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Towards a framework for flourishing through social media: a systematic review of 118 research studies

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ABSTRACT

Background: Over 50% of the world uses social media. There has been significant academic and public discourse around its negative mental health impacts. There has not, however, been a broad systematic review in the field of Positive Psychology exploring the relationship between social media and wellbeing, to inform healthy social media use, and to identify if, and how, social media can support human flourishing.

Objectives: To investigate the conditions and activities associated with flourishing through social media use, which might be described as 'Flourishing through Social Media'.

Method and Results: A systematic search of peer reviewed studies, identifying flourishing outcomes from usage, was conducted, resulting in 118 final studies across 7 social media platforms, 50,000+ participants, and 26 countries.

Conclusions: The interaction between social media usage and flourishing is bi-directional and nuanced. Analysis through our proposed conceptual framework suggests potential for a virtuous spiral between self-determination, identity, social media usage, and flourishing.

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Introduction

The idea that social media is bad for our mental health, and for society, has become increasingly widespread and extensively researched from both a psychological and a behavioural perspective (Zuboff, 2019). Yet with over 50% of the world using social media, for an average of 2 hours 24 minutes per day (Broadband Search, 2020), it has also become inextricable to the daily lives of many. The question often missing from the discussion is: how can social media use be optimised so that it enhances both our wellbeing and flourishing in life?

There is a significant body of research taking a pathology focus, examining deficit-based wellbeing correlates of social media usage such as depression and anxiety (e.g., McCrae et al., 2017), and discussing risks such as cyberbullying (Kowalski et al., 2014; Livingstone, 2013). Alongside this, literature is emerging across various fields, including psychology, cyberpsychology, and communications studies, exploring its wide-ranging positive impacts and opportunities. Examples include social connection, career development and entrepreneurial opportunities (Cooper & Naatus, 2014; Tang et al., 2012).

Given social media's popularity, psychological impacts, and potential benefits, researchers in positive psychology (Lomas et al., 2014, p. 74) and fields such as

information management (Ngai et al., 2015) have called for exploration into how it can be better utilised to support wellbeing. This is likely to involve a shift towards exploring how individuals can be proactive in their engagement, so they can intentionally experience its benefits. A starting point is to establish what is currently known. That is, what are evidence-based, constructive approaches to social media use, and how can positive psychology inform these?

There has not yet been a broad systematic review exploring the relationship between social media and wellbeing through a positive psychology (PP) lens. The current review aims to do this by investigating the conditions and outcomes associated with flourishing amongst social media users. Whilst the phrase does not yet exist in the literature, it might be described as 'Flourishing through Social Media'.

Literature review

Online risks and opportunities

Some forms of internet use increase the chances of harmful outcomes while others are more likely to lead to beneficial outcomes (Livingstone et al., 2011). The former is usefully conceptualised by Livingstone et al.

(2011) as online risks, the latter as online opportunities. There is considerable scholarship on the risks that children can encounter online such as cyberbullying and online grooming (e.g. Hasebrink et al., 2009; Kowalski et al., 2014). The opportunities relate to both broader internet use, such as access to information and educational resources, and to the functionalities specifically afforded by social media, such as networking with friends, expression of identity and, content creation (Hasebrink et al., 2009). However research on online opportunities has been described as scarce and more recent (Cabello-Hutt et al., 2018).

Given the increased take up of social media across all age groups (Pew Research Centre, 2021) this review seeks to examine its impact across generations, rather than on children and adolescents alone. Whilst Livingstone's work is predominantly focused on children and young people, a few points are worth noting from this literature.

Opportunities can bring risks, and online risks might turn into negative experiences or harm (Livingstone & Bulger, 2012). Livingstone and Helsper (2010) show that restricting Internet use with the aim of reducing risks is also likely to reduce opportunities. Therefore, to optimise the opportunities whilst managing risks, it is important to identify both what these beneficial outcomes might be, and the conditions which increase the likelihood of such outcomes. However, whilst many of the opportunities identified in this literature can be categorised through the lens of PP, (e.g., with a focus on wellbeing, flourishing or mental health), they do not appear to have been explicitly organised in this way.

Additionally, the literature on online risks and opportunities generally encompasses the wider online space, which includes the internet and messaging services. However this review is specifically focused on social media, which has unique characteristics and issues, as we now discuss, before turning to how these relate to mental health and positive psychology.

Social media: the risks

Against the backdrop of social media's rapid proliferation, there has been considerable discussion around the negative impacts and risks, both to society and individuals. The societal impacts cannot be entirely separated from individual wellbeing and provide important context for the subject matter at hand. Social media platforms have been designed for commercial interest rather than public good and there are myriad ways in which this can be, and is, exploited. In her seminal book *The Age of Surveillance Capitalism*, Zuboff (2019) discusses the detrimental impact of social media platforms selling

our behavioural data to advertisers. Our individual self-determination is eroded through 'behavioural nudges' via algorithms designed specifically for the purpose of capturing and profiting from our attention (Newport, 2019). Furthermore, limited regulation of information shared online, has resulted in misinformation and political polarisation (Allcott et al., 2020).

There is much public debate about social media platform regulation. Platform regulation across countries will differ in approach and effectiveness. Additionally, regulation of these technologies takes place at a significantly slower timescale than their evolution (Zuboff, 2019). For example, in the UK, it was announced that Ofcom has increased regulatory powers over harmful online content since February 2020, but little has been said on this since, and as this review notes, there are myriad wellbeing impacts from social media use beyond harmful content alone.

Whilst it is an important and evolving debate, the focus of this review is on increasing the agency of practitioners and individuals today. Awareness of how social media platforms seek to influence us, and how specific platform functionalities affect us can promote more conscious usage, will feature in this review. However, changing platform design is beyond the agency of most social media users or practitioners in the fields of psychology and wellbeing and beyond the scope of this review. Therefore, evidence on individual psychology and behaviours online will be examined to identify how we can optimise social media use for wellbeing and flourishing. With this context in mind, we briefly consider the features which define social media, and how individuals interact with them.

A frequently used definition of social media is that of Kaplan and Haenlein (2010, p. 61): 'a group of Internet-based applications that ... allow the creation and exchange of user-generated content', in virtual communities.¹ It is this within-platform content-creation functionality which makes social media a unique, and still relatively novel, form of human interaction.

Social media environments include dashboards of interactive information requiring deep concentration, and providing optimal challenge, such as editing and uploading content, and commenting on friends' posts (Pelet et al., 2017). A balance is needed between enjoying these appealing characteristics and recognizing that they have been deliberately designed to capture our attention (Newport, 2019), such that they become addictive and impinge on individual autonomy. Indeed studies suggest that social media is more addictive than both alcohol and cigarettes (Hofmann et al., 2012). Increased frequency of social media use has been associated with less positive mood (Wang et al., 2015) as well

as specific emotions such as jealousy (Muise et al., 2009) as a result of the ease with which social comparisons can be made, through rapid updating and sharing of personal information. In turn, this has been associated with deficit-based wellbeing outcomes such as depression, anxiety and stress (Labrague, 2014).

