

# Who's Afraid of the Big Bad Lurker? Lurking, AI, and Social Media Literacies

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**Abstract:** This paper identifies the trajectory of literature on the concept of lurking and uses key examples from this development to suggest their usefulness to Social Media Literacies (SML). Although itself a relatively new area, SML scholars have argued for the need to prioritise critical thinking over usability of social media platforms (McWhirter, 2024). An idea often ignored in much digital and social media research is that of lurking. But can this concept be of use to the newly developing area of SML? Can Artificial Intelligence (AI) research tools uncover not only developments in the conceptual thinking on lurking scholarship but also identify key ideas that help to support the argument for lurking as a key frame for SML? The work explores the evolution of the concept of the lurker over the past three decades and argues that the idea is an important lens onto the digital world. Lurking is broadly representative of a silent majority in online spaces where most users are not (always) creating, reacting to, or sharing content. Siple (2024) highlights the negative history of the lurker, calls for more attention to be brought to this phenomenon, and questions the developmental thinking on the concept. This research uses different types of AI to sort and synthesise conceptual literature on lurking from 2000 to 2024, finding that much developmental thinking has occurred, moving the debate beyond simplistic “posters versus lurkers” contexts. The paper reflects on the usefulness of AI research assistants – such as ASReview Lab and NotebookLM – in distilling and analysing conceptual ideas about lurkers and lurking. These tools quickly uncover work that develops the lurker idea and highlight key papers. In turn these concepts are explored with their relevance to SML, from an awareness of behaviours in online contexts, to social media research methods, to surveillance capitalism.

**Keywords:** Lurker; Participation; Social Media Literacies (SML); Artificial Intelligence; NotebookLM; ASreview

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## 1. Introduction

This work will explore the concept of lurking online and chart scholarly developments on the subject across decades with the support of an Artificial Intelligence (AI) assisted literature search, review and analysis. As late as the 2010s scholars contended that ‘surprisingly few studies have been conducted on the phenomenon of lurking’ (Schneider, von Krogh, and Jager, 2013:293). However, as this article will demonstrate, the subject of the lurker has a rich history of scholarship. A *Dictionary of Computer Science* defines a lurker as ‘Informal: Someone who visits a chat room, blog, file-sharing website, etc. but does not submit any material’ (Butterfield, Kerr, and Gerard, 2016). However, there are multiple other competing definitions of this idea which means that it should not be seen as an absolute term. Some researchers consider lurking to mean people who do not contribute at all, while others use the term to discuss intermittent contributions, infrequent posting or making fewer contributions than others (Muller, 2012:253; Nguyen, 2021:304). Lurking is often linked to ideas about participation inequality online, silent majorities, and the famous 90-9-1 rule by Jakob Nielsen (McWhirter, 2024). This is where the lurker-to-poster ratios discussed have been described as high as 100:1 (cited in Nonnecke and Preece, 1999). Other research has mixed estimates of the numerical size of silent members in particular online communities, ranging from 40-90% (Goriunova, 2017:3918). Either way, the lurker idea points to an often-significant majority of people in an online space who are usually not visible or ignored by research that focuses primarily on smaller groups who are the most active and most visible (Cranefield, Yoong, and Huff, 2015). This concept is, therefore, an important one for social media literacies (SML).

While it is outside the scope of this paper to explore the evolution of SML, it is important to provide an overview of what SML is. Linking the concept of the lurker to SML is a relatively new development (McWhirter, 2024; Siple, 2024). SML are in relatively nascent form and sit in the ever-evolving landscapes of media and digital literacies. The argument to use the term ‘literacies’ relates to the recognition that literacy is not a singular, monolithic skill. Literacies in the social media space should be considered as a diverse set of abilities spanning the contexts of both utilisation of tools and, more importantly, applied to a critical understanding of the phenomena more widely (McWhirter, 2024:90). Some argue SML to be a newer concept with ‘limited theoretical development and little operationalization’ (Polanco-Levicán and Salvo-Garrido, 2022). Others argue that it is important that SML contrasts the emphasis on practical digital skills often seen in digital literacy frameworks. Here there are growing calls for critical awareness and socioemotional competencies in navigating social media (McWhirter, 2024). While media literacy, digital literacy, and information literacy all inform current thinking on SML, it is important to prioritise understanding and evaluating social media contexts over mere technical proficiency. While digital literacies have focused on this aspect, they also emerge at a time when, in the UK at

least, some assert that education has pivoted towards a techno-instrumentalist approach which focuses on prioritising practical digital skills (Bristow, 2016).

