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Social Media Vs. Users' Wellbeing and the Role of Personal Factors: A Study on Arab and British Samples

Deniz Cemiloglu[a]*, Sameha Alshakhsi[b]*, Areej Babiker[b]*, Mohammad Naiseh[a], Dena Al-Thani[b], and Raian Ali[b]

[a]Faculty of Science and Technology, Bournemouth University, Poole, UK; [b]College of Science and Engineering, Hamad Bin Khalifa University, Doha, Qatar

ABSTRACT

This article explores the multifaceted relationship between social media use and individual wellbeing (SM-WB). It focuses on personality traits, locus of control, social media competency, and cultural backgrounds. An online survey was conducted with 281 Arabs (141 females) and 281 British (155 females). Analyses revealed significant differences: Arabs exhibited higher belief in social media's positive impact on wellbeing, consistent across various wellbeing dimensions measured through a customized PERMA scale. Regression analysis identified significant predictors of SM-WB—social media competency, conscientiousness, agreeableness, neuroticism, and internal locus of control—for both samples, while females reported higher SM-WB than males. Age was a significant predictor exclusively in the British sample, whereas extraversion predicted SM-WB only in the Arab sample. Qualitative findings regarding future social media design to enhance wellbeing revealed several similarities between samples; however, some themes differed in their specifics, underscoring culture's nuanced impact on social media developmental requirements for improving wellbeing.

KEYWORDS

Social media; wellbeing; digital wellbeing; personality; social media design

1. Introduction

Social media has become a central component of many people's daily lives, with approximately 4.95 billion users, accounting for 61.4% of the global population, actively using these platforms (Statista, 2023a). The pervasive presence of social media has transformed the way people communicate, access information, and engage with the world. This widespread integration raises questions whether social media contribute to individual wellbeing and to what extent and whether such impact applies across different cultural frameworks.

Existing literature focused on the potentially adverse effects of social media on wellbeing. For example, studies reported that social media use is associated with depression, anxiety, and stress (Hylkilä et al., 2023; Stănculescu & Griffiths, 2024; Valkenburg, 2022), lower happiness levels (Çiftci & Yıldız, 2023; Twigg et al., 2020), distress (Quynh Ho & Nguyen, 2023), social anxiety and anxious attachment (Lee-Won et al., 2015; Stănculescu & Griffiths, 2022), lower social connectedness (Savci et al., 2022; Stubbs et al., 2022), lower social support (Truzoli et al., 2023), heightened narcissistic self-focus (Casale & Banchi, 2020), and lower live satisfaction (Kross et al., 2013, 2021). However, several studies suggested that social media can increase users' sense of connectedness with others (Halston et al., 2019; Zhang et al., 2023), offer emotional support (Clark et al., 2018) and increase life satisfaction (Zhan et al., 2016). Campisi et al. (2015) suggested that the effect of social media use on quality of life is determined by the individual's associations with the social media itself. The findings showed that individuals who expressed positive associations and motivations when using social media exhibited a higher quality of life, whereas those reporting negative associations showcased a lower quality of life (Campisi et al., 2015). Overall, the lack of a consensus in defining and measuring wellbeing across studies introduces a significant challenge in reaching conclusions regarding the contribution of social media on individuals' wellbeing especially when studies are done across different populations utilising different measurements (Al-Mansoori et al., 2023).

Wellbeing in the online context, often referred to as digital wellbeing, denotes the ways technology, including social media, and its usage influence users' quality of life. This concept highlights the importance of balancing the benefits of technology use while mitigating its negative impacts on mental and physical health (Al-Mansoori et al., 2023). Although much of the research focuses on the negative impact of social media on wellbeing to mitigate it, or

CONTACT Sameha Alshakhsi salshakhsi@hbku.edu.qa; Raian Ali raali2@hbku.edu.qa College of Science and Engineering, Hamad Bin Khalifa University, Doha, Qatar
*First three authors made equal contributions.

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developing tools aimed at reducing excessive social media use and its potential harm, wellbeing is a broader construct that encompasses more than just reducing the harm and mitigating risks. It includes fostering positive emotional experiences, meaningful engagement, and a sense of accomplishment through digital tools and their usage. Research explored the positive impacts of social media on wellbeing, such as its role in reducing loneliness and providing emotional support (Caba Machado et al., 2022; Namkoong et al., 2013). While these findings underscore the potential of social media to contribute positively to wellbeing, there remains a need to examine wellbeing as a broader, multidimensional concept and understand how these perceptions vary across cultural contexts. For this reason, this article utilizes PERMA (Seligman, 2011) as an overarching, multifaceted theoretical framework to conceptualize wellbeing and examine how users from Arab and UK cultural contexts perceive the impact of social media on wellbeing.

Wellbeing is a complex construct with varying interpretations and conceptualizations. Hedonic models of wellbeing emphasize the role of positive emotions and subjective experiences in determining wellbeing (Diener, 1984; Diener & Suh, 1997). This perspective includes both an emotional aspect, which refers to the experience of happiness and the balance between positive and negative emotions, and a cognitive aspect, which reflects overall life satisfaction. Eudaimonic models shift the focus from immediate pleasures to the broader aspects of human functioning and fulfilment. These models consider wellbeing in terms of personal growth, self-realisation, and the pursuit of a meaningful life (Ryff, 1989). This perspective highlights the capacity to set and achieve meaningful goals, overcome obstacles, and cultivate fulfilling social relationships. Ryff (1989) identified six dimensions of eudaimonic wellbeing: self-acceptance, autonomy, positive relationships, mastery over one's environment, a sense of purpose, and personal growth. Additionally, Diener et al. (2010) introduced flourishing as encompassing optimism, self-worth, meaningful relationships, and a sense of purpose. Hybrid models seek to integrate elements from both hedonic and eudaimonic perspectives, providing a more comprehensive understanding of wellbeing.

A notable conceptualization for wellbeing is Seligman's PERMA model (2011). According to this model, wellbeing is defined as having positive emotions, functioning well, and having a sense of purpose and meaning in life (Seligman, 2011). Accordingly, the fundamental dimensions of wellbeing encompass positive emotion (i.e., moments of pleasure and satisfaction in daily life), engagement (i.e., state of being absorbed or "in the flow" while participating in activities that interests the person), relationships (i.e., building and maintaining strong, supportive relationships) meaning (i.e., having a sense of purpose and meaning in life), and accomplishment (i.e., experiencing a sense of accomplishment, and feeling competent) (Seligman, 2011). This model combines hedonic elements, such as positive emotions, with eudaimonic elements, such as finding meaning and engaging in fulfilling activities. In the online context, studies have applied hedonic and eudaimonic dimensions of wellbeing in a limited scope, focusing on specific constructs such as happiness, loneliness, or the effects of problematic social media use, as explored by Baltacı (2019) and Stănculescu and Griffiths (2024). While these studies provide valuable insights, there is a need to examine how people perceive that social media contributes to their wellbeing within a broader theoretical framework to better understand the different contributions and inform social media design across different wellbeing dimensions. In this study, we adopt the PERMA model as a comprehensive framework to examine perceptions of social media's contribution to wellbeing.

Culture can play a role in how people perceive social media contributing to their wellbeing. Culture can impact attitude toward social media and perception of online social interactions which in turn can shape how individuals perceive the contribution of social media to their wellbeing. Research indicated that in collectivist cultures, social media usage is associated with higher levels of wellbeing, including life satisfaction and overall positive mental health, compared to individualist cultures (Yin et al., 2019). Collectivist cultures, such as the Arab cultures in general, prioritize family ties, and the needs and goals of the group over those of the individual, fostering a sense of community, while individualist cultures value personal autonomy, self-expression, and individual goals (Hofstede, 2001). These cultural norms can shape the use of social media differently and how it interacts with wellbeing. For example, a study found that American students primarily used Instagram for self-presentation, reflecting the cultural emphasis on individualism, whereas motives in collectivist societies may lean toward social connection (Sheldon et al., 2017). Another study suggested that collectivist cultures are more inclined to continue using social media for socialization, while individualist cultures prioritize information-seeking (Hsu et al., 2015). These differences in use could contribute to whether people perceive social media as a contributor to wellbeing. Research in this area remains limited, highlighting the need for further investigation to understand the impact of culture on social media and wellbeing. The present study explores these differences between two different cultural contexts, UK and Arab.

Personal factors may play a significant role in shaping how people perceive SM-WB. For example, it was suggested that extraverts who are known to be motivated by social contact (Olson & Weber, 2004), perceive social media positively as it provides a platform for socializing, interacting and self-presentation (Bowden-Green et al., 2020; Mishra & Ayatham, 2017; Seidman, 2013). Conversely, individuals exhibiting high neuroticism traits (i.e., experiencing negative emotions) have been observed to utilize social media platforms as a means of seeking validation and conformity (Bowden-Green et al., 2020; Marshall et al., 2015). It was suggested that individuals with high neuroticism worry about receiving feedback, especially in the context of sharing selfies, signifying a heightened sensitivity to rejection and a desire for peer acceptance (Choi et al., 2017). Moreover, those with high neuroticism may also be driven by a fear of missing out (FoMO), leading to an increased need to stay

continually connected on social media to avoid feeling left out (Alshakhsi et al., 2023). Consequently, such experiences on social media may provoke negative emotions, potentially influencing their overall wellbeing. These studies focused on aspects of the wellbeing and reasons for social media use to enhance it. Research on the perceived impact of social media on wellbeing, incorporating a comprehensive framework and considering personal and usage factors across various cultural contexts, is limited. Our study aims to address this shortfall.

