



## User Tasks on Search Engines vs. Social Platforms: Design Implications

Anwar Alhenshiri <sup>1\*</sup>, Hoda Badesh <sup>2</sup>

<sup>1,2</sup> Department of Computer Science, Faculty of Information Technology, Misurata University, Misurata, Libya

مهام المستخدم على محركات البحث مقابل الشبكات الاجتماعية، مقترحات للتصميم

أنور الهنشيرى<sup>1\*</sup>، هدى بادش<sup>2</sup>  
<sup>2,1</sup> قسم علوم الحاسوب، كلية تقنية المعلومات، جامعة مصراته، مصراته، ليبيا

\*Corresponding author: [alhenshiri@it.misuratau.edu.ly](mailto:alhenshiri@it.misuratau.edu.ly)

Received: August 04, 2025

Accepted: September 24, 2025

Published: October 06, 2025

### Abstract:

The study presented in this paper compares search engines and social networking platforms in supporting five common online tasks. Using a within-subject design with twenty-five participants, results revealed that search engines are more effective for factual, goal-oriented tasks, while social platforms better support opinion-based and socially driven activities. Users spent more time and interacted more on social networks, indicating a more exploratory approach. The findings highlight the importance of aligning platform choice with task type and suggest opportunities for hybrid systems that combine both platforms' strengths. The study produced recommendations for the design and implementation of future tasks identification tools in addition to hybrid search interfaces.

**Keywords:** Information Retrieval, AI, HCI, Web Search, User Task, Social Networks.

### المخلص

تتناول هذه الدراسة مقارنة بين محركات البحث ومنصات التواصل الاجتماعي في دعم خمسة مهام شائعة عبر الإنترنت. وباستخدام تصميم تجريبي قائم على العينة الواحدة (within-subject) مع خمسة وعشرين مشاركاً، أظهرت النتائج أن محركات البحث أكثر فاعلية في المهام الواقعية الموجهة نحو هدف محدد، بينما توفر منصات التواصل الاجتماعي دعماً أفضل للأنشطة القائمة على الآراء والدوافع الاجتماعية. كما قضى المستخدمون وقتاً أطول وتفاعلوا بشكل أكبر على شبكات التواصل، مما يشير إلى اتباعهم نهجاً أكثر استكشافياً. وتبرز هذه النتائج أهمية موازنة اختيار المنصة مع نوع المهمة، كما تقترح فرصاً لتطوير أنظمة هجينة تجمع بين مزايا كلا المنصتين. وقد خلصت الدراسة إلى مجموعة من التوصيات تتعلق بتصميم وتنفيذ أدوات مستقبلية للتعرف على نوع المهام، بالإضافة إلى واجهات بحث هجينة.

**الكلمات المفتاحية:** استرجاع المعلومات، الذكاء الاصطناعي، الشبكات الاجتماعية، تفاعل الإنسان والحاسوب.

### Introduction

The Web has become the central medium through which individuals access information, perform daily tasks, and make critical decisions. Historically, conventional search engines such as Google, Bing, and Yahoo have served as the primary gateways for information retrieval, offering powerful indexing and ranking algorithms that facilitate the efficient discovery of relevant content [7, 8]. These platforms are particularly effective for addressing structured and factual queries through keyword-based search interfaces [7].

However, the rise of social networks—including platforms like Facebook, X, and Instagram—has significantly changed how users seek and consume information [2]. Social platforms are increasingly leveraged for tasks that benefit from real-time updates, subjective insights, or community-based knowledge sharing [16, 19]. For instance, users often turn to social media to gather opinions, ask questions, or validate experiences that search engines may not capture effectively [1, 21]. In the meantime, search engines tend to provide search results that are not explainable in terms of their existence in the crowd of other documents as well as their rank priority.

Different types of web-based tasks—ranging from informational (e.g., researching a topic), to communicative (e.g., seeking peer advice), and transactional (e.g., purchasing products)—impose varying information needs and expectations on users. The suitability of search engines versus social networks often depends on task-specific contexts, such as urgency, trust, interactivity, and the need for personalized content [11, 25]. Research has shown that users choose platforms strategically, switching between social and algorithmic tools based on credibility, response speed, and the complexity of the task [5, 21].

This study seeks to examine and compare the roles of conventional search engines and social networks in supporting a selection of different significant online user tasks. By analyzing how these platforms mediate different categories of user activities, from information retrieval to online transactions, this research aims to understand evolving patterns of web-based behavior and the emerging dynamics of digital tool usage. Moreover, the research aims to provide recommendations for the design of tools—possibly hybrid—used on the web to find information using features of search engines and social platforms.

