

Understanding Instagram's Deep Dive into Teen Mental Health

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This paper considers the 'Teen Mental Health Deep Dive' slide set created by staff at Instagram in 2019 to present results from internal research and later released publicly along with annotations. The slide set was initially highlighted by the Wall Street Journal in an article focusing on claims within the slide set that use of Instagram was having a negative impact on teen mental health, especially that social comparison, afforded by features central to the Instagram app, was negatively affecting the mental health of young people. Our goal within this paper was to summarise the content of the slide set from an academic perspective and consider whether the content of the slides provide any insights which are valuable to the HCI community. While the results and conclusions presented within the slides have clear limitations, they did help us identify a set of issues and areas for further investigation.

HCI. Design. Instagram. Social Media. Teenagers. Adolescents. Wellbeing. Mental Health.

1. INTRODUCTION

In 2019, staff at Instagram created a 'Teen Mental Health Deep Dive' slide set¹ which presented findings from internal research the company had conducted to gain insights into teen (adolescent) mental health, and on how mental health may be influenced by Instagram use. The findings contained in the slides were initially discussed in an article in the Wall Street Journal² which was then picked up in similar stories by most other news outlets. The focus of the media attention was on what Instagram should do about claims within the slide set that the use of Instagram was having a negative impact on mental health, specifically the mental health of young women and girls. The slides were later released publicly along with a commentary by Meta (Instagram's parent company, formerly known as Facebook) that added context to the data. In November 2021 state attorneys in the US opened an investigation into Meta, currently still ongoing, on the basis that the company have knowingly failed to address the potentially negative impact that use of Instagram has on young people. Our goal within this paper is to summarise the content of the slide set from an academic perspective and consider whether the contents of the slides provide any insights which are valuable to the HCI community.

In the following sections we firstly summarise key issues relating to teen mental health, next we provide a summary of the slide set. We then discuss four key 'takeaways' from the slides in relation to prior research, and finally discuss emerging issues.

2. TEEN MENTAL HEALTH

The use of social media by teenagers in the developed world is pervasive. As early as 2016, studies with teens in the UK reported that 97% of participants used social media (Woods & Scott, 2016) and similar statistics are reported in more recent literature in relation to US and UK teens (Shankleman, Hammond & Jones, 2021). While some studies have shown that social media can have a positive impact on teens by providing access to positive content and increasing social connectedness (e.g., (Allen et al., 2014; Radovic et al., 2017)), much work has highlighted the negative impact social media use can have on teen mental health and wellbeing (e.g., (Twenge et al., 2017; Keyes et al., 2019; Woods & Scott, 2016; O'Reilly et al., 2018)). Teenagers are a particularly important group to study as adolescence (13-18 years) is a period of increased vulnerability to anxiety, depression (McLaughlin & King, 2015) and low self-

¹ Available at <https://about.fb.com/wp-content/uploads/2021/09/Instagram-Teen-Annotated-Research-Deck-2.pdf>

² Available at <https://www.wsj.com/articles/facebook-knows-instagram-is-toxic-for-teen-girls-company-documents-show-11631620739>

esteem (Orth, Maes & Schmitt, 2015). Teens will also potentially encounter wellbeing issues through social media usage that align with important developmental processes during adolescence (Shankleman, Hammond & Jones, 2021). Key problems associated with social media use include poor sleep quality (Woods & Scott, 2016), increased depressive symptoms (Twenge et al., 2017), bullying (O'Reilly et al., 2018; Shankleman, Hammond & Jones, 2021), obstructed academic learning (Shankleman, Hammond & Jones, 2021), negative mood (O'Reilly et al., 2018; Shankleman, Hammond & Jones, 2021), and negative body image (Holland & Tiggemann, 2016; Fardouly & Vartanian, 2016; Tiggemann & Slater, 2013). The issue of negative body image in the context of teen social media use has been considered extensively in prior work outside of the HCI community; key factors noted include the prevalence of unattainable body ideals (Dohnt & Tiggemann, 2006), social comparison with models/celebrities and same-sex peers (Jones, 2001), and self-objectification leading to body surveillance (Salomon & Brown, 2018; Holland & Tiggemann, 2016). Self-objectification refers to internalized notions of an individual's body being valued through its 'consumption' by others, leading to the individual adopting the role of the observer toward their own bodies (Salomon & Brown, 2018; Fredrickson & Roberts, 2016) which can lead to body surveillance (continual monitoring of the body's external appearance). Posting 'selfies' on social media to trigger a reaction of likes and comments from others can be considered a form of body surveillance (Butkowski, Dixon & Weeks, 2019; Salomon & Brown, 2018).