Besides personality traits, locus of control, denoting a belief in control over life, may influence how people perceive social media's contribution to their wellbeing. Research indicates that individuals with higher internal locus of control (i.e., perceiving own ability to have higher control over life) tend to regulate their online behaviour better (Hou et al., 2017; Salik Sengul et al., 2021), whereas individuals with higher external locus of control (i.e., perceiving external factors to have higher control over life) often fail to regulate their online behaviour due to perceived environmental influence (Hou et al., 2017). Accordingly, individuals perceiving a lack of control over their social media engagement might struggle with negative emotions stemming from addictive usage patterns, which can profoundly impact their wellbeing. It has been shown that individuals with a higher locus of control are more likely to experience positive wellbeing outcomes, as they tend to have a stronger sense of control and self-regulation in managing life challenges (Johnson et al., 2009). Furthermore, studies have suggested that locus of control plays a mediating role in the relationship between personality traits and wellbeing, with an internal higher locus of control acting as a protective factor against stress and maladaptive online use (Arslan et al., 2009; Xia et al., 2021). To date, there has been a lack of studies examining the relationship between locus of control and wellbeing in the context of social media.

Proficiency in using social media could also shape individuals' perceptions of its contribution to their wellbeing. Improper social media usage has been linked to decreased productivity (Karpinski et al., 2013) and reduced concentration levels (Persico et al., 2016), aspects relevant to the achievement dimension of wellbeing. Conversely, being adept at using social media can positively contribute to individual wellbeing. For example, privacy literacy, individual's level of understanding, awareness, and knowledge regarding how information is tracked and used in online environments, was suggested to enhance privacy-protective behaviour (Choi, 2023). By understanding how to protect their privacy online, individuals may experience less anxiety about potential privacy violations. This can contribute to improved mental health and wellbeing. It was shown that people with more privacy literacy restricted access to their social network sites profile and felt safer when using these sites (Bartsch & Dienlin, 2016).

In this article, we investigate SM-WB and its predictors across two populations, the Arab and the UK. Although significant research has been dedicated to understanding the negative impact of social media on wellbeing, there remains a notable scarcity of studies exploring its potential positive contributions, underscoring the necessity for further investigation. Considering the rapid development of social media platforms and functionalities in in recent years, it is imperative to assess how users currently view the contribution of these ever-changing technologies on their wellbeing. Further exploration is also needed to understand the correlations between individuals' perceptions of social media's contribution on wellbeing and various factors such as personality, locus of control, or competency. Moreover, majority of research primarily focuses on samples from WEIRD (Western, Educated, Industrialized, Rich, and Democratic) demographics (Apicella et al., 2020; Henrich et al., 2010), posing challenges in generalizing findings across diverse cultural contexts. This study seeks to address this gap by examining how users from different cultural backgrounds perceive the contribution of social media on their wellbeing.

To explore cultural differences, we surveyed participants from Arab and British backgrounds. Drawing on Hofstede's dimensions (2001), significant variations are expected between Arab and British cultural backgrounds. Particularly, Arabs are inclined towards higher levels of collectivism, prioritizing group harmony, interpersonal relationships, and the fulfilment of social roles, while the British tend to exhibit higher levels of individualism, prioritizing personal autonomy (Hofstede, 2001). Additionally, this study seeks to address the limited research focusing on the Arab region. We assess SM-WB by utilizing the comprehensive PERMA model (Seligman, 2011) to enable cross-cultural comparisons. Applying the same metric concurrently across diverse cultures strengthens the validity of the findings and reveals cultural variances in how social media contributes to different aspects of wellbeing.

The research questions of this article are:

RQ1: Does SM-WB differ across Arab and British samples?

RQ2: To what degree is SM-WB influenced by personal factors among Arab and British samples?

RQ3: Does locus of control mediate the relationship between personality traits and SM-WB?

RQ4: In what ways do Arab and British individuals perceive that future social media platforms could be designed to enhance their wellbeing?

The remainder of the article is organised as follows. In Section 2, we summarise the research methodology, and in Section 3, we report the study results. In Section 4, we discuss the findings and the limitations of our study. In Section 5 we raise considerations for future research.

2. Method

2.1. Participants

A total of 562 participants (age range 18–60) were recruited for the online survey with 281 participants from the UK and 281 participants from Arab Gulf Cooperation Council

(GCC) countries. The UK sample included participants from England (83.99%), Scotland (8.54%), Wales (5.69%) and Northern Ireland (1.78%). The Arab sample included participants from Arab countries within the Gulf Cooperation Council (GCC). The responses received from GCC countries were from Saudi Arabia (52.31%), United Arab Emirates (34.52%) and Bahrain (12.45%), and Qatar (0.71%). The inclusion of GCC countries in the Arab sample was deliberate, considering their unique relationships, geographic proximity, parallel political systems founded on Islamic beliefs, and shared objectives (Christie, 1986). In addition, GCC countries digital penetration rates (Statista, 2023b) and financial level (Qanas & Sawyer, 2024) are comparable. We received no responses from Oman and Qatar and Kuwait. This is also related to the user base of the company we contracted to collect the data. TGM Research: Market Research and Online Panels, a multi-country online research company, was utilised as the recruitment channel to distribute the survey (TGM Research, 2023).

The inclusion criteria for the UK (Arab) participants were to be 18 years or older, a non-passive user of social networking services (e.g., Facebook, Instagram, Twitter) and messenger services (WhatsApp, Facebook Messenger), national and also identify as British (Arabs) in terms of norms and culture. The inclusion criteria were evaluated through a pre-selection survey, and only individuals meeting these criteria were invited to participate in the study. Nationality is verified by the company as part of their identity verification process when a user subscribes to the platform. The company restricted survey access to users residing physically in the selected countries. Attention checks were included and time to complete survey was recorded and they were used to assess answering quality.

The choice of the two cultural frameworks (UK and Arab) was based on their differences, as discussed in the introduction. Additionally, the authors' team comes from these two cultural backgrounds, is familiar with their nuances, and can interpret the results effectively, making this another pragmatic consideration.

2.2. Questionnaire design and measures

The questionnaire was designed using SurveyMonkey (https://www.surveymonkey.com), a web-based survey platform. The research team engaged in an iterative process aimed at enhancing the clarity and comprehensibility of the survey questions. Attention checks were included in the survey to ensure data quality. A pilot test involving a small participant group, from UK and Arab GCC, was conducted to remove any ambiguous or unclear expressions in the survey, ensuring the questions were understood as intended, particularly in Arabic version. Participants followed a Think Aloud protocol, verbalizing their understanding of each question and providing comments where needed, such as noting a lack of clarity, doubts, or other observations. Based on the feedback, the survey was refined. For instance, in the Arabic survey, the phrase "منغمس ومنشغل" (absorbed and engaged) was modified from the initial version "مأخوذ" (unconsciously attached), which implies a passive state, to better reflect the concept of active absorption with engagement. The revised phrase ensures a clearer representation of absorption within the PERMA dimension of engagement. The questionnaire was translated from English to Arabic and back-translation method (Brislin, 1970) was used to ensure consistency and accuracy. The data was collected as part of a larger study (for more details, see the Open Science Framework link (https://osf.io/jng5m). To qualify for the study, the participants had to take a pre-selection survey as explained earlier. To maintain focus, this article will specifically present parts of the questionnaire that directly address the research questions posed.

In the first part of the questionnaire, participants were asked about their demographic information which consisted of gender, age, education level, and employment status. Participants were asked to list the social media platforms they use frequently. Moreover, participants were asked to rate their competency concerning the use of social media and adjusting their settings (e.g., posting and commenting, replying privately, hiding/showing posts, creating and administering groups, adjusting privacy settings) with a 6-point Likert scale (1 = not competent at all, and 6 = very competent). Lastly, participants were asked how much time they spend on social media per day.

The second part of the questionnaire explored participant perceptions of how social media contributes to wellbeing, i.e., SM-WB. For this purpose, PERMA Profiler (Butler & Kern, 2016) which is a widely used measure to assess overall wellbeing was adopted and contextualised to the case of social media contribution to wellbeing. In the contextualized version, the only modification made was to the introductory statement. Participants were instructed to answer the PERMA Profiler items using the following prompt: "Thinking of Social Media, your use of them and their presence in society, how often do you feel…." Health-related items were removed from the scale as they were deemed unrelated to the scope of social media impact. The original PERMA Profiler has 23 items, five dimensions with three items each (P: positive emotion, E: engagement, R: relationship, M: meaning, A: accomplishment) and eight filler items (i.e., items concerning health, negative emotion, loneliness, and overall happiness). Respondents answer each item using a 11-point Likert scale (0 = never or not at all to 10 = always or completely). The total score for overall wellbeing is calculated by adding up the overall happiness item with the five dimensions of PERMA and higher scores indicate better overall wellbeing. The PERMA Profiler has high internal consistency rate with reported Cronbach's alpha's ranging from 0.60 to 0.90 for all PERMA factors (de Carvalho et al., 2023; Pezirkianidis et al., 2021). The reported Cronbach's alpha for the subscale scores were 0.84 and 0.76 for Positive emotion, 0.69 and 0.59 for engagement, 0.86 and 0.74 for relationship, 0.89 and 0.87 for meaning, and 0.84 and 0.76 for accomplishment, for UK and Arab sample respectively. Participants were then asked an open-ended question: "How can future social media platforms be designed to promote and improve overall wellbeing?"

