

Participation inequalities on Pinterest

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Abstract

Digital inequality scholarship has highlighted the importance of sociodemographic factors and internet experiences in how people use digital media in their lives. Some of this research has focused specifically on the adoption and use of social media, but much of this work has only investigated text-based platforms. Image-based sites such as Pinterest have largely been ignored in work about online participation inequalities. It remains unclear how existing findings about participation inequalities on text-based social media translate to image-based platforms. The present paper fills this gap by exploring differences in user engagement on Pinterest, one of the most popular social media platforms. The paper uses a mixed methods approach and analyzes both survey and interview data. This approach allows for a deeper understanding of the pipeline of online participation inequalities, a digital inequalities framework introduced by Shaw and Hargittai (2018). The survey data reveal that age, gender and internet skills strongly relate to participation on the platform. The interviews add more nuance by providing insights into reasons and motivations for Pinterest use as well as reasons for dropping out of the pipeline, beyond those identified in the survey. This mixed-methods approach allows insights into how participation barriers apply to image-based social media.

Keywords: Digital inequality, digital divide, online participation, Pinterest, social media

1. Introduction

Across the world, social media use has steadily increased over the years and most internet users are active on at least one platform (Kemp, 2022; Walsh, 2021). Yet, platforms are not used equally (Pew Research Center, 2024b). Pinterest, with almost 500 million monthly users (Pinterest, 2024), is among the most popular social media sites (Kemp, 2022), yet hardly any research investigates it. The majority of research on social media has focused on text-based social media such as sites such as Facebook and Twitter, notably a site that is less popular than Pinterest (Puschmann & Pentzold, 2020; Snelson, 2016). The present paper applies the comprehensive digital inequality framework of the pipeline of online participation inequalities (Shaw & Hargittai, 2018) to investigate participation patterns on Pinterest.

Digital inequality research has described unequal participation patterns (Hargittai & Jennrich, 2016) and investigated barriers that cause them. Although the importance of examining multiple barriers within one study is well-known (e.g. Schradie, 2011), few studies have done so. An exception is the study by Shaw and Hargittai (2018), in which they propose a “pipeline of online participation inequalities” that

describes online participation as a set of stages that individuals need to pass through before being able to contribute content. These stages include both general requirements, such as internet access, and platform-specific ones, such as knowledge of the platform and the ability to contribute (Shaw & Hargittai, 2018), and can lead to limited use, where would-be users stop using a platform beyond a certain level.

The initial study proposing the pipeline model examined Wikipedia and found that while the majority of the sample had heard of the platform, considerably fewer knew contribution was possible and even fewer had ever edited a Wikipedia page. The study demonstrates that both sociodemographic and internet experience variables are related to participation on Wikipedia (Shaw & Hargittai, 2018). Another study explored the pipeline framework in the context of the gig economy and found that similar factors (i.e., age, education, and internet skills) relate to participation (Shaw et al., 2023). These studies have shown that the pipeline framework is applicable to an information database like Wikipedia and for gig economy sites (Shaw et al., 2023; Shaw & Hargittai, 2018), but not yet in the context of social media. These studies have also identified key factors for participation on a platform, but the process by which people drop out of the pipeline remains unclear. To do so, the present paper uses a mixed-methods approach, as recommended by Shaw and colleagues (2023).

This paper draws on both survey and interview data to determine the barriers would-be users face and reasons for non- or low participation on Pinterest, an image-based social media platform. While the US survey data allows for quantitative insights into the online participation divide on Pinterest, the in-depth interviews with Swiss users allow for a deeper, more nuanced understanding of the factors that explain the participation divide on the platform and show potential limitations of the framework. I use survey data to confirm that the hypothesis of a pipeline in the context of this specific site exists. Subsequently, the interviews provide insights into the reasons for and experiences of full, partial, and non-participation on the platform. These combined insights allow for both a deeper understanding of participation on Pinterest and the applicability of the pipeline framework for social media.

Research about Pinterest has so far focused on content that is shared on the platform (e.g. Ottoni et al., 2013), specific user groups (i.e. teachers [Schroeder et al., 2019]) or effects of use (e.g. Powell et al., 2018), rather than its user base and participation patterns more generally. A literature review of studies examining image-based platforms found only twelve papers about Pinterest compared to thirty-eight about Instagram (Fung et al., 2020). The lack of attention to Pinterest compared to Instagram is surprising, given that the two are similar in launch dates in 2010 (Pinterest, 2023; Siegler, 2010) and both have millions of users.

Prior work on the platform shows that a majority of users are female (Ottoni et al., 2013), while questions about users' background characteristics beyond gender remain unanswered (Blank & Lutz, 2017 only looked at early adopters of the site). An overarching digital inequality framework, such as the pipeline of participation, can provide helpful insights into potential barriers to participation on the popular platform. Thus, the contributions of this study are to (1) explore the processes underlying to the pipeline of online participation inequalities and (2) focus on an understudied image-based platform, namely Pinterest.