3. TEEN MENTAL HEALTH DEEP DIVE ON INSTAGRAM

Instagram is a photo-centric social media platform initially released as a mobile application in 2010.

Users of Instagram create 'posts' consisting of photos or videos with associated text commentary including hashtags. Posts are visible to others who can add textual comments and 'like' them. A key feature of the application is a user's 'Feed', this is an endlessly scrollable list showing adverts and posts from other Instagram users. Instagram users can choose to 'follow' each other in which case the user's Feed is populated with posts (and associated comments) from those they follow. Another key feature is the 'Explore Page' which provides functionality to search for other Instagram users and subsequently displays a large scrollable area comprised of photos and videos from posts from other Instagram users which the user does not currently follow. Accounts can be public, meaning content published is accessible to anyone even if they don't have an Instagram account, or private, where only approved followers can view posts. Instagram users can send private direct messages known as DMs to each other, and can mute, restrict, block, or unfollow other users. Instagram also allows its users to communicate through photo and video compilations called 'Stories' which disappear after 24 hours. Each user's Feed and Explore Pages are populated using algorithms. Usage of Instagram is known to focus more on self-presentation and promotion than other social media platforms (Dumas et al., 2017) through posting of 'selfies' (which may have filters or other types of editing applied).

In the remainder of this section we firstly summarise the annotated slide set released by Meta, we then consider in more detail the key themes within the slide set that we see as most relevant to the HCI community alongside related academic prior work.

3.1 Understanding the Slide Set

The set consists of 66 slides with 55 of these presenting content through text and/or figures. Each slide contains an annotation added by Facebook

FACEBOOK ANNOTATION

The conclusions represented on this slide are based on discussions with 40 individuals who reported having negative experiences (see comment to slide 3). The slide was not intended to be representative of the experience of all teens, but was designed to help Instagram teams brainstorm and develop new ideas for helping people who are struggling; the study was designed to understand their feelings and perspective.

This research was not intended to (and does not) evaluate causal claims between Instagram and health or well-being.

Teens blame Instagram for increases in the rates of anxiety and depression among teens

- This reaction was unprompted and consistent across all groups
- Constant comparison on Instagram is "the reason" why there are higher levels of anxiety and depression in young people
- Social comparison and perfectionism are nothing new, but young people are dealing with this on an unprecedented scale.
- The proliferation of new and different ways to compare themselves to others, combined with constant access to means that there is no way to escape social comparison on IG.
- For both boys and girls, this was called out as being the number one reason why IG is worse than other platforms for mental health. And, young people openly attribute their increased level of anxiety and depression to Instagram.

*"The reason why our generation is so messed up and has higher anxiety and depression than our parents is because we have to deal with social media. Everyone feels like they have to be perfect."
- UK Female*

Figure 1: Example of Slides with Annotation (Slide 24)

FACEBOOK ANNOTATION

The headline should be clarified to be: "Teens who have lower life satisfaction more likely to say Instagram makes their mental health or the way they feel about themselves worse than teens who are satisfied with their lives."

The bullet points on the left were not evaluated or tested in the survey. These should be taken either as hypotheses that need tested and validated or summaries of interviews with people who were recruited because they had bad experiences (see comment on slide 3 regarding background on the qualitative study). They should not be interpreted as applying to all teens or all Instagram users.

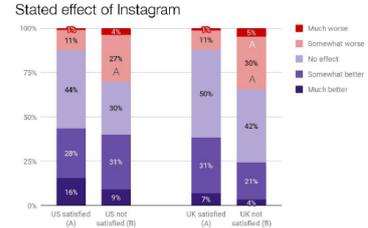
The quantitative results in this slide was generated similarly to slide 18. While this slide focuses on Instagram, slide 18 shows that teens who are struggling have different experiences in all aspects of their life, not just social media.