However, whilst much research claims social media has negative outcomes, emerging evidence simultaneously appears to be mixed. For example, Bruggeman et al. (2019) found that 'moderate' social media use, defined as less than 3 hours per day, had no effect on children's wellbeing, whereas the strength of their offline social network, both in terms of its size and perceived social support, was a far stronger, positive predictor of their wellbeing. Keles et al. (2019) systematic review on the negative influence of social media on mental health cites substantial limitations resulting from cross-sectional study design, offering correlations but not causation, and calls for further research into the mechanisms underpinning such effects. Some studies examining causal mechanisms have overturned previously understood relationships. For example Song et al.'s (2014) meta-analysis examining the relationship between loneliness and social media use found that, counter to the previous assumptions that social media created loneliness, lonely people were in fact using social media more to compensate for lack of social competence and increase wellbeing. Overall, outcomes vary significantly, and this is likely to be because people are engaging with social media in different ways and for different reasons.

Indeed, researchers such as Clark et al. (2018) have noted that motivations and behaviours play a critical role in whether the psychological impacts of social media are positive or negative. When the driver is to increase connection, usage is linked with positive well-being outcomes. When it is not, the consequences are less straightforward. For example, social comparison as a motivator has been shown to have a key negative influence over affect balance, self-esteem and self-perception (Vogel et al., 2015).

Given the pivotal impact of motivations in this context, Self-determination Theory (SDT: Ryan & Deci, 2000, p. 68) is relevant here. SDT suggests that intrinsic psychological needs form the basis for individual motivation, behaviour and psychological wellbeing. Specifically, people seek to satisfy the needs of autonomy ('a feeling of volition and the absence of external pressures'), relatedness (a feeling of connectedness with others), and competence ('the capacity to act effectively and the feeling of pursuing something meaningful'). Problematic social media use has been associated with unmet psychological needs offline. For example, Masur

et al. (2014) find that thwarted autonomy offline leads to the desire to present oneself freely online, with social media offering the possibility of self-determined self-presentation independent of social pressures. Having noted the importance of SDT to both social media behaviours and wellbeing (Su et al., 2014), we now consider the latter, and flourishing, in more detail.

Social media and flourishing

The purpose of this review is to identify wellbeing opportunities through social media use, from a positive psychology perspective, and to understand the conditions enabling these. That is, we take an asset-based approach. We utilise the term 'flourishing'² to capture and provide a holistic view of what it means to thrive. Whilst the debate continues around the conceptual obscurity of synonymously used terms such as 'happiness', 'wellbeing', and 'flourishing', our position aligns with VanderWeele (2017) that flourishing refers to 'complete human wellbeing'. Given the wide-reaching implications of social media use for numerous domains of well-being, a broad term such as 'flourishing' provides a useful definitional framework from which we can make sense of and situate our findings. These domains matter because social media research might not use terms such as 'flourishing' but may instead connect to a specific domain (such as relationships).

In co-opting 'flourishing' in this way, naturally we have positioned 'happiness' (which we define as most allied with subjective well-being; (Diener et al., 1999), and other aspects of well-being – such as psychological well-being (Ryff, 1989) and social well-being (Keyes & Lee, 1998) – into the broader term 'flourishing' because it can be, and indeed has been, considered as a fundamental component of flourishing (see Diener et al., 2010; Huppert & So, 2013; Keyes, 2002; Seligman, 2018). It is important to acknowledge the nuance in how these constructs may intertwine, for example, whether 'subjective' approaches such as SWB can be tallied together with 'objective' approaches such as PWB; (Kristjánsson, 2018). However, for brevity and clarity, in this paper we position happiness as a contributing factor to flourishing rather than opposite to, or synonymous with, flourishing.

Putting this in the context of the present review: we are interested in how social media can contribute to flourishing rather than simply avoiding its negative impacts. PP should be well placed to articulate a holistic framework for this purpose given its numerous frameworks for flourishing and wellbeing. For example, given the 'social' context of social media, we note recent shifts towards acknowledging interpersonal, intrapersonal, and collective dimensions of wellbeing, such as the LIFE model (Layered Integrative

Framework Example; Lomas et al., [Lomas, et al., 2015a](#)). The LIFE model is a metatheoretical model based on Wilber's (1997) four ontological dimensions of the individual, which juxtaposes two binaries; mind-body and individual-collective in a two by two matrix. The resultant four domains reflect the mind, body, culture, and society. The LIFE model provides a space to look at wellbeing beyond the individual by focusing on collective wellbeing (see Roy et al., 2018) or group-level predictors of wellbeing (e.g., group distinctiveness, group cohesion; Forsyth, 2018). Given the potential for social media to have broad implications on groups of individuals, the LIFE model may be a useful lens through which the current topic can be analysed.

Alternatively, The Comprehensive Inventory of Thriving³ ('Thriving Inventory'; Su et al., 2014) is a multi-domain model of flourishing that taps into seven core indicators of psychological functioning (subjective wellbeing, enriching relationships, engagement, meaning and purpose, mastery and achievement, autonomy, optimism). This model also recognises the interplay of the intrapersonal and the interpersonal, through sub-domains such as Community, Trust, Respect, Loneliness and Belonging. It is worth noting that Loneliness is included in the Thriving Inventory, offering an example of how PP has moved beyond the narrow focus of the positive, taking into account the dialectical nature of what it means to be human.

The intrinsic self-determination needs of autonomy, competence and relatedness are also included within the Thriving Inventory, recognising their importance in underpinning wellbeing. Given the relevance of Self-determination Theory to social media behaviours discussed above, this is a particularly useful framework. Overall, there appears to be much potential for flourishing frameworks to reflect and inform Flourishing through Social Media.

Yet, the growing literature discussing social media's positive wellbeing impacts has not typically been organised through a positive psychology lens, that is, taking a structured psychology-based approach to wellbeing and flourishing. For example, various systematic reviews highlight specific wellbeing domains which social media can contribute to. One domain is social support, that is, having people to rely on for psychological or material support to cope with stress (Hupcey, 1998). Two systematic reviews reported social support resulting from social media, one focused on breast cancer patients (Falisi et al., 2017); and another examining general social support (Gilmour et al., 2019). Another example is learning. In their systematic review of social media use in medical education, Cheston et al. (2013) found learner engagement and active learning to be important benefits from social media-enabled interaction and learner-generated content.

Likewise, the ability to generate multi-media content on social media, which Hogan (2010) conceptualizes as an online 'exhibition', also opens up opportunities for self-presentation, self-expression, and identity-development (e.g., Karapanos et al., 2016). Identity is a broad concept encompassing multidimensional aspects that create one's sense of self. In their systematic review, Kasperuniene and Zydziunaite (2019) discuss the 'spiral of transformation' of professional identity construction through social media, that is, when the virtual identity from social media goes beyond the online world to 'real life'. Currently, identity development through social media has not been directly linked to an overall picture of flourishing. This could represent a missed opportunity to harness social media's unique features to support flourishing.

Overall, the literature suggests promising, yet currently distinct domains where social media influences wellbeing, which are ripe for a broader synthesis from a positive psychology lens. Positive psychology may therefore be underutilised in informing the beneficial aspects of social media. This paper offers to close this gap, by systematically identifying a PP framework for social media use.

