

The transition towards open access publishing in humanities:  
A case study of researchers' publishing patterns, views on and experiences  
of OA publishing at a Finnish university

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Master's Thesis in Information Studies

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Abstract for Master's thesis

Subject: Information studies	
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Title: The transition towards open access publishing in humanities: A case study of researchers' publishing patterns, views on and experiences of OA publishing at a Finnish university	
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<p><b>Abstract:</b></p> <p>During the past decades, the forms of formal scholarly communication and publishing have undergone profound changes; from publishing in print format to digital format, and from publishing in closed access channels to publishing online as open access (OA). The question of OA to research outputs is a current issue for research funders, universities, and researchers.</p> <p>The aim of this study is to examine the transition towards OA publishing in humanities. Previous studies suggest that the development towards increased OA has been slow in the humanities in particular. To understand the transition towards increased OA publishing, it is central to consider both the researchers' perspective and the characteristics of the humanities. In this study, the humanities at Åbo Akademi University (ÅAU) serve as a case study to examine researchers' publishing patterns, and their views on and experiences of OA publishing.</p> <p>Two separate methods of data collection were applied in the study. To map the publishing patterns in humanities in relation to other fields of science, publication data of peer reviewed publications in humanities (N=192) and all fields of science together (N=1 016) produced in 2018 at ÅAU was retrieved from the national publication database Virta. To map researchers' views on and experiences of OA publishing, an online survey was conducted among researchers (N=59) affiliated to the Faculty of Arts, Psychology and Theology (FHPT) at ÅAU.</p> <p>The analysis of publication data shows that the patterns of scholarly publishing in humanities at ÅAU are typical to the humanities in general: the proportions of publications as book sections, monographs and edited works are larger than in other fields of science. In comparison with other fields of science, the current state of OA publishing in humanities can be considered at a decent level at ÅAU. In the survey, FHPT researchers reported a good level of awareness and knowledge of OA issues, and positive perceptions of OA overall. However, the OA attributes of publications were not the most important factors in researchers' choices of publication channel. The perceived quality and prestige of OA journals, funding for article processing charges, and green OA as a viable form of OA publishing emerge as critical to the development towards increased OA in the future, also in the organizational and national setting of the present study.</p>	
Keywords: open access, formal scholarly communication, scholarly publishing, research dissemination, humanities, case study, publication data, survey	
Date: 6.9.2020	Number of pages: 131

# ÅBO AKADEMI – FAKULTETEN FÖR SAMHÄLLSVETENSKAPER OCH EKONOMI

Abstrakt för avhandling pro gradu

Ämne: Informationsvetenskap	
Författare: Malin Fredriksson	
Arbetets titel: Övergången till öppen publicering inom humaniora: En fallstudie om forskares publiceringsmönster, uppfattningar om och erfarenheter av öppen publicering vid ett finländskt universitet	
Handledare: Gunilla Widén	Handledare: Yrsa Neuman
<p>Abstrakt:</p> <p>Under de senaste årtiondena har formerna för formell vetenskaplig kommunikation och publicering gått igenom stora förändringar, dels från att forskare publicerat sin forskning i tryckt format till digitalt format, dels från att publicera i stängda publikationskanaler till att publicera med öppen tillgång på internet. Frågan om öppen tillgång (open access, OA) till forskningsresultat är en aktuell fråga för forskningsfinansiärer, universitet och forskare.</p> <p>Studiens syfte är att granska övergången till öppen vetenskaplig publicering inom humaniora. Tidigare studier visar att utvecklingen mot ökad OA varit långsam särskilt inom humaniora. För att förstå övergången till ökad öppen publicering är det centralt att ta både forskarnas perspektiv och humanioras särdrag i beaktande. I denna studie fungerar humaniora vid Åbo Akademi (ÅA) som en fallstudie för att studera forskares publiceringsmönster, uppfattningar om och erfarenheter av öppen publicering.</p> <p>För fallstudien tillämpades två separata datainsamlingsmetoder. För att kartlägga publiceringsmönster inom humaniora i relation till andra vetenskapsområden hämtades publikationsdata för referentgranskade vetenskapliga publikationer inom humaniora (N= 192) och alla vetenskapsområden sammanlagt (N=1016) som utkommit år 2018 vid ÅA ur den nationella publikationsdatabasen Virta. För att kartlägga forskares uppfattningar om och erfarenheter av öppen publicering genomfördes en enkät bland forskare (N=59) vid Fakulteten för humaniora, psykologi och teologi (FHPT) vid ÅA.</p> <p>Analysen av publikationsdata visar att publiceringsmönstren inom humaniora vid ÅA följer typiska drag för humaniora överlag, dvs. andelen publikationer som bokkapitel, monografier och redigerade verk är större än inom övriga vetenskapsområden. I jämförelse med övriga vetenskapsområden kan andelen öppet tillgängliga publikationer inom humaniora anses vara på god nivå överlag. Därtill visade forskare vid FHPT en god nivå av medvetenhet och kunskaper om OA-frågor och en positiv inställning till öppen publicering. Emellertid var publikationens OA-attribut inte de viktigaste egenskaperna i forskares val av publikationskanal. OA-tidskrifters kvalitet och prestige, finansiering för artikelavgifter och parallellpublicering som ett ansett alternativ för öppen tillgång utgör kritiska faktorer i utvecklingen mot ökande öppen publicering, även i den utbildningsorganisation och det nationella sammanhang som den här studien handlar om.</p>	
Nyckelord: öppen publicering, formell vetenskaplig kommunikation, vetenskaplig publicering, spridning av forskningsresultat, humaniora, fallstudie, publikationsdata, enkät	
Datum: 6.9.2020	Sidoantal: 131

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## List of abbreviations

APC Article Processing Charge

ASN Academic Social Network

CC Creative Commons

CRIS Current Research Information System

DOAJ Directory of Open Access Journals

DOAB Directory of Open Access Books

FFLS Finnish Federation of Learned Societies

IR Institutional Repository

MEC the Ministry of Education and Culture (in Finland)

OA Open Acce

# 1. Introduction

During the past decades, the landscape of scholarly communication has undergone profound changes. At the heart of this change is the transition from publishing in print format to publishing in digital format. This transition is intertwined with another essential change: from publishing in closed subscription journals to publishing digitally online in open access (OA) journals or making the publication openly available in other ways (De Silva & Vance 2017, Mukherjee 2009). The present study examines the transition from publishing in closed publication channels to publishing OA in humanities.

## 1.1. Area of research

The questions as to what ‘open access’ is, how to promote it, and who pays for it, have become increasingly important issues on the agenda of research funders, policymakers, universities and the research community, both internationally and in Finland. Despite a variety of definitions of OA, it is widely agreed that “Open Access (OA) literature is digital, online, free of charge, and free of most copyright and licensing restrictions” (Suber 2012, 4). The main objectives of OA publishing are to make research available and readable for the entire research community, practitioners and the public.

Consequently, OA to research output is considered a way to contribute to the democratization of knowledge and support its usefulness in society (Suber 2012, 10).

The OA movement, originally initiated by researchers and research institutions in the early 1990s in the US, was a reaction against several developments in scholarly publishing, most importantly the commercialization and increasing profit-making by large publishing houses (Laakso et al 2011). Institutions and libraries in higher education, both internationally and in Finland, use a major part of their annual budgets to cover subscription fees to conventional publishers which provide access to academic literature only for a cost.

For individual researchers, the access to subscribed materials provided by their research institutions is crucial: without the journal subscriptions, researchers do not have access

to crucial parts of the body of research literature in their disciplines. This also means that researchers, who for some reason do not have a current academic affiliation, have difficulties in following the most recent developments in their research fields. Similarly, researchers in developing countries may not have access to research literature, since their institutions cannot afford the subscription fees (Suber 2012, 20). Overall, there is a great variation as to what resources university libraries are able to provide access to.

Situations in which research is funded by public state funding, researchers use their salaried work time to produce new knowledge, and the university library finally pays subscription fees to provide access to the publications, are not unusual. This market mechanism in which state funding (i.e., tax income) goes into the pockets of commercial publishers through several routes (e.g. both authors and readers are charged), is called double-dipping or even triple-dipping (Suber 2012, 25). In case the university library does not provide access to the particular journal, it is not unusual that researchers do not have access to the published version of articles they have written.

The recent development of digital technology and research infrastructure, together with expectations from research funders, have paved the way for research institutions and researchers to take steps towards increased OA publishing. Although there are technological solutions that ideally enable immediate OA, a more critical change is still ongoing. It has been argued that the major obstacles for achieving a greater proportion of OA are “not technical, legal or economic, but cultural” (Suber 2012, 8-9). One indicator of the complexity of the issue is that the development towards increased OA has been rather slow both internationally and in Finland (Holopainen & Koskinen 2016). On a grass root and every-day level, this means that the changes in the publishing environment have not been fully embraced by researchers (Gross and Ryan 2015). At the same time, the support functions of research institutions, and most importantly the university libraries, play a crucial role in the work towards OA (e.g. Ala-Kyyny 2018, Klain-Gabbay & Shoham 2018).

## 1.2. Motivation for the study

Publishing research results is one of the core activities in academia. It has been argued that the landscape of scholarly publishing is at the moment in a critical transition phase.

There is a growing body of research literature which examines how the quantity of OA literature has grown in the past years (e.g. Archambault et al 2014, Laakso et al 2011, Piwowar et al 2018). In recent years, a number of surveys which maps researchers' views on and experiences of OA publishing have been conducted (e.g. Blankstein & Wolff-Eisenberg 2019, Gaines 2015, Gross & Ryan 2015). To map the current state of OA publishing, both the emerging publishing patterns and the researchers' views and experiences are crucial to observe in order to understand the transition from closed publishing to open publishing.

All academic disciplines cannot be treated together as a monolithic entity when it comes to OA publishing (Eve 2014). Thereby, a central area of study is the publishing patterns in different disciplines, and its effects on how OA publishing is adopted within the discipline. Previous studies (e.g. Coonin & Younce 2010, Gaines 2015, Gross & Ryan 2015) suggest that the level of adoption of OA models is lower in humanities and social sciences than in natural sciences, technology and medicine. This observation further motivates the need to examine the patterns of scholarly publishing and researchers' views and experiences in humanities in particular.

From the perspective of the university, the amount and quality of scientific publications produced at universities is crucial for determining not only their reputation, but also their public funding. In Finland, the amount of public funding to universities is based on the number and quality of publications produced by staff and affiliated researchers at the university (Ministry of Education and Culture. Core funding of universities 2020). Consequently, there is an obvious motivation for universities to collect comprehensive and reliable data on their publications (Ilva 2019). Starting 2021, the OA status of publications will play an even more important role in the funding model, and publications which are OA will be more valuable for universities (Ilva 2020). In other words, it lies in the interest of universities that accurate data on the OA status of publications are collected, and to encourage their researchers to make their research openly available through different routes to OA.

Examining the perspective of the researchers is thus central to grasp the current transition towards increased OA which occur in scholarly communication and publishing. Researchers' choices of venues for publishing, in other words scholarly

communication, are central to understand in order to help universities and university libraries make decisions of future practice and policy.

### 1.3. Aim and research questions

The aim of this study is to *examine the transition from closed access publishing to OA publishing in formal scholarly communication in the humanities*. The humanities at Åbo Akademi University in Finland serve as the organizational unit to be examined for the case study. In the transition from closed access publishing to OA publishing, both the patterns of scholarly publishing and the views on and experiences of OA publishing among researchers are central to understand the transition in its organizational context.

The aim is divided into a two-fold case study. Firstly, the study explores the patterns of scholarly publishing in humanities at ÅAU, with a focus on the patterns of OA publishing and which routes to OA are typical. Secondly, it examines the awareness, knowledge, perceptions, and experiences of OA publishing among researchers in humanities.

The main research question is: *How is the transition from closed access publishing to OA publishing in humanities expressed in publishing patterns, and perceived and experienced from the perspective of researchers?* The main research question is further divided into sub-questions, which focus on publishing patterns at institutional level and perceptions and experiences of researchers.

1. Which patterns of scholarly publishing are typical to humanities and how is OA part of those publishing patterns?
  - a) How large is the share of peer reviewed OA publications produced in humanities, compared to other disciplines?
  - b) Which routes to OA and other publication characteristics are typical to publications in humanities, compared to other disciplines?
  
2. What is the level of awareness, knowledge and experiences of OA publishing among researchers in the humanities, and how do they perceive of OA publishing?

- a) To what extent do researchers report awareness and knowledge of different forms of OA publishing?
- b) To what extent do researchers have experience of OA publishing?
- c) What are their perceptions of OA publishing?
- d) Which are the main factors that would support researchers in publishing OA, and which are the main factors that hinder them from publishing OA?

This study provides new empirically based knowledge concerning the transition from closed access publishing to OA publishing in humanities, from the perspective of publishing patterns at organizational level and from the perspective of researchers. The choice to cover both publishing patterns at organizational level and the views and experiences of researchers is motivated from several points of view. The publishing patterns are central to examine, as they describe the current state of publishing in a defined timeframe. To contextualize the current state of publishing in humanities, it is also central to examine the most central characteristics of publishing in other fields of science. The views and experiences of researchers in humanities provides first-hand information into how researchers currently perceive of OA publishing. The results may further be used for evaluating which OA issues are most critical for researchers and which aspects should be more emphasized in OA services and support for researchers. The case study applies a multi-method approach. To examine the patterns of scholarly publishing in humanities, and the overall situation of publishing at ÅAU, publication data of peer reviewed publications (2018) is analyzed. The publication data has been collected for the national publication collection, conducted by the MEC. To map researchers' views on and experiences of OA publishing, an online survey is conducted among FHPT researchers.

#### 1.4. The structure of the study

This study starts with an introduction to the topic of OA and the research aim and questions in Chapter 1.

Chapter 2 provides an overview of central developments in scholarly communication and scholarly publishing, as well as the central concepts of OA. International OA initiatives and the financial models of OA and research funding are presented to provide an overview of the structural and organizational processes which have been taken to facilitate increasing OA in the research community. As the focus of the present case study is on a Finnish university, the development of OA in Finland is also described.

In Chapter 3, the focus is on the researchers' publishing patterns in transition. It presents the patterns of scholarly publishing in different disciplines and how OA publishing has become part of the publishing patterns in various disciplines. Previous research on researchers' awareness, knowledge and perceptions of OA, and which factors have been identified to affect behaviors of OA publishing, are presented.

Chapter 4 describes the case organization, how the case study approach has been applied and the methodological choices. The case study uses a multi-method approach which combines analysis of publication data and a survey.

Chapter 5 presents the results of the case study, starting with sub-study I based on the publication data, and continuing with sub-study II based on the survey.

In Chapter 6, the results are discussed in relation to previous research, and its contributions to the field are explained. Finally, the limitations of the study are discussed and ideas for future research are presented.

## 2. Scholarly communication and scholarly publishing in transition

This chapter starts with an outline of definitions of scholarly communication, how the emergence and development of OA publishing relates to scholarly communication and scholarly publishing and continues with describing the main developments of OA initiatives both in an international and a Finnish perspective. The central concepts used in this study are described in this chapter.

### 2.1. Scholarly communication

Communication and dissemination of research results are key activities in academia. It has been argued that communication and dissemination of research results are as important as conducting the research. Without communicating and disseminating the results in one way or another, the rest of the academic community and society overall cannot benefit from the results (De Silva & Vance 2017). Scholarly communication is generally defined as “the system through which research and other scholarly writings are created, evaluated for quality, disseminated to the scholarly community, and preserved for future use, and it promotes a shared system of research and scholarship” (Association of College and Research Libraries 2015).

In the broadest sense of the word, scholarly communication refers to activities during the entire research process. Scholarly communication primarily refers to communication between academics (i.e. within the academic community), which in turn can be divided into formal and informal communication. While informal scholarly communication is about informal contact between academics in conferences, e-mails or through social media, formal scholarly communications refers to research outputs in the form of articles, book chapters, books, or conference contributions (De Silva & Vance 2017).

The focus of this study is on formal scholarly communication, and more explicitly, the dissemination of research results in peer reviewed publications. Traditionally, the peer reviewed publication is considered the most prominent form of formal scholarly communication (Mukherjee 2009). The peer reviewed publication is also the most critical for the Finnish universities for receiving public funding (Ilva 2017).



Although it should be observed that also informal scholarly communication and non-peer reviewed publishing is vital to the development of science, informal scholarly communication and non-peer reviewed publication activities, are considered outside the scope of the present study.

## 2.2. The emergence of Internet and the digital age

The development of digital technology has increased the reach of scholarly communication in a remarkable way. In the past 20–30 years, scholarly communication and scholarly publishing have undergone a profound transformation. The change entails two dimensions: a transition from publishing printed literature to digital literature, and from publishing research in closed channels to publishing openly accessible online (De Silva & Candace 2017, Mukherjee 2009).

From a historical point of view, researchers' decisions about where to publish can be divided into two eras. Before the emergence of e-journals, researchers were concerned with other types of publication attributes than researchers are today (Mukherjee 2009). The most important factors were reaching the right readership audience, the speed of the publication, the reputation of the publication and publisher, as well as the quality of the printed physical paper (Dalton, Tenopir & Björk 2020).

Although the emergence of the Internet and the digital age brings with it potential to increased scholarly communication and dissemination of research results, the idea of openness in research is not new in formal scholarly communication (Dalton, Tenopir & Björk 2020). As also Tomperi (2019) points out, openness of research was an innate principle already in the age of printed media. The distribution and accessibility of (scholarly) literature has been possible because of the modern library institution. In that sense, it can be argued that libraries still are in the center of the debate of accessibility, as well as the debate on the price level (Tomperi 2019).

## 2.3. Scholarly publishing and the serials crisis

OA publishing in scholarly journals started in the early 1990s, as soon as electronic publishing overall became technically possible. However, the background of more

extensive efforts to establish OA publishing can be traced to the so-called serials crisis. The serials crisis is a central development in scholarly publishing which has continued for some decades. The serials crisis refers to the increasing subscription costs of serial publications (Laakso et al 2011). The increasing subscription fees are paid by university libraries or research institutions which try to provide their researchers with the most recent and relevant research literature. As the subscription fees have been steadily increasing, academic libraries have ended up in a situation where they need to cancel journal subscriptions or ended acquiring scholarly monographs to their library collection, to cover the increasingly expensive fees. In Finland, the national library consortium FinElib negotiates agreements with publishers about access to digital resources. In the beginning of 2019, Finnish researchers' access to Taylor & Francis' digital resources was discontinued, as the consortium and the publisher did not succeed in achieving a new agreement. Especially the opportunity for researchers to publish OA in the publisher's journals, which are included in so-called transformative agreements, was one of the main obstacles for reaching agreement (FinElib 2020).

There are several reasons to the overwhelming increase of subscription fees. According to Eve (2014, 15), one of the main reasons is that research articles can be regarded as unique commodities in the sense that it cannot be replaced with another article. Similarly, an expensive journal title cannot be directly replaced with cheaper one on the same subject. As a consequence, publishers can act in a monopoly position. In the long run, scholarly publishing has become dominated by a few commercial publishers. In addition to the commercial publishers, also academic societies serve as publishers, but typically at a lower price (Suber 2012). An illustrative example of the situation today is that the largest commercial academic publishers, such as Elsevier, Wiley, and Springer, are among the most profit-making companies in the world. Five companies dominate the scene of scholarly publishing: more than 50 percent of peer reviewed articles published today are controlled by these companies (Larivière, Haustein & Mongeon 2015).

As part of the response to the serials crisis, alternative financial models for OA publishing have been developed to decrease the financial and academic power of large commercial publishers (Suber 2012). The OA movement was initiated in the 1990s by researchers, publishers, librarians and research institutions, when the development of

information technology and the emergence of the internet enabled online publishing, as a reaction against the high costs of closed access journals (Laakso et al 2011). The first steps towards increased OA were slow. The OA movement gained more support in the beginning of the 2000s, as the first organized initiatives were taken, namely the Budapest Open Access Initiative (2002) which proclaims the following:

An old tradition and a new technology have converged to make possible an unprecedented public good. The old tradition is the willingness of scientists and scholars to publish the fruits of their research in scholarly journals without payment, for the sake of inquiry and knowledge. The new technology is the internet.

Despite the optimistic beginning, researchers (e.g. Björk 2017, Holopainen & Koskinen 2016) argue that the progress towards increased OA over the past two-three decades has been slower than expected. The current situation, where university libraries pay for both access to subscription materials and OA publishing is considered expensive (Suber 2012).

During the past two decades, the increase of OA publishing has been remarkable. In 2000, the number of OA journals was 740, and in 2009 it was about 4,700 (Laakso et al 2011). Although it is difficult to provide a comprehensive number of OA journals, one indicator of this is the number of indexed journals in Directory of Open Access Journals (DOAJ), which was launched in 2003. At the end of 2015, the number of OA journals in DOAJ was roughly 10,000 (Gross and Ryan 2015). At the end of 2019, about 14 000 OA journals were indexed in DOAJ (DOAJ 2019). Depending on operational definitions and data collection methods used, it has been estimated that between 35 and 50 % of all research articles published in recent years, can be retrieved as gold OA, hybrid, or self-archived in repositories (Archambault et al 2014; Piwowar et al 2018, Solomon et al 2013).

#### 2.4. Definitions of open access

Open access (OA) is a multifaceted concept with different meanings, both with regards to ‘open’ and ‘access’. Internationally and nationally, a variety of definitions are used for strategical purposes, for example in policy documents, recommendations, and initiatives.

#### 2.4.1. Gold OA and green OA

One of the most central and established conceptual distinctions is between gold OA and green OA (Laakso et al 2011). Gold OA includes both full gold OA and hybrid OA. In full gold OA journals, all articles are freely accessible to readers immediately and without most restrictions. In this publishing model, there are no subscription fees. Instead, the publishers charge an Article Processing Charge (APC). The APC is usually paid by the research funder or research institution, not the individual researcher (ref). However, not all publishers of full OA journals charge APCs, since they are able to cover the costs of publishing by other means. Another form of gold OA is the hybrid OA. The hybrid OA model refers to subscription journals which offer gold OA as an extra service: some articles are made freely accessible by paying for the APC. In other words, hybrid journals are a mix of OA articles and closed access (Suber 2012).

Green OA means that the author makes a publication, originally published in a closed subscription journal, openly available in an institutional repository maintained by the university or in another publication archive. Therefore, green OA is also called parallel publishing or self-archiving. Green OA is free of charge for the author. When parallel publishing, the author shares a version of a paper which follows the copyright and licensing agreement with the publisher (Björk et al 2014). In other words, the green OA route is dependent on the policies of the journal or publishers, which typically are more restrictive than full OA policies (i.e. licensing and embargoes to cover the risk that the publisher will lose subscription incomes) (Suber 2012).

As also mentioned by Suber (2012), licensing, copyright issues, and various types of publication charges further complicate the question of how to categorize different types of OA. For instance, *libre* OA is free of permission barriers to allow reuse, while *gratis* OA is accessible free of charge for the reader.

#### 2.4.2. Other definitions of OA

Despite the widely established distinction between gold and green OA, previous research on OA publishing suggests also other types of OA, which intends to catch the versatility of OA statutes of publications.

For instance, Piwowar et al. (2018) provides a narrower definition of gold OA, called bronze OA. In their study, bronze OA includes both delayed OA and OA channels

which are not Creative Commons (CC) licensed. This definition of bronze OA can be viewed in contrast to more inclusive definitions OA, such as the one provided by the Budapest Open Access Initiative, which does not consider the delay of the publication or licensing issues (Piwowar et al 2018).

Another example of the variations of OA is the platinum or diamond OA. Platinum or diamond OA is a variation of gold OA for which the publisher does not charge APCs, which means that publishing in the journal is free of charge for authors (Haschak 2007).

Despite the relevance and usefulness of these concepts beyond the gold-green dichotomy in the broader discussion of the potential and future of OA publishing, they are necessarily not compatible with OA definitions used for collecting OA data for specific purposes, such as the annual national publication data collection conducted by MEC in Finland (Ilva 2017, Ilva 2019). For this reason, the notions of bronze and platinum OA are not meaningful definitions for analysis for the scope of this study.

To operationalize the concepts which refer to different types and variations of OA, the definitions of OA used in this study follow the handbook for the national collection of publication data (Publication data collection 2018). According to the definition used in Finland since 2016, a publication needs to be at least freely available to read to classify as OA (Ilva 2017). The definitions of OA implemented in this study are further discussed in the chapter on data collection. In comparison, there are narrower definitions of OA internationally. For instance, the Budapest Open Access Initiative (2002) recommends use of open licenses (Ilva 2017).

#### 2.4.3. Academic Social Networks and illegal access

A recent development in the dissemination of scholarly literature is the increasing popularity of academic social networks (ASNs) such as ResearchGate, Academia.edu, and more subject-specific ones such as HumanitiesCommons. From the perspective of researchers, ASNs are considered a way for both quick sharing and access to academic literature.

Another connected development that has emerged in the past years, is the wide-spread use of pirate copy websites, such as Sci-Hub, for searching academic literature (Björk 2017; Green 2017). In a similar way as ASNs, Sci-Hub and other pirate copy websites and databases provide convenient and quick access to scholarly publications, but they

provide access to literature which are legally behind paywalls. For that reason, Björk (2017) uses the concept of black OA when referring to illegal pirate copy databases. Illegally available versions of publications, which infringe with copyright and license agreements, are common not only at Sci-Hub, but also on several ASNs. In addition to the problems of license and copyright infringement at ASNs due to researcher's intentional or unintentional sharing of articles, it should be noted that these publications are in the hands of commercial actors which do not provide any guarantee of permanent access (Björk 2017).

Taking into consideration the legal and ethical aspects, as well as the question of permanent access, black OA on pirate websites and articles shared at ASNs are not considered proper OA. From that point of view, Björk (2017) emphasizes that the aim of OA policies and their implementation is to make illegal channels and copies redundant. If all scholarly publications were legally accessible, *gratis* and/or *libre*, there would be no need for using pirate websites or databases for accessing scholarly literature.

#### 2.4.4. Remarks regarding the use of OA concepts

More specific definitions of OA are also implemented in, for example, the national collection of publication data of institutions in higher education in Finland, which is conducted by the MEC. The differences between definitions, which follow from their different purposes and use, are crucial to consider when operationalizing the concept of OA. The definitions affect what and how OA is measured, as well as the interpretation of results. Definitions of these will be provided in the method chapter.

## 2.5. The perceived benefits of open access publishing for researchers and universities

This section provides an overview of the arguments of how OA is in the interest of both researchers and universities.

### 2.5.1. Cost-effectiveness and transparency

The origins of the OA movement can be considered a reaction against the profit-making of large publishing houses and the increasing subscription fees university libraries pay annually to make research literature available for their affiliated researchers (Laakso et al 2011). One of the basic arguments is that the results of research, which is publicly or philanthropically funded, should be publicly available and can be used by anybody, instead of being behind publisher's paywalls to a limited audience. The financial aspect is thus a central part of the OA publishing models. As the financial basis for OA publishing is not enabled by traditional subscription fees covered by paying customers (academic libraries), OA publishing is dependent on alternative economic models (Suber 2012).

One of the most central economic models is based on author fees called article processing charges (APCs) which cover the publisher's costs to make the OA (both full OA journals and hybrid journals). In contrast, publishers which provide platinum or diamond OA, and do not charge authors or readers, external funding is needed. Typically, platinum or diamond OA is covered by resources from learned societies or other academic institutions, or government grants (Haschak 2007). From the perspective of the university, a larger amount of scholarly literature which is OA means that less budgetary means are needed to cover subscription fees.

### 2.5.2. Democratization of knowledge

In the subscription-based publishing model, only those researchers who are affiliated to a university or other research institution, which have the financial basis to cover for subscription fees, have access to scholarly literature (Suber 2012). In addition, researchers have access only to e-resources that their institutions have publisher's agreements with. Changes in the university libraries' agreements with publishers mean that researchers may lose access to certain resources.

Access to scholarly literature is also a global issue. Small research institutions and those in countries of lower economic development have poor access to scholarly literature (Suber 2012). As a consequence, only a small share of the scholars in the world have access to the scholarly literature they need for their research. Immediate access to the latest research results thus enables the development of science.

Dissemination of research output to the scholarly community can be considered the basic aim of the OA movement, but the scholarly community as such is not the only target group. As Suber (2012) notes, the dissemination of research output to an audience outside the scholarly community, the general public, is an increasingly important dimension of OA publishing.

### 2.5.3. Increased circulation, readership and citation benefit

Increased circulation and readership are connected to the so called citation benefit. It is a well-documented, although not straightforward phenomenon that OA publications (including both full OA and hybrid) are more frequently cited than closed publications and thus have a more extensive circulation and readership than closed access articles (Björk & Solomon 2012, Solomon, Laakso & Björk 2013, Piwowar et al. 2018).

## 2.6. OA policies and funding

To facilitate the transition to the OA publishing model, international, governmental and institutional structures for OA funding have been developed. Internationally, both public and private research funders have included requirements on OA publishing in their funding applications in recent years. In the European Union, Plan S (2018) is the most recent and ambitious international OA initiative. In Plan S, major European research funders require that:

With effect from 2021, all scholarly publications on the results from research funded by public or private grants provided by national, regional and international research councils and funding bodies, must be published in Open Access Journals, on Open Access Platforms, or made immediately available through Open Access Repositories without embargo.

Other central principles defined in Plan S (2018) is that authors or their institutions should retain the copyright to the publications (and preferably use the CC BY license),



and that the OA publication fees should be covered by research funders or institutions, not individual researchers. Funders should not support the hybrid model of publishing, since publishers can benefit from both the subscription fees and the APCs. During the transition period towards a full OA publishing system, research funders may support these only as part of transformative agreements.

The plan and its implementation have initiated a debate among researchers, since this would potentially result in a situation where researchers would not be able to publish in closed access journals or hybrid journals which traditionally have been perceived as prestigious in their respective research fields (Dalton, Tenopir & Björk 2020).

The Academy of Finland, a governmental funding body of scientific research, and one of the major research funders in Finland, is one of the research funders which take part in Coalition-S. The Academy of Finland requires that their recipients of funding publish their results with OA (parallel publishing included), as planned in a publication plan and included in the budget submitted together with the application (Academy of Finland 2020).

