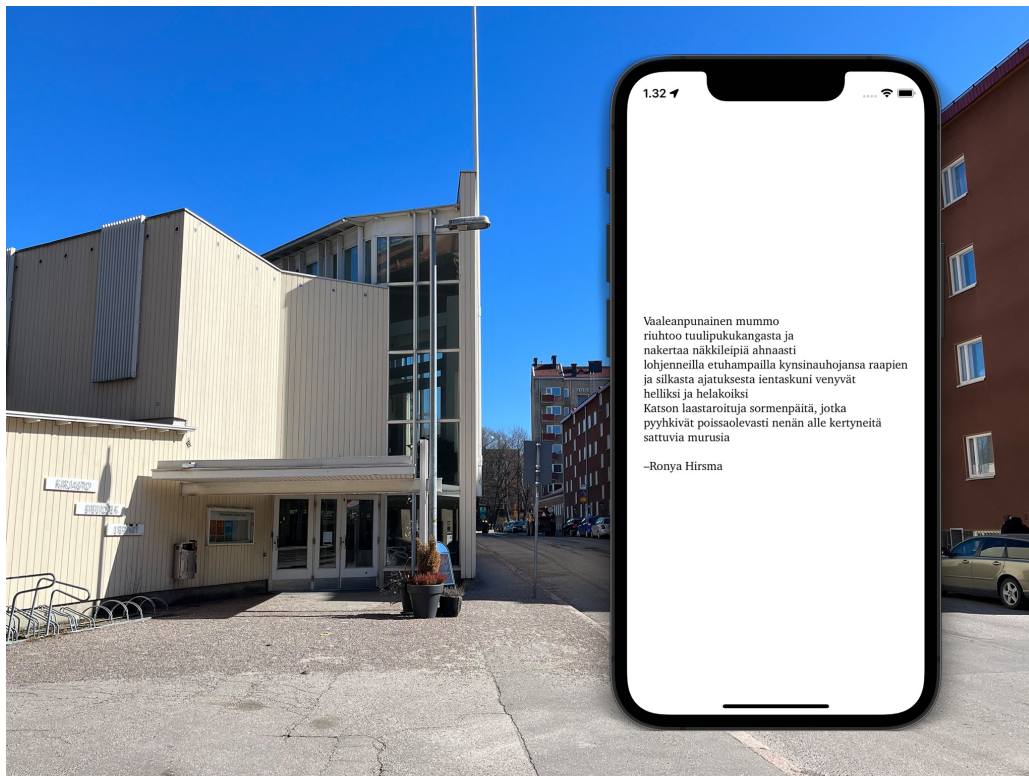


Figure 9. Image of a poem location together with the poem view of the app. Poem by Ronya Hirsmä.

Neither of us, Ronya or me, thinks of our texts as particularly visual works. Meaning, that our poems stay within conventional choices considering the use of rows and the layout. Despite some of the texts needing some changes on the layout for the smaller screen, the process was very straightforward because of this. More visually complex and experimental way of writing, like the way of Mark Z. Danielewski's, presented in the Background chapter (Fig. 2 and 3), could have added a lot more challenges to this phase. As those examples show, the layout can be an essential part of a work of literature and its meaning should not be undermined in more conventional works either. Since Ronya was also going to be among the people participating in the user tests, I ended up making all the changes between the original texts and the versions used in the application by myself. We agreed that she could oversee and check the changes made to the layouts of her poems during the testing.

4.1.5 Testing and Results

Already in the first test phase, the aim was to be able to conduct the user test in as natural and real circumstances as possible. The application was still lacking some of the thought features and details, but the overall working methods did not seem to include any bugs or major faults, based on my own testing during the development.

Because of the limited area the poems were connected to at this point, the districts of Kumpula, Vallila, Sörnäinen and Kallio, I wanted the test users to have a daily life connection to it, so that they would for sure encounter some of the poems tangentially. The spontaneous aspect of the experience could not be tested if the users were actively searching for the poems outside their normal routes of commute. The application was installed to the personal mobile phones of the test users for a week. A full week was long enough to include variation on the routes taken and the means of commuting. Taking a bus to work, walking to a friend's place or just having a Sunday stroll are all very different from each other. Getting feedback on *Runoja* application on all these different situations provides valuable information on the notification-based main mechanics.