Methods

The present study (a systematic review) employed a broad literature search of papers that examine flourishing outcomes of social media, and the conditions associated with these outcomes. The review protocol was registered with the International Prospective Register of Systematic Reviews (PROSPERO) on 18 August 2020, registration number CRD42020190,102, accessible here:

https://www.crd.york.ac.uk/prospero/display_record.php?RecordID=190102

Eligibility criteria

The review considered English language quantitative, qualitative and mixed methods studies, systematic reviews, and meta-analyses published in peer-reviewed journals between 2010 and 2020. Given the rapid proliferation of social media, this time period is considered to cover studies investigating the type of social media which is mainstream today.

Inclusion criteria: studies including the evaluation of well-being indicators⁴ in relation to social media use. No restrictions with regards to age, gender, sexual orientation, ethnicity, or location.

Exclusion criteria: Studies: (1) focused on marketing insights and profiting from social media (2) analysing online behaviour patterns or content without examining

wellbeing impacts (3) exploring problematic use with no insight into flourishing (4) not stating the number of papers analysed (systematic reviews)

To clarify how this search differs from, or is situated in relation to the vast literature on online risks and opportunities (e.g., Livingstone et al., 2011) noted in the literature review, we are searching for research in relation to:

- Social media platforms rather than broader internet usage⁵
- All generations and not just at children and young people
- Wellbeing, psychological wellbeing and flourishing impacts of social media

Data sources and searching strategies

The following electronic databases within EBSCO were methodically searched: PsycINFO, PsyArticles, Communication & Mass Media Complete, and Business Source Complete. Preliminary searches noted that 'flourishing' or 'thriving' generally described the proliferation of social media sites, rather than human flourishing. Similarly 'opportunities' yielded results relating to business and commercial opportunities e.g., marketing opportunities, rather than those for human flourishing. Therefore, the following terms were used:

- (1) Wellbeing OR Well-being OR Well being; Happiness⁶
- (2) Social Media OR Social Networking Sites OR Facebook OR Twitter OR Instagram OR LinkedIn OR YouTube OR Pinterest OR TikTok OR Snapchat⁷

Wellbeing terms (1) were combined with social media terms (2) using the AND function.

Study selection and data extraction

Initial searches were saved within EBSCO. Titles and abstracts were sifted against inclusion criteria. Selected papers were exported into excel, where duplicates were removed, then downloaded, if available, and saved within a reference manager (Mendeley) folder, for detailed review. SPICO (Robertson et al., 2015) was adapted for this purpose, and the following variables were extracted from each paper:

- Study design;
- Participants: number, gender, country, average age, occupation;
- Intervention: platform analysed;

- Comparison & Outcomes: wellbeing outcome measured, improvement in wellbeing, primary outcomes, other comments

Study quality was assessed via the Mixed Methods Appraisal Tool (MMAT; Hong et al., 2018) which can appraise the methodological quality of qualitative, quantitative, and mixed methods studies concurrently. Earlier research shows MMAT to be reliable (Pace et al., 2012) and it has since undergone development to enhance content validity. The MMAT checklist and results are available in Appendix 4. For the five review papers included, the JBI Critical Appraisal Criteria were used (Joanna Briggs Institute, 2020), as detailed in Appendix 3. All studies were reviewed by the first author, and queries checked by the second author.

Bias risk

To assess the bias of individual studies, the following tools were used to sample a selection of quantitative and qualitative studies: the Cochrane Risk of Bias Tool (The Cochrane Collaboration, 2008) for quantitative studies, and the Hawker checklist (Hawker et al., 2002) for qualitative or mixed method studies. The risk of bias was found to be low for both quantitative studies and qualitative studies.

Including only peer-reviewed publications offered a degree of quality assurance, in addition to the quality review discussed below. However, the resultant publication bias is acknowledged. Additionally, there may be biases in the participant pools such as a focus on particular age groups, occupations or regions, and dominance of research on particular social media platforms, particularly Facebook. These data were extracted from papers so that these risks could be assessed. Finally, whilst this study focuses on positive aspects of social media use, it is important to emphasise that the risks associated with social media use are acknowledged, even if they are not the focus of this review.

Synthesis of results

A systematic narrative synthesis approach was adopted, which is appropriate when the review covers quantitative studies using diverse methodologies or different theoretical conceptualisations (Siddaway et al., 2019). We also drew on the best-fit framework synthesis approach, a structured approach to organising and analysing the findings from different studies. Once the key themes and sub-themes had been identified, these were tested against flourishing and wellbeing frameworks including the LIFE model (Lomas et al., Lomas, et al., 2015a) and The Thriving Inventory (Su et al., 2014). The

Thriving Inventory was identified⁸ as the best-fit framework for which the study themes could be mapped and coded. As per Carroll et al. (2013) additional themes were added as needed based on the study data.

Results

Study selection

118 papers were included in the systematic analysis, comprising a total of over 50,000 participants. Inclusions and rejections at each screening stage are shown as a PRISMA flow diagram in Figure 1.

A full table of extracted studies and primary outcomes is presented in Appendix 2 (review papers in Appendix 3). Summary characteristics and participant information are presented below in Table 1. The characteristics reflect a range of research methods with 16 RCTs (14% of studies) though there is a dominance of quantitative, cross-sectional studies. The studies reflect a range of ages and occupations, as well as a wide range of countries of origin (26 studies) though we note a dominance of papers from the USA (48 studies). There was also a dominance of research focused on Facebook as discussed within the Limitations section. Finally, most

studies (81) noted overall improvements in wellbeing through social media use, which we attribute to the study inclusion criteria.

Study Quality. All included studies except review papers were assessed using the MMAT tool available in Appendix 4. A cautious approach was adopted, such that any areas of ambiguity around scoring were given the lower score option. The majority of papers met either four or all quality criteria, apart from six papers which met only three quality criteria. Overall this suggests a high quality of included studies. For the review papers, all five met the JBI Critical Appraisal Criteria for inclusion (Joanna Briggs Institute, 2020).

Themes

In this section, key review themes are highlighted. The analysis suggested a distinction between the antecedents of whether social media contributes to wellbeing (referred to as 'Conditions', Table 2); and flourishing outcomes ('Outcomes', Table 3). The framework presented below (Figure 2) represents an initial conceptual mapping based on the review findings