## 2.7. Overview of the developments of OA in Finland

This sub-chapter outlines the central developments of OA policies and publishing in Finland. In the Nordic countries, the financial support from the governments, the establishment and maintenance of non-profit portals, and the increasing knowledge of OA issues are part of the development towards increased OA. A common factor among the Nordic countries is that they have a similar infrastructure of public funding for research and universities' core funding (Björk 2019).

### 2.7.1. National policies and coordination

Characteristic to the situation of open science and research in Finland is that OA publishing, and open science more broadly, have been supported and coordinated by official bodies. In international comparison, Finland was among the first countries to apply the open science approach (Forsström, Lilja, and Ala-Mantila 2019). To start with, the Open Science and Research Initiative (2014–2017) was a project of the MEC, which developed guidelines for promoting open science in Finland. The Initiative was based on extensive cooperation between ministries, universities, research institutes and

research funders. One of the aims of the Open Science and Research Initiative was that 65 % of scientific publications should be openly available by 2017, 75 % by 2018, and 90 % by 2020 (FFLS 2019).

Open science activities in Finland are currently coordinated by The Federation of Finnish Learned Societies (FFLS). The coordination is based on a strong collaboration between all members of the research community: researchers and research support in universities and research institutes, libraries, funders, learned societies, scientific publishing, academies and the Ministry of Education and Culture. In the “Declaration for Open Science and Research 2020–2025” the vision for open science and research for the next years is formulated as follows: “open science and research are integrated in researchers’ everyday work and support not only the effectiveness of research outputs but also the quality of research”. In the declaration, a principal part of the mission is to “promote openness as a fundamental value throughout the research community and its activities”. The draft of the declaration had been open for comments from both research institutions and individual researchers. The vision and mission are operationalized in the national strategy and executive plan issued last year together with the declaration. In the national policy and executive plan, “Open access to scholarly publications. National Policy and Executive Plan by the Research Community in Finland for 2020–2025”, the following objectives are stated:

1. No later than 2022, all new scientific articles and conference publications will be immediately openly accessible.
2. The total cost of scholarly publication channels and individual publications is transparent and publicly available.
3. By 2022, a CC-license is applied to all new research publications to provide open access and to protect researcher’s rights.
4. The research community creates a jointly funded publishing model that enables immediate open access to research articles published in Finland.

Björk (2019) assesses that as a consequence of strong engagement in OA issues among the Nordic countries, due to international OA initiatives like Plan S as well as national policies, the share of OA journals especially in the social sciences and humanities will increase.

### 2.7.2. The university funding model and OA

The production of research outputs by university staff is part of the university funding model. During the years 2017–2020, universities receive 13 % of their annual core funding based on the quantity and quality of peer reviewed scientific publications (Ministry of Education and Culture, Universities Core Funding from 2017). In the funding model which comes into force starting 2021, the universities will receive 14 % of their core funding based on scientific publications (Ministry of Education and Culture. Universities Core Funding from 2021).

Until present, OA publications have not given extra funding. However, in the new funding model (2021) more weight is given to publications which are OA. In the funding model, the routes to OA are understood as full OA publication channels, hybrid journals, and parallel publishing. The coefficient 1.2 will be used to count the value of OA publications published in 2017–2019 (Ministry of Education and Culture. Universities Core Funding from 2021). This means that peer reviewed OA journal articles, book sections and books are 20 % more valuable for universities compared to closed publications in the same publication type and classification in Publication Forum. For that reason, increasing the share of publications published in all OA routes is of financial interest for Finnish universities (Ilva 2019).

### 2.7.3. National publication collection

The MEC has collected national publication data (item records of publications produced by their researchers) from universities and other institutions of higher education since 2011. The publication data collected is used for counting the core funding according to the funding model described above. Consequently, it lies in the interest of the universities to report the publications of staff and affiliated researchers as extensively and accurately as possible. The monitoring of the OA status of publications has been integrated into the national publication collection since 2016 (Ilva 2019).

In 2016, slightly less than 30 % of the peer reviewed publications (in category A, articles) at Finnish universities were reported as OA (Ilva 2017), including OA publication channels, hybrid OA channels, and parallel publishing. In 2017, the share of OA publications had increased to roughly 40 %, and in 2018 the share exceeded 50 % (Ilva 2019, Figure 2). The increase has occurred in all forms of OA (gold, hybrid,

parallel), but the largest increase occurred in the share of parallel published publications (Ilva 2019).

Publication Forum is maintained by the Federation of Finnish Learned Societies, and provides “a classification of publication channels created by the Finnish scientific community to support the quality assessment of academic research” (Publication Forum 2019). The Publication Forum classification has been used as an indicator of quality to assess scientific publications produced at Finnish universities in the funding model set by the MEC since 2015 (Pölönen 2018).

The purpose of the Publication Forum (2019) classification system is to identify reliable publication series and publishers (level 1) and display those publication channels which have a larger appreciation and impact in the research community (levels 2 and 3). The publications are distributed in the following way: 1 = basic level (80% of publication volume) 2 = leading level (15%), 3 = top level (5%). Publications at level 0 have not yet been evaluated by the expert panels of Publication Forum, or do not meet the scientific criteria of Publication Forum. To some extent the publications on level 0 also entails predatory journals (Publication Forum 2019).

The Publication Forum classification should not be used for evaluating and comparing individual researchers or publications, but to evaluate publication channels and their development in their research fields respectively. For example, this means that individual papers in level 1 journals might be of higher quality and have higher impact than average, while individual journals in level 2 or 3 journals may be less qualitative and have less impact than the average in that level. Both in the new and old funding models, the coefficient of publications at different levels in Publication Forum are the same (Publication Forum 2019).

### 3. Researchers' publishing patterns in the changing landscape of scholarly communication

The adoption of the principles of OA in the scholarly community is shaped by a variety of factors, such as typical patterns of scholarly publishing in each discipline respectively (Gaines 2015, Gross & Ryan 2015, Rowley et al 2017). This chapter presents previous research on patterns of scholarly publishing characteristic to various disciplines, together with an overview of how OA is part of different disciplines. It continues by reviewing previous research on how researchers' awareness, knowledge and perceptions of OA have been examined, and which factors have been assessed as relevant for researchers in their decisions of where to publish.

#### 3.1. Patterns of scholarly publishing and OA developments in various academic disciplines

Across disciplines, different patterns of scholarly publishing have traditionally been prevalent. This chapter provides an overview of the patterns of scholarly publishing and how these relate to the development of OA in humanities and other disciplines. As Puuska (2014) observes in her study on scholarly publishing patterns in different disciplines in Finnish universities in the beginning of the 2010s, academic institutions are internally diverse and comprised of many different academic cultures. In addition to the nature of the topics of research, research conducted in different disciplines have different aims, audiences and structures of funding.

##### 3.1.1. Characteristic patterns of scholarly publishing in different disciplines

When it comes to publishing patterns, there are differences across disciplines concerning which kinds of publications are typical and how their statuses are perceived: whether scientific journals, books or conference proceedings considered the most important research outlets. In addition, researchers in different disciplines differ in their perceptions of what good quality publications are, which in turn affect their tendency to adopt science policy aims (Puuska 2014). Researchers in different academic environments and disciplines have different ideas about what publishing is about.

Peer reviewed journal articles are the primary literature in the so-called hard sciences. In natural sciences, journal publishing is the predominant venue for publishing, and in engineering conference proceedings are a central channel for disseminating the latest research results. Compared to these disciplines, monographs emerge as an important form of scholarly publishing in humanities and social sciences (Giménez-Toledo and Román-Román 2009, Williams et al. 2009). Despite the importance of monographs in humanities and social sciences from a long-term perspective, journal articles remain the predominant research output in all disciplines today (Dalton, Tenopir & Björk 2020, Suber 2012).

### 3.1.2. Patterns of OA publishing in different disciplines

Patterns of scholarly publishing differ across disciplines, as well as the patterns of OA publishing. The distinctive patterns of scholarly publishing prevalent in different disciplines have been seen as one contributing factor to why the transition to OA have been adopted to a varying degree in various disciplines and progressed at different pace (Eve 2014, Williams et al 2009). The differences across disciplines depends on several factors and cannot thus be reduced to the decision-making of individual researchers (Gaines 2015, Gross & Ryan 2015, Rowley et al 2017).

Previous studies have identified disciplinary differences in OA publishing. While the amount of OA journals has grown rapidly in the medical and natural sciences (Archambault et al 2014), the amount has not been as large in the humanities and social sciences (Darley & Wickham 2014, Eve 2014).

A central factor connected to the differences in publishing in the humanities and the sciences are the production costs of books and articles. The production of books is more expensive than articles, which makes it more difficult to develop business models for sustainable OA book publishing. The publishers of scholarly articles never pay royalties to the author, which he further perceives as one of the main reasons why the global OA movement has had articles as its main concern (Suber 2012). At the same time as the above mentioned characteristic patterns of scholarly publishing have been observed in empirical case studies, it should also be noted that variations in these occur are also related to historical, national and cultural contexts (Kulczycki et al 2018)

In humanities, the OA financing model in which the author pays, is less established than in sciences overall (Eve 2014, Williams et al 2009). However, in recent years, author-based funding has become more common also in humanities. In Plan S (2018), it is mentioned that the transition towards OA for monographs and book chapters is a separate process which will take a longer time than for achieving OA for scholarly articles.

Despite several initiatives to increase the production and dissemination of OA books, the development has been even slower than for OA articles (Eve 2014, Williams et al 2009). Roughly 27, 000 peer reviewed books are available in Directory of Open Access Books (DOAB 2020). Compared to the number of journals and individual journal articles available in DOAJ, the number can be considered minor. The majority of journals in humanities (and social sciences) listed in DOAJ do not charge APCs (DOAJ 2019).

### 3.2. Awareness, knowledge, and perceptions of OA among researchers

This sub-chapter presents previous research on awareness, knowledge, and perceptions of OA among researchers. Across disciplines, there are different patterns of open access behavior. Previous research pays attention to the relevance of disciplinary cultures and norms in relation to open access behavior (e.g. Gross & Ryan 2015). It has also been observed that the level of adoption of OA publishing models is lower in humanities and social sciences than in sciences, technology and medicine (Coonin & Younce 2010, Gross and Ryan 2015). At the same time, there are also variations within disciplines. The proportion of OA publications is rather large in biomedical research and math, while it is minor especially in engineering, chemistry, and the humanities (Archambault et al 2014).

Firstly, lack of knowledge is an obvious reason for not choosing to publish OA. In Gaines' (2015) case study, faculty reported that they were familiar with OA publishing, but reported that they did not have practical knowledge on how to publish OA. On the other hand, another central observation is that familiarity, awareness and knowledge of OA issues does not automatically result in choices to use various routes to OA. Fourthly, lack of knowledge may still correspond to positive perceptions of OA

publishing. Gross and Ryan (2015, 85) concluded in their study on humanities and social sciences that researchers have “limited knowledge about open access practices and outlets, but great support for the philosophy, tenets, and ethos of the OA movement”.

As the field of scholarly communication and publishing has undergone a change in the past few years, it can be assumed that changes occur also among respondents. In their recent study on attitudes towards OA among scholars in social science and humanities, Dalton, Tenopir & Björk (2020) found that more than 90 % of think that their fields would benefit from OA publications.

Lack of knowledge or incorrect understandings of OA publishing affect researchers’ decision-making. For example, when it comes to green OA, researchers tend to underuse the opportunities to parallel publish since they are not always aware of the journals’ copyright policies and do not know that they are allowed to parallel publish (e.g. Laakso & Polonioli 2018). It has also been observed that researchers do not parallel publish because of lack of time or lack of institutional support, although they know how to do it and recognize that it would be beneficial for them (e.g. Yang & Li 2015).

The quality of OA journals, and which aspects are included in notions of quality, has been a widely debated issue. Predatory publishing has been one of the main concerns in OA publishing. Predatory OA publishers who collect APCs without sending the manuscripts for peer review are one of the main concerns. The fear of predatory journals was emphasized in the early days of OA development (Dalton, Tenopir & Björk 2020, Suber 2012). Especially during the early years of OA publishing, many scholars thought that OA journals are not peer reviewed at all (Dalton, Tenopir & Björk 2020).

The following aspects of awareness, knowledge and perceptions of OA have been identified as central to understanding the perspective of the researcher as author:

- self-reported awareness or knowledge of different forms of OA publishing (gold, green, hybrids),
- perceptions of the quality of OA journals,
- perceptions of the benefits of OA publishing,
- perceptions of whether there are relevant OA journals in the field of research,



- perceptions of institutional support,
- views on the future of OA.

As the situation of OA has developed at a rapid pace in the past years, studies conducted in different academic, social and cultural contexts are difficult to compare to each other. Typically, many studies are case studies whose results cannot be directly transferred to other contexts.

### 3.3. Publication attributes

The relevance of publication attributes is a central topic in studies on researchers' motivations when choosing venues for publishing their research. Examples of publication attributes which have been studied (although they to some extent overlap each other) are relevance in the field of research, perceived reputation and quality, speed of publication, impact factor, circulation and readership, and attributes related to the OA status of the publication (Blankstein & Wolff-Eisenberg 2019, Coonan & Younce 2010, Solomon & Björk 2012, Dalton, Tenopir & Björk 2020, Zhu 2017).

The relevance in the field of research, together with the perceived quality and prestige of the publication, are the attributes which generally are perceived among the most important for researchers. Publication choices based on these attributes maintains the position of journals which are considered prestigious and established in their fields respectively. In contrast to most of the previously mentioned publication attributes, the attributes related to the OA status are more seldom considered highly important for researchers. In addition, this tendency seems to occur despite researchers being aware of the benefits of publishing gold OA or green OA (Blankstein & Wolff-Eisenberg 2019, Solomon & Björk 2012, Zhu 2017). Consequently, researchers continue to decide to publish in traditional subscription journals because of the academic prestige associated with those journals. For instance, according to the Ithaka S + R US Faculty Survey 2018, faculty members are increasingly interested in OA publishing and positive about OA publishing models, but only four in ten faculty members report that a journal's OA characteristics are highly influential when deciding which journal to publish in (Blankstein & Wolff-Eisenberg 2019).

### 3.4. Demographic and other background factors

Awareness, knowledge, perceptions, and intentions to publish OA are also shaped by demographic or individual factors. In previous studies, demographic factors such as age and gender, academic position/affiliation (Rodrigues 2014, Zhu 2017) have been examined as central background factors in the publishing behavior of researchers.

The notion of age can primarily be understood as the researchers' stage in their academic career or academic position. Rodrigues (2014) observed that younger researchers tend to have more positive attitudes towards OA publishing than senior researchers. Age and academic position have also shown implications for the perceptions of quality and prestige of publication channels. In Coonin and Younce's (2010) study, senior researchers considered OA journals less prestigious than traditional subscription journals. In contrast, Yang and Li (2015) observed that tenured faculty are more engaged and interested in OA publishing than the average researcher, which, in turn, may be explained with external motivation from research funders.

Despite some variations in OA awareness and behaviors have been observed across age groups and gender, e.g. Rodrigues (2014) also argues that the differences between age groups and gender should not be considered strong predictors of OA awareness, motivations and behaviors. However, the stage in researcher's academic career may have implications for what kind of services and support researchers need.

### 3.5. The role of university libraries and other institutional support

The role of university libraries in scholarly communication is a recent topic in the debate on how to support OA, both on an institutional level and from the perspective of researchers (8). Previous studies conducted both in international contexts (Klain-Gabbay & Shoham 2018) and in Finland (Ala-Kyyny 2018) show that university libraries have been central in both increasing the level of OA publishing at research institutions and providing services which support researchers in publishing OA.

A well-established way for university libraries to facilitate a change towards increased OA is the establishment of institutional repositories (IRs) for parallel publishing (Gross & Ryan 2015, Narayan & Luca 2016). The purpose of IRs is to provide long-term archiving of publications, show the university's research output, and allow greater

visibility for the research (Klain-Gabbay & Shoham 2018, Narayan & Luca 2016). Also in Finland, university libraries have taken an active role in facilitating parallel publishing, especially by maintaining institutional repositories and supporting researchers in the self-archiving procedures, but in addition to the existence of IRs, researchers need to be motivated to parallel publish (Ala-Kyyny 2018, Björk et al 2014, Kim 2011). In IRs, publications published in full OA channels as well as the parallel published versions which otherwise would be closed access, are deposited. In the Finnish context, the IRs maintained by the universities also have a financial dimension. The publications reported to the IRs are utilized as part of the national publication collection to the MEC. The reported publications constitute the basis for the university's state funding.

Opportunities to funding for APCs is another example of how institutional aspects and level of research infrastructure affect researchers' decision-making when choosing publication channels (Zhu 2017). In Finland, researchers affiliated to universities whose libraries are part of the FinElib consortium, which negotiate access agreements with publishers, can benefit from the OA deals through transformative agreements (FinElib 2020). Researchers can also include APC costs in their project budgets when applying for research funding from Academy of Finland (2020).

## 4. Research design and methods

The present study is designed as a case study. In this chapter, background information of the case organization, Åbo Akademi University, is presented. Next, the purpose and structure of the case study design, as well as the choices of data collection methods and analysis are described. For the scope of the study, two different data collection methods were conducted: to map the patterns of scholarly publishing in humanities at ÅAU in relation to other disciplines, a quantitative analysis of publication data was conducted. In addition, a quantitative questionnaire was conducted at the Faculty of Arts, Psychology and Theology to map the views and experiences of OA publishing among researchers in humanities.

### 4.1. Presentation of the case organization: Åbo Akademi University

ÅAU is a Swedish-speaking university in Finland which have 1,100 employees, of which 650 in teaching and research, and 650 postgraduate students (ÅAU 2019). ÅAU consists of four faculties: the Faculty of Arts, Psychology and Theology; the Faculty of Education and Welfare Studies; the Faculty of Social Sciences, Business and Economics; the Faculty of Science and Engineering. The humanities subjects at ÅAU are distributed in five study programmes: the Study Programme for Culture, History and Philosophy; the Study Programme for Languages, the Study Programme for Theology; the Study Programme for Psychology; the Study Programme for Language Pathology. The first open science policy of ÅAU was launched in March 2017. The open science policy can be considered an important action to strategically strengthen researchers' opportunities to utilize the different routes to OA and enhancing the profile of the university. The ÅAU policy for open science (2017) also includes guidelines for peer reviewed OA publishing, formulated as follows:

1. Scientists at Åbo Akademi publish their research in peer-reviewed scientific publications of high quality within their own discipline. As scientific publications are considered articles in scientific journals, serials, books, conference publications, reprints and theses for Master's degree, licentiate degree and doctoral degree.

2. Scientific publications produced at Åbo Akademi University are made as openly available as possible, considering the publisher's terms and conditions, as well as current legislation and agreements.
3. Åbo Akademi University recommends publishing in peer reviewed Open Access journals of high quality (i.e. gold open access).
4. Scientific publications are published as open access in the Åbo Akademi University Library archive always when the publisher's terms and conditions allow this (i.e. green open access).

The first point makes the claim that researchers are expected to publish in peer reviewed publications of *high quality*, within *each discipline* respectively. The first point does not explicitly mention OA alternatives, since OA is catered in points 2–4. With regards to the routes to OA, the open science policy clearly includes both gold OA and green OA. Furthermore, the aim is to make research outputs *as openly available as possible, according to the publisher's terms and conditions*. Although the policy clearly takes a stand for OA to encourage researchers to choose OA routes when publishing, the decision-making remains in the hands of researchers.

Openness in science and research, including OA publishing, were included in ÅAU's "Breaking boundaries. Goals and strategies 2015–2020" and is mentioned in the new strategy for the years 2021–2030 called "Åbo Akademi – det havsnära bildningsuniversitetet", which will come into effect in the beginning of 2021.

Similarly, as in other universities, the ÅAU library and the research services have intensified their services and support for researchers in OA issues. In the final report *Atlas of Open Science and Research in Finland* (2019), issued by the MEC, the openness of Finnish institutions in higher education is evaluated. The report maps best practices among Finnish higher education institutions, research institutes, research-funding organizations, academic and cultural institutes abroad and learned societies and academies in 2019. The evaluation was conducted by using different indicators: 1) Strategic Steering, 2) Policies and Principles, 3) Supporting Openness, 4) Competence Development, and the participating organizations were arranged in a hierarchy of maturity level. Although the report does not evaluate the quality of the work, it can be used to identify potential problem areas. In the report, ÅAU is ranked on maturity level

5 of 5, labelled as “Strategic” (Forsström et al 2019). Based on the report, it could be assumed that the measures taken at ÅAU to facilitate a transition towards increased OA have been extensive.

#### 4.2. The case study design

Case studies can largely be characterized as in-depth studies of particular situations, organizations, or kinds of events or as studying a contemporary phenomenon in its real-life context (Yin 2014). When choosing the case study design, the definition and choice of case, data collection methods and methods for analysis are tailored to follow the aim of research and the research questions. Since the overall research aim is to *examine the transition from closed access publishing to OA publishing in formal scholarly communication in the humanities*, it is useful to illustrate this development by approaching a particular organization. Moreover, as the aim includes both examining the institutional perspective of publishing patterns and the perspective of researchers, more than one data collection method is needed.

When selecting and defining the ‘case’ in the first place, there are several criteria for selection to consider, as this serves as a limitation for the study. According to Korzilius (2010b, 3), the rationale for case selection can be framed in a number of different ways: the case can be selected to critically test a theory, or to illustrate an extreme, unique case whose exceptionality makes it worth studying, or to choose a typical case that captures the characteristics of everyday situations. These categorizations can be considered ideal types and the choice of case for the present study can rather be considered a mixture of two of them: the patterns of scholarly publishing in humanities differs from those in other disciplines and is in that sense unique and exceptional, while humanities also represent a typical case in the sense that the object of study is one of the core activities in academia overall – peer reviewed publishing.

Another critical issue is whether to select the single case study approach or multiple case study approach. The advantage of a single case study is that the focus is on providing a detailed description and analysis to map the understanding of the phenomena of interest or the object of study from different perspectives. In contrast, the advantage of a multiple case study is that it enables cross-case analysis to shed light on both similarities and differences in the cases selected (Creswell & Creswell 2018). For

the scope of the present study, the single case study design is primarily selected to provide an in-depth examination into the publishing patterns and views on and experiences of OA publishing in humanities at ÅAU.

The single case study design, with a focus on humanities, does not allow a comprehensive comparison with the publishing patterns or views on and experiences of OA publishing in other disciplines. However, the main characteristic patterns of scholarly publishing in other disciplines are mapped to contextualize the situation in humanities. Therefore, publishing patterns in humanities are examined in relation to those in other disciplines.

The case study approach further operates at different levels: a descriptive, interpretative and evaluative level (Yin 2014). The present study can be considered both interpretative and evaluative. The notion of interpretative means that the focus is on interpreting the obtained data in relation to the context and previous studies. The evaluative dimension means that the obtained data which form the analysis is used to evaluate the situation or the object of study. The interpretative and evaluative dimensions of the case study are included in the analysis chapter and the discussion chapter.

#### 4.2.1. A quantitative approach

The main methodological choice concerns the choice between quantitative and qualitative methods, and an assessment whether they are fruitful for responding to the research questions. While qualitative methods are used to gain deep and versatile knowledge on a subject, quantitative methods are used to gain larger amounts of information concerning a specific topic (Creswell & Creswell 2018). As no previous studies have been conducted concerning the publishing patterns in humanities at ÅAU or the views and experiences of ÅAU researchers, the option of a mainly quantitative design is motivated to gain a broad and versatile view of the current state of OA publishing at ÅAU.

Although the case study design is motivated for the scope of the study and quantitative methods a proper approach to collect data, case study methodology is more often associated with qualitative methods for data collection. As Korzilius (2010a, 2010b) notes, a quantitative approach is usually not considered the conventional methodological approach in case studies, but it may still be useful. When quantitative methods are used in case studies, it should be observed that further mentions, “the ideal

(in case studies) is to realize not statistical generalization but analytical generalization, to be able to generalize results to a broader theory” Korzilius (2010b, 7). In other words, this means that the results cannot be generalized to all ÅAU researchers at the faculty, or even researchers within a given study programme or subject. As the purpose of the study is to map the views and experiences of researchers and an overview of the publishing patterns in humanities at ÅAU, the main contribution of this study can be considered empirical.

According to Korzilius (2010b), it should be observed that the function of quantitative analysis in case studies differ from other quantitative research designs which follow a more linear pattern (e.g. used for predicting behaviours). Case studies are often characterized as a process, and therefore the data collection and data analysis are less pre-determined and can be adapted to the need to describe and explain the topic of study in its context. The limits of the quantitative analysis “must be considered within the frame of the case study design, examining a phenomenon in its real-life context” (Korzilius 2010b, 762). Taking this into consideration in the research design, the new insights to be gained are assessed as more important than the opportunities for (statistical) generalization.

#### 4.2.2. A multi-method approach

A typical trait of case studies is that more than one method are used for data collection and analysis (Creswell & Creswell 2018). Also for the present case study, a multi-method approach is chosen. As the term suggests, a multi-method approach uses more than one method (at minimum two methods) of data collection. The multi-method approach enables examining the research target from different methodological perspectives, and thus provides a broad basis for retrieving diverse and extensive results. A multi-method approach further enables answering to separate but closely linked research questions (Creswell 2018). Since the scope of the study can be considered broad, this is an advantage which further motivates applying two separate methods.

In the literature review, the main characteristic patterns of scholarly publishing were identified and compared to those in other disciplines (e.g. Puuska 2014, Williams et al 2009). To respond to the question 1) *Which patterns of scholarly publishing are typical to humanities in general and how is OA part of those patterns*, the method chosen for



the case study is analysis of publication data. By applying a quantitative analysis of publication data, the following sub-questions will be examined:

- How large is the share of peer reviewed OA publications produced in humanities, compared to other disciplines?
- Which routes to OA and other publication characteristics are typical to publications in humanities, compared to other disciplines?

Based on the results, the enablers and barriers in the transition are assessed. Since the aim is also to examine the transition towards OA from the perspective of researcher, a survey is conducted at the Faculty of Arts, Psychology and Theology. The second research question is 2) *What is the level of awareness and knowledge of OA publishing among researchers in the humanities and how do they perceive of OA publishing?* This question is, in turn, divided into sub-questions:

- To what extent do researchers report awareness and knowledge of different forms of OA publishing?
- To what extent do they have experience of OA publishing?
- What are their perceptions of OA publishing?
- Which are the main factors that would support FHPT researchers in publishing OA and which are the main factors that hinder them from publishing OA?

The quantitative survey is chosen since it can be used to collect structured information of a specific group of people (population) and how that population perceives a particular phenomenon, and how common that phenomenon is among the selected population (Creswell & Creswell 2018). Moreover, the quantitative approach allows collecting data of a larger number of respondents, compared to qualitative approaches. In quantitative studies, different aspects of the research problem are measured to understand the relation to other variables. For that reason, data collected for those purposes are quantifiable (Creswell & Creswell 2018).

According to Creswell and Creswell (2018), multi-method approaches build on different ways to understand the relation between different types of data. The understanding and use of data can be categorized as triangulation, complementary, development, initiation or expansion. In the present study, the use of two different methods is primarily assessed as complementary in relation to each other: they shed light on different aspects

of the phenomenon of scholarly publishing. The use of multi-methods further mean that the sub-projects are planned independently of each other and are intended to answer a particular sub-question. Together, the methods should provide a versatile range of insights into the topic (Creswell & Creswell 2018).

For the purpose of research, two different methods are chosen. In research on patterns of scholarly publishing and researchers' productivity, publication data originating from Current Research Information Systems are used (e.g. Kulczycki & Korytkowski 2020). To map the patterns of scholarly publishing in humanities at ÅAU, publication data is retrieved and analyzed. The method of collecting publication data, by utilizing the national publication database Virta, and the characteristics of the data are described in section Data collection 1. The publication data represents official statistics which are used in the universities' funding model. The reported publication data can be considered an indicator of actual open access behaviour. To map FHPT researchers' views on and experiences of OA publishing, a survey is conducted. The survey method is described in Chapter 4.3. The presentation of the two data collection methods does not reflect the practical work order, as the two data collections have been conducted parallel to each other.

### 4.3. Data collection 1: ÅAU publication data

The quantitative analysis of publishing patterns is based on publication data. This chapter presents the features of universities' publication data, the Virta publication information service and its user interface Juuli, which provided bibliographic data services.

#### 4.3.1. Presentation of the publication data in the Virta database

The publication data freely available in the national publication database Virta has been obtained from the universities and other research organizations as part of the annual publication data collection conducted by the Ministry of Education and Culture (Ilva 2019). The research organizations report publications produced by their staff into the database Virta, which is maintained by CSC, the IT Center for Science, a center of expertise in information technology owned by the Finnish state and higher education institutions. The publication data provided in Virta originates from the Current Research

Information Systems (CRIS) used at the research institutions. At the time this study was conducted, the CRIS used at ÅAU was Converis, called Artur. Researchers at ÅAU are asked to report their publications into Artur and the publications are checked and validated by librarians. In the validation process, publication data and OA availability are controlled to avoid any incorrect information about the publication. The publication data in Virta is transferred every night to the Juuli user interface, which is maintained by the National Library of Finland. The publication data is freely available through the user interface Juuli.

#### 4.3.2. The features of the publication data

The annual publication data collections follow the definitions provided by the MEC in a handbook (e.g. Tiedonkeruun käsikirja 2018). The publication data includes bibliographic data, author data and background institution data. Below the features of the bibliographic data are presented: year, authorship, publication type, OA status.

##### Year

The universities may report publications up to two years after they have been published, which means that publications published in 2018 may not have been reported until the publication collection in 2020. For that reason, the available publication data of 2019 is assessed as preliminary at the time of conducting this study, and the publication data of 2018 is therefore selected as the object of study. As the quantitative analysis based on publication data focuses on the year 2018, the standards defined in the handbook for the year 2018 is followed (Tiedonkeruun käsikirja 2018). At the time of the study, the publication data for 2018 was available through Juuli, and had been validated by ÅAU librarians and the MEC. As the publication data in Virta is continuously subject to change, to avoid any miscalculations and misinterpretations due to changes in the publication data, the data sets retrieved (24–25.3.2020) for this study were checked in May 2020.