The first tests were conducted with the co-poet Ronya Hirsma (female, 26 years old), who lives in the working area of the application; and another user, Participant 1 (female, 33 years old), who also lives and works in the specified area. I met the participants face to face when I installed and set up the application on their phones. I did not give them much extra information on the application beforehand. They both knew that there were no features that would encourage active use of the application but it would send them notifications when poems were available. I knew a bit about their daily routes in the area and could guess beforehand some of the poems that they would encounter. The point of the experience is to be tangential and not to know the locations of the poems beforehand. For testing purposes, I did make a small exception to this by vaguely mentioning some of the areas outside their daily commuting, that they could perhaps direct their possible free time strolls if they were planning on doing some. And of course in Ronya's case, she was naturally aware of the locations of her own poems.

During the testing, I was not really in contact with the participants, except for checking on them once, a couple of days after the start, to make sure that the application was working technically and they had received notifications from it. After the week of testing, I had semi-structured interviews of 30-60 minutes with the participants individually. The interviews concentrated on triggering the experience, its connection to daily life and the environment and how the experience on this medium possibly differed from the users' previous experiences on reading poetry.

Both of the participants used the application as a tangential companion and did not really actively search for poems. Almost all of the notifications they received came in the middle of traveling from one place to another, either on foot or on public transport. At this point of the development, the application still lacked the planned feature that would have marked a poem as read, so that entering its region would not trigger a notification multiple times if the poem was already read. The participants found this repetitive notifying a bit annoying and did not open the same notifications multiple times. But when they noticed a notification of a new poem, both of them said that they always opened the application and read the poem. The participants had a minor difference between how quickly they reacted to the notifications. Both of them had

experiences of receiving a notification from *Runoja* while they were using their mobile devices for some other activity. Ronya mentioned that she always jumped straight away to read the poem, while Participant 1 told that she often finished a task first, for example writing a message, and only after that opened *Runoja*. Ronya explained her behavior by giving value to poetry and especially how the poems in this case could only be experienced momentarily. To her, receiving a poem felt more special than messaging, that is such a frequent activity nowadays. She of course is a writer herself and also a co-poet of *Runoja*, which might be a factor that affected her priorities.

One interesting aspect in reacting to the notifications was about moments when the phone was not being used and was somewhere out of sight. In those cases, it was the vibration or sound that made the participants aware of a notification. The application used the default notification sound so that it could not be told apart from other applications, such as *WhatsApp*, which it intended to mimic, in a way. Both of the participants did in fact say that often the first idea of the notification was that they had gotten a message. For Ronya this usually meant that she would look at the phone immediately and then notice that the notification was from *Runoja*. For Participant 1 this might have resulted in missing some of the poems, because she does not always tend to look at the messages while walking. So for her case, a unique notification sound that would have informed that she has received a poem instead of a message could have worked better.

The mobile application as a medium for reading poetry was new for the participants. Their previous experiences were mostly from poetry books in printed form. In the poetry experience that *Runoja* offered, they liked how the individual poems offered quick and refreshing experiences that were easy to commit to because they were not so time consuming. According to Participant 1, the element of surprise made receiving a poem a joyful experience and managed to connect art to everyday life on a completely different level than a book could. For Ronya, the poems also increased the connection to her current surroundings and made her look for connections between the text and the location. She felt that the experience lifted her above the casual act of commuting and made her more sensitive towards the environment through its connection to the poem. For Participant 1, the experience of reading the poems did not feel that

connected to the current daily life surroundings, but more like a possibility to be detached from it for a moment. She did not really acknowledge the site-specific aspect of the poems and during her testing, she encountered poems that were not textually so clearly underlining places or elements in the environment. In the interview, she even suggested that the application could have poems that were written about the place where they were shown, before I told her that this in fact was the case already.

According to this first round of testing, the tangential aspect of *Runoja* was working really well. The participants were excited about the concept of quick art experiences intertwined into everyday life and they were also very active in reading the poems. The results of the test that needed some more looking into were connected to site-specificity. Even though Participant 1 was very fond of the experience without acknowledging the site-specificity of the work, it is a thing that I hoped to enhance and therefore it should be somehow more clearly included in the application. Another thing that did not really bother the participants, but what came up in more detailed questions about getting notifications from specific poems, was that with some of the texts, the notification triggering regions were still not perfect.