The "effect" here is based on a self-reported perceptions. Teens who are not satisfied may be more likely to believe IG has a negative effect.

This research was not intended to (and does not) evaluate causal claims between Instagram and health or well-being.

Teens who struggle with mental health say Instagram makes it worse

- Young people are acutely aware that Instagram can be bad for their mental health, yet are compelled to spend time on the app for fear of missing out on cultural and social trends.
- Teens specifically call out the following as ways that Instagram harms their mental health:
 - pressure to conform to social stereotypes
 - pressure to match the money and body shapes of influencers
 - the need for validation -- views, likes, followers
 - friendship conflicts, bullying, and hate speech
 - over-sexualization of girls
 - inappropriate advertisements targeted to vulnerable groups



Q: In general, how has Instagram affected (the way you feel about yourself/your mental health)?
*There were no statistically significant differences among those who answered for "the way you feel about yourself" and those who answered for "your mental health"
 US n = 1298, UK n = 1338

Figure 2: Example of Slides with Annotation (Slide 25)

(now Meta) prior to the slides being released publicly, these annotations mostly point out additional detail that is not on the slide (e.g. from Figure 1 "The conclusions represented on this slide are based on discussions with 40 individuals who reported having negative experiences") or provide guidance on how information should be interpreted (e.g. from Figure 2 "This research was not intended to (and does not) evaluate causal claims between Instagram and health or well-being.").

The slides open by stating that "Market Research" was conducted to explore two aims articulated as; "to understand how teenagers talk about mental health" and "to get a new understanding of how teenagers feel Instagram affects their mental health". The same slide lists two goals of the work which are succinctly articulated in the accompanying annotation which reads; "The overarching goal was to help product and policy". When reporting insights from the slides we use direct quotes when details are unclear.

Participants were recruited from both the UK and the US with 1221 from the US and 1282 from the UK taking part in an online survey, it appears that the

condition for inclusion or selection was that they used Instagram at least monthly. In addition, in-person focus groups, that lasted for around 2 hours, were carried out in London and Los Angeles with 40 teens aged 13–17 years to provide "regional representation". It appears that there may have been some recruitment criteria around experience of negative themes including "body image, self-esteem, negative mood, depression, loneliness, isolation" but specifics are not given. Eight participants from the focus groups then participated in a one hour follow-up video call.

Details of the procedure used in each of the three studies are not included in the slides or annotation. The slides reference over 40 questions which were used in the online survey and the scales used to respond can be derived in some cases from the annotations and visualisations. Most of the slides give the number of responses to a question which shows a generally high completion rate. It is evident that participants did not answer all the questions and some questions had quite low response rates, as an example slide 6 has the question "In your own words, please tell us what 'Mental health' means"

Takeaway	Section Title	Slides	Relevance to HCI
"3. Teens say Instagram has a positive impact on their mental health, but those who are unsatisfied with their lives are more negatively affected by the app."	"The effect of Instagram depends on teens' subjective well-being"	8 (20-27)	Positive influence of social media use on teen wellbeing
"4. Harm on Instagram falls into three major categories: social comparison, social pressure, and negative interaction with other people."	"Three categories of harm on Instagram"	9 (29-37)	Negative influence of social media use on teen wellbeing
"6. Product suggestions include personalized Explore and Feed, better time spent tools, and opting out of personally triggering ad categories."	"Product Suggestions: Personal and custom"	3 (48-50)	Design ideas for teen wellbeing (social media)
"7. Outreach suggestions include a page about feeling good about yourself, content to help teens talk about these issues, and parents education."	"Outreach suggestions: Make it easier to talk"	13 (52-64)	Design ideas for teen wellbeing (general)

Table 1: Takeaways from the Slide Set

FACEBOOK ANNOTATION

This is a summary of findings later in the deck, and there are further annotations on the specific slides in the deck.

Some of these findings are based on the survey and some on the qualitative studies. This is important because these studies were done on different populations and have different levels of generalizability. Moreover, all results are based entirely on the perceptions of participants and are not designed to evaluate causal claims between Instagram and health/well-being.