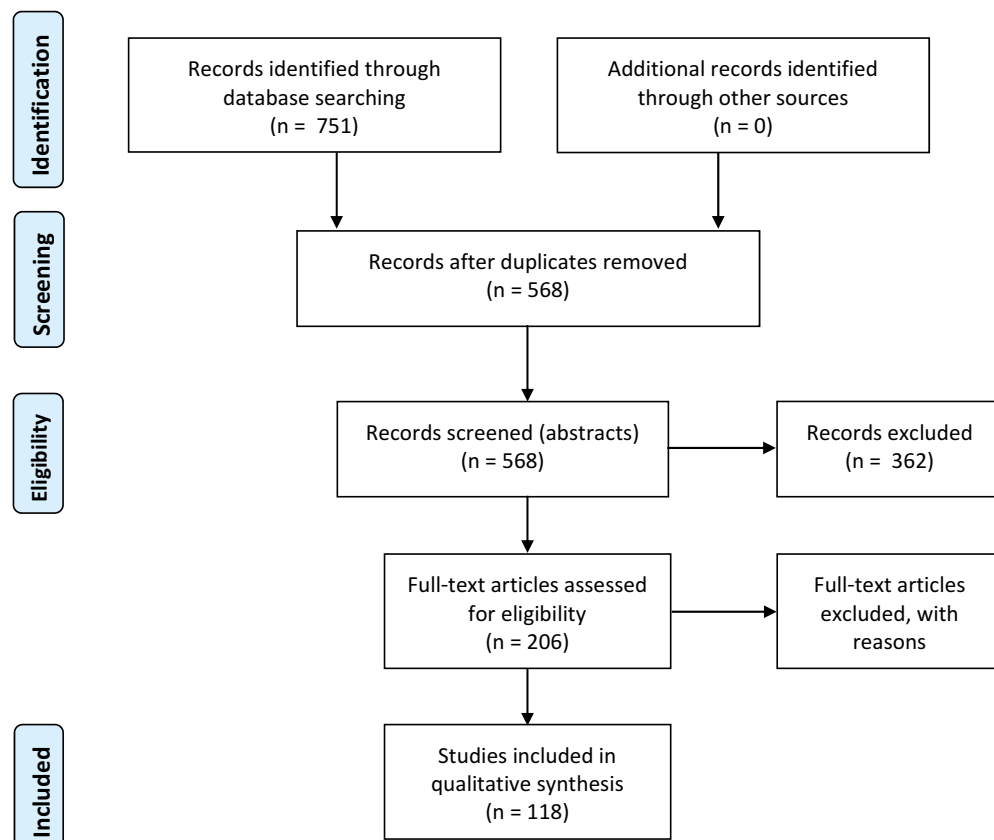


Figure 1. Completed PRISMA Flow Diagram (Moher et al., 2009).

Table 1. Summary Characteristics of Extracted Papers.

Characteristic		Number of Studies
Research Method	Quantitative	97
	Qualitative	11
	Mixed Methods	5
	Systematic Review	4
	Meta-analysis	1
Quantitative Study Design	Randomised Control Trial	19
	Cross-sectional survey	61
	Other	17
Age	Children	1
	Adolescent	8
	Young Adult (18–25)	29
	Adult (25–50)	42
	Older Adult (50+)	1
	Cross generational	44
	Not clear	3
Occupation	School	9
	Student	46
	Variety of Occupations	49
	Receiving care/Treatment	6
	Doctors	1
	Youth Group Leaders	1
	Retired	1
	Not clear	5
Country	Total number of countries studied	26
Country	Most frequently studied countries:	
	USA	48
	Germany	10
	China, Hong Kong, Taiwan	12
	UK	6
	Australia	6
Platform	Facebook	70
	Twitter	7
	Instagram	12
	YouTube	3
	Snapchat	3
	Local SNS	3
	Any preferred	24
Wellbeing improved?	Yes	81
	Mixed/more nuanced	29
	No	8

Below we describe each theme, its prevalence, significance, and relationship to the other themes, in order to inform the framework proposed in [Figure 2](#). The reader will note a greater volume of analysis related to the conditions, reflecting the complexity and pivotal nature of these mechanisms in achieving the flourishing outcomes.

Self-determination Theory (SDT; Ryan & Deci, 2000) (52 conditions⁹). SDT identifies three psychological needs underpinning human motivation: relatedness (15 studies), autonomy (9 studies) and competence (5 studies). Included alongside relatedness are adjacent, yet distinct constructs such as loneliness levels, social capital, and offline relationships. These interpersonal constructs are considered here as conditions of flourishing through social media usage.¹⁰ That is, levels of individual relatedness are generally positively associated with wellbeing from social media usage (e.g., Hu et al., 2017). However, social media can also be used to compensate

for low levels of relatedness or competence. For example, Facebook was found to support those lacking the social skills required to develop social capital and confidence through conventional routes (Ziv & Kiassi, 2015). Studies also revealed a tension between autonomy and the other needs, as elucidated in the discussion. A further 13 papers address motivations and goals for social media use ('drivers'), impacting the way social media is used, and the wellbeing effects. These drivers often reflect the same psychological needs of self-determination theory. For example, belongingness was a commonly discussed driver (3 studies, e.g., Lai et al., 2019) for social media use. Generally, the drive for connection increased psychological wellbeing (PWB) rather than the self-image driver, which increased the likelihood of social comparison (Tobin et al., 2020).

Individual Differences (20 conditions). These refer to enduring characteristics that differentiate one individual from another (Chen & Miller, 2007). 9 studies related to

Table 2. Conditions.

Theme	Sub-theme	No of studies
Self Determination (grouped by sub-category)	Self-determination theory (general theory covered)	4
	Autonomy	9
	Competence: communication, social, self-efficacy, functioning	5
	Relatedness/Connection	3
	Social capital (tie strength or number)	5
	Offline relationships	4
	Loneliness ¹⁵ levels	3
	Motivators	8
	Goals	5
	Self-esteem	4
	Level of Identity Development	2
Total		52
Individual differences	Personality	9
	Age	4
	Gender	2
	Culture (individualistic or collective)	2
	Personal circumstances, race and class	2
Total		20
Platform design	Platform design	5
Social Comparison	Social Comparison	16
Wellbeing (as an antecedent of usage)	Psychological Wellbeing	5
	Physical wellbeing and activity	3
	Emotional regulation	1
	Psychological state	1
	Resilience levels	1
	Life satisfaction	1
Total		12
Usage (behaviours & experience)	Usage/Time Spent online	11
	Content shared or experienced (self-presentation or other content)	4
	Nature of online Feedback	3
	Active v Passive behaviour online	2
Total		20

personality. Rather than binary outcomes suggesting social media is either good or bad for introverts or extraverts, findings are more nuanced, suggesting that social media can benefit both extraverts (Lönnqvist & Große Deters, 2016) or introverts in different ways, and

that personality impacts usage differentially. For example, high-functioning introverts are better at being truly alone without resorting to social media, but equally introverts and those with low social competence, or the socially anxious, benefit from the connection

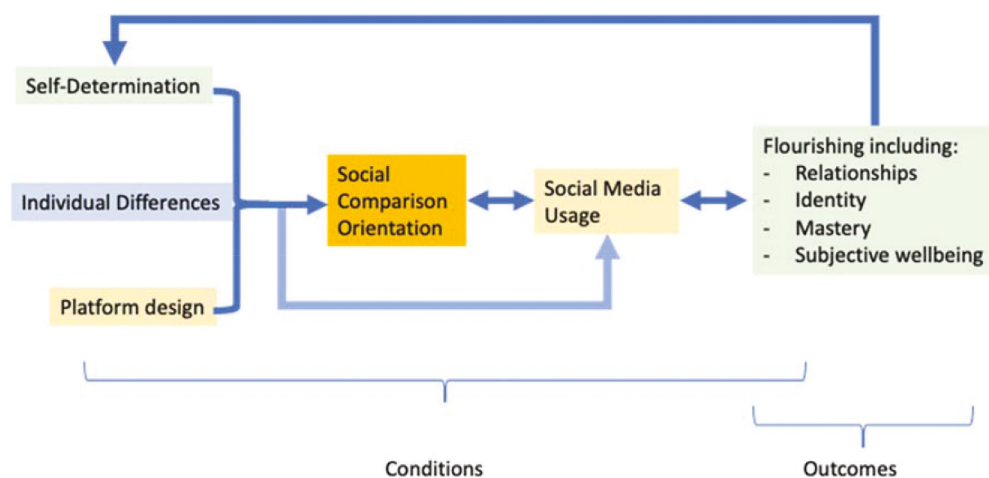


Figure 2. Initial Conceptual Framework for Flourishing through Social Media.

opportunities afforded by social media (e.g., Indian & Grieve, 2014). What does seem clear though is that neuroticism more associated with depressive symptoms online (Chow & Wan, 2017).