4.2 Stage 2 – Refined Prototype

Stage 2 of the production was based on the results received from the first round of user testing. The aim of it was to address the main issues that felt clear, already after just one round of testing, and to produce a refined prototype as a result. The second round of user testing was then conducted with the refined prototype and new participants.

4.2.1 Guidance

In the first test prototype, the application view did not have any content other than the poems that were visible on their locations. Outside those regions the application was showing only a text saying “default text”. The plan was to use that as a welcome text that included whatever

guidance the user should be given in a situation where they would download the app and start using it without any outside explanation. Even though the poems were triggered in specific locations, it came up that Participant 1, in the first round of testing, was not really aware of the site-specific nature of the poetry in *Runoja*. I wanted to make it clearer to the users, since it was an important part of the poetry and also the thing I felt that justifies the whole use of location.

I replaced the “default text” with a new one that had three main points: 1) this application includes site-specific poetry by Ronya Hirsma and Lassi Häkkinen; 2) Allow notifications and enable location services; and 3) forget the application, it will notify you when you are near a poem.

The geofencing technology had shown its limits regarding how small and precise the triggering regions could be. In the interviews, I was asking the participants some details of the locations where they remembered receiving poem notifications. With a couple of the poems, I still felt that the locations had triggered a bit too far on some sides of the poems, so I once more tweaked the coordinates a bit. It is of course also possible that, at times, the thought location of the mobile device itself could be inaccurate and would falsely swerve inside the region, triggering the poem prematurely.

4.2.2 Testing of the Refined Prototype and Results

The setting of the second round of the testing was identical to the first one. The application was installed into the personal phones of Participants 2 (male, 30 years old) and 3 (female, 30 years old) who both lived in the area the poems were located in. After a week of testing, I had semi-structured interviews with the participants individually.

Both of the participants on the second round said that they had missed the first poem. They had seen the notification, but Participant 2 was walking his dog and Participant 3 was writing a work email, so they were planning on reading the poems after they were done with their activities. But

for both, being done happened after they had already moved out of the poem's region. This led both of them wishing for some kind of possibility to read the poem afterwards even if they had moved on. This kind of possibility would fade out the site-specific aspect and would create a dilemma of sorts. Because when Participant 3 was describing experiences of receiving a poem that she was especially excited about, it was clear that in both of those cases being in the location and making the connection between the surroundings and the poem played a big role. She had also begun to take screenshots of the poems as a safety measure, if they would disappear before she could find the time to read them. She described one occasion where she had read the poem from the screenshot only after she had gotten back home. There the poem did not feel as relevant, and the experience as complete, anymore.

Participants 2 and 3 were representing the hectic world of constant flow of varying content on the mobile phone by being very active mobile phone users. In fact, both of them received all their poem notifications while already using their phones. They were either walking or commuting by tram when receiving them. Participant 2 received notifications mostly while being in a tram. He tends to consume lots of news content through reading articles and watching videos, listening to podcasts and messaging with people while commuting. He was very used to multitasking and jumping between different apps and forms of information and felt that it was quite easy to concentrate on the poems, even if they interrupted some other tasks. Participant 2 stated that it was in fact very pleasant to get a short breakaway through a bit more atypical and more artistic content compared to what he was mostly reading and consuming. He felt that it was a great way to include art into daily life. Participant 3 wanted to underline that she really loved the idea of receiving art into her mobile phone that was usually used only for common messaging, work and reading news related texts. But for her, it was not that easy to always jump into reading the poems straight away. If she was for example doing something work related, she felt that she could not interrupt her thoughts by reading the poem. She was always excited to receive a poem notification but did not want to be in a hurry while consuming the notifications and reading the poems.

Participants did not receive any of the notification while having company. They both brought up that they could be interested in sharing the poems in social media, for example by taking a photograph of the location and sharing it together with the poem as an *Instagram* story. Participant 3 also had an urge to share the experience with some of her close friends through a message but was unaware of how me and Ronya Hirsma as authors would react to distributing the poems outside the application. Participant 3 also brought up that she had thought about how it would be nice to recite the poems aloud, to whoever she would have been with while receiving them.