2. Digital inequalities and online participation

Research on digital inequalities has shifted away from questions about access to questions about what people are doing online and what inequalities may exist there (Brake, 2014; Hargittai, 2002; Van Dijk, 2005). Today the vast majority of Americans (95%; Pew Research Center, 2024a) and Europeans (90%; Eurostat, 2019) are online. Yet, research has shown that inequalities online persist (e.g. Nguyen et al., 2021) and that, for example, internet users with high internet skills benefit from the Web in ways that others do not (Hargittai & Micheli, 2019; Litt, 2013).

Internet experience such as time spent online and internet skills can determine a person's online capabilities (Pearce & Rice, 2013). One survey-based study reveals that offline inequalities are recreated

online (Schradie, 2011). Of particular importance are education as well as where and in how many places someone has access to the internet. The study emphasized that focusing on whether someone is online and who is using a platform falls short, and that what is done on a platform is just as important (Schradie, 2011). This paper addresses both who uses Pinterest and how they participate on the platform.

Online participation can take different forms, and research has not always agreed on definitions for online participation (Hargittai & Jennrich, 2016; Hoffmann et al., 2015). This paper uses a broad definition, which describes online participation as “any type of online engagement whereby the user contributes content that others can access” (Hargittai & Jennrich, 2016, p. 201). There are different dimensions to online participation, of which this paper will examine two: The platform - Pinterest - and the form of expression on it, in order to address gaps that have been identified in the past in both the adoption of a site and the users of the same platforms (Duggan et al., 2015; Junco, 2013; Shaw & Hargittai, 2018).

Particularly, internet skills and experience, such as the quality of internet access and the frequency of use, continue to be important and predict online participation (Brake, 2014; Correa, 2010; Shaw & Hargittai, 2018). One study, which reviewed existing papers and data, found that specific and privileged user groups tend to create more online content (Brake, 2014). Pinterest use remains underexamined in terms of participation patterns.

To investigate barriers to adoption and participation on Pinterest, the present paper draws on the pipeline of online participation inequalities (Shaw & Hargittai, 2018). This framework includes various stages that are conditions to participation. The model, which takes the shape of the pipeline, incorporates internet access, site adoption and different levels of contribution. These stages are conditions someone must meet to use a platform to its full potential. At each stage potential users can drop out of the pipeline, which would signal a barrier. The framework for Pinterest covers different forms of contribution. Users either save content within the platform or from outside sources (i.e., uploading a picture or saving content from other websites). This allows users to save all their ideas in one place (Pinterest, 2023). Users can categorize their saved content – “pins” – on “pinboards”.

Once accounting for internet use, Shaw and Hargittai (2018) note participation requires having heard of a site and having visited it. The final participatory steps are platform-specific: (a) having an account; (b) having saved (called pinning on the platform) something on the site; (c) having saved something from the web to Pinterest. These two forms of contribution are the most common on the platform and are clearly distinct from one another (Mittal et al., 2014). The interviews covered all modes of contribution possible on Pinterest, so that reasons and experiences related to their participation or lack thereof could become clear.

3. Online participation on Pinterest

Pinterest is a “visual discovery engine” that helps users find inspiration and ideas (Linder et al., 2014; Pinterest, 2023). Its main appeal for users lies in this visual content (Ottoni et al., 2013). Other features and affordances are not the main focus. Followers, for example, do not matter as much, since a person's main feed is based on their own activities on the site (Bonnington, 2018). In 2024, the platform had more than 498 million monthly users who had – in total – created more than 390 billion bookmarks on the site (so-called pins) (Atwood, 2023; Pinterest, 2024). Pinterest is available in 41 languages (Atwood, 2023). The site is among the most popular social networking sites (Gottfried, 2024; Kemp, 2022; Tankovska, 2021).

By introducing new language versions, Pinterest aims to unlock new markets and expand its userbase (Atwood, 2023). However, its language versions only cover platform provided sections (e.g. the menu) but do not affect the language of the content users engage with on the platform nor the linked sites (Majure, 2012). This is noteworthy, as the accessibility provided by language versions can be limited. Notably, while most of the Pinterest userbase now resides outside of the US, the vast majority of its

revenue is still generated in the US market (Atwood, 2023). This raises potential questions about who Pinterest is aimed at: the vast majority of its userbase or its main revenue generating section? Scholars have heavily criticized how US platforms enforce their own world view and values on users from other cultural backgrounds (Barwulor et al., 2021; Gillespie, 2018; Kwet, 2019; Wakunuma, 2019), this power over users is expressed along numerous lines such as content moderation (Barwulor et al., 2021; Gillespie, 2018) and user data abuse (Kwet, 2019; Wakunuma, 2019). By including Swiss users in the interview portion, the present paper allows the consideration of non-US user perspectives.

Analyses of Pinterest accounts have found significant gender disparities on the site, with women making up the vast majority of users (Gilbert et al., 2013; Mittal et al., 2014; Ottoni et al., 2013). However, while the majority of studies found a gender gap on the website, the gender distribution varied greatly across them, presumably as a result of varying data collection methods. Some studies used web crawlers that started with popular pins or user profiles (Gilbert et al., 2013; Mittal et al., 2014; Ottoni et al., 2013), which may skew the gender distribution (cf. Hargittai, 2020). Nevertheless, survey data from the Pew Research Center also confirms a gender gap among US users (Duggan et al., 2015; Gottfried, 2024).