Other notable individual differences include age and gender. Older groups were found to have a more intimate experience with social media and were less prone to negative comparison and anxiety arising from social media. The studies examining gender find that males experience greater wellbeing benefits from and social media. One explanation found for this was stronger links between social comparison and body dissatisfaction for women than men (Ormsby et al., 2019).

Platform design (5 conditions). Social media platform design has created different environments, through what has been described as ‘choice architecture’ designed to influence our behaviour (Binns, 2014). Compared to the preceding themes which relate to the individual, it may seem incongruous to discuss platform design here. However, its emergence as a theme within the included studies highlights that it is not individual factors alone which influence flourishing through social media. As well as influencing social comparison, platform design influences user behaviour, confidence and experiences (Binns, 2014). For example, quantitative results suggest loneliness decreases and happiness increases as a result of image-based social media use, whereas text-based Twitter is neutral. Qualitative results suggest this is a result of the intimacy offered by image-based social media (Pittman & Reich, 2016). Yu (2015) shows that the relevance of the platform in meeting individual needs is correlated with positive psychological state.

Social Comparison (16 conditions). This individual-level theme can be understood as the process of thinking about other people in relationship to the self (Wood, 1996). This can be amplified on social media due to the constant provision of information about others to users. Overall, these papers support the increasingly established idea that social comparison plays a pivotal role between social media use and wellbeing. Generally, higher levels of comparison on social media are worse for wellbeing. However, the relationship is more complex than this overall direction, partly because wellbeing and usage levels have a bidirectional relationship with social comparison. For example, heavy, passive users are found to be more impacted by social comparison than lighter users, and decreases in wellbeing are connected with increases in social comparison, which in turn positively predict usage (Reer et al., 2019). Finally, and partially reiterating from

previous sections, social comparison can vary according to individual differences such as personality and gender (Fioravanti et al., 2020), psychological needs (Tobin et al., 2020), and platform design.

Wellbeing as a condition (12 conditions). Emotional, psychological, and physical well-being factors were identified as conditions influencing the impacts of social media use, demonstrating the bidirectional nature of the relationships between social media usage and well-being. Overall, better wellbeing predicted less problematic use (e.g., Uysal et al., 2013). Generally, better wellbeing also produced better outcomes from social media usage such a reduced stress (Brailovskaia et al., 2018). However, this was not the only relationship found. Emotional states could either be amplified (Rus & Tiemensma, 2018) or strengthened through social media use. Ziv and Kiassi (2015) found that social media use strengthened wellbeing for those with low initial levels of resilience. To give an indication of the interrelatedness of these themes, both physical health (Brailovskaia & Margraf, 2016) and psychological wellbeing were found to mediate the negative impacts of personality on social media usage (Nikbin et al., 2020).

Social Media usage and experience (11 conditions). Each theme above represents conditions impacting how individuals engage with social media, which might suggest that a distinct theme for usage is unnecessary. However, some specific factors within the papers covering usage are worth noting. Firstly, these relate to how much time is spent online. Less is generally better, but ‘zero’ is not necessarily the optimal solution, with some studies finding that abstinence reduces, or has no effect, on wellbeing (e.g., Vally & D’Souza, 2019). Secondly, these relate to whether individuals engage actively or passively, the former is generally better. For example, an experimentally-induced increase in status updating activity reduced loneliness, because participants felt more of a day-to-day connection with their friends (Deters & Mehl, 2013).

Outcomes

Flourishing outcome domains of social media use are now considered. The Comprehensive Inventory of Thriving (‘Thriving Inventory’: Su et al., 2014) was found to offer a good fit to the themes identified, with augmentations, such as Identity, indicated with an Asterisk. When identifying the most suitable flourishing framework for the current review, we noted the

Table 3. Flourishing Outcomes.

Domain (Su et al., 2014)	Study Themes	No of studies
Relationships	Social Support	18
	*Positive Relations/Collaboration	3
	*Social Capital	9
	Community	4
	Reduced Loneliness	8
	Connection & Relatedness	7
	Belonging	3
	Total	52
Engagement & Meaning	Engagement	1
	Meaning/Self Actualisation	4
	Total	5
*Identity	Identity/Self-Presentation/Self-Expression/Sharing/Self-Reflection/Self-Representation/Authentic Self	16
	Social Identity	2
	Total	18
Subjective wellbeing	Life satisfaction	2
	Positive Emotions/Affect	16
	Reduced Stress	2
	*Psychological Stability	2
	Total	22
Optimism Mastery	Optimism	1
	Self-efficacy/Agency	2
	Skills	2
	Accomplishment	2
	Learning/Relevant Information/Learning Environments/Academic Accomplishment	5
	Self-esteem	2
	*Personal Growth	1
	Total	13
Autonomy *Body	Autonomy	1
	Health	4
	Body/ body image	2
	Total	6

* = additions to the CIT.

lack of studies focusing explicitly on the collective level (e.g., wellbeing as a group level construct; Roy et al., 2018). Rather, research is primarily focused on the individual and the impact on their immediate relationships/connections. As such the Thriving Inventory, which includes constructs more aligned to the current research such as community, perceived social support, and belonging, was found to have the best fit. This inventory is set out fully in Appendix 1. Table 3 sets out flourishing outcomes.

Dominant themes are now discussed, that is those with more than 10 outcomes relating to a theme. We note that there is further granularity within these themes, though it is beyond the scope of the current paper.

Relationships (52 Outcomes). Within the relationships domain of the Thriving Inventory (2014) four distinct sub-domains (support, community, loneliness and belonging) map closely to the themes identified in the review. Whilst on the surface these domains may appear to be on the collective level, in reality the papers we identified are discussing the impact of connectedness and support solely on the individual level. The most frequently explored was Social Support¹¹ (18 studies),

which was shown to generally increase as a result of social media use. This was of particular importance for patient groups such as those with cancer e.g., Falisi et al. (2017), those with disabilities, and for minority groups. In these cases, social media offered opportunities to connect with others navigating similar experiences and obtain relevant information (e.g., Ward et al., 2018) which resulted in social support. Related but distinct outcomes are reduced loneliness (8 studies), and increased sense of belongingness (3 studies).

