

Developing a sustainable content strategy to support information literacy: a case study of Comunilog Consulting on Facebook

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Abstract

Introduction: In the digital era, information literacy is essential, with sustainable content strategies on social media significantly influencing content creation, user engagement, and retention. This study examines the impact of such strategies on Facebook, focusing on the Portuguese training centre, Comunilog Consulting. The primary goal is to evaluate content strategy course dissemination, weighing its advantages and disadvantages. Additionally, it explores the effects of repetitive content on users' information literacy and their ability to process and retain information. **Methodology:** This research uses an exploratory case study method, integrating qualitative and quantitative data. Data collection involved an interview with Comunilog's general director and a content analysis of Facebook posts in 2023. We selected three courses: the most promoted, the least promoted, and a moderately promoted one. We analysed key metrics such as reach, interaction rate, and share count to identify gaps in the content strategy. **Results:** Findings reveal that the course most frequently promoted did not achieve optimal engagement, suggesting the potential need for alternative promotion strategies. Repetitive content was associated with lower engagement, suggesting information overload and indicating that Comunilog's current sustainable content strategy may not effectively enhance informational value or support users' information literacy. **Discussion:** The study highlights the need for deeper audience understanding, improved content adaptation, and identification of key factors to enhance sustainable content strategies as innovative engagement tools. Addressing these areas could mitigate the strategy's current limitations. **Conclusion:** Comunilog's sustainable content strategy faces challenges in converting engagement effectively. A more dynamic content management approach, incorporating updated and relevant information on promoted training, is essential to enhance information literacy and reduce information overload.

Keywords: Sustainable content strategy, Information literacy, Comunilog, Facebook, Vocational Training.

Introduction

Strategic communication in the digital context has increased interest in marketing and communication strategies that incorporate the development of more sustainable approaches (Minton et al., 2012; Grewal et al., 2020). The effective use of digital platforms, particularly social media, has proven essential for reaching target audiences, especially in vocational training (Dwivedi et al., 2021; Falkheimer et al., 2016). However, most studies focus on environmental sustainability, without fully addressing the use of sustainable

content, such as reuse and repurposing, as a strategy for optimising resources and increasing digital impact. This approach, which is particularly relevant for training centres, deserves further analysis in terms of its impact on visibility and use engagement.

This study aims to understand how a sustainable content creation strategy, such as reusing and recycling content on Facebook, can affect the number of training courses promoted by the professional training centre, Comunilog Consulting, in Portugal. The research focuses on information literacy, as the effectiveness of digital communication depends on the capacity of users to understand, interpret, and use the information available, which can directly influence the participation and success of training activities. This study employs a mixed methodology, comprising an interview with the director of Comunilog and a content analysis of Comunilog's Facebook posts regarding training programs scheduled for 2023. We limit this analysis to three specific course offerings and investigate the potential impact of repurposed content on reach and engagement. In doing so, the study also seeks to identify whether the current content strategy supports or hinders users' ability to process and evaluate information critically, a key component of digital information literacy.

Content creation on social media

The emergence of communication technologies has significantly increased consumer engagement and information exchange. Social media refers to digital platforms that enable interaction, content dissemination, and multimedia creation (Hong & Shao, 2012), becoming a key factor in enhancing customer value (Santini et al., 2020). Beyond personal use, social media shapes how organisations communicate and share knowledge with stakeholders (Zeng et al., 2010; Kane et al., 2014; Lam et al., 2016). Despite their recognised value, the strategic use of social media remains a subject of debate. While Kane et al., (2014) emphasise the strategic integration of digital channels, Macnamara and Zerfass (2012) suggest that many organizations still adopt a broadcast model, ignoring the interactive potential of these platforms. This tension is evident in institutions such as vocational training centers, where communication tends to be unidirectional, privileging announcements over dialogue.

These platforms have become indispensable in shaping consumer decision-making (Martini et al., 2012; Kapoor et al., 2017; Pentina et al., 2018), facilitating the construction of values and supporting strategic communication (Cartwright et al., 2021). The widespread adoption of platforms like Facebook has made them essential for stakeholder engagement (Macnamara & Zerfass, 2012; Sedereviciute & Valentini, 2011). Relevant and well-crafted content contributes to brand identity, aiming to inform, motivate, and convert audiences (Kietzmann et al., 2011).