The research problem addressed in this study is the lack of comprehensive, comparative analysis of conventional search engines and social networks as tools for accomplishing diverse web-based tasks. Although both platform types are widely used, there is limited understanding of how their respective strengths, limitations, and user interaction models align with different task categories. In addition, matching the user task to the tool(s) available is need to improve the design and implementation of those tools for a better information seeking accomplishment process.

In this study, five representative web-based tasks have been selected for investigation: information retrieval, communication, online shopping and e-commerce, learning and education, and online transactions and reservations. These tasks were chosen because they encompass a broad spectrum of user activities that reflect both everyday and specialized online behaviors. Information retrieval and communication represent fundamental uses of the web for knowledge acquisition and interpersonal interaction, while online shopping and transactions capture the growing importance of digital commerce and financial management.

Learning and education highlight the increasing reliance on digital platforms for acquiring knowledge and skills, especially in the context of remote or self-directed learning. Focusing on these five tasks allows for a manageable yet comprehensive comparison of conventional search engines and social networks, as they collectively represent key dimensions of how users engage with the web today, enabling a thorough exploration of platform suitability, effectiveness, and user preferences.

The remainder of this paper is organized as follows. Section 2 illustrates work in the literature related to this project. Section 3 explains the user study in detail. Section 4 presents the study results which are further discussed in Section 5. Section 6 completes the paper by providing the recommendations and concluding the research.

## **Literature Review**

As the web evolves and new paradigms emerge, users employ a range of tools—including conventional search engines and social networks—for accomplishing different web-based tasks. This literature review synthesizes existing research, including the use of conventional search engines in supporting different types of tasks, the utilization of social platforms in the realm of web tasks, and a comparison of the two types of platforms supported by recent research that covers how newer tools and contexts shape platform choice.

### ***Conventional Search Engines***

Conventional search engines like Google and Bing remain the dominant tools for general information retrieval due to their precision, ranking algorithms, and access to authoritative sources [7, 8]. In a longitudinal analysis of web queries, the research in [8] found that search engines were primarily used for navigational and informational tasks, with users refining queries as their understanding evolved. Similarly, the work in [7] provides a foundational discussion on search interfaces, showing how features like query suggestions, faceted navigation, and snippet previews improve IR effectiveness.

Building on the aforementioned research, [24] introduced the concept of exploratory search, highlighting how users often engage in iterative querying and browsing when their needs are complex or ill-defined. Prior to this, [9] explored click-through data as implicit relevance feedback, showing how search engines adapt to user behavior to refine result rankings over time.

### ***Social Networks***

A growing body of work, however, recognizes that users increasingly rely on social platforms such as Reddit, Twitter, Facebook, Quora, and Instagram for information retrieval, especially for experiential, subjective, or socially contextualized queries. The research in [16] demonstrated that users often turn to their social networks for recommendations, opinions, and personal experiences, complementing algorithmic search by filling gaps where search engines fall short. The researchers in [19] examined Twitter as a real-time question-and-answer service, finding that the platform often yields faster, more up-to-date, and tailored responses than traditional sources. Similarly, the work in [4] explored how social relevance—likes, retweets, and comments—helps users. Savolainen [21] argued that in everyday life information-seeking (ELIS), social media becomes a key tool for non-expert users to form opinions and make personal decisions. The researcher's in [18] conducted a systematic review showing how health professionals use social media platforms to retrieve peer-generated advice, particularly for ambiguous or sensitive issues. Gazan [6] noted that social Q&A communities such as Yahoo! Answers—and more recently Reddit and Quora—function as knowledge-sharing ecosystems, where relevance is socially constructed rather than algorithmically inferred.

### ***Search Engines vs. Social Networks***

Comparative research has begun to explore the complementarity between traditional search and social networks. Efron and Winget [5] compared search behaviors on social question-and-answer platforms versus search engines, finding that users preferred social answers for subjective or open-ended queries, whereas search engines were preferred for fact-based needs. Oeldorf-Hirsch et al. [17] showed that people often verify social media information by cross-referencing it with search engines, highlighting a trust gap. Liu et al. [14] studied how users switch between platforms during complex search tasks, observing that social media is used for idea creation and discussion, while search engines are used for fact-checking and confirmation.