##### Authorship

Publications are often written by several authors, sometimes affiliated to different universities. This means the present study analyzes publications for which at minimum one researcher affiliated to ÅAU has been registered as a co-author. The publication data of affiliated researchers at all academic levels and with different kinds of

employment or affiliations is included: doctoral students (both salaried and those on scholarships), university teachers, project researchers, post-doc researchers, professors etc. The publications of associate professors (“docents”) are excluded from the national publication collection, since their publications are not reported as ÅAU publications. In co-authored publications between researchers with different university affiliations, the publications may occur in the data as duplicates (Tiedonkeruun käsikirja 2018).

### Publication types

The national publication collection concerns both peer reviewed publications and non-peer reviewed publications (intended for other than primarily academic audiences). Since the present study concerns peer reviewed publications only, the focus is limited to publication types A and C, whose sub-types are listed in Table 1 (Julkaisutiedonkeruu 2018: Käsitteet ja määrittelyt). Publication type A includes peer reviewed scientific articles, and C includes scientific books (monographs).

*Table 1. Peer reviewed publication types according to the MEC (Julkaisutiedonkeruu 2018).*

PUBLICATION TYPES (PEER REVIEWED)	
A	Peer reviewed scientific articles
	A1 Journal article (refereed), original research
	A2 Review article, Literature review, Systematic review
	A3 Book section, Chapters in research books
	A4 Conference proceedings
C	Scientific books (monographs)
	C1 Book
	C2 Book (editor), chapters in research books, conference proceedings or special issue of a journal

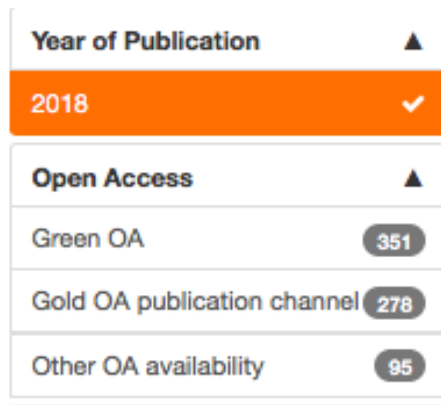
Publication type C2 refers to editorship, which implies that publications reported in this publication type does not reflect authorship as such. However, publications in C2 constitute a central part of the publishing pattern in humanities, and is for that reason included in the present study.

#### 4.3.3. The OA status of publications

The OA status of the publications is one of the features reported by research organizations. In the handbook for publication data collection (Julkaisutiedonkeruu 2018), the OA status is defined by the guidelines provided by the MEC. It should be observed that these definitions may be narrower or broader in scope than the definitions discussed in Chapter 2. In the handbook for publication data collection, the OA status of publications is defined by the following guidelines (below as summarized by Ilva, 2019):

- The publication is freely available to read, but a license (such as CC BY) which defines the re-use of the publication is not mandatory.
- The publication is openly available in the publisher's channel (in a full gold OA channel or in a hybrid journal) AND/OR it can be parallel published in an open repository (green OA). The parallel publishing of publications which originally have been made available in the publisher's channel result in an overlap between the OA statuses (full OA, hybrid, green OA), which complicated the retrieval and interpretation of OA availability.
- For parallel published publications embargoes are accepted, but in case it is published in the publisher's channel, the access needs to be immediate. Delayed (full) OA is not considered viable OA in the national publication collection at the time of conducting this study.
- Parallel publishing in an institutional repository (provided by the university) or a discipline-specific repository are equally accepted as green OA.
- The dissemination of publications on a research project's website or in academic social networks (ASNs) provided by commercial actors, such as ResearchGate and Academia.edu, are not considered viable OA.
- The OA version of the publication needs to be peer reviewed. The pre-print version (which the author has submitted to the journal) is not peer reviewed, and thus it does not meet the criteria of MEC. The final version of the author or of the publisher are peer reviewed, and thereby meet the criteria of OA.

Figure 1. The OA status options in the Juuli user interface.



Since 2016, two separate fields used in the data collection process, also visible in the research portal Juuli, have been used to indicate the OA status of each publication (Figure 1). One of the fields indicates whether the publication has been made available in a full gold OA channel or in a hybrid journal (Other OA), while the other field indicates whether the publication has been deposited into an institutional repository or other relevant subject repository (green OA) (Ilva 2017, 2019). To validate the OA status of the publications, the URLs of the different versions of the publications are collected.

As observed by Ilva (2017), the OA statuses of the publications to some extent overlap, as publications which originally have been published in full gold OA channels or in hybrid journals may also have been parallel published in the university's repository or a subject-specific repository. These publications are available both at the publisher's website and as parallel published in the institutional repository/national publication database. Because of the overlap, the additional benefit of green OA needs to be calculated separately. The category green OA+ is used to indicate the additional benefit of green OA. The number of green OA + publications is counted by subtracting the number of publications which have been both published in a gold OA channel or in a hybrid journal, from the total number of parallel published publications (Ilva 2017, 2019). Publications indicated as green OA+ are not available in gold OA or hybrid journals.

### Fields of science

The publications reported to Virta by the universities are categorized according to the division of fields of science as defined by Statistics Finland (2010):

- 1 Natural sciences
- 2 Engineering and technology
- 3 Medical and health Sciences
- 4 Agricultural sciences
- 5 Social sciences
- 6 Humanities

All fields of science, except of agricultural science, were represented among ÅAU publications in 2018. It should be observed that the fields of science provided by Statistics Finland do not follow the structures of subjects and faculties of the universities. For instance, this means that researchers affiliated to FHPT may produce scientific works which are categorized in social sciences, and researchers in other faculties which produce scientific works which are categorized in humanities in the publication collection. In the sub-study, the terms discipline and field of science are used interchangeably (the term field of science is used when referring to the category used in publication data).

### Publication Forum classification

Publication Forum is a classification system, which operates under the Federation of Finnish Learned Societies, and is intended to support the quality assessment of research output (Publication Forum 2019). The publication's classification in Publication Forum is automatically added to the publication data (1=basic, 2=leading, 3=top) after the university's reporting. In Juuli, publication channels marked with a hyphen (-) in the search results represent level 0, which include both unranked channels and channels regarded as non-scientific (to some extent also predatory journals). If a publication has no marking, the publication channel is under evaluation and has not yet received a classification in Publication Forum. Currently, OA journals are evaluated on the same basis as traditional closed publication channels (Publication Forum 2020).

Figure 2. The user interface and advanced search function of Juuli.

<b>Institution:</b> University of Jyväskylä University of Lapland University of Oulu University of Tampere University of Turku University of Vaasa Vaasan ammattikorkeakoulu VTT Technical Research Centre of Finland Ltd Yrkeshögskolan Novia <b>Åbo Akademi University</b>	<b>Suborganization:</b> Ammattikorkeakoulu Turun ammattikorkeakoulu Amk, Taideakatemia, yht. Amk, Taideakatemia, yht. Rakentaminen, ympäristö ja energia Yhteiset palvelut Terhy monimuotokoulutukset ja YAMK Liiketalous Amk, Terhy Master School
<b>Field of Science:</b> Humanistiset tieteet Historia ja arkeologia Kielitieteet Muut humanistiset tieteet Teatteri, tanssi, musiikki, muut esittävät taiteet Teologia Kirjallisuuden tutkimus Kuvataide ja muotoilu Filosofia Luonnontieteet	<b>Publication Forum Class:</b> 1 2 3
<b>Type of Publication:</b> <b>A Peer-reviewed scientific articles</b> A1 Journal article (refereed), original research A4 Conference proceedings A3 Book section, Chapters in research books A2 Review article, Literature review, Systematic B Non-refereed scientific articles B1 Non-refereed journal articles B2 Book section B3 Non-refereed conference proceedings <b>C Scientific books (monographs)</b>	<b>Open Access:</b> Ei tietoa Gold OA publication channel Green OA Not Green OA Not OA Other OA availability
<b>Language:</b> Afrikaans Albanian arabia Armenian bengali Bulgarian Catalan Chinese Croatian Czech	<b>Year of Publication:</b> 2011 2012 2013 2014 2015 2016 2017 <b>2018</b> 2019 2020

#### 4.3.4 Search strategies for retrieval of ÅAU publication data in 2018

This section describes the search strategies conducted in Juuli to retrieve the ÅAU publication data of 2018. The search strategies for retrieving ÅAU publication data for 2018, with a particular focus on the OA availability of the publications, are based on Ilva's (2017, 2018, 2019, 2020a, 2020b) descriptions and methods of data retrieval.

The first step in mapping the patterns of scholarly publishing at ÅAU is to retrieve the publication data of all fields of science of peer reviewed publications produced in 2018. The search criteria Institution, and 2018 for Year of publication were used in all



searches, and therefore not mentioned in the documentation of all search strategies described below.

**Search strategy 1:** Peer review in A, all fields of science & peer review in C, all fields of science

This search strategy retrieves the number of peer reviewed publications in each field of science. The results of the advanced search were filtered according to field of science: natural sciences, engineering and technology, medicine and health sciences, humanities, and social sciences, to show the number of publications type A and C in each field of science. The publication data of all fields of science is retrieved to provide the context of scholarly publishing at ÅAU.

**Search strategy 2:** Publication types in all fields of science

The number of publications in all publication types A1, A2, A3, A4, and C1, C2 were retrieved separately, and the total number of publications in each field of science was documented. The result of this search strategy is intended to show the differences of publishing patterns in different fields of science, in particular the differences between humanities and other fields of science.

**Search strategy 3:** OA status of publications in A1–A4, according to field of science

Publication type A is the main venue for publishing in all fields of science. The OA status of publications in all fields of science is retrieved to show the differences between different fields of science, in particular between the humanities and other fields of science. The OA status of publications was retrieved by examining each field of science and publication sub type (A1, A2, A3, A4) individually and documenting the OA status (gold OA channel, other OA availability, green OA) in each of them. In addition, the proportion of additional parallel publishing (indicated as green OA+ to remark the additional value of parallel publishing) was retrieved by sorting out and excluding those publications which were available both in the publisher's channel and in a repository. To confirm the proportion of publications which are not available as OA at all, the number of gold OA, other OA and green OA+ were subtracted from the total number of publications in each publication type.

**Search strategy 4:** OA status in different publication types, humanities

In this search strategy, the focus shifts to the humanities only to examine the OA status of publications in different publication types (A and C) in humanities. The OA status is retrieved by conducting the search for each publication type individually and documenting the number of publications and their OA status (gold OA channel, other OA availability, green OA+) in each publication type separately.

**Search strategy 5:** Publication Forum classification in publication type A1–A4, all fields of science

By using this search strategy, the distribution of Publication Forum classification across all fields of science is examined. The search is limited to publication type A, since type C is not prevalent in other fields of science than humanities and social sciences (as examined by search strategy 1). The share of publications in each Publication Forum class (1–3) is retrieved by first retrieving all publications in publication type A for each field of science individually. For each field of science, the number of publications in each Publication Forum class is documented. Publications classified at level 0 (-), and those unranked in Publication Forum, are not included in the total number of publications in each field of science.

**Search strategy 6:** Routes to OA at different Jufo levels in publication type A, in all field of science

This search strategy is conducted to examine which routes to OA (gold OA channel, other OA availability, green OA+) are used for publication type A at different Jufo levels (1–3). All publications in all fields of science categorized as A1–A4 are retrieved for each OA status individually. Simultaneously as the OA status is examined, the numbers of publications in each Jufo level are documented.

**Search strategy 7:** Routes to OA at different Jufo levels in A, humanities

This search strategy is conducted to examine which routes to OA are used at different Jufo levels in humanities (A1–A4). First, all publications in A in humanities are retrieved. The OA status of those publications are examined individually, and the number of publications in Jufo 1–3 are documented.

When checking the OA status of the publications by searching the original publication on the publisher's website, the VPN and university credentials were not in use, ensuring

that these would not give access to subscription channels. To control the reliability, consistency and quality of the publication data, the different versions of the data sets acquired by using the search strategies documented above, have been compared with each other to ensure their correctness. The dates for retrieving the publication data and the search strategies used are documented in separate Excel files, to identify the potential changes over time. The last version was used for analysis of publishing patterns and is presented in the results in Chapter 6.

#### 4.4. Data collection 2: Survey on FHPT researchers' views on and experiences of OA publishing

The publication data retrieved by using Juuli, as described in the chapter above, can be used for mapping the patterns of scholarly publishing, but to gain insight into the researchers' experiences of and views on OA publishing, an additional data collection method is needed. A survey is an efficient method to reach a large number of respondents within a limited time frame. Another benefit of the survey method is that it collects structured data, as all informants receive exactly the same questions. Consequently, comparisons can be made across different respondent groups (Creswell & Creswell 2018).

A survey is a method for systematically gathering information from a population on a certain topic. Surveys are used to measure the frequencies with which the sample population experiences certain aspects of a defined phenomenon (Creswell 2018). In case study research, surveys are used to identify characteristics of a population by asking questions related to the topic of study. To map FHPT researchers' views on and experiences of OA publishing, conducting an online survey is thus an appropriate method for collecting data.

Surveys are used to examine individuals' self-reported knowledge, opinions and behaviors. Another limitation which relates to the role of social reality is that participants not only report what they think themselves, their responses may also reflect what they think that the researcher anticipates (Creswell & Creswell 2018). Although quantitative methods previously have been seen to represent an objective reality, it has been increasingly acknowledged that also the use of quantitative methods and

interpretation of quantitative results are shaped by social reality. All phases of the research process, starting from the definition of research aims and questions, to the research design and construction of measurement tools and the interpretation of results are shaped by the expectations of the researchers, the features of the data sources, and the informants (Creswell 2018).

#### 4.4.1. Population and sampling

The choice of population and sampling are critical to successfully receive responses which cover the research aim and questions. Researchers affiliated to the Faculty of Arts, Psychology and Theology constitute the population of the present study. The category of researcher includes all individuals at all career levels who conduct research as part of their work: doctoral students, postdoctoral researchers, university teachers, professors. Ideally, all researchers affiliated to the faculty (the population) would constitute the sample, but in practice, there is no guarantee that all individuals can be reached.

The survey was open 7.4–29.4.2020 and distributed online via e-mailing lists only (both general and subject-specific) to FHPT staff, researchers and doctoral students. The invitation to participate was also shared via the staff newsletter, and a link to the survey was posted in FHPT-related groups on Facebook and Yammer which is used for ÅAU internal communication.

One of the challenges in survey studies is to attract informants of different backgrounds and experiences to participate. In the cover letter, also researchers who did not have experience of OA publishing were encouraged to participate in the survey.

#### 4.4.2. The structure of the survey

The survey questions and measurement items are derived and adapted from previously used surveys. The present survey is adapted from Gaines' (2015) study "From Concerned to Cautiously Optimistic: Assessing Faculty perceptions and Knowledge of Open Access in a Campus-Wide Study". The survey was constructed by using the online survey tool SurveyMonkey. The entire survey is attached in Appendix 1.

The survey consists of a total of 20 questions distributed on ten different pages in the survey. The question items are used to measure to what extent respondents disagree or agree with statements on the principles of OA and perceived benefits of OA publishing.

In the survey, questions 1, 2, 7, 8, 10, and 11 are constructed in a 7-point Likert scale (1= strongly disagree, 7= strongly agree, or 1=extremely irrelevant, 7= extremely relevant) to measure the perceived awareness, knowledge and perceptions of OA publishing. In contrast to Gaines' (2015) study, where a 4-point scale was used, a 7-point grade scale was used in the present study to make the scale more sensitive to differences in the data. In addition, the order of the questions of the original survey was re-arranged to appear more logical for the respondent. Since the original survey was used in another educational context, items E, F and G in Q1, item L in Q7, and items A, C, E in Q10 were modified and/or added to fit the Finnish conditions and ÅAU as an institution. Moreover, item F in Q11 on the future of OA was added due to the outbreak of the COVID-19 crisis which coincided with the data collection. As the original study did not consider perceptions of parallel publishing, questions and items concerning parallel publishing were added to the survey.

For questions 6, 12, 13, ranking scales were used to measure the respondents' preferences. The background information of respondents (age, gender, academic position, study programme/subject) was collected at the end of the survey. In addition, the respondents were asked to choose their study programme and subject, but also an "Do not want to tell" option was available. The respondents' subject affiliations were mainly used to map the outreach of the survey across different subjects and groups of respondents. Thus, reminders could be sent out more efficiently to the e-mailing lists to reach the less represented participant groups.

The survey consists of 18 closed-ended questions, but two open-ended questions are included in the end of the survey. These responses in the open-ended questions are thematically coded and some examples are included in the presentation of results. As these responses are qualitative in nature, they are used to nuance the responses in the closed-ended part of the survey. The qualitative results are also used for triangulation to validate responses of the closed-ended questions.

In order to test the readability, consistency and transparency of the questions, a pilot study was conducted among five participants with varying academic background and experience, as well as varying knowledge of OA. The survey was adjusted before distribution to the target population.

The quantitative data retrieved from the survey is analyzed and presented as descriptive statistics. Descriptive statistics are used to describe the basic features of the data (of the sample and the measures) (Creswell & Creswell 2018). The measurements used are (frequency) distribution, central tendency (mean, median), and dispersion (standard deviation, SD). To analyze and describe the relationship between two categorical variables, cross-tabulation is used.

#### 4.5. Ethical considerations and research data management

Issues regarding research ethics were taken into consideration in both sub-studies at all stages of the research process: in the research design, the data collection, management of research data, analysis, presentation of results, and data archiving.

The publication data, which consists of bibliographic data, retrieved from the national publication database Virta, is publicly available data. The publication data has been reported by researchers and universities, and do not contain sensitive personal data. Consequently, the data retrieval, analysis, presentation of results, and archiving, do not violate the integrity of individuals. For the purpose of the thesis, only numerical data which relates to the share of publication types and OA status are relevant. The publication data retrieved from Virta, by using the Juuli interface, will be deposited and made openly available in the Finnish Social Science Data Archive (FSSDA) for future use. The procedures of data retrieval and processing are documented according to the instructions of FSSDA to guarantee the reliability and validity of data (FSD guidelines for depositing data 2020).

The collection and management of survey data bring to the fore several ethical concerns, as the collected data includes personal data. Participation in the online survey was anonymous, and the potential respondents were informed about this in the cover letter. Thus, all participants in the survey have given their informed consent. The main ethical concern in the management of survey data and in archiving was that the small size of subject units and respondent groups could potentially reveal the identity of the respondents. Therefore, the option of “Do not want to tell” was added as a response option in the survey where respondents were asked to opt their study programme and subject. For the presentation of results and data archiving, the data was further

anonymized. Subject units and respondent groups which consisted of only few respondents are not presented as such, but grouped together to represent larger units of respondents. The anonymized research data retrieved by the survey will be deposited and made openly available in FSSDA for future use. The respondents were informed in the cover letter that anonymized survey data will be archived in FSSDA. The procedures of data retrieval and processing are documented according to the instructions of FSSDA to guarantee the reliability and validity of data (FSD guidelines for depositing data 2020).

## 5. Results

The presentation of results is divided into sub-study I and sub-study II. First, the analysis of the patterns of scholarly publishing in humanities (2018) in relation to other fields of science at ÅAU is presented. After mapping the patterns of scholarly publishing by using the publication data, the results of the survey are presented. In the end, the main findings of both sub-studies are summarized.

### 5.1. Patterns of scholarly publishing at ÅAU

This sub-chapter analyzes the patterns of scholarly publishing at ÅAU and in humanities in particular. The main characteristic patterns of publishing in all fields of science are shortly presented and examined especially in relation to the characteristic patterns in humanities.

The presentation of the reported publications follows the division of fields of science as defined by Statistics Finland (2010). It should be observed that these fields of science do not automatically follow the division of faculties and subjects at universities. This further means that researchers affiliated to FHPT may produce publications which are reported in other fields of science, and similarly, researchers at other faculties may produce publications which are reported in the humanities category.

For the analysis of reported peer reviewed publications, the publication data of publications produced by ÅAU researchers was retrieved from the national publication database Virta by using the advanced search function in the user interface Juuli as described in chapter 4.3.4. The search was limited to the peer reviewed publications type A (journal articles) and C (monographs), publication year 2018, produced at ÅAU. The data was retrieved 26.3.2020, 10.5.2020, and 17.5.2020 and finally verified 23.8.2020. The data presented in this chapter represent the last version of the data retrieval.

#### 5.1.1. Patterns of scholarly publishing in all fields of science

In total 1016 peer reviewed publications in all fields of science of publication types A and C were published by researchers at ÅAU in 2018. The amount of publications in



each field of science is displayed in Figure 3. The results displayed in Figure 3 were retrieved by conducting search strategy 1 described in the method section. The largest number of publications were produced in natural sciences (312), followed by social sciences (280), and humanities (192).

*Figure 3. The amount (N) of peer reviewed publications (A and C) at ÅAU (2018), all fields of science.*

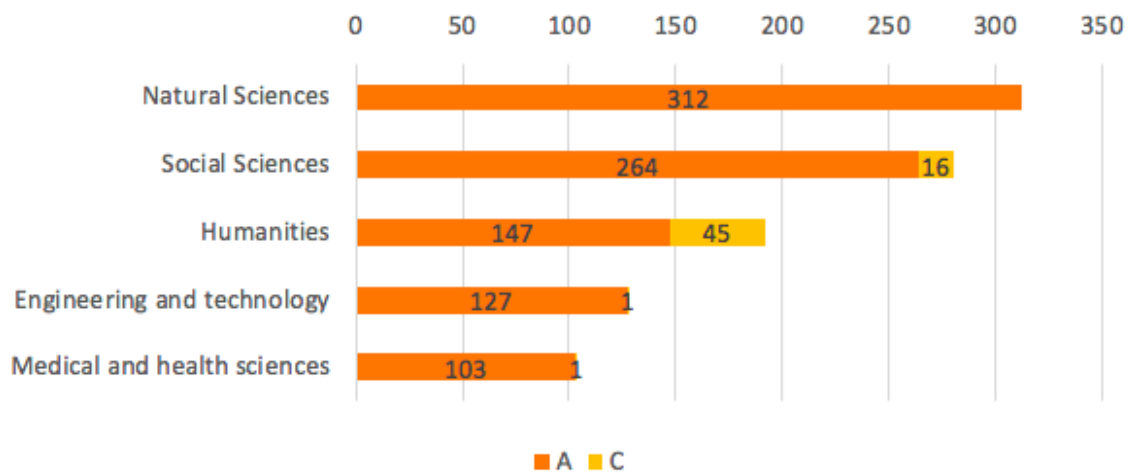


Figure 3 also shows the proportions of publications in categories A and C in each field of science. In humanities, a total of 192 publications had been reported, of which 147 publications were reported as journal articles (A) and 45 as books or edited works (C). As indicated also indicated in Figure 3, the proportion of publications in type C is largest in the humanities. Of the 45 publications in C in humanities, 6 were books (C1) and 39 were edited chapters in research books, conference proceedings or special issue of a journal (C2). It should be noted that editorship is not equal to authorship, but C2 is included in the analysis of patterns of scholarly publishing since the number of publications in C2 constitutes a central difference in the publishing pattern in humanities, compared to other fields of science.

Figure 4. The proportions of publication types (A1–A4, C1–C2) in all fields of science.

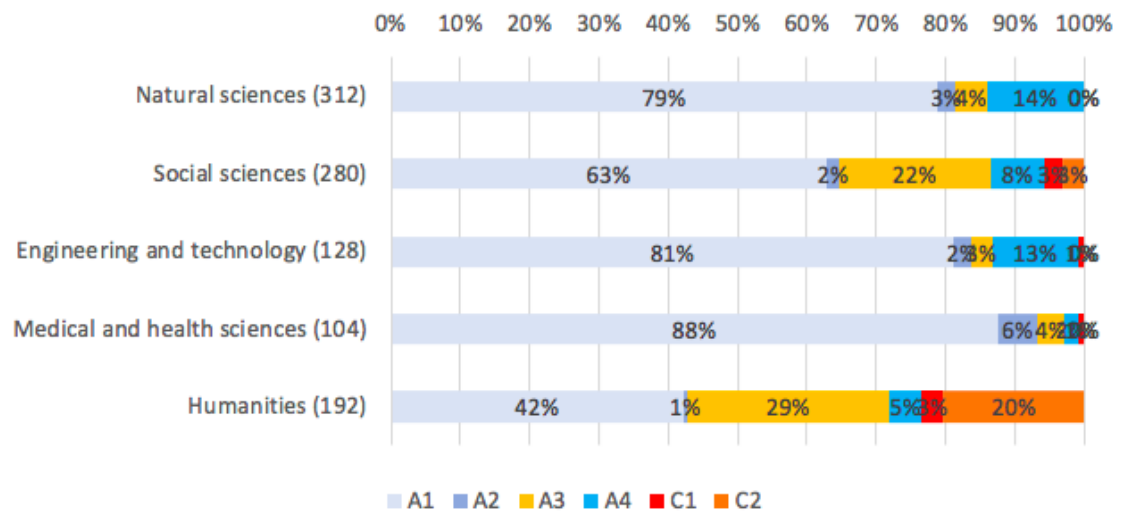
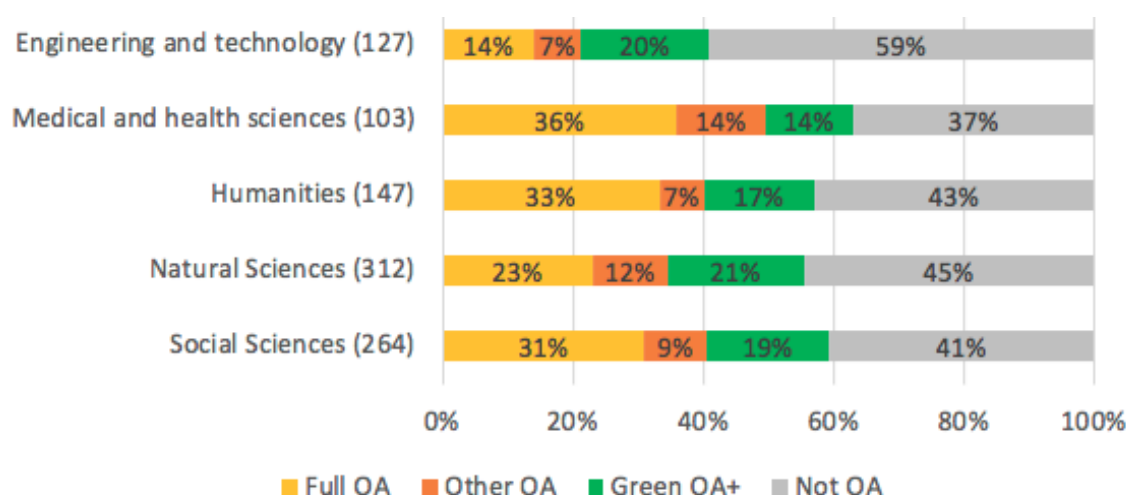


Figure 4 shows the proportions of publications and distribution of publication types (A1–A4 and C1–C2) in all fields of science. The number mentioned in the parenthesis in each field of science indicates the total number of publications in that particular field. The results displayed in Figure 4 were retrieved by conducting search strategy 2 described in the method section. Publication type A1 (journal article) is predominant in all fields of science. Notably, the proportion of publications in A1 is smallest in humanities (42%), while the share is about 20 percent larger in social sciences (63 %) and more than double in medical and health sciences (88 %). In contrast, the largest share (29 %) of publications in A3 (book sections) is in humanities, and social sciences is in second place (22 %). In other fields of science, the share of publications in A3 is significantly smaller (5 percent or less). Humanities also distinctly show the largest share of publications as monographs and edited works, C1 (3 %) and C2 (20 %), compared to other fields of science.

#### 5.1.2. Routes to OA in the patterns of scholarly publishing

To further examine the patterns of scholarly publishing, the articles (A) in all fields of science were retrieved and examined according to their OA status: full gold OA publication channel, other OA (most often hybrid), parallel published, and not OA (closed access). Figure 5 displays the OA status of publications in categories A1–A4 (journal articles) in all fields of science. The number mentioned in parenthesis indicates the total number of publications in that field of science. As the amount of publications in C1–C2 is minor in the remaining other fields than humanities, the patterns of OA in humanities in C1–C2 is examined separately later in this chapter.

Figure 5. The OA status of publications in A1–A4, all fields of science.



#### Publications in full OA channels (A)

In Figure 5, the label full OA refers to publications where all publications are direct full OA (gold OA publication channel in Juuli). The share of publications in full OA publication channels in A1–A4 was the second largest (33 %) in humanities, slightly less than in medical and health sciences (36 %). The smallest proportion of full OA channels was found in engineering and technology (14%).

#### Other OA availability in peer reviewed articles (A)

The category ‘Other OA availability’ refers, according to the definition of MEC, most often to publications in hybrid journals. As Figure 5 indicates, the smallest proportion of publications in this category is found in humanities and engineering and technology (7 %) which constitutes a distinct contrast to the largest proportion of Other OA (14 %) which is found in medical and health sciences.

However, the status Other OA may also include publications which have been made available after an embargo time defined by the publisher. Delayed gold OA is according to the MEC definition not proper OA, and thus not considered in the funding model. Consequently, it can be assumed that these publications have been validated in an incorrect way in connection to the annual publication collection.

#### Parallel publishing or green OA in peer reviewed articles (A)

To eliminate the overlap between green OA and gold OA, as noted by Ilva (2017), the publications which have been reported as full gold OA publications or hybrids and have

been parallel published, are sorted out to indicate the actual benefit of green OA (hence the label green OA+). The label green OA+ indicates that those publications have been parallel published only and that is the only way to access the article. The most extensive additional benefit of parallel publishing is found in natural sciences (21 %) as illustrated in Figure 5. The smallest proportion of green OA+ is in medical and health sciences (14 %), while the share in humanities is slightly higher (17 %) and thus situated between the two extremes.

