"Just Cast the Net, and Hopefully the Right Fish Swim into It": Audience Management on Social Network Sites

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ABSTRACT
When users post on social network sites, they can engage in audience-reaching strategies, in an effort to reach desired audience members, as well as audience-limiting strategies, in an effort to avoid unwanted audience members. While much research has focused on users' audience-limiting strategies, little research has explicitly focused on users' audience-reaching strategies. Additionally, little work has explored either strategy at the post level. Using mixed methods involving a diary study and follow-up interviews focused on a diverse group of users' posts, this article reveals several audience-reaching strategies users engaged from altering their content to tagging. However, users in this study rarely used strategies to exclude people proactively and technologically outside of their targeted audiences, and instead broadcasted widely. Participants described several rationales for sharing broadly from skill-related issues to a reliance on the audience or site to filter the content.

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Audience; privacy; imagined audience; audience management; audience-reaching strategies; social network sites.

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H.5.m. Information interfaces and presentation (e.g., HCI): Miscellaneous.

INTRODUCTION
Scholars have increasingly studied the way people manage their audiences on social network sites. Researchers have explored how users manage their privacy, what audience concerns they have, whom they think about as their audience, and what happens when the privacy management process breaks down [e.g., 15, 23-25, 29, 33, 37, 39, 46]. However, as people's audience goals and strategies continue to evolve many questions regarding people's audience management remain. Using a mixed methods study focused on a diverse sample, this paper builds on prior audience management research by broadening the focus of audience management to include audience-reaching strategies and by highlighting people's strategy use (or lack thereof) at the post level.

BACKGROUND
As users share their life updates to large and diverse audiences on social network sites, research has started to focus on the way users imagine their audiences [3, 6, 25, 28, 31, 38]. An imagined audience is a "*mental conceptualization of the people with whom we are communicating*" [22]. So whom do people imagine as they post on social network sites? Do they think about their audiences abstractly focused on no one in particular? Alternatively, do they think about more targeted audiences? Research about the imagined audience has suggested people think about their audiences in a variety of ways from very abstract and general conceptualizations (e.g., "*everyone*" or the "*public*") to more specific and targeted visualizations (e.g., "*friends*" or "*coworkers*") [6, 25, 31]. Some research has also found that people fluctuate among audience conceptualizations each time they post, and while sometimes they think about general audiences, other times, they think about targeted audiences for their content made up of a section of their network such as "*lovers of animals*," "*Christian friends*," or "*relatives in Canada*" [21]. Framed another way, sometimes people have specific audience goals in mind.

When people have targeted audiences in mind, do they engage in strategies to reach such targets? What strategies do they employ to maximize the chances that their targets see their posts? Do they engage in strategies to proactively exclude people outside of the imagined audience, who may also technically have access to their posts? The following section explores prior audience management research.

Audience Management: Reaching/Limiting Strategies
As research highlights [17, 38], users manage many different audience boundaries on social network sites ranging from whom they allow to see their profiles to whom they allow to see and/or interact with their individual posts. This paper focuses on how users manage their audience boundaries for their posts. Particularly, when users share posts and they have a target audience in mind, how do they manage their potential audience?

There are two main types of audience management strategies users can engage: audience-reaching and audience-limiting strategies. Audience-reaching strategies involve attempts to include the target audience. In contrast, audience-limiting strategies involve attempts to exclude people outside of the target audience. That is, users can engage tactics to reach target audience members as well as tactics to exclude non-target audience members. For example, if someone's imagined audience consists of "*family*," he or she can engage in strategies to reach family members (e.g., tag family members in a post) as well as strategies to exclude those outside of one's family (e.g., use of a list to block people who are not family members from seeing a post).

Audience-Reaching Strategies

While it has not been the focus of audience-management research especially when it comes to everyday users, audience-researching strategies have been critical to the success of companies and professionals in the media industry (e.g., writers, celebrities, brands, and advertisers) [1, 11, 42]. Such professionals have long used tactics ranging from altering content to suit their target audience's interests to using promotional spots and advertising [43]. While everyday social network site users likely have different incentives, skills, and resources [2, 44], as everyday users broadcast their updates to diverse audiences, they may also use strategies to reach their audience goals.

We see hints of these audience-reaching strategies in prior research. For instance, a study on the imagined audience on Twitter highlighted how one user engaged hashtags to attend to different targeted audiences [25]. Similarly, a study on international students found some used language as an "*audience filter*" when posting on Facebook [34]. Additionally, research focused on the imagined audience and political participation found evidence that social network site users edited their content in an effort to reach their targeted audiences; one participant also noted he tagged the targeted audience [31]. While these studies suggest users engage in tactics, little research has focused on these strategies, especially at the post level. By connecting research on social network site users with research on traditional professional broadcasters, the first research question explores if people use such strategies, and if so, what such strategies look like:

> **RQ1**: When users have a target audience in mind as they share a post on a social network site, do they engage in audience-reaching strategies to get through to the target audience?

