Listing of the True and Practical Cyber Security Risks of Social Media: Why Is It a Dangerous Place For a Content Creator And a Business

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Abstract

This study focuses on the security risks of social media platforms from the perspective of an Social Media Influencer (SMI) or content creator. This study conducts interviews on SMIs and furthermore lists the risks of social media mentioned by the interviewees as well as found in literature. The risks are divided into three main themes: professional, technical and psychological. The conclusion of this study is that working with social media as an individual and with a brand is full of risks from all three themes. For an individual the professional risks cause the most worry, regarding subjects such as cancelling culture, brand image, too much responsibility for one individual, and customer satisfaction. The risks need to be recognized and worked on to ensure a safer working environment for the content creator. In the discussion, also the risks of social media work found in literature will be presented.

Keywords

cyber security, social media, content creators, social media influencer, business impact, professional risks, technical risks, psychological risks, content creator interviews

1. Introduction

In 2024, there are over 5 billion Social Media (SM) user identities worldwide [1], reflecting the global reach and integration of social platforms into daily life for communication, information sharing, and digital interaction. The popularity of SM seems to be on the rise, and the threats and risks of SM are often discussed. However, the public discourse only superficially discusses the risks. Cyber security professionals have long discussed threats, such as spam, phishing, identity theft, and fake news, yet many everyday users still dismiss these as irrelevant to them, often thinking: *"If Facebook wants to take my photos, so be it; there's nothing interesting there."*

A critical issue is understanding the real risks that individuals, including content creators, face when engaging in social media. Users should be aware of specific threats and risks, and consider the likelihood that these threats and risks will have a direct negative impact on them. While it is widely recognized that social media can pose security risks to both individuals and organizations, understanding the practical ways in which these threats manifest themselves is critical.

This paper focuses on the security of content creators and small and medium sized businesses that rely heavily on social media for marketing. It aims to identify the real risks and threats posed by unsafe social media practices, addressing the security concerns of both the business and the individual behind the content. Risks will be examined from professional, physical, and technical perspectives for both individuals and businesses, with additional attention to psychological risks for individuals and marketing-related risks for businesses. The research questions are: **RQ1:** What are the practical risks that content creators and small businesses face when using social media as a marketing or service delivery platform? **RQ2:** What are the lived experiences of social media influencers, and what are the most significant?

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The risks and solutions associated with the use of social media were identified in two ways: 1) risks found in the literature, 2) risks identified through interviews with content creators. The findings are integrated to create a complementary set of insights for identifying risks in the use of social media.

The paper is organized as follows: Section 2 introduces SM risks found in literature, Section 3 describes the research method and how practical results were gathered, Section 4 explains the findings of this study and the interviews conducted, Section 5 contains the discussion and presents a Table of the findings in literature, and Section 6 contains the conclusion.

2. Literature Review: Risks of Social Media

In this section, we will first define the three main terms related to social media and the content creation process. Then, we will review the literature on what are the practical risks of SM from an individual's point of view (an individual working in a corporation as a marketing professional, a small business owner, an influencer, a content creator, or any other individual working with social media to market a product or their content) and from an organization's point of view. These risks are divided into three categories: professional, technical, and psychological. This section mentions risks found in the literature that were not discussed during the interviews, which will be discussed in more detail later in this study.

2.1. Terms in context of research

The following terms are central to reading this paper, so they will be explained in this section. There has been a lot of public debate about how to define social media (SM). One currently popular way of explaining it is to refer to SM as a collection of Web 2.0 applications. This includes user profiles, a social network, and user-generated content. [2] *Content creators* in this paper refer to people who create posts, which can be videos, text, or photos, that are then shared on SM. [3] Influencers are content creators, but not all content creators are influencers. Arriagada et al. [4] mention that content creators are "digitally enabled cultural producers who create and circulate content on social media platforms, driven by an entrepreneurial spirit and desire to generate their own "media brands". In this study, we assume that individual content creators are either running their own influencing business or working within a company with a mandate to create marketing content for their employer. *Social Media Influencer (SMI)* in the context of this paper is someone with a large social media platform [5] that they use with an entrepreneurial mindset to influence the decisions of others. [6]

2.2. Risks of SM in Previous Research

A key study that provided a baseline for this literature review was conducted by Kapoor et al. [7] where they reviewed 132 papers related to SM research between 1997 and 2017, and found that several studies suggest educating consumers about privacy related risks on SM sites. They emphasize the importance of informing users, controlling SM security features, controlling privacy settings, and learning about the threats associated with sharing personal information online. More recent studies, such as Rukavina et al. [8], Finska et al. [9], and Lopes et al. [10], are written later on and this section combines risks that are found still relevant in 2025 from studies through the years of social media security study.

Professional Risks. Rukavina et al. [8] mention the main risks of SM use among health care professionals. Risks mentioned that are appropriate for this study include: damaging professional image by undermining public trust by providing poor quality information about SM or sharing opinions or comments on sensitive issues; compromising confidentiality by talking too openly about personal life, work life, clients, partners, family members, or other personal matters; and blurring professional boundaries by forgetting where the line is between their professional and personal lives. Another way of damaging professional image could include commonly frowned upon content online such as pictures of videos containing alcohol use, substance use, nudity and sexuality, discrimination or downgrading speech of other people, swear words, and bullying.