The last part of the questionnaire included scales to assess personal factors. The 10-item short version of the Big Five Inventory (BFI-10) (Rammstedt & John, 2007) was used to measure personality traits. This inventory assesses personality traits including openness to experience, conscientiousness, extraversion, agreeableness, and neuroticism, utilizing two items for each trait. Respondents answer items using a 5-point Likert scale (1 = strongly disagree to 5 = strongly agree) and higher scores indicate higher levels of each personality trait. The statement "I have a few artistic interests" associated with the trait of openness, has been rephrased to "I have limited or no artistic interest." This change was made to improve clarity and aid in translation, as the original wording was confusing in both Arabic and English when we did the pilot sample testing. BFI-10 demonstrated acceptable variability in its internal consistency (Costa Mastrascusa et al., 2023; Lovik et al., 2017).

Moreover, the internal–external locus of control short scale–4 (IE-4) was utilised to assess whether participants thought their live events were determined by them or by external forces (Nießen et al., 2022). The scale's items represent two subscales: internal locus of control (e.g., I'm my own boss) and external locus of control (e.g., fate often gets in the way of my plans). The item stating "fate often gets in the way of my plans" was modified to "circumstances often get in the way of my plans" for cultural sensitivity. In Arab culture, fate is not perceived as an obstruction and should not convey a negative connotation. Participants answered to what extent they think each item applies to them on a 5-point scale: 1 = does not apply at all, 2 = applies a bit, 3 = applies somewhat, 4 = applies mostly, 5 = applies completely. The scale means are calculated independently to get two subscale scores. IE-4 was shown to be a sufficiently reliable and valid measures of locus of control (Nießen et al., 2022).

2.3. Data collection

Ethical approval was obtained from the Qatar Biomedical Research Institute (QBRI), Hamad Bin Khalifa University (HBKU-IRB-2024-59). Participants provided informed consent and were informed that they could withdraw from the survey at any time. The data was collected from the end of October 2023 to the middle of December 2023. We intentionally avoided festive seasons in both populations. Participants were invited to take part in an online survey aimed at investigating their experiences with social media and Artificial Intelligence (AI) and their perceptions regarding how social media and AI impact their wellbeing. The scope of this article is limited to the research questions mentioned in the Introduction section. A preliminary survey was conducted before the main study. Participants who did not meet the criteria were excluded, while those who met the criteria were invited to proceed with the full survey. Before commencing the questionnaire, participants were required to read the participant information sheet and provide informed consent. Participants were informed that they could opt out of the study at any time. Participants who completed the survey successfully, passed attention checks, and were not disqualified for excessively speedy responses were compensated for their participation. A response was considered speedy if it was completed within 50% or less of the median duration of all participants, calculated after excluding outliers who took twice of more of the expected time, primarily due to completing the survey over multiple sessions.

2.4. Data analysis

In preparing the data for analysis, we removed participants who did not pass attention checks, completed the survey in speedy style, provided repetitively conflicting responses, or left the survey incomplete. The study's age range was confined to 18–60 years to facilitate a direct comparison between the UK and Arab samples. This choice aimed to ensure sample balance, compensating for the absence of participants over 60 in the Arab sample despite their presence in the UK sample. The data used for this work can be found at the Open Science Framework link provided in the Data availability statement section.

Descriptive statistics were performed for both samples. Overall, number of social media accounts, SM-WB score, personality traits, locus of control, and age displayed skewness and kurtosis ± 2, indicating the normality assumption was not violated (George & Mallery, 2010). However, in the UK sample, competency using social media showed a kurtosis value of 3.06, while the time spent on social media exceeded the specified range in both samples. A boxplot analysis was conducted on time spent on social media for both samples and it revealed outliers. Outliers were identified as scores falling outside the boxplot whiskers, determined using the Tukey (1977) formula: {25th-Quantile − [1.5 × (75th-Quantile − 25th-Quantile)]} and {75th-Quantile + [1.5 × (75th-Quantile − 25th-Quantile)]}. For the Arab sample ($n = 12$) and the UK sample ($n = 24$), the outlier values were replaced with the highest score within each respective sample. These adjusted values were subsequently used in all statistical analyses.

Pearson's correlation was employed to examine the relationship between variables demonstrating normal distribution, while Spearman's correlation was applied to variables that deviated from normality. In assessing how Arab and British samples differ in their perceptions of social media's contribution to wellbeing, Welch's *t*-test was employed as assumption of equal variances was violated. Multiple linear regression analysis was employed to investigate how personality factors influence perception of social media's contribution to wellbeing across Arab and British participants. Additionally, mediation analysis using 5000 bootstrapped resamples was performed to determine whether locus of control mediated the relationship between personality traits and perceptions of social media's contribution to wellbeing, analysed separately for each sample. Data was analysed using SPSS version 28 and JASP version 0.19.3 (JASP Team, 2022).

To explore the requirements of future social media to contribute to enhancing wellbeing, data from the open-ended question were analysed using thematic analysis (Braun & Clarke, 2006). The analysis was performed using QDA Miner Lite software (provalisresearch.com) to facilitate data organization; however, the annotation of text with codes was conducted manually to ensure thorough examination. Before beginning the analysis, responses from the Arabic sample were translated and terms were standardized for uniformity. The process began with an initial review of all responses to gain an overall understanding of potential themes. In the second stage, text segments were highlighted and coded to capture their descriptive meaning. These codes were then grouped based on shared characteristics, forming broader themes. To ensure accuracy and reliability, the coding process underwent multiple iterations, during which codes were refined, eliminated, or redefined as necessary. Two researchers collaboratively discussed and established the coding methodology using a portion of the data. Initially, the two researchers coded a sample of the dataset to conclude, refine and agree on the coding methodology and ensure consistency. Once the methodology was established, one author completed the coding process, including the identification of sub-themes and themes. In the subsequent stage, the other researcher meticulously reviewed and refined the codes and themes, leading to the additions, modifications, or removals to better reflect the data. Throughout the analysis, we engaged in reflexivity, acknowledging how our personal and professional backgrounds could influence data interpretation. None of the authors had professional ties to social media companies, reducing potential biases regarding social media's impact on well-being. One of the authors, the last author, has been involved in the study of social media addiction for over a decade. The subject of this article could be seen as contrasting with the view that social media primarily causes harm. The author recognized that this potentially influenced decisions made during the research process. However, we emphasize that this article is part of a larger project investigating the dual role of social media in both fostering pathological usage patterns and promoting digital wellbeing. Additionally, the authors' team comes from diverse research backgrounds and theoretical positions and took an active role in the study design and interpretation of the results, further minimizing the impact of that potential bias. All authors reviewed the resulted analysis, contributed to the categorization and naming, and developed the explanation in relation to this article's research question. Following an inductive approach, themes, sub-themes, and codes emerged directly from the data rather than being predefined. This method allowed for a more nuanced understanding of users' preferences of social media designs that foster wellbeing.

3. Results

3.1. Participant demographics

Table 1 summarises participant characteristics.

3.2. RQ1: SM-WB across Arab and British samples

Table 2 provides an overview of SM-WB, wellbeing dimensions, negative emotions, and loneliness among Arab and British samples. Given the data's proximity to normality and the noted significant differences in variances between groups, Welch's t-test was used to compare the differences in perceptions regarding social media's influence on wellbeing between the Arab and British samples. The adjusted significance threshold for the comparisons was set at 0.006 after applying the Bonferroni correction, obtained by dividing 0.05 by the number of compared pairs, i.e., 8.

As shown in Table 2, the perception of social media's contribution to wellbeing was significantly different between the Arab and British samples. The mean wellbeing score was statistically significantly higher in the Arab sample (M: 7.57, SD: 1.56) than the British samples (M: 6.07, SD: 1.70). That is, individuals in the Arab sample believed that social media has a higher contribution to their wellbeing compared to individuals from the UK sample. As demonstrated in Table 2, the Arab sample consistently exhibited significantly higher mean scores across all wellbeing dimensions in comparison to the UK sample. Although not statistically significant, the UK sample displayed higher mean scores concerning social media's contribution to loneliness and negative emotions compared to the Arab sample.

3.3. RQ2: Personal factors as predictors for SM-WB

A multiple linear regression was run to predict perception of social media's contribution to wellbeing from personal attributes across samples. The independent variables were personality traits, locus of control, competency using social media, age, and gender. Pearson's correlation was used to analyse the associations between variables (see Appendix A: Tables A1 and A2). There was linearity as assessed by partial regression plots and a plot of studentized residuals against the predicted values. The assumption of normality was met, as assessed by a Q-Q Plot. There was independence of residuals, as assessed by Durbin-Watson statistic (Arab = 2.22, UK = 2.02). There was homoscedasticity, as assessed by visual inspection of a plot of studentized residuals versus unstandardized predicted values. There was no evidence of multicollinearity, as assessed by tolerance values greater than 0.1. Outliers with studentized deleted residuals exceeding ±3 standard deviations were identified and subsequently removed from relevant analysis (six outliers were removed from the Arab sample).