Audience-Limiting Strategies

The majority of audience management literature has focused on people's audience-limiting tactics or the "*preventative*" [19], "*risk management*" [39], and "*protective*" [45] strategies people use to restrict others from seeing or understanding their information. More

generally, researchers have identified people using multiple profiles [33, 38], altering their privacy settings [4, 6, 38, 46], creating lists and groups [8, 16, 18, 20, 37-39, 41], blocking and unfriending contacts [30, 39, 46], and using steganographic practices [26, 39]. For instance, Vitak investigated how factors like audience size and diversity relate to a group of graduate students' use of lists [37]. Other work has showcased teenagers utilizing steganographic tactics in which certain audiences like their close friends can understand their posts, but others like their parents cannot [26]. While much privacy research has focused on users' general or hypothetical behaviors, little research has explored audience management at the post level. For instance, boyd & Hargittai's research highlighted that many users had altered their privacy settings on Facebook [4], while Watson and colleagues found that some users utilized circles on Google+ for selective sharing [41]. These findings indicate that people have used these various limiting tactics during their social network site tenure, but do they engage with them each time they post? If people have a target audience in mind when posting, do they adjust their privacy settings or use a list to proactively exclude people outside of the target audience? Or do they still post to their entire network and beyond? For example, if a person wants to reach "*friends who play basketball*" when posting, does he or she engage in strategies to exclude those who do not play basketball from seeing the post? In this study, we explore these audience-limiting strategies using a novel method involving a diary study and follow-up interviews on a diverse sample to allow for more emphasis on audience management at the post level than has been done in prior work. Thus we explore the following question:

> **RQ2**: When users have a target audience in mind as they share a post on a social network site, do they engage in audience-limiting strategies to exclude people outside of the target audience?

While studies have shown that some users engage in audience-limiting tactics, there is also evidence that people do not use these tactics [32, 37, 41]. Related studies often give recommendations or test design solutions to improve audience-limiting features [18, 29, 32, 39, 41]. Prior research has alluded to several factors that explain the lack of use of such features from skill or confidence issues to the amount of time and effort required to utilize the functionality [17, 38, 39, 41]. Research has also noted that some people do not use audience-limiting strategies at the post level, because they have already engaged in higher-level privacy strategies like self-censoring, and thus only share content they feel is appropriate for anyone who can access their content [15, 25, 32, 38]. However, little research has focused specifically on *why* people may forgo exclusionary strategies and knowingly allow people beyond the imagined audience into the actual audience. This study

expands prior research by focusing on the following question at the post level:

> **RQ3**: If users do not use audience-limiting strategies to exclude their posts from those beyond the target imagined audience, why not? Why do they share their posts to their entire networks and beyond even with a target audience in mind?

METHODS

Overview
This study's data come from a larger project that consisted of a diary study (N=119) and follow-up interviews (N=30). The data analyzed here reflect the people who participated in both the diary study and the follow-up interviews (N=30). The data were collected in 2014. We recruited through Craigslist, flyers, and word of mouth from across the United States. We used a screening survey to monitor participant eligibility and diversity. Participants had to be 18 years old or older, current users of Facebook, Twitter, and/or LinkedIn (with at least two years of experience on at least one of these), allow us to connect with them in one of these spaces, post primarily in English, live in the United States, and pass an attention-verification-check survey item. Additionally, we used Trost's statistically nonrepresentative stratified sampling technique [see 36 for more] focused on obtaining variations within age and gender, as many privacy behaviors are related to these factors [4, 5, 35, 40]. If prospective participants were eligible and aided with diversity, they were invited to participate. Participants were not part of the authors' direct social networks.

Diary Study
The goal of the diary study was to collect participants' social network site posts, and have participants reflect on these posts through surveys.

We collected participants' posts from Facebook, Twitter, and/or LinkedIn (depending on which they used). We selected these aforementioned social network sites because they were the most popular services at the time of the study design [10], and thus would allow for a breadth of users' imagined audiences and their associated audience management strategies. We sent participants the diary surveys every other week via a link in an email. In total, participants received four diary surveys spread out over two months. The study's length of time allowed for the collection of more posts, and the time in between surveys helped avoid overburdening participants and helped mitigate potential observer effects. We tiered compensation, and participants could earn up to $30 to Amazon, and the opportunity to win an iPad mini, depending on the number of surveys they filled out. We fielded the diary study March through May of 2014.

The diary surveys contained questions about participants' demographic and socioeconomic background as well as their social and technological skills and behaviors.

However, one of the diary study's main goals was to capture people's imagined audiences in association with the posts they shared. In order to assess people's imagined audiences, we stated, "*You posted the following on [Facebook, Twitter, or LinkedIn] last week,*" with a screenshot of their post. We then asked, "*As you were writing this post, did you have anyone in mind? If yes, who?*" There was then space for participants to write in for whom they had intended the post. If participants selected "*yes*" to the above question, they were considered to have had a target imagined audience. In this piece, we focus on the items in which people had a target imagined audience. Participants gave their imagined audiences for each post we collected (up to three posts per site on each survey depending on how many posts each person shared). For instance, if a person posted three times on Facebook and twice on Twitter the week before, his or her diary survey asked the imagined audience(s) for the three Facebook posts and two Twitter posts.

Follow-up Interviews
The goal of the interviews was to garner more in-depth insights about users' imagined audiences and their associated audience management strategies. We waited to ask these reflective questions until after the diary study completed to avoid influencing people's behaviors or biasing the data in subsequent waves.

We invited just over a third of the original set of participants (N=47) to partake in the interviews in order to be able to achieve data saturation [12] while accounting for potential nonresponses and dropouts. These prospective interviewees were also selected using Trost's statistically nonrepresentative stratified sampling technique [see 36 for more] to aid diversity in age and gender. We also had self-reported data on participants' Internet skills, online privacy skills, and their post frequency from the diary study; we considered this information to ensure further diversity among interviewees. Of those invited, five were not available, two cancelled, and ten did not respond to the invitation resulting in 30 interviews.

The follow-up interviews consisted of a voice call lasting approximately 50 minutes. We compensated participation in the follow-up interviews with $20 to Amazon. We conducted the interviews at least a week after the diary study ended during May and June of 2014.