According to a recent study done by Sprout Social in 2017 [11], 46% of consumers say that they have "called out" brands on SM. In a situation where a consumer is dissatisfied with a brand, 55% say that they are likely to complain in-person, and 47% plan to get the attention of the brand via SM. And only 8% think they would stay silent if they saw inappropriate behavior from a brand. Brand boycotting trend or hashtag online, or badmouthing can happen due to a consumer talking about a brand in a negative manner without contacting the brand directly, or even by contacting them in a public manner and the discussion growing from there.

Tow et al. [12] examined why people continue to share private information online on social networking sites, even after being warned not to do so. They found that many users consider themselves to be low-risk targets, or are simply not educated enough to understand the seriousness of sharing private information online. The paper concludes that "education is absolutely essential. [12] A recent study mentions that SMIs are at risk of not only losing their devices (theft or human error), but also having their information stolen through shoulder surfing, which in practice means that someone is looking over your shoulder to see what you are doing on your device, and information is leaked as a result. [9]

Finska et al. [9] list possible risks for SMIs in which sharing too much information can cause a physical risk of someone physically entering the SMI's home or other personal environment. Sharing too much information could also lead to a possible attack on family members, using personal information in a phishing attempt or physical encounter, for example. Sharing too much information can also create cross-platform risks, with information that can be used against the individual on their own channels (if they are working from a business account), for example, or sharing information that can be used to exploit other platforms by the same user. [9]

Creating too many ads weakens the trustworthiness of the content creator by saturating the platform with ads. [13] Another example of brand damage could be sabotage, where another party spreads lies or gossip about the company, or an unfavorable online discussion about the company or its actions due to a sensitive topic, product, or other emotional reasons. An ad can also damage an SMI's platform if it is not done well or if the product/service being advertised is a highly debated or sensitive topic. [9] This was very noticeable in Finland in 2024, for example, when several SMIs received backlash for advertising the fast fashion online store Temu. [14] Similar backlash can also be received due to an SMI attending an event that may have a questionable background or organizing party. Also, backlash can come not only from consumers of the published content, but also from business partners, as saying something about a brand can cause the brand in question or other brands to react and possibly not want to work with the SMI anymore. [9] Failed marketing or content creation can have a major negative impact on an individual or a company. If the company is small, the content creator behind the drama can be psychologically affected. Psychological risks are discussed in more detail later in this section.

Due to the difficulty of understanding SM algorithms, Arriagada and Ibáñez studied [4] that content creators and SMIs must play a "visibility game" that can be difficult to understand even for its players. The study found that influencers in Chile feel the need to publish 10-15 stories and 1-2 posts daily to stay interesting and relevant. This has been shown to cause burnout or stress for SMIs.

Technical risks. Various technical risks were found such as sending the wrong message to the wrong person, data integrity issues, posting the wrong content, data leakage due to technical reasons such as attack on a website, cloud or device, and data leakage due to human error. Internet of Things (IoT) was also found to pose a risk to content creation. IoT devices often do not support a very high level of security, which makes them favorable for malware to spread to and through connected devices. Malware could include eavesdropping attacks, a virus, Denial of Service (DoS) by depleting the device's battery or by exploiting the device's built-in blocking capabilities, or other unwanted software. An excessive influx of new followers may seem like a good thing from a marketing perspective, but it can quickly lead to algorithmic or DoS problems. Such a situation could be caused by a bot attack. In these situations, it is important to have people who are aware of the possibility, the risks, and how to manage the situation. [9]

Falling victim to hacking [15] can also severely affect the individual and the business. Social engineering (SE) is the psychological manipulation of people to get them to take an action that, without their knowledge, causes harm to themselves or to a third party. SE can be as simple as clicking on a

malicious link or answering a malicious phone call. Because human error is the single greatest risk to an organization in terms of information security, SE is still a relevant risk to any organization where people work, even if technical security systems can be set at high levels. And even though SE is such a huge risk, it is often overlooked in corporate cyber security practices. People are considered to be more exposed than ever, as the most practiced and effective penetration attacks today are much more social than technical. [10]

Fake news about the organization or something relevant to the organization can influence employees and/or customers. Fake news, also called disinformation, can be created for many reasons, but it should not be confused with misinformation (which can be considered a risk in its own right). Some reasons to create disinformation are financial gain and false credibility [16], which can cause a decrease in the trustworthiness, brand value and ultimately customer flow of either the spreader or the target.

Psychological Risks. Cyberpsychology is a new field of psychology that has developed as people have turned to SM to communicate, and as we now have "digital natives," which refers to people who have grown up using the internet, computers, and mobile devices to communicate, socialize, and go about their daily lives. A new term "Facebook depression" has been proposed to describe depression caused by Social Networking Service (SNS) use. Although low mood and low self-esteem are often publicly linked to SM and SNS, studies support both the theory that SM causes unhappiness and the theory that it does not. For example, according to a study conducted by Jelenchick et al. [17], no association was found between SNS use and clinical depression. However, a paper by Julie Ancis [18] mentions negative psychological aspects of SM. She states that excessive use/abuse can become problematic for some and negatively affect educational, psychological, social, and/or physical well-being. According to them, a significant association has been found between SM use and increased depression and lower happiness levels.