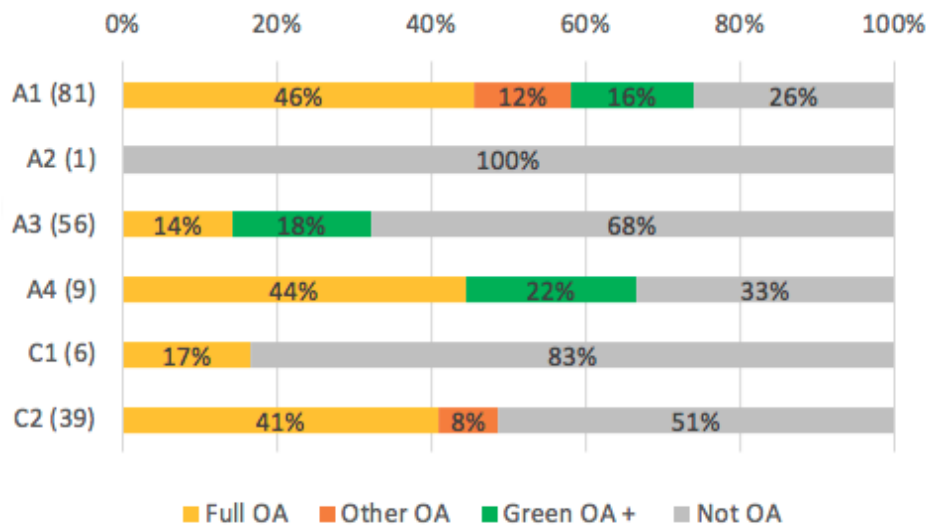
#### Not OA in peer reviewed articles (A)

The category of not OA (or closed access) refers to publications which are not available by any route to OA. The shares of publications in A1–A4 which are not available as OA are also displayed in Figure 5. The largest proportion of closed access publications is found in engineering and technology (59 %) and natural sciences (45 %), closely followed by humanities (43 %). The smallest proportion of closed access publications was found in medical and health sciences (37 %).

#### The OA status in A and C in humanities

Figure 6 illustrates the OA status in publication types A and C in publications produced in humanities. As observed also in Figure 4, the categories A3, C1 and C2 emerge as central to the publishing pattern in humanities. The share of full OA in humanities is largest in A1, 37 of 79 publications (46 %). Correspondingly, A1 also shows the smallest share of closed access publications (26 %). In publication type A, the share of closed access publications is largest in A3 (book sections) (68 %). In A2, only one publication had been reported, and it was closed access. The additional benefit of parallel publishing (green OA+) is largest in A4 (22 %), followed by A3 (18 %) and A1 (16 %).

Figure 6. The OA status in different publication types (A1–A4, C1–C2) in humanities.

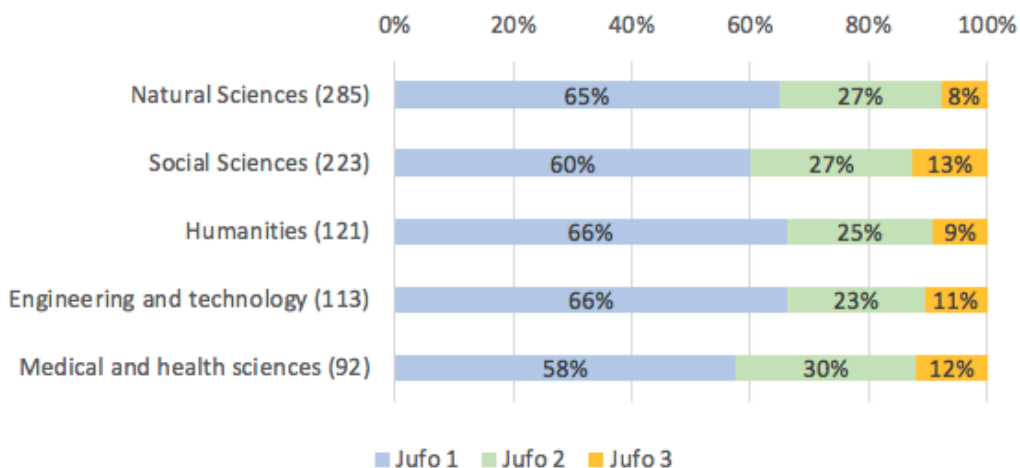


In C1, of 6 reported publications, one was full OA and 5 were closed access. In C2, about half of the publications were closed access (20 of 39), while 16 were full OA and 3 hybrids. No publications in C1 and C2 had been parallel published. The largest proportion of closed access was found in C1 (83 %), C2 (51 %), A3 (68 %).

### 5.1.3. Publication Forum and OA

The publication’s classification in Publication Forum can be considered as one aspect of the perceived quality of the publication. In Figure 7, the Publication Forum class (indicated in the figures as Jufo 1, 2, 3) of publications is examined across all fields of science in publication types A1–A4. Publications which are not classified in Publication Forum are not included in the analysis (level 0 and -).

Figure 7. Publication Forum classification, publication type A, all fields of science.



Level 3 is the highest level in Publication Forum. The largest share (13 %) of publications classified in Jufo 3 is found in social sciences, followed by medical and health sciences (12 %). The share of publications in Jufo 3 in humanities (9 %) and natural sciences (8 %) is thus several percent smaller. With regards to level 2, the largest proportion of publications is found in medical and health sciences (30 %), while the smallest is in engineering and technology (23 %), followed by humanities (25 %). The proportion of publications at level 1 is largest in humanities and engineering and technology (both 66 %), and slightly larger than in natural sciences (65 %). The smallest proportion of publications at level 1 is found in medical and health sciences (58 %).

*Figure 8. Routes to OA at different Jufo levels, publication type A, all fields of science.*

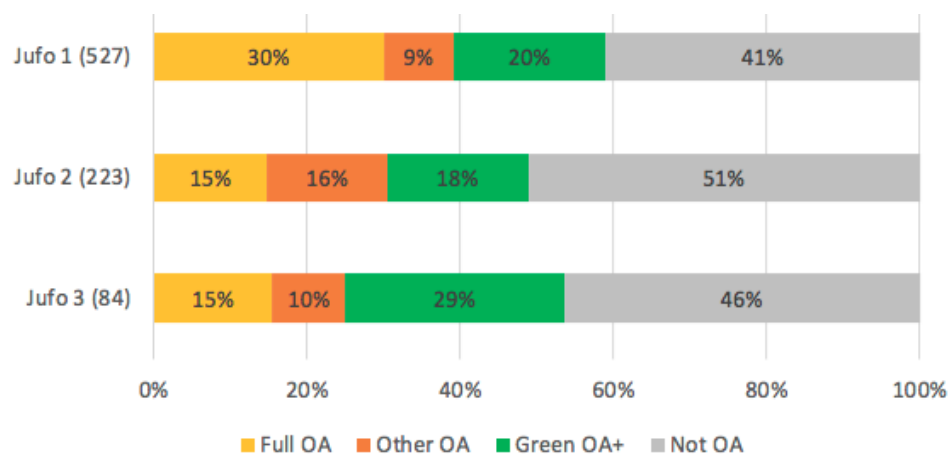
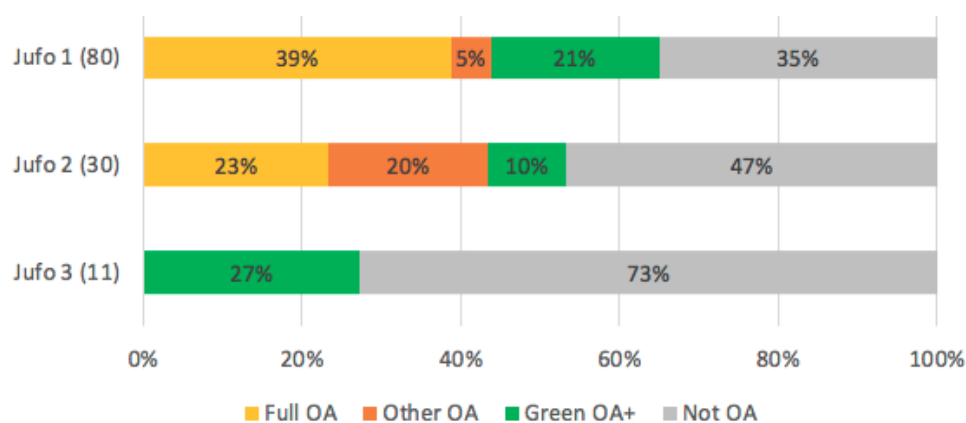


Figure 8 illustrates the proportions of different routes to OA at different levels in Publication Forum. The share of full OA publications is largest (30 %) at level 1, which is the double amount compared to the 15 % shares at level 2 and 3 respectively. The share of parallel published publications is largest at level 3 (29 %). The largest share (51 %) of closed access publications is found level 2, while the publications at level 1 indicate the smallest share (41 %) of closed access publications. At level 3, the share of closed access publications is 46 %. The largest share (16 %) of Other OA (hybrids) was found at level 2, while the shares were significantly smaller at Jufo 1 and 3.

When the total share of publications which are available as OA in any form is considered, some differences in OA availability (gold, hybrid, green together) between the levels in Publication Forum can be observed: in Jufo 1 (59 % available), Jufo 2 (49 %), Jufo 3 (54 %).

In Figure 9, the routes to OA at different Jufo levels in publication types A1–A4 in humanities, is displayed. The largest share of full OA publications was classified at level 1 (39 %), while the share was 23 % at level 2. This means that the shares of full OA publications at level 1 and 2 in humanities are considerably larger than the overall situation as displayed in Figure 8 (all fields of science). In humanities, the proportion of Other OA at level 2 was 20 %, while no publications were reported at level 3. At level 1, the share was 5 %.

*Figure 9. Routes to OA at different Jufo levels, publication type A, humanities.*



As Figure 9 indicates, no full OA publications classified at level 3 in humanities. In humanities, the largest share (73 %) of closed access publications were at level 3, while the share of closed access was the smallest at level 1 (35 %). The largest benefit of parallel publishing was achieved at level 3 (27 %). Compared to the situation of all fields of science together, as displayed in Figure 8, the share of closed access at level 3 is remarkably larger in humanities (73 %) than in all fields of science (46 %). However, at level 1 and 2 the humanities showed more extensive openness compared to all fields of science together. For example, at level 1 in humanities, only 35 % were closed access while the equivalent share in all fields of science together was 41 %.

## 5.2. The humanities research community at ÅAU: description of the participants in the survey

In total 59 respondents at FHPT completed the online survey in April 2020. In addition, 12 respondents who started filling in the survey did not complete it. Thus, the completion rate among respondents was 83 %. To eliminate the effects of item non-

response, the incomplete responses are excluded from the analysis and presentation of results. In total 53 responses were received by the customized survey link distributed via e-mail, while 6 responses were received by the survey link distributed via Facebook.

#### 5.2.1. Background information: academic position, age, gender

The background information asked at the end of the survey were position, age, gender, study programme at FHPT, and subject. The distribution of respondents in groups of different academic positions is displayed in Table 2. The largest group of respondents were doctoral students (44 %), while the rest of the respondents were distributed across other categories: postdoctoral researcher, university teacher/lecturer or senior lecturer, professor (including assistant and associate), and Other. The category Other mainly included respondents who conduct part-time research or work in tasks which in different ways involve research.

*Table 2. The distribution (percent and frequency) of respondents sorted according to academic position, descending order.*

<b>Academic position</b>	<b>%</b>	<b>N</b>
Doctoral student	44%	26
Professor (including assistant and associate)	24%	14
Postdoctoral researcher	12%	7
University teacher/lecturer or senior lecturer	12%	7
Other	8%	5
<b>Total</b>	<b>100 %</b>	<b>59</b>

Next, the age structure of different academic positions is examined. The respondents' academic positions in different age groups is displayed in Table 3. The majority of the doctoral students (18) were in the age groups –30 and 31–40, but there were doctoral students also in the remaining age groups. All postdoctoral researchers and university teachers, except one respondent, were in the age groups 31–40 or 41–50, while all professors were older than 41.



*Table 3. Respondents' academic positions in different age groups.*

Age	Doctoral student		Post.doc researcher		University teacher/ lecturer or senior lecturer		Professor (incl. assistant and associate)		Other		Total	
	%	N	%	N	%	N	%	N	%	N	%	N
–30	100%	7	0%	0	0%	0	0%	0	0%	0	12%	7
31–40	65%	11	18%	3	12%	2	0%	0	6%	1	29%	17
41–50	20%	4	20%	4	20%	4	35%	7	5%	1	34%	20
51–60	38%	3	0%	0	0%	0	50%	4	13%	1	14%	8
61–	14%	1	0%	0	14%	1	43%	3	29%	2	12%	7
<b>Total</b>	<b>44%</b>	<b>26</b>	<b>12%</b>	<b>7</b>	<b>12%</b>	<b>7</b>	<b>24%</b>	<b>14</b>	<b>8%</b>	<b>5</b>	<b>100%</b>	<b>59</b>

In Table 4, the gender distribution among respondents in different positions is presented. Among the respondents were 34 women and 20 men, and 5 respondents had chosen the option Other/Do not want to tell. As also indicated in Table 4, female doctoral students represent the largest group of respondents (16) when both gender and academic position are considered. The proportion of female respondents was larger than the share of men in all positions, except for professor, in which the share was equal (6).

*Table 4. Gender distribution and academic position.*

Gender	Doctoral student		Postdoctoral researcher		University teacher/lecturer or senior lecturer		Professor (incl. assistant and associate)		Other		Total	
	%	N	%	N	%	N	%	N	%	N	%	N
Female	47%	16	15%	5	12%	4	18%	6	9%	3	58%	34
Male	40%	8	10%	2	10%	2	30%	6	10%	2	34%	20
Other / Do not want to tell	40%	2	0%	0	20%	1	40%	2	0%	0	8%	5
<b>Total</b>	<b>44%</b>	<b>26</b>	<b>12%</b>	<b>7</b>	<b>12%</b>	<b>7</b>	<b>24%</b>	<b>14</b>	<b>8%</b>	<b>5</b>	<b>100%</b>	<b>59</b>

As indicated in Table 5, the majority of the respondents were affiliated with the Study Programme for Culture, History and Philosophy (32), while the respondents in the Study Programme for Languages, the Study Programme for Theology, the Study Programme for Psychology, and the Study Programme for Language Pathology together

makes almost an equal number of respondents (27). The distribution of respondents in each subject is not presented to protect their integrity and anonymity. As many of the subjects are small units and have few affiliated researchers, the responses of small units are not presented as such, and are instead combined on the level of study programmes or demographic groups to ensure the anonymity of the respondents. When participating in the survey, the respondents had the opportunity of selecting a “Do not want to tell” option for both study programme and subject.

*Table 5. The distribution of respondents across study programmes at ÅAU.*

<b>Your study programme at FHPT</b>	<b>%</b>	<b>N</b>
The Study Programme for Culture, History and Philosophy	54%	32
The Study Programme for Languages	10%	6
The Study Programme for Theology	14%	8
The Study Programme for Psychology	8%	5
The Study Programme for Speech and Language Pathology	10%	6
Do not want to tell	3%	2
<b>Total</b>	100%	59

The distribution of respondents in favor of the Study Programme for Culture, History and Philosophy is that it has the largest number of staff and researchers, compared to the other study programmes.

### 5.2.2. Experiences of OA publishing

The experiences of OA publishing were examined in Q3, Q4, and Q5. The respondents were asked about their publishing behaviors in the past two years.

In Q3, 30 respondents (51 %) reported they had not published in a gold OA publication and 19 (32%) reported they had published. Ten respondents (17 %) were not sure whether they had or not. Table 6 illustrates the proportions of different publishing behaviors in different groups of respondents. The predominant majority (71 %) of the professors reported they had published in a gold OA journal in the past two years, while only 12 % of the doctoral students reported they had. The doctoral students also represented the largest proportion (23 %) of respondents who were not sure whether they had published in gold OA journals or not.

Table 6. The proportion of respondents who have published in gold OA journals in the past two years.

Q3. Have you published in a gold open access publication in the past two years?	Yes		No		Not sure		Total	
	%	N	%	N	%	N	%	N
Doctoral student	12%	3	65%	17	23%	6	44%	26
Postdoctoral researcher	14%	1	86%	6	0%	0	12%	7
University teacher/lecturer or senior lecturer	29%	2	43%	3	29%	2	12%	7
Professor (including assistant and associate)	71%	10	14%	2	14%	2	24%	14
Other	60%	3	40%	2	0%	0	8%	5
<b>Total</b>	<b>32%</b>	<b>19</b>	<b>51%</b>	<b>30</b>	<b>17%</b>	<b>10</b>	<b>100 %</b>	<b>59</b>

In Q4, ten respondents (17 %) reported they had published in a hybrid journal, while the predominant majority of 45 respondents (76 %) reported they had not published. Four respondents (7 %) were not sure whether they had or not. The professors represented the largest group of respondents (36 %) who reported to have published in a hybrid journal in the past two years, while the proportions in the other respondent groups were considerably smaller.

Table 7. The proportion of respondents who have published in a hybrid journal in the past two years.

Q4. Have you published in a hybrid journal where your article has been made open access for a fee in the past two years?	Yes		No		Not sure		Total	
	%	N	%	N	%	N	%	N
Doctoral student	4%	1	81%	21	15%	4	44%	26
Postdoctoral researcher	29%	2	71%	5	0%	0	12%	7
University teacher/lecturer or senior lecturer	14%	1	86%	6	0%	0	12%	7
Professor (including assistant and associate)	36%	5	64%	9	0%	0	24%	14
Other	20%	1	80%	4	0%	0	8%	5
<b>Total</b>	<b>17%</b>	<b>10</b>	<b>76%</b>	<b>45</b>	<b>7%</b>	<b>4</b>	<b>100%</b>	<b>59</b>

In Q5 about parallel publishing, the proportions of those who reported they had parallel published and those who had not were rather equal: 27 (46 %) and 29 (49 %) respectively, while 3 respondents (5 %) were not sure. The predominant majority of professors (86 %) reported that they had parallel published, while doctoral students represented the largest proportion who had not parallel published (73 %).

*Table 8. The proportion of respondents who reported they have parallel published in the past two years.*

<b>Q5. Have you parallel published in ÅAU:s research repository Artur or another repository in the past two years?</b>	<b>Yes</b>		<b>No</b>		<b>Not sure</b>		<b>Total</b>	
	<b>%</b>	<b>N</b>	<b>%</b>	<b>N</b>	<b>%</b>	<b>N</b>	<b>%</b>	<b>N</b>
Doctoral student	19%	5	73%	19	8%	2	44%	26
Postdoctoral researcher	57%	4	43%	3	0%	0	12%	7
University teacher/lecturer or senior lecturer	57%	4	29%	2	14%	1	12%	7
Professor (including assistant and associate)	86%	12	14%	2	0%	0	24%	14
Other	40%	2	60%	3	0%	0	8%	5
<b>Total</b>	<b>46%</b>	<b>27</b>	<b>49%</b>	<b>29</b>	<b>5%</b>	<b>3</b>	<b>100%</b>	<b>59</b>

### 5.2.3. Education on OA issues

In Q9, participation in education on OA issues was examined as displayed in Table 9. In total, 24 % percent had participated in OA education, while 76 % reported they had not. There was considerable variation in the level of participation in different respondent groups. Among the professors, 64 % reported they had participated, while the equivalent was remarkably lower among university teachers (14 %), postdoctoral researchers (0 %), and doctoral students (12 %).

*Table 9. The proportion of participation in OA education in different respondent groups.*

<b>Q9. Have you participated in courses or other education in open access issues, offered by Åbo Akademi University Library, during the past year?</b>	<b>Yes</b>		<b>No</b>		<b>Total</b>	
	%	N	%	N	%	N
Doctoral student	12%	3	88%	23	44%	26
Postdoctoral researcher	0%	0	100%	7	12%	7
University teacher/lecturer or senior lecturer	14%	1	86%	6	12%	7
Professor (including assistant and associate)	64%	9	36%	5	24%	14
Other	20%	1	80%	4	8%	5
<b>Total</b>	<b>24%</b>	<b>14</b>	<b>76%</b>	<b>45</b>	<b>100%</b>	<b>59</b>

To examine the relation between participation in OA education and experiences of publishing in gold OA journals, the responses in Q3 was compared to the responses in Q9. As indicated in Table 10, the predominant majority of those who had participated in OA education had published in a gold OA journal (71 %), while the predominant majority of those who had not participated had not published either (64 %).

*Table 10. The correlation between participation in OA education and experiences of publishing in gold OA journals.*

	<b>Yes, I have published in a gold OA journal</b>		<b>No, I have not published</b>		<b>Not sure</b>		<b>Total</b>	
	%	N	%	N	%	N	%	N
Yes, I have participated	71%	10	7%	1	21%	3	24%	14
No, I have not participated	20%	9	64%	29	16%	7	76%	45
<b>Total</b>	<b>32%</b>	<b>19</b>	<b>51%</b>	<b>30</b>	<b>17%</b>	<b>10</b>	<b>100%</b>	<b>59</b>

To examine the relation between participation in OA education and experiences of hybrid journals, the responses in Q4 was compared to the responses in Q9. As indicated in Table 11, the proportion of respondents which had both participated in OA education and published in hybrid journals was 36 %, while the proportion of respondents who had not participated in education but published was smaller (11 %). Among those who

had participated in education, 64 % reported to not have published in hybrid journals, while the equivalent share among those who had not participated was 80 %.

*Table 11. The correlation between participation in OA education and experiences of publishing in hybrid journals.*

	<b>Yes, I have published in a hybrid journal</b>		<b>No, I have not published</b>		<b>Not sure</b>		<b>Total</b>	
	<b>%</b>	<b>N</b>	<b>%</b>	<b>N</b>	<b>%</b>	<b>N</b>	<b>%</b>	<b>N</b>
Yes, I have participated	36%	5	64%	9	0%	0	24%	14
No, I have not participated	11%	5	80%	36	9%	4	76%	45
<b>Total</b>	17%	10	76%	45	7%	4	100%	59

To examine the relation between participation in OA education and experiences of parallel publishing, the responses in Q5 was compared to the responses in Q9, as presented in Table 12. In Q5, ten of the 14 respondents (71 %) who had participated in education reported they had parallel published, while 17 of the 45 respondents (38 %) who had not participated reported that they had parallel published. Conversely, three respondents (21 %) of those who had participated in OA education, and 26 respondents (58 %) of those who had not, had not parallel published. 71 % of the respondents who had participated in education had parallel published, while the equivalent of those who had not participated was 38 %.

*Table 12. The correlation between participation in OA education and experiences of parallel publishing.*

	<b>Yes, I have parallel published</b>		<b>No, I have not parallel published</b>		<b>Not sure</b>		<b>Total</b>	
	<b>%</b>	<b>N</b>	<b>%</b>	<b>N</b>	<b>%</b>	<b>N</b>	<b>%</b>	<b>N</b>
Yes, I have participated in education	71%	10	21%	3	7%	1	24%	14
No, I have not participated in education	38%	17	58%	26	4%	2	76%	45
<b>Total</b>	<b>46%</b>	<b>27</b>	<b>49%</b>	<b>29</b>	<b>5%</b>	<b>3</b>	<b>100%</b>	<b>59</b>

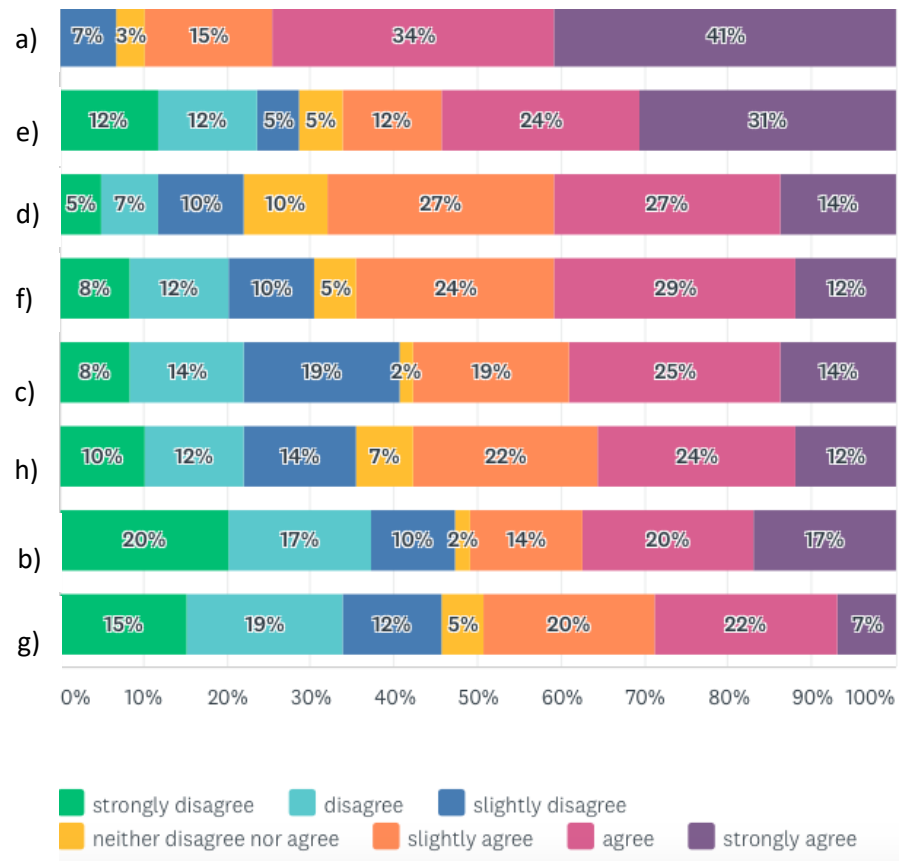
In particular the professors, but also other researchers who have more extensive academic careers (post doctoral researchers and university lecturers), had also more extensive experiences of all types of OA publishing (gold OA, green OA and hybrid). The lower numbers reported by doctoral students can to some extent be explained by the fact that many of them are in their early careers and have not yet published peer reviewed publications. In addition, professors and other senior researchers had more extensively participated in OA education provided by the library. In light of these observations, it is motivated to examine the awareness, knowledge and perceptions of OA publishing based on the academic position of respondents.

### 5.3. Self-reported awareness and knowledge of OA issues

Q1 in the survey concerns the self-reported awareness and knowledge of OA issues. In Q1, the respondents were asked report to which extent they disagree or agree with eight different statements (a–h). In Figure 10, the responses are sorted in descending order, starting with the statement which is most strongly agreed on (weighted average) in all respondent groups together.

Figure 10. Self-reported awareness and knowledge of OA issues among FHPT researchers.

**Q1. Please rate how strongly you disagree or agree with the following statements:**



- a) I am familiar with the term 'open access'
- b) I understand the difference between green open access and gold open access
- c) I am familiar with Creative Commons licenses
- d) I feel confident that I could explain open access to a colleague if asked
- e) I am aware of the Academy of Finland mandate on open access to publicly funded research
- f) I am aware of the ÅAU open science policy
- g) I know which version of my paper to upload in ÅAU:s research repository Artur
- h) I know how to find relevant open access publications in which to publish my research



Statement a) *I am familiar with the term open access* was most strongly agreed on among the respondents. In total 90 % of the respondents reported that they slightly agree, agree or strongly agree on statement a). In other words, it can be assumed that the predominant majority of the respondents has some previous knowledge and experience of OA publishing. Similarly, there was a strong agreement on statements d) *I feel confident that I could explain open access to a friend* (68 %) and e) *I am aware of the Academy of Finland mandate on open access* (66 %). In addition, a clear majority of the respondents (65 %) reported that they were aware of the ÅAU open science policy (f). Overall, it can be argued that the respondents reported high level of awareness and knowledge of OA publishing. All statements received a minimum of 49 % share of responses as slightly agree, agree or strongly agree.

The following statements received the largest proportions of responses as slightly disagree, disagree or strongly disagree responses: b) *I understand the difference between green open access and gold open access* (48 %), c) *I am familiar with Creative Commons licenses* (41 %), g) *I know which version of my paper to upload in ÅAU:s research repository Artur* (46 %), and h) *I know how to find relevant open access publications in which to publish my research* (36 %).

The largest variability (SD) among the responses is found in statements b) *I understand the difference between green open access and gold open access* (SD 2.25), e) *I am aware of the Academy of Finland mandate on open access* (SD 2.16), and g) *I know which version of my paper to upload in ÅAU:s research repository Artur* (1.98). The smallest variability was found in items f) *I am aware of the ÅAU open science policy* (SD 1.86), d) *I feel confident that I could explain open access to a colleague if asked* (SD 1.65), and a) *I am familiar with the term 'open access'* (SD 1.14). The responses for statements b) about the difference between gold and green OA, and g) about Artur, suggest that despite being familiar with OA issues, it is not easy to understand the differences between different routes to OA.

Next, the reported self-awareness and knowledge was compared across different respondent groups. The professors and postdoctoral researchers more strongly agreed than doctoral students and university lecturers on the following statements; a) *I am familiar with the term 'open access'*, b) *I am familiar with the difference between gold and green OA*, d) *I feel confident I could explain OA to a colleague if asked*, g) *I know*

*which version of my paper to ÅAU:s research repository Artur, I know how to find relevant OA publications in which to publish my research.*

Professors, postdoctoral researchers and university teachers more strongly agreed on statement e) *I am aware of the Academy of Finland mandate on OA to publicly funded research*, f) *I am aware of the ÅAU open science policy*. All in all, it can be argued that respondents who had more extensive academic careers reported a higher level of awareness and knowledge of OA issues. In addition, these respondents also showed a higher degree of knowledge of OA policies (Academy of Finland and the ÅAU open science policy).