### ***Newer Tools***

Recent studies have extended this line of inquiry, addressing how newer tools and contexts shape platform choice. For example, the research in [14] examined how users choose between ChatGPT, traditional search engines, and hybrid approaches during learning tasks. They found that users preferred ChatGPT for generating ideas and explanations, but turned to search engines for verifying facts—often switching between tools as task demands evolved. Similarly, Sabei, Patel, and Sun [20] investigated search behavior in workplace instant messaging (IM) apps versus email and web search. They reported that IM was preferred for quick, situational queries, while web search supported more structured, information-heavy needs, shaped by task urgency and audience.

Kamalloo, et al. [10] introduced HAGRID, a dataset for human–LLM collaborative information seeking, to address the lack of attribution in LLM-assisted search. Their findings showed that users favored LLMs for creative or exploratory tasks when citations were provided, suggesting a strong link between trust, task type, and tool choice. The work of [23] proposed that AI agents combining retrieval, planning, and execution capabilities outperform conventional search on planning-heavy, multi-step tasks but still rely on user verification for factual accuracy, underscoring the importance of aligning tools with task needs.

The research in [12] explored how learners plan and execute search strategies during learning tasks. They found that learners adapted their search behaviors depending on task difficulty and suggested that predictive models could recommend appropriate tools for different phases of learning. The work of [11] showed through surveys and experiments that factual and structured tasks led users to prefer search engines, while subjective, experiential, and social tasks prompted users to turn to social media. Their study also highlighted how perceived credibility and response speed influenced these decisions.

Savolainen [22] similarly found that socially contextualized, subjective, or situational tasks—such as health or lifestyle decisions—are often addressed using peer-generated social content, while algorithmic tools dominate for verifiable facts. The research in [1] emphasized how social platforms support subjective information needs by fostering trust and relevance through community interaction, contrasting with the ranking algorithms of search engines. Finally, [5] and [13] documented how users orchestrate multiple tools during complex searches—often starting with social media or forums to gather ideas and then moving to search engines for validation and fact-checking.

However, most of these studies are now dated, and the landscape of the web has evolved significantly in recent years. To better understand these shifts, this research seeks to examine the current role and effectiveness of both conventional search engines and social networks in supporting various online tasks. As the nature of web-based activities becomes more diverse and complex, it is likely that the tools used to accomplish these tasks have also adapted—potentially leading to changes in their design, functionality, and user interaction patterns. This review highlights a clear research gap: although the use of individual platforms has been extensively studied, there is a lack of comparative research that examines the suitability of different platforms across a broad range of web-based tasks. This study aims to fill that gap by systematically evaluating both conventional search engines and social networks in the context of five commonly performed user tasks.

## User Study

In order to complete this research, user tasks on the web were categorized based on research conducted in the field of HCI. The classification yielded twelve important types of tasks shown in Table 1. A controlled lab experiment was conducted to examine the extent to which search engines and social networks support the completion of five distinct types of online tasks that were selected from Table 1. Those tasks include information retrieval, e-commerce, online learning, media consumption, and social engagement. The study methodology is detailed below.

**Table 1.** List of Common Web User Tasks

Sources [3, 5, 7, 15, 16, 24]

#	Task Category	Example Task
1	Information Retrieval	<i>Find current expert-recommended practices for reducing screen time in children.</i>
2	Online Shopping and E-Commerce	<i>Compare user reviews and pricing for wireless noise-canceling headphones under \$200.</i>
3	Learning and Education	<i>Identify the best online resources or communities for learning basic web development.</i>
4	Entertainment and Media Consumption	<i>Find suggestions for highly rated documentaries on climate change.</i>
5	Social Networking / Social Interaction	<i>Explore how users on social platforms are reacting to the latest tech product launch.</i>
6	Health and Wellness	<i>Look up peer experiences with a new medication and its side effects.</i>
7	Professional or Workplace Tasks	<i>Gather examples of effective marketing strategies for a business proposal.</i>
8	Decision Making and Comparison	<i>Evaluate which graduate program best suits your career goals based on curriculum, reviews, and costs.</i>
9	Problem Solving / Troubleshooting	<i>Find step-by-step guidance to fix a smartphone that won't turn on.</i>
10	Planning and Coordination	<i>Plan an itinerary for a 7-day trip to Japan, including hotel, sights, and transportation.</i>
11	Creative and Idea Generation	<i>Brainstorm party themes and decoration ideas for a birthday celebration.</i>
12	Verification and Fact-Checking	<i>Confirm if a viral news story about a celebrity is accurate.</i>

## Study Population

The study used a sample of adult internet users who actively engage in various online tasks. The population included individuals from different demographic backgrounds, occupations, and levels of digital literacy to ensure that findings reflect a broad range of web usage behaviors and preferences. Participants were regular users of both conventional search engines (e.g., Google, Bing) and at least one social networking platform (e.g., Twitter, Reddit, Facebook, Instagram, LinkedIn). All participants had a working knowledge of the concept of user task on the web.