The idea of lurking online has been around since the late 1980s and early 1990s (Goriunova, 2017:3918) making it nearly four decades old. What unites early research is the notion that lurkers are somehow a problem, illegitimate and peripheral members of online communities and in opposition to those who contribute, e.g. lurkers versus posters (Nguyen, 2021). This speaks to a wider techno-instrumental idea that people must use technologies over understanding how they work, their consequences, or how people interact with them (or not). Yet the paradox is that such “users” of online spaces are not peripheral but account for the vast (silent) majority (Nonnecke and Preece, 1999). Some even argue that lurking is a natural behaviour (Goriunova, 2017:3919). Lurkers are majority users of Internet spaces even if they are not contributing or visible. Some seek to explain this majority via the eponymous ‘curiosity theory’ (Schneider, von Krogh, and Jager, 2012:298-300) that tries to explain why most people join popular platforms. An awareness of a silent majority versus a visible minority on social media platforms can be a useful learning aid for other SML topics, such as understanding Fear of Missing Out (FOMO) (McWhirter, 2024:35-36). The aim of this work is to highlight the importance of lurking, the trajectory of developmental thinking on it, and in doing so contribute to the ongoing development of SML and what the focus of those literacies should be.

## 2. Background (Lurking)

The verb and adjective functions clearly exist before the term “lurking” is linked to behaviour online. Discourses of user behaviours in 1980s early Internet spaces start to use this description (Siple, 2024:4). Early research papers on the idea in the 1990s say that ‘to lurk’ is a refusal to communicate or contribute to public discussions where the behaviour is likened to ‘a spy: someone who listens to discussions within a room but doesn’t make his or her presence known’ (Marvin, 1995). In early chat rooms lurkers may have been ‘kicked’ for non-contribution (Nguyen, 2021:305). In the 1990s lurking is largely explored in the realms of new Internet territory, specialist jargon, and as it relates to virtual communities, ranging from sex chat rooms to software and programming networks. Marvin (1995) suggests at the time that the term belongs to the technology of insiders who express community ideals and taboos. Because the World Wide Web (WWW) was in the spirit of co-operation and do-it-yourself attitudes, the lurker received a bad press (Goriunova, 2017:3919).

Siple (2024) charts a history of these negative connotations of lurkers as threatening, dangerous and even violent from cultural objects such as novels and popular media. The conceptualisation of the lurker in the early Internet space was linked to sexualised undertones and something lurking and watching in the background in cyberspace (Siple, 2024:15). If not this, then labels like bystanders, bullies and freeloaders were used for lurking behaviours. However, not all early scholarship on lurking identified it as a problematic practice with negative connotations. Nonnecke and Preece (1999) argued early on that lurking was a systematic and idiosyncratic process. Although the pejorative term has been counterbalanced by research over the years which tries to frame the lurker idea in a more positive light (Edelmann, 2013), the negativity persists. There is the connotation of the term lurker as ‘a low-value role in online communities’ (Cranefield, Yoong, and Huff, 2015). Although, this value is substantial when it comes to a consideration of social media platform value as has been demonstrated through concepts like digital labour, where all users contribute to the wealth creation of commercial platforms (Fuchs, 2014). Lurkers are linked to other pejorative behavioural terms online like ‘creepers’ (Wittkower, 2016) or as darkish or shady figures, trolling or stalking the Internet (Goriunova, 2017:3917&3930). Attempts to rename this phenomenon as Legitimate Peripheral Participant (LLP) (Bozkurt, 2020) or with terms like Non-Public Participant a quarter of a century ago (Nonnecke, 2000) have failed to catch on.