Social Capital (9 studies), which describes the reciprocal relationship between individuals through their social networks (Schrock, 2016), was also notable within relationships. In the social media context, Social Capital has been categorized as weak or strong ties, and bridging versus bonding capital. The review findings highlight beneficial impacts on both bonding and bridging capital, through social media usage, which in turn lead to emotional support, horizon broadening, and networking value (Tobin et al., 2020). It is important to note that, like the relationships theme, the social capital papers explore social capital and its implications at the individual level.

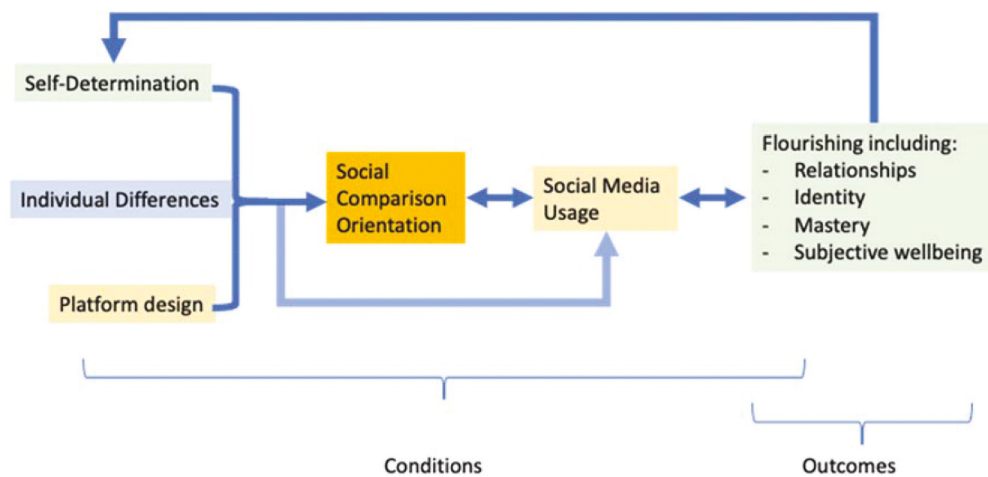


Figure 3. Initial Conceptual Framework for Flourishing through Social Media.

Identity.¹² 18 outcomes were found to relate to the concept of identity, either directly or through adjacent themes including self-presentation, self-expression and personal narrative sharing. Self-presentation describes how we communicate our own image to others and plays a crucial role in identity development (Baumeister & Tice, 1986). Three identity themes from the review findings emerge as follows. Firstly, as with social support, social media appears particularly helpful for minorities and those with disabilities. For the latter social media offers a place where they do not need to focus their identity on their disability, nor do they have to hide it (Chadwick & Fullwood, 2018). Secondly, social media appears to facilitate narrative identity, which describes the life story that individuals build to facilitate sense-making of their lives and extract meaning from their experiences (Singer, 2004). Pera et al. (2020) find that for older users, photo-sharing via social media enables self-reflection and self-representation, transforming an individual experience into a collective one.

Thirdly, two studies examined Social Identity Theory (SIT; Turner & Tajfel, 1986), which discusses the element of individual identity that is socially constructed, which seems particularly relevant in a social media context. Wei and Gao (2017) find the social identity of migrants increased through social media usage. They describe a psychological process where individuals assimilate others' behaviours and values to integrate into the group. This was in turn, significantly associated with increased subjective wellbeing.

Subjective Wellbeing (22 outcomes). Within the Thriving Inventory, this theme includes life satisfaction, positive feelings and negative feelings. The majority (16 studies) identified positive emotions from social media use such as closeness and inspiration or positive affect.

However, qualitative and mixed methods research provides further insight into this. For example, in Weinstein's (2018) paper, quantitative results portray social media as predominantly positive ($n = 568$), whereas in-depth interviews ($n = 26$) reveal positive and negative affect experiences across multiple dimensions for each individual, suggesting that the social media experience cannot easily be labelled as positive or negative.

Mastery (13 outcomes). The Thriving Inventory includes the following sub-domains within mastery: Skills, Learning, Accomplishment, Self-efficacy and Self-worth. Of these, learning (5 studies) through the relevant knowledge exchange was the main theme identified in the current review. Contexts include university settings, where social media offers peer support groups and learning environments (Uusiautti & Määttä, 2014), and organisations, where it can promote knowledge exchange and wellbeing (Van Zoonen et al., 2017).

These findings can be linked to a significant body of literature on digital skills, competencies and literacies. Aspects of this literature are particularly relevant to learning in the social media environment, highlighting new media literacy skills such as distributed cognition – the ability to interact meaningfully with tools that expand mental capacities; and practical skills such as content creation. A relatively recent discussion of different digital literacy models can be found in Lordache et al. (2017).

Turning to self-efficacy and accomplishment (4 studies), social media community discussion threads can offer a virtual community for fitness encouragement, information and sharing success, inspiring achievement of other goals (De la Peña & Quintanilla, 2015). Sharing mastery experiences on social media has also been positively associated with self-efficacy, which in turn is related to physical and mental wellbeing (Kashian & Liu, 2020).

Discussion and future directions

This review aimed to systematically identify evidence-based approaches to social media usage which support flourishing outcomes, using a positive psychology lens. The review was deliberately expansive in terms of participant pools (over 50,000 participants across 26 countries) and platforms (7 platforms), in order to draw generalisable insights; and inclusive of different study designs, to build multi-layered perspective on positive social media. The framework resulting from this analysis (Figure 3, included below for ease of reference) represents an initial conceptual mapping of how these processes interact. It offers a starting point and roadmap for users towards a more proactive approach to social media engagement.

We begin by observing a rich set of bi-directional relationships between themes. In particular, wellbeing was both an outcome variable and a key condition of flourishing through social media use. This suggests that boosting offline wellbeing alone can improve quality of online interaction. Since positive psychology is primarily concerned with enhancing wellbeing and flourishing, this offers a clear channel through which positive psychology can support flourishing through social media. There is also considerable nuance within the themes, and this nuance can help individuals tailor their social media engagement to their individual differences and needs. We consider the implications of these relationships within themes and between themes for individuals, as well as for future research, below.

Conditions

Social comparison. Whilst in general, the findings suggest that more social comparison is worse for wellbeing, they also offer individuals various levers to influence this condition. For example, four included studies highlighted that different types of social comparison produced different wellbeing effects. One distinction, relating back to the original theory of social comparison (Festinger, 1954), is the distinction between comparing one's opinions against others (opinion-based comparison) and comparing one's abilities. Opinion-based comparison via social media can, in fact, produce positive wellbeing effects and feelings of optimism and inspiration (Park & Baek, 2018). Therefore, rather than simply saying 'social comparison is bad, don't compare', one might explore, and focus on, particular types of comparison. Comparison can also be a positive stimulus: via Fear of Missing Out (FOMO) social comparison is shown to encourage social connection.

Likewise, benign envy, i.e. where the intention is not to damage the position of the superior other, can be a source of inspiration (Meier & Schäfer, 2018). Consequently, individuals might intentionally channel such comparison towards inspiring positive change. Lastly, proactive management of social comparison might be as simple as choosing sites which are less conducive to social comparison, such as Twitter (Chae, 2018).

Practical implications: Raise awareness of individual social comparison orientation, understand the various factors which impact it, and therefore reduce the risks associated with social comparison online.

