

How Do You Zoom?: A Survey Study of How Users Configure Video-Conference Tools for Online Meetings

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Many knowledge workers now spend prolonged hours on video calls each day. However, it is unclear how people set up their videoconferencing tools now that they are highly accustomed to this communication medium. To investigate this, we distributed an online questionnaire that explored 115 users' videoconferencing setup preferences, asking them about their typical video and camera setup for meetings. We structure the reporting of results around four themes: (1) video layout preferences, (2) camera preferences, (3) self-view window preferences, and (4) multitasking behaviour during meetings. Results show that participants preferred using the active speaker view when joining large meetings with a single key presenter, and the grid view when on social calls and meetings requiring collaboration. Regarding the self-view window — most of the survey respondents reported that they have the self-view window enabled during meetings so that they could check on their own appearance throughout meetings. That said, many left this feature on because they were unaware that the self-view window could be disabled while still sharing their video with others. We discuss the implications of these findings for improving our understanding of how people use and configure their online video meeting tools.

CCS Concepts: • **Human-centered computing** → **Empirical studies in collaborative and social computing**; *User studies*.

Additional Key Words and Phrases: remote work; video-mediated communication; self-view window; survey study design

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1 INTRODUCTION

In response to the COVID-19 pandemic, many people have started to spend a lot of time each day on video calls. Zoom (<https://zoom.us>), one of the most popular videoconferencing tools, has seen an increase in daily meeting participants from 10 million in 2019 to 350 million in 2020 [8]. Video calls have replaced in-person work meetings, physical classrooms, and are used to keep in touch with friends and family. However, it is unclear how people set up their video-conferencing tools now that they are highly accustomed to this communication medium.

There is emerging research focusing on understanding users' behaviour in remote work meetings during the COVID-19 pandemic. Recent research has given a detailed description of the difficulties that people encountered as they transitioned to working from home at the start of the pandemic [1, 11], and how this transition affected people's working hours [14]. Research has also shown that people have been constantly adjusting their videoconferencing setup to better match their needs as they got used to working from home during the first few months of the pandemic [12, 13]. For example, people became more and more comfortable deciding that they would simply turn off their video camera

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53 during certain online meetings [4]. The main reasons given by participants for disabling their video camera during
54 a meeting were because of connection issues, the effort of having to be constantly attentive and presentable, other
55 attendees turning their video off, feeling self-conscious, and the desire to multitask. The prevalence of multitasking
56 during online meetings has also been demonstrated in a recent large-scale study, which found that people spend a
57 considerable amount of time attending to other activities while in online work meetings doing secondary tasks that are
58 both related to work as well as other non-work tasks and activities [5].

59 Despite these initial results, it is still not very well understood how people set up other aspects of their video
60 communication tools, and what the reasons for their preferences are. Do they prefer seeing all the participants aligned
61 on a grid or being focused on the speaker? Most importantly, what are users' opinions about the presence of the
62 self-view window? Do they leave it on, or do they turn it off? All of today's popular video conferencing tools provide a
63 self-view window by default. This gives the user visual feedback and the ability to check on their own appearance,
64 especially at the beginning of the meeting [6]. Several studies investigated the effects of this interface design choice.
65 For example, it was found that it increases self-awareness [15], causes vanity, discomfort and distraction [6], intensifies
66 negative emotions [16], and impairs task performance [7], but also encourages pro-social behaviour [10] and, in certain
67 situations, reduces anxiety for high socially anxious individuals [9].

68 The aim of the current paper is to investigate users' videoconferencing setup preferences, with a particular focus on
69 the presence of the self-view window. This is going to be achieved by distributing a short online questionnaire to a
70 wide audience. We are going to address the research questions listed below and based on previous research expect to
71 find the following:
72

- 73 (1) How do people set up their videoconferencing tool layout, camera and self-view window?
74

75 As the pandemic has progressed, people turned off their video more often, mainly due to bandwidth issues,
76 having to always look presentable, multitasking and feeling self-conscious [4]. We therefore expect a significant
77 number of users to have their camera turned off as their preferred option for similar reasons that were found
78 in Baym et al.'s [4] study. When it comes to the self-view window, most people prefer having it available to
79 check on their appearance, especially at the beginning of the call [6]. Given its default presence we assume
80 users have become used to this feature and will leave it on most of the time. Furthermore, because that the grid
81 view layout leads to increased levels of stress and concentration [4], we would assume the speaker view to be
82 the preferred layout option.
83

- 84 (2) How distracting, comfortable, and important do users find the presence of the self-view window?
85