The interviews contained questions regarding participants' general social network site behaviors as well as their specific behaviors during the diary study. While there was a general template, we tailored interviews to participants' diary study responses. We asked participants to reflect on their sharing process from thought or idea of a post all the way until the item was posted. Participants started off by describing a generic example of what their posting process typically involves on the site they use most often. Then they did a similar exercise with the

actual items captured during the diary study. For instance, if we had collected two Facebook posts and one Twitter post from a participant during the diary study, he or she elaborated on the sharing process for these three posts. The interviewer (the first author) asked follow-up questions for more details, including if/when participants mentioned the use of an audience-reaching strategy and/or if/when they mentioned the use of an audience-limiting strategy. If participants stated they had a target imagined audience in mind, and despite this shared their post with their entire network, they were asked to elaborate on why.

Participant Background
About half of the participants were female (53.33%). They ranged in age from 20-75 (M=39.03, SD=16.04). Just under a third had less than a college degree (30.00%), slightly more than a third had a college degree only (36.67%), and a third had an advanced degree (33.33%). They ranged in Internet skills from 1.50 to 5.00 on a 5-point scale [13] (M=3.76, SD=.90) and online privacy skills from 1.75 to 5.00 on a 5-point scale [14] (M=3.75, SD=.92). We collected between 2 and 24 of their posts (M=12.43, SD=6.04) during the diary study, and participants reflected on between 2 and 6 of these posts during the interviews.

Methods of Analysis
We transcribed the audio files from the interviews. We removed and/or substituted personally identifying information to protect participants' and their contacts' privacy. After reading through all transcripts multiple times, the first author and a trained research assistant individually coded a third of the data engaging in grounded theory techniques involving open coding and memoing [7]. They met several times to discuss their memos and issues, and made modifications to the emerging coding scheme as necessary. The two researchers double-coded a third of the interviews with the coding scheme. The first author then coded and double-coded the final two-thirds of interviews. Coding took place in the analytical software Dedoose. The first author then pulled all excerpts and codes related to each research question into matrices for analysis [27].

Audience-Reaching Strategies
RQ1 asked about the audience-reaching strategies people use when they have specific audiences in mind. Are users engaged in such strategies? If so, what do the strategies look like? Participants highlighted a combination of social and technological strategies they employed to reach their target imagined audiences. In particular, users noted three main strategies: altering the script, interacting with the imagined audience, and taking into account the post timing. See Table 1 for an overview of the strategies.

Alters Script for Target Imagined Audience
Some participants noted that they changed the way they wrote a post to attract a target audience's attention. This included implicit attempts like adding a message to

provide "*context*" *(P28)* when posting a link because people felt their imagined audiences were more likely to read their posts, as well as more explicit attempts like altering the post language from English to another language, or stating the audiences' names in the post.

Describing his "*very intentional*" post-sharing process, a 25-year-old college-educated man discussed how he "*crafts*" his post to reach his imagined audience:

"And so I think through, okay which ones, like who is this [post] most applicable to . . . and then I think about, how do I—what kind of language do I have to use around this so that I can get like people to think about it in the most effective way." (P9)

Similarly a 31-year-old with a medical degree posted the same link on Facebook and LinkedIn, but he altered the message and used "*appropriate wording for each post*" for his different imagined audiences for the two sites *(P7)*. A 61-year-old woman with a master's degree also changed her post so that it would be accessible for her target imagined audience:

"I actually labeled it Throwback Thursday rather than TBT and I did that intentionally because I wasn't sure if it was an international thing or not, or I wasn't sure if my international friends would know what TBT was or why I was doing that, so I did that intentionally." (P19)

A couple of participants discussed how they signal the target imagined audience through altering the post language. An undergraduate student described how he used his posting language to notify which sub-audiences should pay attention, and which can tune out:

"Like yes if I am writing this in Portuguese that means it's aimed at people who speak Portuguese, and not like—basically I mean this is not relevant for Americans in many ways." (P3)

Others discussed explicitly calling out the imagined audience in their posts so the target audience would know to pay attention. For instance, a 75-year-old woman with an associate's degree wrote a post to her classmates and started off the post with the high school name and "*Class of 1957*" *(P27)*. Other participants used steganography-like references to catch their imagined audience's eye like inside jokes, nicknames, and private information.

Interacts with Target Imagined Audience
Some participants also utilized the technology to reach the imagined audience. These strategies included interacting with the target imagined audience during the process, such as by tagging the audience, engaging with its content, or using relevant hashtags.

The majority of these interactions involved tagging, or technologically linking, the target audience so that the audience would be notified of the post.

Strategy	Definition	Examples	Quote
Alters script	Changes the content of the post.	- Specifies the imagined audience - Changes the post language - Uses steganography (e.g., inside jokes) - Includes text/image/audio	*"I preface the thing [the post] by saying who it's aimed at." (P3, 21-year-old man in college)*
Interacts with imagined audience	Directly engages with the imagined audience during posting.	- Tags the imagined audience - Uses a hashtag popular among the imagined audience - Engages with the imagined audience's content	*"I'll do the tag if I want to make sure certain people see it, because I know that not everybody sees every Facebook post." (P25, 38-year-old man with a college education)*
Takes into account performance timing	Considers the time during posting.	- Posts at certain times because the imagined audience will be on - Does not post at certain times because the imagined audience will not be on	*"I know that everybody in the office will be on Facebook that day looking at Facebook . . . I wouldn't necessarily post work photos on a Sunday." (P24, 37-year-old woman with some college education)*

Table 1. Strategies for reaching the imagined audience. Categories are not mutually exclusive.