Table 3 presents the results and significance levels for each beta coefficient. Regression analysis for the UK sample significantly predicted the perception of social media's contribution to wellbeing, with $F = 13.82$, $p < 0.001$, $R^2 = 0.34$, and adjusted $R^2 = 0.31$. Within this model, Significant predictors of SM-WB included personality traits agreeableness, conscientiousness, neuroticism, internal locus of control, competency using social media, age and gender. That is, participants who scored higher in personality traits agreeableness, conscientiousness, internal locus of control, competency using social media perceived social media having a

Table 1. Participant characteristics.

Variables	UK ($N = 281$)	Arab ($N = 281$)
Gender (%)		
Male	126 (44.84 %)	140 (49.82 %)
Female	155 (55.16 %)	141 (50.18 %)
Age		
M (SD)	34.92 (12.50)	32.11 (8.47)
Range	18 – 60	18 – 59
Education (%)		
No formal education	3 (1.07%)	–
Primary education (elementary)	1 (0.36%)	–
Secondary education (high school)	69 (24.55%)	38 (13.52%)
Pursuing or completed vocational or technical education	56 (19.93%)	12 (4.27%)
Pursuing or completed undergraduate degree (bachelor's)	112 (39.86%)	202 (71.89%)[a]
Pursuing or completed postgraduate degree (master's, Ph.D., etc.)	40 (14.23%)	29 (10.32%)
Employment (%)		
Full time employment	155 (55.16%)	158 (56.23%)
Part time employment	58 (20.64%)	36 (12.81%)
Run my own business	7 (2.49%)	17 (6.05%)
Unemployed	23 (8.19%)	21 (7.47%)
Student	16 (5.69%)	23 (8.18%)
Retired	6 (2.14%)	3 (1.07%)
Homemaker	11 (3.91%)	22 (7.83%)
Other	5 (1.78%)	1 (0.36%)
Social Media Usage		
Hours spent on social media per day M (SD)	2.69 (1.90)	5.00 (2.53)
Number of social media accounts M (SD)	3.78 (1.76)	5.47 (1.67)
Competency using social media M (SD)	5.11 (0.89)	5.11 (0.93)
Social Media Platform Preference (%)		
Facebook	216 (76.87%)	183 (65.12%)
Twitter	118 (41.99%)	203 (72.24%)
Instagram	188 (66.91%)	247 (87.9%)
WhatsApp	211 (75.09%)	265 (94.31%)
LinkedIn	41 (14.59%)	96 (34.16%)
Snapchat	98 (34.88%)	216 (76.87%)
TikTok	126 (44.84%)	224 (79.72%)
Pinterest	53 (18.86%)	92 (32.74%)
Other	10 (3.56%)	10 (3.56%)
PERMA M (SD)	6.07 (1.70)	7.57 (1.56)
Internal locus of control M (SD)	3.01 (0.91)	4.52 (0.55)
External locus of control M (SD)	2.65 (0.85)	2.60 (0.91)

[a]The observed differences between the UK and the Arab regions primarily arise from the less popularity of "vocational or technical education" in the Arab region.

Table 2. Perception of social media's contribution to overall wellbeing, wellbeing dimensions, negative emotion, and loneliness.

	UK		Arab		Differences between the two samples		
	Mean	SD	Mean	SD	Welch's *t*-test	*p*	Cohen's *d* (Effect size)
Overall Wellbeing	6.07	1.70	7.57	1.56	$t(560.00) = 10.91$	<0.001	0.92
Positive Emotion	6.06	1.87	7.83	1.69	$t(560.00) = 11.84$	<0.001	1.00
Engagement	6.54	1.63	7.66	1.54	$t(560.00) = 8.39$	<0.001	0.71
Relationship	6.18	2.21	7.50	1.86	$t(544.16) = 7.64$	<0.001	0.64
Meaning	5.73	2.12	7.32	2.07	$t(560.00) = 8.96$	<0.001	0.76
Accomplishment	5.65	1.92	7.48	1.76	$t(560.00) = 11.80$	<0.001	1.00
Negative Emotion	4.16	2.10	3.85	2.19	$t(560.00) = -1.73$	0.084	−0.15
Loneliness	4.27	2.76	4.26	3.24	$t(545.90) = -0.07$	0.944	−0.01

higher contribution to wellbeing. Within the UK sample, females tended to perceive social media as having a higher contribution to wellbeing compared to males. Moreover, participants who scored lower in the neuroticism personality trait and who were younger perceived social media having a higher contribution to wellbeing. Similarly, for the Arab sample, the regression analysis also significantly predicted the perception of social media's contribution to wellbeing, with $F = 33.09$, $p < 0.001$, $R^2 = 0.56$, and adjusted $R^2 = 0.54$. In the Arab context, personality traits extraversion, agreeableness, conscientiousness, neuroticism, internal locus of control competency using social media, and gender predicted the perception of social media's contribution to wellbeing. That is, participants who scored higher in personality traits extraversion, agreeableness, conscientiousness, internal locus of control, and competency using social media perceived social media as having a higher contribution to wellbeing. Within the Arab sample, females tended to perceive social media as having a higher contribution to wellbeing compared to males. Moreover, participants who scored lower in the neuroticism personality trait perceived social media as having a higher contribution to wellbeing.

Table 3. Multiple regression for predicting perception of social media's contribution to wellbeing (SM-WB).

	UK			Arab		
SM-WB	R^2	Adjusted R^2	F	R^2	Adjusted R^2	F
	0.34	0.31	13.82	0.56	0.54	33.09
Predictors			β t p			β t p
Extraversion			0.10 1.73 .086			0.17 3.91 <0.001
Agreeableness			0.24 4.48 < .001			0.13 2.74 0.007
Conscientiousness			0.14 2.44 .016			0.25 4.81 <0.001
Neuroticism			−0.21 −3.24 .001			−0.23 −4.63 <0.001
Openness			0.08 1.53 .128			−0.06 −1.33 0.184
Internal Locus of Control			0.16 3.05 .003			0.27 5.65 <0.001
External Locus of Control			−0.01 −0.19 .847			0.02 0.52 0.602
Competency in Social Media usage			0.10 1.94 .053			0.20 4.41 <0.001
Age			−0.12 −2.15 .032			−0.01 −0.12 0.906
Gender (Male – Female)			0.12 2.20 .029			0.14 3.19 0.002

3.4. RQ3: Locus of control as a mediator between personality traits and SM-WB

The mediating role of locus of control in the relationship between personality traits and SM-WB was investigated separately in the UK and Arab samples. Given that external locus of control was not a significant predictor of SM-WB in either sample, the analysis focused on the internal locus of control. Similarly, the personality traits included in the mediation analysis were extraversion, agreeableness, conscientiousness, and neuroticism, while openness was excluded, as it was not a significant predictor of SM-WB in both samples. The potential influence of age and gender was accounted for by controlling these variables in the analysis.

In the UK sample, only conscientiousness showed a significant indirect effect through internal locus of control, while its direct effect remained significant, indicating partial mediation. The mediation effects for extraversion, agreeableness, and neuroticism were not significant. In the Arab sample, both conscientiousness and agreeableness exhibited significant indirect effects through internal locus of control, while maintaining significant direct effects, suggesting partial mediation for both traits. Extraversion and neuroticism did not show significant mediation. The mediation results are summarized in Table 4.

3.5. RQ4: Requirements on future social media design for increasing wellbeing

The qualitative analysis identified nine thematic requirements for enhancing user wellbeing as perceived by the participants. While there were many similarities between the responses from the UK and Arab samples, notable differences were observed in the specifics of these themes. Additionally, two sub-themes are particularly emphasized by the Arab sample. Detailed descriptions of these themes are below. For a visual representation of the interconnections and hierarchical structure among these themes, refer to the thematic map of the analysis in Appendix B.

3.4.1. Wellbeing and mental health support

3.4.1.1. Wellbeing and health. The theme highlights a common emphasis on enhancing user wellbeing and mental health across both UK and Arab responses. UK participants more prominently emphasized this theme, advocating for a variety of wellbeing and mental health initiatives. They encompassed a range of initiatives, including digital health support mechanisms like in-app health advice, automated counselling referrals, therapist chatbots, wellbeing assessment, access to wellbeing resources, creating group support, and promoting wellbeing activities and content. This was complemented by the promotion of positivity through content, ads, and interactions.

Arabic responses aligned with the wellbeing and mental health support theme, with a distinct focus on mood enhancement, and psychological wellbeing. These responses suggested initiatives including providing health and mental health services, psychological wellbeing assessments, wellbeing activities, and providing wellbeing content. It also highlighted the importance of promoting positivity through content and fostering positive thinking and values.

3.4.1.2. Personal growth. Both UK and Arab participants expressed the need for platforms that support personal development. This encompasses fostering educational levels and personal skills, indicating a desire for platforms that contribute to individual growth and learning. Additionally, Arab participants highlighted the need of diverse and beneficial content.