86 In a previous study, the vast majority of participants found the presence of the self-view window important,
87 with the main reason being the desire to know what the conversing partner's view of them was [6]. However,
88 several participants also found the visual feedback distracting [6]. Given that people grew accustomed to seeing
89 themselves as this communication medium became more popular, especially during the pandemic, we would
90 expect fewer participants being distracted by their own self-image.
91

- 92 (3) How often do people think they engage in activities that distracts their attention from the video call (looking at
93 themselves and multitasking)?
94

95 Previous studies suggest that around 30% of remote meetings involve email multitasking [5], and that people
96 tend to look at themselves around 9% of the time [2]. However, none of this research measured the multitasking
97 and self-observing behaviour subjectively. We are assuming that participants would be less willing to admit to
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105 both multitasking and looking at themselves during video calls, and therefore expect the self-reported metrics
106 to be lower.
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108 2 METHOD

109 2.1 Participants

110 The study recruited 115 participants (50 female, 62 male, 3 undisclosed). The vast majority (94.8%) were between 18 to
111 54 years of age, with 25 to 34 years being the largest age category (48.7%). All but one participant reported being a daily
112 user of videoconferencing tools.
113

114 Participants were recruited via convenience and snowball sampling during July and August 2021. The survey was
115 advertised on social media sites, such as LinkedIn (<https://www.linkedin.com/>) and Twitter (<https://twitter.com/>). Some
116 participants were found on SurveyCircle (<https://www.surveycircle.com/>), a community for mutual support in online
117 research, and some were directly approached via personal emails.
118
119

120 2.2 Materials and Procedure

121 Recruited participants were directed to an online survey and asked to complete it. The survey was built using Microsoft
122 Forms. It consisted of seven main sections: (1) About yourself, in which we collected information about users' age and
123 gender; (2) Video communication tools usage, where we asked about the tools our participants use, for what purpose
124 and how much time they spend on for video calls; (3) Video layout setup, in which we gave users to choose their typical
125 video conferencing layout (speaker / gallery view / other) and describe the main reasons behind their preference; (4)
126 Camera setup, where we assessed on a 5-point Likert scale how often they turn their camera and self-view during video
127 calls and provided a free-form field for them to explain the main reasons for doing so; (5) Self-view window setup,
128 which in addition to the type of questions in the previous section also assessed the distraction, comfort and importance
129 of the self-view window on 5-point Likert scales; (6) Looking at yourself and (7) Multitasking where we asked about
130 the frequency users think they look at themselves and multitask during video calls on a 6-point Likert scale and also
131 contained open-ended questions asking about the main reasons for looking at self and the most common multitasking
132 activities. All responses were kept confidential and stored securely (following protocols approved by the university
133 ethics committee and data protection policies).
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140 2.3 Data Analysis

141 The survey results were imported to Microsoft Excel and the validity of the collected data was checked. None of the
142 responses was excluded from analysis. Basic descriptive statistics were calculated. For the closed-ended questions,
143 frequency distribution were calculated, and the results were visualised using bar charts. For the open-ended questions,
144 bottom-up thematic analysis was used to identify key codes.
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148 3 RESULTS

149 Our results show that people spend a considerable amount of time on video calls each day. Almost half of the respondents
150 (47%, 54) spend 1–3 hours a day on virtual calls on average. 38% (44) reported spending even more time than that (more
151 than 3 hours per day). 14% (16) use videoconferencing tools for less than an hour a day. Only 1 respondent is not a daily
152 user of video conferencing tools. Video calls are mostly used for professional (90%, 104) and social purposes (88%, 101).
153 37% (43) of the respondents also use them for educational and 17% (20) for health and well-being reasons.
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157 According to the survey results, Zoom is by far the most popular videoconferencing tool. Almost all the respondents
 158 (96%, 110) report using Zoom for video calls. Its usage is almost twice of Microsoft Teams (54%, 62), which is closely
 159 followed by WhatsApp (53%, 58) and FaceTime (36%, 41). Only 20% (23) of the respondents use Skype for video calls.
 160 Other tools that were mentioned include Google Meet, Facebook Messenger, Discord, Cisco WebEx, Slack, Hangouts,
 161 Jitsi and a few others.
 162

163 3.1 Video Layout Preferences

164 Participants reported preferring the gallery view (i.e., all meeting attendees are of equal size, aligned on a grid) over
 165 speaker view (i.e., the person speaking is the largest). 63% (73) chose gallery view as their typical video layout setup as
 166 opposed to 30% (34) opting for the speaker view. Alternative setups mentioned include screen sharing view as well as
 167 having gallery and speaker views in two separate windows. However, multiple respondents explicitly stated that their
 168 preference hugely varies depending on the context of the meeting. Speaker view is preferable for large meetings or
 169 when *“there is only one or two people talking/presenting”* (P24), such as online lectures. Gallery view, on the other hand,
 170 is preferred for social calls and smaller meetings requiring collaboration. To give an idea, one respondent commented
 171 the following in the provided free form field:
 172