In addition to causing depression and lower happiness levels, Becker et al. [19] write that media interactions may replace face-to-face interactions, resulting in lower quality social interactions and impaired psychosocial functioning. Media multitasking may also be uniquely associated with deficits in basic cognitive processes, such as the ability to filter out irrelevant information and ignore distractions, which may perpetuate or cause depression and anxiety.

SM has been shown to negatively affect ones body image. Fardouly and Vartanian found in their study [20] that SM affects its consumers body image in a negative manner, rather than only those with low self-esteem tuning into SM sites. SM users with elevated exposure have been found to experience greater weight dissatisfaction, drive for thinness, and self-objectification, among other psychological symptoms. So with these studies, we can summarize that there are several known psychological risks related to SM use, including depression, anxiety, and lower quality of social interactions.

3. Research method and conducting the interviews

In the spring of 2023, five SMIs were interviewed to explore the risks they had encountered in their work and the concerns they had. The influencers all operated in Finland, and had a follower base across platforms between 60 000 - 170 000. All of the interviewees were individual content creators and entrepreneurs. The interviews were conducted via Google Meets. Five interviewees are considered a valid sample, as they all have a significant number of followers and run businesses that benefit from social media. However, additional interviews could provide more clear and reliable data. This study consists of the aforementioned interviews, their analysis and results, which in this case include tables and lists of risks faced by SMIs.

The interview was semi-structured and included the same questions for every interviewee, and the questions were defined to become a conversation-like discussion where the SMI could without earlier technical background ponder their relationship with cyber security and their platform security. The answers for the questions were written down by the interviewee and are analyzed both in an earlier study by Finska et al [9] and this study. There were 10-15 questions for each interviewee, and they concentrated on the personal experience of the influencer: what is it like to work in their field, what

are they worried about, what do they struggle with, where do they reach out for help if needed, and how aware are they of security issues on SM overall.

4. Results of the interviews

This section presents the key findings on the risks identified through interviews with SMIs. For clarity, risks are categorized into three tables: professional (Table 1), technical (Table 2), and psychological (Table 3). Additional findings from the literature are included to provide a deeper understanding without expanding the list of risks. The next section (Discussion) addresses additional risks identified in the literature, as all actual risks were not mentioned in the interviews. The identified risks are also ranked based on respondents' views of the probability and severity of outcomes. However, these rankings are not supported by technical studies, but rather reflect the opinions of the SMIs interviewed. For many of these risks, a possible solution would be to refrain from sharing certain content. However, this contradicts the nature of an SMI's work, which requires the continuous creation of new content on various topics.

4.1. Professional risks

In this section we will be going through the what professional risks were mentioned in the interviews. The results will also be presented in Table 1. Some of the mentioned risks were also found in literature, and they will be marked separately. This section explores the various risks faced by social media influencers (SMIs), focusing on issues such as the fear of losing their platform, privacy concerns, and the challenges of navigating unpredictable algorithms. It also addresses cyberbullying, problematic followers, and the stress of sharing personal information online. In addition, the section discusses the legal risks associated with endorsements and the impact of mistakes on an influencer's reputation. Overall, it highlights the significant challenges SMIs face in balancing their personal and professional lives while maintaining their online presence.

Losing the platform. All of the interviewed SMIs feared the loss of their platform. And as presented in Table 1, one of the main causes mentioned during all of the interviews was to only be active on one platform and then losing that platform for any reason. This would mean losing their livelihood and all work that they had done. This fear was amplified since many of the interviewees mentioned that they have seen platform loss happening to colleagues. This is why all of the SMIs mentioned that they are active on several platforms, and a few mentioned that they try to spread their content even wider to have a more secure status across platforms. Finska et al. mention in their study that reasons for losing a SM platform can include the platform being closed down, one's page getting blocked, shadowbanned,

Table 1
Professional Cyber Security Risks of Social Media Influencing based on interviews

Recognized risks	Possible causes	Possible solutions	Risk probability	Outcome severity
Loss of the platform	Only being active on one platform	Being active on several platforms	Low	High
Privacy issues of others	Posting others without permission	Having clear rules on what and who to post, and asking for permission, not posting children	High	Low
Algorithm changes	Difficult to understand all platforms and different algorithms		High	Medium
Not being able to post or post not doing well	Health, technical issues, algorithm changes	Continuous learning, taking care of the content creation process	Low	Medium
Loss of clients	Bad press, posts not doing well, technical issues	Communication, change of course with how business is run	Medium	High
Bad relationships with colleagues	Someone utilizing others personal gain, online drama, competition and rude behavior	Staying out of drama, having good relationships	Medium	Low
cyber bullying and mean commentary	Content that divides opinions		High	Low
Problematic followers	Followers getting too close and personal, stalking and the feeling of lost security and privacy	Clear boundaries	Medium	Medium
Too much information available online	Mistakes, prior information, loss of control, someone else sharing information	Clear boundaries	Medium	Medium
Issue with primary employer and SM	Brand image	Communication	Low	Low
Mistakes online	The hectic beat of SM and need of continuous content	Less content, more clear boundaries	Low	Medium
Family affected	Getting recognized, sharing too much information	Keeping family and friends out of SM	Low	Low
Marking paid posts wrong	Not knowing, understanding or the lack of clear rules		Low	Low

or closed down, an attack on one's page due to malicious intent, and the platform losing relevance. [9]

Privacy. Some of the SMIs mentioned that they are careful with not posting anyone online without permission, especially young children, due to privacy reasons and protecting the child. They also mentioned that platforms are very different, and understanding the algorithm on all platforms can be difficult. TikTok is said by the interviewees to be more unstable but it can also cause more visibility quickly, and a person can reach a celebrity-like status quicker than on most platforms. Since the algorithm is very unpredictable, having problems with it can also cost a lot. If the SMI is not able to post an agreed post or it does not perform well, it can cause unhappy clients and ultimately loss of clients in the future.