Even though Participant 2 and 3 were a bit unhappy about missing their first poems and not being able to read them afterwards, outside their connected region, they both were still saying that they really liked the site-specific aspect of the experience. Participant 2 was very interested in the possibilities of the usage of location and would have liked the content to have even stronger and clearer site-specific connection. With some of the poems he did not really find the connection to be that clear. Perhaps increasing the feeling of site-specificity in the content could make the users accept the restrictions better as well. Participant 3 thought that it was interesting to think about why the author had connected the poem to a particular location even if it wasn't that obvious for her as a reader. She felt that the location in general is a very meaningful part of an art experience and therefore likes the idea of the author making the decision on it.

Participant 2 described *Runoja* as the best way of digitized literature he had ever encountered. He really liked how the new medium managed to create a surprising experience in a way that would not be possible with analog means. His experiences of poetry were nowadays mostly connected to music and song lyrics, but he used to also read some poetry in a book form when he was younger. He found aesthetic and artistic value in the way *Runoja* managed to intertwine poetry into everyday life and enhance the ordinary moments. Participant 3 liked how *Runoja* gave value and space for single poems and presented them as individual pieces of art. She was comparing the experience to poetry books, poems used as parts of theater plays or other performative art, or as part of other literature. In those cases the poems are always connected, and perhaps even

subsidiary, to a bigger body of work. She appreciated how much value the application as a medium was giving to the poems.

As a combination of the results of both rounds of testing, the tangential aspect of *Runoja* and the way how it manages to include art into everyday life can be seen as the major success of the production. The results considering the site-specificity were a bit twofold. The idea of loosening the site-specific restrictions on the ability to view the content inside the specific regions only, would also affect the tangential and passive way of using the application, the spontaneous triggering of the experience and the intertwinement of art and daily life. These were all aspects that all of the participants praised. And even though Participant 3 said in the interview, that she got sad after missing one of the poems and therefore ended up hoping for some features that would have saved her from missing it, she also said that she sees the whole *Runoja* application as an artwork and accepts the fact that art should not necessarily evoke only positive feelings in the user. She would not probably tolerate this kind of working mechanics from a news application, but with art, the position is different.

4.3 Stage 3 – Next Steps Before Publishing Runoja

All of the participants thought that the concept of *Runoja* was strong and that the application should be made available to the public. Participants 1 and 3 mentioned, without asking, that they would be willing to pay something for this kind of an application. Participants also saw a lot of collaborative possibilities in *Runoja* considering its publishing.

Producing the version that would be ready for publishing is a project that will continue after this thesis. The prototype and its refined version that were tested in the scope of this thesis were small scale tests of the concept. The area where the poems were scattered in was fairly limited and should be expanded for the published version. This requires more writing and curating, by introducing new authors into the project. Increasing the amount of available poems will also need a technical update for the application, since iOS allows a single application to monitor only

20 regions simultaneously (Apple, n.d.). This limit requires building a system that will always monitor the 20 poem regions that are closest to the user's current location.

One thing that some of the test users also mentioned was the annoyance of getting notified of the same poems multiple times, even if they were already read. For the sake of time and the ease of testing, I had not yet implemented this mechanic into the prototype, but the idea was to include a possibility to mark a poem as read, so that it would not trigger a notification anymore in the future. This mechanic would need to be implemented before publishing. The design of this feature got some more input from the test results though. The possibility to return to the poems after reading them, or even reading them for the first time after already leaving the region connected to the poem, were both brought up by the participants. As an author and artist of *Runoja*, I was skeptical of the latter, since it was taking the experience of reading poetry back towards the starting point of the remediation process and ridding it of the elements *Runoja* was trying to add to the experience. I decided to try implementing a list with the poems that have been marked as read, where the poems could be read again regardless of the location. This would then of course also make it possible to mark poems as read even if they were not, and to read them in whatever location, even for the first time. By using words such as "mark as read" instead of for example "save for later", this kind of behavior would not be encouraged, but the possibility for customizing the user's own experience to the detriment of the experience planned by the artist would still exist. This kind of implementation will need another round of testing. For me as an artist it would be important that the primary way of using *Runoja* would stay tangential and site-specific.

Another aspect that needs to be taken into account in the future design is the possible sharing of the poetry by the users. Decisions regarding the sharing have to be made together with the included authors. Depending on the decisions, the application should adapt to the decided way by guiding, and enabling or disabling the sharing for the user.

5. Reflection

Based on the results achieved from the production together with the background research, this chapter presents reflection around five main topics: site-specificity; tangential art experience; poem notifications; sharing the content; and remediation. The reflections are followed by design recommendations on each of the topics.