As a 34-year-old man with a master's education noted:

"I've kind of noticed that I am tagging people more just because I realize that that feature is beneficial and you can—instead of hoping that someone will see it, you can guarantee that they'll see it, so that's the reason that I will tag." (P20)

A 38-year-old college graduate posted a link on Facebook, and his specific imagined audience consisted of a friend. When asked why he tagged his friend, he said:

"I always will tag people if I think there are people who really need to see a post." (P25)

On Twitter, the same participant noted different strategies he uses for audience targeting:

"You do an at [@] whereas you do a plus at [+@] if you want it to be more public." (P25)

While a few participants tagged in hopes of broadening their audience, some did not take into account that tagging sometimes impacted the potential audience's reach. For instance, on Facebook tagging can also expand the potential audience to the tagged individual's network. When the interviewer asked a participant, a 34-year-old with a master's degree, if he knew whether tagging had an effect on who could see his Facebook post, he said:

"I don't know for sure, that's something I probably should look into." (P20)

A small minority of participants also discussed using tactics like engaging with a target imagined audience's content so that audience members would in turn look at their content. A few also discussed incorporating hashtags. The hope was that the target imagined audience would search for that particular hashtag and reach the content. For instance, a 30-year-old college-educated woman posted a link to a music video about body image on Twitter and her imagined audience consisted of fans of the band as well as "*plus-size women.*" To attract her imagined audience, she included hashtags in her tweet that referenced the band as well as "*#plussize,*" which she did "*so that they were included*" as the audience. Providing more context for the strategy, which she used several times during the study, she said:

"I hashtag things . . . when I am trying to bring in mental health people. . . . So whenever something is about mental health, or that is one of the subjects, I just hashtag [using a mental health hashtag], and I hope to see more mental health followers." (P2)

Considers the Timing of the Performance

Finally, a few participants talked about the role of timing when trying to reach a target audience. For instance, a 25-year-old college-educated woman described her target imagined audience as "*Friends and family*" as she posted a new profile photo and noted that she considers the timing ("*in the evening*") when sharing profile photos so that such a post "*gets the most traction [laughs]*" (P1).

One 64-year-old woman with a master's degree also noted that in an effort to reach a specific friend as the target, she liked to post "*on the right day*" (P18).

Some participants noted that while they were not strategic about timing, they sometimes used it as a rationale for why they did not hear from an imagined audience. For instance a 28-year-old graduate student posted about a television show and when there was no interaction from her imagined audience, she said:

"Ah, probably a lot of people haven't watched it yet, so they might not like it yet." (P16)

Speaking more generally about timing, a 34-year-old man said:

"Sometimes if I post something and I don't see a big response, I'm like oh I guess I posted it at, you know, middle of the day, where everyone's working. And certainly I've noticed that if you post maybe late, late at night when everyone wakes up in the morning and they check Facebook, that is, you do typically get a better response [laughs]." (P28)

Audience-Limiting Strategies

RQ2 inquired about the strategies people use to exclude people outside of their target imagined audiences. While audience-reaching strategies included both social and technological tactics, users mainly engaged in social audience-limiting strategies. The most common limiting strategy discussed was the use of social steganography, in which the post was technologically accessible by anyone, but socially accessible by the targeted audience only. A 34-year-old with a doctorate posted a quote on Facebook, and while his imagined audience of "*close friends*," understood the meaning behind the quote, he stated:

 "No one else would really infer what was going on." (P28)

People used such steganographic practices as both an audience-reaching and audience-limiting strategy. A 51-year-old woman used a nickname in a post to attract an imagined audience's attention, and described the reaching/limiting strategy more generally like this:

"At times, you know, if it's like a private joke or something, or a reference to something that maybe we've talked about before, I will maybe post it in a different way or type it with quotation marks or spell it a different way so that it will be in reference to something we have discussed before. Kind of like, hey, here's a little reminder of the joke we got about blah, blah, blah, you know. So not everyone will get it, but that person will understand what I mean." (P6)

Beyond sometimes engaging in steganographic practices, users were less likely to report using technological strategies, like blocking, customizing privacy settings, or using groups and lists to exclude people outside of the imagined audience. While some discussed using such practices more generally, the overwhelming majority did not integrate them as they shared the posts collected in this study. Occasionally a few switched from "*Friends*" to "*Public*" or vice versa as they posted on Facebook, but even still, most participants broadcasted their posts to their whole networks even when they had specific sub-audiences in mind. This was further confirmed by looking at the posts' privacy settings, which did not indicate privacy setting customization. People seemed more likely to engage in audience-reaching strategies to reach their imagined audiences, rather than strategies to limit or exclude people in the potential audience who were not part of the target imagined audience. For instance, if a person posted content for their friends and family, they may have engaged in strategies to reach their friends and family, but they often did not engage in strategies to exclude others, like their professional ties or communal ties, who also had access to such posts typically.

Rationales for Sharing Beyond a Target Audience

When people had a target imagined audience in mind, why did they not engage in more strategies to share only with their imagined audience? Why did they knowingly share beyond their target audiences? How did they justify sharing so broadly? In response to RQ3, participants provided several rationales for this broad sharing. These rationales categorized into six major themes. For some it was an issue of skill, for others, it was because they wanted to reach an unknown secondary audience as well. Participants sometimes talked about more than one rationale, so the following are not mutually exclusive. For an overview of rationales, see Table 2.