Issues with the algorithm. Many of the interviewed SMIs in their study feel that they do not have enough time to complete their work. The paper also highlighted the need to always be creating new content, testing out different solutions and reinventing themselves to stay interesting and to compete with the constant stream of content being created by other creators. Gaining audience is not easy, but one must also maintain their current followers. The current fast-pace and instant way to create content such as stories on Instagram cause more work for SMIs and a pressure to spend more time online following the reactions and measuring the impact they have on their audiences. There is also pressure to stay consistent in answering followers messages. The ability for followers to react and comment builds a relationship with the SMI but also causes a lot of work. Also losing the ability to post due to any reason, such as health reasons, technical issues, or algorithm changes as mentioned in Table 1, was mentioned several time during the interviews.

Relationships with clients, colleagues, and followers. All of the interviewees mentioned that social relationships are extremely important in SMI work. These relationships are needed to keep the brand image clean, known, and profitable. Fears mentioned during the interviews and in Table 1 are for example loss of clients, and a bad relationship with SMI colleagues. These both could be caused due to psychological reasons, bad trust, bad social media activity, algorithm changes, technical issues, drama, or misunderstandings.

Cyber bullying. Interviewees for this study also mentioned relationships with other content creators as both a positive thing and a worry. Another creator might utilize one's fame and try to hop on the same trend or even attack a person for visibility. For businesses, it is comparable with competitors feeding from ones difficulties by amplifying the situation and therefore shifting customers from one provider to another [21]. Some interviewees also mentioned competition and rude behavior from other influencers and making videos commenting on what others are doing creating drama online. In addition to other influencers, also followers and other SM users can take part in mean commentary and cyberbullying. The anonymity on SM also makes it an ideal platform for cyberbullying, which means someone trying to blackmale, gossip, or tell lies about the individual, intentional sabotage causing damage to the brand, and/or personal attacks towards the SMI due to irritation, personal connections, or other emotional reasoning [9]. One of the interviewees even had cyberbullying reach a stage where people contacted her collaboration partners and customers in attempt to make the SMI lose their clients. And the dilemma was stated: should a SMI block rude commenters from their profile or let them comment which in turn creates more buzz on the video and helps it perform better in the algorithm?

Problematic followers. Some interviewees mentioned that some of their followers could be referred to as "problematic followers". These users come too close to the SMI personally, wanting to know too much about their lives, sharing heavy discussions, and assuming for a close-friend-like connection. These situations can feel heavy and difficult for the SMI. Some SMIs had also experience of followers looking up information about them or realizing things about them that was not intentionally told online. Many of the SMIs mentioned that their security experience as SMI is very different from what it was when they were just an individual on SM.

Vast amounts of information shared online. Some SMIs were worried of the information that is already out there about them. It caused anxiety for some, and one interviewee even said they sometimes feel like shutting their account down because of the anxiety caused by all the information that is online about them. They had also wondered, would the information online cause problems in "starting over" with a new job and life. Accidentally sharing too much information, related to business or future plans

might be hurtful to a business, and/or its employees. It can also potentially cause issues physically at an event, or technically on other marketing platforms used by the business. Some of the SMIs were aware that their phone number and/or home address is visible online. One had an experience of showing their home on a published video which had caused followers appearing outside of their home and looking into their backyard. One mentioned looking up how to get rid of information about them online.

Legalities and social media rules. Another risk to keep in mind is mistakes or misinformation related to marking paid content correctly according to the law. In Finland, the Finnish Competition and Consumer Authority has during the spring of 2024 investigated the actions of influencers that work in Finland, checking content that has been paid for but is falsely marked, or hidden advertising. [22] In case an influencer or a business would do an paid campaign but not mark it correctly, the person or business may get a official warning or even a penalty, since not marking ads correctly is against the law. [23] The authorities have noticed falsely marked content online, but keeping up with the constant influx of content is difficult for authorities to follow. However, an individual or business surely doesn't want to get a warning or a fee, therefore this is a realistic risk and point to take into consideration. [24]

Other issues mentioned. Other business related risks mentioned by the SMIs and listed in Table 1 were: having another job and the status of a SMI not being OK to the employer, not remembering what not to show online due to the hectic and instant culture of current SM, information slipping by mistake on a live stream (and this possibly being recorded by someone), and family members being affected even though they might wish for more privacy online. As a wrap-up, since SM businesses often spin around the face of the account, if the SMI behind the account has difficulties, the whole business will have difficulties. This makes the SMI an irreplaceable asset for the business, and their well-being or the lack there-of a huge risk.