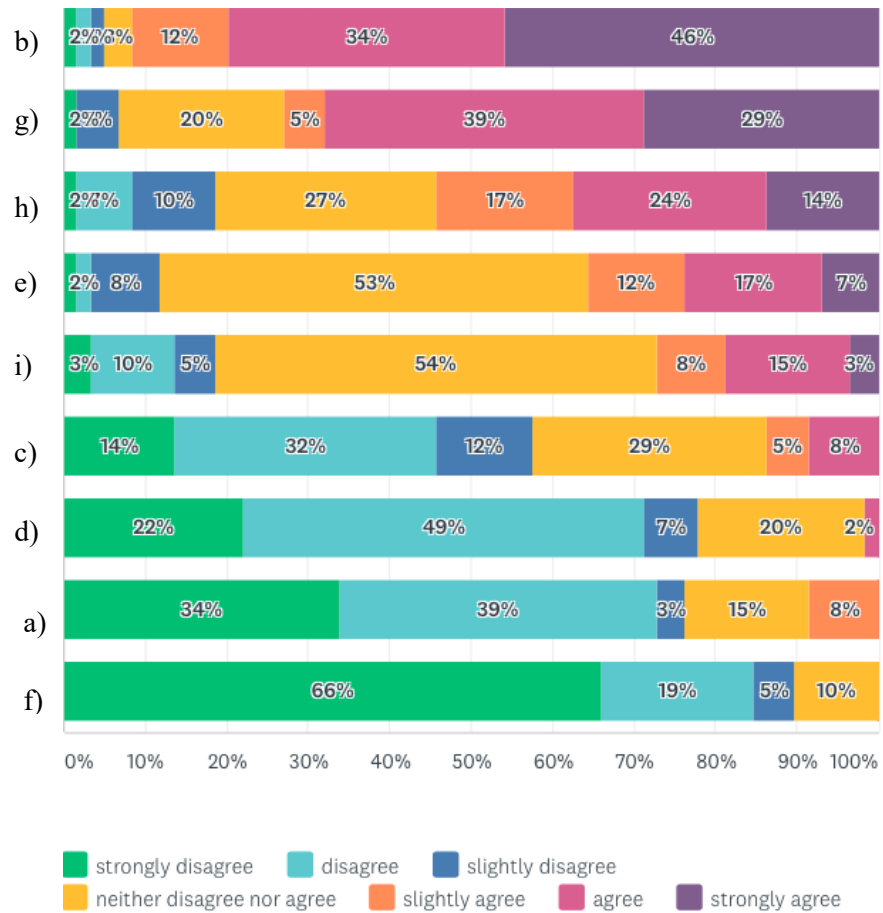
## 5.4. Perceptions of OA publishing

### 5.4.1. The perceived benefit of OA publishing

In Q2, the researchers' perceptions of OA publishing are examined. This part of the survey consists of different statements related to the benefits and tenets of OA, and respondents were asked to report to which degree they agreed or disagreed to the following statements:

Figure 11. Perceptions of OA publishing among FHPT researchers.

**Q2. Please rate how strongly you disagree or agree with the following statements**



- a) Open access publishing leads to an increase in research of poor quality
- b) Publicly funded research should be made available to the public without barriers
- c) The current scholarly publishing model works well
- d) Open access journals lack peer review
- e) Open access publishing is more cost- effective than subscription- based publishing
- f) There are no benefits to open access publishing
- g) Researchers should retain the rights to their published work and allow it to be used by others
- h) Open access journals are of the same quality as subscription journals
- i) Open access articles are cited more often than those in subscription journals

The respondents most strongly agreed with statement b) *Publicly funded research should be made available to the public* (92 % slightly agree, agree or strongly agree). The item second most strongly agreed on, was g) *Researchers should retain the rights to their published work and allow it to be used by others* (73 %). The third most agreed on item was h) *Open access journals are of the same quality as subscription journals* (55 %).

Notably, items e) *Open access publishing is more cost-effective than subscription-based publishing*, and i) *Open access articles are cited more often than those in subscription journals* received a large proportion of responses (53 and 54 % respectively) for the option “Neither disagree nor agree”. This tendency can be regarded as indicative of the complexity of the situation: it is difficult for the respondents to take a stand in these questions. At the same time, 58 % of the respondents slightly disagree, disagree or strongly disagree with statement c) *The current scholarly publishing model works well*. The SD (1.51) was highest for the item h) *Open access journals are of the same quality as subscription journals*.

90 % strongly disagreed, disagreed or slightly disagreed on f) *There are no benefits to OA publishing*. The majority strongly disagreed, disagreed or slightly disagreed on statement a) *OA publishing leads to an increase in research of poor quality* (76 %) and d) *OA journals lack peer review* (78 %).

Some similarities and differences could be observed as respondent groups were compared. For a) *Open access leads to an increase in research of poor quality*, the Md in all respondent groups was 2.0. Professors and university teachers agreed more strongly (Md 7.0) on the statement b) *Publicly funded research should be made available to the public without barriers* than postdoctoral researchers and doctoral students (Md 6.0). In contrast, doctoral students agreed more strongly (Md 4.0) on c) *The current scholarly publishing model works well* compared to the remaining respondent groups (Md 2.0 in all). Professors indicated stronger disagreement (Md 1.5) than other respondent groups (Md 2.0) for d) *OA journals lack peer review*. Post doctoral researchers more strongly agreed (Md 6.0) on e) *OA publishing is more cost-effective than subscription-based publishing* than other respondent groups (Md 4.0). In all respondent groups, there was strong disagreement on the statement f) *There are no benefits to OA publishing* (Md 1.0) (except Other, Md 2.0). Similarly, all respondent

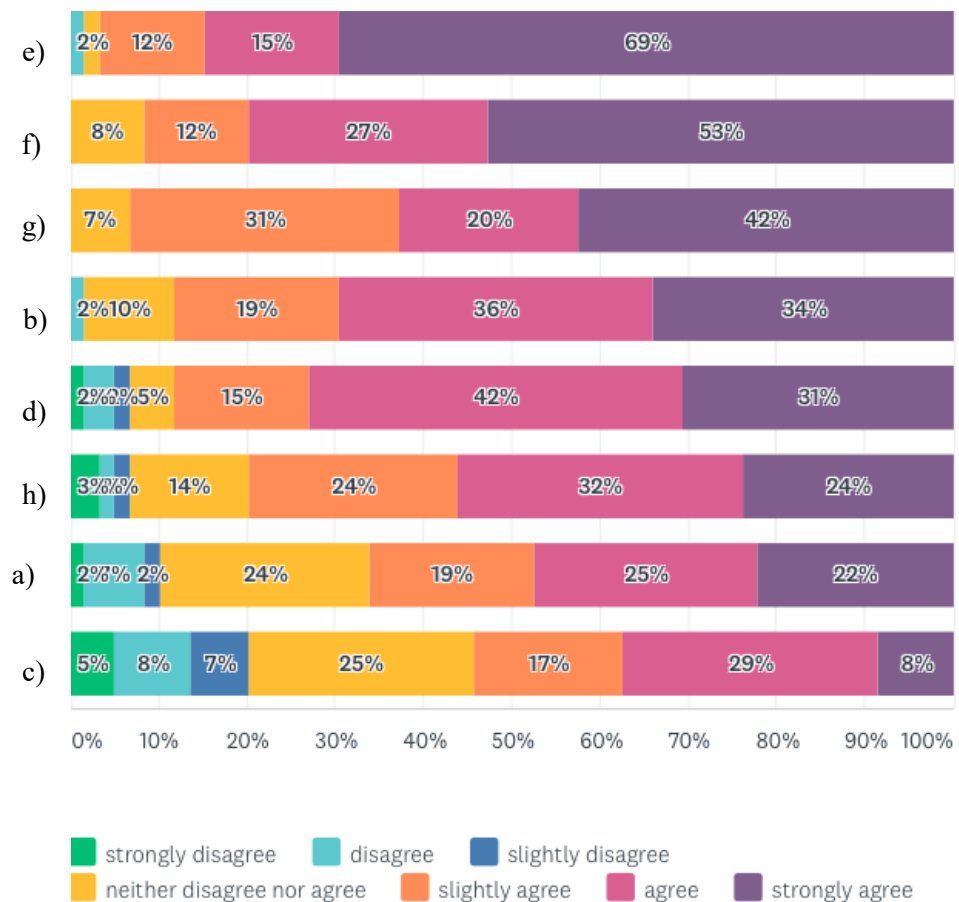
groups, except Other, indicated strong agreement (Md 6.0) on g) *Researchers should retain the rights to their published work and allow it to be used by others*. Postdoctoral researchers and university teachers agreed more strongly (Md 5.0) on h) *OA journals are of the same quality as subscription journals* than professors (Md 4.5) and doctoral students (Md 4.00).

5.4.2. Perceptions of OA’s role in disseminating knowledge in the researchers’ own field of research

In Q8, the items consider perceptions of how OA increases the visibility and dissemination of knowledge, and the relevance of OA in the respondents’ own field of research.

Figure 12. FHPT researchers’ perceptions of OA’s role in disseminating knowledge in the researchers’ own field of research

**Q8. Please rate how strongly you disagree or agree on the following statements:**



- a) I prefer to publish in open access publications
- b) I would like to publish in open access journals/books in the future
- c) Important researchers in my field are publishing open access
- d) Publishing open access would increase the visibility of my work
- e) It is important to me that other researchers can access and read my research
- f) It is important to me that practitioners in various fields in society can access and read my research
- g) It is important to me that the general public can access and read my research
- h) There are open access publications that match with my research interests/field

In this section, the respondents agreed most strongly on the statements e) It is important to me that other researchers can access and read my research (SD 0.96), f) It is important to me that practitioners in various fields in society can access and read my research (SD 0.96), and g) It is important to me that the general public can access and read my research (SD 1.00). Compared to the other items in this section of questions, the SD was lowest for the above-mentioned items.

The highest SD are shown in c) Important researchers in my field are publishing open access (SD 1.61), a) I would like to publish in open access publications (1.52), and h) There are open access publications that match with my research interests/field (1.41).

Both similarities and differences could be observed across respondent groups. All respondent groups slightly agreed (Md 5.0), except professors who agreed (Md 6.0) that they a) *Prefer to publish in OA journal*. The SD was largest for postdoctoral researchers (SD 1.77). All respondent groups agreed (Md 6.0) on statement b) *I would like to publish in OA journals/books in the future*. Professors mostly agreed on (Md 5.5) the statement c) *Important researchers in my field are publishing OA*, while doctoral students neither disagreed nor agreed (Md 4.0). Postdoctoral researchers most strongly agreed on (Md 7.0) d) *Publishing OA would increase the visibility of my work*, while the remaining groups agreed (Md 6.0). All respondent groups strongly agreed (Md 7.0) on e) *It is important to me that other researchers can access my research*. All respondent groups except professors (Md 6.0) and Other (Md 5.0) strongly agreed (Md 7.0) that f)

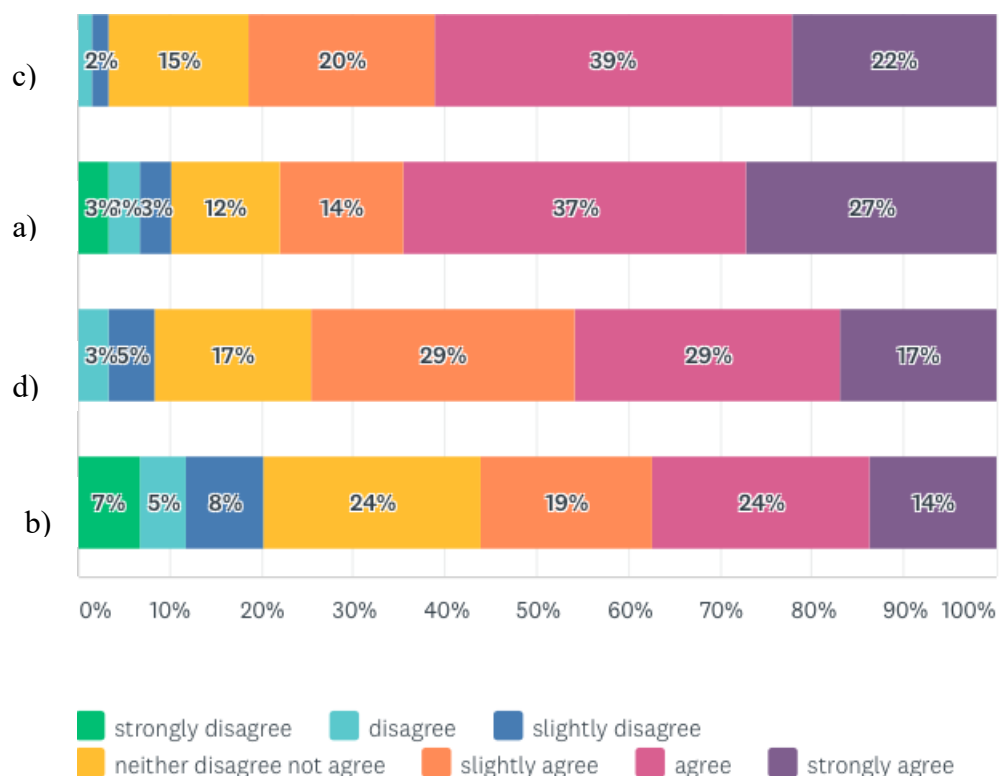
*It is important to me that practitioners in various fields in society can access and read my research.* All respondent groups (except Other) agree on g) *It is important that the general public can access and read my research* (Md 6.0). Professors and university teachers agree (Md 6.0) on h) *There are OA publications that match with my research interests/field*, while doctoral students and postdoctoral researchers slightly agree (Md 5.0).

### 5.4.3. Perceptions of structural and institutional support

Q10 considered the respondents' perceptions of structural and institutional support, and the research milieu.

Figure 13. FPHT researchers' perceptions of structural and institutional support.

**Q 10. Please rate how strongly you disagree or agree with the following statements:**



- a) The ÅAU open science policy is right to demand that the research at ÅAU should be made available open access.
- b) I have institutional/departmental support to publish open access

- c) My research environment and colleagues at ÅAU are positive about open access.
- d) Making my publications openly available by uploading them to Artur is also a viable form of open access.

In total, 81 % of all respondents slightly agreed, agreed or strongly agreed on c) *My research environment and colleagues at ÅAU are positive about open access*, closely followed by 78 % who slightly agreed, agreed or strongly agreed on a) *The ÅAU open science policy is right to demand that the research at ÅAU should be made available open access*. In total 75 % of the respondents slightly agree, agree or strongly agree that *Making my publications openly available by uploading them to Artur is also a viable form of OA*. Similarly, the majority (57 %) slightly agree, agree or strongly agree on b) *I have institutional/departmental support to publish OA*.

Similarities and differences could be observed across respondent groups. All respondent groups agree (Md 6.00) (except Other) that a) *The ÅAU open science policy is right to demand that the research at ÅAU should be made available open access*. Professors agree (Md 6.0) on b) *I have institutional/departmental support to publish OA*, while doctoral students and university teachers slightly agree (Md 5.0), and postdoctoral researchers slightly agree (Md 3.0). All respondent groups agree (Md 6.0), except university teachers (Md 5.0), that c) *My research environment and colleagues at ÅAU are positive about OA*. Professors and postdoctoral researchers agree (Md 6.0) that d) *Artur is a viable form of OA*, while university teachers and university teachers slightly agree (Md 5.0).

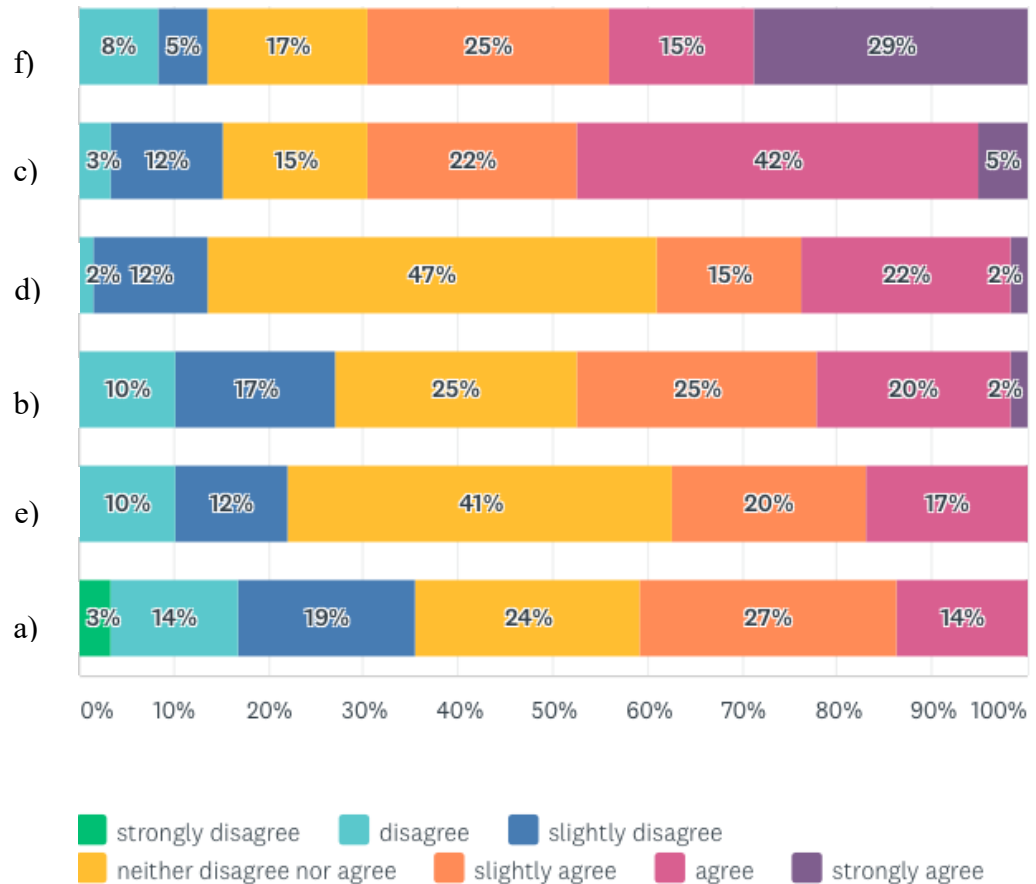


5.4.4. Perceptions of the future of open access

In Q11, the respondents were asked to take a stand on items concerning the future of open access.

Figure 14. FHPT researchers' perceptions of the future of OA.

**Q11. What do you think will happen in the next 10 years within scholarly publishing?  
Please rate how strongly you disagree or agree with the following statements:**



- a) Subscription-based academic publications (which the reader/university library pays access to) will remain the primary research outlet for scholarly publishing
- b) A new kind of publication outlet accommodating new types of research will become dominant over academic journals
- c) Most research will be published open access
- d) An alternative metric system will become more important than impact factors in assessing the value of research

- e) Impact factors will continue to be the primary metric in assessing the value of journals
- f) The COVID-19 epidemic has increased the importance of open access

As the collection of data coincided with the COVID-19 crisis in spring 2020, statement f) “The COVID-19 epidemic has increased the importance of open access” was included in the survey. The majority of the respondents to some extent agreed on the statement. This statement also received the largest share of “strongly agree” responses in this section of questions in total, but also the SD was the highest (1.55).

The majority to some extent agreed on the statement c) *Most research will be published open access*, while the statement a) *Subscription-based academic publications (which the reader/university library pays access to) will remain the primary research outlet for scholarly publishing* received the largest share of responses of all items on the disagree-side of the scale. The SD for item a (1.36) was the second highest in this survey section.

The share of “neither disagree nor agree” responses were large for some items in this survey section, and especially in items d) *An alternative metric system will become more important than impact factors in assessing the value of research*, and e) *Impact factors will continue to be the primary metric in assessing the value of journals*.

Both similarities and differences were observed across respondent groups. All respondent groups neither disagreed nor agreed (Md 4.0) that a) *Subscription-based academic publications (which the reader/university library pays access to) will remain the primary research outlet for scholarly publishing*. The variability was largest among postdoctoral researchers (SD 1.67) and professors (SD 1.64). Professors and university teachers slightly agreed (Md 5.0) that b) *A new kind of publication outlet accommodating new types of research will become dominant over academic journals*, while doctoral student neither disagreed nor agreed (Md 4.0), and postdoctoral researchers slightly disagreed (Md 3.0). Professors and postdoctoral researchers agree (Md 6.0) that c) *Most research will be published OA*, while university teachers and doctoral students slightly agree (Md 5.0). Likewise, professors and postdoctoral researchers slightly agree (Md 5.0) that d) *An alternative metric system will become more important than impact factors in assessing the value of research*, while postdoctoral researchers and doctoral students neither disagree nor agree (Md 4.0). Postdoctoral researchers agree (Md 6.0) that e) *Impact factors will continue to be the*

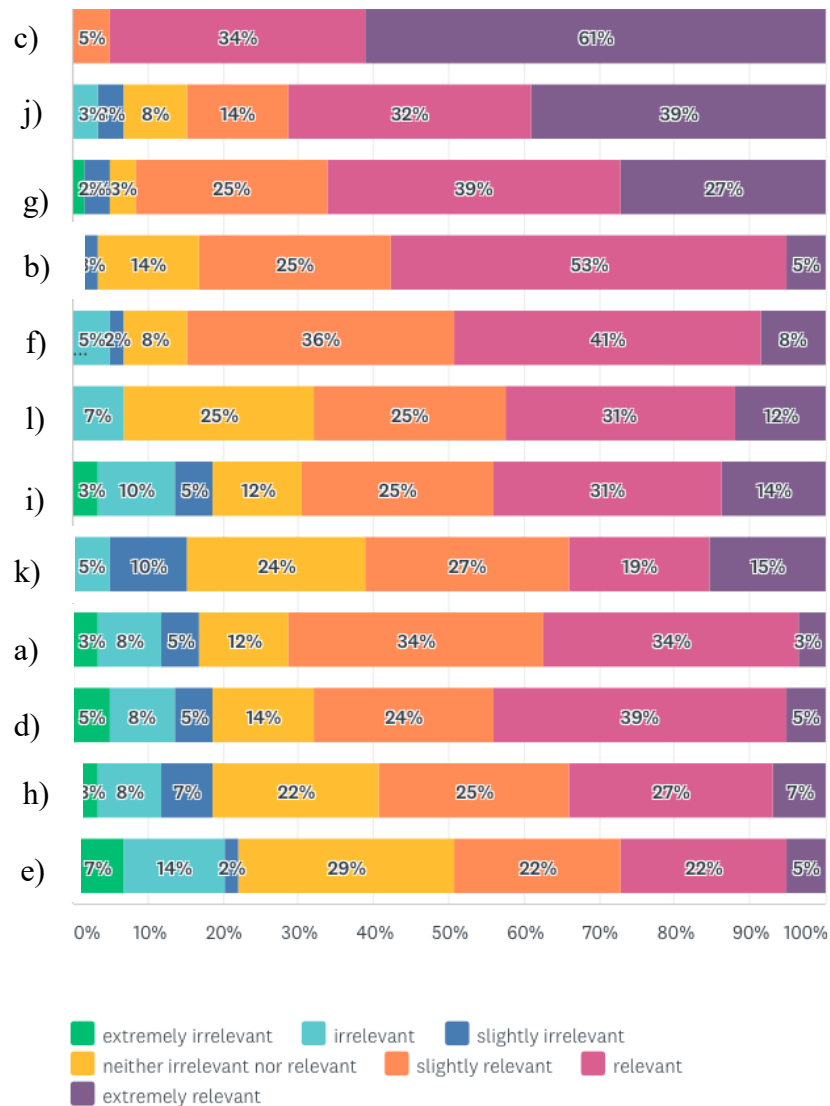
*primary metric in assessing the value of journals*, while the remaining respondent groups (Other excluded) neither disagree nor agree (Md 4.0). All respondent groups (except professors Md 6.0) agree that f) the COVID-19 epidemic has increased the importance of OA. The variability for f) was largest among professors (SD 1.74).

5.4.5. The relevance of publication attributes

In Q7, respondents were asked to assess the relevance (on the scale extremely irrelevant 1 to extremely relevant 7) of different publication attributes (a–l) when choosing venue for publishing. The publication characteristics items were:

Figure 15. FHPT researchers' views relevance of publication attributes when choosing venue for publishing.

**Q7. How important are the following factors when selecting publication to publish in?**



- a) Speed of publication
- b) Positive experience with the publisher/editor
- c) Relevance of the publication for my field
- d) Impact factor
- e) Copyright policy
- f) Recommendation of the publication by colleagues
- g) Prestige/perceived quality of the publication
- h) The publication is open access
- i) Importance of the publication for academic promotion, tenure, or assessment
- j) Absence of publication fees
- k) Policy which allows me to parallel publish my publication
- l) Ranking in Publication Forum

All 59 respondents slightly agreed, agreed or strongly agreed on item c) *Relevance of the publication for my field*. The second largest proportion of slightly agree, agree or strongly agree responses were for g) *Prestige/perceived quality of the publication*, while item f) *Recommendation of the publication by colleagues* was on third place. Also j) *Absence of publication fees* was considered relevant or highly relevant.

Items related to the OA status (items h, k and e) were not reported as highly relevant when choosing venue for publishing. In addition, the items related to the OA status of the publication were among those items which received the largest proportions of responses in the “Neither disagree nor agree” category.

The highest rate (28.81 %) of “Neither disagree nor agree” responses was for item e (copyright policy), followed by 23.73 % for k (policy which provides opportunity for parallel publishing) and 22.03 % for h (the publication is open access). Item i (ranking in Publication Forum) also received a considerable proportion of the responses in the same category (25.42 %).

Among the items which received the largest share of disagree-responses were: d) impact factor, h) the publication is open access, e) copyright policy.

It should be observed that the differences in the responses between some of the items can be considered minor. The SD was smallest in c) relevance of the publication for my field (0.59), b) positive experience with the publisher/editor (0.91), f) recommendation

of the publication by colleagues (1.12). The SD was largest in h) the publication is item e) copyright policy (1.62) and i) importance of the publication for academic promotion (1.62), d) impact factor (1.57), and h) the publication is open access (1.44).

The unimportance of the OA status of the publication channels can be seen as contradictory to the results in Q8, where items a) and b) were used to measure the respondents' willingness to publish OA in the future.

In addition, there were variations in the perceptions of the importance of the publication attributes among different respondent groups. Item h) *the publication is open access* was slightly more important (Md 5.50) for professors than for other respondent groups (Md 5.0). For professors (Md 6.0) it was more important than for postdoctoral researchers and university teachers (Md 5.0) and doctoral students (Md 4.0) that the journal has a k) *policy which allows parallel publishing*. For professors, postdoctoral researchers and university teachers (Md 6.0), l) *ranking in Publication Forum* was more important than for doctoral students (Md 5.0). Item g) *prestige/perceived quality of the publication* was considered extremely important for university teachers (Md 7.0), followed by professors and postdoctoral researchers (Md 6.0) and least important for doctoral students (Md 5.50). Item c) *Relevance of the publication for my field* was considered extremely important in all respondent groups (Md 7.0 in all). Similarly, a) *Speed of publication* was considered relevant (Md 5.0) in all respondent groups. For professors, university lecturers and postdoctoral researchers, b) *positive experience with the publisher/editor* was considered more important (Md 6.0) than among doctoral students (Md 5.0). For postdoctoral researchers and university teachers, l) *importance of the publication for academic promotion, tenure, or assessment* was more important (Md 6.0) than for professors and doctoral students (Md 5.0). For university teachers, *absence of publication fees* was extremely important (Md 7.0), while relevant for professors and doctoral students (Md 6.0).

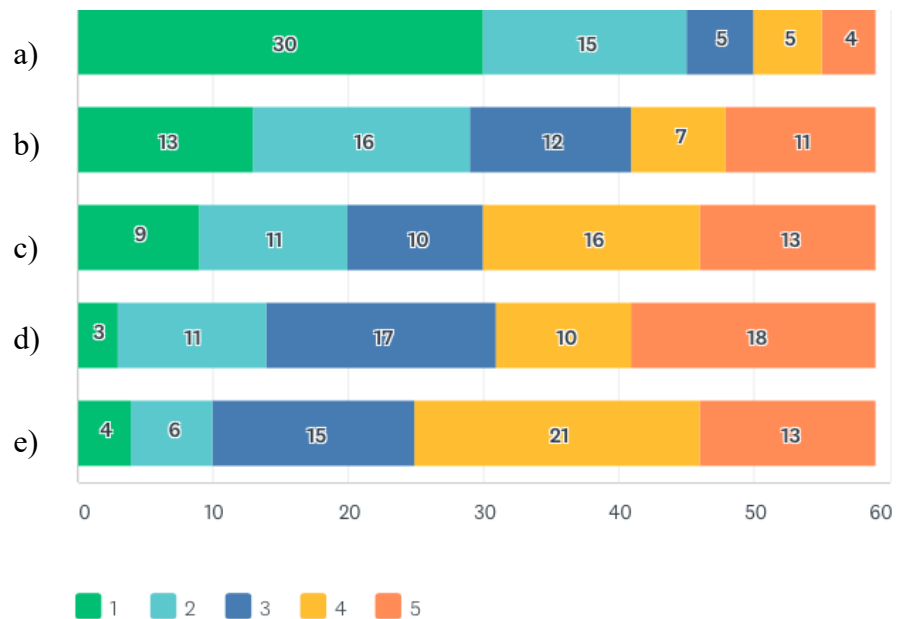
### 5.5. Facilitators and barriers for OA publishing and making research openly available

In Q12 and Q13, the respondents were asked to rank the facilitators and barriers to OA publishing on the scale most important (1) to least important (5). The respondents were

asked to rank both factors that they perceived would make them make their research more openly available, as well as which factors keep them from publishing open access. In Q12, the respondents were asked to rank the factors which potentially would make their research more openly available.

***Q 12. Which factors would make your research more openly available? Please rank according to the scale most important (1) to least important (5).***

*Figure 16. FHPT researchers’ ranking of which factors would help making their research more openly available.*



- a) The OA journal is of high scientific quality in my field of research
- b) The APC (article processing charge) is paid by my university or funder
- c) More education about how open access works and which channel of open access I should choose
- d) High citation rates and ranking
- e) More assistance, support and service from Åbo Akademi University Library

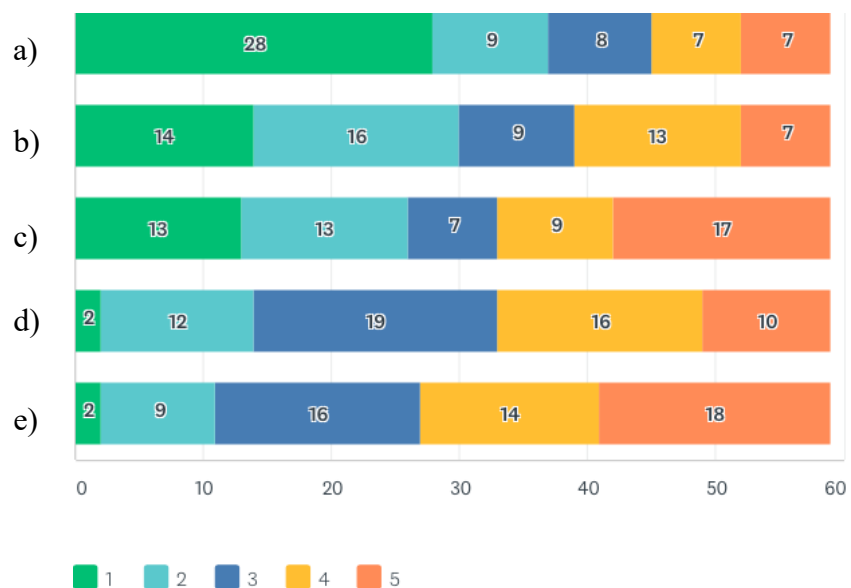
The statement “The OA journal is of high scientific quality in my field of research” was ranked by 30 respondents as the most important facilitator for making one’s research more openly available. The statement “the APC is paid by my university or funder” was

considered the most important factor by 13 respondents. In contrast 9, respondents regarded “More education about how OA works” the most important. Three respondents ranked “Higher citation rates and ranking” and “More assistance, support and service from the ÅAUL library” the most important factor. “High citation rates and ranking” was ranked as the least important factor that would make researchers make their research more openly available.