173 *“Speaker view is my main layout setup as I want to focus on the person speaking (for example, during an*
 174 *online seminar). However, when working in small groups (3-8 people), gallery view is preferred so that I can*
 175 *focus on all members of the group at the same time. It also allows for more cohesive collaboration between*
 176 *group members.”* (P98)
 177

178 Those respondents who preferred the speaker view justified their preference by stating they *“wish to focus on the*
 179 *person speaking”* (P14), rather *“than watching other people listening”* (P111). A few were also of the opinion that this
 180 layout is less distracting because it is *“easier to focus on one persona at a time than many at once”* (P46) and because
 181 there is not a *“large box of me”* (P71). However, several respondents reported disliking the *“jumpiness of the speaker view*
 182 *always changing”* (P52), which is one of the reasons that they would often switch to the gallery layout.
 183

184 Participants reported that the main reason for choosing the gallery view is the desire to see all the call attendees,
 185 their reactions, expressions, and body language, which makes it easier to *“involve people who want to intervene in*
 186 *the conversation”* (P7), *“gauge interest level of the audience”* (P31, P51), and *“read the room better”* (P56, P59, P102).
 187 Respondents referred to this setup as being more natural, realistic, and often compared it to *“being in a room of people*
 188 *when you’re in person”* (P60). Interestingly, a few participants reported that they preferred the speaker view because it
 189 meant that they did not have to look at themselves during the meeting: (*“I don’t want to see a large box of me”* – P71).
 190 But in contrast, some participants reporting that they preferred the gallery view with a larger self-view window so that
 191 they could look at themselves during the meeting: (*“I like to see everyone in the session, myself included!”* – P110).
 192

193 3.2 Camera Preferences

194 Figure 1 shows responses to the survey questions asking how often respondents turn their camera and self-view off
 195 during video calls. It shows that half the respondents (57) reported having their camera usually or always on during
 196 video calls. In contrast, 29% (33) reported that they turn their video camera off about half the time, and 22% (25) rarely
 197 or never show their video feed to other meeting attendees.
 198

199 The main reason that participants reported for turning their camera off is the desire to multitask and do other
 200 activities while on the call. Eating was a commonly mentioned side activity associated with disabling video. While
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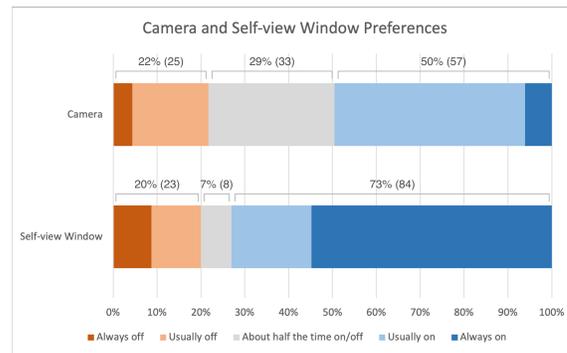


Fig. 1. Camera and self-view window preferences

multitasking is often voluntary, many blamed external interruptions in their environment as a trigger for attending to other activities.

“... I’m doing stuff I’m not supposed to do during the call (being on my phone, cleaning my room, etc.)” (P43)

“Need to address something that is outside of work needs or bio break or snack or something quick like that.” (P57)

“If eating or being disrupted during the meeting” (P63)

“When I turn off my camera, it means that I was interrupted by other things.” (P12)

Some respondents elaborated on this behaviour by stating that they *“don’t want to distract others”* when doing *“multiple activities while also listening”* (P34). Others simply want to avoid looking disrespectful by not *“having 100% of my attention on the screen”* (P3).

“Multi-tasking at times so it doesn’t look good if the other person thinks we are not concentrating on what they are saying.” (P48)

“It’s mainly when I am interrupted by an email or slack message that needs my immediate attention, but I don’t want others to think that I am not paying attention.” (P11)

Another common reason that was reported for why participants do not turn on their camera during a video call is because *“everyone else has it off”* (P38, P40, P104), and to avoid *“being the only one with the camera on”* (P67) and feeling *“like a fish in the bowl”* (P34). Many respondents shared this concern of having *“a lot of eyes on you”* (P101):

“Dislike if being constantly observed. After all, if somebody kept staring at you in real life it would be disturbing.” (P41).