At Facebook and Instagram, such research reports are often shared live in "read-outs" with teams where there is shorthand, shared understandings, and the opportunity to discuss. Such readouts often focus on potential areas of improvement from a user experience perspective and discuss implications (including limitations of the study and conclusions) with others.

Instead of providing definitive conclusions, summary slides like this are often used to organize discussions and help teams prioritize and ask questions.

Each of these points refer to a heading in one of the parts of the deck below (one section was hidden from sharing in the readout).

Note that in Point 2, the one in five statistic is for the United Kingdom and not the U.S. Point 3 is based on self-reports whereby those who are unsatisfied with their lives are more likely to believe IG has a negative effect on their mental health. This is consistent with external research that suggests users of social media perceive it as positive or negative conditional on what else is going on in their lives.

Seven key takeaways

1. Teens generally agree on the definition of mental health, what issues fall into the category of mental health, and the language to describe feeling unwell.
2. 82% of teens have felt at least one emotional issue in the past month. One in five has thought about suicide or self-injury.
3. Teens say Instagram has had a positive impact on their mental health, but those who are unsatisfied with their lives are more negatively affected by the app.
4. Harm on Instagram falls into three major categories: social comparison, social pressure, and negative interactions with other people.
5. Teens feel they have to cope alone, but they want help.
6. Product suggestions include personalized Explore and Feed, better time spent tools, and opting out of personally triggering ad categories.
7. Outreach suggestions include a page about feeling good about yourself, content to help teens talk about these issues, and parents education.

ORIGINAL RESEARCH

Figure 3: The seven key takeaways (Slide 4)

which had only 679 responses from US participants and 658 from UK participants (53% response rate). Quantitative results from responses are presented on the slides in a range of different styles of bar charts annotated with totals and percentages and often broken down by country. It is sometimes unclear how participant response data has been used to generate the charts, for example slides 21, 22 and 25 present the results of two separate (but similar) questions combined into single bar charts with no detail on the slides or annotations as to how this was achieved.

The slide set is organized into eight subsections aligned with seven "key takeaways" that are the heart of the research (see Figure 3); the slides within each section are used to highlight relevant results and conclusions. In Table 1 we list the four takeaways that we consider most pertinent to the

HCI community along with what we perceive to be their key relevance in this context. In the following sections we discuss content from the slide set that informs the four takeaways along with related work from the HCI community.

3.2 Positive influence of social media use on teen wellbeing (Takeaway 3)

For this section, the content of the slide deck focused initially on the aspects of Instagram use which may have a positive influence on wellbeing. This links primarily to communicating with friends/family and accessing entertaining/humorous content. The thematic map shown in Figure 4, from (Shankleman, Hammond & Jones, 2021) highlights four key adolescent developmental areas along with both positive and negative aspects of social media use. Most relevant here are the Connections and

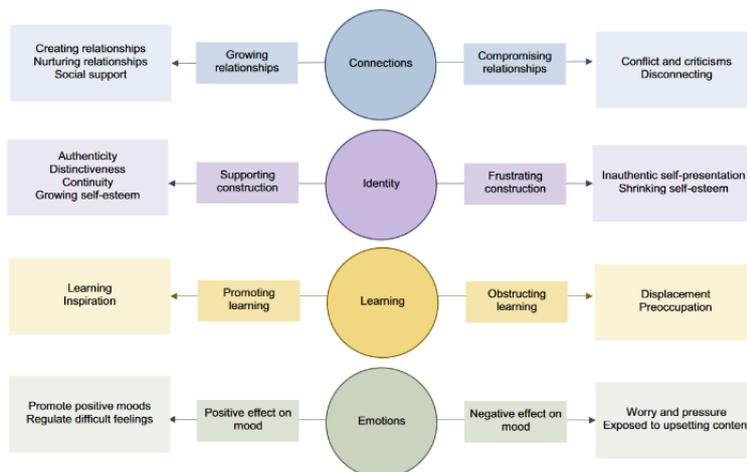


Figure 4: Thematic map relating wellbeing issues on social media to areas of adolescent development from (Shankleman, Hammond & Jones, 2021)

Emotions themes which potentially support the conclusions shown in the slides. Other examples mentioned in the slides relate to finding information on events, gaining a wider world view, and pursuing personal passions.