In Q13, respondents were asked to rank the factors which keep them from publishing OA or making publications openly available. The items were the following (randomized order):

***Q 13. Which factors keep you from publishing open access or making your publications openly available? Please rank according to the scale most important (1) to least important (5).***

*Figure 17. FHPT researchers’ ranking of which factors keep them from publishing OA.*



- a) I cannot pay for the APCs
- b) I do not have time to search information on how to publish open access
- c) I think the open access journals in my field are not of high scientific quality
- d) I am not sure that publishing OA will give more visibility and impact for my research

- e) I do not get enough assistance, support and service from Åbo Akademi University Library

The statement “I cannot pay for the APCs” was reported as the most important barrier by 28 respondents, while “I do not have time to search information for how to publish open access” was reported as the most important factor by 14 respondents. The statement “I think the open access journals in my field are not of good quality” was perceived as the most important barrier by 13 respondents. The statements “I am not sure that publishing OA will give more visibility and impact for my research” and “I do not get enough assistance, support and service from Åbo Akademi University Library” received two responses each.

When it comes to the factors which were regarded as the least important factors (smallest barriers), “I do not get enough assistance, support and service from Åbo Akademi University Library” received 18 responses and “I think the open access journals in my field are not of good quality” received 17.

As the question used a forced ranking scale, some answer options may have been inapplicable for some respondents. Consequently, it can be assumed that the results reflect not only actual situations of the respondents, but also how they would act in potential situations. For example, early-career researchers have necessarily not experienced such situations yet.

## 5.6. Qualitative content analysis of responses in open-ended questions

A qualitative content analysis was conducted for the responses in the open-ended questions in the survey. In the end of the survey, there were two optional open-ended questions:

Q21: What do you do when you have questions or encounter problems? For example, where do you seek for information? Whom do you contact?

Q22: Any comments on open access

Q21 received 25 responses, while Q22 received 21. As one response may mention more than one specific topic, the total number of topics is larger than the number of responses. The topics occurring in the responses were coded in the following categories, which were based on the themes and structure of the survey:



- economic aspects of OA publishing, funding models
- prestige and quality of publications
- lack of OA journals in research field
- OA and academic career
- institutional support

In some quotes, language errors have been corrected to improve the readability of the text. The coding scheme for responses in Q21 and Q22 will be made openly available in FSSD.

### The economic aspects of OA publishing

The economic aspects of the system of scholarly publishing overall and the transition from subscription-based to OA is mentioned in the responses as criticism against large profit-making publishers, research funders' financial support for OA, and the question of APCs. As one experienced researcher argues, the basic problem, the profit-making of large publishers, should be more emphasized in today's debate on OA publishing:

In my view, the entire discussion on open access is thoroughly confused in several important respects. We might not even be having the discussion at all, were it not for the fact that journal subscription fees have risen to such high levels. The issue has absolutely everything to do with the profit motive of the large academic publishing houses. Consequently, that is also where solutions to the problem has to be sought.

The same respondent continues with explaining experiences of the problem of large publishing houses which can benefit from public economic resources several times (double-dipping), especially when the issue of paying APCs is involved:

I refuse to have the Finnish taxpayer first pay for my research, then pay again for its publication, and then once again in the form of a journal subscription fee. Which is worse? Not publishing open access or using public funds to pay for it three times over? And so, again, although it is clearly the greed of the large publishing houses that is the problem, this particular aspect only plays a small part in discussion on open access.

Expensive APCs is a concern also for another respondent:

I think OA is an excellent idea. It will take time to develop it further: right now, there are issues e.g. with unreasonably high author processing costs

for some well-esteemed OA journals (to my mind anything, say, over 1 000 euros for an online-only journal article is too much given the digital systems currently available).

At the same time, structural support in the form of research funders' inclusion of open access costs is necessary for making individual researchers publish open access:

I think it's excellent that some funding bodies (e.g. European Research Council) include open access costs in their research funding. Without that, it has seemed financially impossible for an individual researcher to deal with the publisher's open access fees.

#### Prestige and quality of OA journals – and lack of OA journals overall

Issues concerning prestige, ranking and quality of OA journals, as well as the lack of journals in the researcher's field of study overall, were mentioned in the predominant part of the responses. The lack of OA journals overall, and in particular prestigious journals in the research field is, according to one respondent, the main problem:

Most of the high-level journals in my field are not open access and that means that my publications will not be either. There is not really any way around this problem, if I want to keep publishing my research.

In similar vein, another researcher explains that although s/he supports the idea of OA, living up to those ideals is more difficult in practice:

I strongly support open access publishing in theory, but in practice I must find publishers who are interested in publishing my work. There are very few true open access options in my exact field of study.

As another respondent continues, traditional subscription-based journals have developed their prestige over a long time, and prestige has little to do with OA as such:

The fact that the most prestigious journals within my field are still not OA is, I believe, largely due to historical reasons: they are prestigious because they were established long ago and have had a long time to build their reputation. So, the level of prestige has little to do with OA as such. In the long run, I believe OA is a much more sustainable form of publication, at least if non-OA journals continue to charge high subscription fees etc.

At the same time as the transition towards OA publishing should not be in the hands of individual researchers, the development towards increasing the proportion of OA publishing emerge from the research field itself:

I think it is very important, but it also feels that the decisions are not up to individual researchers. If the OA publications would rank higher and be free of charge, then I think more researchers would consider publishing in them.

As publishing monographs is a central characteristic to research in humanities, it should be noted that most current OA policies (such as Plan S) do not apply for monographs:

High-ranking research in the humanities is often published in monograph form by commercial publishing houses. This somewhat limits the applicability of OA policies.

### Academic career and OA publishing

Several aspects of choosing OA publication channels as venues for publishing in different phases of one's academic career is mentioned by several respondents. As a doctoral student explains: does a doctoral student need to choose between building an academic career by publishing in conventional journals or preferring OA publications:

I think a major problem is that there aren't that many viable journal options for open access in some fields. There are ca two relevant open access journals in my field – and they are very low ranked. Not that it matters that much as a doctoral student, but still.

In similar vein, another doctoral student explains that more experienced researchers are in the position to make a change towards increased OA:

... It would be important that the leading scholars in our fields, who are already established both academically and financially, would be pioneers and start to clearly prioritize OA publishing, that would make it easier for junior scholars to follow along.

The issue is viewed also from the perspective of a professor:

Experienced and established researchers do not choose publication channels on the basis of whether they are open access or not. They have

not done so thus far and probably never will, unless that becomes some kind of absolute requirement. They choose them on the basis of how well-established they are, and how good of a forum they provide for the dissemination of one's research. For example, the most prominent (and still most widely read) journals tend not to be open access, although they usually provide the hybrid option. Researchers are therefore unlikely to start publishing in open access journals until these journals become recognized and established enough (and most of them are not).

These responses can be considered implications of how views on OA partly is a generational issue in academia.

### Institutional support

Structural and institutional support is considered as one of the cornerstones of the success of the transition towards OA. For example, the role of the university library is emphasized:

It would be nice to know more about OA and its opportunities. If open access is so important as it is told all the time, then please – tell us more! Maybe the library or some other directions with expertise concerning the field should be even more active.

Although parallel publishing is viable OA for many research funders, this is not the case in practice for individual researchers:

The option of parallel publishing (Artur) does not feel like open access to me, since the preprint etc. versions are not citable.

The challenges in parallel publishing is also explained by another researcher:

The absolutely main problem with open access publishing and repository publishing is that I find it very difficult to understand the different copyright licenses, i.e. when is it OK to parallel publish my article in a repository and in what format while avoiding getting sued by Taylor & Francis.

## 5.7. Summary of main findings

In this section, the main findings of both sub-studies are summarized.

### Sub-study I

In sub-study I, the patterns of scholarly publishing were examined both at ÅAU as a whole (all fields of science), and the patterns in humanities in particular. The method applied was a quantitative analysis of bibliographic data of peer reviewed publications (both articles and monographs, types A and C according to the definitions of MEC) published in 2018 by researchers affiliated to ÅAU. The choice of areas for data analysis were based primarily on Ilva's (2017, 2018, 2019) studies on the proportions of OA publications of reported publications. An analysis of publication data provides insights into the actual patterns of scholarly publishing in a defined timeframe, and therefore assessed as an appropriate method to examine and assess the recent patterns of scholarly publishing. The publication data was retrieved in spring 2020 through the Juuli user interface of the national publication database Virta.

To map the patterns of scholarly publishing in humanities at ÅAU, the shares of different publication types, their OA status, and Publication Forum classification were analyzed. The publication data of other fields of science (social sciences, natural sciences, natural sciences, medical and health sciences, and engineering and technology) were also retrieved in order to contextualize the present study's focus on publishing in humanities. This comparison with other fields of science makes it possible to identify those patterns of scholarly publishing which are characteristic to the humanities. The main findings are summarized below following the order of Figure 3–9, presented in the previous chapter.

- To map the disciplinary context of scholarly publishing at ÅAU, all scientific publications (types A and C) in all fields of science were retrieved. The third largest number of publications in categories A and C in total were produced in humanities, after natural sciences and social sciences. It should be observed that the number of publications is classified according to discipline/field of science (Statistics Finland 2010), and not the division of faculties at the university.

- To map the characteristic publication types and sub-types in different fields of science, the publication data for all fields of science was retrieved. In humanities, the share of publications in A1 (refereed journal articles) is smallest compared to other fields of science, although it still is the predominant outlet for research. In contrast to other fields of science, the shares of publications in publication types A3 (book chapters or chapters in research books), C1 (book) and C2 (edited works) are significantly larger in humanities. Thus, the publication types A3, C1, and C2 emerge as characteristic to the patterns of scholarly publishing in humanities at ÅAU. These largely corresponds to patterns of scholarly publishing identified in humanities both in the contexts of international and national scholarly publishing.
- In addition to mapping the characteristic patterns in humanities, it is equally important to identify the characteristics of routes to OA. To map the characteristics of OA publishing across disciplines, the OA status of publications in type A were retrieved for publications in all fields of science. The share of publications in full OA channels for journal articles (A) was the second largest in humanities after medical and health sciences, while the smallest share of full OA publications was found in engineering and technology. The additional value of parallel publishing in humanities was at a decent level. Compared to other fields of science, the parallel publishing situation of humanities was located between the lowest (in medical and health sciences) and highest proportions (natural sciences) of parallel publishing in other fields of science. The share of publications in the category Other OA (typically articles in hybrid journals) was the smallest in humanities and largest in medical and health sciences. Notably, it appeared that some publications in the category Other OA, at least in the humanities, were not articles in hybrid journals, but delayed OA. The largest share of closed access publications was found in engineering and technology and the smallest share in medical and health sciences, while humanities was located in-between the two extremes.
- To further investigate the characteristics of routes to OA as part of the patterns of scholarly publishing in humanities, the OA status among publications in both publication type A1–A4 and C1–C2 in humanities was examined. In humanities, the largest share of closed access channels was found in monograph publications (A3, C1 and C2).

- The Publication Forum classification of publications is considered one measurement of scientific quality (Publication Forum 2020). First, the distribution of publications at different levels in Publication Forum was examined in each field of science individually. The largest share of publications at level 3 was found in social sciences, while the smallest in natural sciences. A slightly larger amount was found in humanities. In contrast, the largest share of publications at level 1 was found in humanities and engineering and technology, while the smallest in medical and health sciences. The smallest share of publications at level 2 was found in engineering and technology, and the largest in medical and health sciences. There are clearly differences in the shares of publications at different Publication Forum levels in different fields of science, but the differences are not significant. The distribution in humanities largely corresponds to the situation in natural sciences, engineering and technology, and social sciences. The most remarkable difference is in medical and health sciences, in which the share of publications in Publication Forum class 1 is clearly smaller than in the rest, from which follows that the shares at level 2 and 3 are smaller.
- To map the routes to OA in publications in different Publication Forum classes in all fields of science, all publications in A in all fields of science were retrieved together. The OA status of publications in each Publication Forum class was checked separately. The largest share of full OA publications was at Publication Forum level 1. The share of full OA publications at both Jufo 2 and 3 was half of the share at level 1. The additional value of parallel publishing was clearly the largest at Jufo 3. In total, the share of publications which were available as OA (regardless of route to OA) was largest at level 1. The share of closed access publications was largest at level 2.
- Finally, the routes to OA at different Jufo levels in humanities was examined. The share of full gold OA publications in humanities at level 1 was larger than the total share in all fields of science. The share of full OA at Jufo 2 in humanities was also larger than the share when all fields of science are counted together (15 %). A notable difference is, however, that there were no full OA publications at Publication Forum level 3 in humanities. Altogether, the share of green OA+ is smaller in humanities compared to all field of science taken together. The share of

not OA at Publication Forum level 3 was considerably larger in humanities compared to all fields of science together.

### Sub-study II

In total 59 respondents, researchers affiliated to FHPT, participated in the survey which intended to map the awareness, knowledge, perceptions and experiences of researchers in humanities at ÅAU. About half of the respondents were doctoral students, while the rest of the respondents were distributed in the remaining categories of researchers. The typical (most frequent) respondent in the survey was a female doctoral student.

- Awareness and knowledge of OA: Overall, the respondents reported a high level of awareness and knowledge of the different aspects of OA. There were, however, differences between researchers at different stages in their careers. More experienced researchers agreed on the question items to a larger extent than doctoral students, and thus indicated a higher level of awareness and knowledge. The difference to doctoral students was more distinct for question items which concerned for example the ÅAU open science policy and Academy of Finland's mandate on OA to research publications. When it comes to green OA the level of reported awareness and knowledge was lower than for most other question items. Among all respondents there was most disagreement concerning understanding the difference between gold and green OA, and which version of the paper to parallel publish.
- Experience of OA publishing: Senior researchers (professors, university teachers, postdoctoral researchers) reported to have more experience of publishing in gold OA journals, hybrid journals, and parallel publishing. In addition, senior researcher had participated in OA education provided by the library more extensively than doctoral students. A larger share of respondents who had participated in OA education had also published in gold OA journals, hybrid journals, or parallel published, compared to those who had not participated in OA education.
- Perceptions of OA publishing: Similarly, the overall perceptions of OA among researchers was remarkably positive (respondents strongly agreed on the statements), but for some of the question items, senior researchers tended to agree more extensively than doctoral students. With regards to publication attributes, the



respondents reported that the most important factors when deciding where to publish their research were the relevance of the publication in the current field of research, and the perceived prestige or quality of the journal, and the absence of publication fees. Among the least important factors when deciding the venue for publishing were the publication's impact factor, parallel publishing policy, OA status of the publication, and copyright policy. The OA attributes of a publication was considered more relevant among senior researchers (professors in particular) compared to doctoral students.

- Facilitators and barriers to OA publishing: In Q12, the respondents were asked to rank the factors which would make their research more openly available. The statement “the OA journal is of high scientific value in my field of research” was considered the most important factor, while “the APC is paid by my university or funder” and “more education about OA” were ranked on second and third place. “High citation rates or ranking” and “more support and service from Åbo Akademi University Library” were ranked at the end of the list. Although it should be noted that the differences between some of the items can be considered minor, the results suggest that the most important factor comes from the research field itself: OA journals need to have high scientific value in the research field.

The responses in the open-ended questions are in line with and supported the results of the quantitative publication data analysis and the quantitative results of the survey. For example, the notion that OA attributes of the publication are not the most important ones when deciding venues for publishing was emphasized also in some of the responses in the open-ended questions of the survey.

## 6. Discussion

This section discusses the results in relation to previous research, the empirical contribution of the study, implications and recommendations for practice, and provides suggestions for future research. In the concluding remarks, the results are assessed towards the future of OA.

### 6.1. Discussion of results in relation to previous research

Scholarly publishing is one of the core activities in academia. The aim of this study was to examine a profound change, which takes place in formal scholarly communication and scholarly publishing today, namely the transition from closed access publishing to OA publishing. Overall, the transition towards OA has been slow and has been going on for at least three decades, since the emergence of the Internet (Holopainen & Koskinen 2016, Laakso et al 2011). Previous studies suggest that the transition towards OA in humanities has been especially slow compared to other disciplines, both with regards to the amount of OA publications (both journals and monographs) (e.g. Archambault et al 2014, Eve 2014, Puuska 2014, Williams et al 2009), and the transformation of attitudes and motivations within the research community (e.g. Coonin & Younce 2010, Gaines 2015, Gross & Ryan 2015).

The present study examines the ongoing transition towards OA publishing in humanities, with a focus on the patterns of scholarly publishing, and the views on and experiences of OA publishing among researchers in humanities. The humanities at ÅAU serves as a case study. As the present case study does not provide a basis for systematic comparison to other disciplines at ÅAU, and does not examine change over time, the case study firsthand provides a window into the current situation in humanities with regards to the transition towards OA publishing. The results concerning the FHPT researchers' awareness, knowledge, perceptions and experiences of OA publishing are therefore compared to observations of more general nature in previous studies.

The main research question is formulated as follows: *How is the transition from closed access publishing to OA publishing in humanities expressed in publishing patterns, and perceived and experienced from the perspective of researchers?*

The main research question is further divided into sub-questions. First, the transition towards OA publishing in humanities is examined with regards to publishing patterns.

**1) Which patterns of scholarly publishing are typical to humanities and how is OA part of those patterns?**

While the peer reviewed article remains the main research outlet also in humanities, scholarly publishing in humanities is characterized by publishing in monographs more extensively than in other disciplines (Puuska 2014). While the development of OA journal publishing models has been the main focus in international and national OA initiatives, the transition towards OA monograph publishing has been slower. The challenges in finding sustainable models for OA monograph publishing can be considered one of the main structural reasons why the transition towards OA has occurred more slowly in humanities than in other disciplines (Eve 2014, Williams et al 2009). The need for separate solutions for OA monograph publishing has been observed also in Plan S (2018).

When examining the patterns of scholarly publishing, the national and institutional contexts demand attention. In Finland, the core funding of universities is based on reported publications which are collected in the annual national publication collection by the MEC. In other words, the publishing activities of affiliated researchers have a direct impact on the university's funding. From the perspective of institutions in higher education, this is a main incentive to accurately and extensively report the publications produced by their staff. The publication data, collected in the annual publication collection, can be used for analyzing trends and patterns of scholarly publishing in Finnish institutions in higher education (Ilva 2017, 2019).

**a) How large is the share of peer reviewed OA publications produced in humanities, compared to other disciplines (fields of science)?**

To map the patterns of scholarly publishing in an organizational context, the publication activities in all disciplines and in humanities in particular at ÅAU were examined in sub-study I. The results of sub-study 1 are in line with publishing patterns identified in both internal and national contexts. The comparison between scholarly publishing patterns in humanities and other disciplines serves the purpose to contextualize the

study in those patterns of scholarly publishing identified internationally (Eve 2014) and nationally (Puuska 2014). In sub-study I, it was found that monographs are almost exclusively published in the humanities (and social sciences).

The current situation of OA publishing at ÅAU needs to be viewed from a national perspective, although direct generalizations and comparisons should not be made. A rapid development towards increased OA publishing can be clearly distinguished in Finnish universities in the past years (Ilva 2017, 2018, 2019, 2020a, 2020b). Since 2015, the proportions of OA publishing (full OA, hybrid, green OA) have increased significantly in all fields of science in five years (Ilva 2020a).

The current development, observed by Ilva during subsequent years (2017, 2018, 2019) is that the total share of OA (full OA, hybrid, green OA) of the peer reviewed journal publications in humanities can altogether be considered being at a decent level when compared to other fields of science. The same observation can be made regarding the situation of scholarly publishing at ÅAU.

**b) Which routes to OA and other publication characteristics are typical to publications in humanities, compared to other disciplines (fields of science)?**

The proportions of different routes to OA vary across disciplines. In sub-study I, the share of publications in full OA channels for journal articles (A) was the second largest in humanities after medical and health sciences, while the smallest share of full OA publications was found in engineering and technology. The additional value of parallel publishing in humanities was at a decent level. Compared to other fields of science, the situation of parallel publishing in humanities was located between the lowest (in medical and health sciences) and highest proportions (natural sciences) of parallel publishing in other fields of science. The share of publications in the category Other OA (typically articles in hybrid journals) was the smallest in humanities and largest in medical and health sciences. These observations largely correspond to those of Ilva (2017, 2019).

The classification in Publication Forum emerges as another central publication characteristic. Ilva (2017, 2018, 2019) further observes that the distribution of different routes to OA (gold, green, hybrid) varies at different levels in the Publication Forum

classification system. As observed by Ilva (2017, 2018, 2019), the proportions of hybrid OA and parallel publishing increase at level 2 and 3, while the proportion of full OA is typically larger at level 1. The same pattern was observed in the present case study. Sub-study I also shows that the additional benefit of green OA was smaller in A3 and C1 (typical publication types in humanities) compared to other publication types, which corresponds to previous observations (Ilva 2017).

As Ilva (2020a, 2020b) also observes in his latest overview, the share of OA publications of the total of reported scholarly publications has been growing remarkably rapidly in Finnish institutions of higher education in only a few years. According to the preliminary numbers of the national publication collection in 2019 conducted by the MEC, about 65 % of all peer reviewed articles (A) produced at Finnish universities were reported to be available in some form of OA. In 2018, the equivalent number was slightly more than 50 % in all Finnish universities together (Ilva 2019).

When the relatively short timeframe of implementing OA policies and the inclusion of OA status in the national publication collection is considered, the development has been notably rapid during a short time: from less than 30 % of OA (in A1–A4 as displayed below) to preliminarily 65 % in 2019 (Ilva 2020).

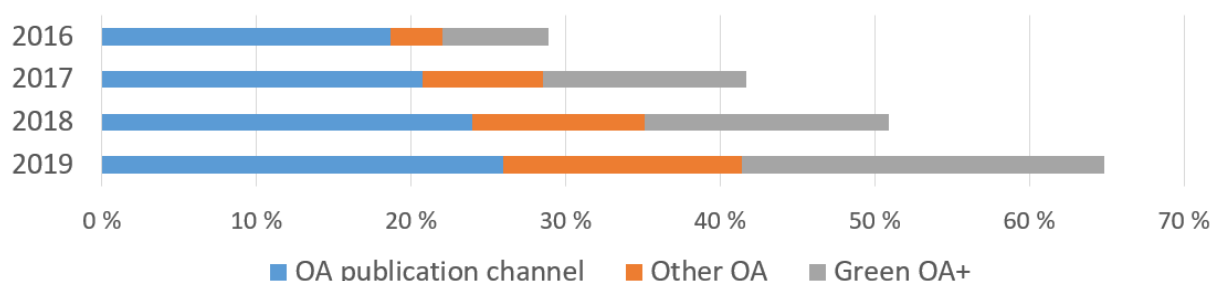


Figure 18. Ilva, Jyrki (2020b). “Open access on the rise at Finnish universities”. The share of peer reviewed OA articles (publication types A1–A4) at universities in 2016–2019.

While the publishing patterns examined in sub-study I reflect the outcome of researchers’ actual publishing choices, sub-study II focuses on researchers’ views on and experiences of OA publishing. Together, these provide a comprehensive insight into the transition towards OA in an organizational context.

Previous studies indicate that the development in humanities, both in the research community (Coonin & Younce 2010, Gaines 2015, Gross & Ryan 2015) and among

publishers (Eve 2014, Williams et al 2009) in that field, has been slow compared to other disciplines with regard to embracing OA publishing. Therefore, the case study continued with a survey which was distributed among FHPT researchers (N=59). The survey results were used to respond to the following research questions:

**2) What is the level of awareness and knowledge of OA publishing among researchers in the humanities, and how do they perceive of OA publishing?**

Previous studies (Coonin & Younce 2010, Gaines 2015, Gross & Ryan 2015, Rowley et al 2017), which examine awareness, knowledge, perceptions and experiences of OA publishing among researchers, indicate that there are disciplinary differences. In general, it is assumed that the adoption of OA in individual publishing patterns has been slower in humanities.

Since the present study has been conducted only once at ÅAU, conclusions about comparisons to other faculties, disciplines, and change over time, cannot be made. Overall, it can still be concluded that the respondents report a rather high level of awareness and knowledge of OA issues, and quite strongly agree on the principles of OA. Especially in comparison with older studies on researchers' awareness, knowledge, perceptions and experiences of OA publishing (Coonin & Younce 2010, Gaines 2015, Gross & Ryan 2015, Rowley et al 2017), the results of the present study seem to indicate a higher level of awareness, knowledge and a stronger agreement on the principles of OA.

**a) To what extent do researchers report awareness and knowledge of different forms of OA publishing?**

In the beginning of the survey, respondents were asked to assess their awareness and knowledge of OA issues, such as the difference between gold and green OA, the ÅAU open science policy, the Academy of Finland mandate on OA to research results. The question items concerning knowledge about the difference between gold and green OA and which version to parallel publish, showed that researchers were unsure about the differences. This is one example of tendency which corresponds with previous findings (e.g. Kim 2011) which, amongst others, suggest that researchers typically are unaware of the opportunities of parallel publishing or do not see the benefits of it.

In the present study, respondents in different academic positions (junior or senior researcher), show differences in the level of self-reported awareness, knowledge, and perceptions of OA issues, for example when it comes to awareness of policies (ÅAU open science policy, Academy of Finland mandate on OA). Since the responses are based on self-assessment, definite conclusions cannot be made about the level of awareness and knowledge.

### **b) To what extent do researchers have experience of OA publishing?**

In this research question, OA publishing includes all forms of OA (full gold OA, hybrid, green OA). Sub-study I gives a preliminary insight into the experiences of OA publishing among ÅAU researchers, at least among those who have published a peer reviewed publication in 2018. In total 57 % of the journal articles produced in humanities in 2018 were available via some form of OA (gold, green or hybrid), while 43 % were closed access.

In sub-study II as part of the survey, the participants reported their experiences of publishing in gold OA publications, hybrid journals, and parallel publishing. More experienced researchers reported more extensive experience than junior researchers for all routes to OA. It should be observed that the present study does not distinguish between those who have previous publishing experiences and those who have not published anything at all.

### **c) What are researchers' perceptions of OA publishing?**

Overall, the respondents in the case study indicated a high level of agreement with the principles of OA. The overall results of sub-study II are in line with previous studies (e.g. Gaines 2015, Gross & Ryan 2015) which show that researchers are increasingly interested in and are positive about OA publishing. For example, there was strong disagreement on the statement about OA and predatory publishing, which suggest that the association between OA publishing and predatory publishing can be regarded as a myth.

The relevance of OA attributes in researchers' selection of publishing channel has been a central topic in previous studies. The perceived prestige and quality of the publication

channel and the relevance to the field remain the most important factors for researchers. In previous studies, amongst others Blankstein and Wolff-Eisenberg (2019), Coonin & Younce (2010) and Gaines (2015) have observed that despite extensive agreement on the tenets of OA, only few researchers perceive the OA attributes of publications as highly relevant when choosing venue for publishing research. This observation corresponds with the results of Q8 in the survey. In sub-study II, question items related to the OA attributes of publications, such as the publication being an OA journal, policy which allows parallel publishing, and copyright policy, were considered as slightly irrelevant, irrelevant or extremely irrelevant by about one fifth of the respondents. In contrast, other publication attributes, such as relevance to the research field, and prestige and quality of the publication, received the largest proportion of responses as extremely relevant and relevant. All respondents reported that they slightly agree, agree or strongly agree on the statement that the relevance of journal to the field is important when making the decision.

**d) Which are the main factors that would support researchers in publishing OA, and which are the main factors that hinder them from publishing OA?**

The results of sub-study II further exemplify the complexity of OA publishing from the perspective of the researchers, most importantly concerning the perceived quality and prestige of publications. In Q12 and Q13, the quality of OA journals and financial support for APCs emerged as the most critical factors in the transition towards increasing the proportion of OA publishing in humanities. Facilitators and barriers with regard to OA publishing were also frequently mentioned in the open-ended questions in the survey, which further supported the results of the ranking scale question items.

High scientific quality of OA journals in the field of research was considered the most important factor which would make research more openly available (Q12). This result is also supported by the responses in the open-ended questions. Both senior researchers and doctoral students mentioned that senior researcher are used to publishing in well-established journals which typically are not OA. This tendency is, by some doctoral students, experienced as difficult: how to support OA in one's own research and build a career, if those OA publications are not considered prestigious enough?



The questions of funding for APCs also emerge as a central issue: absence of APC fees was perceived as one of the most important factors when selecting venues for publishing. Funding for APCs was also seen as the second most important factor which would facilitate researchers to publish OA. Similarly, lack of funding for APCs was seen as the most central barrier to making research openly available. This observation corresponds to, amongst others, Zhu (2017) who in their studies observed that APCs constitute a main barrier for researchers to make their research OA. The question of how to cover APC costs emerged as a central theme also in the open responses. A main concern was the problem of double-dipping.

The results further indicate that services provided by the library, such as support and services for parallel publishing, is central for supporting researchers in making their research openly available, but the main opportunities and challenges of OA are related to the publishing patterns in the specific field of research.

## 6.2. Implications and recommendations for practice

The outcome of this case study is mainly an empirical contribution. The main empirical contribution of this in-depth case study is that it provides new insights into publishing patterns, views on and experiences of OA publishing among researchers in humanities at ÅAU. The results cannot be statistically generalized, but it can be stated that the 59 respondents provide a rather broad insight into the current views and experiences of researchers both in their early careers and those who have longer experience in academia. The analysis of patterns of scholarly publishing shows that the situation of publishing in full gold OA journals and parallel publishing can be considered to be at a decent level when compared to other fields of science.