## Study Design

This study used a within-subject, task-based experimental design, in which each participant performed a series of structured tasks using both their choice of conventional search engine (e.g., Google) and one or more social networks of the participant's choice (e.g., Twitter, or Facebook). The purpose was to evaluate the relative effectiveness and user perceptions of these two types of platforms across distinct categories of online tasks.

A total of twenty-five participants were recruited from a university environment, representing diverse academic backgrounds and levels of digital literacy. Each participant completed five representative web-based tasks, carefully selected to reflect a range of real-world digital activities as shown in the following section. Each participant had completed the same task twice—once using a conventional search engine and once using a social networking platform. The order of platform usage was counterbalanced to control for order effects.

## Study Tasks

To evaluate the comparative effectiveness of search engines and social networking platforms, participants were asked to perform five representative online tasks reflecting common digital behaviors. These tasks were carefully selected to cover a diverse range of real-world scenarios. Each task was designed to require meaningful interaction with digital content, enabling a comparison of how each platform type supports different user needs. The tasks were crafted to be realistic, relevant, and varied in cognitive demand to ensure comprehensive assessment across contexts.

1. Information Retrieval  
*Example task:* “Find current expert-recommended practices for reducing screen time in children.”
2. Online Shopping and E-Commerce  
*Example task:* “Compare user reviews and pricing for wireless noise-canceling headphones under \$200.”
3. Learning and Education  
*Example task:* “Identify the best online resources or communities for learning basic web development.”
4. Entertainment and Media Consumption  
*Example task:* “Find suggestions for highly rated documentaries on climate change.”
5. Social Networking  
*Example task:* “Explore how users on social platforms are reacting to the latest tech product launch.”

### Study Procedure

Participants were first provided with a brief orientation outlining the study objectives, usage instructions, platform access, and consent procedures. Each participant completed all five tasks on both platform types—search engines and social networks. To minimize order and learning effects, the sequence of tasks was randomized for each participant. Throughout the sessions, user interactions were recorded using monitoring tools and think-aloud protocols. Following the completion of each task on a given platform, participants completed a short post-task survey to evaluate their experience. The post-task survey is detailed as follows.

### Study Results

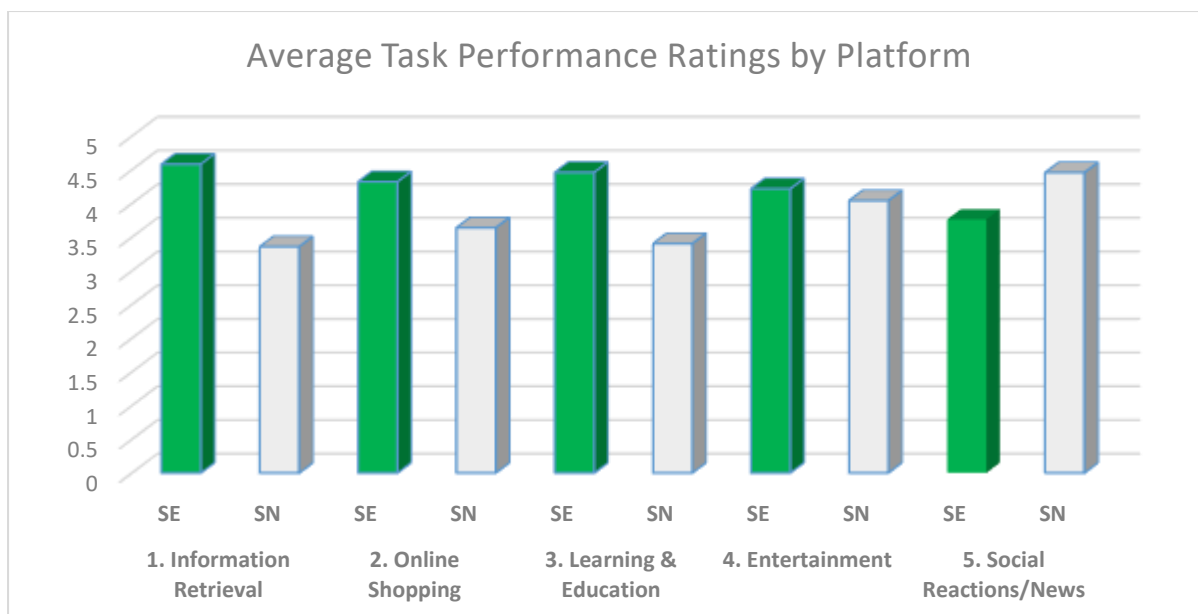
This section presents the results of the experimental study, highlighting both quantitative and qualitative findings. The data were collected through structured post-task surveys and observational protocols, capturing participants’ experiences and performance across five online tasks using both search engines and social networking platforms. Quantitative measures include average ratings on usability, trust, satisfaction, and task success, while qualitative feedback offers insights into user preferences, challenges, and perceived platform strengths. Together, the results provide a comprehensive comparison of how each platform type supports different categories of online web user tasks.