“I think it’s creepy if people can see me staring at my computer screen, especially if they are strangers.” (P106)

Several respondents do not feel the need to be visible when they act *“as an observer”* (P44) more than a *“key participant”* (P22) and are *“just listening and not speaking in the meeting”* (P60). This is often the case during large meetings.

“I will turn my camera off if the meeting has a large number of attendees and my participation is not really required. Usually during town hall style meetings.” (P75)

“If a meeting has too many attendees and my main goal is just to listen, I prefer to save energy.” (P77)

261 Participants also reported concerns that if they were the only one in the meeting to turn their camera on it might
 262 “dominate other peoples’ screens” (P97) or “apply pressure” (P34) on others to also turn their camera on.

263 In terms of turning off their camera, one of the primary reasons for this was the “need to get up from the desk” (P106).
 264 One of the respondents elaborates on this behaviour as follows:
 265

266 *“If I have 7 hours of meetings in one day, I don’t want to be locked in to one position. With video on, I can’t*
 267 *even really shift my body position too much! I turn the camera off to get water from the kitchen, take one of*
 268 *my calls from the couch, walk around, etc.” (P86)*
 269

270 Others prefer not to share their video feed when they are “not looking presentable” (P14, P26, P38, P43, P56, P91), are
 271 experiencing “bandwidth (connection) issues” (P16), or are concerned over their privacy and environment, such as being
 272 in a “busy home environment” (P70), “people passing through” (P26) or having an “unorganised background” (P69).
 273

274 A few respondents expressed a strong preference for having the video on and emphasized its importance when it
 275 comes to maintaining connections.

276 *“In the new normal of remote working, I’d prefer if everyone had their cameras on most of the time to create*
 277 *that level of connection, so I make sure I keep mine on except for rare occasions (eating lunch, etc.)” (P52)*
 278
 279 *“... I generally try to keep my camera on to help improve relationships” (P86)*
 280

281 On the other hand, some participants expressed the opposite opinion by stressing how little they valued the visual
 282 channel during virtual calls.

283 *“Don’t care to look at myself, and no need to visually see each other when the main reason is to hear voice*
 284 *communications.” (P46)*
 285

286 Finally, a small portion of respondents turn-off their video feed because they find the self-view window distracting
 287 and do not want to be looking at their own reflection during the call.

288 *“Seeing yourself is really distracting ...” (P10)*
 289
 290 *“I do not enjoy seeing what I look like to other people.” (P19)*
 291
 292 *“I get tired of looking at myself and being self-conscious about my expressions and body language.” (P3)*
 293
 294 *“I hate seeing my own face all meeting ...” (P8)*
 295

296 3.3 Self-view Window Preferences

297 Despite some of the negative comments about the self-view window feature, most respondents are comfortable with
 298 the presence of their own visual feedback (56%, 64) and reported finding it only slightly or not distracting at all (60%,
 299 69). However, a considerable 25% (29) of respondents still find it very or fairly distracting. On the other hand, only 12%
 300 (14) reported having a strong negative opinion when it came to their comfort levels with the self-view window (see
 301 Figures 2 and 3).
 302

303 However, the perceived importance of the self-view window shows mixed results (see Figure 4). 38% (44) reported
 304 that they found the self-view window of only slight or no importance at all. 28% (32) believe its presence is important
 305 and 34% (39) are the opinion that it is indeed fairly or very important.
 306

307 Compared to the perceived discomfort, distraction and importance of the self-view window, a surprisingly large
 308 number of respondents leave this feature in its default state (See Figure 1). 55% (63) always leave their self-view on, with
 309 a further 18% (21) having it usually present. 7% (8) reported having their video feedback on about half the time. Only
 310 20% (23) reported preferring to turn off their self-view window. However, this might include cases when the self-view
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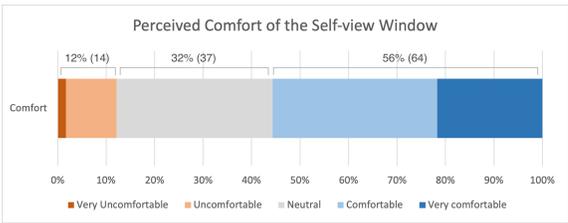