Based on the empirical findings and the assessment of the results in relation to previous research, some implications and recommendations for practice can be drawn at individual and institutional level, which are in dialogue with policy level.

- Discussion on the question of prestige and quality of (OA) publications in the discipline. Based on the results, it is motivated to assume that OA publishing is not a means to itself, and other publication attributes than OA-related emerge as more important. Publishing in gold OA journals is rapidly increasing, and

researchers can be encouraged to publish in them, as long as they assess the quality and prestige of the journal in their respective research fields.

- Increase the motivation to parallel publish. This recommendation is based on the results of the items in the survey, which indicate that the level of awareness and knowledge of green OA is lower than for full gold OA. In addition, green OA was by some respondents considered not a viable option of OA. The question of parallel publishing is especially urgent with regards to book sections (A3), monographs and edited works (C), since these publication types are characteristic to the publishing landscape of humanities. A closer examination of publishers' copyright and OA policies was outside the scope of this thesis, but it is not unusual that publishers provide some opportunities for parallel publishing also of book chapters and even entire books.
- Peer support in OA issues, for doctoral students in particular. This recommendation is based on the insight in the survey that doctoral students reported a lower degree of awareness and knowledge of OA than senior scholars. In addition, respondents mentioned in the open-ended questions that senior researchers are in a key role to make change. The role of the supervisor as a senior researcher with more extensive publishing experience is central.
- Researchers in humanities should be made aware of their opportunities to APC deals and discounts. In the survey, absence of APC costs was one of the most relevant attributes when deciding where to publish. At the same time, APCs were considered one of the main barriers for making one's research openly available. As concluded also at a policy level (e.g., Plan S), the coverage of APC costs is a central mechanism to support researchers in publishing OA. According to Plan S, one of the aims is to eliminate the hybrid publishing model, which benefits from both the subscription fees and APCs. In the transition phase towards full OA, so called transformative agreements are, however, allowed. Through the agreements between Finnish library consortium FinElib and publishers, researchers affiliated to participating universities are eligible of APC vouchers and discounts (to a limited extent). The hybrid publishing model was a concern also among the responses in the open-ended question. From this perspective, gold OA (as hybrid) is not an end in itself, in case it comes at a too expensive cost. It should also be observed that researchers who are not affiliated

cannot benefit from the deals and discounts, and are thus in an unequal position. Therefore, researchers should also be reminded of the fact that parallel publishing in general is a viable form of OA from the perspective of research funders.

These implications and recommendations for practice are formulated from the perspective of research institutions to support the individual researcher in making their research OA. More importantly, the implementations resulting from national policies or the policies of research funders are in the most critical position which affect the development of OA. In this sense, the future of OA should not be in the hands of individual researchers, but the main support emerges from structural and financial frameworks.

### 6.3. Limitations of the study

In this section, the limitations of the study are assessed and discussed. The limitations are primarily connected to the reliability and the validity of both sub-studies, as well as how they together shed light on the research topic. Reliability concerns the consistency of a measure, while validity concerns the accuracy of a measure (Creswell & Creswell 2018). The reliability and validity are assessed in both sub-studies separately.

#### Reliability and validity in sub-study I

In sub-study I, the patterns of scholarly publishing in humanities in relation to other fields of science have been examined by analyzing publication data. The OA status of publications in different publication types have also been examined. The limitations mainly concern the reliability and consistency of the publication data and the consequences for the results. When using data, which other actors have collected for other purposes, the reliability and validity of the obtained data is largely out of control for the researcher (Creswell & Creswell 2018). Taking this into consideration is highly relevant when assessing sub-study I, as the publication data has been collected as part of the national publication collection conducted by the MEC.

There are several factors concerning the publication data, which may affect the quality and the correctness of the results, but are independent of the researcher. To guarantee that the same definitions of OA have been deployed both when retrieving data and in the presentation of results, the handbook, which was in effect in 2018 (Tiedonkeruun käsikirja 2018), was used as a point of reference. More importantly, however, the publication data itself available through Juuli may contain errors. Despite the thorough validation processes conducted by the university libraries and the MEC, there is a probability that the definitions of OA, and other publication characteristics, provided by the MEC have not been consistently applied by the university libraries and individual validators, as observed by Ilva 2017 and Ilva 2019. For example, delayed OA is not considered proper OA according to the definitions of MEC (Tiedonkeruun käsikirja 2018), but publications which are delayed OA may still have been included as OA publications in the validation process (Ilva 2019). Some examples of validated publications, which contained mistakes in the publication data, were observed also when conducting this study.

Since the total numbers of reported publications can be considered small, errors in the publication data inevitably affect the results as presented in this thesis. As an additional consequence of small quantities, these errors may rather decisively affect the results presented as percentages. Manual corrections have not been made in the data retrieved for the study, since this would negatively affect the consistency of the data and the opportunities for comparison and replication of the study. Overall, the changeability of the data available in Virta should be taken into account when planning comparisons of different publication data or a replication of the study. The publication data in Virta is constantly being updated, which makes it difficult to check the correctness of search strategies and the exact number of publications after some time has passed (Ilva 2017, 2019). Therefore, the exact dates for retrieving the publication data have been documented in the research process. There were changes in the publication data during the research process. For instance, in the last procedures of data retrieval and checking previously retrieved data, the situation for parallel publishing had improved in almost all fields of science.

Despite the limitations of the publication data, the publication data in Virta represent the official statistics of publications produced at institutions in higher education in Finland.

In that sense, the use and interpretation of the publication data, despite the probability of errors, is valid for assessing the OA status of publications and the patterns of scholarly publishing at institutions of higher education.

Since the fields of science, which are used to describe the discipline of a publication, do not necessarily correspond to the affiliation of the researcher, it is not appropriate to draw direct conclusions on a faculty level. For the same reason, comparisons between corresponding faculties at different universities is hardly motivated. It can, however, be assumed that most publications reported in humanities at ÅAU have been produced at FHPT.

With regards to validity, it should be observed that analysis of publication data of research institutions needs to be understood in their organizational and disciplinary context in order to be meaningful data for interpretation. In this study, an analysis of publication data of all disciplines has been presented to contextualize the patterns of scholarly publishing in humanities in particular. Since the analysis of publishing patterns is limited to one year only, the results provided only a limited view into the current state of scholarly publishing activities. The results cannot be seen as a tool for predicting future publishing activities. Neither can the results be directly compared to the publishing patterns internationally.

#### Reliability and validity in sub-study II

The limitations of sub-study II are discussed with regards to the design of the survey (measurement consistency), data collection or sampling (response bias), data processing, and the analysis of survey data. The reliability and validity of the results are assessed.

The limitation concerning measurement reliability concerns the consistency of the survey to measure what it is intended to measure (Creswell & Creswell 2018). To avoid this kind of bias, a pilot survey was conducted to secure the consistency of the survey items before its wider distribution. It should be acknowledged that the topic of OA can be considered difficult, and far from all researchers are knowledgeable of OA issues. Although most respondents reported a high level of awareness and knowledge of OA issues, it cannot be excluded that respondents have interpreted the survey questions in

other ways than the researcher have intended to. This means that confusion of terminology and other misunderstandings would inevitably affect also the validity of the results. However, the results of items which investigate the same aspects of OA publishing support each other (e.g. concerning green OA) and are in line with previous research.

With regards to the design of the survey, some improvements could be made in case a follow-up study is conducted. Some questions in the survey received a large proportion of responses for the “neither disagree nor agree” alternative. The tendency that respondents choose this option may indeed be indicative of that opinion, but it may also imply that respondents do not know what to answer. In other words, it could be useful to also include the option of responding “I do not know” to some question items. Altogether, the tendency shows that those questions need further examination. Similarly, the questions which consisted of forced ranking scales could have benefitted from providing a N/A alternative. Some respondents took the opportunity to explain their views in the open-ended questions at the end of the survey, which can be considered to enhance the validity of the responses.

As observed in the research literature on survey studies (Creswell & Creswell 2018), there is a central difference between self-reported awareness and knowledge and real-life awareness and knowledge. For instance, respondents may underestimate or overestimate their awareness and knowledge of OA issues, and act differently in real-life situations compared to how they have reported in the survey. There is also a probability that respondents answer in a way they (consciously or unconsciously) think the researcher wants. This bias is almost inevitable in survey studies, and to cover it, other research strategies need to be applied.

The nonresponse rate affects the reliability of the results of the survey. In total 59 respondents can be considered a decent number of participants, but these represent only a minority of the total amount of researchers at FHPT. The representativeness of the respondents who decided to participate in the study is a central aspect to consider when assessing the results. For example, it could be assumed that those researchers, who are already familiar with OA and are positive about OA, are more likely to participate in the survey in the first place, compared to those who are not familiar with OA at all. A potential explanation to the large share of doctoral students among the participants is

that OA issues is more and more emphasized for early career researchers. In the cover letter, it was mentioned that also those who do not have experience of OA could participate in the survey. The purpose was to encourage researchers who did not have experience of OA publishing. Because of these response biases, the results do not represent the voice of all researchers at FHPT.

#### Assessment of the entire study

The limitations with regards to whether the results can be generalized (external validity), or directly compared to previous studies, are characteristic to case studies (Creswell & Creswell 2018). Despite the limitations and problem areas regarding the reliability and validity of the results, the overall results of the present study are in line with previous research.

Another central limitation relates to the mainly quantitative approach. The quantitative approach has provided a more extensive and versatile insight into the current situation in humanities at ÅAU than qualitative methods would have provided. However, it is not possible to know how respondents have reasoned when responding to the survey. At the same time, attitudes and motivations are constantly subject to change, and similar responses cannot be guaranteed.

Initially, the scope of this case study can be considered broad in nature, at the same time as it is impossible to study all aspects of OA publishing, even in a defined organizational or institutional context. The empirical data retrieved for both sub-studies were rich and versatile, and opportunities for forthcoming analyses remain. The present multi-method study has been fruitful for mapping critical developments in the transition towards OA publishing in humanities, from the perspective of researcher.

#### 6.4. Suggestions for further research

Research on OA publishing is a rapidly growing research topic, and also from the present study central themes for further research emerge. Forthcoming changes and improvements in the annual national publication collection of universities will provide new venues for research in patterns of scholarly publishing at Finnish universities. Starting 2021, additional OA attributes such as information on embargoes, the use of open licenses, and APC costs, will be included in the publication collection. Although

these OA attributes have not been accessible when conducting the present study, the results from the survey suggest that open licenses and APCs are potential areas of interest. Overall, the OA attributes which will be included in the forthcoming publication collection nationally will increase the potential to assess the development of OA in Finnish institutions in higher education from a more versatile and long-term perspective.

The limitations of both sub-studies open up venues for further research. The focus of the present study has been on humanities, but similar studies in other fields of science or faculties at ÅAU, or at other research organizations, would benefit from a similar approach. The survey can be replicated at the same faculty (FPHT) to monitor changes in awareness, knowledge and perceptions over time. In addition, the survey can be conducted also at other faculties to retrieve results that can be used to compare the awareness, knowledge and experience of OA publishing at different faculties. Similarly, combined with an analysis of publication data within the concerned fields of science, it is possible to take the characteristics of the disciplines into account.

The results of the study also reflect broader issues and challenges in the transition towards OA publishing. To gain an even deeper understanding of the transition towards OA from the perspective of researchers, a qualitative approach would be useful. Qualitative methods can be used to examine how researchers understand their roles as producers of new scientific knowledge and their role in the transition towards OA.

## 6.5. Conclusion

Both from an international and national perspective, the transition towards an increasing proportion of OA research literature has taken large steps within only a few years. Although the results of this case study cannot be used to make strict conclusions about the past and the future, they give a diverse insight into the ongoing transition in scholarly publishing and communication in humanities in particular.

The objectives for OA publishing as defined in the Finnish national policy and Plan S can be regarded ambitious, despite the fact that the total proportion of publications which are available in OA in some form has more than doubled since the monitoring of OA was initiated some years ago (Ilva 2020a, Ilva 2020b). According to Plan S (2018), scholarly publications based on research funded by public or private research funders



must be available as OA, with effect from 2021. According to the Finnish national strategy, all research should be publicly available by 2022. This ambitious objective can be considered challenging to reach, as selecting OA publication channels for publishing is not an end in itself for researchers. Critical voices have also been raised about the implications for academic freedom, when OA mandates and policies are about to affect researchers' decisions of where to publish.

It emerges as central to consider how researchers evaluate which routes to OA are viable options in their fields of research, and how their decision-making can be supported in a way that is in line with sustainable OA options. Simultaneously, the development of sustainable models for OA monograph publishing will affect the OA publishing landscape in a remarkable way. In the rapidly changing landscape of scholarly communication and publishing today, it remains central to continue asking researchers what they think about disseminating their research outputs as openly as possible also in the future.

## 7. Summary in Swedish – Svensk sammanfattning

Övergången till öppen publicering inom humaniora:

En fallstudie om forskares publiceringsmönster, uppfattningar om och erfarenheter av öppen publicering vid ett finländskt universitet

### *Introduktion*

Under de senaste årtiondena har formerna för formell vetenskaplig publicering och vetenskaplig kommunikation gått igenom omfattande förändringar. De här förändringarna handlar dels om ett skifte från att forskare publicerat i tryckt format till att publicera digitalt, dels från att publicera i avgiftsbelagda prenumerationstidskrifter till att publicera öppet tillgängligt för alla på internet, det vill säga *open access* (OA) (De Silva & Candace 2017; Mukherjee 2009). I denna avhandling granskas övergången till öppen publicering inom humaniora, med ett finländskt universitet som fallstudie.

OA-rörelsen fick sin början bland universitetsbibliotek och forskare i USA i början av 1990-talet som en reaktion mot kommersiella förlags allt större vinststrävanden inom vetenskaplig publiceringsverksamhet. De allt högre prenumerationspriserna ledde till en ohållbar situation för universitetsbibliotek och andra organisationer vars syfte är att tillhandahålla vetenskaplig litteratur för studeranden, forskare och övriga anställda vid universitet (Laakso et al 2011). Än idag betalar universitetsbibliotek och forskningsorganisationer över hela världen en stor del av sina årsbudgeter för att ge tillgång till den senaste forskningslitteraturen som finns bakom betalvägg (Larivière, Haustein & Mongeon 2015). Det här innebär dessutom att forskningsresultaten inte är tillgängliga för samhällliga aktörer och den breda allmänheten, och att forskningen inte kan komma dem till nytta. Därför handlar OA-rörelsens målsättningar om att göra vetenskapliga digitala publikationer fritt tillgängliga för alla. Med detta som bakgrund innebär öppen tillgång till forskningsresultat en demokratisering av kunskap och förutsättningar för ökad spridning och genomslagskraft i samhället. Centrala begrepp som öppen tillgång eller öppen publicering kan inte definieras på ett entydigt sätt, men utgångspunkten är att öppet tillgänglig vetenskaplig litteratur finns digitalt på internet

och inte kostar något för läsaren, samt är fritt från de flesta begränsningar vad gäller upphovsrätt och licenser (Suber 2012).

Därtill kan öppen publicering delas in i flera typer. Guld OA är publikationer som är omedelbart öppet tillgängliga för läsare. I guld OA-publikationskanaler är alla artiklar öppet tillgängliga. Hybrid OA är prenumerationstidskrifter som gör en del artiklar öppet tillgängliga som en avgiftsbelagd tilläggstjänst. Grön OA, som även kallas parallellpublicering eller självarkivering, innebär att författaren själv (utan kostnad) delar den version av artikeln som utgivaren tillåter i ett institutionellt repository eller annat öppet digitalt arkiv (Laakso et al 2011, Suber 2012).

Under de senaste åren har flera initiativ och implementeringsprogram utformats på internationell och nationell nivå för att möjliggöra en övergång till ökad öppen publicering. Till de mest inflytelserika internationella initiativen hör Plan S (2018) som är ett europeiskt initiativ för att främja öppen publicering av vetenskapliga artiklar. Bakom initiativet står cOAlition S, ett konsortium bestående av främst europeiska forskningsfinansiärer, bland dem Finlands Akademi som hör till de största forskningsfinansiärerna i Finland. Målet för Plan S (2018) är att vetenskapliga publikationer som produceras inom forskningsprojekt som genomförs med offentliga eller privata medel ska omedelbart göras helt öppet tillgängliga fr.o.m. år 2021.

I Finland rapporterar universiteten årligen antalet vetenskapliga publikationer, som producerats av forskare och anställda vid universiteten, till Undervisnings- och kulturministeriet. Antalet rapporterade referentgranskade publikationer och deras vetenskapliga kvalitet (t.ex. klassificering i Publikationsforum) utgör grunden för beräkningen av en viss andel av universitetens grundfinansiering med offentliga medel (Undervisnings- och kulturministeriet 2020). Öppen publicering betonas allt mer i universitetens nya finansieringsmodell som träder i kraft år 2021, enligt vilken öppet tillgängliga publikationer (guld, hybrid, grön) ger universiteten mer finansiering än motsvarande stängd publikation. Med andra ord är det av betydande intresse för universiteten att rapportera alla referentgranskade publikationer på ett korrekt sätt, inklusive information om publikationernas OA-status, och att även öka andelen publikationer med öppen tillgång överlag (Ilva 2017, 2019).

*Tidigare forskning och litteraturöversikt*

Inom forskningen kring OA-publicering granskas förändringarna inom vetenskaplig publicering och kommunikation ur flera olika perspektiv. Ett centralt forskningsområde är den kvantitativa utvecklingen av andelen OA-publikationer inom olika discipliner. Tidigare forskning noterar att utvecklingen mot öppen publicering skett relativt långsamt under flera decennier, trots allt mer välutvecklad digital informationsteknologi och allt bättre forskningsinfrastruktur (Holopainen & Koskinen 2016, Laakso et al 2011, Suber 2012). Överlag har andelen publikationer som finns öppet tillgängliga i någon form (guld, hybrid, grön) av den totala mängden vetenskapliga publikationer ökat mer markant under de allra senaste åren (t.ex. Archambault et al 2014, Ilva 2020a, Laakso et al 2011, Piwowar et al 2018, Solomon et al 2013).

Humaniora som disciplin är av särskilt intresse inom forskningen kring utvecklingen mot ökad öppen publicering. Tidigare forskning visar att förändringen mot ökad öppen publicering varit långsammare inom humaniora än inom andra discipliner (Coonin & Younce 2010, Gaines 2015, Gross & Ryan 2015). En delorsak anses vara särdragen för vetenskaplig publicering inom humaniora. Det mest framträdande draget för publicering inom humaniora är att referentgranskade monografier hör till de mest centrala formerna av vetenskaplig publicering vid sidan av referentgranskade artiklar i tidskrifter, medan publicering av monografier är mer ovanligt inom övriga discipliner. Inom naturvetenskaper, medicin och teknik är andelen referentgranskade artiklar och konferenspublikationer mer typiska (Darley, Reynolds & Wickham 2014, Giménez-Toledo & Román-Román 2009, Puuska 2014). Vad gäller öppen publicering har fokus för internationella OA-initiativ såsom Plan S (2018) i första hand handlat om publicering av vetenskapliga artiklar. Däremot har initiativen till öppen publicering av monografier inte varit lika framgångsrika i att förverkligas. Hållbara modeller för OA-publicering av monografier är fortfarande inte lika välutvecklade som för vetenskapliga artiklar (Eve 2014, Williams et al 2009).

För att förstå och kartlägga förändringen ur forskarsamfundets synvinkel är forskares uppfattningar om och erfarenheter av olika typer av öppen publicering (t.ex. Coonin & Younce 2010, Gross & Charles 2015, Rodriguez 2014, Rowley et al 2017), publiceringsmönster på institutionell nivå (i finländsk kontext bl.a. Ilva 2017, Ilva 2018, Ilva 2019, Ilva 2020a, Ilva 2020b), samt universitetsbibliotekens roll i att stöda forskare

t.ex. genom tjänster för parallellpublicering (t.ex. Ala-Kyyry 2018, Björk et al 2014, Kim 2011, Klain-Gabbay & Shoham 2018) centrala aspekter att beakta. Den här studien rör sig mellan dessa delområden för att ge en helhetsbild och analysera övergången mot ökad öppen publicering vid en bestämd utbildningsorganisation i ljuset av internationella och nationella utvecklingstrender.

### *Studiens syfte och frågeställningar*

Studiens övergripande syfte är att granska den pågående övergången från publicering i stängda publikationskanaler till öppen publicering inom formell vetenskaplig kommunikation inom humaniora. För att förstå och belysa övergången inom vetenskaplig publicering och kommunikation granskar den här avhandlingen forskares publiceringsmönster, uppfattningar om och erfarenheter av öppen publicering i ett finländskt sammanhang och en avgränsad utbildningsorganisation, med andra ord som en fallstudie. Humaniora vid Åbo Akademi fungerar som fallstudie.

- 1) Den första forskningsfrågan handlar om hurdana publiceringsmönster är typiska inom humaniora och på vilket sätt öppen publicering utgör en del av dessa mönster. Inom denna fråga granskas inom ramen för fallstudien andelen referentgranskade publikationer med öppen tillgång som producerats inom humaniora, i jämförelse med andelen inom övriga vetenskapsområden vid Åbo Akademi. Därtill granskas andelen publikationer av olika typer av öppen tillgång (guld, hybrid, grön) och klassificering i Publikationsforum i jämförelse med övriga vetenskapsområden.
- 2) Den andra forskningsfrågan handlar om i vilken utsträckning forskare inom humaniora har kännedom och kunskaper om, samt erfarenheter av öppen publicering, liksom hurdana uppfattningar de har. Frågan berör forskarnas självrapporterade kännedom, kunskaper, uppfattningar om och erfarenheter av olika typer av öppen publicering (guld, hybrid, grön). Därtill granskas vilka faktorer de anser hindra och möjliggöra öppen publicering för forskare.

### *Metod och genomförande*

Med fallstudie avses ett närmandesätt som belyser ett fenomen ur flera perspektiv för att ge en djupgående insikt i ett empiriskt fenomen i en bestämd organisation inom en avgränsad tidsram (Yin 2014). För att få en övergripande och mångsidig bild av situationen för öppen publicering inom humaniora vid ÅA tillämpas kvantitativa

metoder. Kvantitativa metoder ger möjlighet att samla in en stor mängd rikt, strukturerat data som kan användas för att göra jämförelser och slutsatser om förekommande tendenser (Creswell & Creswell 2018).

Typiskt för fallstudier är att flera datainsamlingsmetoder används för att ge en mångsidig inblick i fenomenet som studeras (Creswell & Creswell 2018). Även om bl.a. Korzilius (2010a, 2010b) noterar att kvantitativa metoder inte är det typiska valet av metod i fallstudier, bedömdes kvantitativa metoder lämpliga för att genomföra den här fallstudien. Kvantitativa data ger en mångsidig och rik bild av övergången mot öppen publicering inom humaniora vid Åbo Akademi, vilket är värdefullt i sig då det inte finns tidigare kartläggningar eller studier om situationen. I fallstudien tillämpas därför två separata datainsamlingsmetoder, och det material som samlas in analyseras i två olika delstudier. Dessa används för att ge svar på separata men nära sammanhängande forskningsfrågor om forskarnas publiceringsmönster, uppfattningar om och erfarenheter av olika typer av öppen publicering.

Delstudie I är en studie av publiceringsmönster inom humaniora i jämförelse med övriga vetenskapsområden vid ÅA (vetenskapsområden enligt Statistikcentralen 2010). Delstudie I utgår från publikationsdata (bestående av bibliografiskt data) som samlats in i samband med Utbildnings- och kulturministeriets årliga publikationsdatainsamling. För att kartlägga forskares publiceringsmönster hämtades publikationsdata för referentgranskade publikationer av publikationstyp A (referentgranskade vetenskapliga artiklar) och C (vetenskapliga böcker, monografier) som utkommit år 2018 inom samtliga vetenskapsområden vid ÅA. Publikationsdatat finns tillgängligt i databasen Virta och hämtades genom användargränssnittet Juuli under våren 2020.

Publikationsdatat används för att analysera skillnader i fördelningen mellan publikationstyper, typer av öppen tillgång (guld, grön, hybrid) samt publikationers klassificering i Publikationsforum mellan humaniora och övriga vetenskapsområden. De rapporterade publikationerna kan ses som en indikator på faktiskt publiceringsbeteende.

Delstudie II är en studie av forskares uppfattningar om och erfarenheter av öppen publicering inom humaniora. För att kartlägga kännedom, kunskaper och uppfattningar om samt erfarenheter av öppen publicering bland forskare inom humaniora utfördes en elektronisk enkät våren 2020. Enkäten skickades ut via e-postlistor för personal och forskare vid Fakulteten för humaniora, psykologi och teologi. Enkäten utformades

utgående från Gaines (2015) enkätstudie om uppfattningar om och erfarenheter av öppen publicering i en nordamerikansk kontext. Gaines' (2015) enkät valdes som utgångspunkt eftersom den innehåller ett brett spektrum av frågor angående öppen publicering. Dessutom anpassades enkäten för att gälla den finländska kontexten och Åbo Akademi som organisation. Enkäten bestod av 18 stängda frågor samt två öppna frågor. Enkäten bestod av frågor gällande kännedom, kunskaper, uppfattningar om och erfarenheter av olika typer av öppen publicering, samt bakgrundsinformation (ålder, akademisk position, kön, ämne/utbildningsprogram vid FHPT).

### *Presentation av centrala resultat i delstudie I och II*

I delstudie I kartläggs fördelningen av publikationstyper inom samtliga vetenskapsområden vid ÅA (naturvetenskaper, teknik, medicin- och hälsovetenskaper, samhällsvetenskaper samt humanistiska vetenskaper) enligt Statistikcentralens (2010) indelning av vetenskapsområden. Den tredje största andelen publikationer (A, C) av ÅA:s totala antal vetenskapliga publikationer under år 2018 rapporterades inom humaniora, efter naturvetenskaper och samhällsvetenskaper (Figur 3). Inom humaniora är andelen referentgranskade artiklar (A1) minst i jämförelse med övriga vetenskapsområden, även om A1 fortsättningsvis utgör den vanligaste publikationstypen. I jämförelse med övriga vetenskapsområden var andelen publikationer i A3, C1 och C2 betydligt större inom humaniora och utgör därmed karaktäristiska drag för vetenskapsområdet (Figur 4).

Därefter granskades andelen öppna publikationer (guld, hybrid, grön) inom samtliga vetenskapsområden för publikationstyp A vid ÅA (Figur 5). Andelen guld OA för referentgranskade artiklar (A) var näst störst inom humaniora, efter medicin och hälsovetenskaper, medan den minsta andelen fanns inom teknik. Tilläggsvärdet av parallellpublicering (antalet publikationer som kvarstår då man utesluter publikationer som finns både tillgängliga som guld OA eller hybrid, och därtill blivit parallellpublicerade) inom humaniora var på god nivå i jämförelse med övriga vetenskapsområden. Andelen artiklar i hybridtidsskrifter var minst inom humaniora jämfört med andra vetenskapsområden. Största delen artiklar i stängda publikationskanaler fanns inom teknik, medan den minsta fanns i medicin och hälsovetenskaper. Humaniora placerades mellan de två ytterligheterna. För att ytterligare granska OA-publicering inom humaniora granskades graden av öppenhet i

alla publikationstyper inom humaniora (Figur 6). Inom humaniora stod bokartiklar (A3), monografier (C1) och redigerade verk (C2) för största delen av de stängda publikationerna.

För att kartlägga rutterna (guld, hybrid, grön) till öppen publicering för publikationer på olika nivåer (1–3) i Publikationsforum granskades fördelningen inom samtliga vetenskapsområden (publikationstyp A) tillsammans (Figur 7). Största delen av guld OA fanns på nivå 1 (lägsta nivån). Andelen guld OA på nivå 2 och 3 var hälften mindre. Tilläggsvärdet av parallellpublicering var störst på nivå 3 (högsta nivån). Den totala andelen öppet tillgängliga publikationer (guld, hybrid, grön) var störst på nivå 1, medan den största andelen stängda publikationer var på nivå 2. Därtill granskades rutterna till OA på olika nivåer i Publikationsforum inom humaniora (Figur 8). Andelen guld OA på nivå 1 och 2 i humaniora var större jämfört med andelen i alla vetenskapsområden tillsammans. På nivå 3 inom humaniora var andelen stängda publikationer avsevärt större än inom övriga vetenskapsområden.

I delstudie II deltog sammanlagt 59 forskare vid FHPT (83 % av alla som börjat fylla i slutförde enkäten). Av respondenterna var 26 doktorander, medan 33 hörde till övriga forskarkategorier (professorer, undervisningspersonal, postdoktorala forskare, samt övriga) (Tabell 2). Det fanns doktorander i alla ålderskategorier, medan forskare i de andra kategorierna (dvs. med längre karriär) tenderade att vara äldre (Tabell 3). Kvinnliga doktorander utgjorde den största enskilda gruppen av respondenter (Tabell 4). Drygt hälften av respondenterna hörde till utbildningslinjen för kultur, historia och filosofi, medan resten fördelades över utbildningslinjerna för språk, teologi, psykologi och logopedi (Tabell 5).

Mer erfarna forskare påvisade mer erfarenhet av publicering i guld OA-tidskrifter, hybridtidskrifter och parallellpublicering (Tabell 6, 7, 8). Dessutom hade mer erfarna forskare i större utsträckning deltagit i utbildning om OA-frågor, jämfört med doktorander (Tabell 9). De respondenter som deltagit i utbildning tenderade också att ha erfarenheter av öppen publicering i större utsträckning än de som inte deltagit i utbildning (Tabell 10, 11, 12).

Överlag påvisade forskarna en hög grad av kännedom och kunskaper om öppen publicering (Figur 10). Det förekom dock skillnader mellan olika forskargrupper. Mer erfarna forskare (professorer, postdoktorala forskare och universitetslärare) höll i högre



grad med om påståendena än doktorander, och påvisade på så sätt en högre grad av kännedom och kunskaper än doktorander. Skillnaden gentemot doktorander var särskilt framträdande vad gäller ÅA:s policy för öppen vetenskap och Finlands Akademis krav på öppen publicering. Resultaten visar även att särskilt grön OA är ett svårt begrepp för många forskare.