## 3. AI-assisted Explorations of the Concept of Lurking

Research that focuses on finding, exploring, or comparing “lurkers versus posters” were discounted during the literature search. This is because such work is often not necessarily conceptual or developmental in its exploration of the lurker idea and because in recent years the thinking has changed to consider such behaviours as a continuum (McLaughlin, Haverila and Shackleford, 2024). Similarly, much work which has a focus on rectifying the lurking behaviour (e.g. de-lurking strategies) have been consciously omitted where possible. Edelmann (2013) argues that lurking is a valid and important behaviour online and the notion of negative connotations around this need to be challenged. She questions the wisdom that turning lurkers into posters is seen inherently valuable in the first place. While Lurking is now beginning to be understood as part of a ‘continuum of participatory practice upon which a person can oscillate among various degrees of participation’

(Siple, 2024:30), there is still an abundance of research that promotes the binary “lurkers versus posters” positions. Despite increases in developmental thinking on the concept of lurking that the literature review will demonstrate, it is important to say that there are no clear resolutions as to what this behaviour is or why it is a recurring pattern in online spaces. Some research claims that ‘despite extensive research to date, it remains unclear why such a disparity in individuals’ participation on social media exists’ (Dongyoung and Choi, 2022). These authors go on to point to techno-deterministic reasons for lurking, suggesting that it is the network structures that contribute to why most users are lurkers. The only certainty is that lurkers are a perennial condition of the online and social media environments, but they are often ignored because others cannot necessarily see them or because researchers do not consider them, even if there is growing realisation that they are highly visible and valuable to the platforms they exist on.

The literature search and review used Artificial Intelligence (AI) assistance from ASReview Lab open-source software and Google’s NotebookLM. Institutional library ProQuest RefWorks and SCOPUS datasets were created from the searches “lurker” and “lurking”. SCOPUS analytics suggest that the identification of the lurker in scholarship dates to some single sources in the mid-1980s, with scholarship steadily increasing and reaching a high point in 2023 with over 30 articles published that year. The USA, China, UK, Italy and Canada are the top five countries producing work. Research articles and conference papers comprise most documents, and while the lurker idea is explored across a range of subject disciplines – from psychology and engineering to arts and humanities – the subject areas that dominate this research field are computer sciences and social sciences. These analytics are taken from the “lurker” search label rather than the “lurking” search because the latter dilutes the relevance of the search results by returning hits for this adjective or verb in unrelated research. However, both “lurker” and “lurking” data results were subject to ASReview Lab AI systematic review software. This software systematically screens texts and sifts the literature according to how the researcher initially trains the algorithm by labelling sample papers “Relevant” or “Irrelevant”, with a goal to bringing more relevant papers to the attention of the researcher more quickly. It is usually acceptable in larger datasets to conclude that after 100 or more irrelevant papers that most of the relevant work has been sifting to the top by the AI and the remaining texts can be discounted. The “lurker” data had 383 records and because the numbers were relatively low, all items were analysed resulting in a closing sequence of 55 irrelevant records. 99 relevant records were identified. The “lurking” results were more substantial, given the use of this term as a descriptive label in various contexts, and offered 1, 986 results. Labelling stopped after 170 irrelevant records, with 527 records labelled and a total of 127 relevant records found. Both sets of data totalling 226 results were combined and crosschecked for duplication and this resulted in 155 relevant results ranging from publication years 2000 to 2024. It is important to say that this time range was a conscious choice, but it does not discount the idea that lurker research or mentions existed in scholarship prior to this (Kozinets, 1999). Thereafter, these records were re-entered into ASReview, primarily for ease of more extensive reviewing because the abstracts can be moved through quickly. This allowed for a quicker elimination of further irrelevant results. Those removals focused on papers that were testing for lurkers, or comparing posters or lurkers on certain platforms, or looking to develop strategies to combat lurking or rectifying lurking. The literature search focused on finding papers that tackled the concept of lurking (i.e. reflecting on the silent majority or participation inequality) – some of which also explored reasons behind lurking, but these articles were not the central focus – or research that conducted other systematic reviews. Accounting for mis-categorisations, duplications, dissertations or thesis that later would be published, there were 61 items identified that spanned the period 2000 to 2024. These selections were then analysed in greater detail with the assistance of NotebookLM across three phases.