4.2. Technical risks

In this section we will be going through the what technical risks were mentioned in the interviews. The results will also be presented in Table 2. Some of the mentioned risks were also found in literature, and they will be marked separately. This section explores the security risks and technical concerns faced by Social Media Influencers (SMIs). It focuses on the fear of losing control over their accounts, with concerns about phishing attempts and impersonation being prevalent among interviewees. The section will examine the various types of phishing threats, such as fake accounts and malicious links, and the dangers of losing personal information through SE tactics. Additionally, the section will discuss the worries SMIs have about losing their devices, which could lead to information leakage or unauthorized access to sensitive data, including passwords and bank account details. Through these discussions, the section highlights the vulnerability of SMIs to both digital and physical security risks.

Losing the platform and phishing. Respondents also expressed concern about technical issues. Table 2 shows one of the biggest fears mentioned by all five interviewees, which was losing control of the their account(s). A common worry also included the fear of lacking technical knowledge in a critical situation. Phishing is a current risk and threat mentioned by all of the SMIs also, and experienced phishing attempts included posts that they have been tagged to or messaged by, but do not have anything to do with them or that seem like robot accounts, and fake impersonation accounts (that tried to gain authority by impersonation). Impersonation can in practice also mean phishing sent to someone else using the name of the SMI or another known party [9]. One interviewee mentioned that they had received phishing through a friend that had fallen as victim first. SE can include phishing with malicious links, request of payment or other personal details, download attempt for malware, collection of information for other attacks or a larger attack, and spam messages [10][9]. Some of the interviewees were also scared of losing their bank account details or passwords to other platforms and getting locked out of their own accounts.

Losing a device. In addition to phishing, also physically losing their device was mentioned several times. SMIs were worried about information leakage due to someone getting access to their phone, and two SMIs were scared of their passwords, which one had saved into the notes app and one had saved onto the phone password library. Another worry was forgetting their passwords and then losing their

Table 2

Technical Cyber Security Risks of Social Media Influencing base on interviews

Recognized risks	Possible causes	Possible solutions	Risk probability	Outcome severity
Losing control of the accounts	Attack, platform malfunction, loss of password	Security	Low	High
Phishing		Awareness	Medium	High
Losing bank account details	Phishing	Awareness	Low	Low
Forgetting or losing passwords	Too complex passwords, too many different kinds of passwords	Password apps	Low	Low
Physically losing their device	Human mistake, theft	Being more careful	Low	Medium
Information leakage due to their phone being in wrong hands	Human mistake, theft, cyber crime	Being more careful, securing their technology	Low	High

phone where the passwords were written down.

Information leakage. Information leakage occurs when sensitive or confidential data is unintentionally or unauthorizedly disclosed. This can happen in a number of ways. Accidental disclosure is a common cause, where individuals post or mention private details online without realizing the consequences. Phishing attacks also play a significant role, as cybercriminals trick users into revealing personal or business-related information. Another risk is the loss of a device, such as a phone or laptop, that may contain stored passwords, private messages, or other sensitive data. For SMIs, information leakage can have serious consequences. Followers can discover private details such as home addresses or financial information, competitors can exploit exposed business strategies, and personal opinions can lead to public backlash.

4.3. Psychological risks

In this section we will be going through the what psychological risks were mentioned in the interviews. The results will also be presented in Table 3. Some of the mentioned risks were also found in literature, and they will be marked separately. This section examines the psychological challenges faced by social media influencers (SMIs), focusing on the impact of their online presence. It discusses issues such as the lack of privacy, the difficulty of balancing personal and professional time, and the stress caused by cyberbullying and unsolicited advice. The section also explores the fear of "cancel culture" and its impact on mental health, as well as other psychological difficulties such as the pressure to maintain a perfect image and the fear of controversial posts.

Lack of privacy. Most of the worries mentioned by the SMIs were somehow regarding psychological well being. This is a relevant factor, since the well-being of the SMI is crucial for business continuity. As showed in Table 3, many interviewees mentioned, that the celebrity-like status that they have reached due to SM has caused anxiety of being in public places. Some mentioned fear that someone follows them in the streets or to their home, and it was also mentioned that younger followers often do not realize or respect personal space as adults do. Some SMIs said to get anxiety when someone told them they recognized them and saw them in real life, and also the uncertainty of not knowing when somebody recognizes them caused also stress.

Lack of personal time. It was also mentioned that sometimes SMIs find it difficult to recognize what time is personal time (and having too little of it) and what is working time. Also cyberbullying, which was already mentioned earlier, causes anxiety and stress for all of the interviewed SMIs. A few also mentioned anonymous discussion platforms as a source of cyberbullying.

Bullying. Some SMIs mentioned that when getting negative feedback as a content creator, sometimes the happy and thankful messages lose their power due to anxiety caused by the bullying. Some were irritated by unsolicited guiding and advice that is commonly received from followers. Also parasocial relationship was mentioned, where followers think that they are close friends with the SMI and therefore assume them to remember earlier conversations and attributes about them.