Reaching a Peripheral Audience

The most commonly-emphasized rationale for why people shared broadly was because although they knew their posts were mostly relevant to a sub-audience, they felt there might be others in their potential audience who would also find the post relevant. They often thought about the prototypical people or groups of people who would find the post relevant, but they thought there could be others who would also be interested. However, often they did not know nor care who exactly those others were. In such cases, even if they wanted to create a list for a target imagined audience, they might not know whom specifically to include.

For instance, a 31-year-old with a medical degree posted a link on Facebook and his imagined audience was a specific friend. He stated:

"You know because except for that friend I didn't have anyone specific in particular in mind so I posted it on Facebook exactly so I could share it with a wider group of people because I was sure so many people were looking for something like this." (P7)

Similarly a 50-year-old with a college education stated:

"If I have in my mind that it's a friends and family post, but choose to leave it public, it's because it's referring to something that I thought might be interesting to a larger group." (P29)

Rationale	Definition	Quote
Reaching a peripheral audience	Shares broadly because there are others who should also be a part of the audience (but unaware of or do not care who those others may be).	*"I don't think those things are only relevant to those people, I just think they're specifically relevant to those people. So I'll make sure that they see it, but I think, oh I enjoyed it, too, and other people might enjoy it, too, like in the case of that video."* (P25, 38-year-old man with a college education)
Rated PG for all audience members	Shares broadly because content is appropriate for others, even if not relevant for everyone.	*"And anything that I post on Facebook, I'm okay with everyone seeing. I know there's like filter options available where you can like put people into different groups and only have certain groups see stuff, but it's not something that I ever saw was important for me to do privacy-wise."* (P4, 28-year-old man with a master's degree)
Lacking the technical skills for a targeted performance	Shares broadly because unsure of how to target a subset audience.	*"I would have shared it with just family members if I knew how to do that completely. But I don't mind it going to a broader audience."* (P27, 75-year-old woman with an associate's degree)
Performance laziness and difficulty	Shares broadly because it is easier than targeting the specific audience.	*"And sometimes I just feel like if I create a list, it's too much work."* (P21, 23-year-old woman with a college education)
Relying on the audience or site for filtering	Shares broadly because the audience will sort itself out or the site's algorithm will target the right audience.	*"I'll just put it out there, and you know just cast the net, and hopefully the right fish swim into it."* (P28, 34-year-old man with a doctorate degree)
Going where the audience is	Shares broadly because it is the only way to reach the imagined audience.	*"I didn't really want to do it [tweet publicly to a politician], but I had to do it to get a hold of them because I couldn't get a hold of them."* (P11, 55-year-old man with a high school education)

Table 2. Rationales for sharing beyond the imagined audience. Categories are not mutually exclusive.

A 60-year-old woman with some college education also described why she shared a post for those who suffer from headaches to her whole network on Facebook:

"I don't have a problem with broadcasting stuff that I think will be helpful to people . . . I knew people personally, but then I know there's a lot of people out there that do suffer like that." (P13)

A 34-year-old with an advanced degree posted a photo on Facebook and thought of his brother-in-law as the imagined audience and tagged him. When asked to reflect on why he had shared it on Facebook if he was aiming it at his brother-in-law, he said:

"I thought, yah it's intended for this person specifically, but I think that it's, you know, interesting enough that others might stop and take a look at it." (P20)

Beyond sometimes not knowing which exact individuals belonged in their target imagined audience, many worried that they would miss out on something "*interesting*" from the wider audience if they stuck with their "*typical expected friend group,*" as a 23-year-old woman with a college degree described it *(P21)*. A 49-year-old man illustrated the same sentiment with an example:

"Just in case anyone else I know in Austin would say, hey, I've always wanted to go there, can I tag along?" (P26)

A subset of participants also highlighted that the peripheral audience sometimes helped validate the post's purpose. For instance, a 51-year-old woman with an associate's degree shared a post to her whole network, but had her daughter in mind. She explained it like this:

"You know, it's specific to this one person, but I want everyone to know about it. It would be like, I guess, proposing while you're on the jumbotron. . . . I guess it's just a public display of private affection." (P6)

Similarly, a 23-year-old woman with some college education posted about a family fight on Facebook, and thought about her sister-in-law as the target. The broader audience validated the sharing process for her:

"In regards to that post, I feel like, she was on my mind to kind of like settle the issue, and I made it public for everybody to see so it could kind of be like, like letting go of the issue. . . . So it feels kind of like, us letting go of the issue and just being okay because we made it public in a weird way. . . . I feel like having an audience kind of makes the issue disappear." (P12)

In these examples, users had specific people in mind, yet they felt there were others beyond their imagination that should see the post.

Rated PG for All Audience Members

Another common rationale for sharing broadly was that users felt their posts were appropriate enough to be seen by any of their contacts, or anyone, and thus did not "*mind it going to a broader audience,*" as a 75-year-old woman with an associate's degree put it *(P27)*. They were okay sharing broadly because they had already engaged in a higher-level privacy management strategy of self-censoring. Even if participants felt a post was not relevant beyond the specific audience, as a 50-year-old with a bachelor's degree put it, he could not "*think of a harm that*" *(P29)* could come from sharing it more broadly. A 61-year-old woman with a master's degree described it like this:

"*I don't think I put stuff out there that I think would be, for some reason, not appropriate for anybody to see. If it's not then it shouldn't be out there.*" *(P19)*

Participants often defaulted to sharing broadly unless it contained really sensitive or inappropriate material. A 23-year-old woman with a college education stated how excluding people often did not even cross her mind:

"*I don't really even think about posting it to a restricted group unless it's something pretty private.*" *(P21)*

Similarly a 34-year-old with a master's education stated:

"*It's not necessarily really private that I feel like, you know, it's not really a big deal to share it through a network where everyone can see it.*" *(P20)*

Overall, users shared beyond their target imagined audience in part because even though the content may not have been relevant for everyone, such bystanders would not find the post inappropriate or offensive.