3.4.2. Usage management and addiction prevention

This theme delves into strategies aimed at mitigating the excessive use of social media and preventing its potential addictiveness. In the UK sample, there is a notable emphasis on usage management tools and notifications, including, monitoring usage, encouraging screen breaks, and setting screen time limits. Additionally, there are reminders of the virtual nature of social media, designed to keep users aware of their digital environment. Additionally, UK participants highlighted combating social media addictiveness by reducing its dependency and eliminating addictive properties and features.

In contrast, the Arabic sample placed less emphasis on this theme compared to the UK sample. The focus here was primarily on the concept of scheduled usage time, employing time management tools, reducing notifications, and addressing social media factors that contribute to platform addiction.

3.4.3. Safe and crime-free platform

This theme, "Safe and Crime-free," encompasses the need for mitigating harmful content and behaviour on social media platforms and ensuring safe platforms for all users, as voiced by both UK and Arab participants.

Table 4. Mediation model between personality trait and social media's contribution to wellbeing (SM-WB).

		Direct effects			Indirect effects			Total effects		
Predictor	Mediator – SM-WB	*β*	SE	*p*	*β*	SE	*p*	*β*	SE	*p*
UK Sample										
Extraversion	Internal Locus of control	0.10	0.06	0.107	0.01	0.01	0.523	0.10	0.06	0.091
Agreeableness	–	0.24	0.05	**<0.001**	0.02	0.01	0.133	0.26	0.05	**<0.001**
Conscientiousness ◑	SM-WB	0.15	0.06	**0.009**	0.03	0.02	**0.047**	0.18	0.06	**0.001**
Neuroticism		−0.21	0.06	**<0.001**	−0.03	0.02	0.056	−0.24	0.06	**<0.001**
Arab Sample										
Extraversion	Internal Locus of control	0.13	0.05	**0.012**	0.00	0.02	0.978	0.13	0.06	**0.016**
Agreeableness ◑	–	0.10	0.05	**0.049**	0.05	0.02	**0.011**	0.15	0.06	**0.009**
Conscientiousness ◑	SM-WB	0.22	0.06	**<0.001**	0.09	0.02	**<0.001**	0.30	0.06	**<0.001**
Neuroticism		−0.28	0.05	**<0.001**	−0.03	0.02	0.102	−0.31	0.06	**<0.001**

The model was performed using 5000 bootstrapping resamples. Bolded *p*-values indicate statistical significance at $p < .05$. [◑]: Partial mediator.

3.4.3.1. Criminal-free. Participants from both UK and Arab samples stressed the importance of addressing and eliminating harmful and offensive content including hate speech, explicit materials, misinformation, online abuse, bullying, trolling, racism, violence, and misogyny. The theme emphasized the necessity to develop preventive measures, stringent rules, and effective mechanisms to eliminate such content and penalize those who propagate it.

3.4.3.2. Safe platform. in this sub-theme, UK participants emphasized the need to ensure a safe and non-judgmental environment and provide safety guidelines. Central to their suggestions is the enforcement of access control, age restrictions, and protection of the youth online and their understanding of the world around them. For the Arab participants, the focus was more on the freedom of expression online. Arabs also highlighted the need for a safe environment and preserved cultural morals and values for the younger audience.

3.4.4. User experience

For this theme, participants identified several requirements to ensure a smooth experience using social media apps, including content quality, fostering realism, and platform useability and accessibility.

3.4.4.1. Content moderation and filtering. UK and Arab participants emphasized the importance of comprehensive content monitoring, control, and moderation. Content filtering was deemed crucial for removing negative, stressful, meaningless, and inappropriate content. Additionally, both participant groups highlighted the need for platforms to offer content that is not only personalized but also customizable based on users' preferences, and needs. Arab participants, in particular, stressed the importance of eliminating immoral and culturally sensitive content. For example, a participant reported: "Social media platforms can be improved by not imposing a certain type of repetitive content and not trying to impose a certain type of unwanted content … or reducing inappropriate content for some religions and cultures. For example, a type of optional blocking can be imposed for this type of content or advertisements."

3.4.4.2. Realism. The sub-theme of Realism was highlighted by UK participants who emphasized the importance of authenticity and the reduction of unrealistic standards in digital content. Particularly, users are advocating for the elimination of influencer-dominated, appearance-centric algorithms, and the promotion of diverse, authentic role models. This push towards realism is not just about combating unrealistic beauty standards; it is about fostering an online environment that promotes real people, real lifestyles, and honest representations, thereby reducing social pressures and the drive towards an idealized, often unattainable lifestyle. Additionally, this theme is further underscored by several users who suggested removing the "Like," "Dislike," and "Followers" features. This indicates a significant shift in user preference away from traditional validation metrics, which are seen as contributing to unrealistic standards and negatively impacting mental wellbeing. This suggests a growing awareness and demand for a more genuine, less metric-driven social media experience. In the Arabic sample, however, this sub-theme received less emphasis. A few users voiced the necessity for social media to reflect real life and to reduce the emphasis on appearances.

3.4.4.3. User accessibility and simplicity. this sub-theme, predominantly emerging from the Arab sample, underscores the importance of ease of use and accessibility in social media. Participants highlighted the need for a user-friendly app, with easily navigable settings to enhance overall user experience. A participant articulated this as: "By making user-friendly app and settings that are easily understandable by anyone." The theme also focuses on inclusivity, emphasizing the need for the app to be accessible and accommodating to people with special needs and users of all ages. A participant emphasized this inclusivity: "An application of very high quality that suits all categories, is easy to use, and is suitable for people with special needs." This sub-theme captures the essence of designing digital environments that are not only easy to use but also accommodating to a diverse range of users.

3.4.4.4. Entertaining content. this sub-theme also predominantly emerged from the Arab sample. Participants expressed a desire for a variety of entertaining features, including enjoyable activities, challenges, games, and entertaining

streaming. This highlights the importance of integrating entertaining elements into social media platforms to potentially facilitate mood modification and enhance user well-being.

3.4.4.5. Communication features. this sub-theme underscores a shared interest across both UK and Arab participant groups for enhanced communication capabilities on social media platforms. UK participants reported the need for a live chat feature and a broader range of communication options. Arabic respondents demonstrated an interest in incorporating advanced, free, and diverse communication tools such as hologram interactions.

3.4.5. Technological advancements and innovation

The focal point of this theme is centred on four sub-themes: Technical advancements, platform enhancement, user-cantered design, and cultural sensitivity design.

3.4.5.1. Technical advancements. UK and Arabic participants expressed interest in the incorporation of advanced technologies, including the integration of Artificial Intelligence (AI) and virtual reality. This points towards an appetite for more innovative, interactive experiences.

3.4.5.2. Platform enhancement. this theme was highlighted by Arab participants who emphasized continuous innovation and modernization through updates, aiming to provide high-quality services such as improved video quality, an efficient search engine, enhanced user interface, and a better reporting system. They also highlighted the integration of social media platforms with other sites and services. In the UK sample, however, this sub-theme received less emphasis. A few users suggested the need for enhanced in-app support, such as virtual assistance, and better reporting systems.

3.4.5.3. User-cantered design. UK and Arabic participants advocated for user-cantered design, emphasizing adaptability to user needs and expectations, and prioritizing user well-being over profit. This reflects a desire for platforms that are meaningful, more responsive, and customizable to individual needs and requirements.

3.4.5.4. Cultural sensitivity in design. This sub-theme, particularly emphasized by Arab participants, highlights the importance of incorporating cultural sensitivity into social media platforms. Participants underscored the need for design that preserves traditions and customs and sets appropriate moral, cultural, and religious boundaries. One participant stated, "Means that take into account the customs, traditions, and culture of each country, and freedom of expression." Two Arab users specifically called for the creation of purely Arabic platforms. This approach suggests an interest in providing a space where these values are actively respected, promoted, and protected, as a means of contributing to enhanced wellbeing.

3.4.6. Social connection and community building

The theme "Social Connection and Community Building" in our analysis highlights the integral role of social media in fostering relationships and community engagement. UK respondents emphasized the importance of promoting social and interpersonal connections, maintaining relationships, promoting genuine social connections, and fostering a sense of community and society. This included aspects like charity partnerships and personalized communities. Similarly, Arabic responses focused on supporting social connection and genuine communication, inclusivity across different groups and ages, and the facilitation of worldwide connections.

3.4.7. Security and privacy

The "Security and Privacy" theme highlights a dual focus: safeguarding data and ensuring a secure online environment. Across both UK and Arab sample groups, participants emphasized the importance of reducing spam and implementing enhanced security measures to protect against digital threats. Privacy concerns were highlighted, with demands for stronger data protection and privacy measures, including blocking bot accounts, and fake accounts.

3.4.8. Commercialization and financial support

This theme reflects varying requirements from UK and Arab participants regarding monetization and advertising strategies on social media platforms. While one UK participant advocated for monetization opportunities, few others favoured reduced commercialization, emphasizing fewer ads and less reliance on subscription models. In contrast, Arab participants focused on enhancing income sources, and expressed interest loyalty programs, incentives, free offers, and reducing ads, suggesting a preference to include value-driven experiences on social media platforms.

3.4.9. Transparency and regulations

This theme encompasses two sub-themes discussing the need for social media that operates on transparency and regulation.