Vad gäller uppfattningar om öppen publicering höll respondenterna överlag i hög grad med om påståendena om olika OA-principer, t.ex. att forskning finansierad med offentliga medel ska göras öppet tillgänglig, att forskare ska få behålla upphovsrätten och tillåta användning för andra, och att OA-tidskrifter är av lika kvalitet som prenumerationstidskrifter (Figur 11). Mer erfarna forskare tenderade att i högre grad hålla med om en del påståenden än doktorander.

Det är även väldigt viktigt för forskare att andra forskare, samhällsaktörer och den breda allmänheten kan läsa ens forskning. Drygt hälften av respondenterna ansåg att centrala forskare inom deras områden publicerar med öppen tillgång. Ca 66 % ansåg att de fördrar att publicera OA och 89 % att de vill publicera OA i framtiden (Figur 12). Vad gäller uppfattningar om institutionellt stöd för OA-publicering ansåg drygt 80 % att forskningsmiljön och ÅA-kollegerna är positivt inställda till OA, medan nästan lika stor andel ansåg att det är rätt att ÅA:s policy för öppen vetenskap kräver öppen publicering (Figur 13).

I enkäten tog respondenterna även ställning till frågor om framtiden för öppen publicering (Figur 14). Jämfört med övriga frågor i enkäten kan en större osäkerhet urskiljas i svaren. Drygt 40 % höll i någon grad med om att prenumerationstidskrifter fortsättningsvis kommer att vara den viktigaste publikationskanalen, medan 13 % inte höll med i någon grad. Knappt 70 % höll i någon grad med om att COVID-19 (koronakrisen våren 2020) har gjort OA allt viktigare.

Respondenterna ansåg att publikationens relevans inom forskningsområdet, publikationens prestige och kvalitet, samt avsaknad av APC-kostnad, var de viktigaste faktorerna i val av publikationskanal (Figur 15). Däremot var publikationskanalens OA-status och möjligheter till parallellpublicering jämförelsevis mindre relevanta, även om de överlag bedömdes som relevanta. Mer erfarna forskare ansåg i större utsträckning än doktorander att OA-status är en relevant eller väldigt relevant faktor när man väljer publikationskanal.

I enkäten granskades även forskares uppfattningar om vilka faktorer som de uppfattar är barriärer och möjliggörare för att göra sin forskning öppet tillgänglig. OA-tidskrifter av hög kvalitet inom ens forskningsområde ansågs vara den viktigaste faktorn som möjliggör öppen publicering, medan betalning av APC-kostnader var den näst viktigaste (Figur 16). Det här resultatet stämmer överens med de upplevda barriärerna (Figur 17). Att inte kunna betala för APC och att OA-publikationerna inom ens forskningsområde inte är av god vetenskaplig kvalitet hörde till de mest centrala upplevda barriärerna. Frågan om APC och OA-publikationers kvalitet lyftes även särskilt fram i de öppna frågorna i enkäten.

### *Diskussion och avslutning*

Den här fallstudien ger en mångsidig bild av situationen för öppen publicering inom humaniora vid Åbo Akademi. Studien ger i första hand en inblick i en situation som för närvarande är i ständig förändring och därmed är det svårt att dra slutsatser om situationen på längre sikt. Upplägget som fallstudie gör att resultaten inte direkt kan jämföras med tidigare studier eller generaliseras till andra sammanhang, men resultaten reflekterar i alla fall centrala drag inom övergången till öppen publicering inom humaniora.

Publiceringsmönstren inom humaniora vid ÅA stämmer överens med typiska publiceringsmönster som identifierats i tidigare forskning (Darley, Reynolds & Wickham 2014, Kulczycki et al (2018), Giménez-Toledo & Román-Román 2009, Puuska 2014). Analysen av publikationsdatat visar nämligen att publicering i monografier är ett framträdande drag också inom humaniora vid ÅA. Situationen för publicering med öppen tillgång kan anses vara på god nivå inom humaniora vid ÅA och stämmer överlag överens med den centrala utvecklingen på nationell nivå (Ilva 2017, 2018, 2019, 2020a, b).

I likhet med tidigare studier visade enkätresultaten att forskare överlag håller starkt med om påståenden angående principerna om öppen publicering och dess fördelar. Därtill visade enkätstudien i viss mån en högre grad av medhållande jämfört med äldre studier (Gaines 2015, Gross & Ryan 2015, Rodriguez 2014). Fallstudien visar även i likhet med tidigare studier (Solomon & Björk 2013, Zhu 2017) att bl.a. publikationens prestige och kvalitet inom det egna forskningsområdet hör till de viktigaste faktorerna då forskare

väljer publikationskanal. Med andra ord är val av OA-publiceringskanal inte ett självändamål.

Ur både ett nationellt och internationellt perspektiv har utvecklingen mot ökad öppen publicering tagit stora steg framåt under de senaste åren. Plan S och den nationella strategin för öppen publicering kan framstå ambitiösa, särskilt i ljuset av att val av öppna publikationskanaler inte är ett självändamål för forskare. Frågorna om OA-tidskrifters kvalitet och prestige, liksom hur APC-avgifter betalas framstår som väldigt centrala ur forskarnas synvinkel. Särskilt betydande för humaniora är även hur modeller för öppen publicering av monografier utvecklas. I dagens föränderliga publiceringslandskap är det centralt att fortsätta fråga forskare vad de tänker om att distribuera sina forskningsresultat så öppet som möjligt också i framtiden.

## References

- Academy of Finland (2020). *Open science – Open access publishing and open data* <https://www.aka.fi/en/funding/apply-for-funding/az-index-of-application-guidelines/open-science/> retrieved 4-1-2020
- Ala-Kyyny, J. (2018). Yliopistokirjastojen rooli avoimessa julkaisemisessa. *Informaatiotutkimus*, 37(4). <https://doi.org/10.23978/inf.77343>
- Archambault É., Amyot D., Deschamps. P, Nicol A.F., Provencher F., Rebout L., Robge G. (2014). Proportion of open access papers published in peer reviewed journals at the European and world levels–1996–2013. *RTD-B6-PP-2011-2: Study to develop a set of indicators to measure open access*. European Commission. [https://science-metrix.com/sites/default/files/science-metrix/publications/d\\_1.8\\_sm\\_ec\\_dg-rtd\\_proportion\\_oa\\_1996-2013\\_v11p.pdf](https://science-metrix.com/sites/default/files/science-metrix/publications/d_1.8_sm_ec_dg-rtd_proportion_oa_1996-2013_v11p.pdf)
- Association of College and Research Libraries (2015). Scholarly Communication Toolkit 2015. Available from: <http://acrl.ala.org/scholcomm/> retrieved 31-3-2020
- Björk, B–C. (2017). Gold, green, and black open access. *Learned Publishing*, 30(2), pp. 173-175. <https://doi.org/10.1002/leap.1096>
- Björk, B–C. (2019). Open access journal publishing in the Nordic countries. *Learned Publishing*, 32(3), pp. 227-236. <https://doi.org/10.1002/leap.1231>
- Björk, B–C. & Solomon, D. (2012). Open access versus subscription journals: A comparison of scientific impact. *BMC medicine*, 10(1), p. 73. <https://doi.org/10.1186/1741-7015-10-73>
- Björk, B–C. et al. (2014). Anatomy of green open access. *Journal of the Association for Information Science and Technology*, 65(2), pp. 237-250. <https://doi.org/10.1002/asi.22963>
- Blankstein, M., & Wolff-Eisenberg C. (2019). Ithaka S+R US Faculty Survey 2018. Ithaka S+R. <https://doi.org/10.18665/sr.311199>
- Budapest Open Access Initiative (2002). <https://www.budapestopenaccessinitiative.org/> retrieved 9-1-2020
- Coonin B. & Younce L. (2010). Publishing in Open Access Journals in The Social Sciences and Humanities: Who’s Doing it and Why <http://www.ala.org/acrl/sites/ala.org.acrl/files/content/conferences/confsandpreconfs/national/seattle/papers/85.pdf> retrieved 15-5-2020
- Creswell, J. W. & Creswell, J. D. (2018). *Research design: Qualitative, quantitative, and mixed methods approaches* (Fifth edition.). Los Angeles: SAGE.
- Dalton, E., Tenopir, C., & Björk, B-C. (2020). Attitudes of North American Academics Towards Open Access Scholarly Journals. *Libraries and the Academy*, 20(1), 73-100

- Darley, R., Reynolds, D., & Wickham, C. (2014). Open access journals in humanities and social science: A British Academy research project <http://www.britac.ac.uk/openaccess/index.cfm> retrieved 15-6-2020
- Directory of Open Access Books (DOAB) (2020). [www.doabooks.org](http://www.doabooks.org) search conducted 24-2-2020
- Directory of Open Access Journals (DOAJ) (2019). [www.doaj.org](http://www.doaj.org) search conducted 30-12-2019
- Eve, M. P. (2014). *Open access and the humanities: Contexts, controversies and the future*. Cambridge University Press.
- Federation of Finnish Learned Societies (2019). *Open Science and Research Initiative*. <https://avointiede.fi/en/policies/policies-open-science-and-research-finland/open-science-and-research-initiative> retrieved 15-10-2019
- Federation of Finnish Learned Societies (2020). *Declaration for Open Science and Research (Finland) 2020–2025*. Responsible Research Series 3/2020. <https://doi.org/10.23847/isbn.9789525995237>
- Federation of Finnish Learned Societies. *Open Access to Scholarly Publications. National Policy and Executive Plan by the Research Community in Finland for 2020–2025*. Responsible Research Series 3:2019 <https://doi.org/10.23847/isbn.9789525995329>
- FinElib (2020) FinElib's negotiations with Taylor Francis hit a Wall. Published 28.1.2019 <http://finelib.fi/finelibs-negotiations-with-taylor-francis-hit-a-wall/> retrieved 7-1-2020
- Finnish Social Science Data Archive (2020). *Guidelines for depositing data* <https://www.fsd.tuni.fi/en/services/depositing-data/guidelines-for-depositing-data/> 15-8-2020
- Forsström, P-L, Lilja E. & Ala-Mantila M. (2020). *Atlas of Open Science and Research in Finland 2019: Evaluation of openness in the activities of higher education institutions, research institutes, research-funding organisations, Finnish academic and cultural institutes abroad and learned societies and academies. Final report*. Publications of the Ministry of Education and Culture, Finland 2019:45. <http://urn.fi/URN:ISBN:978-952-263-689-8>
- Gaines, A. M. (2015). From Concerned to Cautiously Optimistic: Assessing Faculty Perceptions and Knowledge of Open Access in a Campus-Wide Study. *Journal of Librarianship and Scholarly Communication*, 3(1). <https://doi.org/10.7710/2162-3309.1212>
- Giménez-Toledo, E., & Román-Román, A. (2009). Assessment of humanities and social sciences monographs through their publishers: A review and a study towards a model of evaluation. *Research Evaluation*, 18(3), 201–213. <https://doi.org/10.3152/095820209X471986>

- Green, T. (2017). We've failed: Pirate black open access is trumping green and gold and we must change our approach. Opinion piece. *Learned Publishing*, 30(4), pp. 325-329. <https://doi.org/10.1002/leap.1116>
- Gross, J. & Ryan, J. C. (2015). Landscapes of Research: Perceptions of Open Access (OA) Publishing in the Arts and Humanities. *Publications* 2015, 3, 65-88; <https://doi.org/10.3390/publications3020065>
- Haschak, P. (2007). The 'platinum route' to open access: A case study of E-JASL: The electronic journal of academic and special librarianship. *Information Research – An International Electronic Journal*, 12 (4) <http://informationr.net/ir/12-4/paper321.html>
- Holopainen, M., & Koskinen, K. (2016). Avoimen julkaisemisen hidas läpimurto. *Informaatiotutkimus*, 35(1-2), 16-21. <https://journal.fi/inf/article/view/58979> retrieved 15-10-2019
- Ilva, J. (2017). Suomalaisten yliopistojen avoimet julkaisut vuonna 2016 OKM:n julkaisutiedonkeruun tietojen valossa. *Informaatiotutkimus*, 36 (3-4). <https://doi.org/10.23978/inf.68913>
- Ilva, J. (2018). OA-julkaisujen osuus Suomessa tällä hetkellä. Esitys Avoimen tieteen syyspäivillä 19.11.2018 <http://urn.fi/URN:NBN:fi-fe2018111948566>
- Ilva, J. (2019). Lisääntyvää avoimuutta – suomalaisten korkeakoulujen avoimet julkaisut vuonna 2018. *Tietolinja* 2019 (1) <http://urn.fi/URN:NBN:fi-fe2019041912954>
- Ilva, J. (2020a). *Suomalaisten korkeakoulujen avoimet julkaisut vuonna 2019*. Esitys Missä mennään -webinaarissa 12.5.2020 <http://urn.fi/URN:NBN:fi-fe2020051229388>
- Ilva, J. (2020b). "Open access on the rise at Finnish universities" <https://blogs.helsinki.fi/thinkopen/oa-statistics-2019/> retrieved 21-5-2020
- Julkaisutiedonkeruu 2018. 3.2.2 Julkaisutiedonkeruu: Käsitteet ja määrittelyt <https://wiki.eduuni.fi/pages/viewpage.action?pageId=70191366#id-3.2.2Julkaisutiedonkeruu:K%C3%A4sitteetjam%C3%A4rittelyt-3.2.2.13Avoinsaataavuus>
- Kim, J. (2011). Motivations of faculty self-archiving in institutional repositories. *Journal of Academic Librarianship*, 37(3), 246–254. <https://doi.org/10.1016/j.acalib.2011.02.017>
- Klain-Gabbay, L. & Shoham S. (2018). Scholarly Communication and the Academic Library: Perceptions and Recent Developments. *InTech Open*. <https://doi.org/10.5772/intechopen.82075>
- Korzilius, H. (2010a). Statistics, Use of in Case Study In: *Encyclopedia of Case Study Research*. Eds. Albert J. Mills, Gabrielle Durepos & Elden Wiebe.
- Korzilius, H. (2010b). Quantitative Analysis in Case Study. In: *Encyclopedia of Case Study Research*. Eds. Albert J. Mills, Gabrielle Durepos & Elden Wiebe.

- Kulczycki, E. & Korytkowski, P. (2020). Researchers publishing monographs are more productive and more local-oriented. *Scientometrics*. <https://doi.org/10.1007/s11192-020-03376-x>
- Kulczycki, E., Engels, T. C. E., Pölönen, J., Bruun, K., Dušková, M., Guns, R., et al. (2018). Publication patterns in the social sciences and humanities: Evidence from eight European countries. *Scientometrics*. <https://doi.org/10.1007/s11192-018-2711-0>
- Laakso, M., Welling, P., Bukvova, H., Nyman, L., Björk, B. C. & Hedlund, T. (2011). The development of open access journal publishing from 1993 to 2009. *PloS one*, 6(6), p. e20961. <https://doi.org/10.1371/journal.pone.0020961>
- Laakso, M. & Polonioli A. (2018). Open access in ethics research: An analysis of open access availability and author self-archiving behaviour in light of journal copyright restrictions. *Scientometrics*, 116(1), pp. 291-317. <https://doi.org/10.1007/s11192-018-2751-5>
- Larivière, V., Haustein, S. & Mongeon, P. (2015). The Oligopoly of Academic Publishers in the Digital Era. *PloS one*, 10(6), p. e0127502. <https://doi.org/10.1371/journal.pone.0127502>
- Ministry of Education and Culture (2014). *Open science and research leads to surprising discoveries and creative insights: Open science and research roadmap 2014–2017*. Reports of the Ministry of Education and Culture, Finland 2014:21 <http://urn.fi/URN:ISBN:978-952-263-319-4>
- Ministry of Education and Culture (2017). *Universities Core Funding from 2017*. [https://minedu.fi/documents/1410845/4392480/Universities\\_funding\\_2017.pdf/abc0974d-b8d5-4486-a12a-aa141d54b66f/Universities\\_funding\\_2017.pdf](https://minedu.fi/documents/1410845/4392480/Universities_funding_2017.pdf/abc0974d-b8d5-4486-a12a-aa141d54b66f/Universities_funding_2017.pdf) retrieved 15-1-2020
- Ministry of Education and Culture (2020). *Universities Core Funding from 2021*. [https://minedu.fi/documents/1410845/4392480/UNI\\_core\\_funding\\_2021.pdf/a9a65de5-bd76-e4ff-ea94-9b318af2f1bc/UNI\\_core\\_funding\\_2021.pdf](https://minedu.fi/documents/1410845/4392480/UNI_core_funding_2021.pdf/a9a65de5-bd76-e4ff-ea94-9b318af2f1bc/UNI_core_funding_2021.pdf) retrieved 7-1-2020
- Mukherjee B. (2009). Scholarly communication: A journey from print to web. *Library Philosophy and Practice*. 2009:285. Available at <https://digitalcommons.unl.edu/cgi/viewcontent.cgi?article=1298&context=libphilprac> retrieved 31-1-2020
- Narayan, B. & Luca, E. (2017). Issues and challenges in researchers' adoption of open access and institutional repositories: A contextual study of a university repository. *Information Research – An International Electronic Journal*, 22(4) <http://informationr.net/ir/22-4/raills/raills1608.html> accessed 30-4-2020
- Pali U. K. De Silva and Candace K. Vance (2017). *Scientific Scholarly Communication: The Changing Landscape*, Cham, Switzerland: Springer International Publishing.
- Piwowar H., Priem J., Larivière V., Alperin J.P., Matthias L., Norlander B., Farley A., West J., Haustein S. (2018). The state of OA: a large-scale analysis of the prevalence and impact of Open Access articles. *PeerJ* 6:e4375 <https://doi.org/10.7717/peerj.4375>

- Plan S (2018). *Principles and Implementation*. <https://www.coalition-s.org/addendum-to-the-coalition-s-guidance-on-the-implementation-of-plan-s/principles-and-implementation/> retrieved 28-10-2019
- Publication Forum (2019). *User guide for the Publication Forum classification 2019* <https://www.julkaisufoorumi.fi/en/use> retrieved 15-6-2020
- Puuska, H. (2014). *Scholarly publishing patterns in Finland: A comparison of disciplinary groups*. Tampere: Tampere University Press.
- Pölönen, J. (2018). Julkaisufoorumi vaikuttavuuden ja avoimuuden näkökulmasta. *Tieteessä Tapahtuu*, 36(6). <https://journal.fi/tt/article/view/76497>
- Rodriguez J. (2014). Awareness and Attitudes about Open Access Publishing: A Glance at Generational Differences. *Journal of Academic Librarianship* 2014 vol: 40 (6) pp: 604-610 <https://doi.org/10.1016/j.acalib.2014.07.013>
- Rowley et al (2017). Academics' behaviors and attitudes towards open access publishing in scholarly journals. *Journal of the Association for Information Science and Technology*. 2017 vol: 68 (5) pp: 1201-1211 <https://doi.org/10.1002/asi.23710>
- Solomon, D. J., Laakso, M. & Björk, B. (2013). A longitudinal comparison of citation rates and growth among open access journals. *Journal of Informetrics*, 7(3), pp. 642-650. <https://doi.org/10.1016/j.joi.2013.03.008>
- Statistics Finland (2010). *Fields of Science* <https://www.stat.fi/meta/luokitukset/tieteenala/001-2010/index.html> retrieved 27-3-2020
- Suber, Peter (2012). *Open Access*. The MIT Press <https://mitpress.mit.edu/books/open-access>
- Tomperi, T. (2019). Avoin julkaiseminen ja kotimaisen tiedekustantamisen tulevaisuus. *Niin & Näin* 1/2019, 89–97. <http://netn.fi/sites/www.netn.fi/files/netn191-13.pdf>
- Williams, P., Stevenson, I., Nicholas, D., Watkinson, A., & Rowlands, I. (2009). The role and future of the monograph in arts and humanities research. *Aslib Proceedings*, 61(1), 67–82. <https://doi.org/10.1108/00012530910932294>
- Yang, Z.Y. (Lan) and Li, Y. (2015). University Faculty Awareness and Attitudes towards Open Access Publishing and the Institutional Repository: A Case Study. *Journal of Librarianship and Scholarly Communication*, 3(1), p.eP1210. DOI: <http://doi.org/10.7710/2162-3309.1210>
- Yin, R. K. (2014). *Case study research: Design and methods* (5th edition.). Los Angeles: SAGE.
- Zhu, Y. (2017). Who support open access publishing? Gender, discipline, seniority and other factors associated with academics' OA practice. *Scientometrics*, 111(2), pp. 557-579. <http://doi.org/10.1007/s11192-017-2316-z>
- Åbo Akademi University [www.abo.fi](http://www.abo.fi) retrieved 15-5-2020



Åbo Akademi University – Breaking boundaries. Goals and strategies 2015–2020

[https://www.abo.fi/wp-content/uploads/2018/01/eng\\_strategy\\_2015-20.pdf](https://www.abo.fi/wp-content/uploads/2018/01/eng_strategy_2015-20.pdf) retrieved 7-1-2020

Åbo Akademi University policy for open science (2017).

<http://blogs2.abo.fi/opensciencepolicy/2017/03/02/open-science-at-aau-university/> retrieved 3-1-2020

Åbo Akademi University strategy 2021–2030. Åbo Akademi – det havsnära

bildningsuniversitetet <https://www.abo.fi/wp-content/uploads/2020/03/AA-strategi-2020.pdf> retrieved 10-6-2020

## Appendix 1. Survey



## **Study on FHPT researchers' experiences of and views on open access publishing**

### **Invitation to participate**

The aim of this survey is to map the experiences of and views on open access publishing among doctoral students, researchers and teachers at the Faculty of Arts, Psychology and Theology at Åbo Akademi University. To respond, you do not need to have previous experience of open access publishing.

Responding to the survey takes approximately 10-15 minutes. Participation is anonymous. For the presentation of results and data archiving, the data will be further anonymized. Units and groups with few respondents will not be presented as such. The anonymized research data will be made openly available in the [Finnish Social Science Data Archive](#).

The survey is part of a master's thesis project in information studies. If you have any questions, please contact student Malin Fredriksson ([malin.fredriksson@abo.fi](mailto:malin.fredriksson@abo.fi))

Supervisors: Prof. Gunilla Widén, Information studies ([gunilla.widen@abo.fi](mailto:gunilla.widen@abo.fi)) and PhD Yrsa Neuman, open science project manager ([yrsa.neuman@abo.fi](mailto:yrsa.neuman@abo.fi))



## Study on FHPT researchers' experiences of and views on open access publishing

### Awareness and knowledge of open access

\* 1. Please rate how strongly you agree or disagree with the following statements:

	strongly disagree	disagree	slightly disagree	neither disagree nor agree	slightly agree	agree	strongly agree
a. I am familiar with the term 'open access'	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. I understand the difference between green open access and gold open access	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. I am familiar with Creative Commons licenses	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. I feel confident that I could explain open access to a colleague if asked	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. I am aware of the Academy of Finland mandate on open access to publicly funded research	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	strongly disagree	disagree	slightly disagree	neither disagree nor agree	slightly agree	agree	strongly agree
<b>f. I am aware of the ÅAU open science policy</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

<b>g. I know which version of my paper to upload in ÅAU:s research repository Artur</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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<b>h. I know how to find relevant open access publications in which to publish my research</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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**\* 2. Please rate how strongly you agree or disagree with the following statements:**

	strongly disagree	disagree	slightly disagree	neither disagree nor agree	slightly agree	agree	strongly agree
<b>a. Open access publishing leads to an increase in research of poor quality</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

<b>b. Publicly funded research should be made available to the public without barriers</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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<b>c. The current scholarly publishing model works well</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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<b>d. Open access journals lack peer review</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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strongly disagree   disagree   slightly disagree   neither disagree nor agree   slightly agree   agree   strongly agree

**e. Open access publishing is more cost-effective than subscription-based publishing**

<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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**f. There are no benefits to open access publishing**

<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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**g. Researchers should retain the rights to their published work and allow it to be used by others**

<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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**h. Open access journals are of the same quality as subscription journals**

<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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**i. Open access articles are cited more often than those in subscription journals**

<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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## **Study on FHPT researchers' experiences of and views on open access publishing**

### **Your publication activities**

\* 3. Have you published in a gold open access publication in the past two years?

- Yes
- No
- Not sure

\* 4. Have you published in a hybrid journal where your article has been made open access for a fee (paid by for example your university, your project etc.) in the past two years?











- Yes
- No
- Not sure

\* 5. Have you parallel published in ÅAU:s research repository Artur or another repository during the past two years?

- Yes
- No
- Not sure

\* 6. How important are different publication types for publishing your research? Please rank publication types according to the scale most important (1) to least important (5). If a publication type is not at all applicable for you, please tick the N/A alternative in the column on the right-hand side.

The publication types below follow the classification used in the national publication collection of Finnish universities.

  <b>Journal article (refereed), original research (A1)</b> <input type="checkbox"/> N/A
  <b>Review article, Literature review (A2)</b> <input type="checkbox"/> N/A
  <b>Book section, Chapters in research books (A3)</b> <input type="checkbox"/> N/A
  <b>Conference proceedings (A4)</b> <input type="checkbox"/> N/A
  <b>Book, scholarly monographs or edited volumes (C)</b> <input type="checkbox"/> N/A

\* 7. How relevant are the following factors when selecting publication to publish in:

	extremely irrelevant	irrelevant	slightly irrelevant	neither irrelevant nor relevant	slightly relevant	relevant	extremely relevant
a. Speed of publication	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



	extremely irrelevant	irrelevant	slightly irrelevant	neither irrelevant nor relevant	slightly relevant	relevant	extremely relevant
<b>b. Positive experience with the publisher/editor</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>c. Relevance of the publication for my field</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>d. Impact factor</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>e. Copyright policy</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>f. Recommendation of the publication by colleagues</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>g. Prestige/perceived quality of the publication</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>h. The publication is open access</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>i. Importance of the publication for academic promotion, tenure, or assessment</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>j. Absence of publication fees (article processing charges, submission charges, page charges, color charges)</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>k. Policy which allows me to parallel publish my publication</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>l. Ranking in <a href="#">Publication forum</a></b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**\* 8. Please rate how strongly you agree or disagree with the following statements:**

	strongly disagree	disagree	slightly disagree	neither disagree nor agree	slightly agree	agree	strongly agree
<b>a. I prefer to publish in open access publications</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>b. I would like to publish in open access journals/books in the future</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>c. Important researchers in my field are publishing open access</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>d. Publishing open access would increase the visibility of my work</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>e. It is important to me that other researchers can access and read my research</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>f. It is important to me that practitioners in various fields in society can access and read my research</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>g. It is important to me that the general public can access and read my research</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>h. There are open access publications that match with my research interests/field</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>





## **Study on FHPT researchers' experiences of and views on open access publishing**

### **Institutional support**

\* 9. Have you participated in courses or other education in open access issues, offered by Åbo Akademi University Library, during the past year?

Yes

No

**\* 10. Please rate how strongly you agree or disagree with the following statements:**

	strongly disagree	disagree	slightly disagree	neither disagree not agree	slightly agree	agree	strongly agree
a. The ÅAU open science policy is right to demand that the research at ÅAU should be made available open access.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. I have institutional/departmental support to publish open access	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. My research environment and colleagues at ÅAU are positive about open access.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Making my publications openly available by uploading them to Artur is also a viable form of open access.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



## Study on FHPT researchers' experiences of and views on open access publishing

### The future of open access

\* 11. What do you think will happen in the next 10 years within scholarly publishing? Please rate how strongly you agree or disagree with the following statements:

	strongly disagree	disagree	slightly disagree	neither disagree nor agree	slightly agree	agree	strongly agree
a. Subscription-based academic publications (which the reader/university library pays access to) will remain the primary research outlet for scholarly publishing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. A new kind of publication outlet accommodating new types of research will become dominant over academic journals	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Most research will be published open access	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

strongly disagree    disagree    slightly disagree    neither disagree nor agree    slightly agree    agree    strongly agree

d. An alternative metric system will become more important than impact factors in assessing the value of research

e. Impact factors will continue to be the primary metric in assessing the value of journals

f. The COVID-19 epidemic has increased the importance of open access

\* 12. Which factors would make your research more openly available? Please rank according to the scale most important (1) to least important (5).



The APC (article processing charge) is paid by my university or funder



The OA journal is of high scientific quality in my field of research



High citation rates and ranking



More assistance, support and service from Åbo Akademi University Library



More education about how open access works and which channel of open access I should choose

\* 13. Which factors keep you from publishing open access or making your publications openly available? Please rank according to the scale most important (1) to least important (5).



I do not have time to search information on how to publish open access



I do not get enough assistance, support and service from Åbo Akademi University Library



I am not sure that publishing OA will give more visibility and impact for my research



I cannot pay for the APCs



I think the open access journals in my field are not of high scientific quality





## Study on FHPT researchers' experiences of and views on open access publishing

### Background information

#### \* 14. Position

- Doctoral student
- Postdoctoral researcher
- University teacher/lecturer or senior lecturer
- Professor (including assistant and associate)
- Other

If other, please specify

#### \* 15. Age

- 30
- 31-40
- 41-50
- 51-60
- 61-

**\* 16. Gender**

Female

Male

Other / Do not want to tell

**\* 17. Your study programme at the Faculty of Arts, Psychology and Theology**



## **Study on FHPT researchers' experiences of and views on open access publishing**

### **The Study Programme for Culture, History and Philosophy**

\* 18. Please select your subject

- Art History
- Cultural Analysis
- Gender Studies
- General History
- Literature
- Musicology
- Nordic Ethnology
- Nordic Folkloristics
- Nordic History
- Philosophy
- Study of Religions
- Do not want to tell



## **Study on FHPT researchers' experiences of and views on open access publishing**

### **The Study Programme for Languages**

\* 19. Please select your subject

- English Language and Literature
- Finnish Language
- French Language and Literature
- German Language and Literature
- Russian Language and Literature
- Swedish Language
- Do not want to tell



## **Study on FHPT researchers' experiences of and views on open access publishing**

### **The Study Programme for Theology**

\* 20. Please select your subject

- Church History
- Exegetics and Judaic Studies
- Practical Theology
- Systematic Theology
- Do not want to tell



## **Study on FHPT researchers' experiences of and views on open access publishing**

### **Open questions and feedback**

**21. What do you do when you have questions or encounter problems?  
For example, where do you seek for information? Who do you contact?**

**22. Any comments on open access**

## 23. Feedback on the survey