Lacking the Technical Skills for a Targeted Performance

Some users also shared broadly because they lacked the technical know-how to do otherwise. They did not know if there were any alternatives besides not sharing at all, and if such capabilities existed, some did not know how to use them. A 64-year-old woman with a master's degree assumed the only way to directly target her imagined audience when she had one was to use email *(P18)*. A couple of participants were not confident that something such as the list- or group-like feature existed on their social network site of choice. For instance, a 74-year-old man with a doctorate degree stated:

"*I would like maybe all of my postings go to [sic] close friends, can I specify people? I don't even know. Can I specify people as close friends, and then have my postings only go to them? Or can I specify what a posting—who a posting will go to? That may be there, I don't even know.*"

And it's like, it's not worth my time to figure it out. I don't trust 'em." *(P17)*

A 34-year-old with a doctorate also discussed how if Facebook offered a feature like Google+ offers where you can "*separate your friends out into these circles,*" he would "*definitely*" use it *(P28)*.

Some participants were aware Facebook offered a list feature, some had even used it, but some were "*not quite sure how to limit it*" as a 28-year-old woman in graduate school stated *(P16)*. A 40-year-old woman with a college education discussed the feature's usability:

"*I just wish it was more easy [sic] to find—and maybe even where you could somehow strategize it, where you can have these friends see this or that. I mean I guess you can, but I just never really have taken the time to really, to play around with it, and figure out what it all does. It just seems a little un-user-friendly.*" *(P15)*

Some participants also mentioned specific posts during the study where they would have shared only with their target imagined audience had they known how to do so. For instance, a 75-year-old woman posted to her network information for her classmates. She said:

"*If it could have gone just to classmates, that would have been good, but . . . I don't know how to do that.*" *(P27)*

At least two participants also discussed how they shared broadly sometimes because they did not know how to get the content into a different environment than where it originated. For instance, the 75-year-old woman mentioned above articulated it like this:

"*Okay so for example, if I've taken the picture and I want my friend Stacy to see it, then it's under my complete control. I can just send it to her. . . . Something that I've seen on Facebook, I don't know how to share it with just those specific people.*" *(P27)*

Similarly, a 64-year-old woman with a master's degree discussed similar difficulties that would ensue if she saw something on Facebook that she wanted to share with a subset of her contacts:

"*Like just say I see a cute Someecard so then I have to, I don't really know how to do it, but I take a screenshot of it and then I have to send an email out so I gotta go through, you know—I don't have like a group or anything like that, so it's just faster that way.*" *(P18)*

Finally, while the majority of participants in the study knowingly shared beyond their target imagined audience even if not by choice, there were a couple of participants who were not aware of their privacy settings, and thus were oversharing much more than to their target imagined audience. For instance, a couple of participants on Facebook thought their privacy settings were set to share with their contacts only, but in reality such settings were public. A few participants who used Twitter were not

aware that their posts were publicly available. These examples highlight that sometimes sharing widely was not a choice, but it was in part dependent on a person's understanding of how the technology functioned.

Performance Laziness and Difficulty

Another rationale for sharing beyond the target imagined audience was apathy for using any sort of exclusionary tactic. A 21-year-old undergraduate student attributed it to a combination of "*habit and laziness,*" stating that for him "*it's just too much work*" to segment the audience *(P3)*. Similarly a 28-year-old woman in graduate school stated, "*I'm just too lazy to do otherwise*" *(P16)*. Or as a 34-year-old with a doctorate degree described it:

"*Maybe it's just the amount of effort needed to just share with a specific group.*" *(P28)*

Several participants noted how much easier it was to broadcast than to target a specific audience in whatever way. For instance, a 50-year-old man with a bachelor's degree stated that it was "*the easiest way*" to share a lot of information with "*a diverse group of people,*" particularly in comparison to "*making 50 phone calls*" or "*sending a mass email*" *(P30)*. A 49-year-old man talked about creating a post that was only relevant to the people from his hometown, stating that it was "*easier*" to broadcast to his entire network than "*try to look up everyone's cell phone or email*" *(P26)*. A 40-year-old college-educated woman also highlighted the difficulty that arose from trying to create lists on Facebook:

"*I had like a mom's group and I had—but then it kind of got . . . like I wanted certain people to see things—but they weren't necessarily a mom—and I didn't know where to categorize them, and then there were certain things I didn't want them to see, so it was like, it was too hard to remember all of that . . . Maybe if I could remember all the people that I put on different lists and why, you know—cause even with some of those lists, I have some friends that are moms and they're in my mom group, but then they're a different religion, and I don't want to say something that might offend them so it's just, you really— even when you have a list, it's going to be very difficult to still do that I think.*" *(P15)*

Overall, users broadcasted broadly even when they had a specific audience in mind because it was easier to do so than to have to think about alternative ways to sector off their audience and only share with a sub-audience.

Relying on the Audience or Site for Filtering

People sometimes shared broadly because they left it up to the audience or the site to filter the content to the targeted audience. In such cases users shared, and as one 31-year-old with a master's degree stated, then just expected "*the right people get to the right content*" *(P8)*.