3.4.9.1. Transparency. The theme of Transparency was featured with less emphasis compared to other themes among both UK and Arab participants, albeit with slightly different focal points. UK participants emphasized the importance of being a credible platform, ensuring accuracy in content, and checking for undisclosed advertisements, underlining a concern for transparent and honest content and advertising practices. Arab participants, on the other hand, echoed the need for more credibility and transparency, but with an additional emphasis on unbiased content, particularly in news.

3.4.9.2. Regulation. UK participants focused on the necessity of monitoring for guideline adherence, applying regulations, and advocating for government regulation. They also expressed concerns about wealthy leadership of social media

platforms, advocating for enhanced policing of digital spaces. Similarly, Arab participants endorsed the government's role in monitoring.

4. Discussion

In the present study, we explored how users perceive the contribution of social media to their wellbeing by conducting an online survey with two distinct samples. The article also examined how personal factors influence the perception of social media's contribution to wellbeing and the requirements of users of future social media to enhance their wellbeing.

The findings showed that participants in the Arab sample held a more positive view of social media's contribution to overall wellbeing and its associated dimensions (i.e., positive emotion, engagement, relationship, meaning, and accomplishment) compared to those in the UK sample. Moreover, findings showed that the perceptions of social media's contribution to wellbeing was significantly higher in the Arab sample compared to the British sample. This finding is in line with research suggesting a stronger correlation between social media usage and positive indicators of mental health in collectivist cultures than in individualistic cultures (Yin et al., 2019). The distinct usage patterns of social media among the Arab sample might contribute to their more favourable perception of its contribution to wellbeing. Research has shown that social media use among young people in the Arab world is associated with maintaining global and local connections, facilitating online work and study, and providing spaces for identity and belonging (Douglass et al., 2022). These uses of social media may enhance positive emotions, engagement, relationships, meaning, and accomplishment, thereby contributing to overall wellbeing.

Although insignificant, findings showed that the UK sample had higher mean scores concerning social media's contribution to loneliness and negative emotions compared to the Arab sample. The finding regarding the UK sample shows similarity with previous studies which reported that social media use is associated with depression, anxiety, and distress (Valkenburg, 2022), and lower happiness levels (Twigg et al., 2020). The perception that social media contributes to loneliness could be explained by displacement hypothesis (Kraut et al., 1998). When face-to-face interactions are substituted by virtual engagements on social media, it can evoke feelings of loneliness. For example, Wang et al. (2018) suggested that Facebook use predicted increased emotional loneliness among heavy users.

The study attempted to predict the determining factors that influence the perception of social media's contribution to wellbeing across samples. Concerning the influence of competency using social media, the results showed that higher competency predicted the perception of social media having a higher contribution to wellbeing in both samples. Zhu et al. (2020) suggested that social media competency encompasses four key area which are technical usability (i.e., ability to use social media), content interpretation (i.e., ability to filter through large amount of content and extract the relevant meaning), content generation (i.e., ability to express oneself, share ideas engage with others through the creation and sharing of content) and anticipatory reflection (i.e., ability to foresee potential outcomes before creating and sharing content online). Accordingly, it is possible that individuals who are competent in using social media may be better at navigating its platforms, finding, and engaging with positive content and avoiding or managing negative interactions. It has been suggested that digital education and literacy play pivotal roles in enhancing wellbeing and that awareness about effective technology use can act as a way to protect it (Al-Mansoori et al., 2023; Almourad et al., 2021).

Personality traits significantly predicted individuals' SM-WB across samples. Conscientiousness emerged as a significant predictor in both samples, showing a positive relationship. The conscientiousness personality trait often signifies traits of organization, responsibility, and adherence to rules and norms (John et al., 2008). Research suggests that individuals with high conscientiousness use social media more for the purpose of maintaining their existing relationships and for informational and educational purposes (Horzum, 2016). Thus, individuals high in conscientiousness may approach social media with a more disciplined and purposeful manner and have a positive view of social media's contribution to their wellbeing as it enables them to network, find valuable content, and achieve personal goals. Additionally, individuals with high conscientiousness may have a more balanced relationship with social media as they tend to use their time sensibly on these platforms (Błachnio & Przepiorka, 2016). This approach to social media use could influence their favorable perception of how social media influences their overall wellbeing.

Neuroticism was a key predictor within both samples. Within both samples, individuals with low neuroticism perceived social media as having a more positive contribution to wellbeing. Neuroticism is a personality trait which is linked to negative emotions (i.e., feeling anxious, nervous, and sad) and increased mental health risks (John et al., 2008; Ormel et al., 2013). It has been suggested that individuals with elevated neuroticism levels may use social platforms to improve their mood but could subsequently develop a susceptibility to addictive usage patterns, leading to increased negative affect (Abbasi & Drouin, 2019).

Agreeableness was a key predictor within both samples showing a positive relationship. The agreeableness personality trait indicates a tendency towards cooperation, empathy, and nurturing positive relationships (John et al., 2008). Those high in agreeableness might leverage social media to nurture connections, provide support, which fosters a sense of belonging and enriches their overall wellbeing. For example, it was found that agreeable individuals tend to use Facebook with the aim of seeking acceptance and preserving connections which are dimensions of wellbeing (Seidman, 2013).

Extraversion, emerged as a key predictor, in Arab sample showing a positive relationship. Extraverts are known for the sociable nature, energetic attitude, and positive emotionality (John et al., 2008). It has been reported that that

extraverted individuals utilize social media for various gratifications, including meeting new people, socializing, seeking information and education, and employing it as a tool for task management (Horzum, 2016; Kircaburun et al., 2020). Thus, their propensity for positive interactions, larger social networks, and frequent engagement with others could contribute significantly to their favourable perception of social media's contribution to their wellbeing.

Regarding the impact of internal locus of control, the findings showed that higher internal locus of control was linked to perceiving social media as having a higher contribution to wellbeing within both samples. Individuals with an internal locus of control believe that they have control over their own lives and outcomes (Rotter, 1954). Accordingly, this belief could translate into more positive experiences with social media, as these individuals may regulate their social media use (Chak & Leung, 2004). Furthermore, those with a strong internal locus of control may experience reduced susceptibility to peer comparison and social validation, as they typically display lower levels of conformity and obedience (Lefcourt, 2014). This trait enables them to actively seek positive interactions and adeptly handle negative ones. Their purposeful approach makes social media more of a utility for them, whereas individuals with a higher external locus of control may be more influenced by the content they encounter on these platforms. The findings further revealed that an internal locus of control partially mediates relationship between conscientiousness and the perception of social media's contribution to wellbeing. These results suggest that conscientious individuals benefit both directly from their structured and conscious use of social media and indirectly through the sense of control facilitated by an internal locus of control. An internal locus of control has been shown to act as a proactive factor in coping with stress (Ng et al., 2006; Truzoli et al., 2023), including potential stress related to online interactions and social media use (Szulc, 2018; Ye & Lin, 2015). By managing this stress effectively, internal locus of control contributes to more positive and conscious use of social media, a pattern observed across both cultural contexts in this study. This highlights the crucial role of internal locus of control in supporting perceptions of social media's contribution to wellbeing. Similarly, an internal locus of control partially mediates the relationship between agreeableness and perceptions of social media's contribution to wellbeing in the Arab sample. This finding could be interpreted as enhancing agreeable individuals' tendency to use social media to foster harmony and social cohesion, traits that are highly valued in collectivist cultures. These results align with evidence suggesting that internal locus of control reduces susceptibility to peer comparison and enables users to actively seek positive social interactions (Lefcourt, 2014). Additionally, internal locus of control enhances the beneficial effect of social integration on wellbeing (Xia & Ma, 2020), particularly within cultural contexts that emphasize social harmony.

The findings also showed that females tended to perceive social media as having a more positive contribution to wellbeing compared to males within both samples. It has been suggested that the stronger correlation between women's wellbeing and social media use may stem from the higher significance women attribute to social relationships (Twenge & Martin, 2020). Within the UK sample, age emerged as a key predictor. Within the UK sample, younger individuals perceived social media as having a more positive contribution to wellbeing. Younger users, having grown up with social media, tend to be more accustomed to its features and advantages. They often utilize these platforms to access information, resources, and emotional support networks. Conversely, older individuals might lack this familiarity, which might influence their perceptions of its benefits (Leist, 2013). Interestingly, this effect was not observed in the Arab sample, possibly due to the distinct use of social media for fostering social connectedness (Chalghoumi et al., 2022).

In light of our qualitative findings on how different cultural groups perceive the contribution of social media to wellbeing, it becomes apparent that while participants acknowledge the positive impact of social media, there remains significant room for improvement in future platform designs to further enhance this contribution. The qualitative analysis identified nine themes, including "User Wellbeing and Mental Health Support," "Usage Management and Addiction Prevention," "Safe and Criminal-free Platform, "User Experience," "Technological Advancements and Innovation," "Social Connection and Community Building," "Security and Privacy," "Commercialization and Financial Support," and "Transparency and Regulations." These themes align with the principles of the Ethical Design Manifesto by Ind.ie (Kalbag & Balkan, 2017), highlighting that technology design shall respect users' time, rights, and privacy.