### Quantitative Results Summary (Averages by Task and Platform)

The study measured user experience across five representative digital tasks performed on both conventional search engines and social networking platforms. Each task was rated on six Likert-scale metrics, including ease of finding information, satisfaction, trust, usability, intent for future use, and decision confidence. The results are shown in Table 2 and further illustrated in Figure 1.

**Table 2.** Quantitative Results.

Task	Platform	Ease of Finding Info	Satisfaction	Trust in Sources	Ease of Use	Future Use	Confidence
<b>1. Information Retrieval</b>	SE	4.7	4.6	4.5	4.8	4.6	4.4
	SN	3.3	3.4	3.1	4.2	3.1	3.0
<b>2. Online Shopping</b>	SE	4.4	4.3	4.2	4.6	4.3	4.2
	SN	3.6	3.8	3.3	4.0	3.5	3.6
<b>3. Learning &amp; Education</b>	SE	4.5	4.5	4.4	4.6	4.5	4.3
	SN	3.5	3.6	3.1	4.0	3.2	3.1
<b>4. Entertainment</b>	SE	4.2	4.3	4.0	4.5	4.3	4.0
	SN	4.1	4.2	3.8	4.3	4.0	3.9
<b>5. Social Reactions/News</b>	SE	3.9	3.7	3.6	4.4	3.5	3.6
	SN	4.4	4.5	4.3	4.6	4.5	4.4



**Figure 1.** A Depiction of the Quantitative Results.

#### ***Quantitative Findings (User Performance Data)***

In addition to subjective ratings, objective interaction metrics were collected to evaluate user behavior during task completion. These included the average time spent on each task, the number of clicks performed, and the number of result pages or links opened (“hits”) on both search engines and social networking platforms.

**Table 3.** Quantitative Results (User Performance).

<i>Type of Task</i>	<b>Platform</b>	<b>Time Spent (s)</b>	<b>Clicks</b>	<b>Hits Opened</b>
<i>Information Retrieval</i>	SE	95	7	3
	SN	128	12	6
<i>Online Shopping</i>	SE	93	7	3
	SN	145	13	6
<i>Learning &amp; Education</i>	SE	92	6	3
	SN	132	11	5
<i>Entertainment</i>	SE	92	8	3
	SN	101	8	7
<i>Social Reaction</i>	SE	80	8	5
	SN	135	11	7

As shown in Table 3, participants generally completed tasks more efficiently when using search engines, with lower average time and fewer clicks and hits across most tasks. For example, tasks such as information retrieval, online shopping, and learning required approximately 30–50 seconds less on average when performed using a search engine compared to a social network. Additionally, users typically clicked fewer links and opened fewer pages on search engines, suggesting more focused and direct navigation.

On the other hand, social networks consistently showed higher interaction counts, particularly in the 'Social Reaction' and 'Entertainment' tasks, reflecting a more exploratory, discussion-driven search behavior. These patterns reinforce the earlier findings from subjective feedback, highlighting how task type and platform structure influence user strategy and interaction depth.

The ANOVA tests reveal statistically significant differences between the two platforms (search engines and social networks) for all three behavioral metrics: time spent, number of clicks, and number of result pages (hits) opened. The p-values for each metric are well below the conventional alpha threshold of 0.05, confirming that the observed differences in user interaction patterns are not due to random variation. The ANOVA results are shown in Table 4.