Surprisingly, the only study that examined gender in relation to site adoption found no gender differences among UK Pinterest users (Blank & Lutz, 2017). Generally, few people in their 2013 sample used the platform. Users tended to be younger, had a higher income and higher internet skills than non-users. One potential factor explaining those findings could be that in 2013, Pinterest was still a fairly new site. Their other findings are supported by data from the US, demonstrating that age and income predict Pinterest use (Blank & Lutz, 2017; Pew Research Center, 2024b). In a study aiming to explain the gender imbalance on the site, only one-third of their sample used Pinterest, almost all of which were female (Miller et al., 2015). Moreover, the platform was perceived by the non-users as a platform for women.

Studies on user interactions found that although content is the focal point of the platform, different forms of interactions do happen in the form of likes or re-pins (Gilbert et al., 2013; Ottoni et al., 2013). Another study that used platform data focused on common characteristics of pins, pinboards and users (Mittal et al., 2014). The data revealed that 73% of the users in the sample stemmed from the US, the UK, and Canada and that only 5% of the content in their sample was directly uploaded to Pinterest. The rest was linked to the platform from other websites.

Three studies using the uses and gratification framework (Mull & Lee, 2014; Sashittal & Jassawalla, 2015; Wang et al., 2016) found that different gratifications predicted different actions users took on the platform, such as pinning content (Wang et al., 2016). One identified different Pinterest use motivations (Mull & Lee, 2014), while another found that students used Pinterest because they found it enriching and were seeking an authentic experience (Sashittal & Jassawalla, 2015).

These studies provide an important foundation for the interview analysis in this paper, even though they often did not address platform participation beyond a binary measure of Pinterest use. Drawing on US national survey data allows the comparison between those who do and those who do not participate. Moreover, the interviews focus on Pinterest use in its entirety, which affords a level of nuance that goes beyond the scope of prior literature. Overall, previous studies on Pinterest have emphasized specific aspects of the platform's use or user groups but have left more general questions about participation unanswered. Therefore, this study addresses the following questions:

RQ1: How does the pipeline of online participation inequalities apply to Pinterest among US internet users?

RQ2: Why do Swiss users drop out of the pipeline?

4. Data and methods

To examine the pipeline of online participation inequalities on Pinterest, and to gain insights into reasons people drop out, this paper uses a mixed method approach, which allows an in-depth investigation of the

framework in its breadth and complexity (Creswell, 2009). To do so, US survey data and Swiss interviews are analyzed.

The countries share some similarities: The United States of America and Switzerland are both Western democracies, with similarly high internet penetration (Bundesamt für Statistik, 2022; Pew Research Center, 2024a). Further, in both countries similar segments are less connected online. Pinterest is highly popular in in both countries (35% US vs 21 % CH) (Gottfried, 2024; Kemp, 2023). Moreover, by including Swiss interviews alongside the predominantly studies about the United States (see Hargittai & Jennrich, 2016), this paper provides insights into potentially invisible barriers.

4.1 The survey

The survey was conducted from late May to early July in 2016 in the US by the independent research organization NORC, which administered the questions online to their AmeriSpeak panel. The survey included an attention check question and only participants who passed the check were included in the dataset. Overall, this resulted in valid responses from 1,512 US adults.

4.1.1 Independent variables – socioeconomic factors

The survey included various questions on sociodemographic background, see Table 1 for sample characteristics.

Age was measured as year of birth and was recoded into a continuous variable. The average age of the sample was 48.7 (SD=16.9) and ranged from 18-94. Gender was recoded into a bivariate variable with 1 representing female, about half of the participants were female (50.9%). Education was recoded into three categories: High school or less (25.9%), some college (31.6%), and college degree or more (42.5%). Income was measured with 18 income variables, recoded to their midpoint values to create a continuous variable. For the regression I turned the continuous income variable into a logarithmic variable. The average income of the sample was \$71,478 (SD=\$54,396.6), ranging from \$2,500 to \$225,000. The various employment variables I recoded into a dichotomous employed variable. More than two-thirds of the participants (62.2%) were employed.

Table 1. Survey sample characteristics

	Percent	Mean	SD
Age		48.7	16.9
Female	50.9		
Race and ethnicity			
White	71.1		
African American	11.5		
Hispanic	11.7		
Asian	3.1		
Native American	1.7		
Education			
High school or less	25.9		
Some college	31.6		
Bachelor's degree or more	42.5		
Household income		71.5	54.4
Employed	62.2		
Internet experience			
Autonomy of use		4.8	2.8
Frequency of use		14.7	10.8
Internet skills		3.4	1.1
Pinterest use	41.7		

4.1.2. Independent variables – internet experience

The survey included several questions about internet use and experience. The question on internet access included nine categories and is summed up in the autonomy of use variable. Participants had on average access to the internet in close to five locations ($M=4.8$, $SD=2.3$). The frequency of use variable includes two questions about the hours spent online during the week and on weekends. The answers were summed up to reflect a full week, the hours spent online could range from zero to forty-two. The mean time spent online was 14.7 hours per week ($SD=10.8$). To measure participants' internet skills, they were given a validated and established index (Hargittai & Hsieh, 2012; Wasserman & Richmond-Abbott, 2005), containing six internet related terms. They were asked to rank their level of understanding of the terms. The average internet skill score was 3.4 ($SD=1.1$).