Work within the HCI community has primarily focused on the value of peer-related social aspects within technologies targeting teen wellbeing. For example, (Ma et al., 2019) provides a systematic review of design interventions promoting teen physical activity, physical activity being a component of wellbeing, in which 14 of the 25 papers analysed included some aspect of social interaction, social inclusion, or social support/influence. Digital peer support was also identified as a key theme within a review of IDC (Interaction Design and Children) literature focusing on wellbeing in relation to overweight issues which included ages 7-19 (Høiset & van Mechelen, 2017). Within the wider HCI community previous work has shown that social support provided through technology can help enable success in interventions focusing on increasing exercise with teen participants both in small (Miller & Mynatt, 2014) and larger groups (Poole et al., 2013). Work focused on online wellbeing for younger social media users (aged 12-14) (Charmaraman & Delcourt, 2021) has also identified positive themes around social media use which appear to align with those in the slide set, including finding communities of interest, maintaining friend circles, strengthening family bonds during the COVID-19 pandemic, and seeking positive content to boost mood. Other work in the HCI community related to teen wellbeing has highlighted the importance of using social media as a reference point in design work, for example in (Vacca, 2019) Latina teens re-designed existing social media platforms to improve communication with caregivers in order to support emotional health.

3.3 Negative issues within teen social media use – Takeaway 4

The slides in this section identified three categories of harm:

- “Impact from comparisons with others” – General comparison with others including of popularity using Instagram platform metrics (numbers of follower, likes etc.)
- “Impact from pressure of looks/ behaviors” – pressure to look a certain way (social comparison) and act in ways normalized by others (“be public about everything”, “always be happy”).
- “Impact from others’ behavior’ – Bullying and “friendship conflict”.

The first two categories are related to the impact of social media use within sociocultural and developmental contexts, this has been studied extensively within the field of psychology and was summarised earlier in Section 2. The topic of harm in the context of social media aligns with the wider topic of online safety (Hartikainen, Iivari & Kinnula, 2016), which is typically discussed in terms of content threats (such as accessing content related to suicide ideation, self-harm or eating disorders (Reid & Weigle, 2014)) and contact threats (such as sexting, cyber bullying or Internet harassment (Reid & Weigle, 2014)).

A review of HCI literature on adolescent online safety in 2017 (Pinter et al., 2017) identified a trend of focusing on understanding risks themselves and argued that future work should focus on the beneficial effects on online interactions through design work. Within the HCI community, work considering online safety and related issues has primarily focused on children 12 years and younger, for example (Sanoubari et al., 2021; Hartikainen, Iivari & Kinnula, 2016; Webster1.2 et al., 2015;