Some participants placed the burden on the audience to "*self-select*" *(P19)*. A 21-year-old undergraduate student explained his philosophy like this:

"*People who don't care about it will just scroll over it, and people who do, and who I'm aiming at, and who it is relevant to, will hopefully not, and they will react. You know, let God sort 'em out sort of thing.*" *(P3)*

Such people noted that this was what they did when looking at others' posts. A 61-year-old woman stated:

"*Because I know that you can ignore me if you want to . . . you'll scroll by just like I scroll by stuff.*" *(P19)*

Or as a 50-year-old man with a bachelor's degree put it:

"*They can always hide it, and if they, as a habit, don't like seeing that kind of thing coming through from me, they can limit the kinds of posts they get notifications of from me. So they're in control of that.*" *(P29)*

Sometimes users shared beyond the imagined audience because they did not see it as their responsibility to filter their content or segment their audience.

Going Where the Audience Is

Finally, a handful of participants noted that they shared broadly out of necessity. This happened when participants needed to post in order to enter into a contest, and/or reach a certain audience. For example, a couple of times participants wanted to reach out to public figures, but they had no other way than to tweet at them publicly. As a 55-year-old man with a high school education noted:

"*I didn't really want to do it [tweet publicly to a politician], but I had to do it to get a hold of them because I couldn't get a hold of them.*" *(P11)*

A few users posted broadly on Facebook as well in an attempt to reach certain people. For instance, a 61-year-old woman posted photos to her network and had one particular person in mind, stating:

"*The only person I cared about seeing those pictures was his mother [the imagined audience], and she had it within 10 minutes and shared them [laughs]. And I was like okay, job done here, this is what I needed to do and it was right.*" *(P19)*

When asked why she felt she needed to share them with her network instead of emailing or sending a private message, she said, "*Facebook is her life.*" These examples demonstrate that sometimes users shared broadly because they felt they had no other choice if they wanted to reach a particular target audience.

DISCUSSION

This study's findings bring to light information on everyday users' audience goals and strategies. Although much privacy and audience work focuses on the audience-limiting strategies people use to exclude audience members, this research's unique study design and diverse

sample expands the audience management literature in two important ways: (1) it helps expand our definition of audience management to encompass audience-reaching strategies, and (2) it provides more insight on audience management at the post level than past work has done.

Audience Management Includes Audience-Reaching Strategies, Too

Although most privacy and audience-related work explores people's "*preventative*" [19], "*risk management*" [39], and "*protective*" [45] strategies, this work highlights that people are also engaged in strategies to reach their imagined audiences. With audience goals in mind, everyday social network site users engage strategies similar to the ones broadcast professionals have long used to target their audiences [1, 11, 42, 44]. This study highlights a list of these audience-reaching strategies and nuance around how people use them. Some of the targeting strategies illustrated in this study were already hinted at in prior work like the use of hashtags [25], tagging [31], and language alteration [34]. However, this study provides additional audience-reaching strategies as well such as specifying the target audience by mentioning it in the post, using inside jokes, interacting with the imagined audience, and considering timing.

The Importance of Studying Audience Management at the Post Level

While this work describes a list of audience-reaching strategies people engage, it also focuses on the audience-limiting strategies people use in an effort to block proactively those outside of the targeted audience. Although much research has looked at the way people manage their audience and privacy, most of this aforementioned work has focused on people's general, hypothetical, or network-level habits. This work contributes to the literature by focusing on the audience-limiting practices people use when sharing specific posts. Although participants in this study mentioned using audience-limiting strategies identified in prior research like blocking or altering privacy settings [4, 23, 29, 30, 37, 39, 45, 46], these were not tactics participants in this study regularly noted at the post level. While they may have checked up on their privacy settings during their social network site tenure, most were not manipulating their privacy settings each time they posted to exclude those outside of the target audience. For example, if someone had in mind "*pet lovers,*" they often did not create a list and only share with their contacts who love pets nor block anyone who was not a pet fan.

The only audience-limiting strategy people discussed explicitly using to weed out non-targeted audience members was the steganographic practice of encoding their posts with insiders' information [26]. Prior research has already identified the importance of this social strategy for teenagers and graduate students [26, 39], however, this work confirms the importance of it for a group of diverse adults as well. This study also showcases

that steganography functioned as both an audience-reaching and audience-limiting technique; participants used steganographic insider's information not only to get their imagined audiences' attention, but also to exclude those beyond the target from understanding their posts' meaning and intent.

By investigating audience management at the post level, our findings also suggest people were more focused on audience-reaching strategies, rather than audience-limiting strategies. Framed another way, rather than focus on tactics to make sure certain people did not see or understand their content, they used tactics to make sure certain people did see their content. By implicitly and explicitly giving cues to the potential audience and/or algorithm about the target audience, these audience-reaching strategies were attempts to get to "*the right fish.*"

Knowingly Sharing Beyond the Imagined Audience

What the aforementioned results suggest is that people knowingly and regularly broadcasted posts that may have only been relevant to a subset of their potential audience with their whole networks (and beyond). So why did they engage in such posting behaviors? Why did they knowingly share such posts so broadly?