### **3.1 Phase One: Generative AI Assisted Timelines and Graphic**

61 abstracts were collated and introduced into NotebookLM, a personalised research assistant from Google built with Gemini 1.5. A synthetic podcast feature was used to explore the audio story of the papers, and the ‘timeline’ feature was used similarly. Using the text description timeline the output was then placed into the GPT4 Omni with a view to creating a detailed visual. Various unsuccessful attempts over several days (the free version has daily limited token use) transpired. In the end Figure 1 was created and appears as a screenshot because it could not be downloaded in another format other than a basic csv file. The timeline from NotebookLM is found to be mostly an accurate representation of the research abstracts and papers but with some flaws. For instance, there are examples in the literature of references being made to LLP prior to 2007, as far back as the early 1990s. The question-and-answer function on NotebookLM was used to sift the 61 abstracts according to sources that delved deeply into the concept of lurking beyond only a few paragraphs or in portions of the works. Here the AI identified 26 papers for further analysis and examination.

Year	Description
2000	Lurking prevalence recognized in online groups.
2003	Focus on motivations and behaviors of lurkers.
2004-2006	Reasons behind lurking explored: information gathering, group acclimation.
2007-2009	Introduction of "legitimate peripheral participation."
2010-2013	Analysis of lurking in diverse contexts; "follower-feeders" emerge.
2014-2017	Computational approaches, ranking, polycontextuality.
2018-2020	Delurking strategies and emphasis on knowledge transfer ecosystems.
2021-2024	Exploration of lurking as a literacy practice; "online parasites" concept introduced.

**Figure 1: GPT4o visualisation of the timeline output from NotebookLM that analysed 61 abstracts on the concept of the lurker**

### 3.2 Phase Two: NotebookLM Analysis of Full Papers Sample

The 26 papers suggested by the AI were crosschecked and found to offer significant perspectives on lurking at a conceptual level. These papers were fully sourced and created as resource on NotebookLM (this does not store the papers or train the model according to the terms and conditions of use). The AI research assistant was asked "What are the key ideas about the concept of lurking that are explored across these research papers?". The assistant was asked the same question five times at various stages to correct for any errors in output and analysis. The AI generated a variety of word length responses, ranging from a low of 390-words to a high of 792-words. All five outputs were scrutinised and the following observations connecting each response are possible to make. All responses pointed to lurking being a widespread phenomenon that highlights a significant, or silent majority in online communities. All responses covered the definitions of lurking as being unfixed or coming from negative origins and that this view is now being challenged. Every output talked about reasons or motivations for lurking but only some provided greater detail on these. Three of the five outputs organised reasons or motivations into four domains: individual, social, organizational and technological. However, the AI failed to note that this is themed work not of its own synthesis – something it was clearly capable of doing in its podcasting feature when it created verbal patterns, analogies and metaphors – but from the work of Nguyen (2021). The main reasons for lurking extrapolated from the papers were: lurking as a form of learning (reading or listening noted in some outputs); lack of time or resources or technical proficiency to contribute; fear of negative consequences and avoiding conflict; lack of confidence; satisfaction with being passive; privacy and security concerns.

Two of the five responses included a detailed analysis of lurking as a contextual behaviour. That is, a person may lurk in one community while being active in another. A variation of this point is expressed across the outputs because most mention that lurking is not necessarily a monolithic group or static personality trait but needs to be understood in specific contexts. Some outputs link this idea to the notion of de-lurking strategies being insufficient or misplaced efforts to engage lurkers. All outputs note these strategies in some form but only three of the five mention these as computational approaches to identify, rank, analyse and attempt to redress lurker behaviours. In one form or another, all outputs point to the need to move beyond any simplistic treatment of the concept of lurkers as passive or non-participatory and to recognise this phenomenon as complex behaviour. This supports the initial choice in the literature search to eliminate work which was too focused on the binary idea of "lurkers versus posters".