Social media content creation, central to marketing and customer relationship management (Heller & Parasnis, 2013), begins with identifying key events and selecting appropriate strategies. For content to be effective, it must meet consumer expectations and incorporate attributes such as accuracy, relevance, and diversity (Harris & Rae, 2009; Koob, 2021). However, definitions of "high quality content" vary. While Koob (2021) emphasises format diversity, Treem & Leonardi (2012) argue that visibility and editability are

essential for generating organisational knowledge. This raises questions about how vocational training centers assess content value, particularly when reliant on frequent, low-variation posts.

According to Treem and Leonardi (2012), content created for social media must exhibit four characteristics: visibility (accessibility), persistence (availability over time), editability (capacity for modification), and association (fostering collaboration and knowledge exchange). Engagement on social media is typically measured through interactions such as likes, comments, and shares (Pezutti et al., 2021; Ibrahim et al., 2022). Other influential factors include content format, media type, and timing (Cvijikj & Michahelles, 2013; Bai & Yan, 2020). Content that conveys brand personality, such as humour, emotion or tone, tends to enhance engagement (Wang, 2021). When informative posts, such as promotions, are combined with personality elements, they are more likely to generate both short- and long-term results (Yoo et al., 2000; Lee et al., 2017).

Although it is often assumed that a higher frequency of publication increases visibility, platforms such as Facebook may suppress redundant content through algorithmic filtering (Tuten & Solomon, 2018). So, excessive exposure to similar content risks disengaging users and diminishing the perceived informational value of institutional communication, highlighting the need to re-evaluate what makes content truly sustainable in practice.

Sustainable contents for vocational training centres

Vocational training centres engage with the public by disseminating training offers aligned with their needs, aiming to support informed decision-making (Purcarea, 2019; Saravanan & Surya, 2023). A content curation approach is a requirement for selecting and tailoring messages to specific audiences (Babin & Hulland, 2019; Dede & Foster, 2021). Content can be classified into three categories, based on creation efforts, frequency of dissemination, and strategic importance (Kotler & Keller, 2012). The first category, original content, refers to materials exclusively created by the organisation. While it requires substantial time and resources, it does not necessarily demand frequent dissemination. The second category, curated content, involves repurposing existing materials for a targeted audience. This approach requires less creative effort but offers high relevance and consistency. Lastly, aggregated content refers to automated or optimised reuse of existing materials, prioritising dissemination frequency and broad applicability over originality.

Curating and reusing content is an effective strategy due to its operational efficiency (Rockley & Gollner, 2011; Kenfield et al., 2022). Sustainable content refers to the transformation of existing resources into news formats, through recycling and adaptation, to reach new audiences and reduce production costs (Iribas et al., 2012; Bocyte & Oomen, 2020). However, the assumption that reuse automatically enhances engagement has been increasingly questioned. While Rockley & Gollner (2011) emphasise efficiency, Frick (2016) argues that true sustainability must also account for the freshness and contextual relevance. In this point of view, sustainability without innovation without innovation may result in communication fatigue. This theoretical tension underpins the present case study, in which repeated promotion of specific courses by Comunilog did not generate proportional engagement, suggesting the emergence of a "reuse fatigue" effect.

Producing sustainable content requires sensitivity, coherent structure, narrative clarity, creativity, and the ability to stimulate audience action. It also involves systematic assessment of content performance (Frick,

2016; Kim & Choi, 2019; Bryla et al., 2022). Organisations should therefore focus on creating reusable content aligned with long-term strategies to foster loyalty and strengthen market visibility. Consistency in content creation and evaluation contributes to brand credibility and trust (Seric et al., 2017; Tyrväinen et al., 2023).

Social media learning communities produce valuable content that drives marketing strategies, increases visibility for training centres, and effectively promotes their services in the digital environment (Houda et al., 2019; Ziyadin et al., 2019). One strategic factor is identifying optimal publication timing. Building a content repository facilitates cross-platform dissemination and extends audience reach. A culture of sharing and reuse enhances communication efficiency on social media (Frick & Werve, 2010; Young, 2016; Kanuri et al., 2018). Moreover, interaction rate directly influences dissemination potential (Kanuri et al., 2018; Polshina & Myrksina, 2023). To maximise engagement, it is recommended to develop relevant, long-lasting content and to establish editorial calendars for structured dissemination.