5.1 Site-specificity

The location and the site-specific aspect of the work was a starting point for the whole thesis and the production. The remediation process was initiated from the element of location, that was a characteristic of the poetry, which could be enhanced by the digital platform. The site-specificity as an element of the experience was aiming to help the reader get a stronger and more immediate connection to the specific moment and location that had inspired the author to write the poem. McGookin's (2019, 8) research on the application *Reveal*, had shown that when users were reminiscing about their own experiences through images they had taken themselves, being in the same location had strengthened the experience. With the poems of *Runoja*, the site-specific aspect did not seem to work as strongly. The location itself was not seen that important for the whole experience. The content and its connection to the locations was partially a lot more abstract, so such connections were not as easy to make for the users. Also the technical implementation having its limits regarding the suggested sizes of the regions, made it also harder for the author to make sure that the experience took place exactly where they had wanted. Despite the test showing varying results on the subject, some of the participants did also have experiences where the environment had deepened the moment of reading the poem.

5.2 Tangential Art Experience

Even if the participants did not feel the specific location to be extremely important in the experience of reading the poem, it did also serve many other purposes in *Runoja* as well. Since it

quite concretely was the origin of the whole experience for the user, it made all the other elements subsidiary to it. By working as the trigger of presenting the poetry for the users, location was very much connected to the whole idea of the tangential art experience that *Runoja* was about. The spontaneity I was seeking in creating the experience was a result of the movement of the user and entering the specified, but unknown, locations. So even if the location did not always feel that important from the user's point of view, it still was an essential part of creating the tangential experience all the participants were excited about.

The fact that the poems were connected to various places in the city, different buildings, rocks, trails etc., instead of being located in specific art related locations like galleries or museums, made it inevitable that the art experiences would get triggered amidst daily life endeavors. One of my goals was to explore and narrow the middle ground between art and daily life and to create an art experience that would exist side by side with more casual experiences that are not considered as art. This connection *Runoja* managed to create between daily life and these short art experiences of reading a poem was complimented by all the participants. The use of an application platform emphasized this even more, by presenting art on the same screen that was constantly used on casual day-to-day activities.

The tangential working principle and the wish to trigger the experiences in the middle of daily life situations did of course also create some expected challenges. There were moments when the users were just too busy with something else, so that they could not react to the poem notifications. As the findings by McGookin et al. (2019, 203-204) and McGookin (2019, 8) individually had already shown, the tangential approach with geographical restrictions on where the content can be accessed, would probably mean that not all of the content would necessarily be always consumed. I, as an author, had accepted this possibility, but it was in fact the participants who seemed to be more concerned about missing some of the content the application was trying to provide for them. For one test participant, this resulted in 'hacking' the designed working principle of the application, by taking screenshots of the poems. With the screenshots, the participant was able to read the poem even if she had already moved on from the region that provided access to it inside *Runoja*. This led to pondering the pros and cons of the two possible

directions in response to the hacking: either restrict the possibility to take screenshots or reduce the restrictions in reaching the poems outside their regions. The application was knowingly created as part of the hectic world of mobile phones and short attention spans and acting on the so-called knife edge of the user's attention was also an interesting thematic choice. Where John Dewey (1934/2010, 61) was criticizing the pace and scattered nature of life in the thirties, and its effect on art experiences, I would argue that *Runoja* was taking art experiences into a world way more hectic than the one Dewey was referring to.

5.3 Poem Notifications

The application was trying to get the user's attention through notifications. I had based the design of the notifications on the findings Pielot, Vradi and Park (2018, 4) had made about the differences of messaging and non-messaging app notifications. In their research, the former were deemed to be the most successful, so I decided to mimic the style of a notification from a messaging app such as *WhatsApp* and *Telegram*. Some of the participants did have minor moments where they thought that they had received a message even though the notification had been sent from *Runoja*. It is hard to say though, if this really had any effect on consuming the notifications. In fact, there was also at least one opposite experience, where Participant 1 thought that she had gotten a message while walking and did not therefore take a look at her phone at all. She said that if she would have understood that it was a poem, she would have wanted to check her phone immediately. But because my sample of test users was very small, it is hard to make assumptions on what would be the most working style of notifications. In the case of *Runoja* being an application that real users would download by themselves, they would have already made the decision that they are at least somewhat interested in seeing the content. Therefore it might be that the style of the notifications would not even matter that much in a bigger picture. Even if this was the case, I personally think that using the style of messaging apps in the notifications had some smaller meanings included as well. The casual looking notification fits well to the idea of daily life and art experiences existing side-by-side and using the author name in the notifications can be seen to add a more personal aspect to the experience. The poem can be thought of as a message from the author to the user.