Psychological diseases. SM is not an easy place to work in. Table 3 lists possible psychological diseases or issues that SMIs could potentially face, and that were mentioned during the interviews. These include anxiety, worsening of self-image, and even depression. Working around such difficulties can be difficult especially with the feeling of being followed and talked about by thousands of followers.

Cancel culture. A major fear of all respondents was being cancelled. Norris [25] describes cancel culture as using social pressures to achieve cultural ostracism of the intended target. The target receives attempts of criticism, disruption, and/or de-legitimization. Interviewees say that often followers think that SMIs become their posts and posts get polarized easily. Norris found that public shaming is most successful when it finds others who share the same goal and therefore the cancelling gets a shaming side of "we". Cancel culture can destroy the SMIs reputation, livelihood, and privacy, in addition to their mental well-being. One of the interviewed SMIs had been a target of cancelling and mentioned that it had been psychologically extremely difficult. They said that an ad they had done caused hate and even death threats, mental health issues, and self-harm thoughts. Cancelling is a unique aspect of SM and the reasons behind it and concept is ever changing. Cancelling, cyberbullying or similar difficulties can be caused due to many reasons, according to our interviewees. Working with a party or subject that divides opinions, proposing opinions that not everyone agrees with, societal crises, and polarizing political issues were mentioned. SM users were also said to criticize easily the SMIs personal decisions, such as parenting-style, healthcare choices, and beauty related treatments such as taking injections of botulin. One of the SMIs mentioned a fear of sharing their knowledge in a field that they are educated in due to hateful and questioning commentary. The pressure of SM is very real for also SMIs and it does cause psychological difficulties, anxiety, self-image difficulties, and depression.

Other psychological difficulties. Other anxiety causing topics mentioned were: what if something comes up from the past that will cause issues or cancelling, what if the SMI were to post wrong content, what if while spending time in public spaces the discussions that SMIs have are listened to and falsely interpreted, what if the SMI were to post controversial themes online such as talking about money that could cause jealousy, and the stress caused by responsibility in content correctness. As presented in Table 3, for many of the risks no solutions were found during the interviews. The SMIs are struggling with finding ways to combat these risks.

Table 3
Psychological Cyber Security Risks of Social Media Influencing based on interviews

Recognized risks	Possible causes	Possible solutions	Risk probability	Outcome severity
Anxiety due to celebrity like status	People recognizing, following, uncertainty if being recognized		Medium	Low
Lack of personal time	Everything is work and everything is shared online	Boundaries	Medium	Medium
Cyberbullying	Anonymous platforms, anonymous accounts, opinion dividing content		Medium	Low
Negative feedback being more personal	Work is not just work, its the SMIs whole life, fear of sharing information		Medium	Low
Psychological difficulties, anxiety, self-image difficulties, and depression	Old information resurfacing, posting wrong content, getting misunderstood, posting controversial themes, jealousy, responsibility in content correctness	Reaching out to get help from a medical professional	Medium	High
Parasocial relationships	People thinking they know the SMI	Boundaries	Medium	Low
Getting cancelled	Polarizing commentary or posting, badly chosen collaboration partner, societal crisises, political issues		Medium	High
Personal decisions being criticized	Sharing information about subjects as parenting style, healthcare choices, and beauty related treatments	Not sharing that information	Medium	Low

5. Discussion and future work

Although this study covers many risks, sub-risks and additional new risks, they are endless and always depend on the specific situation. The observations and experiences raised by content creators during the interviews add depth to the risks identified in the literature review. For a a company that uses SM for its practices, it is important to be aware of these risks and also mitigate them internally by tracking the risk severity, possibilities for them taking place in practice, and what should be done in case they did. A suitable framework for risk mitigation has been proposed in a study by Finska et al. [9]. This study will advance the understanding of cyber security risks in a new area of expertise: SM marketing professionalism from an influencers and businesses point of view.

The literature review highlighted many additional points to consider regarding this topic, which could be used for a more comprehensive study in the future. For practical purposes, the risks identified in the literature review are discussed next. Table 4 lists the risks identified in the literature review

(Section 2). However, as some of these risks were also mentioned by the interviewees, they are discussed exclusively in Section 4, along with other risks reported in the interviews. To avoid redundancy, they are not repeated here. Other important risks identified in the literature include: damaging professional image (for any reason), technical issues due to low security of devices, data integrity issues, data leakage due to technical or human error reasons, malware, hacking, mis- and disinformation, mental difficulties, issues with paid ads, shoulder surfing, and the difficulties of the physical security of the SMI.

While writing this paper, the authors also realized that many of the risks mentioned could lead to legal issues. Although this is not specifically addressed in the literature reviewed or in the interviews, it is an important point to consider. In addition, several of the identified risks were found to raise relevant ethical concerns. Sharing a lot of data online, being on the screens of thousands if not millions, and influencing the opinions of anonymous followers, comes with ethical responsibilities that need to be addressed. Here we will mention a few that came up while doing the research for this paper, but more studies regarding this subject are needed.