Focusing on people's rationales within the context of their shared posts, this study provides a list of reasons for why people shared broadly. Similar to past studies focused explicitly on privacy management [17, 38, 39, 41], this study found that people did not regularly use exclusionary tactics in part because of the skill, time, and effort involved in segmenting their diverse audiences. Additionally, this study highlights that users shared broadly because they had already engaged in higher-level privacy management through censoring their content, thus rendering audience management at the post level unnecessary in their eyes, as prior research has also found [15, 25, 32, 38]. However, by exploring this research question within the context of people's actual shared posts, this study identifies additional rationales that may be useful to researchers and designers. For instance, one of the most common reasons for sharing broadly was because users did not know with whom specifically to share a post. That is, although they had in mind the most relevant audience (e.g., "*all who were interested in good cleaning tips*"), they did not know which particular people in their networks fell into that category. Many also did not feel it was their responsibility to exclude audience members, but that the filtering onus belonged to the site or audience members themselves. Finally, sometimes people did not engage in audience-limiting strategies because posting broadly could function as an audience-reaching strategy when it was the only option to reach a target audience.

An Irrelevance Quandary?

Without the use of audience-limiting strategies, participants in this study regularly shared their posts

broadly. Although many had engaged in higher-level privacy management strategies like self-censoring, such sharing habits likely led to actual audiences made up of people beyond the target audiences. This gives some indication that people may routinely share irrelevant content with some of their audience members. While this study did not take into account the audience's perspective, future research should explore if/how such irrelevant posting habits may impact the overall user/audience experience and relationships.

STUDY LIMITATIONS AND FUTURE RESEARCH

While this study offers a highlight of what some audience-management strategies entail, the list is likely not exhaustive and future research should continue to explore these further including through the exploration of additional social network sites. For instance, while nobody in the study explicitly discussed paying to target their posts, some platforms allow (e.g., Twitter) or have allowed (e.g., Facebook) everyday users to pay and promote their posts. Future work should also explore the prevalence of the strategies participants highlighted in this study, as well as which strategies may be most useful, and who may be more or less likely to use them. Relatedly, future work can explore the advantages and disadvantages of each strategy. For example, while some of the audience-reaching strategies participants used seem sophisticated on the surface, they may also have been overestimated or counterproductive. For instance, many people tagged imagined audience members on Facebook, but many did not take into account that this usually widened their audience to the tagged individuals' networks. The disregard for the audience expansion to others' networks may also explain why tagging can lead to awkward or embarrassing moments for the tagged individuals as prior research has found [24].

While this study had a diverse sample regarding age and gender, and studied multiple platforms, participants had more experience with social network sites than most American adults online [9]. Additionally, future work will need to consider alternative and creative ways (e.g., in-person observations) to study the social network site experience more holistically as it is possible exclusionary practices like lists and groups play a larger role in the overall social network site experience than portrayed in these results (though prior research does not suggest this is the case [18, 19, 32, 41]). Finally, although this study utilized survey and interview methods as well as observations of people's social network site practices, aspects of this study were dependent on people's self-reported responses. While such self-reported information typically aligned with their posts (e.g., if participants said they tagged to reach their imagined audience, their associated post was tagged), as with any self-reported data there may have been issues with recall, inaccuracies, and social desirability bias.

DESIGN IMPLICATIONS

The findings shed light on potential design and user experience implications for those working on social network site technologies. For instance, with users highlighting their use of audience-reaching strategies and non-use of audience-limiting strategies for posting habits, rather than focus solely on privacy settings or lists, one potential solution might involve altering the broadcast algorithm. For example, social network sites might give posters the opportunity to tell the algorithm who the most relevant audience is more generally, or to whom the post should be broadcasted. This could come in the form of a box where users submit a *type* of person to whom to broadcast (e.g., "*Share with my friends who like to run*"). The broadcast algorithm would then use the information it has in other forms (e.g., profile content) to broadcast to the most relevant audience. Additionally, user experience teams may look into alternative ways for posters to tell their targeted audiences to pay attention or to tweak current ways. For instance, because the tagging functionality typically impacts other users' online presence and can expand the audience, a new feature might allow users to broadcast their posts to their network while quietly notifying target audience members (e.g., similar to a BCC email mechanism). Additionally as this work underscores users' interest in targeting audiences, designers and engineers may look into giving users more metrics and tools similar to those that professional broadcasters regularly use (e.g., analytics showcasing aggregated information about actual audiences).

User experience teams may also focus more on the audience's perspective. As this study demonstrates, some users may at times fill up their contacts' feeds with irrelevant content as they broadcast posts that may only be of interest for a sub-audience. While work should continue to improve audience-limiting tools, additional work can continue to explore alternative solutions that are less cumbersome and remove some of the burden from the poster. For instance, another solution might involve training the algorithm to pick up on imagined audiences based on the cues people leave in their posts (e.g., if a person posts about food, the algorithm would broadcast the post to those interested in food). Additional solutions may involve giving audience members more control over their feeds, beyond options to universally follow or unfollow individuals. For instance, audience members could request to see all posts about certain topics regardless of who shared them or request to not be shown posts covering certain topics (even if they come from close contacts). These design solutions are about helping people reach their most relevant audiences and helping audiences receive the most relevant content.

CONCLUSION

Utilizing mixed methods involving a diary study and follow-up interviews with a diverse group of adults, this research explored audience management. The results

highlight that users engaged in several strategies to reach their targeted audiences, and rarely engaged in strategies to technologically-limit others beyond the imagined audience. That is, people regularly shared posts that may have been relevant for a specific audience with their whole network. However for most, this was a conscious decision, and people identified several rationales for sharing broadly. Overall, this work highlights the need to study audience management from different perspectives and levels of analysis as well as emphasizes the need to consider not only the strategies people use to limit access to their content, but also the strategies people engage to garner access to their posts. As people increasingly turn to social network sites to share their life updates, people studying and building such technologies should stay attuned to users' evolving audience goals and strategies.

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