**Table 4.** Quantitative Results (ANOVA test Results).

Metric	F-statistic	p-value	Interpretation
Time Spent	23.35	0.0013	Significant difference between platforms
Number of Clicks	17.19	0.0032	Significant difference between platforms
Hits Opened	26.13	0.0009	Significant difference between platforms

Users consistently spent more time, made more clicks, and opened more result pages when completing tasks on social networks compared to search engines. This supports the interpretation that search engines offer a more efficient and focused experience, particularly for tasks that require direct access to structured information. In contrast, the higher interaction rates on social platforms suggest a more exploratory and conversational behavior, possibly driven by the decentralized and user-generated nature of content.

#### ***Qualitative Findings (Summarized from Open-Ended Questions)***

Participants reported distinct challenges on each platform, depending on the type of task. For Information Retrieval in addition to Learning and Education, search engines were generally effective but sometimes overwhelming, with too many results and difficulty assessing which source was most reliable. On social networks, participants found it challenging to locate factual or structured information but appreciated discovering niche insights and personal experiences. For Online Shopping, search engines helped users compare products and find deals efficiently, but advertisements cluttered the experience. Social networks posed challenges with scattered or unverified seller information and inconsistent reviews. When engaging in Entertainment and Social Reaction tasks, participants noted that search engines felt impersonal and less engaging, while social networks sometimes led to distraction or irrelevant content, though they offered richer interaction and real-time reactions.

Trust also varied by platform and task. Search engines were trusted more for Information Retrieval, Learning and Education, and Online Shopping, as they provided access to recognizable brands and authoritative sources. Participants, however, were cautious about paid placements and potential bias in ranking. Social networks earned trust particularly for Entertainment and Social Reaction, where personal recommendations, trending content, and peer validation mattered more. Nonetheless, concerns about misinformation, biased opinions, and lack of transparency persisted. The platforms influenced participants' strategies. Search engines supported focused, goal-oriented approaches, especially for factual and transactional tasks. Social networks fostered exploratory, conversational, and community-driven behaviors, particularly for social and entertainment purposes. Preferences aligned with these tendencies since most participants preferred search engines for educational, shopping, and informational needs, while favoring social networks for entertainment and engaging with others' reactions.

#### **Discussion**

The study findings demonstrate clear differences in user experience and interaction behavior across search engines and social networking platforms, shaped significantly by task type. Quantitative ratings indicated that search engines were generally more effective for tasks involving structured, factual, or goal-directed information, such as information retrieval, online shopping, and educational exploration. In contrast, social networks performed better in socially driven or subjective tasks, particularly in capturing real-time reactions or exploring community sentiment, as seen in the social reaction task. These patterns were supported not only by self-reported satisfaction and usability ratings but also by objective interaction metrics such as time spent, number of clicks, and number of result pages ("hits") opened.

Extended interaction data revealed that participants spent significantly more time completing tasks on social networks than on search engines. For example, while the average time for completing the information retrieval task using a search engine was 95 seconds, the same task took 128 seconds on a social platform. This pattern was consistent across most tasks, with social networks requiring more clicks and a higher number of opened pages. These trends suggest that while social platforms may offer richer, community-driven insights, they often demand more effort from the user to locate, interpret, and verify information.

The statistical analysis confirmed the reliability of these observed differences. One-way ANOVA tests conducted on each interaction metric—time spent, number of clicks, and hits opened—yielded statistically significant results. These results provide robust evidence that platform design and content structure influence user interaction patterns in measurable ways.

Qualitative feedback further contextualized these findings. Participants described search engines as efficient and reliable but occasionally overwhelming due to the volume of results. Social networks, while seen as less structured, were appreciated for offering diverse perspectives and real-life experiences, particularly in exploratory or opinion-based tasks. However, users also noted that useful content was often buried within lengthy threads or casual discussions, increasing the time and effort required to complete tasks.

The overall findings highlight the importance of task-platform alignment in digital information seeking. Search engines facilitate speed and precision, making them ideal for tasks requiring authoritative information or efficient decision-making. Social networks, on the other hand, support discovery, sentiment exploration, and peer-based learning, albeit with greater cognitive and temporal cost. These insights suggest valuable opportunities for hybrid systems that combine the strengths of both platforms, enabling users to access structured information and community insights within a unified interface.