Several identified requirements align with concerns highlighted in existing literature, particularly in relation to mental health issues, including usage time (Huang, 2022), harmful content such as bullying (Bottino et al., 2015) and misinformation (Verma et al., 2022), and privacy (Park et al., 2014). Additionally, there is an evident demand for a more beneficial and meaningful user experience on social media platforms. These findings substantiate the multifaceted concept of digital wellbeing, as outlined in the digital wellbeing framework (Büchi, 2024) and the digital competencies framework (Martzoukou et al., 2020), illustrating wellbeing awareness, safety, controlled usage, and support for meaningful digital activities. For instance, research shows that transparency regarding content and advertising practices may not only fulfil ethical requirements but can also contribute to digital wellbeing by increasing individuals' sense of control (Cemiloglu et al., 2023). Furthermore, our findings highlighted the importance of cultural and traditional factors in the design of social media platforms, especially in the context of Arab culture, which corresponds with the ongoing discussions on incorporating cultural considerations in effective Human-Computer Interaction (HCI) designs (Adnan et al., 2020). This is further supported by a UK and China study, revealing significant differences in user preferences related to the design of Problematic Internet Use (PIU) prevention (McAlaney et al., 2020). Our

findings, therefore, further underscore the cultural variability in user experiences and expectations, enriching the understanding of digital wellbeing and its diverse manifestations.

Furthermore, while some of the identified requirements, such as accessibility, simplicity, and data privacy, are relatively straightforward to design for and assess objectively, other requirements present significant challenges such as content moderation (Gillespie, 2020). However, advancements in Natural Language Processing hold promise for future improvements in this area (Lardin, 2023). Nevertheless, our thematic analysis provides comprehensive insights and broadens the scope for social media developers, guiding them towards enhanced user wellbeing and satisfaction.

While this study provides valuable insights, acknowledging its limitations and potential biases is crucial. The research primarily involved active social media users on these platforms, excluding non-users and passive users. Self-reporting on social media's contribution to wellbeing has inherent limitations. Responses are based on individual perceptions and experiences, which might not always align with objective measures of wellbeing. Recall bias may have further complicated accuracy, as participants may struggle to recall and report feelings over time accurately. Individuals might have limited insight into how social media truly affects their wellbeing, particularly in terms of subconscious influences or long-term effects. Additionally, establishing causality proves challenging due to the cross-sectional design of our study. We specifically focused on two cultural contexts, the UK and Arab societies. While this methodological choice adds strength to our findings, to ensure broader applicability across Eastern and Western countries, further replication studies are necessary. To achieve a higher confidence in generalisability, we need higher sample size and more systematic dissemination strategy to achieve national representation. Despite these limitations, it is worth noting that our sample size, as discussed earlier, was sufficient for the conducted analyses and comparable to other studies, such as LaRose et al. (2014) and Athota et al. (2020) which employed similar sample sizes.

5. Conclusion and future research

Overall, this study contributes to the growing body of literature on social media and wellbeing by offering a comparative analysis across different cultural context, Aab and British populations. The comparative analysis between Arab and UK samples has shown how cultural context can play a role in shaping social media's perceived contribution to wellbeing, addressing a gap in research that primarily focuses on Western populations. While the study focused on Arab and British cultures, future research should expand its scope by incorporating additional cultural frameworks to examine whether similar patterns emerge across diverse populations. By applying the PERMA model, the study offers a multidimensional assessment of the perceived contribution of social media use to wellbeing, addressing a gap in existing research that primarily focuses on the negative effects of social media. Furthermore, it highlights the roles of personality traits, social media competency, locus of control, gender, age, and culture. It provides new insights into the mediating role of internal locus of control in the relationship between personality traits and the perceived contribution of social media use to wellbeing, underscoring the importance of self-regulation in social media experiences. As previous research suggested, individuals with internal locus of control are less likely to use their phone during inopportune times (i.e., while studying, and at bedtime) compared to those with external locus of control, impacting their sleep quality and academic performance (Li et al., 2015). Developing interventions to strengthen internal locus of control could be beneficial. For instance, research suggests that Adventure Programming, such as challenge-based activities, can enhance the sense of internal locus of control (Newberry & Lindsay, 2000). These programs help individuals recognize that their behavior and outcomes are controllable. Drawing from this, interventions aimed at enhancing internal locus of control could encourage individuals to engage with social media in a way that promotes wellbeing.

Positive associations were identified between conscientiousness, agreeableness, and extraversion with perception of social media's contribution to wellbeing, as well as the protective role of high social media competency and an internal locus of control. Conversely, the personality trait of neuroticism was found to be negatively associated with the perception of social media's contribution to wellbeing, suggesting that individuals with higher levels of neuroticism might encounter social media in ways that potentially heighten negative emotions. Further research could investigate the underlying factors influencing this negative association. For example, a systematic review study linked neuroticism to excessive use, problematic social media use, passive use, and the sharing of negative content, but not to the frequency of use (Bowden-Green et al., 2021). Future studies could explore the interplay of these factors with the perception of social media wellbeing. Understanding these factors could open avenues to enhance wellbeing for individuals with higher neuroticism, who may navigate social media differently. Additionally, the tendency of individuals with high neuroticism to share more negative content and their passive use of social media suggests areas for intervention, such as promoting positive engagement and content creation. Research could also examine whether social media competency or problematic social media use acts as mediators between neuroticism and perceptions of social media's contribution to wellbeing, potentially informing interventions to promote positive social media experiences for these groups.

Beyond individual factors, this study makes a novel contribution by outlining user-driven recommendations for improving social media design to enhance wellbeing, based on qualitative analysis. These insights align with existing literature, pointing towards a multifaceted approach to understanding and enhancing digital wellbeing. The findings also emphasize the need for design-oriented improvements that can be leveraged by researchers, designers, and policymakers to create more user-centric and culturally sensitive digital

wellbeing solutions. To achieve this, social media platforms should integrate in-app mental health tools, such as therapist chatbots, well-being assessments, and automated referrals to counseling services, while also promoting positive content and community support groups. Addressing social media addiction through providing usage tracking tools, scheduled screen breaks, real-world engagement reminders, and limiting addictive features like infinite scrolling. Additionally, content moderation should be enhanced to filter harmful materials such as hate speech, misinformation, and cyberbullying, while implementing age restrictions and safety measures to protect vulnerable users. Platforms should also offer greater content personalization, enabling users to filter out negative, stressful, or culturally inappropriate material, fostering a more meaningful and tailored online experience.

Encouraging realism and authenticity by reducing influencer-driven algorithms and removing engagement metrics like "likes" and "follower counts" can help minimize social comparison and unrealistic self-presentation. Ensuring accessibility through simplified interfaces, intuitive navigation, and inclusive design measures will support users with special needs and diverse age groups. Furthermore, strengthening security and privacy through robust data protection, spam reduction, and prevention of fake accounts is essential. Emerging technologies, including AI, VR, and AR, should be leveraged to enhance user experiences while prioritizing cultural sensitivity and ethical considerations. Platforms should also foster meaningful social connections by promoting genuine interactions, support networks, and community-driven features. Finally, ensuring transparency in moderation policies and adopting less intrusive monetization models will create a more user-centric digital space. These recommendations highlight key design considerations for developing social media platforms that better support user wellbeing. By incorporating these features, platforms can cultivate safer, more inclusive, and culturally adaptable digital environments that align with the diverse needs of users.

Authors contributions

DC, SA, AB: Contributed equally to this work: conceptualization, study design, data curation, formal analysis, and writing original draft. MN: Study design, reviewing original draft. DA: Study design, reviewing original draft. RA: Conceptualization, study design, data curation, reviewing and editing original draft; project management.

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ORCID

Sameha Alshakhsi http://orcid.org/0000-0002-2138-4731
Areej Babiker http://orcid.org/0000-0002-8105-1664
Dena Al-Thani http://orcid.org/0000-0002-1474-2692
Raian Ali http://orcid.org/0000-0002-5285-7829

Data availability statement

The dataset associated with this work is uploaded, alongside the supplementary material for this article, on the Open Science Framework at: https://osf.io/zsb5j

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About the authors

Deniz Cemiloglu is a User Experience researcher currently working in an industry role. She holds a PhD from Bournemouth University, with a research focus on human-computer interaction and persuasive technology.

Sameha Alshakhsi is a postdoctoral researcher at the College of Science and Engineering at Hamad Bin Khalifa University (HBKU), Qatar. Her research interests are centered around topics related to the interaction between technology and human behavior, including digital wellbeing, digital addiction, and persuasive design. She holds a PhD from HBKU.

Areej Babiker is a postdoctoral researcher at the College of Science and Engineering, Hamad Bin Khalifa University. She earned her BEng, MSc, and PhD in Electrical and Electronics Engineering from Universiti Teknologi PETRONAS, Malaysia. Her research interests include human-computer interaction, digital wellbeing, signal and image processing, and artificial intelligence.

Mohammad Naiseh is a Lecturer in Human-Centred AI at Bournemouth University, with a PhD from the same institution. He is a visiting Responsible AI Fellow at the UKRI Trustworthy Autonomous Systems Hub, University of Southampton. His interdisciplinary research bridges AI's technical aspects and human values, emphasizing ethical, socially beneficial AI.