It can be stated, that a content creator has the ethical responsibility to protect their own *privacy*, including anyone else visible on or relevant to the channel that the content creator owns. Since cyber bullying and stalking are big problems online, anyone that participates in online conversation has a ethical responsibility to try to create a *safer social media* and safer environment on all platforms. Employing strong *security measures* ensure, that not only do they themselves have issues with their platforms, but also their accounts would not be used to fool anyone else online. With a wide reach like theirs, using an influencers account to spread a virus or phishing could be very effective. As a person who creates content for others to view, it is important to provide *truthful information* to avoid mis- or disinformation. Creating content to *vulnerable audiences* such as children, the elderly, or people with various health conditions, poses a new risk with content that is safe and trustworthy for all ages and people from all backgrounds. This especially relevant when it comes to paid partnerships. Transparency regarding *paid collaborations* does not only have an ethical aspect, but a legal one, as well. Like anyone who uses SM, smart devices, and internet, also SMIs and content creators should continuously focus on *education* and educate themselves on relevant risks, vulnerabilities, and current technologies. Content creators must also remember their own *personal health*, even though SM can be a difficult place to work in at times. Mental health, their own security, and wellbeing should always be a priority.

This paper highlighted the need for proper understanding of the risks SM poses for businesses and their individuals. Due to the high amount of risks and also because of the importance of soft skills and the understanding of practices, it is beneficial in future work to study how these practices and employee education could be implemented to SM users in the most effective way. As a proposed action, the authors of this paper recognize the need to study effective user and employee training with regards to SM. User awareness and training of soft skills and practices have a relevant role in rising the information security levels of a business. Through such action, many attacks can be mitigated or avoided. [10]

In addition to these findings, the authors of this paper also considered the possibility of changing one's field of work if a person had previously been active on social media. The question is – how can

Table 4

Literature-Based Cyber Security Risks of Social Media Influencing (Beyond Interview Findings)

Risk	Possible causes	Risk type
Damaging professional image	Compromising confidentiality by talking about personal subjects, blurred professional boundaries, brand boycotting and negative outreach for the brand	Professional, psychological
Technical issues due to low security devices		Technical
Data integrity issues		Technical
Data leakage due to technical reasons		Technical
Data leakage due to human error	Sending the wrong message to the wrong person, posting wrong content	Professional
Malware		Technical
Hacking, social engineering		Technical
Fake news, misinformation	Third party sabotage	Professional, psychological
Mental difficulties	Anxiety, worse body image, facebook depression, less human contact, lower quality social interactions, feeling of loosing relevance due to not posting all the time	Psychological
Issues with ads	Issues due to debatable theme or partner, unhappy business customer, creating too much ads and losing credibility due to that	Professional
Shoulder surfing		Technical
Reduced physical security of the SMI due to data shared online		Psychological

SM make reinventing oneself more difficult in professional life? Another question that rose during the writing of this study was how to keep a SM team happy and motivated to work while surrounded by applications that are designed to cause addictive scrolling. How to make sure employees create content instead of surfing, or is this a worry for SM related businesses?

6. Conclusion

This study explored the multifaceted risks that Social Media Influencers (SMIs) face in their professional, technical, and psychological spheres. SMIs and content creators and their businesses face many risks related to their security online, extending also to risks regarding their brand, mental wellbeing, physical security, and economical situation. We found three types of risks, and we cathegorized them into professional, technical, and psychological concerns. Through interviews, we identified key threats that impact their online presence, mental well-being, and business continuity. The findings show that while social media platforms offer lucrative opportunities, they also present significant challenges that require constant adaptation and risk management.

Professionally, SMIs are particularly concerned about losing their platform, which could potentially result in the loss of their livelihood. Privacy concerns, including the management of personal information and the unpredictable nature of algorithms, also pose significant risks. Additionally, issues such as cyberbullying, problematic followers, and the impact of legal concerns related to paid content were also discussed during the interviews. Maintaining a balance between personal and professional life, while managing the visibility of their personal information, adds further complexity to their work. Technically, SMIs worry about losing access to their accounts, being targeted by phishing attacks, and the potential security risks associated with losing devices or passwords. These concerns are accompanied by the growing threat of impersonation and SE, which could lead to identity theft or loss of control over their digital presence. Psychologically, the pressures of maintaining a public image contribute significantly to anxiety and stress among SMIs. The lack of privacy, the risk and fear of getting stalked, and the psychological toll of cyberbullying are constant issues. Additionally, the phenomenon of "cancel culture" remains a liability, as it can quickly ruin an influencer's reputation and mental health. The constant scrutiny, coupled with the demands of always creating new content, leaves SMIs with little personal time, which further worsens their psychological strain.

This study underscores the complex risk landscape that SMIs navigate on a daily basis. These risks—ranging from professional setbacks to technical vulnerabilities and significant psychological pressures—underscore the delicate nature of their work. The interplay between these concerns calls for better management of their digital presence, legal compliance, and mental well-being to ensure long-term sustainability in the highly demanding social media landscape. The findings underscore the need for proactive risk mitigation strategies, including diversifying platform presence, implementing robust cybersecurity measures, and seeking mental health support. As social media continues to evolve, influencers and organizations alike must remain adaptable and vigilant to ensure sustainable and safe online engagement. There is a need for further research to explore specific coping mechanisms and industry-wide best practices that aim to improve the safety and well-being of SMIs in the digital space. The security of one SMI is not only important due to that one person, but also due to their followers, their business partners, and their own business and possible employees. More education regarding SM security is needed and a more broad understanding and SM cyber security friendly culture.