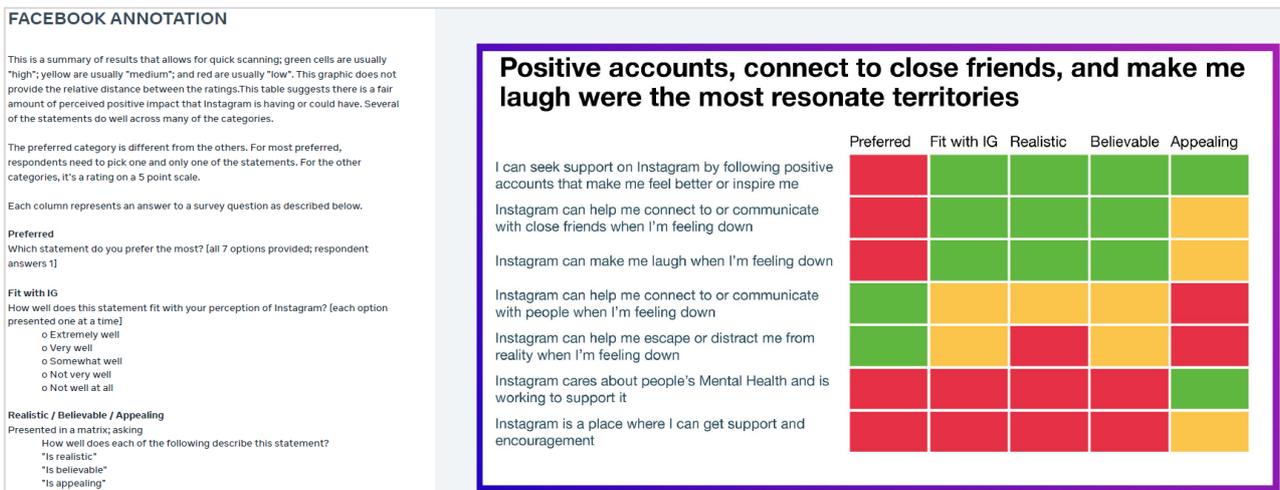


Figure 5: Wellbeing statements and association with Instagram (Slide 57)

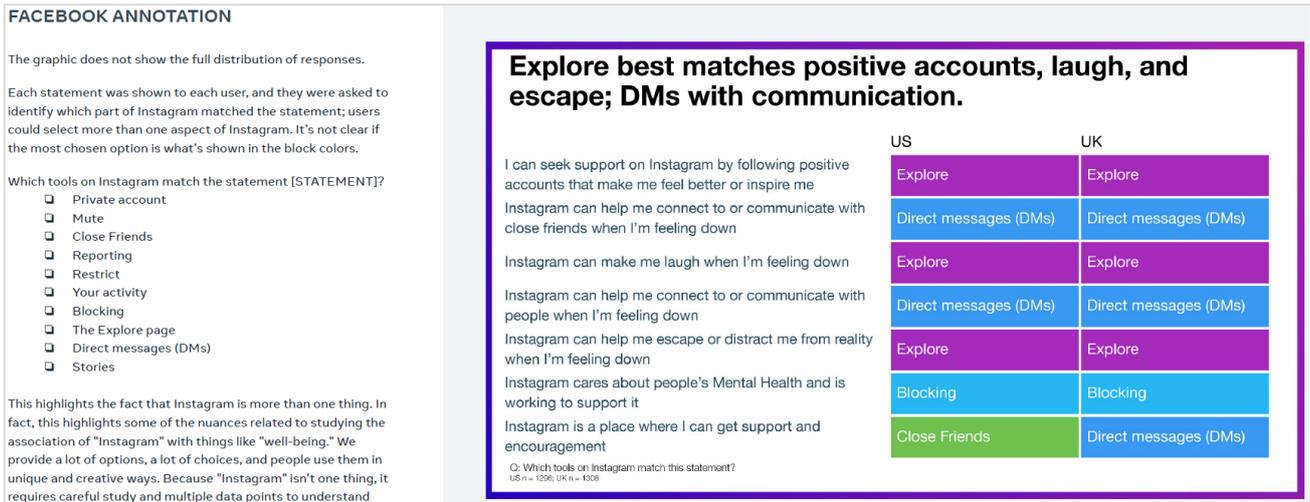


Figure 6: Wellbeing statements and association with Instagram Features (Slide 64)

Badillo-Urquiola et al., 2019). Related work from the wider HCI community includes (Schoenebeck et al., 2021) which explored experiences of social media companies' responses to online harassment with participants aged 14-24 (recruited via Facebook and Instagram). This work found that 41% of participants did not trust social media platforms to achieve fair resolutions for them but, of all the social media companies included in the survey, Instagram was the most trusted to achieve a fair resolution in the event of online bullying or harassment. An interesting finding was that 62% of participants preferred a restorative approach to resolution (an apology from the offender) to a punitive approach.