Despite its operational benefits, sustainable content has uncertain long-term effectiveness, particularly when repeated without adaptation. Repetitive content lacking added value can become predictable and disengaging, reducing its capacity to inform and persuade. The Comunilog case study offers a valuable opportunity to reflect on the balance between sustainability, innovation, content diversity, and audience-centred strategies.

Information literacy

The digital era has brought about an unprecedented flow of information, making the development of information literacy skills essential for both academic and professional context (Lemke, 2002; Silber-Varod et al., 2019). Information literacy refers to the ability to recognise information needs and to locate, evaluate, manage, and use information effectively. It also includes generating ideas and communicating information clearly to address specific problems (Jones-Jang et al., 2021; Kozanoglu & Abedin, 2021). These skills are essential for navigating the challenges posed by misinformation and the complexity of digital environments. They enable individuals to assess the credibility of online content, interact critically with information flows, and engage more responsibly with digital media (Eisenberg, 2008; Zade et al., 2023). Accordingly, information literacy should be promoted at all levels of society and educational institutions should invest in the training of skilled researchers (Al-Zou'bi, 2021).

However, information literacy is not innate, it is learned and must be intentionally practiced. A content strategy designed to promote these skills must involve continuous planning, development, and management of digital content aligned with broader organisational objectives (Anthonyamy et al., 2020; Park et al., 2021; Fischer et al. 2020). Communities of practices such as e-learning and m-learning environments have shown the potential of digital content to support knowledge development (Nacheva et al., 2021). Recognising Facebook as a learning environment, information literacy empowers users to identify and prioritise quality information, thereby mitigating the cognitive overload associated with digital saturation (Manca & Raiery, 2013). Adopting reflective and critical practices in the use of platforms like Facebook helps maintain a balance between interaction and comprehension, promoting more conscious and sustainable media use (Witek & Grettano, 2012). While content reuse can reinforce key messages and support

continuity, repetition without contextual adaptation may hinder critical analysis. This highlights the need for sustainable content strategies that balance efficiency with cognitive engagement and depth. Only under such conditions can content contribute meaningfully to long-term information literacy.

A coherent and continuously updated content strategy should be grounded in information literacy (Pinto et al., 2020; Haider & Sundin, 2022). Aligning content with user needs through innovative and diversified formats leads to positive communication experience (Kemp et al., 2022; Varadarajan et al., 2022). In this context, it is essential to balance novelty and repetition, ensuring consistent content quality while preventing public overwhelm (Arnold et al., 2023; Rodrigues et al., 2021). User proficiency in accessing, evaluating, and applying information ensures effective communication (Lankshear & Knobel, 2008; Poon, 2020). However, information quality alone is insufficient if users lack the capacity to interpret and use it appropriately. Communication design contributes significantly to this process by facilitating access to information, as well as its comprehension and evaluation, through strategic use of typography, layout, and content organisation (Tufte, 2007; Franconeri et al., 2012). In this sense, design should be understood not merely as a visual aid, but as an epistemological filter that shapes how users cognitively experience and process digital content. In the case of Comunilog, the lack of visual diversity in Facebook posts may limit this cognitive engagement, potentially contributing to information fatigue, even when the content itself is relevant and accurate.

Visual information enables users to interpret content effectively, facilitating the filtering and prioritisation of relevant data (Lu et al., 2020; Franconeri et al., 2021). This is particularly important in saturated digital environments, where the capacity to analyse, evaluate and interpret is essential to avoid overload (Gao & Hands, 2021; Toker & Baturay, 2021). In such contexts, three key factors contribute to information overload: the volume and frequency of communication, the integration of multiple channels, and the complexity of the information presented. When these dimensions are imbalanced, users may experience reduced processing capacity, leading to disengagement (Kress, 2003; Lee et al., 2016). The excessive amount of information available online demands greater cognitive effort for analysis and decision-making, often affecting attention, memory, and reasoning. This phenomenon, cognitive overload, can undermine the user's ability to engage meaningfully with content and to make informed decisions (Fernandes & Meirinhos, 2021; Alves et al., 2017). Reusing high-quality content with appropriate communication design can help mitigate this effect by reducing unnecessary repetition and balancing information quantity with clarity. This approach enhances comprehension and supports users in evaluating and applying information more effectively.