Fig. 2. Perceived comfort of the self-view window

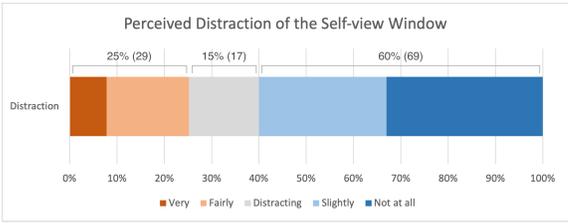


Fig. 3. Perceived distraction of the self-view window

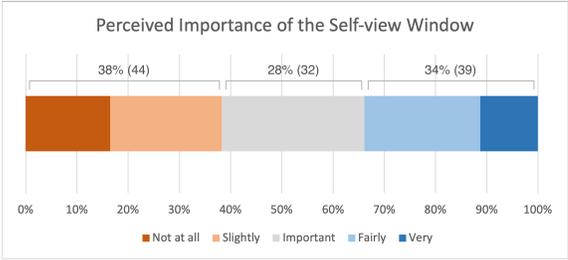


Fig. 4. Perceived importance of the self-view window

window is not present due to the camera being turned off, suggesting that only a very small subset of our respondents make an active effort to disable their self-view window while still projecting their video feed to other meeting attendees.

A reasonable explanation for why the majority of respondents reported leaving the self-view window on is that many reported not knowing that it was possible to turn the self-view window off while still sharing their video with others on the call. This was one of the most mentioned reasons for leaving self-view window on. For example, P20 stated *“I did not know you could do that might be doing it from now on!”*

In contrast, many of our survey respondents reported that they leave their self-view on because they find it important to know how other people see them. They use it to check up on their appearance, environment, camera angle and lighting. According to one respondent, *“it’s easy to look not good in video calls”* (P42) and therefore it is useful to have an *“easy self-check when you need it”* (P16).

“I like to check how other people on the call see me and make sure they do not see things I do not want them to see (me playing on my phone, my messy room or me wearing pyjama bottoms)” (P43)

365 *“It’s nice to see what exact angle my camera is facing. What if there is a light reflection/glare effecting my*
 366 *presence on camera? It’s nice to be able to adjust based on the picture others are seeing.” (P25)*

367
 368 *“I like to make sure, I can see what my attendees can see. What if I had a booger...the horror!” (P45)*

369 In most of these answers there is an underlying fear that there might be something wrong with the way they are
 370 presenting themselves to others on camera. Some explicitly expressed these feelings and attempted to explain them as
 371 follows:
 372

373 *“It makes absolutely no sense because I don’t carry a mirror with me when I speak with people in-person,*
 374 *but I just feel uncomfortable when I’m on a call and I can’t see self-view. . .” (P106)*

375
 376 *“Honestly I’m not too sure. As self-conscious as I am about how I look, the idea of not knowing somehow*
 377 *makes me more paranoid.” (P3)*

378
 379 *“Helps alleviate uncertainty about my appearance, but also makes me more aware of it and it is a distraction.”*
 380 *(P40)*

381
 382 It is therefore reasonable to conclude that for most respondents the self-view window acts as a reminder that they
 383 are on camera, which prevents them from embarrassments and inappropriate behaviour.

384 Besides this reason, some mentioned that the self-view window helps them monitor their reactions and control
 385 impressions.
 386

387 *“I like to see how others are seeing me. During meetings I want to project confidence and competence. Being*
 388 *able to see myself during the meeting gives me a good gauge for what kind of persona I am projecting. . .”*
 389 *(P59)*

390
 391 *“It’s interesting to see my reactions. I realize I do not have a very good poker face.” (P86)*

392
 393 Finally, some of our participants reported that having the self-view window visible helped them to focus better on
 394 the meeting: (*“I think looking at myself will help me become more focused.”* – P12) and confident (*“Feel more confident*
 395 *speaking if I can see my video feed.”* – P112)
 396

397 On the other hand, those who typically turn their self-view window off justified their preference by stating that its
 398 presence prevents them from focusing on other video call attendees.
 399

400 *“I find it distracting to constantly be confronted with the sight of my own face on my screen while I am trying*
 401 *to focus on other people. I also feel self-conscious and uncomfortable about it whenever I do accidentally*
 402 *catch sight of myself, so keeping the self-view window off allows me to avoid that.” (P98)*
 403

404 Some said they turn the self-view window off because they prefer fitting more people on the screen. For example,
 405 P104 said *“Limited number of participants can show in the gallery view when someone is screen sharing. I’d rather not*
 406 *waste a spot for myself.”* Some simply do not want to keep looking at themselves (*“I am not interested in looking at*
 407 *myself when I am speaking/listening”* – P47). Finally, a few stated that they find the self-view window useful only at the
 408 beginning of the call.
 409

410
 411 *“I will be shown how my screen looks when I join the call, and I don’t need to keep viewing it after that.”*
 412 *(P74)*

413
 414 *“... Realistically, I think I only really need self-view at the beginning of the meeting to make sure I’m clearly*
 415 *visible and that my background is not distracting.” (P58)*
 416

3.4 Multitasking and Looking at Self

According to their own judgement, our respondents spend a considerable amount of time engaging in activities that distracts their attention from the video call (see Figure 5). 57% (66) said they engage in frequent multitasking behaviour and a further 32% (37) admitted to occasionally engage in other side-activities. Only 10% (12) stated that they rarely or never multitask. Similar results are shown for the frequency of self-observing behaviour, with 44% (51) looking at themselves very frequently or frequently, 38% (44) occasionally and 17% (20) rarely, very rarely or never.