4.1.3. Dependent variables – Pinterest use

The survey included questions about different levels of Pinterest use, ranging from having heard of the site to having pinned something from another website to the platform. I recoded the Pinterest use answers into dichotomous variables, reflecting if someone had ever visited the platform. The vast majority had heard of Pinterest (88.6%). There was already a notable drop off between having heard of and having visited the site, which close to two-thirds of the participants had (63.8%). Close to half of the sample had or used to have a Pinterest account (48.8%). Two questions focused on activities on the platform. The first asked if someone had ever re-pinned a pin on the site, which slightly less than one third had (30.6%). The second ask if someone had ever “pinned a page to Pinterest while browsing the Web (exclude re-pinning someone else’s pin)”, which only around one fifth had ever done (21.7%). Table 2 shows the descriptive statistics of Pinterest use.

Table 2. The pipeline of online participation on Pinterest

	Percent	N
Has heard of Pinterest	88.6	1503
Has ever visited Pinterest	63.8	1495
Has had or has an account on Pinterest	48.8	1489
Has ever pinned on Pinterest	30.6	1491
Has ever pinned a page to Pinterest from the web	21.7	1493

4.1.4. Analyses

First, I ran bivariate analyses looking at the characteristics of active Pinterest users. For several variables – age, income, autonomy of use, frequency of use and internet skills – I created quartiles and compared the lowest and highest quartiles and their relation to Pinterest use. Afterwards, I fitted logistic regressions on each stage of the pipeline of online participation inequalities. I ran two models for each stage: the first model only included the background variables, the second included the internet experience variables.

4.2 Interviews

In addition to analyzing the survey dataset, I conducted ten semi-structured interviews in Switzerland to investigate further how and why people use Pinterest. I chose to do so to gain a deeper understanding about people's Pinterest use and factors affecting participation beyond those included in the survey. To utilize the pipeline of online participation inequalities for Pinterest, participation on the site is presented as a narrow process with a clear final outcome. It does not cover all forms of participation possible. The interviews allow for a more fine-grained investigation of users' participation by covering all forms of participation. Further, the semi-structured interviews allowed participants to make sense of their online participation in their own words and offer the possibility to ask follow-up question.

Participants were given the option of in-person or phone interviews, with most of them preferring to meetup in-person. I highlighted that the comfort of the participants was of importance and the interviews were held outside whenever possible as the COVID-19 pandemic was still ongoing. Throughout all in-person interviews, the guidelines of the department of health of Switzerland were followed (Bundesamt für Gesundheit, 2020).

Participants were recruited using snowball sampling. The only participation requirement was having a Pinterest account. Six of the participants came directly from the personal network of the author, while four were referrals. The interviews were held in the language participants felt most comfortable in. Nine of the interviews were held in Swiss-German and one in English. The interviews were first transcribed and then translated to English by the author, who is fluent in both languages. The interviews were between seven and sixteen minutes long. The length of the interviews tended to reflect the level of Pinterest use of the participants – i.e., the longest interview was the most active Pinterest user.

Eight of the participants were women, who as previous research noted make up the majority of Pinterest users (Ottoni et al., 2013; Pew Research Center, 2024b). Most of the interview participants were in their mid to late twenties. Both education level and occupation varied across the participants (see table 3).

The interview guide included questions asking participants about their initial adoption of Pinterest, including whether their personal network played a role in their site adoption. Questions about their level of participation on the platform followed. The interviews ended with questions about what participants liked and disliked about the platform and questions whether COVID-19 had changed their Pinterest use in any way. Each question block included follow-up questions.

During the analysis of the interviews, the author began with exploratory coding of two of the interviews to create a codebook. The codebook went through two iterations. Once coding was finished, the first interviews were coded again. The interviews were coded in Microsoft Word using the comment function. I then used the DocTools plug-in (Fredborg, 2018) to extract the codes into Microsoft Excel. Based on the coded quotes, themes across users were identified and are discussed in the results (Silverman, 2015).

Table 3. Interview sample characteristics

<i>Age</i>	<i>Gender</i>	<i>Education</i>
24	female	No higher education
24	female	BA or more
25	female	Some higher education
25	female	BA or more
25	female	BA or more
27	female	No higher education
28	female	No higher education
31	female	No higher education
47	male	BA or more
60	male	Some higher education

5. Results

As detailed below, analyses of the survey and interview data support the pipeline of online participation inequalities on Pinterest (Shaw & Hargittai, 2018). The interviews provide a more nuanced understanding of participation on Pinterest and why people drop out of the pipeline.

5.1. Survey results

As table 2 shows, potential contributors to Pinterest continuously leak out of the pipeline: While most participants had heard of the platform (88.6%), considerably fewer had an account (48.8%), let alone contributed to the platform by pinning (30.6%) or linked something from the web to it (21.7%).

The bivariate analyses show that participants in the youngest quartile (58.6%) were more likely to be active on Pinterest, compared to participants in the oldest quartile (26.8%). Similarly, women (63.5%) were more likely to be active on the platform than men (25.0%). Of the other socioeconomic background variables, only being Hispanic (52.7%) related to Pinterest use. All of the internet experience variables related to Pinterest use. The highest internet user groups tended to use the platform more compared to the lowest user groups, see table 4 for details.