Declaration of Generative AI

No Generative AI tools were utilized in preparation of this article.

References

[1] S. Kemp, Digital 2024: Global overview report, Available online at https://datareportal.com/reports/digital-2024-global-overview-report, 2024.

[2] J. Nesi, S. Choukas-Bradley, M. Prinstein, Transformation of adolescent peer relations in the social media context: Part 1—a theoretical framework and application to dyadic peer relationships., Clinical Child and Family Psychology Review 21 (2018) 267–294.

[3] J. Johnson, Exploring the social and psychological effects of being a content creator, Thesis available online at https://www.proquest.com/openview/11ee51759bd82b4b9830ae68fae996df/1?pq-origsite=gscholar&cbl=18750&diss=y Accessed 08.11.2024, 2023.

[4] A. Arriagada, F. Ibáñez, You need at least one picture daily, if not, you're dead": Content creators and platform evolution in the social media ecology, Social Media + Society 3 (2020).

[5] B. M. Kiss, C., Identification of influencers — measuring influence in customer networks, Decision Support Systems 46 (2008) 233–253.

[6] L. L. Bi, C., From fame to fortune: Influencer entrepreneurship in a digital age, Pacific Asia Conference on Information Systems (2022).

[7] K. Kapoor, K. Tamilmani, N. Rana, N. Patil, Y. Dwivedi, S. Nerur, Advances in social media research: Past, present and future, Information Systems Frontiers 20 (2018) 531–558.

[8] T. Rukavina, J. Viskić, L. Poplašen, D. Relić, M. Marelić, D. Jokic, K. Sedak, Dangers and benefits of social media on e-professionalism of health care professionals: Scoping review, Journal of Medical Internet Research 23 (2021).

[9] K. Finska, A. Hakkala, A. Majanoja, Security and privacy enhancing framework for social media influencers and content creators, Proceedings of the International Conference on Computer Systems and Technologies (2024) 37–42.

[10] A. Lopes, L. Reis, H. Mamede, A. Santos, Information security threat assessment using social engineering in the organizational context – literature review, WorldCIST 2 (2022) 233–242.

[11] Ofcom, Spreout social: The q3 2017 sprout social index: Call-out culture: People, brands & the social media power struggle, Available online at https://media.sproutsocial.com/uploads/2017/08/2017-q3-sprout-social-index.pdf Accessed 26.09.2024, 2017.

[12] W. Tow, P. Dell, J. Venable, Understanding information disclosure behaviour in australian facebook users, ACIS 15 (2008).

[13] C. Plume, E. Slade, Sharing of sponsored advertisements on social media: A uses and gratifications perspective, Information Systems Frontiers 20 (2018) 471–483.

[14] A. Sonerva, Temu kuumentaa tunteita – nyt puhuvat asiakkaat: "ei olisi muuten varaa", Available online at https://www.iltalehti.fi/kotimaa/a/34ea40d3-2d84-42f5-9b13-3e861e809b74, 2024.

[15] S. Siddiqui, T. Singh, Social media its impact with positive and negative aspects, International Journal of Computer Applications Technology and Research 5 (2016) 71–75.

[16] R. Jowore, M. Turpin, How to identify fake news on social media: A systematic literature review, WorldCIST 2 (2022) 102–111.

[17] L. Jelenchick, J. Eickhoff, M. Moreno, 'facebook depression?' social networking site use and depresssion in older adolescents, Journal of Adolecent Health 51 (2013) 128–130.

[18] J. Ancis, The age of cyberpsychology: An overview, Technology, Mind, and Behavior 1 (2020).

[19] M. Becker, R. Alzahabi, C. Hopwood, Media multitasking is associated with symptoms of depression and social anxiety, Cyberpsychology, Behavior, and Social Networking 16 (2013).

[20] J. Fardouly, L. Vartanian, Social media and body image concerns: Current research and future directions, Current Opinion in Psychology 9 (2016) 1–5.

[21] Y. Grégoire, A. Salle, T. Tripp, Managing social media crises with your customers: The good, the bad, and the ugly, Business Horizons 58 (2015) 173–182.

[22] Kuluttaja- ja kilpailuvirasto, Kilpailu- ja kuluttajavirasto: Kkv selvittää vaikuttajamarkkinoinnin markkinoita, Available online at https://www.kkv.fi/ajankohtaista/tiedotteet/kkv-selvittaa-vaikuttajamarkkinoinnin-markkinoita, 2024.

[23] Kilpailu- ja kuluttajavirasto, Vaikuttajamarkkinointi sosiaalisessa mediassa, Available online

at https://www.kkv.fi/kuluttaja-asiat/tietoa-ja-ohjeita-yrityksille/kuluttaja-asiamiehen-linjaukset/vaikuttajamarkkinointi-sosiaalisessa-mediassa, 2019.

[24] F. Kyei, Piilomainonnan siivoustalkoisiin tarvitaan sekä vaikuttajat, yritykset että alustat, Available online at https://www.kkv.fi/blogit/kkv-blogi/piilomainonnan-siivoustalkoisiin-tarvitaan-seka-vaikuttajat-yritykset-etta-alustat, 2024.

[25] P. Norris, Cancel culture: Myth or reality?, Political Studies 71 (2021) 145–174.