From this perspective, information literacy should not be viewed solely as an individual cognitive skill, but also as an outcome shaped by institutional communication practices. The design, organisation, and delivery of digital content influence users' capacity to interpret and critically engage with information. For sustainable content strategies to be effective, they must incorporate an educational dimension that encourages reflection, interpretation, and informed interaction with content.

Methodology

This study uses a mixed methodology, integrating quantitative and qualitative techniques to evaluate the effectiveness of content reuse in promoting courses and recruiting new trainees at Comunilog Consulting, a

vocational training centre (Galvão et al., 2017). The design integrates engagement metrics with data on the centre's content strategy practices.

The research covers the period from 1 January to 31 December 2023, analysing 170 posts on Comunilog's official Facebook page. These posts relate to 27 different training courses. Three courses were selected to represent different levels of promotion: Senior Occupational Safety Technician (SOST), with high promotion; Initial Pedagogical Training for Trainers (IPTT), with moderate promotion; and Employment + Digital (E+D), with low promotion. Quantitative data prioritises interaction rates (likes, comments, and shares) and publication frequency. The data on trainee enrolments includes 9,975 participants in 1,300 courses during the year. The quantitative data was analysed to identify trends in engagements across different courses.

A semi-structured interview with the director of Comunilog Consulting provided qualitative data on strategy practices, including methods for planning and management. This data was thematically analysed to outline patterns and practices in content reuse, focusing on its relation to sustainability and information literacy.

This study tests the following hypotheses:

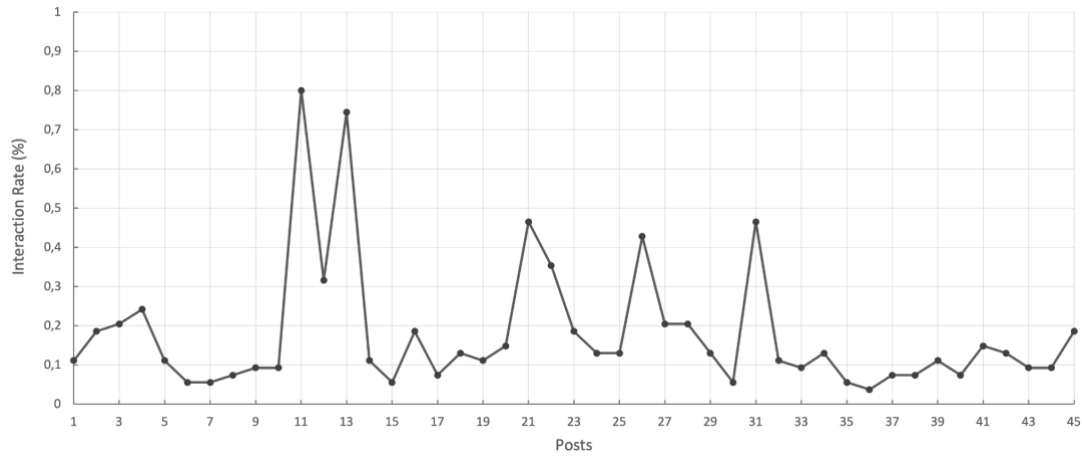
- H1. Content reuse is associated with an increase in the number of courses promoted.
- H2. Frequent content reuse correlates with a decrease in audience engagement metrics.
- H3. The number of shares for a training course correlates with increased enrolment.
- H4. Constant content reuse is associated with information overload and reduced user interest.

This methodology outlines a structured approach to assess the impact of sustainable content strategies on the promotion of training courses and audience engagement through digital platforms.

Results

From the 1300 training courses conducted by Comunilog Consulting in 2023, SOST accounted for 1.3% (N=17) of all courses and 2.1% (N=208) of all trainees. This course received the highest level of promotion, with 45 posts comprising 26.5% of all course-related content published on Facebook. The SOST course generated 241 likes, 186 shares, and 7 comments, resulting in a total interaction of 434. The interaction rates are between 0.04% and 0.80% across its 45 publications (Figure 1). Posts were distributed throughout the year, with peaks in April and July (five posts each). The course adopted a frequent posting strategy to maintain visibility. However, the low interaction rate and minimal audience comments indicate limited engagement. These results point to a disconnection between the content provided and audience preferences, along with possible limitations in the diversity and visual appeal of the posts.