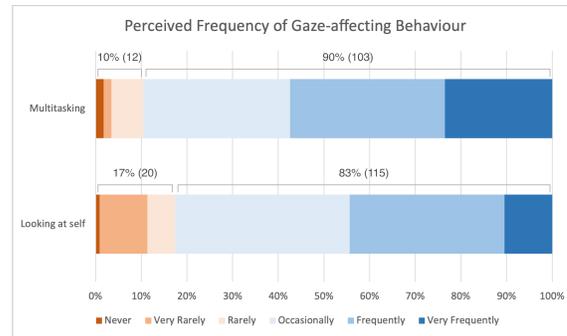


Fig. 5. Perceived frequency of gaze-affecting behaviour

The most common side-activities include checking or replying to email, sending messages to colleagues, engaging in work-related or call-related tasks, note-taking, and web-browsing. A few also mentioned using their phone, checking the news or social media sites, eating, and doing household chores.

When we asked our participants to explain the main reasons behind looking at themselves, apart from the already mentioned appearance checks and attempts to avoid embarrassments, many could not clearly explain this commonly occurring phenomenon. It was often described as a “reflex” (P7, P76), something that “happens unconsciously, like looking in a mirror” (P95). Others attributed this naturally occurring act to vanity (“I just look so good :)” – P34) and boredom.

“I think this is a natural reaction, I can’t really help it, or explain it. My best attempt to verbalise my reasons is that it’s a somewhat self-regulatory action to make sure I am not looking silly.” (P11)

“Again, I’m not really sure, maybe because like most people I’m slightly self-obsessed.” (P106)

A few of our survey respondents reported that they tend to look at themselves when they are speaking in a meeting:

“Not on purpose, but my eye is drawn there, particularly when I speak. I use my hands a lot, and I guess the movement of my hands draws my attention. Not intending to, just end up doing it.” (P97)

“I find it easier to articulate a point if I can see myself forming the words.” (P26)

4 DISCUSSION

Our findings confirmed that the proficiency and usage patterns of videoconferencing tools have drastically changed over the years. Compared to De Vasconcelos Filho et al.’s [6] study in which 79% of participants reported using video-mediated communication rarely or never, only one participant of our study reported not being a daily user of videoconferencing tools. Video-mediated communication tools, such as Zoom, currently dominates many aspects of our lives, being used for not only professional and work reasons, but also for social, education, and health and well-being purposes.

469 The preferences of the videoconferencing layout vary depending on the context of the meeting, with the speaker
470 view (i.e., the person speaking is the largest) being chosen for large meetings with a single key presenter, and the
471 grid view (i.e., all meeting attendees are of equal size, aligned on a grid) being preferred for social calls and meetings
472 requiring collaboration. However, overall grid view scored higher compared to speaker view. This is surprising given
473 Baym et al. [4] found the layout is causing stress and requires higher concentration due to having to focus on many
474 personas at once. Nevertheless, our results show that people prefer this setup because it allows them to gauge the
475 interest levels of the audience and feels more realistic. What is more, the speaker view can be as much if not more
476 distracting due to its constantly changing nature. It is worth noting that Teams’ new layout, “Together Mode”, holds the
477 promise of overcoming some of the existing setups’ shortcomings [4].
478
479