## **Design Recommendations for Web Tools Supporting the Selected Tasks**

### ***Information Retrieval Tasks***

To improve credibility, web tools should integrate trust indicators like verified sources, citations, or community endorsements. Exploratory search can be enhanced with features such as query expansion, topic overviews, and visualizations of related concepts. Interfaces should blend algorithmic results with user input, such as sidebars showing community comments. Summarization tools are also essential to help users extract key points from long documents quickly.

### ***Online Shopping and E-Commerce Tasks***

Users benefit from side-by-side product comparisons showing prices, reviews, and features to reduce decision fatigue. User-generated content like ratings and photos should be highlighted and clearly separated from sponsored results. Real-time social feedback, such as peer chats or Q&A forums, adds valuable experiential context. Personalized filters should adapt to user needs while maintaining transparency about how recommendations are generated.

### ***Learning and Education Tasks***

Platforms should support multi-phase learning, offering tools for both exploration and verification to match shifting user strategies. Community features like discussion threads and expert Q&A foster deeper engagement and diverse perspectives. Progress tracking and adaptive recommendations tailored to learner ability can guide users effectively. Creative idea boards and structured study guides should support both brainstorming and focused work.

### ***Entertainment and Media Consumption***

To support discovery, platforms should offer curated playlists, trending content, and personalized suggestions, while keeping filters user-controlled. Displaying engagement metrics like likes and shares helps users assess relevance. Interfaces should allow seamless shifts between passive viewing and active participation, such as joining discussions. Accessibility and continuity across devices are key for casual, mobile-first usage.

### ***Social Networking Tasks***

Trust can be strengthened through reputation scores, verified identities, and content moderation tags. Real-time interaction should be supported through live updates and threaded conversations. Tools should allow easy sharing and verification of content across platforms. Platforms should prioritize personal, subjective content—such as stories and opinions—over purely factual updates to reflect how users engage socially.

### ***Cross-Cutting Hybrid Design Suggestions***

Interfaces should dynamically adapt to the task type, whether factual, social, or creative. Task detection based on user behavior and context can guide interface adjustments and tool recommendations. Finally, users should be given transparency and control, including the ability to toggle between algorithmic and social content views for better alignment with task needs.

## **Conclusion and Future Work**

This study shows that search engines excel at structured, factual tasks, while social networks are better for exploring opinions and sentiment. Users engage more deeply with social platforms, reflecting their exploratory nature. These insights suggest the need to match tools to task types and explore hybrid systems that combine both strengths. Future research should focus on identifying user tasks, developing supportive design patterns, and exploring additional task types to guide tool design and feature development.