3.4 Design ideas for teen wellbeing (social media) – Takeaway 6

This is one of the smaller sections of the slide set as it only contains four content slides which link directly to a single survey question "Now you're going to see some things that Instagram could do to help teens. Please select your top 3 for what Instagram should do". The full list of responses are not given but from the slides we can see that these included "Remind ... to take a break", "Encourage ... get off the app", "Recommend positive accounts/influencers", "Help prioritize feed", "Remind people to unfollow accounts", "Help make accounts be for close friends", "Help follow a balance of positive/negative" and "Punish people more for their bad behavior". While a detailed breakdown of results is not provided, the key emergent themes can be summarised as; teens wanting help controlling time spent on Instagram, teens wanting more control of their Feed and Explore pages to protect their wellbeing, and teens wanting bad behaviour to be punished more effectively. The desire to control (reduce) time spent on Instagram is encouraging give the link between time spent on social media and negative consequences (Woods & Scott, 2016;

Shankleman, Hammond & Jones, 2021; Twenge et al., 2017; Salomon & Brown, 2018; Holland & Tiggemann, 2016).

Screen time (and Internet Addiction (Ko et al., 2005)) have received some attention within the HCI community. For example, in (Wisniewski et al., 2015) resilience ("the process of overcoming the negative effects of risk exposure, coping successfully with traumatic experiences, and avoiding the negative trajectories associated with risks" (Fergus & Zimmerman, 2004)) was found to reduce the negative effect of exposure to online risk even when teens showed signs of Internet Addiction. In relation to teens wanting more control over content to protect their wellbeing, this aligns with the work reported in (Charmaraman & Delcourt, 2021) where, through a series of workshops, negative aspects of social media were identified and then used to inform the co-design of prototypes. The issues of dealing with the bad behaviour of others on social media was mentioned within the previous section and, as identified in (Schoenebeck et al., 2021), appears more nuanced than simply focusing on punitive measures.

The slides within this section of the deck focus on features related to wellbeing, the first is a "page about feeling good about yourself" with follow-up questions related to where the information on such a page should come from and what it should contain (each with a predefined list of choices to pick from). A set of seven statements linked to wellbeing on Instagram (shown in Figure 5 and 6) are then used initially to investigate perceptions of Instagram in relation to wellbeing (Figure 5) and match between the statements and current Instagram features. The most 'preferred' statements indicated in the slides were "Instagram can help me connect to or communicate with people when I'm feeling down" and "Instagram can help me escape or distract me from reality when I'm feeling down" (highlighting the

key positive aspects of social media use already discussed in Section 3.2). The question matching statements to features (Figure 6) potentially provides insights into which aspects of the application would be used (or are used) to support different aspects of wellbeing, for example communication when feeling down was via Direct Messages to specific other Instagram users, and seeking of positive/humorous/distracting content was via the Explore Page (which shows photos and videos from posts from other Instagram users which the user does not currently follow). The use of social media for support for wellbeing support potentially creates a tension due to the stigma around mental health problems (Moses, 2009) and perceptions that social media is a place to be “regular” (i.e. not sick) (van der Velden & el Emam, 2013).

In the wider HCI community, participatory design work with adolescents focusing on wellbeing has identified a range of positive roles that technology can play in facilitating communication and interactions with parents or siblings (Bisafar & Parker, 2016). Other work includes studies of games implementing cognitive behavioural therapy for adolescents (Coyle et al., 2011) and tools for symptom tracking for adolescents with mental health problems (Matthews & Doherty, 2011). Within the HCI communality Bhattacharya et al. (Bhattacharya et al., 2019) explored the design of technology to support stress management to support teen wellbeing; findings in that work relate to a range of coping strategies being used to deal with stress, the need for personalized strategies that help develop sense of self, and the need for different types of social support (which may need to be scaffolded).

4. DISCUSSION

The Instagram slide set considered in this work provides insights into how research, with similar goals to that often carried out within the HCI community, is conducted and presented within a large social media organisation. While the rigor and depth of analysis is very difficult to judge from the limited information contained within the slides and associated annotation (unsurprising as it was not targeted at an academic audience), the sections of the slides considered in this paper provided valuable information that can be critiqued against published work. The slides do highlight the value of social media in supporting wellbeing through connection with friends/family along with providing access to positive content in order to boost mood, both of which are supported by prior research. It is perhaps encouraging that the slides identified a desire from adolescents to reduce their Instagram usage. Studies suggest that greater social media usage is associated with poorer mental health and wellbeing (e.g. (Woods & Scott, 2016)) so fulfilling this desire

to reduce usage could potentially have a large positive impact.