### 3.3 Phase Three: Conversations With NotebookLM on Recommended Papers

The AI audio- and text-based assistant tools available with NotebookLM were useful to explore the research in detail and generate critical questions in dialogue with the AI. For example, the ability to create a synthetic media (Meikle, 2023) podcast enables a different form of engagement with the abstracts and the full 26 sample papers. The function was designed by engineers at DeepMind known as Audio Overviews. The podcasts based on the 61 abstracts and the 26 papers were 10 minutes and 24 minutes, respectively, with only the latter having some notable errors and repetitive focus at times. However, this engaging format allowed for opportunities to go back to the NotebookLM workspace to generate ideas or to ask, for example, who used certain types of models that the synthetic podcast presenters had noted in their discussions. This multimedia circular research review of the materials was rewarding in several ways for developing targeted enquiries of the literature and for creative thinking around the concept of lurking. Of the 26 sources the AI was asked: “Which of these sources would be best to explore in greater detail if I was interested in pursuing the conceptualisation of the lurker idea?”. Four sources were identified. Then the session was closed, and the AI was asked the same question again upon reopening and reloading the papers. Although the answer was framed differently, the same four sources were listed again. The four key papers identified by NotebookLM in order were: “Rethinking lurking: Invisible leading and following in a knowledge transfer ecosystem” (Cranefield, Yoong, and Huff, 2015), “The lurker and the politics of knowledge in data culture” (Goriunova, 2017), “Shedding light on lurkers in online communities” (Nonnecke and Preece, 1999), and “Lurking as personal trait or situational disposition? Lurking and contributing in enterprise social media” (Muller, 2012). Each item was given its own rationale for selection. Broadly speaking, these can be surmised as according to what the sources offered in terms of examining lurking as a conceptual idea, for the treatment of the idea as complex, or because they offered new perspectives or insights. All four are useful – alongside other key ideas from the literature review more broadly – to demonstrate how the conceptual development of the thinking on lurking can be valuable to SML.

## 4. Lessons for Social Media Literacies From the Lurker Idea

Most literature on lurkers and lurking that explores it as a concept does not make any connections to its potential use for social media literacies (SML), but this potential does exist. Some scholars have made such connections, considered lurking as digital literacy practice (Sipley, 2021; 2024) or using the idea of participation inequalities online to demonstrate how the creator economy works (McWhirter, 2024:172-214). Although this article explores just three areas of how lurking can aid SML, there are many valuable topics that connect the two areas from psychology and motivations (Nonnecke and Preece, 1999; Schneider, von Krogh, and Jager, 2012:300; Nguyen, 2021:303) to polarisation and misinformation – here Sipley (2024:39) sums up the value of lurking to digital media literacy when she asks, ‘What if there are tons of really nice people on the internet and the nicest thing they can do is not comment?’. The examples NotebookLM identified as key conceptual developments on lurking can be broadly described as the importance of exploring the idea beyond one-dimension (Muller, 2012; Cranefield, Yoong, and Huff, 2015), the importance of highlighting the idea in online research contexts (Nonnecke and Preece, 1999; and all papers to some degree), and finally the relevance of lurking in the commercial digital ecosystem (Goriunova, 2017). These have been coded below as: contexts, social media research, and surveillance capitalism and each will now be explored with relevance to SML.

### 4.1 Contexts

NotebookLM identifies Muller’s (2012) work as a key example likely because it is early research that uses empirical evidence to argue that users who are lurkers in one community can be major contributors in another. Its selection is also important because it explores how lurking has been characterised across various positions: pro-social, universal, derogatory, as well as how it has been considered according to essentialist theories of lurking as a personality trait (lurker or poster) and developmental theories of lurking as a stage people move through (ibid, 253). Similarly, the work of Cranefield, Yoong and Huff (2015) offers an extensive piece of research developed over a few years that begins to collate work in the field that reframes lurking as a complex set of behaviours rather than a single phenomenon. They discuss lurking in relation to a variety of existing and new theoretical positions and frameworks. With polycontextuality – meaning multiple engagement spaces – they explore the idea that one can contribute in one setting and lurk in another. Cranefield and colleagues’ work offers a way to consider the lurker – in boundary spanning and across the information ecosystem of online communities – beyond the usual limitations of considering lurking as a static or singular role or behaviour. Cranefield and colleagues propose a three-tier Knowledge Transfer Ecosystem (KTE). This model describes how knowledge flows through overlapping communities with varying degrees of visibility, most importantly