Self-determination. The present research highlights the tension between the underlying needs of self-determination; in addition to the different forces impacting upon individual self-determination as a whole in the digital world (Zuboff, 2019). Recognising these tensions enables individuals to consciously assert and fulfil their self-determination needs on social media. For example, the tension between autonomy and relatedness is highlighted by the mixed outcomes resulting from abstinence or reduction of social media consumption. There appear to be diminishing returns from time spent on social media: Vally and D'Souza (2019) find that full abstinence reduces wellbeing by severing social channels and increasing loneliness. Meanwhile Hunt et al. (2018) and Brailovskaia et al. (2020) found that restricting social media usage improved future usage behaviours, improving autonomy and wellbeing significantly. A practical implication of this might be to use social media intentionally for connection, but experiment with levels of usage and periods of abstinence to proactively regulate the tension between connection and autonomy.

Mindfulness, that is, the self-regulation of attention onto the immediate experience may offer a key here, though it did not feature within the included studies. Mindfulness has been found to be the mediating factor in whether social media usage creates burnout or not in the workplace (Charoensukmongkol, 2016); and a moderator of the relationship between social media use, self-esteem, and identity clarity (Yang et al., 2017). By building self-regulation and autonomy resources, mindfulness may offer a promising, yet underrepresented research avenue in connecting social media, wellbeing and positive psychology.

Practical implications: One might use social media intentionally for connection, but experiment with levels of usage and periods of abstinence to proactively regulate the tension between connection and autonomy.

Relationship between themes. Whilst the present research identifies many interrelationships between themes, it also suggests some gaps for further research.

For example, it has been noted that managing social comparison behavior is important. The results also highlighted motivations for using social media as a frequently researched theme (within the self-determination condition). The link to self-determination theory's intrinsic and extrinsic motivation, i.e. whether you are motivated by internal or external rewards, might be a logical next step. There are parallels between evaluating oneself in relation to external others (i.e. social comparison) rather than oneself, and extrinsic motivation versus intrinsic motivation. There is limited research exploring the connection between social comparison and intrinsic/extrinsic motivation, though there is tentative indication that social comparison is negatively related to intrinsic motivation (Corpus et al., 2005). Bridging this gap might represent an important area for future research, as we know from self-determination theory that autonomy, competence and relatedness facilitate intrinsic motivation (Ryan & Deci, 2000), which, in line with this reasoning, could also protect against the risks of social comparison.

Outcomes

Social support and social capital. Given that strong relationships are the top factor associated with high levels of subjective wellbeing (Diener et al., 1999), the finding that social media can facilitate long term social support and social capital development is noteworthy. The included papers suggest social media can build social support and social capital in different ways, for different people, and should thus be tailored accordingly. These social factors are both conditions and outcomes of social media, a further example of bi-directionality within the framework.

Included studies suggest social media produced short term positive emotions and offered social support via rapid emotional relief after crises (Neubaum et al., 2014). Longer term, however, positive emotions were found to be fleeting (Bayer et al., 2018) whereas social support had the potential to endure, as highlighted by two longitudinal studies. The ability to build social capital via social media might provide one mechanism for this, as both strong ties and weak ties were found to be strengthened through social media use (e.g., Kim & Kim, 2017). Different theories help explain this building of social capital. The Stimulation Hypothesis proposes that online communication stimulates subjective wellbeing by facilitating social activities offline with close friends (Clark et al., 2018). It can help socially skilled people who can use social media to consolidate and build on their existing offline relationships (Vergeer & Pelzer, 2009) or can also help those who lack social skills (Social Compensation Hypothesis). With

the latter, the text based and asynchronous characteristics of online communication can facilitate new relationships and greater intimacy (Baker & Oswald, 2010). However, it is not a given that online support translated to offline support. From our included studies, Li et al. (2015) find online social support does not extend to offline contexts. To enable the translation into the offline world, social media needs to be seen as an extension of the actual relationships, and students were found to experience well-being when they manage to integrate online and general social support (Liu & Yu, 2013).

Practical implication: Overall, the findings suggest that building social capital and social support via social media requires persistence, intentionality, and an understanding of one's own social skills and interaction styles.

Identity. The current findings suggest that acknowledging and cultivating the unique identity-building features of social media matters for social media flourishing. Therefore, identity is added as an outcome within the framework. As with social capital, identity development also features within the conditions of positive social media, representing another area of bi-directionality. Whilst adjacent topics such as meaning are included within the Thriving Inventory (2014), these are insufficient to explain the activities of self-expression, self-representation and identity construction occurring on social media. Pera et al. (2020) consider all these activities and take this concept a step further, finding the 'digital self' to be of increasingly important component of subjective wellbeing for older adults. La Guardia (2009) connects identity development and SDT, arguing that autonomy, competence and relatedness underpin identity development through intrinsic motivation processes.

Furthermore, there appear to be both personal and interpersonal elements to identity management online. Social Identity Theory (Turner & Tajfel, 1986) has been closely linked to wellbeing (Jetten et al., 2014). Greenaway et al. (2016) argue this is because social identity satisfies basic psychological needs, including the need to belong, once again making the connection to self-determination theory. Overall, the present review, and surrounding literature, suggest connections between identity development online, self-determination (both intrinsic needs and motivation) and wellbeing outcomes. However, little research appears to have been done specifically on social media, Social Identity Theory, and flourishing, and this would appear to be a key area for future research.

Before discussing the implications of this research, we note issues affecting it, within both the review and the literature base underpinning this review. These limitations can of course be seen as opportunities for further research, in addition to those outlined in the Discussion.

Limitations

Firstly, in undertaking a deliberately broad review, there is a trade-off against the level of detail that this paper offers. Therefore, for quantitative studies, while only statistically significant results are counted as themes, the frequency of studies highlighting each theme is captured rather than comparing effect sizes. Therefore, the conceptual framework may mask or exaggerate certain relationships based on the frequency with which they are studied, rather than effect size. Likewise, including every interrelationship is not included on the conceptual mapping as this would become visually cluttered. However, this raises the risk of omitting an important but under-researched relationship in the framework. Further research might quantitatively assess the relationships identified in the conceptual framework, or qualitatively assess them through interviews.

Secondly, flourishing is more than wellbeing and happiness. Addition of terms such as 'benefits' within the search terms, might have uncovered additional flourishing outcomes. However, this would have multiplied the already large volume of search results and further diversified the various wellbeing conceptualisations. Therefore, this approach was not taken, though we note an even broader set of papers could have been included.

Thirdly, whilst noting in the literature review the importance of going beyond an individualistic approach to wellbeing, the studies identified did not map well across the LIFE model quadrants because they primarily measured wellbeing through an individual perspective. Only one study (Neubaum et al., 2014) looked at collective wellbeing. Given that social media lives in the collective, we expected to find more on this, as such exploration of social media's impact on collective levels might be a promising area for future research.

Finally, whilst a range of platforms were included in the search terms, Table 3 shows that Facebook is still overrepresented. Facebook is still the most used platform (Statista, 2021), however others are rapidly growing. YouTube is underrepresented, and TikTok is absent. Given our findings that platform architecture impacts the subjective experience (Binns, 2014), this platform imbalance creates bias towards the experiences emerging from Facebook's features. Future research might investigate multiple platforms or other popular platforms beyond Facebook. With these limitations in mind we can now conclude with the broader implications of this research.