5.4 Sharing the Content

One aspect of the experience that I had not really paid attention to in the production was sharing the application's content by the users via social media or messaging. Both of the participants on the second round of testing brought this up in the interviews. I might not personally be such a social media oriented person, and had not therefore thought about this more, but afterwards it felt like a very natural and obvious thing to link to a mobile application. Sharing is definitely a natural part of the so-called language of social media and other content frequently used with mobile devices. Reposts, social media content embeds, etc. are integral parts of the features and mechanics of many social media platforms.

With one of the participants, this discussion on sharing the content also raised the topic of copyright. The participant had thought about sharing some of the poems via message to her friend, but ended up not doing that because she was not sure if it was allowed. Information on copyright and if sharing the content was possible or not, was certainly something that should be communicated for the user regardless of integrating features for sharing into the application or not.

5.5 Remediation

When reflecting back to the theory of remediation, the aim of *Runoja* was not to produce a reform of all written poetry, that would be superior to all preceding forms as Bolter and Grusin (2000, 59-60) describe it, but to approach immediacy by enhancing aspects of poetry that would create new and unique kinds of experiences on the side of the already existing ones. In the interviews, I asked the participants to describe if and how the experience of reading poems through *Runoja* differed from their previous experiences with other forms. If they had answered that they had not found much difference, the whole remediation process could have been said to be unjustified and unsuccessful. This idea refers back to Bolter and Grusin's (2000, 23-24)

concept of the “interfaceless” interface, where the new interface should make itself valid by increasing the immediacy of the content through the most natural way of accessing it. The prior experiences of the participants were mostly from physical poetry books and compared to those, the participants found the experience of *Runoja* to have quite a few differences. They listed, for example, the single form of the poems, the spontaneity and surprise, the ability to include art into daily life and its possibility to ennoble and increase sensitivity towards casual moments as positive traits of the experience *Runoja* provided. Even though the sample size of the participants testing the application was not that big, by relying on just their feedback, I would still feel quite safe arguing that the concept of *Runoja* was a result of a successful remediation process. It managed to convey almost all of the hoped aspects into the experience.

5.6 Design Recommendations

Reflecting on the related main themes of the production, provided useful information for future iterations of *Runoja* as well as other future digital publishing projects. Recommendations in this section are based on the production and results from the testing of *Runoja*. It is good to acknowledge that a more extensive group of test participants would be needed to produce more solid design guidelines.

To produce an application that would connect site-specificity to the experience in a strong way, **the balance between the content and the amount of precision the technical location features can offer, should be thought out right from the beginning**. Meaning that if the application is capable of monitoring locations with the precision of around hundred meters, the content should perhaps be connected to a location of similar exactness. If the content is connected to a location as precise as a specific window or a rock, monitoring the georegions with the built-in iOS technology is not enough and some additional means of technology will be needed.

Providing access to the content depending on the geographical location of the user, created a paradox among the participants. They liked the tangential experience and its connection to the

daily life *Runoja* created, while at the same time they were hoping that the content could be accessed later as well, if they did not happen to have time to access it while being inside its region. With a tangential art experience that is triggered by a geographical location, the author is presented with a dilemma: more active means of use and less restrictions means less tangential connection to daily life, and strict restrictions on access and less active possibilities means more chances of content not being accessed at all. There obviously is no clear answer to this, and the only recommendation that can be made is that **the author needs to have a clear idea of the tangentiality of experience they wish to convey to the user, and make their decisions based on that idea**: which is more important, the tangential experience or just reading the poem no matter when and where?

On a tangential experience with no active means of use, the notifications need to be given substantial thought. In *Runoja*, if the user would never see them, the experience would not get triggered at all. The results of the testing of *Runoja* included conflicting opinions on if using the default notification sound, that might confuse the poem notifications with messages, made consuming the notification more probable or not. If the notifications would be designed purely from the perspective of how to get the biggest amount of users to consume the notifications and see the content, the decisions would need a lot more testing to depend on. In *Runoja*, this decision was based on existing research by Pielot, Vradi and Park (2018). But with art in general, **the feeling the author wants to convey with different elements of the work, should not be completely undermined and left in the shadow of the consuming rate of the notifications.** Especially with an application that has such a minimal frontend as *Runoja*, the design of the notifications is also an important part of the whole art experience both visually and content-wise.