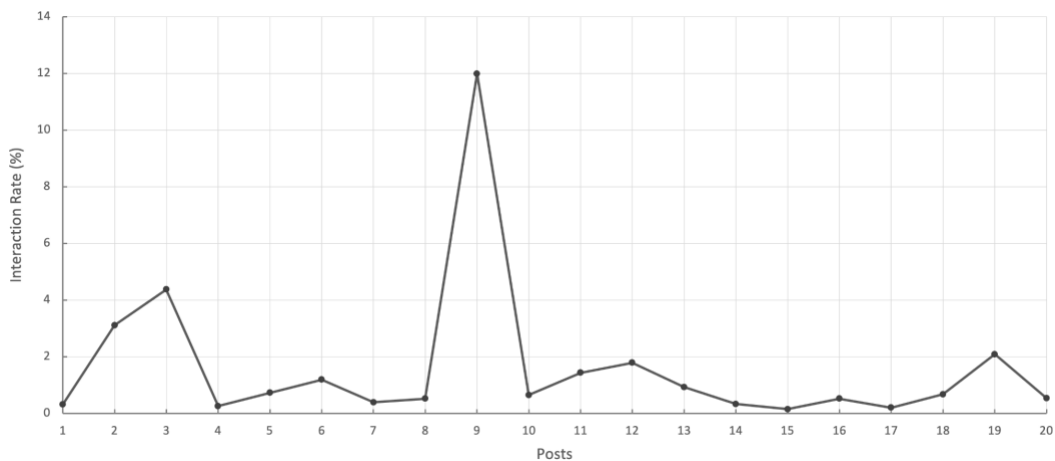
Figure 1: SOST interaction rate.



Source: Authors' elaboration based on data from Comunilog Consulting's Facebook page (2023).

The IPTT course represents 8.4% (N = 109) of all training courses and 10.8% (N = 1,078) of total trainees. A total of 20 posts, representing 11.8% of all course-related content, were published, producing 1,055 likes, 628 shares, and 46 comments, with a total interaction of 1,729. The interaction rates varied between 0.15% and 11.99% (Figure 2). Posts were concentrated in the first half of the year, with most activity occurring in January, February, and March. Limited updates were made in the later months. The engagement data suggests that a moderate number of posts support significant interaction, driven primarily by shares and likes. The higher peak rates indicate a relatively higher level of engagement, which may reflect superior alignment with the target audience and platform preferences.

Figure 2. IPTT interaction rate.

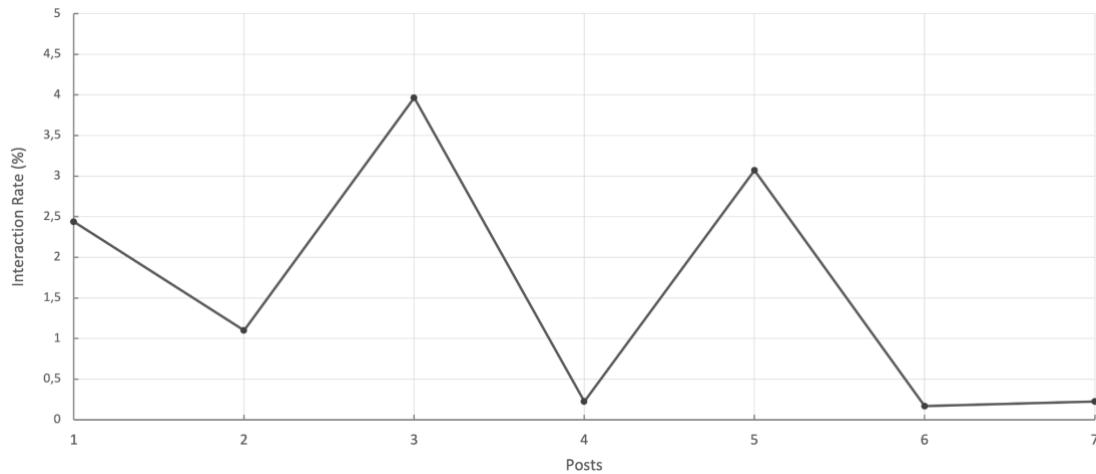


Source: Authors' elaboration based on data from Comunilog Consulting's Facebook page (2023).