Practical implications

With these limitations in mind we can conclude with the practical implications of this research. In the context of current debates about the internet and mental health, this review does not make the case for whether social media is good or bad. It does, however, highlight that the interaction between social media usage and flourishing is nuanced and bi-directional.

There are wide-ranging ways in which the insights from this review can be used for education, coaching and awareness-raising. The points below offer specific insights which can be shared by practitioners¹³ to empower individuals to better engage with social media, followed by some tangible examples of what implementation might look like in practice:

- Raise awareness of social media's unique characteristics so that individuals can be more intentional about utilising its opportunities for flourishing. Specifically, building social capital and social support are key ways that social media can support flourishing. An understanding of one's own social skills, interaction styles and needs can inform how this is best done for the individual (see Discussion for more detail). Likewise, recognising and proactively utilising the unique opportunities social media offers for identity development and learning can also support flourishing.
- In order to pursue these opportunities whilst managing the risks, raise awareness of the conditions identified as pivotal for achieving the flourishing outcomes. Notably, raise awareness of the critical role social comparison plays in this context, understand the various factors which impact comparison (see discussion), to better manage the risks associated with social comparison online.
- Similarly, recognizing the tension between autonomy and relatedness identified in studies (e.g., Pera et al., 2020), one might recommend using social media intentionally for connection, but experimenting with levels of usage and periods of abstinence to proactively regulate this tension. The framework can be used to visualise the bi-directionality of these conditions, for example reduced usage also reduces social comparison (Reer et al., 2019), thus practitioners can emphasise a multi-faceted approach to addressing social comparison online.
- Related to the two previous points, acknowledge the specific platforms being used and their characteristics. As Chae (2018) and (Binns, 2014) demonstrated,

each platform has different features which are conducive to different levels of comparison and connection. An example of this is Instagram's recent option for users to hide their 'like' counts from others – a significant step towards reducing 'likes-based' comparison on this platform. The review findings and framework help process such developments and their wellbeing impacts, so that practitioners can encourage their adoption where appropriate.

- Tailor social media approaches to individual differences, needs and motivations. Given the importance of individual differences such as personality types, self-determination, and motivations in the conditions identified, practitioners should emphasise that individuals will be impacted differently by the issues raised. The framework can be used as a roadmap for understanding how social media use, individual differences and platform design interact with flourishing outcomes, and to identify which areas might require more or less attention or coaching for particular individuals or groups.
- Finally, given the bi-directionality of the relationship between social media and wellbeing, working on domains of offline wellbeing, including physical health and offline relationships, will support positive outcomes. This has the benefit of shifting the focus off social media, to key wellbeing dimensions, and shows how positive psychology, with its focus on improving overall wellbeing and flourishing, can both directly and indirectly support flourishing through social media.

These recommendations might also inform specific accessible guidance or practical interventions, e.g., Digital Futures Commission (2020), aimed at promoting wellbeing, digital wellbeing and mental health among different populations in sectors such as education, thus implementing these findings might constitute:

- Education workshops and coaching in schools
- Corporate coaching and workshops on digital wellbeing
- Online support groups on social media platforms themselves
- Resources offered on media regulator websites

The aim of the recommendations above is to empower individuals in their social media use today, independent of policy or platform change, which is likely to be a relatively slow and complex process.¹⁴ However, it is greatly hoped that this review and framework can contribute to an evolving body of evidence to inform positive changes in the future.

Conclusions

Social media is sufficiently widespread and integrated with our lives and livelihoods that its wellbeing impacts cannot be ignored. Yet social media platforms have been designed with commercial interests in mind, rather than users' wellbeing. This paper offers a route to closing the gaps identified and addressing the question: beyond simply not harming mental health, how can social media contribute to flourishing in life? The findings highlight the opportunity for PP to influence our wellbeing in the context of an increasingly digital future.

This review does not make the case for whether social media is good or bad. It does, however, show that the interaction between social media usage and flourishing is nuanced and bi-directional. Appreciating this nuance can enable approaches tailored to individual differences, needs and motivations.

The bi-directionality means that the conditions and outcomes within the framework are inextricably linked: there is limited insight gained from cataloguing flourishing outcomes alone, because these cannot be achieved without supportive conditions. In turn, the flourishing outcomes influence these same conditions, and thus there is the potential for a positive spiral.

The resulting framework offers users a roadmap for taking a more proactive approach to our social media engagement and wellbeing. By raising awareness of the significant psychological and wellbeing factors that are under our control, we can optimise our use of social media throughout our lifespan. In doing so we can retain and increase our self-determined wellbeing, regardless of whether social media has been designed to prioritise it.

Notes

1. Social Media includes platforms such as Facebook, LinkedIn, Twitter, Instagram, YouTube, TikTok, Snapchat and Pinterest. Pure messaging services such as WhatsApp do not meet these criteria and are not considered to be social media.
2. We take a Positive Psychology approach to understanding flourishing. We acknowledge the rich historical and philosophical roots to what constitutes flourishing and 'the good life' (e.g., Subjective state theories like Utilitarianism, Bentham, 1789); or Nature fulfilment theories like Aristotle's *Nicomachean Ethics*; 2000). The interplay between the two fields is fruitful, though beyond the scope of this paper.
3. See Appendix 1 for full inventory.
4. We acknowledge that both reducing deficit-based outcomes (e.g., loneliness, stress and anxiety) and producing asset-based outcomes play a role in enhanced wellbeing and flourishing. Therefore both deficit-based and asset-based wellbeing outcomes

are included, although as stated in the literature review, our aim is to go beyond reducing deficit-based outcomes to asset-based and flourishing outcomes. This also encompasses studies showing a negative, or no significant association between social media use and asset-based outcomes.

5. Indeed preliminary searches find little overlap between the online risks and opportunities literature as it tends not to identify and discuss the specific characteristics of social media.
6. Words searched anywhere in the text: to gain an expansive view of wellbeing.
7. Words searched in title only: to avoid high volume of irrelevant studies using social media as a data source.
8. Further discussion around this identification process is found in the results and discussion sections e.g p24.
9. The reader will note a distinction between number of conditions or outcomes related to the overall theme (multiple conditions/themes can appear within one study), and number of studies mentioning a particular sub-theme as we discuss each theme.
10. They will be discussed as an outcome in subsequent sections.
11. Defined in Literature Review.
12. Defined in Literature Review.
13. In fields such as positive psychology, coaching, mental health, digital wellbeing, and overall wellbeing, who might work with individuals or groups.
14. See p.4 for further details.
15. Although we take an asset-based approach, loneliness is included here for two reasons a) the language utilised in the papers referred to a decrease in or absence of loneliness, which we argue can support belongingness, and b) we acknowledge that positive psychology has moved beyond the narrow focus of the positive, and in its third iteration takes into account the dialectical nature of what it means to be human.

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Data availability statement

The data described in this article are openly available in the Open Science Framework at <https://doi.org/10.1080/17439760.2021.1991447>.

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