While work in the HCI community has already identified, and built upon, the value of digital peer support in health-related aspects of adolescent wellbeing, there is presently an opportunity to explore digital peer support in the context of supporting other aspects of adolescent wellbeing (for example contribution to society, agency, and resilience (Ross et al., 2020)). As identified in Section 2, there are a wide range of negative impacts on teen wellbeing and mental health which can emerge both from social media usage and more generally due to the adolescent development stage; focusing more closely on this area within the HCI community may provide opportunities for positively impacting teen populations through influencing design practitioners and policymakers. Both the slide set and research work discussed in this paper focus almost exclusively on teenagers in the UK and US so there is much scope for studying wellbeing and social media use in a broader range of teen populations (both geographically and socio-economically). Section 3.5 identified further potential areas for investigation, including how wellbeing tools can be integrated into popular social media platforms and, more specifically, what would teenagers expect to find in a “page about feeling good about yourself”? There is also an opportunity to explore the impact of technology design and designer intent in the context of adolescent online risks (e.g., building on work such as (Fitton, Bell & Read, 2021)). The three features identified in Section 3.4 highlight more potentially interesting areas for further work which likely contain inherent tensions, for example teens want help controlling the time spent on Instagram but are unlikely want limits to be imposed on them. Additionally, teens want more control of their Feed and Explore pages to protect their wellbeing but this may necessitate altering the algorithms to populate these with less appealing content.

A key issue not yet discussed in this paper is the difference between the slide set, constructed using findings from market research and likely targeting a general industry audience needing to gain specific insights quickly, and the peer-reviewed work published in academic communities; these represent two ends of a spectrum which fulfil very different requirements. Methodologically there are differences; the approach evident in the slide set regarding design activity involved providing closed sets of pre-constructed options for participants to choose from in a large-scale survey (informed, to a lesser extent, by smaller numbers of follow-up focus groups and follow-up video calls). This method does contrast with the use of participatory-based design workshops which are commonly seen in the HCI community when working with younger users. The advantage to Instagram's approach was that a large

number of teens could be sampled but it is clear that participatory approaches can perhaps drill deeper than is possible in a survey and yield valuable unexpected insights. For example, in the questionnaire, participants may have picked the option "Punish people more for their bad behavior" (Section 3.4) but in Section 3.3 we learn that resolution to online harassment is much more nuanced that it may first appear and so a participatory approach would allow exploration of what punishment, and what bad behaviour, looked like.

There is a well-known 'gap' between HCI research and practice, as practitioners struggle to access academic publications (Colusso et al., 2017), struggle to engage with the content of academic research (Colusso et al., 2017) and are under time pressure to deliver design outputs (Kou & Gray, n.d.). When looking at how the slide deck was constructed, with bold and easy to access results, and much less concern about procedure, it does remind us that results are the parts of our work that change things and that the detail of how we did what we did is primarily to validate our findings. Finding ways to get our results to industry is important if we want to close this gap and enable our work to influence the design of mainstream products.

5. CONCLUSION

This is the first academic paper to consider the Instagram 'Teen Mental Health Deep Dive' slide set, released in 2019, which presented internal research focusing on teens' perception of how Instagram influenced their mental health. While the slides do not provide a complete account of what was done, they do provide insights into how market research is carried out at a large social media company and present a set of interesting insights from teen participants. This paper considered four key takeaways identified in the slides which are pertinent to the HCI community: "Teens say Instagram has a positive impact on their mental health, but those who are unsatisfied with their lives are more negatively affected by the app", "Harm on Instagram falls into three major categories: social comparison, social pressure, and negative interaction with other people", "Product suggestions include personalized Explore and Feed, better time spent tools, and opting out of personally triggering ad categories" and "Outreach suggestions include a page about feeling good about yourself, content to help teens talk about these issues, and parents education." Each of these four takeaways was summarized in relation to information included in the slides and related prior work from the HCI communities. The key contribution of the paper emerged in the discussion section where a range of areas for future work in relation to adolescent wellbeing and social media were identified. We hope this paper will help

raise awareness of both the challenges and opportunities of exploring wellbeing and mental health in the context of teen social media use to help inform future research and practice.

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