The E+D course accounted for 4.2% of all training courses (N = 55) and 5.2% of trainees (N = 520). The course published seven posts, representing 4.1% of all course-related content, generating 262 likes, 238 shares, and 101 comments, resulting in a total interaction of 601. Interaction rate for E+D ranged from

0.17% to 3.96% (Figure 3). Posts were evenly distributed between May and December, maintaining consistent visibility over this period. Engagement for E+D was characterised by its significant number of comments, indicating interaction with the audience despite its lower number of posts.

Figure 3. E+D interaction rate.



Source: Authors' elaboration based on data from Comunilog Consulting's Facebook page (2023).

To compare the three training courses, the data were organised into two separate tables. Table 1 presents the relative weight of each course within Comunilog's overall training offer in 2023, as well as the volume and proportion of related social media posts. Table 2 outlines engagement outcomes, including total interactions, individual metrics (likes, shares, comments), and the range of interaction rate. This structure allows for a clearer interpretation of content strategy effectiveness in terms of visibility and audience engagement.

Table 1: Course offer and publication volume.

Course	Courses (%)	Trainees (%)	Posts	Posts(%)
SOST	1.3	2.1	45	26.5
IPTT	8.4	10.8	20	11.8
E+D	4.2	5.2	7	4.1

Source: Authors' elaboration based on data from Comunilog Consulting (2023).

The SOST course had the highest number of posts, while representing a small proportion of total courses and trainees. Conversely, IPTT reached more participants with fewer posts. This difference is also reflected in Table 2.

Table 2: Engagement metrics and interaction rates.

Course	Total interactions	Likes	Shares	Comments	Interaction rate Min (%)	Interaction Rate Max (%)
SOST	434	241	186	7	0.04	0.80
IPTT	1729	1055	628	46	0.015	11.99
E+D	601	262	238	101	0.17	3.96

Source: Authors' elaboration based on data from Comunilog Consulting (2023).

The data indicates that IPTT and E+D, despite having fewer posts, generated higher interaction rates than SOST. This suggests that the number of posts alone does not determine engagement. Instead, the relevance of content and its alignment with audience interests appear to be more influential.

The interview with the director of Comunilog Consulting provides additional context about the centre's content strategy. The approach includes content segmentation, use of multiple platforms (omnichannel), and the reuse of resources to support sustainable practices. Planning is organised on a monthly and annual basis using tools such as SocialPilot. Sustainable content practices are guided by internal standards focused on relevance, quality, adaptability, long-term utility, and cost-efficiency. These principles help structure production, reduce pressure on teams, and support the development of new content formats.

The qualitative data also show differences in how each course was promoted. IPTT appears to have followed a more segmented and diversified approach, which may explain its higher engagement. SOST, in turn, focused on quantity over variation or targeting, which is consistent with the director's reference to reuse as a time-saving practice. Although E+D had fewer posts, its content was perceived as more tailored and interactive, aligning with the director's emphasis on content "relevance and adaptability" as criteria for sustainability. These results indicate that internal content strategy, rather than frequency alone, exerts a direct influence on audience engagement and information processing.

Conclusion

The results partially support H1, which refers to content reuse is associated with an increase in the number of courses promoted. The interview data reveals that Comunilog Consulting uses reuse content as part of its broader strategy to sustain visibility and manage resource constraints. The SOST course, which had the highest level of content promotion, demonstrates how frequent reuse can sustain visibility and support promotional activities. However, despite frequent posting, the engagement metrics were lower compared to other courses, indicating that while reuse facilitates higher content output, it does not consistently improve interaction with the audience. This underscores the significance of meticulous planning to optimise the impact of publications while also emphasising the necessity of customising content to reflect the preferences and requirements of the intended audience (Kanuri et al., 2018; Piduru, 2023).

H2, which proposes that frequent content reuse correlates with a decrease in audience engagement metrics, is supported. The SOST course had the lowest interaction rates despite frequent posting, suggesting that dependence on repetitive content can result in decreases in audience engagement. This finding is reinforced by interviewee reference to time constraints as a driving factor behind reuse, which may have led to reduced attention to content differentiation and personalization. Therefore, excessive repetition can result in information saturation, which in turn reduces audience engagement (Arnold et al., 2023; Rodrigues et al., 2021). In contrast, the E+D course, with a lower frequency of posts, achieved comparatively higher engagement rates, highlighting the values of prioritising quality over volume.