480 Despite previous research showing that people are becoming more and more reluctant to turn their cameras on
481 during virtual calls [4], our results show that only a few of our respondents reported that they would routinely turn
482 their video camera off during online meetings. However, for those participants that did report turning their camera
483 off during meetings, the reasons for doing this were consistent with those reported previously [4], and included: the
484 desire to multitask, not wanting to be seen on camera eating, other participants having it off, having to look constantly
485 attentive and presentable, wanting to move away from desk, connection issues, concerns over the background, and not
486 wanting to look at themselves. The presence of the video seems to be important mainly for maintaining connections
487 rather than improving communication.
488
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490 Our results regarding the perceived importance, comfort, and distraction of the self-view window are consistent with
491 previous research from way back in 2009 [6]. Despite it being conducted more than 10 years ago, we found consistent
492 results in that most people are still comfortable with the presence of their own visual feedback and find it only slightly
493 or not distracting at all. However, the perceived importance of the self-view window showed mixed results. A few
494 have mentioned that they found the self-view window important only at the beginning of the call. We would have
495 expected this answer to be more prominent based on previous research that found that 55% of glances to self occur in
496 the first minute of the call [6]. Given the variety of opinions about the importance of the self-view window and that
497 a considerable number of people still find it distracting, this finding would suggest that it is not simply a matter of
498 getting used to one’s visual feedback over time, but that there are indeed individual differences worth investigating.
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501 We found that only a very small number of users make an active effort to disable their self-view window while
502 still projecting their video feed to other meeting attendees. For most, the self-view window acts as an easy self-check,
503 providing a sense of security and as a reminder of one’s manners in front of the camera. Surprisingly however, many of
504 our participants reported that they did not know that it was even possible to turn the self-view window off while still
505 sharing their video with others. While it is the case that some videoconferencing tools do not provide the ability to hide
506 the self-view window (e.g., Teams, Skype), other tools do give this option; albeit making it rather difficult to access (e.g.,
507 Zoom). While most people do not mind the presence of the self-view window, some reported that looking at themselves
508 during a meeting was not desirable as it prevents them from focusing on other video call attendees. It is therefore
509 questionable why videoconferencing tools do not make the option to hide the self-view window more readily available.
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512 Consistent with previous research [4], our participants reported spending a considerable amount of time engaging in
513 activities that distract their attention from the video call, both multitasking and looking at themselves. The most common
514 multitasking activities were checking or replying to emails, sending messages to colleagues, engaging in work-related
515 or call-related tasks, note-taking, and web-browsing. Interestingly, looking at one’s self-image was often described as
516 reflexive — something that happens unconsciously, like looking in a mirror. This suggests that the self-reported metrics
517 might underestimate the actual self-observing behaviour. A few particularly self-conscious and attentive individuals
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521 have noticed that they tend to look at themselves mainly when speaking, but it is unclear whether this is a general
522 pattern or not.
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524 5 CONCLUSION

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526 The paper reported the results of a survey about people’s videoconferencing tool preferences. It was found that most
527 people prefer to leave the self-view window on to ensure there is nothing wrong with the way they are presented. In
528 fact, the absence of the visual self-check can increase the feelings of discomfort and worry. However, many reported
529 having it there due to not being aware of the possibility to turn it off. Given some still find the self-view window
530 distracting, even after spending extensive amount of time on video calls during the pandemic, these results suggest
531 that it is not simply a matter of getting used to one’s visual feedback over time, but that there are indeed individual
532 differences worth investigating. The fact that looking at one’s self-image was often described as something that happens
533 unconsciously, suggests that the self-reported metrics might underestimate the actual self-observing behaviour, and its
534 investigation requires an empirical approach.
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543 REFERENCES