## References

- [1] P. André, M. S. Bernstein, and K. Luther, "Who gives a tweet? Evaluating microblog content value," in *Proc. ACM Conf. Comput. Supported Cooperative Work*, 2014, pp. 471–474. doi: 10.1145/2145204.2145273.
- [2] M. T. Bastos and D. Mercea, "The public accountability of social platforms: Lessons from a study on misinformation in the 2016 U.S. presidential election," *New Media Soc.*, vol. 20, no. 11, pp. 4083–4101, 2018. doi: 10.1177/1461444818776119.
- [3] A. Broder, "A taxonomy of web search," *ACM SIGIR Forum*, vol. 36, no. 2, pp. 3–10, 2002. doi: 10.1145/792550.792552.
- [4] C. Delgado-Battenfeld, T. Walter, and M. Sünkel, "Relevance-based ranking in Twitter search," in *Advances in Information Retrieval (ECIR 2011)*, P. Clough et al., Eds. Berlin, Germany: Springer, 2011, pp. 184–195. doi: 10.1007/978-3-642-20161-5\_18.
- [5] M. Efron and M. Winget, "Questions are content: A taxonomy of questions in a microblogging environment," *Proc. Amer. Soc. Inf. Sci. Technol.*, vol. 47, no. 1, pp. 1–10, 2010. doi: 10.1002/meet.14504701277.
- [6] R. Gazan, "Social Q&A," *J. Amer. Soc. Inf. Sci. Technol.*, vol. 62, no. 12, pp. 2301–2312, 2011. doi: 10.1002/asi.21562.
- [7] M. A. Hearst, *Search User Interfaces*. Cambridge, U.K.: Cambridge Univ. Press, 2009.
- [8] B. J. Jansen and A. Spink, "How are we searching the World Wide Web? A comparison of nine search engine transaction logs," *Inf. Process. Manag.*, vol. 42, no. 1, pp. 248–263, 2006. doi: 10.1016/j.ipm.2004.10.007.
- [9] T. Joachims, L. Granka, B. Pan, H. Hembrooke, and G. Gay, "Accurately interpreting clickthrough data as implicit feedback," in *Proc. 28th ACM SIGIR Conf. Res. Develop. Inf. Retrieval*, 2005, pp. 154–161. doi: 10.1145/1076034.1076063.
- [10] E. Kamaloo, A. Biega, and S. Mackie, "HAGRID: Human–LLM collaborative dataset for generative information-seeking with attribution," *arXiv preprint arXiv:2307.16883*, 2023. [Online]. Available: <https://arxiv.org/abs/2307.16883>
- [11] Y. Kim, J. Kim, and H. Lee, "The use of social media for information-seeking: Effects of cultural differences in decision-making styles," *Comput. Hum. Behav.*, vol. 66, pp. 328–338, 2017. doi: 10.1016/j.chb.2016.10.008.
- [12] P. Li, J. Wang, and L. Huang, "Predicting task planning ability for learners engaged in searching as learning," *Appl. Sci.*, vol. 14, no. 2, p. 530, 2023. doi: 10.3390/app14020530.
- [13] J. Liu, Y. Song, S. Li, and H.-W. Hon, "Predicting user switches between search engines," in *Proc. 37th Int. ACM SIGIR Conf. Res. Develop. Inf. Retrieval*, 2014, pp. 483–492. doi: 10.1145/2600428.2609459.
- [14] X. Liu, Z. Chen, and Y. Wang, "Investigating users' search behavior and outcome with ChatGPT in learning-oriented search tasks," in *Proc. SIGIR-AP 2024*, 2024, pp. 1–10.
- [15] G. Marchionini, "Exploratory search: From finding to understanding," *Commun. ACM*, vol. 49, no. 4, pp. 41–46, 2006. doi: 10.1145/1121949.1121979.
- [16] M. R. Morris, J. Teevan, and K. Panovich, "What do people ask their social networks, and why? A survey study of status message Q&A behavior," in *Proc. SIGCHI Conf. Hum. Factors Comput. Syst.*, 2010, pp. 1739–1748. doi: 10.1145/1753326.1753587.
- [17] A. Oeldorf-Hirsch, S. S. Sundar, Q. Xu, and A. Srinivasan, "User-generated credibility: The effects of source and attention on information credibility on Twitter," in *Proc. 47th Hawaii Int. Conf. Syst. Sci.*, 2014, pp. 2543–2552. doi: 10.1109/HICSS.2014.318.
- [18] S. Panahi, J. Watson, and H. Partridge, "Social media and physicians' online information sharing: A systematic review," *Health Informatics J.*, vol. 22, no. 4, pp. 316–334, 2016. doi: 10.1177/1460458214540907.
- [19] S. A. Paul, L. Hong, and E. H. Chi, "Is Twitter a good place for asking questions? A characterization study," in *Proc. 5th Int. AAAI Conf. Weblogs Social Media (ICWSM)*, 2011, pp. 578–581.
- [20] A. Sabei, R. Patel, and H. Sun, "Searching in professional instant messaging applications," in *Proc. SIGIR-AP 2024*, 2024, pp. 1–9.
- [21] R. Savolainen, "Peer support in the context of everyday information seeking: The case of discussion forums," *Inf. Res.*, vol. 20, no. 1, paper 661, 2015.
- [22] R. Savolainen, "Everyday life information seeking and social media: The role of task context and subjectivity," *Online Inf. Rev.*, vol. 41, no. 2, pp. 203–218, 2017. doi: 10.1108/OIR-10-2016-0283.
- [23] R. W. White, "Advancing the search frontier with AI agents," *arXiv preprint arXiv:2311.01235*, 2023. [Online]. Available: <https://arxiv.org/abs/2311.01235>
- [24] R. W. White and R. A. Roth, *Exploratory Search: Beyond the Query-Response Paradigm*. San Rafael, CA: Morgan & Claypool, 2009. doi: 10.2200/S00174ED1V01Y200901ICR003.
- [25] J. Liu, P. Dolan, and E. R. Pedersen, "Personalized news recommendation based on click behavior," in *Proc. 15th Int. Conf. Intell. User Interfaces (IUI '10)*, 2010, pp. 31–40. doi: 10.1145/1719970.1719976.