The logistic regression analyses, seen in table 5, reveal that across all stages of participation on Pinterest, the bivariate findings about age and gender were robust. Both being younger and female related positively to participation on Pinterest even when holding other factors constant. When adding the internet experience variables, a higher autonomy of use and higher internet skills were positively related to participation on the platform across all stages. One factor only correlated with site adoption: Being African American was negatively associated with having heard of and having visited Pinterest, even when including the internet experience variables. While being Native American was negatively associated with having a Pinterest account and having pinned something from another website, these results need to be interpreted with caution considering the small percentage of Native Americans in the sample (1.7%). Education was only related to Pinterest use when internet experience was excluded, with one exception: Both having attended some college and having a Bachelor's degree or higher were positively associated with pinning on the platform. Overall, all models improved with the inclusion of the internet experience variables.

Table 4. Bivariate Results for Pinterest use

Variables	Mean	SD	N
Background			
Age LQ	58.6***	0.49	1487
Age HQ	26.8***	0.44	1487
Female	63.5***	0.48	1487
Male	25.0***	0.48	1487
Race & Ethnicity			
White	43.6	0.50	1486
African American	44.2	0.50	1486
Hispanic	52.7*	0.50	1486
Asian	44.7	0.50	1486
Native American	32.0	0.48	1486
Income LQ	45.4	0.50	1487
Income HQ	42.1	0.49	1487
Education			
High school or less	41.9	0.49	1487
Some college	45.9	0.50	1487
BA or more	45.3	0.50	1487
Internet experience			
Autonomy of use LQ	32.5***	0.47	1487
Autonomy of use HQ	67.0***	0.47	1487
Frequency of use LQ	37.0***	0.48	1487
Frequency of use HQ	52.1*	0.50	1487
Internet skills LQ	30.0***	0.46	1487
Internet skills HQ	50.1*	0.50	1487

Note: LQ = lowest quartile, HQ = highest quartile; * $p < .05$, ** $p < .01$, *** $p < .001$

Table 5. Logistic regression for the pipeline of online participation on pinterest

Variables	Has heard of Pinterest		Has visited Pinterest		Has a Pinterest account		Has repinned a pin		Has pinned sth from another website	
	1	2	3	4	5	6	7	8	9	10
Age	- 0.07*** (0.01)	- 0.05*** (0.01)	- 0.04*** (0.00)	- 0.02*** (0.00)	- 0.03*** (0.00)	- 0.02*** (0.00)	- 0.04*** (0.00)	- 0.02*** (0.01)	- 0.05*** (0.00)	- 0.03*** (0.01)
Female	1.44*** (0.20)	1.52*** (0.22)	1.56*** (0.13)	1.68*** (0.13)	1.63*** (0.12)	1.73*** (0.12)	1.71*** (0.16)	1.96*** (0.17)	1.96*** (0.14)	2.13*** (0.15)
Race & Ethnicity (base White)										
African American	- 1.56*** (0.26)	- 1.66*** (0.22)	-0.59** (0.19)	-0.59* (0.20)	-0.34 (0.19)	-0.33 (0.19)	-0.34 (0.22)	-0.39 (0.24)	-0.40 (0.21)	-0.36 (0.22)
Hispanic	-0.76* (0.33)	-0.47 (0.35)	-0.17 (0.21)	0.05 (0.22)	0.06 (0.19)	0.23 (0.20)	-0.14 (0.21)	-0.04 (0.22)	-0.21 (0.20)	-0.08 (0.21)
Asian	0.51 (0.79)	1.32 (1.10)	-0.53 (0.34)	-0.43 (0.35)	-0.46 (0.33)	-0.36 (0.34)	-0.27 (0.39)	-0.15 (0.40)	-0.44 (0.37)	-0.30 (0.38)
Native American	0.64 (1.06)	0.88 (1.07)	-0.77 (0.47)	-0.72 (0.49)	-1.21* (0.48)	-1.21* (0.49)	-0.69 (0.59)	-0.69 (0.61)	-1.15* (0.57)	-1.14* (0.58)
Employed	0.32 (0.21)	0.16 (0.23)	0.19 (0.14)	0.08 (0.14)	0.19 (0.13)	0.08 (0.14)	0.02 (0.16)	-0.11 (0.17)	0.16 (0.15)	0.04 (0.15)
Income	0.17 (0.11)	0.02 (0.11)	0.08 (0.07)	0.03 (0.07)	0.07 (0.07)	0.05 (0.07)	0.14 (0.08)	0.11 (0.08)	0.05 (0.07)	0.00 (0.07)
Education (base hs or less)										
Some college	0.63** (0.24)	0.20 (0.25)	0.61*** (0.16)	0.34* (0.17)	0.42** (0.15)	0.22 (0.16)	0.74*** (0.19)	0.48* (0.20)	0.31 (0.17)	0.07 (0.18)
Bachelor's degree or higher	0.66** (0.23)	0.14 (0.26)	0.63*** (0.16)	0.23 (0.17)	0.37* (0.15)	0.04 (0.16)	0.94*** (0.19)	0.54** (0.21)	0.43* (0.17)	0.05 (0.18)
Internet experience										
Autonomy of use		0.22*** (0.05)		0.16*** (0.17)		0.14*** (0.03)		0.15*** (0.04)		0.15*** (0.03)
Frequency of use		0.01 (0.01)		0.01 (0.01)		0.01 (0.01)		0.01 (0.01)		0.00 (0.01)
Internet skills		0.45*** (0.10)		0.34*** (0.07)		0.26*** (0.07)		0.53*** (0.09)		0.37*** (0.08)
Pseudo R2	0.22	0.24	0.16	0.20	0.15	0.18	0.16	0.21	0.20	0.23
n	1,502	1,482	1,584	1,474	1,488	1,468	1,492	1,472	1,490	1,470
p	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Note: * $p < .05$, ** $p < .01$, *** $p < .001$