- 544
545 [1] Yoana Ahmetoglu, Duncan P. Brumby, and Anna L. Cox. 2021. Disengaged From Planning During the Lockdown? An Interview Study in an
546 Academic Setting. *IEEE Pervasive Computing* 20, 4 (2021), 18–25. <https://doi.org/10.1109/MPRV.2021.3118900>
- 547 [2] Omer Azriel, Amit Lazarov, Adva Segal, and Yair Bar-Haim. 2020. Visual attention patterns during online video-mediated interaction in socially
548 anxious individuals. *Journal of Behavior Therapy and Experimental Psychiatry* 69 (2020), 101595. <https://doi.org/10.1016/j.jbtep.2020.101595>
- 549 [3] Karolína Balogová. 2021. *Looking At Yourself on Zoom*. Master’s thesis. University College London, London, UK. [https://uclic.ucl.ac.uk/content/2-](https://uclic.ucl.ac.uk/content/2-study/4-current-taught-course/1-distinction-projects/15-21/balogova_karolina_2021.pdf)
550 [study/4-current-taught-course/1-distinction-projects/15-21/balogova_karolina_2021.pdf](https://uclic.ucl.ac.uk/content/2-study/4-current-taught-course/1-distinction-projects/15-21/balogova_karolina_2021.pdf)
- 551 [4] Nancy Baym, Rachel Bergmann, Adam Coleman, Ricardo Reyna Fernandez, Sean Rintel, Abigail Sellen, and Tiffany Smith. 2021. *Collaboration and*
552 *Meetings - Chapter 1 of the 2021 New Future of Work report*. Microsoft. [https://www.microsoft.com/en-us/research/publication/collaboration-and-](https://www.microsoft.com/en-us/research/publication/collaboration-and-meetings/)
553 [meetings/](https://www.microsoft.com/en-us/research/publication/collaboration-and-meetings/)
- 554 [5] Hancheng Cao, Chia-Jung Lee, Shamsi Iqbal, Mary Czerwinski, Priscilla N Y Wong, Sean Rintel, Brent Hecht, Jaime Teevan, and Longqi Yang.
555 2021. Large Scale Analysis of Multitasking Behavior During Remote Meetings. In *Proceedings of the 2021 CHI Conference on Human Factors*
556 *in Computing Systems* (Yokohama, Japan) (CHI ’21). Association for Computing Machinery, New York, NY, USA, Article 448, 13 pages. <https://doi.org/10.1145/3411764.3445243>
- 557 [6] Jose Eurico de Vasconcelos Filho, Kori M. Inkpen, and Mary Czerwinski. 2009. Image, Appearance and Vanity in the Use of Media Spaces and Video
558 Conference Systems. In *Proceedings of the ACM 2009 International Conference on Supporting Group Work* (Sanibel Island, Florida, USA) (GROUP ’09).
559 Association for Computing Machinery, New York, NY, USA, 253–262. <https://doi.org/10.1145/1531674.1531712>
- 560 [7] Martin D. Hassell and John L. Cotton. 2017. Some things are better left unseen: Toward more effective communication and team performance in
561 video-mediated interactions. *Computers in Human Behavior* 73 (2017), 200–208. <https://doi.org/10.1016/j.chb.2017.03.039>
- 562 [8] Mansoor Iqbal. 2022. *Zoom Revenue and Usage Statistics (2022)*. Retrieved March 4, 2022 from <https://www.businessofapps.com/data/zoom-statistics/>
- 563 [9] Matthew K. Miller, Martin Johannes Dechant, and Regan L. Mandryk. 2021. Meeting You, Seeing Me: The Role of Social Anxiety, Visual
564 Feedback, and Interface Layout in a Get-to-Know-You Task via Video Chat.. In *Proceedings of the 2021 CHI Conference on Human Factors in*
565 *Computing Systems* (Yokohama, Japan) (CHI ’21). Association for Computing Machinery, New York, NY, USA, Article 339, 14 pages. <https://doi.org/10.1145/3411764.3445664>
- 566 [10] Matthew K. Miller, Regan L. Mandryk, Max V. Birk, Ansgar E. Depping, and Tushita Patel. 2017. Through the Looking Glass: The Effects of Feedback on
567 Self-Awareness and Conversational Behaviour during Video Chat. In *Proceedings of the 2017 CHI Conference on Human Factors in Computing Systems*
568 (Denver, Colorado, USA) (CHI ’17). Association for Computing Machinery, New York, NY, USA, 5271–5283. <https://doi.org/10.1145/3025453.3025548>
- 569 [11] Joseph W. Newbold, Anna Rudnicka, David Cook, Marta E. Cecchinato, Sandy JJ. Gould, and Anna L. Cox. 2021. The new normals of work:
570 a framework for understanding responses to disruptions created by new futures of work. *Human-Computer Interaction* (2021), 1–24. <https://doi.org/10.1080/07370024.2021.1982391>
571
572

- 573 [12] Mark Powers and Jasminder Thind. 2020. *Lessons from China: A return to the office, but not to the old way of working*. Retrieved March 4, 2022 from
574 <https://workplaceinsights.microsoft.com/workplace-analytics/lessons-from-china-a-return-to-the-office-but-not-to-the-old-way-of-working/>
575 [13] Jaime Teevan. 2021. *The New Future of Work: Research from Microsoft into the Pandemic's Impact on Work Practices*. Retrieved March 4, 2022 from
576 <http://teevan.org/publications/papers/msr21-nfw.pdf>
577 [14] Thomaz Teodorovicz, Raffaella Sadun, Andrew L. Kun, and Orit Shaer. 2021. How does working from home during COVID-19 affect what managers
578 do? Evidence from time-Use studies. *Human-Computer Interaction* (2021), 1–26. <https://doi.org/10.1080/07370024.2021.1987908>
579 [15] Noortje Vriends, Yasemin Meral, Javier A. Bargas-Avila, Christina Stadler, and Susan M. Bögels. 2017. How do I look? Self-focused attention during
580 a video chat of women with social anxiety (disorder). *Behaviour Research and Therapy* 92 (2017), 77–86. <https://doi.org/10.1016/j.brat.2017.02.008>
581 [16] Jürgen Wegge. 2006. Communication via Videoconference: Emotional and Cognitive Consequences of Affective Personality Dispositions, Seeing
582 One's Own Picture and Disturbing Events. *Human-Computer Interaction* 21, 3 (sep 2006), 273–318. https://doi.org/10.1207/s15327051hci2103_1
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