acknowledging how people can act, interact and participate differently across diverse online contexts. Rather than seeing the social media space in binary terms like contributors or non-contributors, this contextual understanding is important to SML. This is because these literacies are not only about using platforms and tools but also about understanding the dynamics of how information is shared, and the range of behaviours possible as people interact online. Understanding diverse participation modes as well as the flows of knowledge can lead to better critical thinking and reflection on how social media are used. It is important to say that while these key papers are highlighted, there are others that seek to add context to the concept of lurking. For example, the ISTO model by Nguyen (2021) is a framework that explains the reasons behind lurking behaviour in online environments. Suggesting the decisions to participate or not are based across four categories: individual, social, organizational and technological.

## 4.2 Social Media Research

The desire to explore the lurker idea beyond simplistic dichotomies of “lurkers versus posters” or lurking as one-dimensional is explicit in much of the identified conceptual work on the phenomenon. An undercurrent that is more implicit is the value of scholars identifying this paradigm in their empirical online research. Social media research that does not have lurking as the object, or construct of study, rarely raises or contextualises the work with the concept of lurking. There is an argument to suggest that any social media research that deals with participation should raise the concept of lurking. That could be in a detailed way, exploring the concept and how it has been expressed over decades. From pejoratives to alternatives that did not catch on like ‘peripheral participation’ (Yeow, 2006), to lurking as a ‘discursive phenomenon’ (Lee, Chen, and Jiang, 2006), or a mode of ‘listening’ (Crawford, 2011) or ‘reading’ (Siple, 2021; 2024), to how the harsh descriptors have not gone away, i.e. linked to ‘online parasites’ (Bu, Lou and Koh, 2021). Alternatively, social media scholars can simply *acknowledge* the silent majority in social media spaces. Social media researchers must approach the lurker idea beyond a techno-deterministic label that sits only in opposition to contributors.

Because much research now counteracts the idea that lurkers are not a valued research area compared to active contributors, developmental thinking in this space does contribute to fresh perspectives. Some have looked at more practical, social and cultural issues that affect online participation, noting that it is often these operations together that should be considered when thinking about lurking behaviours (Bax and Pegrum, 2010). While there is a lack of specific explorations of the lurker idea in research that covers online participation (Nonnecke and Preece, 1999; Edelmann, 2013), there is a wealth of work that posits original approaches to lurking behaviour that can be cited by future researchers. Siple (2024:99-102) notes that not including lurkers can offer a lack of diverse perspectives in research, potentially flawed findings, and platforms themselves dominating perceptions of lurkers. There is no reason for social media researchers not to at least mention the lurker idea in the context of what they are researching, *especially* if the focus is only on active users. If the focus is more towards capturing a representative of a community online, then the lurker idea is pivotal and there are significant developments in this area that can aid researchers beyond just trying to capture the views of traditional “non-posters” or framing the work as “lurkers versus posters”. Some of those ideas have been touched on above, from KTE to ISTO. SML should teach about these knowledge gaps when much of the existing focus of social media research is about what is there and visible, rather than a consideration of silent majorities in social media spaces.