Dena Al-Thani is an Associate Professor at the College of Science and Engineering at Hamad Bin Khalifa University. Dr. Al-Thani was awarded her MSc in Software engineering and PhD in Computer Science from Queen Mary University of London. Her research areas of interest include human-computer interaction, inclusive design, and eHealth.

Raian Ali is a professor at the College of Science and Engineering, Hamad Bin Khalifa University, Qatar. He earned his PhD from the University of Trento, Italy. His interdisciplinary research focuses on the interaction between human factors and technology design, promoting responsible and socially sensitive technological development.

Appendix A

Table A1. Correlation between perception of social media's contribution to wellbeing and independent variables, UK sample.

	UK										
	1	2	3	4	5	6	7	8	9	10	11
1. Perception of social media's contribution to wellbeing	—										
2. Extraversion	0.30***	—									
3. Agreeableness	0.38***	0.24***	—								
4. Conscientiousness	0.28***	0.14*	0.18**	—							
5. Neuroticism	−0.35***	−0.44***	−0.22***	−0.35***	—						
6. Openness	0.16**	0.10	0.09	0.11	−0.05	—					
7. Internal Locus of Control	0.34***	0.18**	0.20***	0.26***	−0.28***	0.10	—				
8. External Locus of Control	−0.11	−0.04	−0.21***	−0.13*	0.18**	0.05	−0.10	—			
9. Competency in Social Media usage	0.13*	−0.06	−0.02	−0.01	0.04	0.09	0.06	0.05	—		
10. Age	−0.15*	−0.05	−0.08	0.23***	−0.10	−0.01	−0.04	−0.07	−0.22***	—	
11. Gender	0.07	−0.04	−0.05	−0.06	0.35***	0.04	−0.02	0.04	0.05	−0.26***	—

*$p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. Male = 0, Female = 1. Competency in Social Media usage is reported by Spearman Correlation due to normality violation.

Table A2. Correlation between perception of social media's contribution to wellbeing and independent variables, Arab sample.

	Arab										
	1	2	3	4	5	6	7	8	9	10	11
1. Perception of social media's contribution to wellbeing	—										
2. Extraversion	0.29***	—									
3. Agreeableness	0.36***	0.10	—								
4. Conscientiousness	0.49***	0.19**	0.35***	—							
5. Neuroticism	−0.50***	−0.26***	−0.37***	−0.39***	—						
6. Openness	0.08	0.04	0.14*	0.16**	−0.06	—					
7. Internal Locus of Control	0.48***	0.10	0.32***	0.41***	−0.30***	0.07	—				
8. External Locus of Control	−0.12*	−0.07	−0.05	−0.17**	0.15*	−0.09	−0.11	—			
9. Competency in Social Media usage	0.35***	0.07	0.20***	0.23***	−0.08	0.10	0.26***	−0.01	—		
10. Age	0.15*	0.07	0.10	0.27***	−0.13*	−0.07	0.09	−0.07	−0.05	—	
11. Gender	−0.10	0.03	−0.26***	−0.17**	0.27***	−0.07	−0.16**	−0.10	−0.09	−0.24***	—

*$p < 0.05$, **$p < 0.01$, ***$p < 0.001$. Male = 0, Female = 1. Competency in Social Media usage is reported by Spearman Correlation due to normality violation.

Appendix B

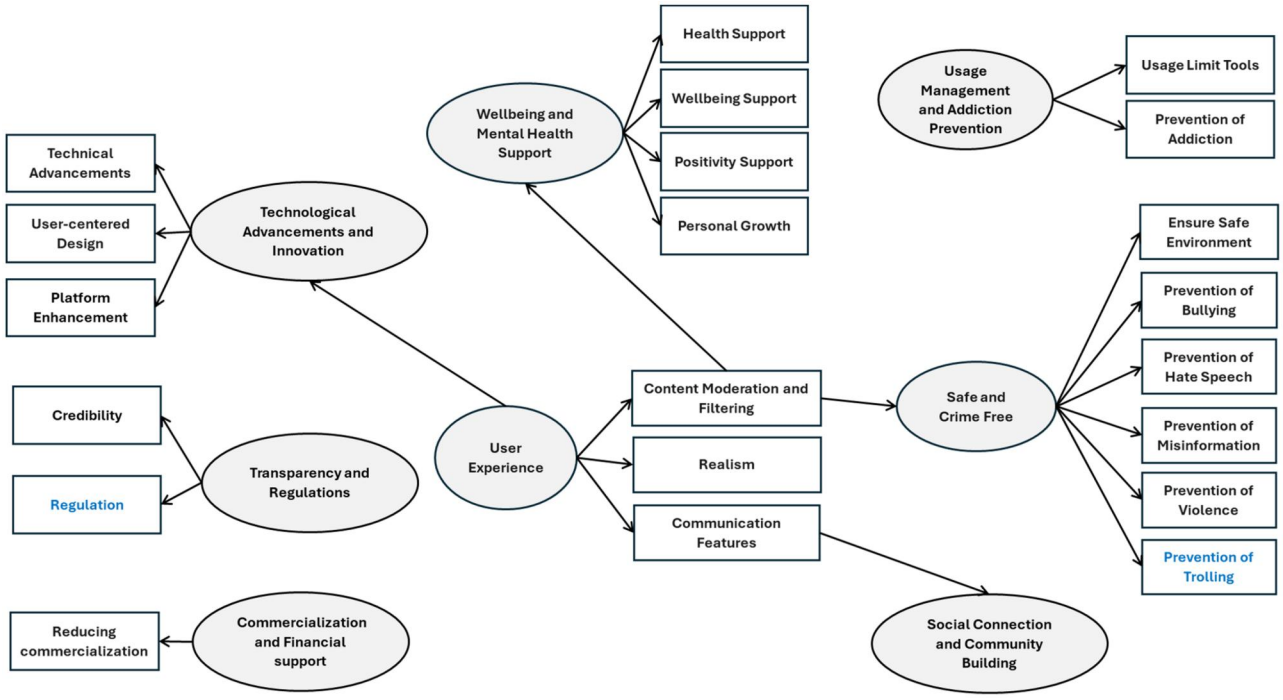


Figure B1. Thematic map for user requirements on future social media design to enhance wellbeing, UK sample.

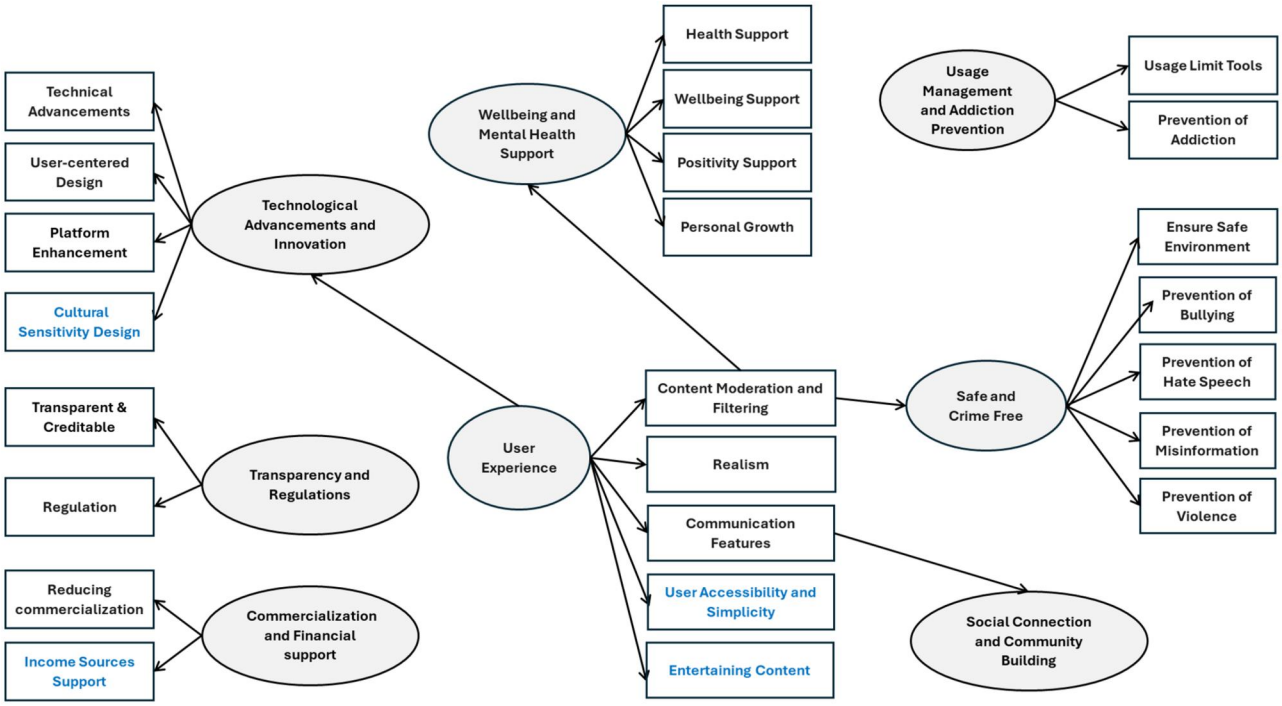


Figure B2. Thematic map for user requirements on future social media design to enhance wellbeing, Arab sample.