5.2. Interview results

In the interviews, although all interview participants had a Pinterest account and thus fulfilled the first three steps of the pipeline, not all participated equally on the platform. The majority did pin items on the platform (7 out of 10), but only one participant had ever linked something to Pinterest from another website. The interviews revealed reasons why people use Pinterest and reasons why people do (not) use it to its full potential.

Three themes emerged in relation to site adoption – *recommendation, work, and curiosity*. Although the focus of Pinterest is not on social factors (Bonnington, 2018; Ottoni et al., 2013), several of the participants started using it because of recommendations. One participant (female, 24) described how both her sister and mother “kept telling me: Go look on Pinterest” which prompted her to do so. Social factors remained important in this participant’s platform use, she only followed people she knew and regularly looked at these peoples’ pinboards. Other participants described how co-workers, lecturers and friends recommended the platform to them. One participant described how a friend recommended

Pinterest to her specifically because of her interest in fashion (female, 30). Several participants also actively recommended Pinterest to others.

Three participants, the two teachers and teaching assistant, mentioned how Pinterest was recommended to them in relation to their *work*. The two teachers learned of the platform during their studies and started actively using it during their practical training. As one of them described: “Yes, during our practical training I slowly discovered the site when [I] needed ideas, new ones” (female, 25). The teaching assistant started using the platform when she started a new job, in her own words:

It was mainly because I started working at a different school and there you also did a lot of crafting with the adolescents and with the children and I had heard that [Pinterest] has a lot of ideas well, for that. [sic.] (female, 25)

This participant continued only using Pinterest in a limited capacity and in relation to work. All three still use the platform for work-related purposes, while the two teachers also use it privately.

The third reason participants started using the platform was *curiosity*. One university student explained: “I just heard everyone was using Pinterest” (female, 25). She could not remember how she found out about the platform, but she was interested enough to try it. Now it was her most used app. Several participants came across Pinterest while searching for things. One participant came across it while browsing for recipes (male, 40). Similarly, another participant was looking for quotes on Google Images where she “automatically came across the site” (female, 28).

This, however, was not enough for all participants. One participant kept coming across the site but was kept back by the sign-up requirement. Once she did sign up, she “realized yes, okay, that is actually awesome” (female, 27). This was also the case for another participant until something “really got my interest” (male, 60). To satisfy his curiosity, he signed up to the site through his Google account. Whereas the female user became an active user with several pinboards, the male participant continued using the platform only superficially. While this requirement could affect site adoption, it did not appear to affect use beyond this.

Pinterest use beyond site adoption was related to other factors. The participants that only used Pinterest superficially linked this to the fact that it was only one source for ideas among many. In the words of one participant:

I seldomly search directly on Pinterest, instead, it is more like results from other media that lead to Pinterest. Be it Google, DuckDuckGo, or somewhere else where Pinterest is a commonly linked search result. (male, 60)

He went on explaining: “It is not my only source. [...] Because it [Pinterest] does not have all the information that interests me in its ecosystem.” He did save things he found through it but not on the platform itself. This *cross-platform use* was a reason for two of the three users that did not pin things. The other participant explained:

Because I have Insta[gram] and because I think Pinterest is a bit something between Insta[gram] and maybe is even owned by Facebook [sic], I do not even know. Or let me put it that way: I would prefer Tumblr to Pinterest. But also because I have been using it longer. (female, 25)

She preferred other platforms, which was related to her lack of participation on Pinterest. She also attributed this to the fact that she did not understand Pinterest well. In her words: “No, I do not use that. But only because [...] I do not really know how it [Pinterest] works. [laughs]” (female, 25). She went on saying that if she did want to save something, she “just take[s] a screenshot of it”.

Another reason for the respondents’ lack of pinning was the *purpose* of their Pinterest use. For all three non-pinner, Pinterest served as an inspiration source for specific situations. They usually used Pinterest in these situations and did not feel a need to retain the information once acquired. For one of them Pinterest was a source for recipes. He only used Pinterest “when I do not know what to do with it [the ingredients available] or I cannot come up with an idea” (male, 47). He tended to use Pinterest for “one-time things”, which meant he did not feel the need to save anything. Generally, for these participants,

Pinterest only fulfilled a specific need, and they did think they had to participate beyond having an account on the platform to meet them.