Copyright is important for artists and other content creators. Especially, when the content is taken into the digital world where it is accessed through mobile phones, parallel to all kinds of social media, the aspect of sharing becomes topical. It is therefore recommended to **let the users know what kind of copyright the content is subject to. A policy regarding the sharing of the content should also be made available to the user**, to avoid any accidental misuse. The author's wish regarding the sharing can also be enhanced by including features that encourage or

discourage the sharing, depending on the case. These features could for example be a button for automated sharing or preventing screen capturing inside the application.

Lastly, I would recommend starting the whole process of digital publishing by **finding a justified connection between the content and the medium**. The content should be looked at from the perspective of the aspects that could be enhanced by a digital platform and the medium should be chosen according to them. The possible challenges that could arise from choosing a specific medium should be acknowledged and the design process should make sure that the pros will outweigh the cons. In the beginning, this design has to be based on background research and previous knowledge, and in the end, only a thorough testing can validate the made hypotheses.

6. Conclusions

In this master thesis, I set out to create a poetry experience that would answer the research question: how can a location-based mobile platform add to the experience of site-specific poetry? In addition to this, by choosing to publish art through a mobile application, I wanted to explore and narrow the middle ground between art and everyday life. Site-specificity and connection to casual experiences directed the thesis also towards the idea of tangential experiences, and therefore finding good solutions for a tangential art experience became another important goal.

I created a concept for an application, *Runoja*, that would tangentially send site-specific poems to its users when they happened to enter the specified geographical region connected to each poem. A prototype of the application was developed, tested, refined and tested again. These two rounds of testing provided answers regarding the research question and the additional goals presented in the beginning. A design plan for developing the prototype further towards a proper publishing was made as a result. The learned outcomes of all the main themes of the production were presented around five topics: site-specificity; tangential experience; mobile device notifications; sharing and copyright; and remediation. Recommendations regarding these topics could be useful for anyone working with digital publishing projects with similar themes.

To answer the research question, the site-specificity could be seen to affect the whole experience on multiple levels, as presented in the Reflections chapter. First of all, it was the driving factor of the experience by triggering the notification and setting the whole experience in motion. As an element of the exact moment of reading the poem, the site-specific connection ended up being less important than I had thought. Should the connection be increased in future realizations, the content chosen to be published this way could have a more clearer relation to its location, and its preciseness should be in balance with the exactness the used technology can offer. The major benefits of site-specificity in *Runoja* came out in the way how it enhanced the tangentiality of the experience and was essential in triggering the poems among the ordinary daily life situations. These were important parts of the art experience from the artist point of view and the feedback

received from the test participants validated that they had been essential for the participants' experience as well.

Looking at this production in the larger scope of digital publishing, the hypothesis presented in the background chapter when concluding the related work, about the importance of the source material as a justification for the design choices, seems valid. The elements that made *Runoja* work as well as it did were designed for the specific type of content. Single poems presented in a simple and easily consumed way, were vital regarding the moments when the experiences were triggered. For texts with multiple pages or interactive elements, the working principle should be completely different than the one *Runoja* had.

The number of participants testing *Runoja* in the scope of this thesis was fairly small, so assumptions should not be made too hastily based on just the test results. Regardless of this limitation, the testing did help me with validating some of the choices made in the design process though. It also brought topics into the discussion that I had not thought of myself, such as the copyright and sharing of the content from the user's perspective. The design plan for the next steps towards publishing, presented at the end of chapter four, includes more testing. But it has to be taken into account that the future testing on *Runoja* can provide new takes on all the themes and topics that I have discussed in this thesis, and therefore this thesis provides design recommendations based on what has been learned so far, instead of cast-iron guidelines.

Regarding future work, all the aspects of the experience already presented in this thesis will benefit for the future testing as well. New topics that should and will be included in the design process and discussion in the future are the possible sharing of the poetry content; expanding the working area of the application to a larger part of the city, and through that possibly including these experiences into a wider spectrum of life; and optimizing the poem content better to make the site-specific aspect of it more immediate.

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