## 4.3 Surveillance Capitalism

NotebookLM identifies the work of Gorinova (2017) as a key conceptual development in the field. It is one of the few articles to connect lurking to monetised social media ecosystems. It contributes to the growing discussions that shift the focus of the lurker ideas from individuals and communities to macro level digital platforms. Gorinova’s work fits with a long-established (if poorly linked to) SML idea that all Internet users are tracked across sites often for the purposes of monetising data traces (Fuchs, 2010:21). Users being watched online for profit has been described as economic surveillance or more recently as surveillance capitalism. Shoshana Zuboff (2015:75) coined the latter as a ‘new form of information capitalism [that] aims to predict and modify human behaviour as a means to produce revenue and market control’. Gorinova (2017) argues that this is a new form of lurking, not by users but by platforms and algorithms. Social media is largely thought of now as commercial, and it is so because of the monetary value the major platforms generate from user content and interactions with that content. Lurkers cannot see other lurkers, but they can be seen by social media platforms. Platforms watch lurkers through data traces and micro-metrics like hover-time, impressions and click-response rates (Siple, 2024:6). This is valuable knowledge to SML which seeks to enhance critical thinking of the digital world from its users.

Goriunova (2017) work shows that considering lurking at systems-level is valuable for SML. Economic surveillance and lurking are connected through the concepts of data collection and analysis and understanding such a connection is important to contribute to the development of SML. Though many of the key papers identified raise important new theoretical perspectives, they also focus on online communities rather than the platform structures of social media. Although both Cranefield, Yoong, and Huff (2015) and Goriunova (2017) do discuss data cultures and information ecosystems, only the latter frames the lurker in the context of commercial systems-level social media. Arguably, this critique could be added to with reference to established scholarship on digital labour (Fuchs, 2014) or newer work on data brokers (Sherman, 2021). Both those areas are valuable additional insights that are likely to become more important to SML as time progresses. While Goriunova (2017) argues that machine algorithms now do the lurking and social media companies seek to find and delete lurking accounts for not being profitable, the reality is that social media companies profit from lurking behaviour. They likely also know that they are never going to change the long-established idea of a silent majority. If users have motivational 'curiosity' (Schneider, von Krogh, and Jager, 2012:300) to join any given platform then they are profitable regardless of whether they lurk or not because of the aforementioned metrics. Even if they do not visit the space, users have been shown to be profitable. For example, Facebook controversially once counted users without accounts in its monthly active reports because they visited a website with the 'like' button (Siple, 2024:104).

## 5. Conclusion

The use of open-source and free AI tools in the form of ASReview Lab and NotebookLM for a systematic literature review and co-analysis breakdown of the content has demonstrable benefits. The open-source systematic software helped to quickly identify – from large volumes of literature on the subject – where the trajectory of conceptual thinking on lurking was. This research assistance was useful in depicting the trajectory of the literature on the lurker idea over the past quarter of century and beyond. The generative AI allowed for multimedia explorations of the literature content by using text-based question and answers with the AI, visual timelines and graphics, and audio podcasts. This allowed for further distillation of work to unearth some key concepts which were then explored with regards to their usefulness to social media literacies (SML). Through a detailed interaction with the Gemini 1.5 powered multimodal tools in NotebookLM, it was possible to target and analyse a series of papers from 2000-2024 that had engaged with the lurker phenomena at a conceptual level and subsequently at a deeper developmental level which had proposed new definitions, ideas and frames of analysis. Some of these were explicit in foregrounding the importance of how online contribution and participation works, while some were more implicit in recognising the need to have social media researchers consider the value of the lurker concept for any empirical work they are doing. Others were of importance due to the move towards linking lurking to capital and systems-level thinking. Across understanding behaviours and communication, research designs, and macro thinking of online environments it was possible to see how the lurker as a frame of study is important to SML.

This work excluded literature on lurking that focused on de-lurking strategies or where lurkers were compared in a binary relationship to contributors. Future work may consider including these contributions to see if they are offering a more nuanced understanding of lurking behaviour over time than their titles and abstracts suggest. Future papers may expand the datasets beyond those of SCOPUS and ProQuest. Additionally, the same conceptual research identified could be explored with alternative AI research tools and assistants – NotebookLM is now powered with Gemini 2.0 – to cross compare the results and to add to the growing literature on legitimising AI use for scholarship research and analysis support. Because lurking itself is multifaceted and not one single phenomenon, it is important that the significance of lurking continues to be understood by 'expanding our field of analytical attention to take account of other online and/or offline settings' (Cranefield, Yoong, and Huff, 2015:236). Developmental thinking on the concept of lurking has much to offer the nascent social media literacies.

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