All other interviewees did pin things and had pinboards. For the two teachers, their Pinterest use served two specific purposes which was reflected in the way they used the platform. On the one hand, they used it for work purposes and on the other hand for their private life. As one of them described her pinboards: “Well kind of ‘class’ or ‘classroom’ and then as I said something like ‘birthday’, ‘apartment’ I have one for decorations too” (female, 25). The other teacher (female, 26) had similar pinboards: “One for school in general, one I have really just for art class, for school. One I think is presents or something like that [laughs].” They used the pinboards for work as inspirations for both their teaching as well as decorating their classrooms. Other pinboards reflected their private interest, allowing a separation of work and not work-related content.

One participant tied her privacy settings to the purpose of her pinboards. Most were public, yet for specific events she set them to private. She explained:

Yes, some are private, the rest is not. [...] When they [pinboards] are about presents things [sic] and stuff like that. Or one I [have] just for [...] wedding things for a friend which she should not be able to see [laughs] (female, 28)

The participants used pins and pinboards to remember and keep track of ideas that they liked. The same participant explained pinning like this: “Yes, everything that I like I save” (female, 28). Another participant described it like this: “Oh, I have to remember that. Yes, I want to look at that again.” (female, 25). One participant recounted all the topics she was interested in and went on explaining that every topic has its separate pinboard “so that everything is categorized” (female, 30).

Only one participant had ever linked something from another platform to Pinterest. Her reason for doing so was that Pinterest was the only social media platform she used. She explained:

Participant: Yes, but only from one blogger [...].

Interviewer: And you also follow that blogger on another site?

Participant: No, I don't have Instagram, but I keep going on the website I mean just online to go look and she [the blogger] also has a yoga-channel and other videos and I am just interested in her. (female, 30)

This reflects something said by two participants that do not pin things. For these two, Pinterest was just one platform among many that they used. For this participant, Pinterest was her only social media platform, which led her to use it more in-depth than other users.

The range of content available on Pinterest was both a reason for use and something that participants appreciated greatly. As one interviewee explained when talking about why she loved the platform: “It has everything. Every possible idea. No matter what you look for, there are always thousands of results” (24, female). Yet, the content on the platform also revealed potential barriers to participation. Several participants mentioned that a lot of content was only available in English, which for them as German speakers posed a difficulty. This made things such as recreating recipes particularly difficult, as one participant described: “Because it tends to be a bit American. I struggled a bit with the cups and stuff. It is usually all ‘cups’ and ‘tablespoons’ and then I did not really understand that.” (female, 24). Another person also struggled with ingredients: “also they have ingredients that we do not have over here so you need to do the best you can” (female, 25).

Another participant specifically struggled with the lack of (Swiss-) German content: “In the German speaking, in particular the Swiss-German speaking [region], it [Pinterest] is not very widespread” (60, male). He found content in a number of languages but very little in German, and mostly in English, which affected his enjoyment of the platform. He was one of the participants that did not actively participate on the platform and the language barrier could be a factor in this.

Overall, the interviews revealed that Pinterest users tailor their level of use according to the purpose it serves for them. For some, it was the main source of inspiration, allowing them to gather their ideas in one place. Others used the platform only superficially, as it was one among many platforms they used.

6. Discussion and limitations

This paper offers a more nuanced understanding of online participation by investigating how the framework of the pipeline of online participation inequalities applies to a social media platform and why people do (not) use a platform to its full potential. The pipeline of online participation inequalities is applicable to Pinterest. So far, the framework had not been tested for this type of website (Shaw et al., 2023; Shaw & Hargittai, 2018). While the majority of the survey sample had heard of Pinterest (89%), considerably fewer had an account on it (49%), and even less had contributed to the platform by either pinning something from the platform (31%) or from the web (22%). Across all levels, gender, age, internet experience, and skills mattered. Internet skills continue being important in relation to Pinterest use, beyond early adopters (Blank & Lutz, 2017). This was also suggested in the interviews when one participant justified her lack of pinning by saying that she did not know how the platform worked.

None of the interview participants had ever uploaded anything directly to the platform, something previous research already noted to be very rare (Mittal et al., 2014). Pinterest is being used to collect and save content already available on the platform, and more rarely for content from the web. It is not used to share and save people's own creations and pictures. Yet, not all users see the potential of Pinterest to collect content, in part because they are unaware the platform offers these functions. One's knowledge about the platform affects their level of platform use.

In the survey population women were more likely to use and contribute to Pinterest across all levels, supporting previous findings (Blank & Lutz, 2017; Duggan et al., 2015; Ottoni et al., 2013; Pew Research Center, 2024b). However, it is important to highlight that the gender gap was notably smaller than in other studies (Gilbert et al., 2013; Mittal et al., 2014; Ottoni et al., 2013). Although men represent a smaller user group on the platform, a quarter of the men surveyed used Pinterest and contributed content to the site.