The data also supports H3, which proposed that the number of shares correlates with increased enrolment. The IPTT course, which generated the highest number of shares, attracted the largest proportion of trainees among the three courses analysed. Shares function as an amplifier, broadening the reach of content and facilitating enrolment by increasing audience exposure (Spackman & Larsen, 2017). The qualitative insights from the interview further reinforce this, as the centre's emphasis on an omnichannel approach and audience segmentation likely contributed to the broader dissemination of IPTT content. As indicated by the director's strategic focus on aligning the platform and audience, it is suggested that there is a more deliberate use of sustainable content when it is tied to formats that are specific to the audience.

Finally, the results partially support H4, which states that content reuse is associated with information overload and reduced user interest. The data for SOST suggests that high posting frequency, combined with repetitive content, may have contributed to lower engagement. Indeed, the literature reviewed indicates that excessive reuse, particularly on digital platforms with a high posting frequency, can intensify exposure to repetitive information, leading users to develop cognitive saturation. In digital environments characterised by high levels of information overload, this limitation is further compounded, contributing to the dispersion of attention and a loss of interest. Furthermore, the volume and frequency of communication can render it challenging for users to filter and prioritise information (Toker & Baturay, 2021). In contexts characterised by information saturation, such as social media, the development of information literacy skills is important for users to be able to discern and evaluate information (Kirschner & Bruyckere, 2017). In contrast, E+D, with fewer but more targeted posts, avoided potential content fatigue, maintaining a consistent level of audience interaction. The standards for sustainable content outlined in the interview, include relevance, adaptability, and cost efficiency, provide additional context to mitigating the risks associated with frequent reuse.

The findings of this study show the importance of information literacy as a fundamental skill for navigating digital communication environments saturated with repetitive and promotional content. Rather than being a secondary consideration, information literacy emerges as a determining factor in how users engage with and interpret content. In the case of Comunilog, the audience's limited interaction with frequently reused materials, particularly in the SOST course, suggests that exposure alone is insufficient without supporting users' capacity to filter, evaluate, and make sense of information. Consequently, sustainable content strategies must evolve beyond mere operational efficiency, actively fostering user's cognitive engagement. Although Comunilog adopts content strategies that include segmentation, omnichannel presence and the reuse of educational resources, the promotion of information literacy among its audiences appears to be incidental rather than intentional. The materials disseminated, notably for the SOST and IPTT courses, appear to favour visibility and repetition over critical engagement with the information. There is a paucity

of evidence to suggest that the current strategy assists users in evaluating, comparing or contextualising the training information they receive. Although mechanisms such as digital books and structured course content have the potential to contribute to information literacy, they are not actively framed or monitored as part of a literacy development process. Furthermore, there is an absence of a formal metric for assessing how users interpret or act on the information provided.

The study highlights the role of sustainable content strategies in promoting vocational training courses and engaging audiences on social media. Content reuse supports efficiency and cost reduction but must balance quantity with quality to align with audience needs and prevent engagement declines. The results demonstrate that frequent posting, as in the SOST course, can reduce interaction without sufficient adaptation, while fewer, well-designed posts, as in IPTT and E+D, sustain engagement. Effective content strategies integrate principles of information literacy to meet user needs, avoid information overload, and facilitate decision-making. Communication design supports these efforts by organising and presenting content to enhance understanding and usability. Vocational training centres benefit from structured content planning, databases of reusable materials, and tailored dissemination to optimise audience engagement and communication outcomes. However, the findings also suggest that the success of such strategies depends on how these practices are internally structured and aligned with audience insights, a dimension clearly articulated in the qualitative data.

Although the findings are relevant, this study has some limitations that should be acknowledged. Primarily, the analysis concentrated on a single organisation, which may restrict the generalizability of the results. The content evaluation was restricted to Facebook posts, excluding other platforms that may exhibit different user behavior patterns. Furthermore, the reliance on retrospective engagement metrics and a single qualitative interview may introduce bias or overlook contextual nuances. These factors must be given full consideration when interpreting the data and deriving broader conclusions.

Future research should explore additional dimensions of content reuse and engagement strategies, including content formats, seasonal effects and audience segmentation. Expanding the study to organisations and platforms, such as Instagram, LinkedIn and Tik Tok, could yield comparative insights and clarify engagement patterns across channels. While this study offers an initial perspective on the relationship between sustainable content strategies and information literacy, further research is needed to explore how different sustainability approaches influence user's ability to process, evaluate and apply information, contributing to a deeper understanding of digital literacy.

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