In the interviews, the extent of platform use was closely related to the purpose of participants' Pinterest use. Participants who used pins used them in combination with pinboards to gather ideas and inspiration (Linder et al., 2014; Pinterest, 2023). These could be very general things, such as recipes, but also topics related to professional life or specific events, such as birthdays or weddings. Interestingly, participants who did not use the platform beyond one's account and the participant who used it the most intensively related their Pinterest use to other platforms. Yet again, some attributed their lack of participation to other platforms they preferred. The person that used Pinterest to its full potential, highlighted that she did not use any other platforms beyond Pinterest. While these findings are not generalizable, they do raise the question of how drop-outs on one platform are influenced by participation on other platforms. This highlights the need for research which considers more than one platform at a time (Matassi & Boczkowski, 2021), particularly when looking at online participation (Fuchs et al., 2023).

Within the survey dataset online participation on Pinterest is presented as a narrow process with only one outcome. Higher participation is implicitly considered the normative goal. Yet, it does not cover all potential forms of contrition possible on the platform, something past work on the pipeline had already noted (Shaw et al., 2023) and that is addressed in the interviews. The interviews allow for a more fine-grained perspective, which reveal that limited participation, when not hindered by barriers, can already meet a user's needs and be sufficient. Thus, the interviews offer new nuanced insights and reveal potential pitfalls in the assumption behind the framework where full participation is considered the main goal (Shaw et al., 2023).

Reasons for Pinterest use within the interviews did not match with previous findings (Mull & Lee, 2014; Sashittal & Jassawalla, 2015). Only one of the interview participants used Pinterest for fashion. In the interviews, curiosity, work and recommendations were the main reasons for site adoption. Interestingly, the main reason interviewees continued to use the site reflected the company's goal of helping people find "ideas" (Pinterest, 2023).

The interviews revealed that while the platform is not focused on social factors (Bonnington, 2018), they still matter for users, particularly for site adoption (Gilbert et al., 2013; Ottoni et al., 2013). Several participants learned of the platform through others and were encouraged to use the site for their interests, which were the main reason for their site adoption. For one of the participants, these factors remained important, affecting who they followed on the platform and whose pinboards they looked at.

The interviews also revealed barriers to participation. Pinterest requires people to create an account to access content on the platform beyond the first link one clicks on. In the interviews, several users described that they did not use the platform at first until they signed up out of curiosity. This could partly explain why potential users stop using the site early on, as they have visited the site but are discouraged from using it. Lack of knowledge about the platform was also cited as a reason for not using Pinterest more deeply.

Furthermore, language and cultural barriers came up in the interviews and could affect participation on the platform. English is the dominant language on Pinterest (Mittal et al., 2014) and could keep non-English speaking users from participating. The language on the platform can be changed and new language versions are continuously introduced (Atwood, 2023), but this does not affect the language of the content users interact with. The interviews indicate that this is only a superficial solution that does not fix the language barrier present on the platform. Future research should include language barriers as a possible form of power enacted by US platforms on its international users (Barwulor et al., 2021; Kwet, 2019; Wakunuma, 2019).

While the mixed-method approach is a strength of this study, each of these methods has its own limitations. The first limitation is the small sample size of the interviews, which is not sufficient to draw generalizable conclusions. In addition, the survey did not cover all possible levels of posting on Pinterest, as users can also upload content directly to the site, but this form of posting is extremely rare (Mittal et al., 2014). Other forms of engagement, such as liking content and following other users, were also not included in the survey. Neither was the frequency of Pinterest use. The inclusion of these factors could have provided important nuances for understanding people's engagement on Pinterest. Yet, to apply the existing frameworks, some of these factors could not be included. The pipeline of online participation inequalities is one of the few frameworks providing an overview of participation beyond a binary use analysis (Shaw & Hargittai, 2018). Yet, this also means caveats in the range of participation investigated (Shaw et al., 2023) and comes with a normative implication of more participation always being better, which the interviews do not necessarily support. Further the survey data stemmed from the US, while the interviews were conducted in Switzerland. Potential differences in participation, due to cultural differences, cannot be extracted from the data. It is, for example, unlikely that the participation of US users is affected by the fact that most content on the platform is in English, yet this came up as a barrier for the Swiss participants. It is important to note that this specific barrier also highlights the importance of considering non-English speaking and particularly non-US perspectives in research, as otherwise such barriers remain invisible.

7. Conclusion

This study shows that the framework of a pipeline of online participation inequalities (Shaw & Hargittai, 2018) is applicable for social media platforms. Digital inequalities persist and can affect online participation on a platform at each stage of the pipeline. For Pinterest, these factors are gender, age, autonomy of internet use, and internet skills. Female and younger users are more likely to contribute, as well as users with higher autonomy of use and higher internet skills. Internet skills play a central role across all stages of participation, which aligns with past research on the pipeline framework (Shaw et al., 2023; Shaw & Hargittai, 2018).

The interviews provide insights into other factors that can affect platform use such as cross-platform use. Reasons for participants to both fully use a platform and reasons for participants to drop out of the

pipeline are the goal of the platform use, cross-platform use and potential language barriers. Overall, participation was closely related to the purpose the platform serves for users. Social factors played a role for the interview participants in relation to their Pinterest use. This is despite the fact that Pinterest is not so focused on social factors compared to other social networks (Bonnington, 2018; Ottoni et al., 2013).

This study provided a deeper understanding of the pipeline of online participation inequalities. In particular, it reveals the reasons why people do or do not contribute to a platform, such as cross-platform use.

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